

Licence Modifications Pursuant to the RP6 Final Determination

**Decision Paper
7 August 2017**



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 leads a management team of directors representing each of the key functional areas in the organisation: Corporate Affairs; Electricity; Gas; Retail and Social; and Water. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Our Mission

Value and sustainability in energy and water.

Our Vision

We will make a difference for consumers by listening, innovating and leading.

Our Values

Be a best practice regulator: transparent, consistent, proportional, accountable, and targeted.

Be a united team.

Be collaborative and co-operative.

Be professional.

Listen and explain.

Make a difference.

Act with integrity.

Abstract

We are publishing our decision paper on licence modifications pursuant to the RP6 final determination.

RP6 is the price control for the NIE Networks RP6 price control for the six and a half year period from 1 October 2017 onwards.

The RP6 final determination sets the amount NIE will have to run their businesses and invest in the electricity network.

Audience

The licensees affected, other regulated companies in the energy industry, government, other statutory bodies and consumer groups with an interest in the energy industry.

Consumer Impact

The RP6 final determination price control aims to set an efficient revenue cap on enable NIE Networks to deliver quality outputs that customers need.

NIE Networks' costs are material and controllable element of electricity tariffs and RP6 investment decisions are expected to underpin improvements in service delivery for consumers.

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ACRONYMS AND GLOSSARY

Capex	Capital expenditure
Cc	Carbon copy
CMA	<p>Competition and Markets Authority.</p> <p>The Competition and Markets Authority (CMA) is a non-ministerial government department in the United Kingdom, responsible for strengthening business competition and preventing and reducing anti-competitive activities. The CMA began operating fully on 1 April 2014, when it assumed many of the functions of the previously existing Competition Commission and Office of Fair Trading, which were abolished.</p>
Competition Commission	<p>The statutory body that deals with rejections of price controls and makes a new determination and decision after listening to the evidence from all related parties.</p> <p>From 1 April 2014, this organisation has changed its name to the Competition and Market Authority (CMA).</p>
DPA	Data Protection Act 1998
e.g.	For example
Electricity Order	The Electricity (Northern Ireland) Order 1992
etc.	Et cetera (and so forth)
FD	Final Determination
FOIA	Freedom of Information Act 2000
Gas Order	The Gas (Northern Ireland) Order 1996
i.e.	that is
NI	Northern Ireland
Ofgem	Office of Gas and Electricity Markets. Regulates the electricity and gas markets in Great Britain.
Opex	Operating expenditure
p.	page
Re	Regarding
RIGS	Regulatory Instructions and Guidance
WACC	Weighted Average Cost of Capital

1 Introduction

Purpose of this Document

- 1.1 On the 30th June 2017 we consulted on a number of licence modifications to the transmission and distribution licences for NIE Networks:
 - Article 14 modifications to Annex 2 of the Distribution Licence; and
 - Article 14 modifications to Annex 2 of the Transmission Licence.
- 1.2 We (the Utility Regulator, the Authority) consider that the licence modifications proposed in the document of the 30th June are required to comply with our legal and regulatory obligations (summarised in section Legal and Regulatory Framework below), to follow up on the RP6 final determination published by the Authority.
- 1.3 RP6 is the price control for the NIE Networks RP6 price control for the six and a half year period from 1 October 2017 onwards. As part of this price control package, we made a number of proposals which are detailed in the RP6 final determination and need to be implemented through licence modifications to bring them into effect and preserve the right of the licence holder. This includes our proposals on the following:
 - Replacing determination values for both Transmission and Distribution;
 - Inclusion of a reliability incentive:
 - Replacing new unit costs and fixed allowances for metering, inclusion of new categories for metering and inclusion of a volume limit for the meter replacement for theft programme and provisions to increase beyond the limit;
 - Inclusion if an allowance to deliver contestability in electricity connections;
 - Removing the passthrough to RAB for certain connection types;
 - Implement a mechanism to allow additional capital expenditure allowances to be determined;
 - Implement an undereaves volume driven allowance; and
 - Implement a rate of return adjustment mechanism.
- 1.4 We consulted on these proposals and licence modifications we considered necessary to bring them into effect.
- 1.5 We note that not all licence modifications are applicable to both NIE licences. Table 1: provides an overview of the difference types of licence modifications we will make and to which of NIE licences we consider they should apply.

Type of Licence Modification	Relevance	
	Transmission	Distribution
Replacing determination values	X	X
Reliability incentive		X
Metering		X
Contestability in electricity connections		X
Removing the passthrough to RAB for certain connection types	X	X
Implement a mechanism to allow additional capital expenditure allowances to be determined;	X	X
Implement an undereaves volume driven allowance		X
Implement a rate of return adjustment mechanism	X	X

Table 1: Overview over Licence Modifications

Consultation Reponses

- 1.6 Our Consultation on licence modifications concluded on the 28th July 2017. We have received one response from NIE. The respective response maybe accessed on the utility regulator website.
- 1.7 We have carefully considered the consultation response and other relevant factors in this Decision paper. We have set out our consideration of the consultation responses in the respective sections of this document along with our decision on relevant aspects.

Document Structure

- 1.8 This consultation document is structured in a number of chapters as follows:
- Chapter 1 Introduction
 - Chapter 2 General Update of Determination Values
 - Chapter 3 Reliability Incentive
 - Chapter 4 Metering
 - Chapter 5 Contestability
 - Chapter 6 Connections charge pass-through
 - Chapter 7 Mechanism to allow additional capital expenditure allowances to be determined
 - Chapter 8 Undereaves volume driven allowance
 - Chapter 9 Rate of Return Adjustment Mechanism
 - Chapter 10 Next Steps
- 1.9 The present document is complemented by five appendices. For both the Transmission and Distribution licence, there is one appendix setting out the licence modifications as tracked changes to the current licence conditions and one appendix containing the legislative notices of the licence modifications. Appendix 5 is the Reliability Incentive Model.
- 1.10 Each of the chapters 2 to 9 details the licence modifications and follows the same structure. At the start of the document we set out the background for our modifications and to which NIE Networks licence we consider they should relate. We

then present the licence modifications, and subsequently detail the associated reasons and effects.

Approach

- 1.11 In the interest of transparency and in line with best practice regulation we consider it important to give NIE appropriate notice of any licence modifications we intend to make and to offer adequate opportunities for engagement on such proposals.
- 1.12 In preparing this decision paper, we have considered the comments we have received from NIE on the licence modifications and considered whether any amendment to the proposals made in our consultation paper was required.
- 1.13 The effective date for all licence modifications outlined in this document is 2 October 2017.

Legal and Regulatory Framework

- 1.14 The role of the Utility Regulator is determined under legislation and its statutory principal objective in relation to electricity matters is:
- “To protect the interests of electricity consumers in Northern Ireland, wherever appropriate by promoting effective competition between persons engaged in or in commercial activities connected with the generation, transmission or supply of electricity”*
- 1.15 NIE Networks is the owner of the electricity transmission and distribution networks in Northern Ireland and the distribution network operator.
- 1.16 Since the coming into effect of the Gas and Electricity Licence Modifications and Appeals Regulations (Northern Ireland) 2015 on 6 February 2015, we no longer need the consent of the licence holder to make a modification to their licence. In consequence of that, we no longer require a power to refer a licence to the CMA if consent is withheld. Licence modification decisions are automatically effective. However, any licence modification decision made under Article 14 of the Electricity Order may be appealed to the CMA by:
- The licence holder concerned;
 - Any other licence holder materially affected by the decision;
 - A qualifying body or associated representing a licence holder concerned or a licence holder materially affected by the decision; or
 - The Consumer Council for Northern Ireland.
- 1.17 If an appeal is brought to the CMA, the CMA will in a first step decide whether to give permission for the appeal to proceed or not. If permission is granted, the CMA has a period of 4 months, or in the case of licence modifications relating to price controls 6 months, in which to determine the appeal. These timelines can be extended to 5 months, respectively 7 months for licence modifications relating to price controls, if required.

2 General Update of Determination Values and licence terms

Overview

- 2.1 As detailed in Chapter 1, licence modifications are required to modify Annex 2 of the NIE Transmission Licence and Annex 2 of the NIE Distribution Licence and bring into effect the RP6 price control decisions.
- 2.2 We note that the values and the drafting of the licence conditions containing them may differ between the two NIE licences (i.e. Transmission and Distribution). However, the need to implement related licence modifications and the supporting reasons are the same for both Transmission and Distribution.
- 2.3 We consulted on proposed RP6 licence modification in our consultation document of 30th June 2017.
- 2.4 In this decision document we present the reasons and effects for required licence changes, any consultation responses received and our consideration of same in formulating our decision on licence modifications in the respective chapters.
- 2.5 The remainder of this chapter covers general update of determination values and licence terms required for RP6 and specifically addresses:
 - the licence modifications for both the Transmission and Distribution licences; and
 - the associated reasons and effects.

Consultation Responses and the UR's Consideration of Responses

- 2.6 **RP5 and RP6 Models**
- 2.7 In NIENs response to our consultation NIEN stated that the RP5 and RP6 Models “should be fixed as an integral part of the final determination”. The models were shared with NIEN prior to publishing the DD. We also fully consulted on the models at the Draft Determination and the Final Determination stage. NIEN have made no specific comments on the content of the models however if unforeseen errors or omissions come to light at a later stage we will amend and/or consult as appropriate.
- 2.8 **Pensions**
- 2.9 In its response to the UR's consultation on licence modifications NIE Networks stated “the FD is unclear about how the Pension Monitoring Framework (PMF) will operate and the PMF is not referred to in the licence mods. Is it the UR's intention that licence modifications will be made during the course of RP6 if adjustments to the pensions allowances are deemed necessary?”
- 2.10 The UR has considered NIE Networks representation and responds that, should the PMF be triggered by a qualifying event, the UR will consult if required at that time and consider whether licence modifications are required for both the Transmission and Distribution licences during the course of RP6 or beyond.
- 2.11 NIEN responded that in section 12.20 of the Transmission and Distribution licence the date referenced should be 31 March 2012 (as opposed to 31 March 2014). We have considered NIE Networks' response and consider that NIE Networks are correct. We have therefore amended the date to 31 March 2012 to reflect the historic deficit cut-off date in the both the Transmission and Distribution licences.

2.12 **Fixed Depreciation**

2.13 NIE suggested that the formula for fixed depreciation does not work and following consideration we have made a change to reference the RP5 and RP6 models. This is an approach we have used elsewhere in the modifications due to the complication of a half regulatory year occurring at the end of RP5 and the start of RP6 and simplifies the licence formula. Fixed depreciation for RP6 will then be sourced from the final RP5 model once all actuals for the RP5 period are known.

2.14 **Capital Expenditure**

2.15 The capex allowances within the consultation document and table 4 for t=2024 of the distribution licence both contained an incorrect figure which did not agree to the final determination. This was a transcribing error. The consultation documents and the licence showed £60.379 and £60.79m respectively, whereas it should be £60.376m and we have made the necessary amendment.

2.16 **K Factor**

2.17 NIE considered the formula for K factor to be misleading. NIE have suggested wording to provide clarity around the calculation for $K_t = 2018$. We have amended the wording as suggested by NIE and provided reference to the RP5 model which simplifies the formula which would otherwise have been complicated further by the half regulatory year occurring at the end of RP5 and the start of RP6.

2.18 **Rates**

2.19 NIE Networks stated that it considered that: 'The FD notes that the UR would be willing to consider an increased allowance if the rates cost increases as a result of the NS interconnector. FD is not clear whether this is via D5 or would require licence mods (ref P156, para 6.104, 6.121, 13,148).'

2.20 We have considered NIE Networks' response in relation to this aspect of Rates and respond that the UR will consider any increased allowance in rates associated with the NS Interconnector at the relevant time which may during RP6 or beyond. At that time we will consider whether this is appropriate via the D5 mechanism or other established regulatory practice. We will also consider at that time whether any licence modifications are appropriate.

2.21 **Frontier Shift**

Overview

2.22 This sub-section details how we have taken our frontier shift principles and applied them to the opex and capex inputs to our financial model, with particular focus on how we have applied the same principles to Rates.

2.23 Having conducted extensive analysis and examination of regulatory precedent (see the final determination publication, Annex C – Frontier Shift – Real Price Effects and Productivity) we remain committed to an approach to NIE Networks' Rates which is consistent with our GD17 and water network price controls.

2.24 In line with our previous price control determinations in water, in both PC13 and PC15, and gas, see GD17, we have developed a consistent approach, whereby costs relating to Rates, whether included or excluded from efficiency benchmarking, are subject to our efficiency challenge which includes frontier shift.

2.25 In the draft determination we stated (see paragraph 6.55):

2.26 *'We are not proposing to allow Rates as a pass through item. We note that we do not allow Rates as a pass through item in our GDN or NI Water price controls. We consider it appropriate to follow the precedent set by the CC in the RP5 Final*

Determination and set allowances for RP6 with the option to apply the 50/50 sharing mechanism between the company and consumers for any over/ under recoveries.'

2.27 In the interests of transparency and to assist the company to review all applicable figures and calculations, NIE Networks was provided with copies of our detailed cost inputs spreadsheet template at both the draft determination and final determination stage. In each spreadsheet, Rates, as a separate cost category row, was separately identified, along with many other opex cost categories, and then subject to our frontier shift discount.

2.28 The eventual sub-totals of opex costs were then totalled as the 'opex' amount input to the financial model, alongside their algebraic licence reference.

Consultation Responses and the UR's Consideration of Responses

2.29 In its response to the UR's consultation on the price control licence modifications, NIE Networks stated that it considered the application of frontier shift to rates to be a very significant error. NIE Networks' reasoning is as follows:

2.30 *'The proposed licence mods apply the frontier shift adjustment for RPEs and productivity to the rates allowances, resulting in a reduction in the RP6 opex allowance of c£5m (2015/16 prices). This is a very significant error and should be corrected for the following reasons –*

- *the UR's analysis of RPEs focused solely on NIE Networks' operational and investment activities (labour, materials, plant and equipment) and ignored rates. Had the UR's RPE analysis considered rates, the RPEs would have been materially higher: Rates are equivalent to c50% of NIE Networks' controllable opex, and have increased by more than 25% over the last 10 years in real terms; and*
- *the application of a 1% per annum productivity shift in relation to rates is irrational. The Total Factor Productivity (TFP) indices from which the 1% target is derived do not consider changes in property taxes. The TFP indices bear no correlation to NIE Networks' rates liability which is calculated based on income and expenditure and regional and district poundage rates which are set by local government.*

2.31 *In addition, the application of the RPEs/productivity adjustment to the rates allowance is a very material change to the approach adopted by the Competition Commission (CC) at RP5. The CC, in determining the RP5 appeal, explicitly rejected a request from the UR that adjustments for RPEs/productivity be included, ruling that such an adjustment would be "inappropriate". Also, at RIIO-ED1 Ofgem did not apply a frontier shift target to the GB DNOs' rates costs, which were treated as a pass through item.*

2.32 *We would have expected the UR's change in approach to have formed part of the RP6 consultation process, in particular given its materiality. Contrary to the requirements of the Electricity (Northern Ireland) Order 1992, the error is not apparent from any public consultation notice (including the published Draft Determination, the Final Determination and the Licence Modifications Consultation Paper), nor has the UR provided any reasons for its change in approach or a statement as to its effect. The error resides in a formula within a spreadsheet that was provided to NIE Networks which converts the allowances in the Final Determination to the terms which are used in the licence. Indeed the error was only identified by NIE Networks on 6 July as it attempted to reconcile the proposed licence mods with its financial model.'*

2.33 On the first bullet point, we do not accept NIE Networks' assertion that RPEs would have been materially higher had Rates been included. Had we separately included

Rates within our frontier shift analysis, we would either have assumed Rates would then change by RPI or less than RPI (given moves within government to consider Rates increasing in line with CPI). A large weighting on Rates would be unhelpful for the company, lowering NIE Networks' RPEs for opex yet further.

- 2.34 It should be noted that previous analysis for the UR on frontier shift undertaken by First Economics, where Rates was included as a separate cost category, assumed such costs would increase in line with RPI.
- 2.35 On the second bullet point, we do not accept NIE Networks' assertion. Rates are no more different to our treatment of Severe Weather Allowance, ICT, Metering costs, for example, all of which are subject to our opex frontier shift (= Real Price Effects minus our productivity assumption of 1% per annum).
- 2.36 Furthermore, it should be noted we derived our 1% per annum from the mid-point of the available range of 0.5% to 1.5% per annum (see the final determination publication, Annex C – Frontier Shift – Real Price Effects and Productivity). Given the inherent uncertainty involved with using any productivity assumption, our use of a mid-point estimate was fair and robust when applied across the various cost categories.
- 2.37 On the third point, whilst NIE Networks' statements are correct, in accord with our values of being a best practice regulator (transparent, consistent, proportionate, accountable and targeted) our consistent approach to Rates through PC13 and PC15, and GD17 and then RP6 does mean we differ with respect applying frontier shift to Rates, compared to the RP5 referral decision by the Competition Commission.
- 2.38 NIE Networks have been provided with 'headroom' in the RP6 FD to allow the company to deal with various circumstances which may arise over the 6½ years. This amounts to around £17m. It should also be noted that although the impact of frontier shift on rates amounts to £5m, the 50:50 sharing mechanism will be in operation between the company and consumers for any over/ under recoveries. This £5m should be seen in the context of a UR allowance of £1,429m in revenue.
- 2.39 The UR has assessed the impact on our frontier shift calculation of including a higher weighting for Rates and found that we would otherwise have included a larger proportion of NIE Networks opex as following RPI or lower, which would be unhelpful to the company. If we assume any cost category follows RPI projections across a price control period, this is the same as assuming a nil RPE for that cost category. More simply, there would be no difference between our RPI forecast assumptions and the trajectory of costs assumed to follow RPI precisely.
- 2.40 As stated above, previous analysis for the UR on frontier shift undertaken by First Economics, where Rates was included as a separate cost category, assumed such costs would increase in line with RPI.
- 2.41 Given the above position on RPEs, even if we had accepted the company position on productivity for example (contrary to our opinion outlined in 2.35 and 2.36 above), this would still provide a lower allowance for NIE Networks over RP6 compared to the applied frontier shift for opex and capex (including headroom) in the final determination.
- 2.42 As stated above, the quantum from not applying RPEs and productivity assumptions to our Rates cost inputs in our final determination is equivalent to an additional c.£5m across RP6. This compares to the c.£8.5m we have allowed as frontier shift headroom, across all the various 'opex' and 'capex' cost categories. Therefore, NIE Network's position on frontier shift/rates would still provide less allowance than the applied frontier shift in the final determination.

- 2.43 On the fourth point, we consider the consultation regarding treatment of Rates was adequate, see paragraphs 2.23 to 2.28 above.

Conclusions on Frontier Shift

- 2.44 There are no licence modifications with regards our approach to frontier shift or its application to Rates. Its application is detailed with our populated draft and final determination cost inputs spreadsheet template, shared with NIE Networks at both draft and final determinations.
- 2.45 Rates is a separate cost category row within our cost inputs spreadsheet template and identified separately, along with many other opex cost categories, and then subject to our frontier shift discount. The eventual sub-total of opex costs are separately identified as the 'opex' input to the financial model, alongside their algebraic licence reference. The same applies for capex.
- 2.46 We regard our final determination revenue allowance as more than adequate for the company to run their business over the period.
- 2.47 In this RP6 decision we apply frontier shift to all 'manageable' opex, not treated as pass through, which incorporates Rates.
- 2.48 By treating Rates expenditure as manageable, subject to the same financial incentives for out-performance as applies to the rest of the business, we are incentivising NIE Networks to manage its estate in as efficient a manner as possible. Although this is an area where different regulators have taken different approaches, we consider our approach to Rates for NIE Networks is appropriate in light of our decisions in GD17 and water network price controls. In this way we are providing for consistent regulation.
- 2.49 As a general principle, frontier shift is a relatively broad ex-ante assumption of real price effects and productivity, to be applied across a wide spectrum of businesses costs (as a whole). No-one knows exactly what cost pressures will transpire over the next 6½ years; however, our frontier shift for RP6 assumes increases in nominal terms.
- 2.50 Both the Consumer Council for Northern Ireland and Manufacturing Northern Ireland responses to our draft determination were in favour of Rates not being treated as pass through expenditure items.
- 2.51 The impact of our approach is around £5m for NIE Networks, spread over 6½ years and subject to the 50:50 cost-sharing mechanism, out of a £1,429m total revenue. The £5m equates to around 0.3% of the RP6 price control.
- 2.52 NIE Networks' focus on such a small aspect of one particular revenue building block (opex) compares unfavourably to the significant quantum of headroom provided in the final determination.
- 2.53 **General Comments**
- 2.54 We also received a number of further minor comments from NIE to the licence modifications consulted on the 30th June. We have updated the licence terms and references to reflect these modifications and these can be found in a full marked up version of the Transmission licence at Appendix 1 and Distribution licence at Appendix 2.

Licence Modifications

Transmission

- 2.55 We will modify Annex 2 of the Transmission Licence with the values determined as part of the RP6 price control process.

2.56 Appendix 1 shows the licence modifications as tracked changes to the electricity transmission licence.

2.57 **Allowed capex – AC_{Xt}**

2.58 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
RAB_X							
RAB_{TN}	4.720	9.359	9.280	9.201	9.123	9.045	8.969
RAB_{T5Y}	0.490	0.728	0.970	0.794	0.597	0.599	0.605

Table 2: The Transmission Business allowed capex per RAB_X for each Regulatory Reporting Year t (£ million, 2016 prices)

2.59 **Allowed opex amount – AO_t**

2.60 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
Term							
Allowed opex amount (AO_{2016t})	4.022	7.976	7.897	7.819	7.765	7.685	7.599

Table 3: The Transmission Business allowed opex amount for each Regulatory Reporting Year t (£ million, 2016 prices)

2.61 **The pension deficit amount – P_t**

2.62 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Period	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
Term							
Historic Deficit Repair	2.081	4.142	4.133	4.145	4.131	4.112	4.018

ERDC Disallowance	(0.544)	(1.105)	(1.103)	(1.106)	(1.103)	(1.097)	(1.073)
Pension deficit amount (P_2016_t)	1.538	3.036	3.030	3.039	3.028	3.014	2.946

Table 4: The Transmission Owner Business pension deficit amount for each Regulatory Reporting Year t (£ million, 2016 prices)

2.63 **The opening value of existing assets – OE_{X_t}**

2.64 We will introduce new wording into Annex 2 – 4.5 of the Transmission licence and to delete the existing Table 2. This change is because it is not possible to hard code opening values into the RP6 licence as they will not be known until a later time.

2.65 We will amend Annex 2 - 4.6 of the Transmission Licence as follows -

Where:

CE_{X₂₀₁₈} is, for each RAB_X, the closing value of existing assets for Regulatory Reporting Year t = 2018 (30 September 2017), as calculated in accordance with paragraph 4.9 of Annex 2 of the Licence in effect on 14 August 2017.

CADD_{X₂₀₁₈} is, for each RAB_X, the closing value of additional assets for Regulatory Reporting Year t = 2018 (30 September 2017), as calculated in accordance with paragraph 4.15 of Annex 2 of the Licence in effect on 14 August 2017.

2.66 A full marked up version of this modification can be found in Appendix 1.

2.67 **The fixed depreciation amount – FDEP_{X_t}**

2.68 We will introduce new wording into Annex 2 – 4.10 of the Transmission licence and to delete the existing Table 2. This change is because it is not possible to hard code opening values into the RP6 licence as they will not be known until a later time.

2.69 We furthermore will amend Annex 2 - 4.11 of the Transmission Licence to

$$FDEP_{X_t} = (FDEP_{RP6_{X_t}}) * RPI_t / RPI_{2016}$$

Where:

FDEP_{RP6_{X_t}} is, for each RAB_X, the fixed depreciation amount in Regulatory Reporting Year t, as calculated by the Authority in accordance with provisions of the RP5 and RP6 Models, as notified to the Licensee by the Authority.

2.70 **The return amount – RET_t**

2.71 We will introduce new wording into Annex 2 – 5 of the Transmission licence to make it clear that year t= 2018 is a half year.

2.72 We will amend Annex 2 - 5 of the Transmission Licence to:

Save that for Regulatory Reporting Year t = 2018, RET_t shall be 50% of the amount calculated in accordance with the above formula for that year.

2.73 **The Tax Amount - TAX_t**

- 2.74 We will introduce new wording into Annex 2 – 9.1 of the Transmission to make it clear that year $t = 2018$ is a half year for interest as follows -
Save that for Regulatory Reporting Year $t = 2018$, INT_t shall be 50% of the amount calculated in accordance with the above formula for that year.
- 2.75 We will introduce new wording into Annex 2 – 9.1 of the Transmission to make it clear that year $t = 2018$ is a half year for capital allowances as follows -
Save that for Regulatory Reporting Year $t = 2018$, CAt shall be 50% of the amount calculated in accordance with the above formula for that year.
- 2.76 A significant number of further minor modifications updating the licence terms for price base and references can be found in a full marked up version of the licence at Appendix 1

Distribution

- 2.77 We will modify Annex 2 of the Distribution Licence with the values determined as part of the RP6 price control process.
- 2.78 Appendix 2 shows the licence modifications as tracked changes.
- 2.79 **Allowed capex for 5 Year Distribution RAB – AC_D5Yt**
- 2.80 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
RAB_X							
RAB_D5Y	8.451	11.069	9.016	7.071	6.483	5.941	7.974

Table 5: The Distribution Business allowed capex per RAB_D5Y for each Regulatory Reporting Year t (£ million, 2016 prices)

- 2.81 **Allowed capex for Distribution RAB – AC_DNt**
- 2.82 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t = 2024
RAB_DN	31.772	63.005	62.470	61.940	61.414	60.893	60.376

Table 6: The Distribution Business allowed capex per RAB_D5Y for each Regulatory Reporting Year t (£ million, 2016 prices)

2.83 **First metering fixed allowance (FMFA_t)**

2.84 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year Term	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
First metering fixed allowance (FMFA_{2016t})	0.462	0.924	0.924	0.924	0.924	0.924	0.924

Table 7: The Distribution Business first metering fixed allowance for each Regulatory Reporting Year t (£ million, 2016 prices)

2.85 **Second metering fixed allowance (SMFA_t)**

2.86 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year Term	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
Second metering fixed allowance (SMFA_{2016t})	0.676	1.351	1.351	1.351	1.351	1.351	1.351

Table 8: The Distribution Business second metering fixed allowance for each Regulatory Reporting Year t (£ million, 2016 prices)

2.87 **Allowed opex amount – Aot**

2.88 We will replace the existing table with the table set out below, which reflects the RP6 final proposals:

Year Term	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
Allowed opex amount (AO_{2016t})	29.296	57.903	57.368	56.872	56.377	55.912	55.447

Table 9: The Distribution Business allowed opex amount for each Regulatory Reporting Year t (£ million, 2016 prices)

2.89 The pension deficit amount – Pt

Period / Term	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t=2024
Historic Deficit Repair	6.723	13.467	13.476	13.464	13.478	13.497	13.591
ERDC Disallowance	(1.756)	(3.595)	(3.597)	(3.594)	(3.597)	(3.603)	(3.627)
Pension deficit amount (P_{2016t})	4.967	9.873	9.879	9.870	9.881	9.895	9.963

Table 10: The Distribution Business pension deficit amount for each Regulatory Reporting Year t (£ million, 2016 prices)

2.90 The opening value of existing assets – OE_{Xt}

2.91 We will introduce new wording into Annex 2 – 4.5 of the Transmission licence and to delete the existing Table 2. This change is because it is not possible to hard code opening values into the RP6 licence as they will not be known until a later time.

2.92 We will amend Annex 2 - 4.6 of the Distribution Licence as follows -

Where:

$$OE_{X_{2018}} = CE_{X_{2018}} + CADD_{X_{2018}}$$

Where:

CE_{X₂₀₁₈} is, for each RAB_X, the closing value of existing assets for Regulatory Reporting Year t = 2018 (30 September 2017), as calculated in accordance with paragraph 4.9 of Annex 2 of the Licence in effect on 14 August 2017

CADD_{X₂₀₁₈} is:

- (a) for each RAB_X other than RAB_{D5Y} and RAB_{MTRN}, the closing value of additional assets for Regulatory Reporting Year t = 2018 (30 September 2017), as calculated in accordance with paragraph 4.15 of Annex 2 of the Licence in effect on 14 August 2017; and
- (b) for RAB_{D5Y}, the closing value of additional assets for Regulatory Reporting Year t = 2018 (30 September 2017), as calculated in accordance with paragraph 4.15 of Annex 2 of the Licence in effect on 14 August 2017, save that such calculation shall be on the basis that the allowed capex for RAB_{D5Y} for Regulatory Reporting Year t = 2018 (30 September 2017)

specified in Table 6 of Annex 2 of the Licence in effect on 14 August 2017 was increased by £3.567m (nominal).

- (c) for RAB_MTRN, the closing value of additional assets for Regulatory Reporting Year $t = 2018$ (30 September 2017), as calculated in accordance with paragraph 4.15 of Annex 2 of the Licence in effect on 14 August 2017, save that such calculation shall be on the basis that the allowed capex for RAB_MTRN for Regulatory Reporting Year $t = 2018$ (30 September 2017) specified in Table 6 of Annex 2 of the Licence in effect on 14 August 2017 was increased by £1.507m (15/16 prices).

2.93 A full marked up version of this modification can be found in Appendix 2.

2.94 **The fixed depreciation amount – FDEP_{X_t}**

2.95 We will introduce new wording into Annex 2 – 4.10 of the Distribution Licence and to delete the existing Table 3. This change is because it is not possible to hard code opening values into the RP6 licence as they will not be known until a later time.

2.96 We will amend Annex 2 - 4.11 of the Distribution Licence to:

$$\text{FDEP}_{X_t} = (\text{FDEP}_{\text{RP6}_{X_t}}) * \text{RPI}_t / \text{RPI}_{2016}$$

Where:

FDEP_{RP6_{X_t}} is, for each RAB_X, the fixed depreciation amount in Regulatory Reporting Year t , as calculated by the Authority in accordance with provisions of the RP5 and RP6 Models, as notified to the Licensee by the Authority.

save that for regulatory reporting year $t = 2018$ (half year) in which it will be calculated by the Authority in accordance with provisions of the RP5 and RP6 Models, as notified to the Licensee by the Authority.

2.97 A full marked up version of this modification can be found in Appendix 2.

2.98 **The return amount – RET_t**

2.99 We will introduce new wording into Annex 2 – 5 of the Distribution Licence to make it clear that year $t = 2018$ is a half year.

2.100 We will amend Annex 2 – 5.1 of the Distribution Licence to:

Save that for Regulatory Reporting Year $t = 2018$, RET_t shall be 50% of the amount calculated in accordance with the above formula for that year

2.101 **The Tax Amount - TAX_t**

2.102 We will introduce new wording into Annex 2 – 9 of the Distribution Licence to make it clear that year $t = 2018$ is a half year for interest.

2.103 We will amend Annex 2 – 9.1 INT_t of the Distribution Licence to:

Save that for Regulatory Reporting Year $t = 2018$, INT_t shall be 50% of the amount calculated in accordance with the above formula for that year.

2.104 We will introduce new wording into Annex 2 – 9 of the Distribution Licence to make it clear that year $t = 2018$ is a half year for capital allowances.

2.105 We will amend Annex 2 – 9.1 CA_t of the Distribution Licence to:

Save that for Regulatory Reporting Year $t = 2018$, CA t shall be 50% of the amount calculated in accordance with the above formula for that year.

- 2.106 A significant number of further minor modifications updating the licence terms for price base and references can be found in a full marked up version of the licence at Appendix 2.

Reasons

- 2.107 The values are established as part of a price control process. The licence modifications to update the NIE Transmission and Distribution licences with the determined values are hence consequential to the price control determination.
- 2.108 The overarching reason for modifying the Determined Values is that they are required by both the Transmission and Distribution licence formulae in order to set the Maximum Regulated Transmission Revenue, the Regulatory Asset Base, the return Amount, the Opex Amount, the pension deficit amount and the Tax Amount which will drive the tariffs set by NIE to operate their businesses.
- 2.109 We note that detailed substantiation for the licence updates to the determined values is largely contained in the RP6 final determination although some reasons are also given in consultation document of the 30th June 2017 and this decision document. This decision document should at all times be read together with the RP6 final determination document and annexes.
- 2.110 RP6 opening values and fixed depreciation amounts should naturally be the closing values derived from the RP5 price control, and adjusted where necessary to 2016 prices. However at the time the RP6 licence modifications will be published for consultation i.e. June 2017, the RP5 closing values and fixed depreciation amounts will not be known until a later time. This means it will not be possible to hard code opening values and fixed depreciation amounts into the RP6 licence. We have removed the tables containing opening value of existing assets values, fixed depreciation amounts and tax pools from Annex 2 for both Transmission and Distribution licences and replaced it with wording referencing closing RP5 values which will be sourced from the RP5 financial model when fully completed with actual data. We have published a RP5 model alongside the RP6 final determination with the latest actuals and forecast figures assumed in preparing the RP6 determination
- 2.111 The first period in RP6 runs from 1 Oct 2017 to 31 March 2018 whereas all subsequent periods are for complete years beginning on 1 April and ending 31 March. A number of formulae have been updated to clarify this and to ensure half year calculations in the first period of RP6.
- 2.112 The pension deficit recovery amounts (P_t) for the Distribution business and Transmission Business are required to bring the RP6 Final Determination allowances into effect. The respective amounts relate to our determination on amounts to be paid to reduce the current NIE Networks pension scheme deficit balance. The principles we applied and allowances set are included in section 8 of our Final Determination for RP6. This includes an adjustment in relation to the ERDC disallowance. We require modification to Table 11 of Annex 2 of NIE Networks Distribution licence and Table 5 of Annex 2 of the NIE Networks Transmission licence to transpose the FD allowances into NIE Networks licences.

Effects

- 2.113 The changes detailed above will bring the RP6 final determination into effect and ensure consistency between the RP6 final determination and the NIE Transmission

and Distribution licences. The overall effect of the Determined Values will be to allow NIE to charge tariffs consistent with the maintenance and operation of an Electricity Network whilst financing its activities. The modifications will also incentivise NIE to continue to push for efficiencies in how it maintains and operates the network.

- 2.114 Opening values for assets, tax pools and fixed depreciation amounts will be sourced from the RP5 financial model when fully completed with actual data.
- 2.115 The half year at the beginning of RP6 will only attract half year allowances or calculated values in the build-up of regulated entitlement.
- 2.116 The Pension Deficit Amounts (Pt) for the Distribution and Transmission businesses as displayed in Table 4 and Table 10 are required to bring the RP6 final determination into effect and transpose the relevant values into NIE Networks Distribution and Transmission licences to allow NIEN's Distribution and Transmission revenues to be set. Pt amounts are displayed in £m in 2015-16 prices and represent the allowances set in our RP6 final determination to reduce the pension deficit for each of the years over the period October 2017- March 2024 (note the first period is 6 months from October 2017- March 2018 with all further periods 12 months April to the subsequent March).

3 Reliability Incentive

Overview

- 3.1 This chapter details the licence modifications to implement a reliability incentive during RP6 based on customer minutes lost (CML), where 1.5% of annual distribution revenue is exposed.
- 3.2 We have conducted a comprehensive review of regulatory precedent and designed a reliability incentive which follows best practice. The first iteration of our reliability incentive was set out in our draft determination and has been consulted upon. We refined our reliability incentive based on consultation responses, and these changes were reflected in Annex M of our final determination.
- 3.3 Overall, we consider that we have designed a reliability incentive that is transparent, offers a challenging yet realistic target for NIE Networks, and is in accordance with best practice.
- 3.4 Further engagement with the company followed the publication of our final determination and we have considered NIE Networks' consultation response to our proposed licence modifications.

Consultation Responses and the UR's Consideration of Responses

- 3.5 In its response to the UR's consultation on licence modifications NIE Networks made two separate statements:
- 3.6 'These models should be fixed as an integral part of the final determination.' and,
- 3.7 'The definitions of 'Reliability Incentive Model', 'RP5 Model' and 'RP6 Model' state that consultation may take place before or after the conditions comes into force. It is not clear what consultation is proposed by the UR or what the process is for finalising the models.'
- 3.8 Regarding NIE Networks' first statement, the Reliability Incentive Model (see excel spreadsheet attached to this decision document – Appendix 5) has been shared with NIE Networks after further engagement and subsequent simplification to ensure we have "fixed" or hard-coded (i) the various key assumptions, as well as (ii) targeted improvement in CMLs underpinning reliability incentive calculations.
- 3.9 We cannot "fix" NIE Networks' actual performance throughout RP6 in response to the introduction of the Reliability Incentive. Our decision has been made in light of further engagement with NIE Networks which highlighted a perverse incentive whereby the company might front load poor performance with much better improvement towards the end of RP6 to gain more financially.
- 3.10 This was caused by incorporating NIE Networks' moving historical performance into the CML targets. More specifically, dropping of earlier years (2012/13 and 2013/14) from NIE Networks' historical average, when NIE Networks' unplanned CML performance was relatively good, will inadvertently increase NIE Networks' historical average without any influence by NIE Networks. In turn, this will weaken NIE Networks' CML target. At the same time, NIE Networks could potentially purposefully perform relatively badly in the early years of RP6, knowing this will weaken their target further in the latter years of RP6. As a result, NIE Networks would be able to perform relatively poorly over the course of RP6 yet potentially earn a net reward for doing so.
- 3.11 It is important to reiterate, however, that at the final determination, the decision to incorporate moving historical averages into NIE Networks' CML targets was intended

to take into account of uncertainty, fluctuations and asymmetric information within the reliability incentive design, thereby reducing risk for NIE Networks and consumers. As a result, if NIE Networks consistently outperformed their target throughout RP6, the cost burden on consumers would have been reduced by incorporating moving historical averages into NIE Networks' CML targets.¹

- 3.12 This is reflected in the hypothetical example where NIE Networks achieve unplanned and planned CML of 49 every year between 2017/18 and 2023/24. In this example, NIE Networks would have received a total bonus payment of approximately £11 million (2015/16 prices) when incorporating moving averages into NIE Networks' CML targets, compared to approximately £15 million based on a fixed set of targets².
- 3.13 However, in collaboration with NIE Networks, we now recognise the limitations and unintended consequences of this approach. We now consider that the weaknesses of the moving average mechanism, as discussed above, override any potential benefits. The weakness of the moving average mechanism is magnified in the example below, whereby NIE Networks achieve the following outturn CML between 2017/18 and 2023/24:

Year	Unplanned CML achieved by NIE Networks (hypothetical)	Planned CML achieved by NIE Networks (hypothetical)
2017/18	65	65
2018/19	65	65
2019/20	65	65
2020/21	65	65
2021/22	55	55
2022/23	55	55
2023/24	55	55

Table 11: Hypothetical example - front loading poor performance

- 3.14 Hence, NIE Networks' poor performance in the opening years of RP6 improves to a CML performance of 55. Whilst not a significant improvement on NIE Networks' current unplanned and planned CML historical averages of 58.68 and 57.87 respectively, this results in NIE Networks having to pay a net penalty over RP6 of approximately £7.156 million assuming that NIE Networks' CML targets are fixed throughout RP6 based on Table 10 of our final determination, Annex M Reliability Incentive. In contrast, if NIE Networks' moving historical averages were incorporated into NIE Networks' RP6 CML targets, NIE Networks would have received a net bonus of £1.833 million.
- 3.15 As a result, in agreement with NIE Networks, we consider it is in the best interest of consumers to fix NIE Networks' unplanned and planned CML targets throughout RP6 based on the targets presented in Table 10 of our final determination, Annex M Reliability Incentive presented below.

Year	NIE Networks' RP6 unplanned CML targets	NIE Networks' RP6 planned CML targets
2018/19	57.86	57.87
2019/20	57.05	57.87

¹ However, we recognise that consumers would benefit from improved reliability and quality of service.
² A fixed set of targets based on Table 10 of the Final Determination.

2020/21	56.23	57.87
2021/22	55.42	57.87
2022/23	54.60	57.87
2023/24	53.79	57.87

Table 12: NIE Networks' unplanned and planned CML targets during RP6

- 3.16 The company has also stated a clear operational advantage to targeting improvement in CMLs over RP6 against a fixed CML trajectory. In other words, a fixed trajectory offers 'actionable data' with which to manage sustained and real improvements for consumers.
- 3.17 Finally, a fixed trajectory is very easy to explain to consumers compared to a spreadsheet whose calculation of the reliability incentive can only ever be understood through following the numbers and moving average calculations. As a result, transparency is maximised.
- 3.18 Regarding the second statement from NIE Networks', we retain the inclusion of this standard text to enable a subsequent consultation during RP6 for any unforeseen errors or omissions, and only for such a circumstance.

Licence Modifications

Distribution

- 3.19 We are introducing a reliability incentive during RP6 based on CML, where 1.5% of annual distribution revenue is exposed.
- 3.20 The first iteration of our reliability incentive was set out in our draft determination and has been consulted upon. We refined our reliability incentive based on consultation responses, and these changes were reflected in Annex M of our final determination.
- 3.21 As a result of further engagement with the company and responses to our licence consultation we have amended the calculation of the reliability incentive around a fixed trajectory for CML improvements to avoid the potential introduction of a perverse incentive (see paragraphs 3.9 onwards above). However, we have not made any further amendment to the licence modifications related to the new reliability incentive.
- 3.22 The allowed opex amount (if any) in regulatory reporting year t through the reliability incentive will be calculated by the Utility Regulator under and in accordance with the Reliability Incentive Model (term RI_t in the maximum regulated distribution revenue for regulatory reporting year t formula).
- 3.23 The Reliability Incentive Model (see excel spreadsheet attached to this decision document) has been shared with NIE Networks after further engagement and subsequent simplification to ensure we have "fixed" or hard-coded (i) the various key assumptions, as well as (ii) targeted improvement in CMLs underpinning reliability incentive calculations.
- 3.24 The Reliability Incentive Model (see excel spreadsheet attached to this decision document) is now the working mechanism which shall enable ex post adjustment to NIE Networks' annual distribution revenue as a result of NIE Networks' performance in reducing CML throughout RP6.
- 3.25 The Reliability Incentive Model (see excel spreadsheet attached to this decision document) will remain publicly available.

Reasons

- 3.26 The Reliability incentives have been introduced by many regulators of electricity distribution and transmission, and have proved an effective approach to improving network reliability, through an incentive to reduce CML over time, for customers.
- 3.27 Furthermore, focusing on reliability can help balance other regulatory objectives, most notably low prices for consumers. While we expect NIE Networks to be efficient and ensure prices are no higher than necessary, regulatory mechanisms such as benchmarking may perversely encourage NIE Networks to reduce reliability, which would be at the detriment of customers. Therefore, by introducing a reliability incentive, we can ensure that NIE Networks appropriately manage the trade-off between costs and reliability.

Effects

- 3.28 The effect of the licence modification is to provide an incentive for NIE Networks to improve the reliability of its distribution system for electricity consumers in a cost effective way. It will also enable the UR to assess the impact of the incentive on NIE Networks' performance and inform its suitability for subsequent price controls.
- 3.29 For avoidance of doubt, neither penalties nor rewards incurred through the reliability incentive during RP6 will be subject to the 50:50 incentive mechanism.

4 Metering

Overview

- 4.1 This chapter outlines the approach and parameters that are used to determine the allowed capex for metering as set out in UR's RP6 final determination. The licence modifications are set out in full in Allowed Capex for Metering RAB, paragraphs 4.39 to 4.52 of Appendix 2.
- 4.2 We have also provided details of the licence modifications to provide an Opening Regulatory Asset Base adjustment for meters installed under the meter replacement for theft programme as part of RP5.
- 4.3 The opex allowances for metering services that are set out in the final determination are included within the allowed opex amount, section 6 of Appendix 2.
- 4.4 The overall approach is similar to that adopted in RP5 for metering capex but with amendments to reflect any changes within RP6. In particular we have applied amendments for the meter replacement for theft programme.
- 4.5 The approach taken for the RP6 metering programmes continues with a volume driven allowance and a set unit cost for each meter category. This approach was used in RP5 and has been applied to all metering programmes in RP6.
- 4.6 There are however some differences to the treatment of the meter replacement for theft programme.
- 4.7 We have also retained the fixed metering allowances as adopted in RP5 that cover the indirect costs and overheads required to support the implementation of the metering programmes.

Consultation Responses and the UR's Consideration of Responses

- 4.8 We received a minor drafting comment from NIE regarding Table 9 (Real price effect and productivity factor) of the consulted licence modifications. We have updated Table 9 with the correct values to reflect this comment. The modification can be found in a full marked up version of the licence at Appendix 2.
- 4.9 We did not receive any further consultation responses in this area and have decided to adopt the principles proposed in our licence modification consultation document for NIE Networks.

Licence Modifications

Opening Adjustment

- 4.10 We will change Annex 2 of the Distribution licence by adding paragraph 4.6 c) into the licence. This paragraph allows an Opening Regulatory Asset Base adjustment of £1.507m for meters installed under the meter replacement for theft programme up to September 2017.

Allowed Capex for Metering

- 4.11 We have adopted a similar approach for metering capex to that used in RP5. This approach combines a flexible volume driven allowance with fixed allowances, and then applies a price and productivity adjustment to determine the total allowed metering capex for a particular regulatory reporting year.

4.12 The formula for calculating the Allowed Capex for Metering is as follows:

$$AC_X_t = (FMFA_t + SMFA_t + MVA_t) * RPEPF_t$$

Parameter	Description
$AC_X_t = AC_MTRN_t$	³ Allowed Capex for Metering, in each Regulatory Reporting year t
$FMFA_t$	First Metering Fixed Allowance, in each Regulatory Reporting year t
$SMFA_t$	Second Metering Fixed Allowance, in each Regulatory Reporting year t
MVA_t	Metering Volume Driven Allowance, in each Regulatory Reporting year t
$RPEPF_t$	Real Price Effect and Productivity Factor, in each Regulatory Reporting year t

Table 13 – Description of parameters used to determine allowed capex for metering

- 4.13 Each of these allowances is described further below. The formulae that set out how the volume driven allowance (MVA_t) is calculated and the values for the fixed allowances ($FMFA_t$ and $SMFA_t$) and Real Price Effect and Productivity Factor (RPEPF) are set out in paragraphs 4.45, 4.41, 4.43 and Table 9 of Appendix 2 respectively.
- 4.14 Whilst there has been no change to the approach used in RP6 to that adopted in RP5, the individual unit costs for the different meter categories and fixed allowances are different. These changes reflect the metering programmes to be carried out in RP6 and our assessment of the associated costs set out in Chapter 11 of the Final Determination. Additional meter categories that were not assessed in RP5 have also been included in RP6.
- 4.15 One additional meter category that was not included in the licence modifications for RP5 is the meter replacement for theft programme. We have provided a unit allowance for this metering category and included this metering programme within the volume driven allowance, similar to the other metering programmes.
- 4.16 However we have included a limit on the amount of meters to be installed for the meter replacement for theft programme which differs from the treatment of the other meter programmes. There are provisions within the licence modifications for the UR to consider a request from NIE Networks for additional volumes of meters above the set limit.
- 4.17 This licence modification is discussed further below with the reasoning for adopting this approach set out in the Reasons section.

Metering Volume Driven Allowance, MVA_t

- 4.18 The metering volume driven allowance applies a unit cost allowance for different types of metering work that allow the overall allowance to flex according to the actual volume of work completed.

³ X represents the suffix assigned to a particular RAB. i.e. in this case the Metering RAB which is denoted MTRN

- 4.19 The unit cost allowance for each meter type is set out in Table 8 of Appendix 2. The unit cost allowance for the meter type is then multiplied by the volume of meters installed for that particular meter type to determine the metering volume driven allowance.
- 4.20 The allowances for the meter programmes set out in the final determination are based upon forecast volumes. These will be corrected through the correction factor amount or 'K-factor' (paragraph 11 of appendix 2) when the actual volumes of meters are known.
- 4.21 The MVA_t is adjusted by the RPI for each regulatory reporting year.

Volume Limit on Meter Replacement for Theft Programme

- 4.22 As set out in the Draft and Final Determination we have placed a limit of 20,000 meters on the Meter Replacement for Theft Programme. As the Meter Replacement for Theft Programme spans both RP5 and RP6 the 20,000 limit applies to the total volumes across RP5 and RP6.
- 4.23 NIE Networks have provided us with reports on the actual volume of meters installed as they progress the delivery of the meter replacement for theft programme. From this we have forecast that approximately 12,300 will be installed by the end of RP5. Therefore the remaining 7,700 will be installed over RP6.
- 4.24 The 12,300 meter volume figure has been used to calculate the opening adjustment value for the meters that were installed in RP5 under the meter replacement for theft programme. This figure is included in the opening adjustment calculation, paragraph 4.6 c) of the licence modification.
- 4.25 The 7,700 figure has been included as the limit for the amount of meters to be installed in RP6 as part of the meter replacement programme for theft. The drafting to facilitate this approach is included in section 4.47 of Appendix 2.
- 4.26 As set out in the final determination we have also provided a mechanism for NIE Networks to submit a request for an allowance to install additional meters above the 7,700 limit in RP6 (20,000 in total across RP5 and RP6). Under these arrangements NIE Networks may request the UR to determine an increase to the 7,700 volume figure. Where NIE Networks submits such a response, they are required to provide their reasons and supporting information to enable the UR to consider the request.

First Metering Fixed Allowance, $FMFA_t$

- 4.27 The First Metering Fixed Allowance provides a set allowance, for each year of the RP6 price control, for the overheads required to support the implementation of the metering programmes.
- 4.28 Overheads are the operating costs that support the delivery of metering services. They comprise the following: Fault and Emergency Response, Information Technology, Stores and Safety, and Finance and Human Resources costs. Further background information on these activities is provided in NIE Network's Market Operations Business Plan.
- 4.29 The allowance determined for the First Metering Fixed Allowance is set out in Table 6 of Appendix 2. The allowance reflects the determination set out in Table 67 of the RP6 Final Determination Main Document.
- 4.30 The $FMFA_t$ is adjusted by the RPI for each regulatory reporting year.

Second Metering Fixed Allowance, SMFA_t

- 4.31 The Second Metering Fixed Allowance provides a set allowance for each year of the RP6 price control for the indirect costs required to support the implementation of the metering programmes.
- 4.32 The indirect costs largely relate to the salaries of the staff to deliver, manage and co-ordinate the metering programmes as well as transport and other costs. Further background information on these activities is provided in NIE Network's Market Operations Business Plan.
- 4.33 The allowance determined for the Second Metering Fixed Allowance is set out in Table 7 of Appendix 2. The allowance reflects the determination set out in Table 66 of the RP6 Final Determination Main Document.
- 4.34 The SMFA_t is adjusted by the RPI for each regulatory reporting year.

Real Price Effect and Productivity Factor, RPEPF_t

- 4.35 The Real Price Effect and Productivity Factor, RPEPF is applied to the sum of the Meter Volume Driven Allowance and the First and Second Metering Fixed Allowances for each regulatory reporting year.
- 4.36 The Real Price Effect is an adjustment for the difference between price changes for a company or industry and the general Retail Prices Index. The Productivity Factor is an assumption applied to opex and capex to take account of continuing efficiencies which the industry can achieve over the price control period. Combining these two factors results in the Real Price Effect and Productivity Factor. The calculations to determine the RPEPF are set out in Chapter 10 of the FD.
- 4.37 Table 9 in appendix 2 sets out the Real Price Effect and Productivity Factor applied to the metering capex for each regulatory reporting year. As noted above, we have updated the figures in Table 9 to reflect the correct values.
- 4.38 There is a slight difference in the application of the RPEPF_t within RP6 to that in RP5. The first and second fixed metering allowances in RP5 were applied at different years within the RP5 price control period. As such a different RPEPF was applied to each fixed allowance. However this is not necessary in RP6 as the allowances start and finish at the same time. The formula set out in paragraph 4.40 in Appendix 2 of the licence modification has been amended to reflect this.

Reasons

Volume Driven Allowance, Fixed Allowances, Real Price Effect and Productivity Factors

- 4.39 We have adopted a similar approach for metering capex to that used in RP5. This is a tried and tested approach that has worked well for RP5. We have no reason or evidence which suggests we should change the approach.
- 4.40 Adopting a unit cost allowance allows the overall allowance to flex according to the actual volume of work completed. This approach provides a flexible allowance to cater for the uncertainty of forecasted metering volumes together with an appropriate correction mechanism.
- 4.41 Similarly, in line with the CMA determination, we have adopted the use of fixed metering allowances for the indirect costs and overheads required to deliver the metering programmes. These values have been determined by using the actual costs

incurred for RP5 as set out in the Financial and Metering RIGS and applying an adjustment for any new or additional work to be carried out in RP6.

- 4.42 Again the use of a Real Price Effect and Productivity Factor is consistent with the determination of the CMA.
- 4.43 The modifications will also integrate with the others terms within NIE Network's Distribution licence such as the correction factor amount and the capex incentive mechanisms.

Volume Limit on Meter Replacement for Theft Programme

- 4.44 The purpose of this programme is to address the spike in electricity theft within certain areas for the network for a limited period of time. Once the programme has taken effect, the expectation is that revenue protection activities will return to normal levels. As such we have placed a limit on the amount of meters to be installed to reflect the intended purpose of the programme.
- 4.45 We have left some flexibility to re-visit the programme should it be required in the future. Levels of electricity metering theft may not reduce to acceptable levels following the completion of the meter replacement for theft roll-out or there may be a further spike within the price control period.
- 4.46 The drafting in the licence modifications provides a mechanism to facilitate NIE Networks requesting a further allowance to roll-out meters above the set limit. NIE Networks would need to provide their reasoning and supporting evidence to support their request for an additional allowance.
- 4.47 We consider that this is a reasonable approach that provides NIE Networks with sufficient allowance to address the current high levels of electricity theft and the ability to request a further allowance should it be necessary. This approach fits with the original purpose of the programme but also provides the flexibility to extend it if required.
- 4.48 The figures that we are using to determine both the opening adjustment value for the meters installed under RP5 and the limit to the meters to be installed under RP6 are forecast. This is because it is not possible to determine the actual amount of meters installed under this programme in RP5 as RP5 runs until the end of September 2017. The 20,000 limit is based upon an initial view of the scale of the problem from industry (NIE Networks and electricity suppliers).
- 4.49 As such it is not possible to determine the actual figures at this stage. However we consider the figures to be sufficiently accurate to facilitate the approach that we have adopted.
- 4.50 Furthermore, should NIE Networks submit a request to extend the programme, the arrangement could also serve as a correction mechanism if the forecasted figures are not sufficiently accurate when compared against the actual number of meters installed.

Effects

- 4.51 Overall, we consider that the licence modifications provide sufficient certainty and allowances to deliver the capex element of the metering programmes as set out in NIE Network's Market Operations Business Plan.
- 4.52 The licence modifications for metering capex will also achieve consistency with the approach taken in RP5.

4.53 The licence modifications will also cater for the Meter Replacement for Theft programme by including the programme within the volume meter driver allowance. The licence modifications also include a limit on the volume for meters to be installed under this programme but also provide a mechanism to extend the number of meters should this be required. We consider that this provides sufficient flexibility to NIE Networks to deliver this programme of work.

5 Contestability

Overview

- 5.1 NIE Networks has asked for an allowance to deliver IT systems and employee working practices to deliver contestability in electricity connections (i.e. to open up electricity connections to competition)
- 5.2 This chapter details the licence modifications to provide an opening regulatory asset base adjustment for part of this allowance. The adjustment is for £3,566.6k of IT contestability expenditure incurred by NIE Networks up to September 2017. This is to give effect to our determination as set out in chapter 11 of our final determination.

Consultation Responses and the UR's Consideration of Responses

- 5.3 We did not receive any consultation responses in this area and have decided to adopt the principles proposed in our licence modification consultation document for NIE.
- 5.4 We have however, changed the format in the Distribution Licence 4.6 (b) £3,566.6k (nominal) to £3.567m.
- 5.5 Our decision and required licence modifications are documented below.

Licence Modifications

Distribution

- 5.6 We will amend annex 2 of the distribution licence by adding the paragraph 4.6 b) into the licence. This paragraph allows an opening regulatory asset base adjustment of £3.567m for IT contestability to be added to the 5 year distribution RAB (or term RAB_D5Y as referenced in the licence within this paragraph).

Reasons

- 5.7 Our detailed reasons are set out in chapter 11 of our final determination.
- 5.8 £3.567m of expenditure is being, and is forecast to be, incurred during the RP5 period. However, there is currently no mechanism in the existing licence to enable NIE Networks to recover these costs. We, therefore, consider an opening RAB adjustment in RP6 is an appropriate mechanism to recover these.
- 5.9 With respect to the level of allowance (£3.567m), we consider that this is an adequate allowance to enable NIE Networks to recover its efficiently incurred costs during the RP5 period.
- 5.10 We consider all the costs are IT contestability distribution capital expenditure and that it is appropriate that these should be allocated to a 5 year Distribution RAB.

Effects

- 5.11 Our effects are set out in chapter 11 of our final determination.
- 5.12 This licence modification provides a mechanism for the RP5 allowed expenditure of £3.567m to be recovered for within the RP6 licence as an opening adjustment to the RP6 5 year distribution RAB.

- 5.13 For avoidance of doubt, any variation in efficiently incurred expenditure from the £3,566.6k to account for actual expenditure up to September 2017 would be subject to the RP6 capex 50:50 mechanism.
- 5.14 The licence modifications allow consistency between the RP6 final determination and NIE Network's licences by ensuring that these changes are appropriately reflected in NIE Network's licence.

6 Connections charge pass-through

Overview

- 6.1 This chapter details the licence modifications to remove the connections charge capex and opex distribution and transmission costs which are passed through to the RAB for new or modified connections (excluding clusters and housing sites with 12 or more dwellings). This is to give effect to our determination as set out in chapter 13 of our final determination.

Consultation Responses and the UR's Consideration of Responses

- 6.2 We did not receive any consultation responses in this area and have decided to adopt the principles proposed in our licence modification consultation document for NIE.

Licence Modifications

Transmission

- 6.3 We will amend Annex 2 of the Transmission licence as follows:
- Remove the wording “*all other connections governed by the Licensee’s Connection Charging Statement*” as set out within the term CC_Xt.
 - Remove the reference to “*all other connections governed by the Licensee’s Connection Charging Statement*” as set out within the term OCT.

Distribution

- 6.4 We will amend Annex 2 of the Distribution licence as follows:
- Remove the wording “*all other connections governed by the Licensee’s Connection Charging Statement*” and “*new domestic and smaller businesses eligible for a subsidy an where the application for connection was prior to 1st October 2012*” as set out within the term CC_Xt.
 - Remove the wording “*all other connections governed by the Licensee’s Connection Charging Statement*” and “*new domestic and smaller businesses eligible for a subsidy an where the application for connection was prior to 1st October 2012*” as set out within the term OCT.

Reasons

- 6.5 Our reasons are set out in chapter 13 of the final determination.
- 6.6 First, removing the pass-through for the connection types and referred to above in paragraph 8.2 and 8.3, gives NIE Networks better incentives to minimise the connection costs for these types of connection. The costs and activities are largely within NIE Network’s control. Exposing it to the full risk of recovery is likely to better incentivise NIE Networks to be more efficient in the provision of these connections than the status quo.
- 6.7 Second, the costs and activities for these connections are caused by connecting customers. Removing the pass-through and recovering the costs from the customer seeking the connection is likely to, on balance, support better effective price signals to connecting customers compared with the status quo.

- 6.8 Third, removing the pass-through for these connections types is more likely to support contestability for these connections than the status-quo.

Effects

- 6.9 Our effects are set out in chapter 13 of the final determination.
- 6.10 Removing the pass-through for these connection types means that, during RP6, NIE Networks will not pass-through any difference between customer contribution and expenditure on capex and opex for distribution and transmission connection work to the RAB (on a yearly basis as a deduction or an addition), for the connection types referred to above in paragraph 8.2 and 8.3.
- 6.11 The licence modifications allow consistency between the RP6 Final Determination and NIE Network's licences by ensuring that these changes are appropriately reflected in NIE Network's licence.

7 Mechanism to allow additional capital expenditure allowances to be determined

Overview

- 7.1 NIE Networks has been fully and adequately funded to meet and comply with all of its relevant requirements (i.e. both its regulatory licence and statutory obligations) through the allowances determined in the RP6 final determination. This includes, for example and without limitation, maintaining compliance with all network codes and standards and meeting network safety requirements. However, this general principle is subject to a number of defined exceptions where additional capital expenditure allowances will be determined during the Price Control period if and when the conditions of a relevant exception are met.
- 7.2 The licence modifications in this chapter makes provision for the Utility Regulator to determine additional capital allowances not already provided for in the RP6 final determination.
- 7.3 Such additional allowances will only be determined under the **distribution** licence where it is necessary to:
- address nominated distribution projects;
 - undertake trials and innovation to inform future investment;
 - address load growth due to the introduction of low carbon technologies; and,
 - address congestion on the 33kV network due to generation connections.
- 7.4 Such additional allowances will only be determined under the **transmission** licence where it is necessary to:
- address transmission system capacity or capability;
 - address major transmission system maintenance requirements; and,
 - undertake trials and innovation to inform future investment.
- 7.5 To allow the additional capex allowances to properly flow through to revenue, it is necessary to introduce additional terms $ACDR_{X_t}$ and $ACTR_{X_t}$ in the distribution licence and transmission licence respectively. These represent the total of additional capital allowances determined by the Utility Regulator for any particular year of the RP6 period. These values contribute to the term CI_{X_t} of the respective licences which is the **capex incentive amount**. Therefore any additional capex allowances determined by the Utility Regulator during the course of RP6 become subject to the cost risk sharing mechanism for capital expenditure.
- 7.6 The licence modifications make provision for the Utility Regulator to follow such procedures as it considers appropriate prior to making its determination of additional capital allowances, including providing for any audit, assessment or consultation in respect of the project submission.
- 7.7 The licence modifications make provision for the Utility Regulator to make its determinations subject to conditions with which the Licensee shall be required to comply, including, in particular, conditions as to any monitoring, audit and reporting in relation to the project.

- 7.8 For reasons of simplicity, paragraphs 4.35 to 4.37 inclusive of Annex 2 of the NIE Networks RP5 transmission licence are amended. These paragraphs made provision for the Utility Regulator to determine additional capital allowances not already provided for in the RP5 final determination in respect of **transmission system capacity or capability**. This is replaced by a similar provision in the transmission licence modifications for RP6 in relation to transmission system capacity or capability within the context of more general provisions described below.

Consultation Responses and the UR's Consideration of Responses

- 7.9 In their response to the consultation document NIE Networks stated that transmission innovation projects should be determined separately through the D5 mechanism and hence the cross references between transmission and distribution licences should be removed from the licence modifications.
- 7.10 We expect that transmission innovation projects would be driven, in the first instance, by SONi. Where SONi makes a case to undertake innovation projects which are not already funded through SONi Price Controls, this would be considered and determined through the mechanisms of the SONi Price Control. If it was necessary for NIEN to carry out work to support innovation projects proposed by SONi, this would be considered and determined through the D5 mechanism. However, we consider it prudent to give NIE Networks the option to propose transmission innovation projects in the future if it deems them necessary.
- 7.11 Upon consideration of the consultation responses we have decided not to make any further revisions to these licence conditions.

Licence Modifications

Distribution licence modifications

- 7.12 We will introduce a new term $ACDR_{X_t}$ into the distribution licence, defined as: *the allowed capex (if any) in an amount determined by the Authority (in a published decision giving reasons) to be appropriate in accordance with paragraph 4.36.*
- 7.13 We will introduce the new term $ACDR_{X_t}$ into the equation for existing term CI_{X_t} (capex incentive amount) such that the amended term reads:
- $$CI_{X_t} = (AC_{D5Y_t} + AC_{DN_t} + AC_{MTRN_t} + ACIA_{X_t} + ACES_{X_t} + \mathbf{ACDR_{X_t}} + ACCOL_{X_t} - (QCE_{X_t} - DIQCE_{X_t})) * 50\%$$
- 7.14 We will introduce new paragraphs 4.36 to 4.38 into Annex 2 of the distribution licence such that:

Additional allowed capex – $ACDR_{X_t}$

For the purposes of this Annex, in each Regulatory Reporting Year t and for each RAB_X , the additional allowed capex ($ACDR_{X_t}$) is any amount that the Authority determines, in a published decision, to be appropriate for the expected incremental efficient costs of:

- a) *any nominated distribution project;*
- b) *trials undertaken to assess and demonstrate innovative future investment in the Distribution System;*
- c) *any project to address load growth due to the introduction of low carbon technologies; and,*
- d) *any project to address congestion on the 33kV network for purposes relating to connections made, or to be made, between the Distribution System and any*

premises owned or occupied by the owner or operator of an electricity generation set ('generation connections').

The value of $ACDR_{Xt}$ in each Regulatory Reporting Year t and for each RAB_X shall be that which the Authority considers appropriate, and for these purposes:

- a) no allowance may be determined in respect of any outputs or costs that funded through any other provision of this Annex ;*
- b) an allowance may be determined in respect of a nominated distribution project to address distribution load and replacement only if the project has been identified in the Final Determination as falling within the scope of this category;*
- c) the total additional allowance which may be determined for trials undertaken to assess and demonstrate innovative future investment in the Distribution System shall not, taken together with the total additional allowance that may be determined by the Authority pursuant to paragraph 4.25(b) of the successor transmission licence, exceed £6.36 million in 2015/16 prices.*
- d) an allowance may be determined in respect of any project to address load growth due to the introduction of low carbon technologies only if the expenditure is required in Regulatory Reporting Years $t = 2022, 2023$ or 2024 , and the investment has been determined by the Authority in a published decision in advance of Regulatory Reporting Year $t = 2022$, or such later time as the Authority may determine in a published decision;*
- e) an allowance may be determined in respect of any project to address congestion on the 33kV network for purposes relating to generation connections only where the expenditure is not required for other reasons relating to load growth or asset replacement;*
- f) the Licensee shall provide such information, including in such manner, format and within such period, as may be required by the Authority (and notified to the Licensee) for the purposes of making its determination; and*
- g) the Authority may follow such procedure as it considers appropriate prior to making its determination, including by providing for any audit, assessment or consultation in respect of the project submission; and*
- h) the Authority may make its determination subject to conditions with which the Licensee shall be required to comply, including in particular conditions as to any monitoring, audit and reporting in relation to the project trial, the delivery date or milestones to be achieved in relation to the project or trial and the consequences (including financial consequences in respect of the amount set out in the determination) for non-compliance with the delivery date or milestones.*

Transmission licence modifications

- 7.15 We will amend paragraphs 4.35 to 4.37 inclusive of Annex 2 of the NIE Networks RP5 transmission licence in their entirety. These paragraphs made provision for the Utility Regulator to determine additional capital allowances not already provided for in the RP5 final determination in respect of **transmission system capacity or capability**. This provision is replaced by a similar provision in the transmission licence modifications for RP6 in relation to transmission system capacity or capability within the context of more general provisions described below.
- 7.16 We will delete existing term $ACTS_{Xt}$ from the transmission licence, including deleting this term from the equation for existing term CI_{Xt} .

7.17 We will introduce a new term $ACTR_{Xt}$ into the transmission licence, defined as: *the allowed capex (if any) in an amount determined by the Authority (in a published decision giving reasons) to be appropriate in accordance with paragraph 4.33.*

7.18 We will include the new term $ACTR_{Xt}$ in the equation for existing term CI_{Xt} (capex incentive amount) and delete the existing term ACTS from the equation for existing term CI_{Xt} such that the amended term reads:

$$CI_{Xt} = (AC_{Xt} + ACIA_{Xt} + \mathbf{ACTR_{Xt}} + ACCOL_{Xt} - (QCE_{Xt} - DIQCE_{Xt})) * 50\%$$

7.19 We will introduce new paragraphs 4.34 to 4.35 into Annex 2 of the transmission licence such that:

Additional allowed capex – $ACTR_{Xt}$

For the purposes of this Annex, in each Regulatory Reporting Year t and for each RAB_X , the additional allowed capex ($ACTR_{Xt}$) is any amount that the Authority determines, in a published decision, to be appropriate for the expected incremental efficient costs of:

- a) any project to address transmission system capacity or capability;*
- b) any project to address major transmission system replacement requirements; and*
- c) trials undertaken to assess and demonstrate innovative future investment in the transmission system.*

The value of $ACTR_{Xt}$ in each Regulatory Reporting Year t and for each RAB_X shall be that which the Authority considers appropriate, and for these purposes:

- a) no allowance may be determined in respect of any outputs or costs that are funded through any other provision of this licence;*
- b) an allowance may be determined in respect of any project to address transmission system capacity or capability only if the project is sufficiently material and has been requested by the relevant system operator (e.g. SONI) in line with the Transmission Interface Arrangements, in a submission which is in such format and contains such information as may be specified by the Authority for that purpose (e.g. including whole life costs and benefits in an objective cost benefit analysis);*
- c) no allowance may be determined in respect of any project to address transmission system capacity or capability to the extent to which it takes the form of asset replacement expenditure which is not necessary for the purposes of increasing the capacity or capability of the transmission system;*
- d) an allowance may be determined in respect of any project to address transmission replacement requirements only if the project has been identified in the Final Determination as a project which falls within the scope of this category;*
- e) the total additional allowance which may be determined for trials undertaken to assess and demonstrate innovative future investment in the transmission system shall not, taken together with the total additional allowance that may be determined by the Authority pursuant to paragraph 4.37(b) of Annex 2 in the successor distribution licence, exceed £6.36 million in 2015/16 prices.*
- f) the Authority may follow such procedure as it considers appropriate prior to making its determination, including by providing for any audit, assessment or consultation in respect of the project submission;*

- g) *the Licensee shall provide such information, including in such manner, format and within such period, as may be required by the Authority (and notified to the Licensee) for the purposes of making its determination; and*
- h) *the Authority may make its determination subject to conditions with which the Licensee shall be required to comply, including in particular conditions as to any monitoring, audit and reporting in relation to the project or trial, the delivery date or milestones to be achieved in relation to the project or trial and the consequences (including financial consequences in respect of the amount set out in the determination) for non-compliance with the delivery date or milestones.*

Reasons

Distribution – new term $ACDR_{X_t}$

7.20 The introduction of a new term $ACDR_{X_t}$ (*the allowed capex (if any) in an amount determined by the Authority (in a published decision giving reasons) to be appropriate in accordance with paragraph 4.36*) in Annex 2 of the distribution licence is necessary to allow additional capex which was not included in the RP6 final determination and subsequently determined by the Authority under paragraph 4.37 of the distribution licence to be included in the determination of annual revenues under the licence.

Distribution – inclusion of new term $ACDR_{X_t}$ in the equation for existing term CI_{X_t}

7.21 *The inclusion of the new term $ACDR_{X_t}$ into the equation for existing term CI_{X_t} such that the amended equation for CI_{X_t} reads:*

$$CI_{X_t} = (AC_{D5Y_t} + AC_{DN_t} + AC_{MTRN_t} + ACIA_{X_t} + ACES_{X_t} + \mathbf{ACDR_{X_t}} + ACCOL_{X_t} - (QCE_{X_t} - DIQCE_{X_t})) * 50\%$$

is necessary to ensure that the term $ACDR_{X_t}$ is accounted for in the 50/50 cost risk sharing mechanism. If this modification is not made, the existing equations in Annex 2 of the licence would result in NIE Networks funding half the additional capital allowances determined.

Distribution – introduction of new paragraphs 4.36 to 4.38 in respect of the determination of additional capital allowance not included in the RP6 final determination

7.22 In general, the introduction of new paragraphs 4.36 to 4.38 in respect of the determination of additional capital allowances not included in the RP6 final determination is necessary to give effect to the uncertainty mechanisms of the RP6 final determination necessary to:

- address nominated distribution projects;
- undertake trials and innovation to inform future investment;
- address load growth due to the introduction of low carbon technologies; and,
- address congestion on the 33kV network due to generation connections.

7.23 The introduction of **paragraph 4.36** to the distribution licence is necessary to provide a descriptive title for the subsequent paragraphs and establishes a link to the term $ACDR_{X_t}$ as the term used to capture any additional capital allowances determined by the Authority under the subsequent paragraphs.

7.24 The introduction of **paragraph 4.37** to the distribution licence is necessary to limit the determination of additional capital allowances to four defined areas of capital

investment for which allowances were not included in the RP6 final determination. These four defined areas are to:

- a) **Address nominated distribution projects.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.55.
- b) **Undertake trials and innovation to inform future investment.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.56.
- c) **Address load growth due to the introduction of low carbon technologies.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.60.
- d) **Address congestion on the 33kV network due to generation connections.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.63.

- 7.25 The reason for including the phrase “*for the expected incremental efficient costs to:*” in paragraph 4.37 of the licence is to:
- clarify that the determination of any additional capital allowances in RP6 will take into account the capital allowances and outputs already included in the RP6 determination, an additional allowance will not include any element of cost or output already funded under the determined allowances; and,
 - clarify that only efficient costs will be included in any additional capital allowance determined by the Utility Regulator.
- 7.26 Sub paragraph (a) of paragraph 4.38 is necessary to confirm that no additional capital allowance may be determined for any output already funded through the allowances already determined through the RP6 final determination. This will prompt both NIE Networks and the Utility Regulator to carefully consider each proposal for additional allowances to exclude any outputs already paid for by consumers through the indirect allowances, utilised direct capital allowances, or lump sum direct capital allowances included in the RP6 final determination.
- 7.27 The RP6 final determination includes capital allowances for the general replacement and upgrading of the distribution network. However, certain nominated projects were specifically excluded from this assessment because they are material projects whose nature, scope and cost remained uncertain at the time of the RP6 final determination. In particular, where the proposed solution is linked to transmission system capacity and capability projects yet to be defined. Sub paragraph (b) of paragraph 4.38 is necessary to confirm that additional allowances for **nominated distribution projects** will only be determined for projects identified in the RP6 final determination beginning at paragraph 9.55.
- 7.28 In its RP6 business plan submission, NIE Networks proposed a range of trials and innovation works to inform future investment decisions. While the Utility Regulator agrees that there is a need for this type of work the trial designs included in the business plan submission did not provide sufficient information and evidence for an upfront allowance to be determined in the RP6 final determination. Paragraph 4.38 of Annex 2 of the distribution licence makes provision for additional allowances to be determined to support this type of work. Sub paragraph (c) of paragraph 4.38 is necessary to confirm that allowances necessary to **undertake trials and innovation**

to inform future investment will be limited to a maximum of £6.36 million in 2015/16 prices combined for both the NIE Networks distribution and transmission licences.

- 7.29 In its RP6 business plan submission, NIE Networks made an assessment of investment necessary to adapt its network to cater for load growth due to the introduction of low carbon technologies (for example an increasing use of electric cars and other vehicles). However, this assessment is based on limited experience to date and there is a high degree of uncertainty regarding the future uptake of low carbon technologies and how this will impact demand. In light of this, we concluded that a fixed allowance should be determined for the first half of RP6 with an opportunity to determine an allowance for the second half of RP6 based on experience to that point. Sub paragraph (d) of paragraph 4.38 is necessary to confirm that an additional allowance will only be determined in respect of investment to address **load growth due to the introduction of low carbon technologies** for the years 2021/22, 2022/23 and 2023/24. An allowance for load growth due to the introduction of low carbon technologies for the prior years is already included in the RP6 final determination. This sub-paragraph also confirms that the determination of a future allowance will be made by the end of 2020/21, unless the Utility Regulator determines otherwise, in line with the timescale set out in the RP6 final determination beginning at paragraph 9.61.
- 7.30 The RP6 final determination makes provision for investment to address congestion on the 33kV network due to minimum load erosion caused by generation connections. This determined investment relates to specific schemes identified by NIE Networks. However, no provision is made in the RP6 final determination for capital allowances to address any further erosion of minimum load due to generation connections which are not already committed. Sub paragraph (e) of paragraph 4.38 is necessary to confirm that additional allowances necessary to address **congestion on the 33kV network due to generation connections** can be determined but only where it becomes necessary due to further erosion of minimum load due to generation connections. Because of the 'two voltage rule' in respect of distribution connections, whereby connectees can pay for any necessary reinforcement at the connection voltage and one voltage upstream, any future allowance will be limited to investment in the 33kV network. With regard to connections to the low voltage (LV) network, the person requiring the connection will continue to be subject to the costs associated with any reinforcement necessary at LV level and on the 6.6kV or 11kV network. Any work necessary on the transmission network (110kV and above) can be addressed through the mechanism covering transmission system capacity and capability described below. As part of any application for additional capital allowances to address congestion on the 33kV network, we would expect the company to demonstrate that the decisions it had made on connection offers in respect of the relevant 33kV circuits were fully compliant with its obligations and the outcome of the review of connection policy. Where this is not the case, we would not be minded to commit the general consumer base to fund the reinforcement work.
- 7.31 It may be necessary for the Utility Regulator to define procedures it will follow in respect of the determination of additional capital allowances to ensure that robust and efficient processes are followed in the determination of additional capital allowances. The RP6 final determination does not set out specific requirements for the procedures the Utility Regulator is to follow when determining additional capital allowances under these licence modifications. Sub-paragraph (f) of paragraph 4.38 is necessary to allow the Utility Regulator to define the procedures it will follow in respect of such determinations as the need arises and to reflect the particular circumstances of each individual determination.
- 7.32 It may be necessary for the Utility Regulator to define the information it requires for the purpose of making a determination in respect of additional capital allowances.

The RP6 final determination does not set out specific information requirements which are likely to be different in each specific instance. Sub-paragraph (g) of paragraph 4.38 is necessary to allow the Utility Regulator to define the information it required for the purpose of making each individual decision, including the manner, format and timescale for that information.

- 7.33 It may be necessary for the Utility Regulator to set conditions which NIE Networks must comply with in respect of additional capital allowances to secure the delivery of the associated additional outputs and protect the interests of consumers. For example specific conditions which might apply to the timely delivery of an output. The RP6 final determination does not set out any conditions the Utility Regulator may apply to the determination of additional capital allowances. Sub-paragraph (h) of paragraph 4.38 is necessary to allow the Utility Regulator to define conditions NIE Networks will be required to comply with in relation to additional capital allowances to reflect the particular circumstances of each individual determination including conditions in relation to monitoring, auditing and reporting as the need arises. Sub-paragraph (h) confirms that the conditions the Licence might be required to comply with may include the delivery date of milestone (including financial consequences in respect of the amount set out in the determination) for non-compliance with the delivery date or milestones. This is in line with the principle set out in the Competition Commission final determination in RP5 for the D5 mechanism.

Transmission – amend paragraphs 4.35 to 4.37 relating to investment in transmission system capacity and capability.

- 7.34 We will amend existing paragraphs 4.35 to 4.37 of Annex 2 of the transmission licence. These paragraphs relate to the determination of capital allowances to address transmission systems capacity and capability. This is necessary to allow capital allowances which address transmission systems capacity and capability to be included in the paragraph 4.34 which covers the determination of all capital allowances which were not included in the RP6 final determination, including transmission systems capacity and capability.
- 7.35 As part of this, we will delete paragraph 4.37(e) which states that, in respect of capital allowance for transmission system capacity and capability, *“the Authority may only make a fresh assessment of projects considered in the Final Determination where there has been substantial changes to the nature or scope of these projects, otherwise, the allowances for these projects shall be based on the project cost estimates provided below”*, referencing Table 7 of Annex 2 (*The Transmission Owner Business pre-determined transmission load related project allowances (2010 prices)*). Our reasons for deleting this table of project values, which would only be subject to change if there were substantial changes to the nature and scope of the relevant projects, are set out below.
- (i) We are not convinced that there is a clear prior definition of these projects which would allow the Utility Regulator to determine with confidence that there had not been substantial changes to the nature and scope of these projects or to determine the extent of such changes.
 - (ii) This is of particular importance where a project was listed in Table 7 of Annex 2 on the understanding that they would be carried out in RP5 which will now be carried out in RP6 or possibly post RP6. It would then be necessary to have maintained a clear record of the ‘nature and scope’ of these projects as defined when the allowances included in Table 7 of Annex 2 of the transmission licence were determined.

- (iii) The passage of time increases the risk that the needs of these nominated projects will have changed to reflect further aging of the assets and revised estimates of future load. What may have been a simple robust process where a project sum was identified in the RP5 determination and the project delivered in the RP5 price control becomes increasingly problematic the later the project is delivered.
- (iv) The efficiency assumptions and the inflation assumptions (including real price effects) applied to these projects in the assessment made by the Competition Commission (now the CMA) in its determination for RP5 have become less relevant with the passage of time.

7.36 For these reasons, we have concluded that the figures included in Table 7 of Annex 2 of the transmission licence, which represent a value of these projects determined by the Competition Commission in March 2014 should not form the basis of the determination of capital allowances for work which might be undertaken in 2023. Deleting this paragraph will allow appropriate values to be determined by the Utility Regulator when the true nature and scope of the projects have been established. This provides reasonable protection for both consumers and NIE Networks while avoiding an imprecise and inconclusive process of comparing the nature and scope of a future project against a starting point which was defined sometime in the past.

Transmission – delete existing term ACTS_t

- 7.37 We will delete existing term ACTS_t from Annex 2 of the transmission licence. This is necessary because we will create a new general term ACTR_t which will encompass all capital allowances which were not included in the RP6 final determination and subsequently determined by the Authority under paragraph 4.35 of the transmission licence.
- 7.38 The existing term ACTS_t was specifically for investment to address transmission system capacity and capability. This category of investment will be covered in the new licence paragraph 4.35 and the new term ACTR_t.

Transmission – new term ACTR_t

- 7.39 The introduction of a new term ACTR_t (*the allowed capex (if any) in an amount determined by the Authority (in a published decision giving reasons) to be appropriate in accordance with paragraph 4.33*) is necessary to allow additional capex which was not included in the RP6 final determination and subsequently determined by the Authority under paragraph 4.35 of the transmission licence to be included in the determination of annual revenues under the licence.

Transmission – inclusion of new term ACTR_t in the equation for existing term CI_t

- 7.40 *The inclusion of the new term into the equation for existing term CI_t such that the amended equation for CI_t reads:*

$$CI_{t} = (AC_{Xt} + ACIA_{Xt} + \mathbf{ACTR_{Xt}} + ACCOL_{Xt} - (QCE_{Xt} - DIQCE_{Xt})) * 50\%$$

is necessary to ensure that the term ACTR_t is accounted for in the 50/50 cost risk sharing mechanism. If this modification is not made, the existing equations in Annex 2 of the licence would result in NIE Networks funding half the additional capital allowances determined.

Transmission – introduction of new paragraphs 4.33 to 4.35 in respect of the determination of additional capital allowance not included in the RP6 final determination

- 7.41 In general, the introduction of new paragraphs 4.33 to 4.35 in respect of the determination of additional capital allowances not included in the RP6 final determination is necessary to give effect to the uncertainty mechanisms of the RP6 final determination, which does not of itself include determined capital allowances necessary to:
- address transmission system capacity or capability;
 - address major transmission system maintenance requirements; and,
 - undertake trials and innovation to inform future investment.
- 7.42 The introduction of **paragraph 4.33** to the transmission licence is necessary to provide a descriptive title for the subsequent paragraphs and establishes a link to the term ACTR_X_t as the term used to capture any additional capital allowances determined by the Authority under the subsequent paragraphs.
- 7.43 The introduction of **paragraph 4.34** to the transmission licence is necessary to allow the Authority to determine additional capital allowances for three defined areas of capital investment for which allowances were not included in the RP6 final determination. These three defined areas are set out below.
- a) **Address transmission system capacity or capability.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.69.
 - b) **Address major transmission system maintenance requirements.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.73.
 - c) **Undertake trials and innovation to inform future investment.** The reasons for not determining allowances in respect of this work and allowing additional capital allowances to be determined during RP6 are set out in the RP6 final determination, beginning at paragraph 9.77.
- 7.44 The reason for including the phrase “*for the expected incremental efficient costs to:*” in paragraph 4.34 is to:
- clarify that the determination of any additional capital allowances in RP6 will take into account the capital allowances and outputs already included in the RP6 determination, an additional allowance will not include any element of cost or output already funded under the determined allowances; and,
 - clarify that only efficient costs will be included in any additional capital allowance determined by the Utility Regulator.
- 7.45 Sub paragraph (a) of paragraph 4.35 is necessary to confirm that no additional capital allowance may be determined for any output already funded through the allowances already determined through the RP6 final determination. This will prompt both NIE Networks and the Utility Regulator to carefully consider each proposal for additional allowances to exclude any outputs already paid for by consumers through indirect allowances, unitised direct capital allowances, or lump sum direct capital allowances included in the RP6 final determination.

- 7.46 The RP6 final determination does not make provision for the investment necessary to upgrade the capacity or capability of the transmission network. The reason for not including allowances for this type of work in the RP6 final determination is that they are material projects whose nature, scope and cost remained uncertain at the time of the RP6 final determination. In particular, the investment is made with the support of the Transmission System Operator (SONI) as and when the need arises. A mechanism which allowed the Utility Regulator to determine additional allowances in respect of this work, colloquially known as the D5 mechanism, was included in Annex 2 of the transmission licence as part of the RP5 licence modifications. As part of the effort to simplify the licence in the face of additional categories of work in RP6 which could result in the determination of additional capital allowances, the existing licence paragraph relating to transmission system capacity and capability will be deleted and this type of work included within the scope of a more general paragraph covering additional capital allowances. Sub paragraph (b) of paragraph 4.35 is necessary to confirm that additional allowances for **transmission system capacity and capability** projects will only be determined for projects which are sufficiently material and have been requested by the relevant system operator (e.g. SONI) in line with the Transmission Interface Agreement, in a submission which is in such format and contains such information as may be specified by the Authority (e.g. including whole life costs and benefits in an objective cost benefit analysis). The wording of this sub-paragraph is consistent with the wording agreed with the Competition Commission during the development of the RP5 licence modifications.
- 7.47 Other work necessary to deliver the RP6 final determination and maintain compliance with all network codes and standards and network safety requirements is funded through the allowances included in the RP6 final determination unless covered by this or another exception identified in the licence. Sub-paragraph (c) of paragraph 4.35 clarifies that any additional capital allowance determined in respect of transmission system capacity and capability will not include investment which takes the form of asset replacement expenditure not necessary for the purpose of increasing the capacity or capability of the transmission network.
- 7.48 The RP6 final determination includes capital allowances for the general replacement of the transmission network. However, certain nominated projects were specifically excluded from this assessment because they are material projects whose nature, scope and cost remained uncertain at the time of the RP6 final determination. Sub paragraph (d) of paragraph 4.35 is necessary to confirm that additional allowances for **major transmission system maintenance projects** will only be determined for projects identified in the RP6 final determination beginning at paragraph 9.75.
- 7.49 In its RP6 business plan submission, NIE Networks proposed a range of trials and innovation works to inform future investment decisions. While the Utility Regulator is convinced for the need for this type of work, we were not convinced that the trial designs included in the business plan submission were sufficient to allow for an allowance to be determined in the RP6 final determination. Paragraph 4.35 of Annex 2 of the transmission licence makes provision for additional allowances to be determined to support this type of work. Sub paragraph (e) of paragraph 4.35 is necessary to confirm that allowances necessary to **undertake trials and innovation to inform future investment** will only be determined up to a limit of £6.36 million in 2015/16 prices combined for both the NIE Networks distribution and transmission licences.
- 7.50 It may be necessary for the Utility Regulator to define the procedures it will follow in respect of the determination of additional capital allowances to ensure that robust and efficient processes are followed in the determination of additional capital allowances. The RP6 final determination does not set out specific requirements for the procedures the Utility Regulator is to follow when determining additional capital

allowances under these licence modifications. Sub-paragraph (f) of paragraph 4.35 is necessary to allow the Utility Regulator to define the procedures it will follow in respect of such determinations as the need arises and to reflect the particular circumstances of each individual determination.

- 7.51 It may be necessary for the Utility Regulator to define the information it requires for the purpose of making a determination in respect of additional capital allowances. The RP6 final determination does not set out specific information requirements which are likely to be different in each specific instance. Sub-paragraph (g) of paragraph 4.35 is necessary to allow the Utility Regulator to define the information it required for the purpose of making each individual decision, including the manner, format and timescale for that information.
- 7.52 It may be necessary for the Utility Regulator to set conditions which NIE Networks must comply with in respect of additional capital allowances to secure the delivery of the associated additional outputs and protect the interests of consumers. For example specific conditions which might apply to the timely delivery of an output. The RP6 final determination does not set out any conditions the Utility Regulator may apply to the determination of an additional capital allowance. Sub-paragraph (h) of paragraph 4.35 is necessary to allow the Utility Regulator to define conditions NIE Networks will be required to comply with in relation to additional capital allowances to reflect the particular circumstances of each individual determination including conditions in relation to monitoring, auditing and reporting as the need arises. Sub-paragraph (h) confirms that the conditions the Licence might be required to comply with may include the delivery date of milestone (including financial consequences in respect of the amount set out in the determination) for non-compliance with the delivery date or milestones. This is in line with the principle set out in the Competition Commission final determination in RP5 for the D5 mechanism.

Effects

Distribution and transmission – general

- 7.53 A general effect of the licence modifications make provision for the Utility Regulator to determine additional capital allowances not already allowed for in the RP6 final determination for defined reasons and makes the necessary adjustments to the licence to allow NIE Networks to recover sufficient revenue to enable it to finance the activities which are the subject of its licence obligations and additional capital outputs.

Distribution – new term $ACDR_{X_t}$

- 7.54 The effect of introducing a new term $ACDR_{X_t}$ (*the allowed capex (if any) in an amount determined by the Authority (in a published decision giving reasons) to be appropriate in accordance with paragraph 4.36*) into the distribution licence is to allow additional capex which was not included in the RP6 final determination and subsequently determined by the Authority under paragraph 4.37 of the distribution licence to be included in the determination of annual revenues under the licence.

Distribution – inclusion of new term $ACDR_{X_t}$ in the equation for existing term CI_{X_t}

- 7.55 The effect of including new term $ACDR_{X_t}$ in the licence equation for existing term CI_{X_t} of Annex 2 of the distribution licence is to include the additional allowances determined under paragraph 4.37 of the distribution licence in the assessment of the 50/50 cost risk sharing mechanism. This ensures that NIE Networks will be financed for the value of the additional capital allowance, subject to the application of the 50/50 cost risk sharing mechanism.

Distribution – introduction of new paragraphs 4.36 to 4.38 in respect of the determination of additional capital allowance not included in the RP6 final determination

- 7.56 The general effect of introducing new paragraphs 4.36 to 4.38 in respect of the determination of additional capital allowance not included in the RP6 final determination is to allow the Utility Regulator to determine capital allowances for work specifically excluded from the RP6 final determination to the extent that the work falls under the scope of these paragraphs.
- 7.57 The effect of referencing the term $ACDR_{X_t}$ in paragraph 4.36 is to allow additional capital allowances determined by the Utility Regulator pursuant to this paragraph to be accounted for in the existing term CI_{X_t} . This has effect of making the additional allowance subject to the 50/50 cost risk sharing mechanism.
- 7.58 The effect of paragraph 4.37 is to limit the determination of additional capital allowances for distribution works to four defined categories which:
- address nominated distribution projects;
 - undertake trials and innovation to inform future investment;
 - address load growth due to the introduction of low carbon technologies; and,
 - address congestion on the 33kV network due to generation connections.
- 7.59 The effect of the wording in paragraph 4.37 “*for the expected incremental efficient costs to*” is to:
- confirm that the determination of any additional capital allowances in RP6 will take into account the capital allowances and outputs already included in the RP6 determination, an additional allowance will not include any element of cost or output already funded under the determined allowances; and,
 - confirm that only efficient costs will be included in any additional capital allowance determined by the Utility Regulator.
- 7.60 The effect of sub-paragraph (a) of paragraph 4.38 is to confirm that no allowance may be determined in respect of any output already funded through the allowances already determined through the RP6 final determination. This has the effect of avoiding double funding outputs.
- 7.61 The effect of sub-paragraph (b) of paragraph 4.38 is that the determination of additional capital allowances **for nominated distribution projects** will be limited to only those projects defined in the RP6 final determination.
- 7.62 The effect of sub-paragraph (c) of paragraph 4.38 is that the determination of additional capital allowances **to undertake trials and innovation to inform future investment** is limited to £6.36 million in 2015/16 prices for distribution and transmission investment combined.
- 7.63 The first effect of sub-paragraph (d) of paragraph 4.38 is to limit the investment for additional capital allowances to address **load growth due to the introduction of low carbon technologies** to the last three years of RP6. Allowances prior to this period are included in the RP6 final determination. The second effect of the sub-paragraph is to require a determination of any additional capital allowance in advance of the last three years of RP6, unless the UR determines otherwise.
- 7.64 The first effect of sub-paragraph (e) of paragraph 4.38 is to limit the determination of additional capital allowances to address **congestion on the 33kV network due to generation connections** to investment in the 33kV network only. The second effect

is to limit the determination of any additional capital allowances to those necessary to accommodate generation connections. The final effect of the sub-paragraph is to clarify that additional capital allowances will only be determined under this category where the investment is not required for other reasons of load growth or asset replacement.

- 7.65 The effect of sub-paragraph (f) of paragraph 4.38 is to require the company to submit such information as the Utility Regulator requires to determine additional capital allowances.
- 7.66 The effect of sub-paragraph (g) of paragraph 4.38 is to allow the Utility Regulator to follow such procedures as it considers appropriate before making a determination of additional capital allowances under this paragraph of the distribution licence.
- 7.67 The effect of sub-paragraph (h) of paragraph 4.38 is to allow the Utility Regulator to make its determination subject to such conditions with which NIE Networks shall be required to comply. This includes determining the delivery date or milestones and the consequences (including financial consequences) for non-compliance with the delivery date or milestones.

Transmission – amended paragraphs 4.35 to 4.37 relating to investment in transmission system capacity and capability.

- 7.68 The first effect of amending paragraphs 4.35 to 4.37 from Annex 2 of the existing transmission licence is to remove provisions of the licence made redundant by the amendments to of paragraph 4.35 which allows the determination of additional capex which was not included in the RP6 final determination and subsequently determined by the Authority. The existing paragraphs of the licence which are to be amended refer to capital allowances to address transmission system capacity or capability, which will become one of a number of criteria covered by amended paragraph 4.35.
- 7.69 The second effect of deleting paragraphs 4.35 (e) of Annex 2 of the existing transmission licence is to remove determined values for specified projects. These values were included in the RP5 licence modifications on the basis that the allowances determined for these schemes would be based on these pre-determined values unless there was a substantial change to the nature or scope of these projects. We will not re-produce this stipulation within the new paragraph 4.35. The effect of removing this stipulation is that there is no pre-determined amount for these projects and any future allowance will be determined by the Utility Regulator in accordance with paragraph 4.35 at a time when the nature and scope of the projects are better understood.

Transmission – delete existing term ACTS_t

- 7.70 The effect of deleting existing term ACTS_t from the transmission licence, included the existing equation for term CI_t is to delete a term which becomes redundant on the amendments of paragraphs 4.35 to 4.37 from Annex 2 of the existing transmission licence.

Transmission – new term ACTR_t

- 7.71 The effect of introducing a new term ACTR_t (*the allowed capex (if any) in an amount determined by the Authority (in a published decision giving reasons) to be appropriate in accordance with paragraph 4.33*) into the transmission licence is to allow additional capex which was not included in the RP6 final determination and subsequently determined by the Authority under paragraph 4.34 of the transmission licence to be included in the determination of annual revenues under the licence.

Transmission – inclusion of new term ACTR_t in the equation for existing term CI_t

- 7.72 The effect of including new term ACTR_t in the licence equation for existing term CI_t of Annex 2 of the transmission licence is to include the additional allowances determined under paragraph 4.34 of the transmission licence in the assessment of the 50/50 cost risk sharing mechanism. This ensures that NIE Networks will be financed for the value of the additional capital allowance, subject to the application of the 50/50 cost risk sharing mechanism.

Transmission – amendment of paragraphs 4.33 to 4.35 in respect of the determination of additional capital allowance not included in the RP6 final determination

- 7.73 The general effect of introducing new paragraphs 4.33 to 4.35 in respect of the determination of additional capital allowance not included in the RP6 final determination is to allow the Utility Regulator to determine capital allowances for work specifically excluded from the RP6 final determination to the extent that the work falls under the scope of these paragraphs.
- 7.74 The effect of referencing the term ACTR_t in paragraph 4.33 is to allow additional capital allowances determined by the Utility Regulator pursuant to this paragraph to be accounted for in the existing term CI_t. This has the effect of making the additional allowance subject to the 50/50 cost risk sharing mechanism.
- 7.75 The effect of paragraph 4.34 is to limit the determination of additional capital allowances for transmission works to three defined categories which:
- address transmission system capacity or capability;
 - address major transmission system maintenance requirements; and,
 - undertake trials and innovation to inform future investment.
- 7.76 The effect of the wording in paragraph 4.34 “*for the expected incremental efficient costs to*” is to:
- confirm that the determination of any additional capital allowances in RP6 will take into account the capital allowances and outputs already included in the RP6 determination, an additional allowance will not include any element of cost or output already funded under the determined allowances; and,
 - confirm that only efficient costs will be included in any additional capital allowance determined by the Utility Regulator.
- 7.77 The effect of sub-paragraph (a) of paragraph 4.35 is to confirm that no allowance may be determined in respect of any output already funded through the allowances already determined through the RP6 final determination. This has the effect of avoiding double funding of outputs.
- 7.78 The effect of sub-paragraph (b) of paragraph 4.35 is that the determination of additional capital allowances for **transmission system capacity and capability** will be limited to only those projects which are sufficiently material and have been requested by the relevant system operator (e.g. SONI) in line with the Transmission Interface Agreement, in a submission which is in such format and contains such information as may be specified by the Authority for that purpose (e.g. including whole life costs and benefits in an objective cost benefit analysis).
- 7.79 The effect of sub-paragraph (c) of paragraph 4.35 is to clarify that any additional capital allowance determined in respect of transmission system capacity and

capability will not include investment which takes the form of asset replacement expenditure not necessary for the purpose of increasing the capacity or capability of the transmission network.

- 7.80 The effect of sub-paragraph (d) of paragraph 4.35 is to confirm that additional allowances for **major transmission system maintenance projects** will only be determined for projects identified in the RP6 final determination beginning at paragraph 9.73.
- 7.81 The effect of sub-paragraph (e) of paragraph 4.35 is that the determination of additional capital allowances **to undertake trials and innovation to inform future investment** is limited to £6.36 million for distribution and transmission investment combined.
- 7.82 The effect of sub-paragraph (f) of paragraph 4.35 is to allow the Utility Regulator to follow such procedures as it considers appropriate before making a determination of additional capital allowances under this paragraph of the distribution licence.
- 7.83 The effect of sub-paragraph (g) of paragraph 4.35 is to require the company to submit such information as the Utility Regulator requires to determine additional capital allowances.
- 7.84 The effect of sub-paragraph (h) of paragraph 4.35 is to allow the Utility Regulator to make its determination subject to such conditions with which NIE Networks shall be required to comply.

8 Undereaves volume driven allowance

Overview

- 8.1 The licence modifications in this chapter make provision for the determination of a volume driven allowance for the replacement of existing undereaves mains and services attached to properties.
- 8.2 In its RP6 business plan NIE Networks identified a volume of work to complete the replacement of cables insulated with PolyButylJute (PBJ). The company then plans to continue this type of work by replacing cable with single layer PolyVinylChloride (PVC) insulation. While the company assumed that this work would continue at the same number of annual outputs delivered in the past, it was not able to provide sufficient evidence and information to support its assumption that the number of defective outputs in existence will be at least the number it proposed to carry out in RP6.
- 8.3 In these circumstances we did not consider it appropriate to include a typical unitised direct capital allowance in the final determination whereby the company has a reasonable expectation that it can deliver up to the defined volume. We have therefore an additional volume driver for undereaves work which will be calculated using a pre-determined unit rate for the volume delivered up to the maximum of the volume proposed in the company's business plan.
- 8.4 To allow the capital allowance calculated using the undereaves volume driver to flow through to revenue, it is necessary to introduce an additional term UVA_t into the distribution licence which is the product of the number of undereaves outputs replaced and the pre-determined unit rate for undereaves replacement.

Consultation Responses and the UR's Consideration of Responses

- 8.5 We did not receive any consultation responses in this area and have decided to adopt the principles proposed in our licence modification consultation document for NIE.

Licence Modifications

Distribution licence modifications

- 8.6 We will introduce a new term UVA_t into the distribution licence defined as: *the allowed capex in respect of the undereaves volume driven allowance and shall be determined in accordance with paragraph 4.35*
- 8.7 We will include the new term UVA_t in the equation which calculates the allowed capex in respect of RAB_{DN} ;
- $$AC_{DN_t} = (ACA_{DN_t} + UVA_t) * RPI_t / RPI_{2016}$$
- 8.8 We will introduce new paragraph 4.35 into Annex 2 of the distribution licence such that:
- For the purposes of paragraph 4.34, the undereaves volume driven allowance (UVA_t) shall be calculated as follows:*

$$UVA_t = UV_t * UAU_{2016}$$

Where:

UV_t means the volume of properties with undereaves services and/or mains replaced, in respect of Regulatory Reporting Year t , as reported to the Authority

by the Licensee and shall not exceed a total of 19,500 properties in RP6 price control period; and

UAU₂₀₁₆ is the undereaves allowance unit cost, in 2016 price base, in respect of Regulatory Reporting Year t,

The value of UAU₂₀₁₆ is £418.94 per unit adjusted for the frontier shift for the relevant year. The values for each year of the RP6 period are tabulated in the licence modifications.

Year	t=2018	t=2019	t=2020	t=2021	t=2022	t=2023	t = 2024
RAB_UAU_2016	411.86	408.36	404.89	401.46	398.05	394.67	391.32

Table 14 – The Distribution Business undereaves allowance unit cost for UAU₂₀₁₆ for each Regulatory Reporting Year t (£, 2016 prices)

Reasons

Distribution – introduction of new term UVA_t

- 8.9 The introduction of a new term UVA_t (*the allowed capex in respect of the undereaves volume driven allowance as set out at paragraph 4.35*) in Annex 2 of the distribution licence is necessary to allow the volume driver allowance for undereaves work to be included in the determination of annual revenues under the licence.

Distribution – including of new term UVA_t in the equation for existing term AC_{DNt}

- 8.10 The inclusion of the new term UVA_t into the equation for existing term AC_{DNt} such that the equation for AC_{DNt} reads:

$$AC_{DNt} = (ACA_{DNt} + UVA_t) * RPI_t / RPI_{2016}$$

is necessary to ensure that the term UVA_t is accounted for in the 50/50 cost risk sharing mechanism. If this modification is not made, the existing equations in Annex 2 of the licence would result in NIE Networks funding half the additional capital allowances determined.

Distribution – introduction of new paragraph 4.35

- 8.11 In general, the introduction of new paragraph 4.35 in respect of the determination of a volume driven allowance for undereaves replacement is necessary to give effect to the uncertainty mechanisms of the RP6 final determination in respect of undereaves replacement. The reasons for not determining an allowance in respect of this work but introducing a new volume driven allowance for RP6 are set out in the RP6 final determination, beginning at paragraph 13.76.
- 8.12 The reason for including the formula $UVA_t = UV_t * UAU_{2016}$ is to provide for the calculation of the volume driven capital allowance for undereaves work from the terms defined in the paragraph.
- 8.13 The reason for defining the term UV_t in the new paragraph as

“the volume of properties with undereaves services and/or mains replaced, in respect of Regulatory Reporting Year t, as reported to the Authority by the

Licensee and shall not exceed a total of 19,500 properties in RP6 price control period”

is to ensure that NIE Networks is financed for the outputs it delivers up to a total of the 19,500 properties identified by the company in its business plan.

- 8.14 The reason for defining the term UAU_{2016} in the new paragraph as

“the undereaves allowance unit cost, in 2016 price base, in respect of Regulatory Reporting Year t ”

and then defining the amount of the unit cost for each year of the RP6 period is to ensure that NIE Networks is financed for the outputs delivered at a pre-determined efficient unit rate set out in the RP6 final determination subject to the application of the frontier shift.

Effects

Distribution – general

- 8.15 A general effect of the licence modifications in this section is to make provision for the Utility Regulator to determine a volume driven capex allowance to allow NIE Networks to recover sufficient revenue to enable it to finance the activities which are the subject of its licence obligations and deliver undereaves replacement outputs.

Distribution – introduction of new term UVA_t

- 8.16 The introduction of a new term UVA_t (*the allowed capex in respect of the undereaves volume driven allowance as set out at paragraph 4.35*) into Annex 2 of the distribution licence is to allow the volume driven capital allowance for undereaves work to be included in the determination of annual revenues under the licence.

Distribution – including of new term UVA_t in the equation for existing term AC_{DN_t}

- 8.17 The effect of including new term UVA_t in the licence equation for term AC_{DN_t} of Annex 2 of the distribution licence is to include the volume driven capital allowance for undereaves work determined under paragraph 4.35 of the distribution licence in the assessment of the 50/50 cost risk sharing mechanism. This ensures that NIE Networks will be financed for the value of the additional capital allowance.

Distribution – introduction of new paragraph 4.35

- 8.18 The general effect of introducing new paragraph 4.35 in respect of the an undereaves volume driver is to allow the Utility Regulator to determine capital allowances for undereaves work in relation to the extent of work delivered.
- 8.19 The effect of including the formula $UVA_t = UV_t * UAU_{2016}$ is to allow a calculation of the volume driven capital allowance for undereaves work from the terms defined in the paragraph.
- 8.20 The effect of defining the term UV_t in the new paragraph as
- “the volume of properties with undereaves services and/or mains replaced, in respect of Regulatory Reporting Year t , as reported to the Authority by the Licensee and shall not exceed a total of 19,500 properties in RP6 price control period”*

is to ensure that NIE Networks is financed for the outputs it delivers up to a total of the 19,500 properties identified by the company in its business plan.

- 8.21 The effect of defining the term UAU_{2016} in the new paragraph as

“the undereaves allowance unit cost, in 2016 price base, in respect of Regulatory Reporting Year t”

and then defining the amount of the unit cost for each year of the RP6 period, ensures that NIE Networks is financed for the outputs delivered at a pre-determined efficient unit rate set out in the RP6 final determination subject to the application of the frontier shift.

9 Rate of Return Adjustment Mechanism

Overview

- 9.1 NIE will need to refinance some of its existing debt during the RP6 period; it may also choose to raise new debt to finance new investment. These things mean that there is some uncertainty about the full interest costs that NIE will pay over the next six and a half years.
- 9.2 In assembling this determination, we have considered whether we should factor a fixed forecast of the company's financing costs into the RP6 allowed return. We note that there is an inevitable uncertainty about what these costs will be and that over- or under-estimating future interest payments will result in NIE earning excess returns or sub-normal returns for several years until the RP7 reset of price controls. Elsewhere in the UK's regulated industries, there have been criticisms of such 'windfall' gains and losses, with the likes of the National Audit Office and the UK government highlighting that it is unfair for regulation to be set up in such a way as to produce outcomes in which prices are likely to be significantly higher or significantly lower than they need to be in order to cover companies' actual costs of debt.
- 9.3 Against this background, we consider that it is in the best interests of both consumers and investors that we should provide for the allowed rate of return to adjust up or down in line with prevailing interest rates at the point(s) when NIE takes out new debt. NIE has indicated its support for this kind of approach.

Consultation Responses and the UR's Consideration of Responses

- 9.4 NIE responded with a small change in the wording of the $VWACC_t$ definition to include Annex H which deals with the provisions and details on the debt mechanism. NIE have suggested the following wording
- 9.5 "means the vanilla weighted average cost of capital in Regulatory Reporting Year t and has a value equal to the value specified in Annex I at cell B42 of the Final Determination Paper until otherwise amended by the Authority in accordance with the provisions of Annex H and the calculation as specified in Annex I, and notified to the Licensee.
- 9.6 However, we have not accepted NIEs suggested wording as we consider that it is unnecessary to include the specific cell reference. We will therefore include the following wording:
- 9.7 "means the vanilla weighted average cost of capital in Regulatory Reporting Year t and has a value equal to the value specified in Annex I of the Final Determination Paper (in accordance with the provisions of Annex H of the Final Determination), as amended from time to time by the Authority in accordance with the provisions of Annex I and notified to the Licensee."
- 9.8 For the reasons cited above in respect of the $VWACC_t$, NIE responded with a small change in the wording of the $NCOD$ definition. As above we have not accepted NIEs suggested working and therefore have included the following wording:
- 9.9 "means the notional nominal cost of debt in Regulatory Reporting Year t and has a value equal to the value specified in Annex I of the Final Determination Paper (in accordance with the provisions of Annex H of the Final Determination), as amended

from time to time by the Authority in accordance with the provisions of Annex I and notified to the Licensee.”

Licence Modifications

Transmission

9.10 We will introduce a rate of return adjustment mechanism as discussed within chapter 12, Annex H and Annex I of the final determination.

9.11 We will amend Annex 2 - 5.1 of the Transmission Licence to

VWACC_t means the vanilla weighted average cost of capital in Regulatory Reporting Year *t* and has a value equal to the value specified in Annex I of the Final Determination Paper (in accordance with the provisions of Annex H of the Final Determination), as amended from time to time by the Authority in accordance with the provisions of Annex I and notified to the Licensee.

9.12 A full marked up version of this modification can be found in Appendix 1.

9.13 We will amend Annex 2 - 9.1 of the Transmission Licence to

NCOD means the notional nominal cost of debt in Regulatory Reporting Year *t* and has a value equal to the value specified in Annex I of the Final Determination Paper (in accordance with the provisions of Annex H of the Final Determination), as amended from time to time by the Authority in accordance with the provisions of Annex I and notified to the Licensee.

9.14 A full marked up version of this modification can be found in Appendix 1.

Distribution

9.15 We will introduce a rate of return adjustment mechanism as discussed within chapter 12, Annex H and Annex I of the final determination.

9.16 We will amend Annex 2 - 5.1 of the Transmission Licence to

VWACC_t means the vanilla weighted average cost of capital in Regulatory Reporting Year *t* and has a value equal to the value specified in Annex I of the Final Determination Paper (in accordance with the provisions of Annex H of the Final Determination), as amended from time to time by the Authority in accordance with the provisions of Annex I and notified to the Licensee.

9.17 A full marked up version of this modification can be found in Appendix 2.

9.18 We will amend Annex 2 - 5.1 of the Transmission Licence to

VWACC_t means the notional nominal cost of debt in Regulatory Reporting Year *t* and has a value equal to the value specified in Annex I of the Final Determination Paper (in accordance with the provisions of Annex H of the Final Determination), as amended from time to time by the Authority in accordance with the provisions of Annex I and notified to the Licensee.

9.19 A full marked up version of this modification can be found in Appendix 2.

Reason

9.20 We have considered whether we should factor a fixed forecast of the company's financing costs into the RP6 allowed return. We note that there is an inevitable uncertainty about what these costs will be and that over- or under-estimating future

interest payments will result in NIE earning excess returns or sub-normal returns for several years until the RP7 reset of price controls.

- 9.21 We consider that it is in the best interests of both consumers and investors that we should provide for the allowed rate of return to adjust up or down in line with prevailing interest rates at the point(s) when NIE takes out new debt.

Effects

- 9.22 The effect of the modifications will be to adjust the allowances for NIE. The adjusted rate of return will be considered as part of RP7 and also as part of the tariff setting process during the RP6 period. This should avoid any significant build-up of under or over recoveries.
- 9.23 Further details on the mechanism, including related reasons for and effects of them, can be found in chapter 12 Financial Aspects, Annex H and Annex I of the final determination.

10 Next Steps

Conclusion and next steps

- 10.1 This paper represents the Utility Regulator’s decision on modifications to NIE’s Transmission and Distribution licences and the modifications outlined in this decision paper will take effect from the 2nd October 2017.
- 10.2 Table 15 summarises the next steps and associated timelines for the licence modification process.

Next Steps	Proposed Date
Decision on licence modifications pursuant to the GD17 final determination and other regulatory decisions	7 August 2017
Start of RP6 price control period and effective date of licence modification decision	2 October 2017

Table 15: Next Steps

- 10.3 We note that this timetable allows for the effective date of the licence modifications to be at least 56 days after the publication of the licence modification decision, in line with the requirements of Article 14 of the Electricity (Northern Ireland) Order 1992. This period provides an opportunity for the licence holder subject to the price control, any other licence holder materially affected by the decision, a qualifying body or association representing one of those licence holders, and/or the Consumer Council for Northern Ireland to appeal the decision on the licence modifications to the CMA (Competition and Markets Authority).
- 10.4 An application to the CMA for permission to appeal must be made within 20 working days from the 7th August 2017.

Appendices

Appendix Number	Appendix Name
Appendix 1	Article 14 modifications to Annex 2 of the Transmission Licence
Appendix 2	Article 14 modifications to Annex 2 of the Distribution Licence
Appendix 3	Notice under Article 14(2) of the Electricity (Northern Ireland) Order 1992 – Modifications to Annex 2 of the Transmission Licence Held by Northern Ireland Electricity Networks (Ltd)
Appendix 4	Notice under Article 14(2) of the Electricity (Northern Ireland) Order 1992 – Modifications to Annex 2 of the Distribution Licence Held by Northern Ireland Electricity Networks (Ltd)
Appendix 5	Reliability Incentive Model