

Northern Ireland Electricity Limited

Transmission and Distribution
RP5 Price Control

**Statement of Case
to the
Competition Commission**

10 May 2013



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CHAPTER 1

INTRODUCTION

1. BACKGROUND TO AND SCOPE OF THIS SUBMISSION

- 1.1 Northern Ireland Electricity Limited (**NIE**) owns the electricity transmission and distribution network in Northern Ireland (**NI**).
- 1.2 An overview of NIE's business since privatisation and of the regulatory environment in which it operates is set out in Annex 1A.1 (Historical and Regulatory Background) to this Statement of Case.
- 1.3 NIE holds both a 'Participate in Transmission Licence' and an 'Electricity Distribution Licence' (each a **Licence** and collectively the **Licences**), granted under Article 10 of the Electricity (Northern Ireland) Order 1992 (**Electricity Order**). Each Licence is subject to conditions, including price control conditions as to the maximum amounts which NIE may levy by way of use of system charges on users of its Transmission and Distribution (**T&D**) network. The present price control is contained in Annex 2 to each Licence¹.
- 1.4 Since privatisation in 1992, NIE has been subject to a series of T&D price controls, with each earlier control being modified pursuant to a periodic regulatory review. The present price control was adopted to apply for a fourth regulatory period (**RP4**) running from 1 April 2007 to 31 March 2012. In fact, however, because of delays in the completion of the most recent periodic review, the RP4 price control has been extended, first until 30 September 2012, and then until 31 December 2012. The background to, and NIE's significant concerns with, these two extensions of the RP4 price control are provided in Annex 1A.2 (RP4 Extensions).
- 1.5 On 23 October 2012, the Utility Regulator completed its most recent periodic review of NIE's T&D price control, by adopting a final determination (**Final Determination**) in which it formally proposed that NIE's T&D Business should be subject to a new T&D price control for a fifth regulatory period (**RP5**), running from 1 January 2013 to 30 September 2017. The Utility Regulator explained the substance of its proposals and the rationale for them in the Final Determination, and published, along with the Final Determination, draft licence modifications by which it intended to give effect to its proposals. If adopted, the proposed licence modifications would (among other things) have had the effect, in the case of each Licence, of substituting a new Annex 2, to replace the existing Annex 2.

¹ Regulation 90(3) of the Gas and Electricity (Internal Markets) Regulations (Northern Ireland) 2011 provides that Annex 2 to each Licence shall be taken as relating to the activities authorised by both Licences taken together.

- 1.6 On 20 November 2012, NIE rejected the formal proposals contained in the Final Determination and refused to consent to the proposed licence modifications. Accordingly, it is not now open to the Utility Regulator to adopt its proposed licence modifications pursuant to Article 14 of the Electricity Order. Instead, if (as the Final Determination implies) the Utility Regulator considers that the conditions of NIE's Licences need to be modified, it may now adopt modifications only in pursuance of a report and recommendation of the Competition Commission, in accordance with Articles 15 to 17A of the Electricity Order.
- 1.7 NIE agrees with the Utility Regulator that the T&D price control conditions of NIE's Licences need to be modified to contribute to the attainment of the statutory objectives laid down in Article 12 of the Energy (Northern Ireland) Order 2003 (**Energy Order**). However, NIE disagrees with the Utility Regulator as to what form those modifications should take.
- 1.8 This Statement of Case (**Statement**) therefore outlines NIE's case as to what should be the substance of the new price controls, focusing, in particular, on points of disagreement with the Utility Regulator's Final Determination. However, NIE is aware that it is the function of the Competition Commission to review more generally what price controls should apply to NIE for the next regulatory period, and not merely to adjudicate on points in dispute between the Utility Regulator and NIE. NIE has therefore sought to provide a full account of its assessment of its revenue requirements for RP5, including in respect of elements of its case that are not disputed by the Utility Regulator.
- 1.9 This is, however, only an initial statement of NIE's case and NIE reserves the right to supplement the evidence and arguments contained herein.

2. WHY NIE COULD NOT ACCEPT THE FINAL DETERMINATION

- 2.1 NIE was compelled to reject the Final Determination because it would allow NIE insufficient revenues to finance the activities which are necessary to enable it:
- in the short term, to provide a safe and reliable electricity transmission and distribution service to today's customers, and
 - in the longer term, to invest in the maintenance and development of the skills and assets required to provide such a service to future customers.

The Utility Regulator's proposed price control would therefore leave NIE unable adequately to finance its regulated functions and would not serve the interests of customers.

2.2 In particular, NIE considers that the Final Determination contains five key deficiencies:

1. The structure of the proposed price control departs from established principles of incentive-based regulation in favour of a system of regulation by micro-management and *ex post* revision.
2. The proposed price control provides insufficient allowed revenues to meet the needs of NIE's T&D Business.
3. The proposed arrangements for regulating network capex incorporate a rigid investment plan that would unduly constrain many of NIE's network investment decisions. Other parts of the capex arrangements involve an *ex post* review of operational decisions and/or a requirement to agree, *ex ante*, changes to capex plans. This exposes NIE to an unacceptable risk of *ex post* clawbacks.
4. These deficiencies would result in adverse consequences for customers because:
 - they risk under-investment in NIE's T&D network with consequential reductions in network resilience and performance; and
 - they substantially diminish incentives to innovate and achieve new sources of efficiency or improvements in the delivery of services to customers.
5. NIE would be compelled to expend more than the price control proposals envisage, with resultant unfair detriment to NIE's investors, and detriment to NIE's financial position and credit rating.

2.3 These are the principal reasons why NIE rejected the Final Determination and refused to consent to the Utility Regulator's proposed licence modifications.

2.4 The five key deficiencies which NIE has identified in the Final Determination are in part the product of the poor regulatory process leading to its adoption. The RP5 price control review process was characterised by a lack of transparency and meaningful two-way engagement. Had there been a better process from the outset, many of what appear to have been misunderstandings on the part of the Utility Regulator could have been addressed before they were reflected in the Final Determination.

3. PRICE BASE

- 3.1 In line with the approach adopted by the Utility Regulator in the Final Determination and throughout the RP5 review process, all costs referred to in this Statement are in 2009/10 prices unless otherwise stated.

4. EFFECTIVE START DATE FOR RP5

- 4.1 This Statement has been prepared on the basis that the effective start date for the RP5 price control is 1 January 2013.

5. RECENT DEVELOPMENTS – EU THIRD ENERGY PACKAGE

- 5.1 As explained in Section 3 of Annex 1A.1 (Historical and Regulatory Background), the European Commission in its decision of 12 April 2013 confirmed that arrangements in place in relation to the vertical integration and operation of the transmission systems belonging to NIE meet the requirements of Article 9(9) of Directive 2009/72/EC on the common rules for the internal market for electricity (the **IME3 Directive**).
- 5.2 As a consequence of this decision, NIE's transmission planning function will in due course transfer to SONI (the transmission system operator in NI). NIE is commencing discussions with the Utility Regulator to clarify the specific activities, processes and resources that will transfer to SONI.
- 5.3 The transfer of the transmission planning function to SONI is expected to impact upon a number of matters addressed in this Statement, including matters addressed in Chapter 4 (RP5 Capex – Structure), Chapter 6 (RP5 Opex) and Chapter 14 (Reporter). NIE hopes to obtain clarity on these impacts from the Utility Regulator at an early stage so as to ensure that they may be taken into consideration by the Competition Commission in its determination of the RP5 price control.

CHAPTER 2

EXECUTIVE SUMMARY

This Executive Summary is in two parts.

- Part A describes five key deficiencies in the Utility Regulator's Final Determination.
- Part B contains a summary of NIE's case as set out in Chapters 3 to 17 of this Statement.

PART A: FIVE KEY DEFICIENCIES

This Part A of the Executive Summary elaborates on what NIE considers to be five key deficiencies in the Final Determination. In summary, those five key deficiencies are:

1. The structure of the proposed price control departs from established principles of incentive-based regulation in favour of a system of regulation by micro-management and *ex post* revision.
2. The proposed price control provides insufficient allowed revenues to meet the needs of NIE's T&D Business.
3. The proposed arrangements for regulating network capex incorporate a rigid investment plan that would unduly constrain many of NIE's network investment decisions. Other parts of the capex arrangements involve an *ex post* review of operational decisions and/or a requirement to agree, *ex ante*, changes to capex plans. This exposes NIE to an unacceptable risk of *ex post* clawbacks.
4. These deficiencies would result in adverse consequences for customers because:
 - they risk under-investment in NIE's T&D network with consequential reductions in network resilience and performance; and
 - they substantially diminish incentives to innovate and achieve new sources of efficiency or improvements in the delivery of services to customers.
5. NIE would be compelled to expend more than the price control proposals envisage, with resultant unfair detriment to NIE's investors, and detriment to NIE's financial position and credit rating.

The following Sections 2 to 6 address these key deficiencies in turn. However, we start with a few preliminary comments.

1. PRELIMINARY COMMENTS

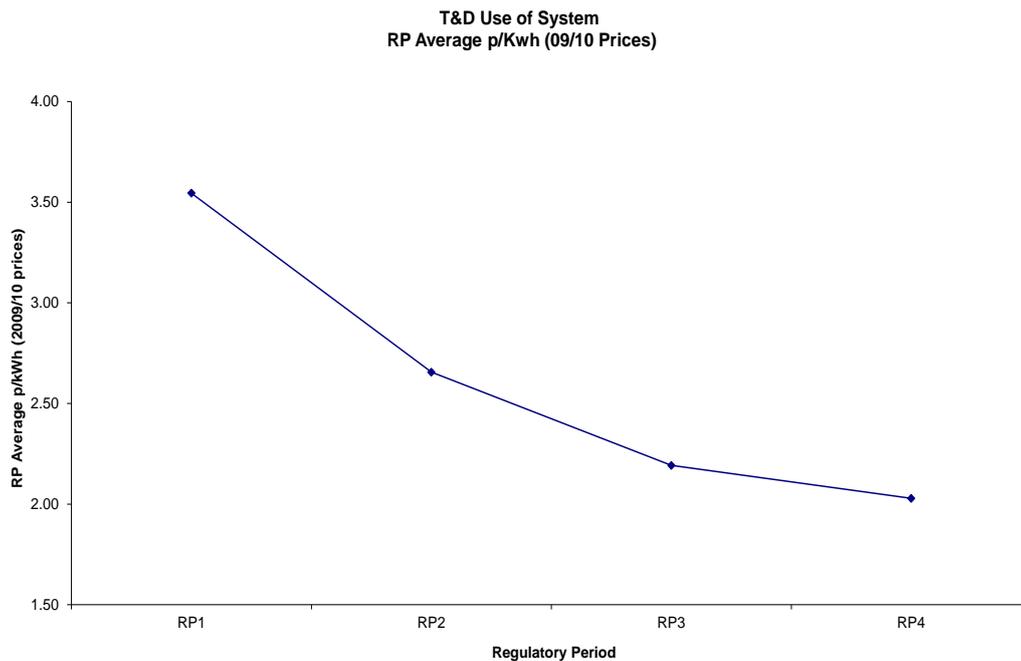
- 1.1 NIE recognises that its RP5 proposals would entail average annual increases in NIE's network charges (p/kWh) of 3.3% (excluding the cost of network expansion for renewables and interconnection). This is equivalent to an increase of approximately 0.7% per annum in overall electricity bills for customers.
- 1.2 NIE's investment plans include expenditure associated with the proposed new North-South interconnector and the connection of renewable generation in pursuit of the Department of Enterprise, Trade and Investment (DETI) target for NI of 40% of electricity consumption from renewable sources by 2020. This investment would add a further 3% to NIE's network charges at the end of RP5 (assuming £122 million of expenditure).
- 1.3 NIE understands that price increases are always unwelcome, and particularly so at a time of economic hardship for many customers. Throughout the RP5 review process, NIE has worked hard to ensure that the allowances it seeks include only work and activities which are strictly necessary to enable NIE to carry out its T&D functions to an appropriate standard and to provide a network which is fit for purpose. In setting out its cost requirements for the purpose of this Statement, NIE has again considered carefully whether, taking into account the latest information available, it can reduce further its need for funding. In a few cases, this has resulted in adjustments to the allowance sought. But in most cases, this exercise has reaffirmed the cost requirements previously identified. This reflects the rigour with which NIE approached the RP5 price review from the outset.
- 1.4 NIE has a high level of confidence that the costs it has presented in all of its submissions throughout the review process, including the forecasts presented in this Statement, are reasonable, appropriate and efficient. This confidence is borne out of:
- the strength of the processes and policies that have been used in deriving each element of the plan, including the requested amounts for opex and capex; and
 - benchmarking analysis that demonstrates the efficiency of the outcomes derived from the past application of these processes and policies.
- 1.5 We describe below how the culture of efficiency that is deeply embedded across the NIE organisation has resulted in very significant improvements in the efficiency of its cost base since privatisation. We also outline the process adopted by NIE to develop its RP5 business plan to ensure that its proposals are appropriate and well considered and that its cost requirements are kept to the strict minimum.
- 1.6 The 3.3% average annual increases in NIE's network tariffs (excluding renewables and interconnection) that would result from allowing in full NIE's cost requirements should be viewed in the context of the greater price increases for electricity

distribution network operators in GB which averaged 5.6% in the most recent price control review (DPCR5).

NIEs efficiency culture

- 1.7 NIE has operated under RPI-X price controls for over 20 years. It has responded to the incentive properties of those controls by implementing a series of initiatives and programmes designed to improve the efficiency of its cost base. This response is evident in the trends in a number of key performance indicators.
- 1.8 By way of example, manpower numbers have reduced from approximately 3,000 at privatisation to approximately 1,300¹ today.
- 1.9 The overall efficiencies which NIE has achieved are reflected in the 43% real reduction in network charges since RP1, as shown in Figure 2.2. This has been achieved against the background of significantly increased capital investment since privatisation.

Figure 2.2: Network Charges



- 1.10 Customers have also benefited from enhanced levels of customer service. For example, the key metric of network performance, 'fault customer minutes lost', is now approximately one-third of what it was at privatisation and is converging with the benchmarks established by Ofgem for GB DNOs with comparable network topologies. During RP4 there were no defaults against guaranteed standards, all targets for overall standards were met and only 20 complaints were referred to the Consumer Council for NI.

¹ The figure of 1,300 includes staff employed by NIE's affiliate, NIE Powerteam.

- 1.11 As part of its preparations for RP5, NIE engaged consultants to undertake a comprehensive review of its efficiency relative to the 14 GB DNOs who represent a challenging peer group for NIE. The results of this benchmarking (which are provided as part of this Statement) show that NIE is a leading performer within the overall class of UK DNOs. For example, NIE's efficiency performance on indirect costs is in the upper quartile².

Preparing a robust business plan

- 1.12 NIE has sought to ensure that its culture of efficiency is reflected in each element of its business plan. This is illustrated by its approach to the development of its capex plan which is summarised below. An equally robust process, tailored to the circumstances of each case, was used to develop all other aspects of the business plan.
- 1.13 NIE's principal objective in applying detailed scrutiny and challenge to its cost forecasts, in particular its capex plan, has been to ensure that only strictly necessary programmes of work have been proposed and at an efficient cost.
- 1.14 NIE's projected capex spend was determined pursuant to a lengthy, detailed and rigorous process comprised of a number of elements which are summarised below. Full details of this process are provided in Chapter 5 (RP5 Capex – Quantum).
- Clear objectives: the capex plan was prepared in order to meet a detailed set of investment objectives, developed by NIE senior management and published on the NIE website³. These objectives relate to the prudent stewardship of the asset and include:
 - ensuring an appropriate level of network resilience;
 - maintaining reasonable quality of supply;
 - complying with the relevant legislation; and
 - managing the level of age-expired equipment on the network to protect future customers.
 - Risk-based plan: The plan was derived from a risk-based and bottom-up assessment of prioritised network development and asset replacement investment requirements by NIE's experienced professional engineers using similar approaches as the GB DNOs in DPCR5. This entailed detailed consideration of network loading forecasts, network limitations, asset condition and consequences of asset failure.

² See Section 2 of Chapter 7 (NIE's Efficiency). NIE's leading performance in relation to other cost categories is explained in Sections 4 and 5 of that chapter.

³ See: <http://www.nie.co.uk/documents/Policy-Statements/P-110404-Final-Capital-InvestmentRequirements-Publ.aspx>

- Review and assessment: throughout the development of the capex plan the emerging findings were reviewed and assessed to ensure that each element of the plan was fine-tuned and fit for purpose. In particular, each element of the plan was checked to ensure that it:
 - focused on the stated investment objectives;
 - delivered value for money for customers;
 - demonstrated that credible alternatives had been costed and considered; and
 - resulted in a plan that was deliverable.

NIE's investment engineers were challenged at the outset to ensure the capex plan was minimised. Challenge from senior management produced further and substantial reductions in the capex plan, through exploiting synergies (e.g. between replacement and load-related work), optimising the use of Smart technology and increasing the level of deferral to RP6. In a separate exercise, senior management critiqued and robustly challenged each of the 43 strategy papers that supported NIE's capital investment submission.

- Expert external advice: NIE engaged Parsons Brinckerhoff (PB) to provide assistance with the preparation of its RP5 capex submission so that it was developed in a manner consistent with the processes and techniques adopted by Ofgem in DPCR5 and in the light of a detailed understanding of the comparative requirements of GB DNOs as published in Ofgem DPCR5 reports. PB was well placed to fulfil this appointment given its role as Technical Consultant to Ofgem during the DPCR5 price control review.

1.15 NIE is confident that the rigour with which its plan has been developed will be clear from the detail that is presented in this Statement and in the accompanying annexes and appendices.

Shortcomings in the RP5 review process

1.16 The Final Determination is not well supported by analysis or evidence. This is in part the product of the poor regulatory process leading to its adoption.

1.17 The Utility Regulator's review process leading up to the publication of its draft determination was characterised by a lack of transparency and meaningful two-way engagement. For example, neither the Utility Regulator nor its technical consultants undertook any site visits as part of their assessment, despite offers by NIE to arrange such visits. Consequently they missed a valuable opportunity to better understand the context and reasons for NIE's proposals, to appreciate the challenges facing the company and to form a first-hand view of the appropriate nature of the capex programme. We understand that the Utility Regulator was reluctant to allow

substantive two-way engagement before the draft determination was published because that could be seen as 'pre-consultation'. There is no legal objection to such engagement and the Utility Regulator's stance is inconsistent with the approach adopted by Ofgem.

- 1.18 While the Utility Regulator's engagement with NIE improved subsequent to the publication of the draft determination, it remained inadequate. This had a detrimental impact on the quality of analysis in the Final Determination. For example, significant elements of the capex shortfall in the Final Determination are based on benchmarking analysis that had not been explored with NIE prior to the publication of that document. This was the case in particular for the benchmarking of overhead line refurbishment and tree cutting costs. Had NIE been given the opportunity to comment on that analysis, it would have identified the flaws in the benchmarking analysis described elsewhere in this Statement⁴. The Utility Regulator would then have had the opportunity to correct both its analysis and its conclusions before they appeared in the Final Determination.
- 1.19 NIE also notes the fact that, in a number of important instances, the Utility Regulator's analysis changed very substantially between the draft determination and the Final Determination. This was, for example, the case in relation to pensions, where originally the Utility Regulator proposed to disallow a significant proportion of NIE's pension deficit repair costs for reasons which included:
- for the purpose of determining the size of the deficit to be funded, no account should be taken of movements in the deficit subsequent to the 2011 actuarial valuation;
 - a proportion of the costs relate to NIE Powerteam; and
 - a proportion of the costs arose from historical legally avoidable actions.
- 1.20 The Utility Regulator adopted a very different approach to deficit repair costs in the Final Determination which nevertheless remained detrimental to NIE's position. NIE had no opportunity to comment on the Utility Regulator's revised analysis before it appeared in the Final Determination. Other substantial changes between the analysis contained in the draft determination and the Final Determination are observed in the Utility Regulator's analysis of the alleged rationale for an adjustment to NIE's RAB⁵. While on one level it is to be welcomed that NIE's representations on the draft determination were effective in causing the Utility Regulator to review its position, it is disappointing that very substantial modifications to its overall approach were necessary at so late a stage. The need for such significant changes is suggestive of serious deficiencies in the analysis supporting the draft determination work and, in some cases, the Final Determination too.

⁴ See Section 4 of Chapter 7 (NIE's Efficiency).

⁵ See Chapter 11 (RAB adjustment).

1.21 In summary, NIE believes that, had there been a better process from the outset of the RP5 review, many of what appear to be misunderstandings or basic errors on the part of the Utility Regulator could have been addressed before they were reflected in the Final Determination.

1.22 We now address the five key deficiencies in the Final Determination.

2. DEPARTURE FROM ESTABLISHED REGULATORY PRINCIPLES

2.1 The Utility Regulator has consistently described its proposals for the RP5 price control as being based on established principles of RPI-X price control regulation. However the Utility Regulator's proposals depart from these established principles in a number of important respects.

2.2 Under the established principles of RPI-X regulation, the allowed price control revenues would be assessed on the basis of three key building blocks, namely:

- capex;
- opex; and
- return of and a return on NIE's past, present and future investment, by allowing depreciation of and an appropriate rate of return on its RAB,

with the allowed revenues being subject to adjustment according to how NIE performs against defined outputs and incentive targets.

2.3 NIE is supportive of the use of an established RPI-X approach to the RP5 price control. Under such an approach the regulator sets targets for the company based on its best view of the performance that can reasonably be expected of an efficient operator. Where those targets are subsequently beaten, the company retains the benefit for a predetermined period until the next price control is set at a level which passes on to customers the benefit of the company's efficiency gains in perpetuity. Conversely, if the company underperforms, that will reduce the return to shareholders.

2.4 However the arrangements put in place at a price control review should not be regarded solely as a mechanical exercise intended to determine a given set of cost allowances and an incentive calibration, but rather as creating a system that encourages the operator autonomously to innovate and perform efficiently. It is central to this regime that the system should provide confidence that outperformance against the specified price controls will result in benefits to shareholders, that decisions taken at previous price control reviews will not be re-opened without proper justification and that management decisions will be left to the company with a minimum of regulatory intervention. There is a wealth of evidence across numerous countries and sectors to show that, if all of these elements are in place, the resulting

incentive properties can be relied upon to deliver good outcomes for customers in terms of costs incurred and quality of outputs delivered.

2.5 Accordingly, an *ex post* review of the company's performance in a past price control period should generally be limited to:

- assessing what past performance reveals about the level at which the next price control should be set;
- checking that the company has complied with its past obligations (e.g. in correctly reporting its performance against agreed performance standards, and correctly applying any agreed rules for the assessment of its RAB, and the application of incentive mechanisms); and
- examining any variance between outturn capex and the capex programme that formed the basis of the price control for the purpose of ensuring adherence to principles established *ex ante* for the operation of that price control (e.g. logging up / down).

2.6 Any other *ex post* intervention to claw back gains achieved during a past price control period will generally interfere with the overall incentive properties of the price control system, and will create uncertainty within the regulatory framework, all to the ultimate detriment of customers.

2.7 The Final Determination does not observe these essential principles of the RPI-X approach to price control regulation. In particular:

- in respect of RP5, the Utility Regulator intends to subject all of NIE's core capex budget to a system of *ex post* detailed scrutiny. In many cases, NIE will have to justify to the Utility Regulator at a later date why it has chosen to undertake one project rather than another, and justify the cost of each project. This approach effectively changes the nature of regulation from *ex ante* to *ex post* and requires the Utility Regulator to become involved in the details of NIE's management of its business. The uncertainty created would limit the flexibility NIE needs to manage the capex programme in response to inevitable changes in network and customer priorities over a five year period. Indeed, the structure of the RP5 capex arrangements is of as much concern as the quantum of the capex allowance (as to which, see Section 3 below);
- similarly, the Utility Regulator seeks to require NIE to re-organise the way in which it runs its T&D Business by requiring NIE to put the services currently delivered by its affiliate, NIE Powerteam, out to competitive tender, instead of conducting them itself. NIE Powerteam forms an integral part of the NIE organisation and is the larger employer (it has approximately 1,000 employees whereas NIE has only approximately 300 employees). This attempt to micro-manage a large part of NIE's business is inconsistent with the principles of incentive-based regulation;

- the Final Determination re-opens elements of previous price controls (RP3 and RP4) and concludes that NIE's opening RAB for RP5 should be reduced by £31.7 million. The Utility Regulator's decision retrospectively to reduce the amount of expenditure capitalised in NIE's RAB, thereby appropriating shareholder value, is entirely without foundation as NIE has broken no regulatory rules and there are no exceptional factors justifying an *ex post* adjustment; and
- the Utility Regulator's package of incentives is poorly designed and calibrated, and too limited effectively to incentivise NIE to improve efficiency and innovation in its T&D Business. Taken together, the basic allowed return on capital, and the limited prospect of any further upside, do not provide NIE with an opportunity to be fairly rewarded for what it achieves.

2.8 In short, the Utility Regulator's proposals fail to embody the substantive benefits of incentive-based RPI-X regulation and, as such, are not in the interests of customers.

3. INSUFFICIENT ALLOWED REVENUES

3.1 The Final Determination is also seriously deficient in failing to allow NIE to raise sufficient revenues to meet the needs of its T&D Business. In particular:

- the Final Determination capex allowance is £232.8 million short of the £606.4 million identified by NIE as being required for RP5 to enable it to meet its statutory and licence obligations. Almost half of this shortfall (£115.3 million) relates to inadequate funding of the capex work volumes required by the Final Determination. With respect to work that has been disallowed:
 - no allowance has been provided to reduce the risk to customers of widespread and prolonged loss of supply in severe weather events (such as the March 2013 snow storm) resulting from ice accretion on the high proportion of small cross section conductor overhead lines on the 11kV rural network, for which NIE is now proposing a £35 million pilot scheme;
 - expenditure required for compliance with new safety-related legislation (£25 million) has been almost entirely disallowed on the erroneous basis that the works are covered by other allowances;
- the Final Determination provides inadequate funding in respect of NIE's pension deficit repair obligations. The Utility Regulator fails to recognise that NIE has already funded the proportion of early retirement pension deficit costs that falls to be funded by NIE shareholders (estimated to contribute approximately £41.2 million to the pension deficit measured at 31 March 2012) through special contributions made in 2005/6 and 2006/7. Separately, the Utility Regulator has taken improper advantage of the opportunity arising from the abandonment of the RP4 rolling pensions mechanism to deny NIE

the chance to recover £24 million of pension contributions paid by NIE in RP4 in excess of the RP4 allowances;

- The Utility Regulator has disallowed £37.5 million of controllable operating costs which are new for RP5. This includes, in particular, costs associated with the on-going support of the Enduring Solution IT system, which is essential to the operation of the competitive supply market, and the impact of real price effects during RP5. NIE's opex allowance also falls short of that required to enable NIE to recruit and train apprentices and graduates to provide the next generation of skilled staff who will be needed to maintain and develop NIE's T&D network;
- the Utility Regulator has judged that NIE is relatively inefficient, and proposes to discount the revenue allowance for opex and capex in the expectation that NIE will achieve substantial efficiency gains. But the Utility Regulator's comparison of NIE's efficiency with other companies in the sector is not robust, and its expectation of efficiency gains is unsound. Efficiency benchmarking analysis undertaken by NIE's external consultants shows that NIE is a leading performer compared with the GB DNOs;
- The Utility Regulator has disallowed £16.9 million relating to the meter certification programme that has now become necessary under legislation; and
- the Utility Regulator's allowed rate of return on investment is too low as it fails to account properly for relevant GB precedent and for the additional costs of raising finance faced by NI-resident utilities.

3.2 As a result of these factors, NIE faces the prospect of receiving insufficient revenue to enable it to provide T&D services during RP5 and beyond to the standard required by its statutory and licence obligations, and to satisfy the reasonable demands of customers in terms of safety, security and quality of service.

4. INAPPROPRIATE ARRANGEMENTS FOR REGULATING NETWORK CAPEX

4.1 The Final Determination envisages that NIE's capex budget should be split into three funds, according to the work to be undertaken:

- Fund 1 – routine replacement of specified categories of network assets;
- Fund 2 – new projects (primarily load related projects) of a relatively predictable nature;
- Fund 3 – major one-off projects, mainly projects designed to accommodate new renewable generation projects, or new interconnection.

- 4.2 The Utility Regulator would monitor NIE's compliance as regards the number of assets replaced and the associated costs compared with a prescribed investment plan for Fund 1, would adjudicate on the need for and cost of projects within Fund 2, and would require NIE to obtain prior approval before undertaking each project covered by Fund 3.
- 4.3 The Final Determination proposals in respect of Funds 1 and 2 are unworkable and inappropriate because:
- it is not possible reliably to prescribe at the outset of RP5 a capex plan as granular as that proposed by the Utility Regulator for Funds 1 and 2. Neither NIE nor the Utility Regulator can predict with sufficient confidence at this point in time, in respect of all asset types, precisely which assets should be replaced or installed, in what volumes, and at what unit cost, over the RP5 period. By way of contrast, Ofgem recognises the need for flexible capex arrangements;
 - as the proposed capex incentive arrangements for Funds 1 and 2 will operate by reference to this prescribed plan and its forecast volumes and costs, NIE will bear the uncertainty risk associated with the capex plan and will be dependent on the Utility Regulator's *ex post* assessment of the reasons for the inevitable variations from the initial plan that will occur in practice. This imposes unacceptable risks of *ex post* clawbacks on NIE, with a detrimental effect on the incentives for NIE's management to take responsibility for running NIE's business as efficiently as it can, in response to changing priorities;
 - the ring-fencing of particular revenues to particular kinds of work (by the separation of Funds 1 and 2 and of further sub-funds within each fund) will substantially reduce NIE's flexibility to re-prioritise expenditure to meet changing demands; and
 - the Utility Regulator's proposed approach would substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency (by undertaking different works from those presently envisaged), to the ultimate detriment of customers.
- 4.4 Additionally, undertaking the kind of regulation proposed would impose substantial new burdens on the Utility Regulator and NIE.
- 4.5 The Utility Regulator's proposed approach is in stark contrast to the traditional form of RPI-X regulation (as proposed by NIE), which would leave NIE to manage its overall business, to take the risks associated with its decisions as to how best to meet its statutory and licence obligations and outputs set and thereby incentivise it to innovate and achieve greater efficiencies.

- 4.6 For all these reasons, the structure of the RP5 capex arrangements is of as much concern as the quantum of the capex allowance.

5. ADVERSE CONSEQUENCES FOR CUSTOMERS

- 5.1 The problems outlined above pose very real risks to customers, as well as to NIE. In particular:

- Underinvestment in NIE's network (as is implied by the Utility Regulator's proposals to disallow much of NIE's planned capex) would adversely affect the performance of NIE's network, to the detriment of both present and future customers. Under the proposed arrangements NIE would be forced to minimise capital expenditure while still meeting statutory obligations. Risk levels on the network would increase with a resultant deterioration in network performance and deferral of an unacceptable level of asset replacement to future periods;
- The performance of the 11kV network in particular would deteriorate and fall behind that of GB networks; customers would experience more frequent supply interruptions; and voltage and other aspects of supply quality would deteriorate. Rural customers would be particularly affected including as regards the risks of widespread and prolonged supply interruptions associated with ice accretion;
- Uncertainty in the ex-post treatment of load-related projects by the Utility Regulator would hinder NIE from developing its T&D system to meet new demands for electricity, for example in the west and north west of NI, where DETI and Invest NI aim to encourage significant new industrial development;
- The Utility Regulator's proposed approach to regulating capex would substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency, to the ultimate detriment of customers; and
- Limited incentives would be provided for NIE to improve performance in the delivery of services to customers. There would be no meaningful incentives to improve the reliability of customers' electricity supplies or to reduce the illegal abstraction of electricity (the cost of which is ultimately borne by customers in general). Incentives to improve customer service do not appear to have been considered. The Utility Regulator's proposals are inconsistent with recent Ofgem regulatory trends and best practice in incentive-based regulation, and are not in the interests of NI customers.

6. UNFAIR DETRIMENTS TO NIE'S INVESTORS AND FINANCIAL POSITION

6.1 The problems outlined above pose very real risks to NIE's debt and equity investors, and to its financial position. In particular:

- The Utility Regulator has failed properly to recognise the consequences of its Final Determination for NIE's financial health since its analysis of financeability is flawed⁶ and is based on unrealistic assumptions. Specifically, the core cost allowances are set at inappropriate and unreasonably low levels; unreasonable and unjustified reductions have been made to NIE's recoverable pension deficit and to NIE's opening RP5 RAB and the Utility Regulator has made several modelling errors in calculating NIE's revenue entitlement. When a more robust analysis is undertaken it is clear that the proposals would cause a significant deterioration in NIE's key financial metrics, which in conjunction with the increased regulatory risk arising from the Utility Regulator's approach would inevitably result in downward pressure on NIE's credit rating (BBB+).
- The effect of the Utility Regulator's proposals has been noted and commented upon by the ratings agencies in their most recent updates, following the publication of the Final Determination. Specifically, Fitch has retained NIE's senior unsecured credit rating on negative watch pending an analysis of NIE's business plan once a decision is made on the RP5 price control.
- Retention of a BBB+ credit rating is essential for NIE if it is to compete effectively for finance. Since 2005 over 70% of the bond markets issuances from utility companies has been rated A or above and 90% rated at BBB+ or above.
- Under the Final Determination and taking account of the inadequate provision for capex, opex, pensions and incentives, NIE's average effective return on equity during RP5 would be less than 2%. This compares with the average expected return on equity for GB DNOs during DPCR5 of 7.7%. The assessment of the effective return takes no account of the Utility Regulator's decision to disallow the recovery of pension costs which were under-recovered in RP4 and its proposals retrospectively to reduce NIE's RAB.
- The longer term interests of NI customers are not served by the Final Determination. In paragraph 18.2 of the draft determination, the Utility Regulator correctly recognises that:

"... the longer term interests of consumers in any capital intensive business depend on maintaining the confidence of investors. Customers' value for money is maximised when a monopoly company can finance its investment efficiently".

⁶ See Section 4 of Chapter 17 (Financeability)

However, the Final Determination would significantly inhibit NIE's ability to do so, giving rise to increased financing costs to the further detriment of customers.

7. CONCLUSION

7.1 The overall effect of the Final Determination proposals would be:

- Insufficient revenue to enable NIE to provide T&D services during RP5 and beyond to the standard required by its statutory and licence obligations, and to satisfy the reasonable demands of customers in terms of safety, security and quality of service;
- a materially lower level of funding relative to the GB DNOs which would render NIE unattractive to investors and would not allow the company to finance its business efficiently; and
- a departure from the well-established UK system of incentive-based regulation for network utilities towards a system of regulation by micro-management and *ex post* adjustment that will be detrimental to customers' interests.

7.2 Accordingly, the Final Determination proposals, if implemented, would not serve the best interests of present or future customers. They are therefore not consistent with the Utility Regulator's statutory principal objective to protect the interests of electricity consumers.

PART B: SUMMARY OF NIE'S CASE

This Part B of the Executive Summary contains a summary of NIE's case as set out in this Statement.

This Statement is structured as follows:

- Chapter 3 sets out the questions which the Competition Commission is required to investigate and report on.
- Chapters 4 and 5 are concerned with NIE's capex allowance for RP5:
 - Chapter 4 sets out NIE's concerns with the Utility Regulator's proposed 'three fund' structure for the capex allowance; and
 - Chapter 5 deals with the quantum of NIE's capex allowance.

- Chapter 6 addresses NIE's opex requirement for RP5.
- Chapter 7 demonstrates that NIE is already an efficient network operator. This is relevant to whether the Utility Regulator is justified in proposing efficiency adjustments to the capex and opex allowances.
- Chapter 8 is concerned with real price effects (RPEs), which are relevant to both the capex and opex allowances.
- Chapter 9 is concerned with the Final Determination inadequate proposals for incentives and innovation.
- Chapter 10 is concerned with pension-related issues.
- Chapter 11 is concerned with the Utility Regulator's proposed retrospective adjustment of the RAB;
- Chapter 12 concerns unresolved issues from RP4.
- Chapter 13 explains why the Utility Regulator's proposals for mandatory tendering of services provided by NIE Powerteam are not in the interests of customers.
- Chapter 14 concerns the role of the Reporter.
- Chapter 15 concerns the weighted average cost of capital (WACC).
- Chapter 16 sets out the impact on tariffs on the basis that NIE's proposals were adopted.
- Chapter 17 concerns financeability.

We summarise below the contents of Chapters 3 to 17.

Chapter 3: Statutory framework for the investigation

6. Under the terms of the reference made by the Utility Regulator on 30 April 2013, the Competition Commission is required to investigate and report on the following matters:
 - whether the existing price control conditions in each of NIE's two Licences operate, or may be expected to operate, against the public interest;
 - whether the continuation of each Licence operates or may be expected to operate against the public interest absent the inclusion of further conditions designed to improve the recording, reporting, monitoring and verification of

information related to the price control conditions and related conditions of the Licences; and

- if so, whether the effects adverse to the public interest which those matters have or may be expected to have could be remedied or prevented by modifications of the conditions of each Licence.
7. NIE and the Utility Regulator both consider that the continuation without modification of NIE's existing price control conditions operates, or may be expected to operate, against the public interest. In these circumstances, the focus of the Competition Commission's investigation should be on whether the adverse public interest effects arising from the current price control can be remedied or prevented by modifications to NIE's licence conditions.
 8. In NIE's view, the adverse public interest effects arising from the current price control are that NIE will have inadequate revenue to enable it to provide transmission and distribution services during RP5 and beyond to the standard required by its statutory and licence obligations, and to satisfy the reasonable demands of customers in terms of safety, security and quality of service.
 9. This Statement sets out NIE's submissions and evidence as to the modifications to its price control (and related licence conditions) that are best calculated to remedy or prevent those adverse public interest effects. It does so by setting out NIE's view of the minimum revenue that it requires in RP5 to enable it to provide transmission and distribution services to the requisite standard. The focus is on those areas in which NIE disagrees with the position adopted by the Utility Regulator in the Final Determination.
 10. In determining whether any particular matter operates against the public interest, the Competition Commission is required to have regard to the same duties as apply to the Utility Regulator (and to DETI).
 11. The Energy Order states that the principal objective of the Utility Regulator in carrying out its electricity functions is to protect the interests of consumers of electricity, whenever appropriate by promoting effective competition. In addition, when carrying out its electricity functions, the Utility Regulator must have regard to a number of other considerations including:
 - The need to secure that all reasonable demands for electricity are met; and
 - The need to secure that licence holders are able to finance their regulated activities.

Chapter 4: RP5 Capex – Structure

12. The Final Determination proposals in respect of the structure of the RP5 capex allowance represent a significant departure from the traditional approach to

regulating capex (as represented by Ofgem's approach in DPCR5), particularly as regards asset replacement and load-related investments.

13. The Final Determination proposals are unworkable and inappropriate because:
- it is not possible reliably to prescribe at the outset of RP5 a capex plan as granular as that proposed by the Utility Regulator. Neither NIE nor the Utility Regulator can predict with sufficient confidence at this point in time, in respect of all asset types, precisely which assets should be replaced or installed, in what volumes, and at what unit cost, over the RP5 period. By way of contrast, Ofgem recognises the need for flexible capex arrangements;
 - as the proposed capex incentive arrangements will operate by reference to this prescribed plan and its forecast volumes and costs, NIE will bear the uncertainty risk associated with the capex plan and will be dependent on the Utility Regulator's *ex post* assessment of the reasons for the inevitable variations from the initial plan that will occur in practice. This imposes unacceptable risks of *ex post* clawbacks on NIE, with a detrimental effect on the incentives for NIE's management to take responsibility for running NIE's business as efficiently as it can, in response to changing priorities;
 - the ring-fencing of particular revenues to particular kinds of work will substantially reduce NIE's flexibility to re-prioritise expenditure to meet changing demands; and
 - the Utility Regulator's proposed approach would substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency, to the ultimate detriment of customers.
14. The Utility Regulator's proposed approach is in stark contrast to the traditional form of RPI-X regulation (as proposed by NIE), which would leave NIE to manage its overall business, to take the risks associated with its decisions as to how best to meet overall demand to specified output standards, and thereby incentivise it to innovate and achieve greater efficiencies.
15. The structure of NIE's proposals is consistent with Ofgem precedent which would provide an ex-ante allowance for core capex and incentivise NIE to underspend the allowance consistent with delivery of statutory and licence obligations and any ex-ante performance targets. With the exception of certain elements of asset replacement, the allowance would not represent a prescribed programme of work nor be subject to ex-post assessment of individual investments.
16. NIE is less concerned with the Utility Regulator's proposals in relation to the approval of major transmission projects such as those associated with the integration of renewable generation and interconnection. However, the Final Determination does not fully detail how the approval process will operate in practice, which creates uncertainty for NIE.

17. NIE requests the Competition Commission to adopt the structure for the capex allowance proposed in NIE's initial submissions, which more closely aligns with the approach adopted by Ofgem and gives rise to clear incentives to innovate and seek efficiencies.

Chapter 5: RP5 Capex - Quantum

18. The Utility Regulator has proposed an allowance of £373.5 million for the capital investment needed to sustain and develop NIE's core T&D network infrastructure so that it continues to provide a reliable supply of electricity to customers. The proposal gives rise to a shortfall of £232.8 million in the £606.4 million identified by NIE as being required for RP5 to enable it to meet its statutory and licence obligations. In addition, capex amounting to £74.8 million is required for metering and connections investment against which the Utility Regulatory has allowed £57.8 million leaving a shortfall of £17 million. NIE and the Utility Regulator have agreed that capex for renewables will be sought and approved on a case-by-case basis.
19. NIE has proposed a substantial increase in core capex for RP5. This is because:
- there was a high level of investment in the network in the 1960s and the assets installed then are now entering the replacement phase of their lifecycle;
 - additional capex is required to address a network resilience risk associated with the 11kV network during extreme weather events (such as the March 2013 snow storm);
 - additional capex is required to ensure compliance with new legislation and new work streams some of which are outside NIE's control (e.g. flood prevention);
 - there are also several high value projects, each greater than £10 million, which the Utility Regulator agrees are required and justified.
20. NIE has the following very significant concerns with the quantum of the capex allowance in the Final Determination:
- There is a £115.3 million shortfall in the amount needed to fund the capex work volumes required by the Final Determination. The shortfall is due mainly to fundamental benchmarking errors made by the Utility Regulator and a misunderstanding of NIE's cost base.
 - No allowance has been provided to reduce the risk of widespread and prolonged loss of supply resulting from ice accretion on the high proportion of small cross section conductor overhead lines on the 11kV rural network. The March 2013 snow storm confirms that the NIE network is very vulnerable to extreme weather events which result in the loss of supplies to large numbers

of customers for a prolonged period. NIE's proposal that a limited allowance be provided to finance a pilot was not taken up by the Utility Regulator.

- Expenditure required for compliance with the Electricity Safety, Quality & Continuity Regulations (ESQCR) has been almost entirely disallowed on the erroneous basis that these works are covered by allowances for other programmes of work.
- With regard to asset replacement work, the Utility Regulator generally agrees with NIE's assessment of the volume of work to be done. However, there are important exceptions which mean that the Final Determination asset replacement volumes are not sufficient to enable NIE adequately to manage network risk. £21.8 million of additional capex is required for essential works to address this.
- The Final Determination fails to provide an *ex ante* allowance for significant load related projects. Such projects will instead be subject to an *ex post* assessment following a review of network planning standards to be undertaken by NIE. This gives rise to a high level of regulatory risk. NIE is firmly of the view that it should be provided with an *ex ante* allowance based on requirements assessed against the current network planning standards.
- No provision has been made for investment in smart grid technology leaving NIE exposed to risks arising from the rapid development of small scale embedded generation.
- No allowance has been provided for network performance improvement to raise the level of service experienced by the worst served rural customers.

21. NIE requests the Competition Commission to provide in full the capex allowance sought by NIE as described in this Chapter.

Chapter 6: RP5 Opex

22. The Utility Regulator has determined an allowance for operating costs (opex) in RP5 of £271 million. This falls substantially short of the £331.2 million needed for NIE to operate its regulated business over RP5 and as such is inadequate.

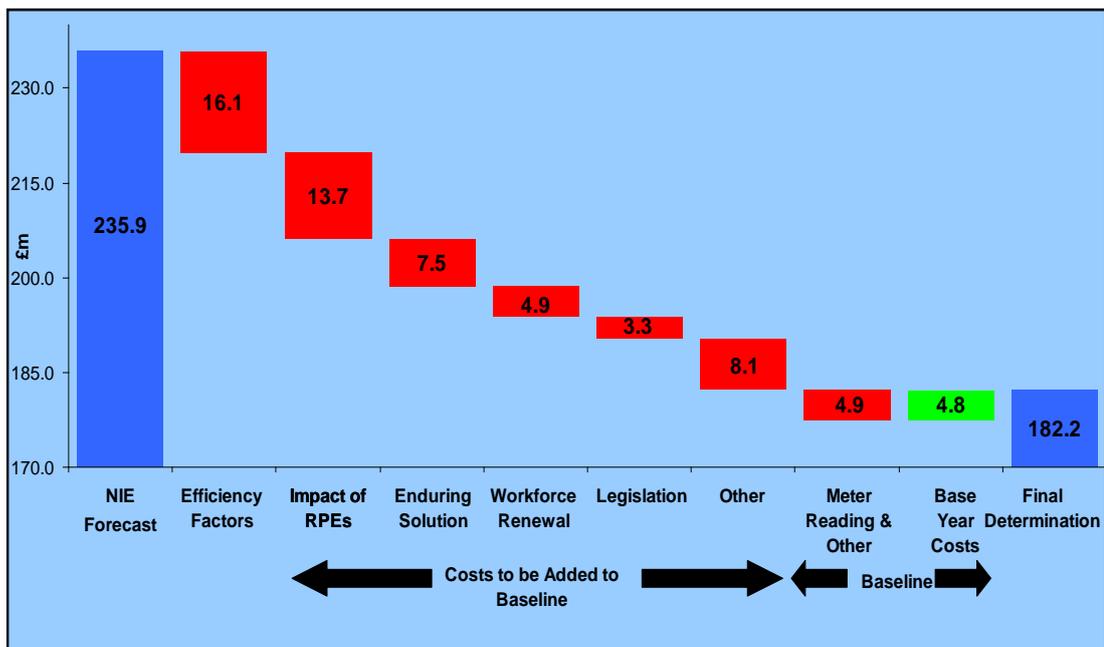
23. £53.7 million of the shortfall relates to controllable opex. The areas of concern include:

- Efficiency factors: as explained in paragraph 30 below, the Utility Regulator has relied on a flawed efficiency benchmarking assessment to justify an initial 7% reduction in baseline opex. In doing so, the Utility Regulator has ignored compelling evidence from consultants Frontier Economics that NIE is a leading performer within the overall class of UK

distribution network operators in terms of opex efficiency. Furthermore the Utility Regulator is minded to impose a 1% year-on-year reduction in controllable opex for which there is no reasonable justification.

- Costs to be added to the baseline: the Utility Regulator has failed adequately to allow for, and in some cases failed to recognise, very material costs which are new for RP5 (i.e. costs that did not arise in 2009/10 and do not therefore form part of baseline costs). This includes:
 - the impact of real price effects;
 - costs associated with the Enduring Solution IT system, which was implemented to facilitate the operation of the competitive supply market;
 - the cost of recruiting and training new employees (workforce renewal); and
 - costs arising from new legislation and changes in regulation.
- Baseline opex: in determining NIE's baseline costs, the Utility Regulator has made a significant error in its calculation of meter reading base year costs. The resulting shortfall in the meter reading allowance is offset by a further error (separate from meter reading costs), this time in NIE's favour: the inclusion in the baseline of the IAS19 current service pension charge.

24. The quantum of the shortfall across these controllable cost areas is illustrated in red in the diagram below. The green block represents an offsetting error.



25. This Chapter is also concerned with non-network capex, the allowance for which historically forms part of the opex allowance. NIE's requirement for non-network

capex relates predominantly to the renewal of IT and telecoms assets. The Utility Regulator has disallowed 50% of NIE's £15.2 million planned expenditure on non-network capex.

26. NIE requests the Competition Commission to provide an allowance for opex and non-network capex which reflects NIE's assessment of its cost requirements as described in this Chapter.

Chapter 7: NIE's Efficiency

27. In meeting the needs of its customers, NIE strives continuously to improve its efficiency through its own innovation and through the adoption of best practice developed elsewhere.
28. In its Final Determination the Utility Regulator has proposed that NIE's base year controllable opex be reduced by 7% and, furthermore, that a 1% efficiency factor be applied in each year thereafter. In relation to capex, of the total disallowances proposed by the Utility Regulator, £61.1 million relates to efficiency benchmarking and the treatment of indirect costs.
29. NIE considers that the Utility Regulator has failed to make a case for the application of these inefficiency discounts.
30. There are material flaws in the Utility Regulator's benchmarking analysis of indirect costs used to justify the 7% opex discount. In particular:
- it fails to achieve a like-for-like comparison of all costs – because it overstates the level of NIE's market opening costs to be included;
 - it is internally inconsistent – because certain costs which have been disallowed in rolling forward the baseline have been included in the benchmarking;
 - it is biased against NIE – because it applies a downward regional wage adjustment but does not consider other regional factors such as sparsity which increase NIE's costs; and
 - it is inaccurate – because the regional wage adjustment does not accurately reflect the nature of NIE's workforce and is consequently overstated.
31. In its Final Determination the Utility Regulator provides no justification for the application of a further 1% inefficiency discount for opex and the four elements of the justification it provided in its draft determination are not supported by the available evidence.
32. The inefficiency discounts applied in respect of capex are inadequately justified by the Utility Regulator by the flawed benchmarking of indirect costs outlined above, by

other crude and erroneous benchmarking and by the inappropriate scaling of indirect costs.

33. In contrast, NIE has compelling and robust evidence to show that it is efficient in its operations and that the proposed inefficiency discounts are therefore unjustified.
34. NIE has undertaken a comprehensive review of its efficiency relative to the fourteen GB DNOs. They represent a challenging peer group for NIE. They have been subject to effective incentive regulation by Ofgem for more than 20 years and, in consequence, they are widely considered to be operating at or near the efficiency frontier for the industry. The results of NIE's benchmarking show that NIE is a leading performer within the overall class of UK DNOs.
35. In light of the foregoing, NIE considers that the Utility Regulator has failed to make out a case for the application of any form of inefficiency discount to NIE's opex or capex allowances, and that no such discount is justified.
36. NIE requests the Competition Commission to eliminate these unjustified inefficiency discounts when it determines NIE's RP5 price control pursuant to the present reference.

Chapter 8: Real price effects (RPEs)

37. NIE expects to face significant upward cost pressures in RP5 on the inputs to its business, which will exceed any effect already captured by RPI. In its response to the Utility Regulator's draft determination, NIE requested a total allowance of £66.8 million for such real price effects (RPEs) spread across opex and capex.
38. The Utility Regulator agrees that NIE's capex and opex programmes are subject to different inflationary pressures from the basket of goods included in RPI. However, the Utility Regulator has provided a negative total allowance of £-2.7 million for RPEs.
39. NIE has reviewed the Utility Regulator's method of determining RPEs in detail. In order to focus the Competition Commission's efforts on the most significant issues, NIE is content to adopt the Utility Regulator's method of calculating RPEs and a number of its assumptions.
40. However, there are three key areas where NIE disagrees strongly with the Utility Regulator's assumptions made in applying this method. These are:
 - The Utility Regulator's assumptions in respect of labour RPEs in 2010/11, 2011/12 and 2012/13;
 - The Utility Regulator's choice of material weights for capex; and
 - The proportion of NIE's workforce that the Utility Regulator regards as general, rather than specialist.

41. NIE also considers that a new EU directive that sets new standards for transformer performance will give rise to an additional price-related cost increase, for which an additional allowance of £5 million is necessary.
42. NIE's updated assessment is that it requires an RPE allowance over RP5 of £47.9 million, comprising £37.5 million in capex and £10.4 million in opex.
43. NIE invites the Competition Commission to adopt NIE's position in respect of RPEs as set out in this Chapter.

Chapter 9: Incentives and innovation

44. The Utility Regulator has proposed only limited incentive arrangements for RP5.
45. The Final Determination proposals are deficient and not in the interests of customers because:
 - the overall package does not encourage innovation and creates only weak incentives for cost efficiency;
 - some incentives are asymmetric (in that the likelihood of under-performance is greater than the opportunity for out-performance);
 - the arrangements to incentivise capex efficiency incorporate a rigid investment plan that would unduly constrain many of NIE's network investment decisions. Other aspects of the arrangements involve an *ex post* review of operational decisions and/or a requirement to agree, *ex ante*, changes to capex plans;
 - they offer no meaningful incentives to improve network performance or revenue protection (illegal abstraction of electricity);
 - they defer consideration of potential changes in Guaranteed Standards outside the RP5 price control process which adds material uncertainties to NIE's RP5 cost liabilities; and
 - they are inconsistent with recent GB regulatory trends (e.g. Ofgem's DPR5 and RIIO-T1, as well as the development of RIIO-ED1).
46. Incentives which NIE considers to be important are missing and do not appear to have been considered by the Utility Regulator, despite having been proposed by NIE early in 2011.
47. Furthermore, the Utility Regulator has made no provision for funding innovation through the application of smart technology. Without this funding NIE will be unable to assess emerging technologies and participate in collaborative research – and, as such, will be unable to factor such developments into future planning of its network, to the ultimate detriment of NI customers.

48. In summary, NIE considers that the Final Determination incentive proposals are poorly designed and calibrated, and too limited to incentivise NIE to improve efficiency and innovation.
49. NIE requests the Competition Commission to adopt NIE's proposals for a package of incentives and innovation funding which would be more effective in stimulating the delivery of efficiency and innovation, and would fairly reward NIE for what it achieves. NIE's proposals are consistent with the approach to incentives taken by Ofgem in relation to the GB DNOs and best practice in incentive-based regulation.

Chapter 10: Pensions

50. The Utility Regulator has introduced a set of 'pension principles' for RP5. This includes the principle that NIE should be allowed to recover any deficit repair costs associated with the defined benefit scheme for both NIE and NIE Powerteam which it cannot legally avoid.
51. NIE agrees with this and the other pension principles. But it has very significant concerns with two aspects of the Final Determination which relate to the recovery of pension deficit costs:
- First, the Utility Regulator has failed to provide for an allowance of £24 million of pension contributions paid by NIE in RP4 in excess of allowances and which is stranded as a result of changing the pension cost recovery mechanism between RP4 and RP5.
 - Second, while NIE is prepared to accept that its shareholders should, in principle, fund 30% of early retirement deficit costs (estimated to contribute circa. £41.2 million to the deficit measured at 31 March 2012), the Utility Regulator has failed to recognise that NIE has already funded these costs through special shareholder contributions made in 2005/6 and 2006/7. These contributions have reduced the deficit by £71.4 million and therefore more than offset any cost to the scheme associated with NIE's share of early retirement deficit costs.
52. In addition to the above, there is a requirement to "true up" the difference between actual contributions agreed by NIE in negotiations with the pension scheme trustees and the amounts allowed under the price control. NIE is content to accept the Utility Regulator's proposal for a 15 year recovery period, notwithstanding that it has agreed a shorter (13 year) recovery period with the trustees. But financing costs borne by NIE as a result of making actual contributions in advance of recovering those costs from customers should be recoverable through future price controls and attract the regulatory rate of return. Such an approach would accord with that adopted by Ofgem in relation to the GB DNOs.

53. NIE requests the Competition Commission to determine an allowance for NIE's pension costs in RP5 that corrects for these deficiencies in the Final Determination allowance.

Chapter 11: RAB adjustment

54. The Utility Regulator's Final Determination concludes that NIE's opening RAB for RP5 should be reduced by £31.7 million, on the basis that changes in NIE's capitalisation practices during the last two years of RP3 and during RP4 led it to capitalise additional amounts in respect of overheads (£8.6 million); repairs and maintenance (R&M) (£11.5 million) and tree-cutting costs (£11.6 million).
55. NIE rejects the Utility Regulator's reasoning and conclusions:
- The Utility Regulator's conclusions rely to a substantial extent on a report commissioned from external consultants. However, that consultants' report is fundamentally unsound, and the Utility Regulator's Final Determination does not answer the detailed critique of that report undertaken by KPMG for NIE.
 - The way in which NIE has capitalised expenditure in its regulatory accounts is compliant with condition 2 of each of NIE's licence and there is therefore no case for a correction to NIE's regulatory accounts for RP3 and RP4.
 - Nor is there any good case for a discretionary *ex post* adjustment to the opening RAB for RP5 by a decision retrospectively to reduce the amounts of expenditure capitalised in NIE's accounts during RP3 and RP4. There are no exceptional factors justifying an *ex post* adjustment. The Utility Regulator's decision to impose such an *ex post* adjustment rests on a misunderstanding of condition 2 of NIE's licence and fails to take account of, or appropriately to evaluate, the factors which the Utility Regulator is required by statute to apply in reaching such a judgment. The adjustment has been assessed in isolation, without regard to other relevant regulatory considerations.
 - In all these circumstances, an *ex post* adjustment to NIE's RAB is apt to undermine confidence in the predictability and fairness of the regulatory regime.
 - In consequence, the adjustment to NIE's RAB which the Utility Regulator proposes is likely to be damaging to customers in the longer term, since, by diminishing investors' confidence in the regulatory regime, it will make it more expensive for NIE to finance its future capital programme. This is particularly damaging at a time when NIE needs to finance a large capital programme.
56. It is now for the Competition Commission to consider these matters afresh, and NIE is confident that the Competition Commission will reject any adjustment to NIE's RAB.

Chapter 12 – Unresolved issues from RP4

57. There are three outstanding issues with respect to the RP4 period which NIE seeks to ensure are fairly and definitively resolved as part of the RP5 price control process. In some cases, the Utility Regulator's consideration of these issues has been subject to considerable delay.
58. The issues are:
- the Utility Regulator's failure to approve RP4 capex efficiency incentive payments, with a total value of £4.2 million;
 - costs incurred by NIE in RP4 which have not been approved in relation to the Enduring Solution IT system, with a value of £1.3 million; and
 - an outstanding question regarding the interpretation of the capital allowances term in the RP4 price control with a value of £0.9 million.
59. To the extent that these issues remain unresolved, NIE has under-recovered relative to its full RP4 revenue entitlement. This can be rectified only via the RP5 price control and these values should therefore be taken into account when determining the RP5 price control.
60. NIE requests the Competition Commission to definitively resolve each of these outstanding issues by addressing them directly in its report.

Chapter 13: NIE Powerteam

61. The Utility Regulator has used the RP5 review process to question whether the arrangements between NIE and NIE Powerteam are in the interests of customers. The Final Determination states that the Utility Regulator expects NIE to demonstrate that services delivered by NIE Powerteam are competitively procured and market tested.
62. The Final Determination may have been overtaken by events. Since the Final Determination was issued, NIE has proposed that during RP5 ownership of NIE Powerteam should transfer so that it becomes a wholly-owned subsidiary of NIE as part of the IME3 Directive certification arrangements.
63. Notwithstanding this change, NIE is firmly of the view that it should be the responsibility of management to decide how its business is organised. NIE is already incentivised to manage NIE Powerteam's costs efficiently as part of NIE's own overall costs. The existing NIE business, of which NIE Powerteam is an integral part, is already highly efficient.
64. NIE has no 'in principle' objection to subcontracting its activities where it is appropriate to do so. NIE has subcontracted and continues to subcontract a subset of its activities (generally lower skilled activities such as highway excavation, cable

laying and pole erection) which by their nature lend themselves to such treatment. However, NIE considers that the current balance between outsourcing and in-house service delivery is the right one for cogent strategic reasons relating to:

- the efficiency of NIE's business;
- NIE's ability to provide a rapid 24/7 emergency response, and
- the need to secure long term access to a multi-skilled resource which provides flexibility in the delivery of work.

65. The Utility Regulator should restrict itself to specifying efficiency targets and incentive mechanisms and should leave to NIE's management the task of deciding how best to deliver its statutory and regulatory obligations.
66. NIE requests the Competition Commission to endorse NIE's position and to make clear in its report on the present reference that it would not be in the interests of customers for the Utility Regulator to mandate NIE to competitively tender the services provided by NIE Powerteam.

Chapter 14: Reporter

67. The Utility Regulator wishes to increase the scope and the level of detail of the information to be reported on regularly by NIE. It proposes to modify NIE's licences to require NIE to facilitate the introduction of a Reporter who would be embedded within the company and would assist the Utility Regulator in validating and assessing the data submitted by NIE.
68. NIE believes that the introduction of a Reporter is unnecessary.
69. A significant part of the Reporter's role arises out of the Utility Regulator's proposed arrangements for regulating capex. The part played by the Reporter in those arrangements would result in a blurring of roles and responsibilities and for the reasons set out in Chapter 4 (RP5 Capex – Structure), NIE regards the proposals for regulating capex as an inappropriate departure from Ofgem precedent. Much of the Reporter's role as envisaged by the Utility Regulator will not be required if the Competition Commission adopts the traditional approach to regulating capex.
70. The remainder of the Reporter's role relates to auditing and validating information including financial accounts (which are already subject to audit), capex reporting, compliance plan and other regulatory submissions. NIE will work with the Utility Regulator towards meeting its requirements for increased reporting in these areas, but the requirements should be proportionate and targeted. In NIE's view these elements of reporting do not justify the expense of having a Reporter embedded within NIE.

71. The Utility Regulator estimates the cost of the Reporter to be £1.5 million over RP5, which will be passed through to customers. But that is not the full cost. NIE would expect to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc. Despite initial appearances, the Final Determination has made no allowance for such costs.
72. Ofwat has recently decided to dispense with Reporters and Ofgem does not use Reporters. Its introduction would be a further step towards a regulatory model in NI that tends towards micro-management and would run counter to the trend in best practice regulation.
73. NIE requests the Competition Commission to decline to mandate the introduction of a Reporter.

Chapter 15: Weighted average cost of capital (WACC)

74. NIE submits that the allowed rate of return to NIE under the RP5 price control should take account of:
 - GB precedent – in particular, Ofgem's position at DPCR5;
 - NIE-specific factors; and
 - market movements since DPCR5.
75. The allowed rate of return should be consistent with wider GB precedent, with departures from that precedent only where clearly justified. Full account should be taken of Ofgem's returns on regulated equity (RORE) analysis which focuses on the effective return on equity, and not on just the headline rate allowed for WACC.
76. In respect of NIE-specific factors, the allowed rate of return should take full account of the observed premium paid on NIE debt relative to comparable GB bonds. Similarly, the evidence as to the premium payable on NIE's debt implies that NIE's cost of equity is also higher than its GB counterparts' and justifies a related uplift on the cost of equity.
77. NIE's updated analysis identifies a range of 5.1% to 6.0% (vanilla, real) for the WACC for RP5. At the time NIE submitted its response to the draft determination NIE's point estimate of the WACC was 5.7%. Based on the latest market data, a figure towards the lower end of the range might be justified. However, owing to continued financial market volatility and in the interests of continuity with previous submissions NIE has continued to apply a WACC of 5.7% for the purpose of its financial modelling in this Statement.
78. NIE requests the Competition Commission to determine a price control for RP5 which reflects NIE's position with respect to the WACC.

Chapter 16: Impact on tariffs

79. This Chapter sets out the impact that NIE's proposals would have on network charges (excluding proposals relating to renewables and interconnection).
80. NIE's proposals would result in an increase in network charges (p/kWh) of approximately 3.3% per annum over RP5. This level of increase compares with the average annual increase in network charges of 5.6% for the GB DNOs following Ofgem's most recent price control review (DPCR5).

Chapter 17: Financeability

81. The Utility Regulator has a statutory duty to have regard to the need to secure that NIE is able to finance its regulated activities. NIE is also required by its two Licences (condition 9A, in each case) to maintain an investment grade credit rating. The assessment of whether a given price control proposal is consistent with these obligations requires an evaluation of the overall financial health of NIE under that proposal.
82. The Utility Regulator has presented in its Final Determination an analysis of whether NIE is likely to be financeable during RP5 by reference to financial metrics relevant to NIE's credit rating. Based on a wide set of assumptions, the Utility Regulator finds that NIE should be able to maintain a strong investment grade credit rating of BBB+/A-.
83. NIE rejects the Utility Regulator's financial assessment which is based on modelling errors, flawed assumptions over future costs and fails to recognise the effect of unjustified disallowances. The Utility Regulator has also failed to take account of the real and perceived increase in regulatory risk that would arise from its Final Determination, which we expect would act as a further drag on NIE's credit rating. Furthermore the Utility Regulator fails to consider the implications of the exceptionally low returns to the equity investor resulting from the Final Determination.
84. Specifically, NIE notes that the Utility Regulator has:
 - provided an insufficient capex allowance, that NIE anticipates will leave a funding gap of £115.3 million in respect of volumes of work required by the Final Determination;
 - provided an inadequate controllable opex allowance leaving a shortfall of £53.7 million;
 - used unreasonable assumptions in determining the WACC, in particular failing to take proper account of relevant GB precedent and the additional costs of raising finance faced by NI-resident utilities;

- proposed to disallow £41.2 million of NIE's reasonably and efficiently incurred pension deficit without reasonable justification;
 - failed to provide an allowance for £24 million of pension contributions paid by NIE in excess of allowances during RP4;
 - proposed a reduction in the value of NIE's RAB of £31.7 million, following the Utility Regulator's investigation into NIE's 'capitalisation practices', that is unjustified and retrospective in nature;
 - proposed to impose deficient processes and procedures, and unacceptable regulatory requirements, for the duration of RP5 which taken together introduce significant additional regulatory risk to NIE's activities;
 - relied upon a financial model that has made several errors in calculating NIE's revenue entitlement that, if corrected would reduce NIE's operating profits by approximately £15 million over RP5; and
 - had to bring forward £9 million of revenue entitlement from RP6 to achieve the financial metrics required to maintain a strong investment grade credit rating. It is not clear how this will affect the RP6 price control.
85. When the financeability analysis is repeated with more realistic assumptions, in particular with respect to future costs, it is clear that the resultant financial metrics and in particular a sub investment grade PMICR are not consistent with the credit rating of BBB+/A- targeted by the Utility Regulator. This is evidenced by the decision by Fitch to place and retain NIE's senior unsecured credit rating on negative watch pending an analysis of NIE's business plan once a decision is made on the RP5 price control.
86. Furthermore it is clear that under the Final Determination the Utility Regulator assumes an unprecedented and unreasonable level of support from NIE's shareholder. It should be noted that when disallowed costs and allowances are taken into account, the effective return on equity falls to below 2% during RP5.
87. These findings were central to NIE's decision to reject the Final Determination.
88. NIE considers that the financeability concerns arising from the Final Determination should be addressed by adopting the approach outlined by the Competition Commission in its findings with respect to Bristol Water. That would require:
- core cost allowances to be set at appropriate and reasonable levels – i.e. the levels sought by NIE in this Statement;
 - full funding for other significant items (i.e. NIE's pension deficit and opening RP5 RAB) that the Utility Regulator has proposed to disallow without reasonable justification;

- the cost of debt and equity used in determining WACC to be reasonable; and
- long term interests of customers to be protected by maintaining investor confidence in the regulatory framework in NI. That framework should be transparent, predictable and aligned with tried and tested Ofgem precedent, which is understood by investors.

89. NIE requests the Competition Commission to determine a price control for RP5 that addresses in full NIE's concerns with respect to financeability.

CHAPTER 3

STATUTORY FRAMEWORK FOR THE INVESTIGATION

1. INTRODUCTION

- 1.1 This Chapter sets out the statutory questions that the Competition Commission is required to investigate and report on for the purposes of the present price control reference. Its purpose is to clarify from the outset the statutory framework that applies. It provides the context in and background against which NIE presents its case, as set out in this Statement.

2. QUESTIONS FOR THE COMPETITION COMMISSION

- 2.1 The Utility Regulator published its Final Determination in respect of the RP5 price control on 23 October 2012. On the same day, it published a notice under Article 14(2) of the Electricity Order proposing that NIE's Licences be modified to reflect the terms of the Final Determination¹. Had NIE consented to that modification, the Utility Regulator would have had the power under Article 14(1) to modify NIE's Licences in the manner proposed in its notice. In the event, NIE declined to consent to the modification.
- 2.2 In these circumstances, the Utility Regulator has acted to make a reference in respect of each of NIE's Licences to the Competition Commission (the **Reference**) as being the only avenue open to it to modify the price control provisions of NIE's Licences without NIE's consent.² If the CC concludes that the continuation without modification of NIE's licence conditions operates or may be expected to operate against the public interest, and that relevant adverse public interest effects could be prevented or remedied by licence modifications, then the Utility Regulator may make modifications to address such adverse effects, in accordance with the procedures laid down by the Electricity Order.

¹ The notice in fact refers to a single licence, namely NIE's Participate in Transmission Licence. As explained in Section 5 of Annex 1A.1 (Historical and Regulatory Background), this licence took effect as two separate licences (a Participate in Transmission Licence and an Electricity Distribution Licence) by virtue of Regulation 90 of the 2011 Regulations. Since publishing the licence modification notice, the Utility Regulator has issued NIE with two separate licence documents reflecting the statutory position. This Statement therefore refers throughout to NIE's two Licences, rather than a single licence.

² As noted in Section 5 of Annex 1A.1 (Historical and regulatory background), DETI has recently consulted on changes to the licence modification regime to reflect the requirements of the EU Third Energy Package. Should DETI's proposals be implemented, the Utility Regulator will be able to modify the price control provisions of NIE's licence without NIE's consent, although NIE will have a right to appeal that modification decision to the Competition Commission.

- 2.3 The provisions of the Electricity Order dealing with licence modification references to the Competition Commission are comprised in Articles 15 to 17A. This Chapter contains a summary only of key aspects of the legislation relevant to this Reference.
- 2.4 Article 15 of the Electricity Order allows the Utility Regulator to require the Competition Commission to investigate and report on two questions, namely:
- whether any matters which relate to the carrying on of activities regulated by a particular licence and are specified in the Utility Regulator's reference operate, or may be expected to operate, against the public interest; and
 - if so, whether the effects adverse to the public interest which those matters have or may be expected to have could be remedied or prevented by modifications of the conditions of the licence.
- 2.5 The Utility Regulator made its Reference to the Competition Commission in respect of the RP5 price control on 30 April 2013. The specific matters which the Utility Regulator has required the Competition Commission to investigate are:
- whether the Price Control Conditions³ in each Licence operate or may be expected to operate against the public interest;
 - whether the continuation of each Licence operates or may be expected to operate against the public interest absent the inclusion of further conditions designed to improve the recording, reporting, monitoring and verification of information related to the Price Control Conditions and related conditions of the Licences; and
 - if so, whether the effects adverse to the public interest which those matters have or may be expected to have could be remedied or prevented by modifications of the Conditions⁴ of each Licence.
- 2.6 It is common ground between NIE and the Utility Regulator that the continuation without modification of Annex 2 to each of NIE's Licences in its current form operates, or may be expected to operate, against the public interest. The current Annex 2 reflects the terms of the RP4 price control which was both proposed by the Utility Regulator and agreed by NIE on the basis that it met NIE's revenue requirement for the five year period ending 31 March 2012. It therefore takes no account of any assessment of NIE's revenue requirement for the RP5 price control

³ The term 'Price Control Conditions' is defined in the Reference to mean Condition 42 and Annex 2 in each Licence. Annex 2 to NIE's Participate in Transmission Licence is identical to Annex 2 to NIE's Electricity Distribution Licence. This reflects the requirements of Regulation 90(3) of the Gas and Electricity (Internal Markets) Regulations (Northern Ireland) 2011.

⁴ Although the Reference uses the capitalised term "Conditions", that term is not defined in the Reference.

period. In particular, it takes no account of NIE's business plan submission (BPQ), which sets out NIE's assessment of that requirement. It therefore necessarily fails to provide adequate or appropriate funding for NIE in RP5.

- 2.7 Moreover, as is explained in Annex 1A.2 (RP4 Extensions), the current Annex 2 does not cater for the determination of NIE's price control for any period after 31 March 2012. This is because key components of the price control formula (e.g. allowed cost of capital) are only defined up to that date. The current Annex 2 is not therefore an appropriate instrument by which to regulate NIE's charges for any period after 31 March 2012.
- 2.8 In circumstances in which both NIE and the Utility Regulator agree that the current Annex 2 operates, or may be expected to operate, against the public interest, the focus of the Competition Commission's investigation should be on whether the adverse public interest effects arising from the current Annex 2 can be remedied or prevented by modifications to NIE's Licences.
- 2.9 In NIE's view, the adverse public interest effects arising from the current Annex 2 are that NIE will not have adequate revenue to enable it to provide transmission and distribution (T&D) services in RP5 and beyond to the standard required:
- by its statutory and licence obligations, and
 - to satisfy the reasonable demands of present and future customers, in terms of safety, security and quality of service.
- 2.10 Accordingly, this Statement sets out NIE's submissions and evidence as to the modifications to its Licences that are best calculated to remedy or prevent those adverse public interest effects. It does so by setting out NIE's view of the minimum revenue that it requires in RP5 to enable it to provide transmission and distribution services to the standard described above.
- 2.11 The general approach adopted in this Statement is to set out NIE's assessment of its revenue requirement by reference to the Final Determination. In relation to those aspects of NIE's business case that have been accepted by the Utility Regulator, this fact is noted. But the focus of this Statement is on those areas in which NIE disagrees with the position adopted by the Utility Regulator in the Final Determination. NIE expects that, generally speaking, these are the areas in which the Competition Commission will wish to focus its investigations. It believes that these are the areas in relation to which the Final Determination is not apt to remedy or prevent the aforementioned adverse public interest effects.

3. STATUTORY DUTIES APPLICABLE TO THE COMPETITION COMMISSION

3.1 In determining whether any particular matter operates, or may be expected to operate, against the public interest, the Competition Commission is required by Article 15(7) of the Electricity Order to have regard to the matters as respects which duties are imposed on the Utility Regulator by:

- Article 12 of the Energy (Northern Ireland) Order 1993 (**Energy Order**); or
- Article 9 of the Electricity (Single Wholesale Market) Order (NI) 2007 (**SEM Order**).

3.2 Article 12 of the Energy Order provides that the Utility Regulator must carry out its functions in relation to electricity in the manner which it considers is best calculated to further the principal objective, having regard to a number of specified duties.

3.3 The principal objective is to protect the interests of consumers of electricity, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the generation, transmission, distribution or supply of electricity, and to do so in a way that is consistent with the fulfilment by the Utility Regulator of the objectives set out in Article 36(a) to (h) of the IME3 Directive (see below and Annex 1A.1 (Historical and Regulatory Background)).

3.4 In addition, when carrying out its functions, the Utility Regulator must have regard to a number of other considerations. These include

- the need to secure that all reasonable demands for electricity are met; and
- the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed by or under Part II of the Electricity Order or the Energy Order.

3.5 In carrying out the duty referred to in paragraph 3.2 above, the Utility Regulator must have regard to the interests of:

- individuals who are disabled or chronically sick;
- individuals of pensionable age;
- individuals with low incomes; and
- individuals residing in rural areas

but that is not to be taken as implying that regard may not be had to the interests of other descriptions of consumer.

- 3.6 Subject to the above, the Utility Regulator must carry out its functions in relation to electricity in the manner which it considers is best calculated:
- to promote the efficient use of electricity and efficiency and economy on the part of persons authorised by licences or exemptions to supply, distribute or participate in the transmission of electricity;
 - to protect the public from dangers arising from the generation, transmission, distribution or supply of electricity;
 - to secure a diverse, viable and environmentally sustainable long-term energy supply;
 - to promote research into, and the development and use of, new techniques by or on behalf of persons authorised by licence to generate, supply, distribute or participate in the transmission of electricity; and
 - to secure the establishment and maintenance of machinery for prompting the health and safety of persons employed in the generation, transmission, distribution or supply of electricity.
- 3.7 The Utility Regulator must also have regard, when carrying out its functions in relation to electricity, to the effect on the environment of activities connected with the generation, transmission, distribution or supply of electricity.
- 3.8 It may also, when carrying out those functions, have regard to the interests of consumers in relation to gas and in relation to water and sewerage services.
- 3.9 Article 9 of the SEM Order is summarised in Section 3 of Annex 1A.1 (Historical and Regulatory Background). Article 36(a) to (h) of the IME3 Directive is summarised in Section 5 of Annex 1A.1 (Historical and Regulatory Background).

CHAPTER 4

RP5 CAPEX – STRUCTURE

SUMMARY

The Final Determination proposals in respect of the structure of the RP5 capex allowance represent a significant departure from the traditional approach to regulating capex (as represented by Ofgem's approach in DPCR5), particularly as regards asset replacement and load-related investments.

The Final Determination proposals are unworkable and inappropriate because:

- it is not possible reliably to prescribe at the outset of RP5 a capex plan as granular as that proposed by the Utility Regulator. Neither NIE nor the Utility Regulator can predict with sufficient confidence at this point in time, in respect of all asset types, precisely which assets should be replaced or installed, in what volumes, and at what unit cost, over the RP5 period. By way of contrast, Ofgem recognises the need for flexible capex arrangements;
- as the proposed capex incentive arrangements will operate with reference to this prescribed plan and its forecast volumes and costs, NIE will bear the uncertainty risk associated with the capex plan and will be dependent on the Utility Regulator's *ex post* assessment of the reasons for the inevitable variations from the initial plan that will occur in practice. This imposes unacceptable risk of *ex post* clawbacks on NIE, with a detrimental effect on the incentives for NIE's management to take responsibility for running NIE's business as efficiently as it can, in response to changing priorities;
- the ring-fencing of particular revenues to particular kinds of work will substantially reduce NIE's flexibility to re-prioritise expenditure to meet changing demands; and
- the Utility Regulator's proposed approach would substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency, to the ultimate detriment of customers.

The Utility Regulator's proposed approach is in stark contrast to the traditional form of RPI-X regulation (as proposed by NIE), which would leave NIE to manage its overall business, to take the risks associated with its decisions as to how best to meet overall demand to specified output standards, and thereby incentivise it to innovate and achieve greater efficiencies.

The structure of NIE's proposals is consistent with Ofgem precedent which would provide an *ex ante* allowance for core capex and incentivise NIE to underspend the allowance consistent with delivery of statutory and licence obligations and any *ex ante* performance targets. With the exception of certain elements of asset replacement, the allowance would not represent a prescribed programme of work nor be subject to ex-post assessment of individual investments.

NIE is less concerned with the Utility Regulator's proposals in relation to the approval of major transmission projects such as those associated with the integration of renewable generation and interconnection. However, the Final Determination does not fully detail how the approval process will operate in practice, which creates uncertainty for NIE.

NIE requests the Competition Commission to adopt the structure for the capex allowance proposed in NIE's initial submissions, which more closely aligns with the approach adopted by Ofgem and gives rise to clear incentives to innovate and seek efficiencies.

1. INTRODUCTION

- 1.1 The Utility Regulator's proposals with respect to NIE's capex allowance for RP5 are set out in chapter 5 of the Final Determination.
- 1.2 NIE's views on the quantum of the proposed capex allowance are set out in Chapter 5 (RP5 Capex – Quantum) of this Statement.
- 1.3 This Chapter 4 sets out NIE's views on the Utility Regulator's proposals for the structure of the capex arrangements.
- 1.4 This Chapter is structured as follows:
 - Section 2 explains the proposals NIE put to the Utility Regulator as part of its BPQ submission.
 - Section 3 describes the Final Determination proposals for a 'three funds' capex structure.
 - Section 4 sets out NIE's concerns with the Final Determination proposals for Funds 1 and 2.
 - Section 5 addresses the Final Determination proposals for Fund 3.
 - Section 6 draws conclusions.

- Section 7 notes that the expected transfer of NIE's transmission planning function to SONI may have an impact on the operation of any proposed capex mechanism for RP5.

2. NIE'S PROPOSALS

2.1 As part of its BPQ submission NIE proposed that:

- capex be notionally divided into three Funds¹ reflecting the different characteristics of the projects to be undertaken; and
- incentive mechanisms be adopted to incentivise NIE appropriately to manage each of the three kinds of project efficiently.

2.2 NIE proposed different incentive mechanisms according to the extent to which the cost and specification of projects were predictable and controllable by NIE. The mechanisms were structured to provide appropriate and workable incentives, based on the information available ex ante as to the works which NIE might efficiently undertake during RP5 and their unit costs.

2.3 The main elements of NIE's proposals for core capex comprised:

- an ex-ante allowance mainly for asset replacement and load-related capex (with a separate ring-fenced allowance in respect of high-volume rolling asset replacement programmes); and
- discrete project allowances for a small number of major transmission projects, with each allowance to be approved individually subsequent to the price control review as requirements become clearer during the course of RP5.

2.4 The structure of NIE's proposals is consistent with Ofgem precedent as evident from DPCR5. In particular, with respect to the allowance for asset replacement and load-related capex:

- the allowance would be set based on a reasonable assessment of expenditure requirements necessary for NIE to meet its statutory and licence obligations, and any performance improvement targets set as part of the RP5 price control;
- except in relation to the high volume rolling asset replacement programmes², the allowance would not represent a prescribed programme

¹ Referred to in NIE's original submission as three "pots" – the Utility Regulator subsequently defined three "funds". In this Statement, the term "funds" is used for both NIE's and the Utility Regulator's proposed categorisation of expenditure.

of work³ or a commitment to deliver specified numbers of units of asset replacement and network reinforcement or unit costs; and

- NIE would be incentivised to underspend the allowance consistent with delivery of statutory and licence obligations and any ex ante performance targets.

2.5 Furthermore, in order to provide visibility of output performance in line with Ofgem precedent, NIE committed to working collaboratively with the Utility Regulator to develop network load and health indices to supplement regulatory reporting within a RPI-X regulatory framework.

3. FINAL DETERMINATION PROPOSALS

3.1 The Final Determination proposes the following 'three fund' capex structure:

Fund 1

3.2 Fund 1 relates to all asset replacement and refurbishment. The Utility Regulator proposes that both:

- the total units to be delivered; and
- the unit costs

be agreed at the outset of the price control, and that a Reporter should verify delivery and substitution between asset types.

3.3 NIE would be entitled to retain a portion of any benefit arising from its delivery of the agreed units of asset replacement at a lower price than the price agreed with the Utility Regulator ex ante. Conversely, NIE would bear the consequences of exceeding the unit cost agreed with the Utility Regulator through a reconciliation at the end of RP5.

3.4 The Utility Regulator's Fund 1 covers not just high volume rolling programmes but all asset replacement, including discrete projects, together with 'input driven' expenditure (explained below).

² As noted in paragraph 2.2 above, NIE's proposals for core capex included a proposal to ring-fence its high volume rolling asset replacement programmes. This was in response to the Utility Regulator's desire to monitor the delivery of outputs while recognising that the development of load and health indices was still in the early stages.

³ Consistent with established regulatory practice: see for example the MMC report on NIE price control, March 1997 (paragraph 2.144).

Fund 2

- 3.5 Fund 2 relates to load-related investment, metering (excluding smart metering), connections and other less predictable investments.
- 3.6 The Utility Regulator proposes that a fixed allowance should be included in the price control, and that, in RP6, ex post adjustments should be made to the extent that the efficient cost of delivery of the relevant projects has exceeded, or fallen short of, the RP5 revenue allowance. This is referred to as logging up / down.
- 3.7 NIE's performance against the price control would be verified by the Reporter. There would be separate ring-fenced revenue allowances for metering, connections and non-recoverable network alterations.

Fund 3

- 3.8 The Final Determination treats investment in renewable integration, interconnection and three other major transmission projects⁴ as expenditure to be approved on a project-by-project basis under the Fund 3 rules. In addition, the Final Determination proposes to treat expenditure on trials and investment related to smart grids and smart metering in this way.
- 3.9 The Final Determination therefore includes no ex ante capex allowance for any of these projects. The Utility Regulator provided further detail on the operation of the Fund 3 mechanism in a separate consultation issued on 30 August 2012⁵.

4. NIE'S CONCERNS WITH THE UTILITY REGULATOR'S PROPOSALS FOR FUNDS 1 AND 2

- 4.1 The Utility Regulator's proposals for Funds 1 and 2 are superficially similar to the arrangements proposed by NIE. However, the Utility Regulator's proposals are in fact significantly different to NIE's proposals and NIE considers that the following matters give rise to serious concerns:
- the inclusion of all asset replacement within Fund 1;
 - the inclusion of the Ballylumford switchboard project within Fund 1;
 - the inclusion of "input driven" expenditure within Fund 1; and

⁴ Voltage Support (two projects) and Coolkeeragh – Magherafelt overhead line replacement.

⁵ These proposals were issued for consultation by the Utility Regulator on 30 August 2012 (provided at Appendix 4.1). NIE responded to the consultation on 27 September 2012 (provided at Appendix 4.2); and the Utility Regulator outlined its response to all responses received from consultees in the Final Determination (see Appendix H thereto).

- the structure of Fund 2.

Asset replacement

- 4.2 The scope of investments included in the Final Determination proposals for Fund 1 entails a very substantial extension of NIE's proposal.
- 4.3 NIE's proposal had been carefully designed to include only high volume rolling programmes in respect of which costs and volumes are predictable. These programmes include the various overhead line refurbishment programmes, as well as programmes to replace secondary plant equipment including, among other things, ring-main units and section pillars. Each project is of relatively low value and the risk of individual unit cost variation is diversified because of the high volume of similar projects undertaken as part of the annual programme. Consequently, an ex ante allowance for the delivery of these programmes can be derived with reasonable accuracy (based on historic 'run-rate') making it reasonable to incentivise the delivery of each programme at less than the ex-ante unit cost used to derive the allowance.
- 4.4 However, the Utility Regulator has proposed that Fund 1 be expanded to cover all network asset replacement activity, not just the high volume rolling programmes. Such a proposal is unworkable and inappropriate because:
- Neither NIE nor the Utility Regulator can predict with sufficient confidence at this point in time, in respect of all asset types, which assets should be replaced, in what volumes, and at what unit cost, over the RP5 period. As a result, NIE will bear the uncertainty risk associated with this prediction and will be dependent on the Utility Regulator's ex post assessment of the reasons for the inevitable variations that will occur⁶.
 - The other projects are more complex than the 'rolling programmes' and their scope and cost are therefore less predictable. Each is unique and defined by the specific investment requirements of a particular substation or part of the network. These requirements are not well defined at the outset of RP5 and will only become clear as RP5 progresses. In contrast to the rolling programmes, the cost of each discrete major project is of relatively high value and there is only limited scope to diversify cost variations from initial forecasts because of the relatively low volume of projects that make up the annual investment programme. Initial cost estimates (as used for price review purposes) are typically based on a 'desk top' assessment of project scope and the cost of similar previous

⁶ The details of this process have not been prescribed by the Utility Regulator which increases uncertainty.

projects, and are not sufficiently robust⁷ for inclusion under the restrictive Fund 1 arrangements. These initial uncertainties will be reduced over time as each scheme progresses through rigorous project planning, detailed investment appraisal, project design and costing.

- It is not realistic to consider that such projects should be taken through detailed design some four to seven years ahead of construction to enable a more accurate cost to be available for inclusion in a price review submission. Consequently, these cost estimates are not sufficiently robust for inclusion under the restrictive Fund 1 arrangements. Were these projects to be considered under Fund 1 as the Utility Regulator has proposed, significant additional allowance would be required to provide sufficient contingency adequately to limit the risk of variation between these early cost estimates and firm costs emerging from the detailed design.
- In any event, it is neither sensible nor efficient to hold NIE to a plan which effectively requires it to replace specific assets, in a manner prescribed by the Utility Regulator at the outset of RP5, when the implementation of that plan may prevent NIE from developing more innovative means of achieving the same or better result for customers (e.g. by the use of an improved design, or other more efficient means of achieving similar or greater outputs, or otherwise managing risk).
- By including all asset replacement within Fund 1, NIE is denied the flexibility to reprioritise expenditure between load-related (Fund 2) and asset replacement requirements (Fund 1)⁸. This limits NIE's ability to diversify the risk of under-provision in the event that unanticipated asset replacement requirements were to emerge. So, for example, a greater requirement for asset replacement cannot be traded off against a reduction in load-related requirements. Due to the restriction on transfers between the funds (and the restriction on redistributing allowances between transmission and distribution elements of the funds), NIE would be unable to optimise investment decisions for the ultimate benefit of customers.
- The separate funds for asset replacement and load-related expenditure do not facilitate the execution of combined projects where it is advantageous

⁷ These estimates do not provide sufficient contingency to adequately limit the risk of variation between these early cost estimates and firm costs derived subsequently following detailed design. It is estimated a contingency in excess of £20 million would be required if these initial cost estimates were to be treated under a Fund 1 arrangement.

⁸ NIE's capex proposals had a more limited impact on NIE's ability to reprioritise expenditure between load-related and asset replacement requirements. This is because NIE's proposals confined the scope of Fund 1 to rolling programmes, which are the more certain elements of asset replacement.

to do so. Where two or more projects are more efficiently managed jointly, the separation of costs for reporting purposes would be arbitrary.

Ballylumford switchboard project

- 4.5 The Ballylumford switchboard project is a major transmission project that involves the replacement of the 110kV switchboard at Ballylumford. At present the scale of uncertainty as to the cost of this project is so great that it should be subject to specific approval under Fund 3.

'Input driven' expenditure

- 4.6 The Utility Regulator has proposed a capped allowance within Fund 1 for a defined range of 'input driven' items⁹ including:
- reactive asset replacement: fault and emergency expenditure (including storm damage), other unplanned asset replacement requirements emerging during RP5;
 - legislation: additional costs arising due to changes in legislation (e.g. Roads & Street Works legislation, ESQCR); and
 - real price effects (RPE): increases in unit costs above RPI.
- 4.7 These costs are uncertain and largely outside NIE's control, and are therefore unsuitable for treatment under Fund 1¹⁰. NIE disagrees with the Utility Regulator's proposal to make allowance for these requirements under Fund 1. Rather, the allowance for these costs should be included in Fund 2¹¹.

Fund 2

- 4.8 The Utility Regulator's proposal for Fund 2 entails a very substantial departure from the RPI-X framework proposed by NIE, as well as from Ofgem precedent.
- 4.9 The Utility Regulator proposes that capex associated with load-related network reinforcement, metering (excluding smart metering, which is Fund 3) and connections (including non-recoverable alterations) be subject to an ex ante allowance for RP5. That allowance would be used for the purposes of tariff setting but would be adjusted ex post at the start of RP6 to reflect the extent to which, in light of outturn events (e.g. unforeseen growth in load, or unforeseen legislative changes), NIE's efficient spend has exceeded or fallen short of the RP5 allowance.

⁹ This term is defined by the Utility Regulator at paragraph 5.46 of the Final Determination.

¹⁰ The Utility Regulator characterises Fund 1 as covering "*work that is within NIE T&D's control*": see paragraph 5.33 of the Final Determination.

¹¹ With the exception of the RPE allowance for Fund 1 rolling programmes which should be included within the Fund 1 allowance.

The Utility Regulator also proposes ring-fenced allowances for the costs of connections, non-recoverable network alterations and metering.

- 4.10 The rules for Fund 2 envisage that the Utility Regulator should review each project undertaken by NIE ex post with a view to:
- disallowing expenditure where NIE is found – in the Utility Regulator's judgment – to have been inefficient; and
 - clawing back part of the revenue allowance where NIE has found ways to efficiently defer investment.
- 4.11 This approach will substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency, to the ultimate detriment of customers: if NIE were to introduce a successful innovation, which either extended the useful life of an asset or extended the electrical capability of the network, and thereby deferred capital expenditure, there would be no benefit to NIE since, by virtue of the “logging down” mechanism envisaged for Fund 2, it would lose the revenue allowance originally provided for that investment. While any benefit of innovation would accrue to customers, to the extent that an innovation failed, NIE would be found to have incurred costs inefficiently. The risks of innovation are therefore asymmetric, to the detriment of NIE. This is in stark contrast to the traditional form of RPI-X regulation, which would leave NIE to manage its overall business, to take the risks associated with its decisions as to how best to meet overall demand to specified output standards, and thereby incentivises it to innovate and, in the long run, achieve greater efficiencies.
- 4.12 In short, the Utility Regulator's proposals for Fund 2 convert what should be, in substance, a classic RPI-X price control, with its beneficial efficiency properties, into a system of micro-management of NIE's investment activities (which has poor incentive properties). The Utility Regulator proposes to introduce a Reporter who would act as an “auditor, certifier and commentator” on NIE's capital expenditure submissions, which will lead to blurring of roles and responsibilities for decisions which are best left to NIE to manage as part of its statutory and licence obligations. This is explained further in Chapter 14 (Reporter).
- 4.13 Furthermore, the Utility Regulator's assessment of the efficiency of Fund 2 investments relies on the ability to define a “target cost” in much the same way as is proposed for Fund 1 investments. Such a proposal is impractical and inappropriate for many of the same reasons set out in paragraph 4.4 above in respect of the wider scope of asset replacement activity proposed by the Utility Regulator under Fund 1. In particular, neither NIE nor the Utility Regulator can predict with sufficient confidence at this point in time, the scope, design and cost of individual Fund 2 investments that will be required over the RP5 period.

4.14 In addition, the Utility Regulator proposes a highly granular ex post and discretionary assessment of efficiency with reference to these ex ante forecasts. As a result, NIE will bear the uncertainty risk of this prediction and will be dependent on the Utility Regulator's ex post assessment of the reasons for the inevitable variations that will occur¹². This will substantially increase NIE's exposure to regulatory risk.

Conclusion on Funds 1 and 2

4.15 NIE considers that the Final Determination proposals for Funds 1 and 2 are inappropriate since they:

- result in a lack of flexibility in the capex allowance, in respect of NIE's ability to depart from the volumes outlined in the plan in the light of new information and changing priorities;
- include provision for an ex post efficiency review by Utility Regulator without the scope and criteria for that review having been described in detail anywhere, which adds additional risk of under-recovery; and
- result in regulatory micromanagement of capex activities.

4.16 The proposed funding structure substantially interferes with NIE's management freedom to decide from time to time on the optimal capital investment programme for the T&D network. Moreover, it substantially diminishes NIE's freedom and incentive to introduce innovative solutions, in place of conventional investment in new or replacement assets, and to substitute between different funds in an optimal manner.

4.17 The fact that NIE will be required, during the course of the RP5 period, to revisit its capex plans to reflect changing network circumstances, does not mean that its initial plans were substandard. There is no benefit in requiring NIE to stick to its initial plans, simply to discipline NIE's management into providing more "accurate" plans. It is a normal and desirable feature of capex planning that the plan should be dynamic, and implementation should be responsive to changing needs and priorities and external constraints.

4.18 As a consequence NIE considers that the Utility Regulator's proposals will increase NIE's exposure to real and perceived regulatory risk. The Utility Regulator's proposal for ex post adjustments would also substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency, to the ultimate detriment of customers.

¹² Again, the details of this process have not been prescribed by the Utility Regulator which increases uncertainty.

- 4.19 The approach proposed by the Utility Regulator is in stark contrast to the traditional form of RPI-X regulation, which would leave NIE to manage its overall business, to take the risks associated with its decisions as to how best to meet overall demand to specified output standards, and thereby incentivises it to innovate and, in the long run, achieve greater efficiencies.
- 4.20 In order to address the concerns described above, NIE requests the Competition Commission to determine a structure for NIE's capex allowance which incorporates the following features:
- Fund 1 should be limited to those 'rolling programmes' investments for which NIE can predict with reasonable accuracy both the need to replace set volumes of certain types of assets and the efficient cost per unit. The other elements of asset replacement expenditure (including the 'input driven items' that the Utility Regulator proposes to include in Fund 1) should be transferred to Fund 2.
 - A conventional RPI-X approach should be applied for Fund 2. Having carved out Fund 1 and Fund 3 to cater for specifically identified investments, an ex ante allowance should be set for Fund 2 for the remaining capex, allied with strong incentives to encourage efficiencies through innovative approaches and productivity gains. Under this proposal, NIE would bear a set proportion of under-spend or over-spend relative to the ex ante allowance. Under NIE's proposals for the operation of Fund 2, it could be expected¹³ that these residual cost uncertainties could normally be diversified along with other ex ante uncertainties¹⁴ pertaining to a range of assumptions forming the basis of a general regulatory allowance.
 - To provide visibility of output performance, and in line with GB precedent, NIE has committed to working collaboratively with the Utility Regulator in the development of network load and health indices in order to supplement regulatory reporting within a RPI-X regulatory framework. Once developed, NIE expects that these output measures can be adopted by the Utility Regulator in a manner similar to that currently employed by Ofgem¹⁵ in the qualitative assessment of the performance of GB DNOs in the delivery of their asset replacement and load related programmes.

¹³ Assuming allowances are based on a central case scenario of potential outcomes.

¹⁴ Uncertainties including investment need, scope and cost.

¹⁵ Ofgem has recognised the need for flexible capex arrangements that do not prescribe the detailed physical outputs as part of the ex-ante price control allowance. While physical outputs are not defined, Ofgem is working with the GB DNOs to develop high level network outputs (health and load indices) with the aim of better informing the regulator as to the adequacy of investment.

5. LARGE PROJECTS – FUND 3

5.1 In principle, NIE is content with the Utility Regulator’s proposal to include within Fund 3 investments for renewable integration, interconnection and three other transmission projects, as well as smart metering. However, NIE is concerned with:

- the lack of well-defined detailed rules in relation to the operation of Fund 3;
- the inclusion in Fund 3 of investment related to smart grid development¹⁶;
- the exclusion from Fund 3 of the Ballylumford switchboard project; and
- the lack of clarity on any requirement to demonstrate a 'case of need' for asset replacement and smart metering investments.

5.2 These issues are considered in turn below.

Fund 3 rules not defined

5.3 NIE is concerned that the Final Determination does not fully detail how the Fund 3 mechanism will operate in practice. It appears likely that the “rules” will only become clear over the course of RP5 as proposals for specific projects are progressed through the approval process. This lack of clarity adds uncertainty as to the operation of the RP5 price control. Establishing certainty around the “rules” ex-ante is particularly important because, by definition, the Fund 3 process sits outside the normal price control review process (and the appeal mechanism applicable thereto) and because allowances and related incentives cannot be defined at the outset of RP5.

5.4 By way of example, NIE should not be obliged to proceed with the construction of a project in the absence of agreement on the terms and conditions attached to the Utility Regulator’s approval. Moreover, incentives should apply only to aspects of the project that are within NIE’s control. The Utility Regulator has indicated¹⁷ a willingness to adopt these principles and NIE requests the Competition Commission to endorse them.

Smart grid

5.5 The proposed inclusion of smart grid initiatives within Fund 3 is not appropriate. While there is some uncertainty over the detail of smart grid initiatives, the costs of individual projects are likely to be of a much lower magnitude than other Fund 3 projects. They are insufficiently material to merit requiring the Utility Regulator to consider each proposal individually. It would introduce inefficiency into the

¹⁶ NIE is concerned that the Utility Regulator has allowed no ex ante funding for the range of smart grid initiatives proposed by NIE.

¹⁷ Final Determination, Appendix H, page 10.

process in the form of regulatory micro-management of issues that are best left to NIE to manage.

- 5.6 Rather than treating such projects under Fund 3, NIE proposes that ex ante funding should be allowed within Fund 2 for a range of smart grid capex initiatives. This is explained further in Section 4 of Chapter 5 (RP5 Capex – Quantum).

Ballylumford switchboard project

- 5.7 As noted in Section 4 above, NIE considers Fund 3 to be the appropriate mechanism for making provision for the Ballylumford Switchboard asset replacement project, rather than Fund 1 as proposed in the Final Determination.

Demonstrating a 'case of need'

- 5.8 In assessing the need for renewable generation network investments, the Utility Regulator requires NIE to consider the impact on the wholesale market. NIE has reflected this additional requirement in its opex projections for RP5: see Section 4 of Chapter 6 (RP5 Opex).
- 5.9 While the Utility Regulator proposes using Fund 3 to consider the need for projects with a range of investment drivers, the process recently consulted upon by the Utility Regulator focused only on the process for assessing investment for renewable generation. It is unclear therefore, whether that process is to be applied to all Fund 3 investments or whether separate consideration will be given to the process for considering asset replacement and smart meter investments. For the reasons set out below, this should be made clear.

Asset Replacement

- 5.10 The Fund 3 process consulted upon by the Utility Regulator requires NIE to produce a 'case of need' with reference to additional network capacity provided by the scheme in the context of the Renewable Integration Development Project (RIDP). It also outlines assessment criteria which relate to development of the transmission network and NIE's planning standards, as well as 'directly measurable financial costs and benefits' which includes assessment of the impact of the proposed investment on network charges and wholesale market costs. This process is defined by reference to renewable generation investments and implies that the Utility Regulator considers such investment to be discretionary, with approval to proceed subject to a favourable cost / benefit appraisal of the additional network capacity to be provided.
- 5.11 This approach is not appropriate for asset replacement investments which, by definition, are not driven by network capacity requirements. Such expenditure is required to ensure the integrity of the network by managing network risk, including safety and performance, having regard to statutory and licence obligations and the

condition of the assets. For the small number of asset replacement projects which fall under Fund 3, the Utility Regulator's process (and criteria) for their appraisal and approval must take full account of NIE's statutory and licence obligations, the recognised techniques within the electricity industry for the appraisal of asset condition and the associated risks to safety, environment and the reliable operation of the network.

Smart Metering

- 5.12 Similarly, investment in smart metering will not provide additional network capacity and so a requirement to consider additional network capacity should not be included in the Utility Regulator's Fund 3 process for appraising such funding requests.
- 5.13 Moreover, in July 2012 the NI government announced its decision to proceed with a roll-out of smart metering based on its own cost benefit appraisal. The detailed arrangements for the roll-out are to be consulted upon by the Utility Regulator in due course. It follows that the Utility Regulator's process for the appraisal of smart meter investments under Fund 3 should take full account of the decision to proceed with the roll-out and its own decisions on the detailed arrangements that will apply. It should not be incumbent on NIE separately to establish the cost benefit case for this investment. Rather, NIE's role should be limited to submitting proposals for the funding required to enable NIE to fulfil its obligations in establishing a smart metering programme during RP5, within the overall policy framework to be established by the NI government and the Utility Regulator on the form and timescale of the programme.

6. CONCLUSION

- 6.1 For the reasons set out above, NIE was unable to accept the three fund structure proposed in the Final Determination.
- 6.2 NIE requests the Competition Commission to adopt the structure for the capex allowance proposed in NIE's initial BPQ submissions, which more closely aligns with the approach adopted by Ofgem and gives rise to clear incentives to innovate and seek efficiencies.
- 6.3 The changes to the Final Determination position that are necessary to implement NIE's proposals are summarised below.

Fund 1

- 6.4 Fund 1 should be limited only to those investments for which NIE can predict, at this point in time, the need to replace set volumes of certain types of assets; and

the likely efficient cost per unit. These properties relate only to those clearly identifiable asset replacement work programmes (rolling programmes) which NIE categorised under its Fund 1 proposal.

- 6.5 In contrast, the other elements of asset replacement expenditure that the Utility Regulator proposes to include in Fund 1 do not have these properties of predictability and are therefore unsuitable for inclusion under Fund 1, and should be transferred to Fund 2.

Fund 2

- 6.6 A conventional RPI-X approach be applied for Fund 2. Having carved out Fund 1 and Fund 3 to cater for specifically identified investments, NIE proposed that an ex ante allowance be set for Fund 2 to allow it to cater for remaining obligations, allied with strong incentives to encourage efficiencies through innovative approaches and productivity gains. Under this proposal, NIE would bear a set proportion¹⁸ of under-spend or over-spend relative to the ex ante allowance.

Fund 3

- 6.7 NIE has fewer concerns with the Utility Regulator's proposals in relation to the approval of major projects. However, the Final Determination does not fully detail how the approval process will operate in practice. The Ballylumford switchboard project should be included in Fund 3 and smart grids included in Fund 2.

Reflecting the capex mechanism in NIE's Licences

- 6.8 NIE requests that, if the Competition Commission concludes that NIE's capex allowance for RP5 should incorporate a three fund structure, then the price control condition itself (or some other single document referred to in the price control condition and containing all relevant schedules and spreadsheets) should clearly specify the scope of each fund, and the rules to be applied in respect of it to determine adjustments to the base allowed revenues, and to NIE's RAB. This will be important in order to maintain public confidence in the operation of the regulatory regime, to make clear at the outset of RP5 what rules will be applied to determine NIE's ultimate revenue allowance for capex works to be undertaken during RP5, and to avoid disputes later as to the extent to which it is necessary or appropriate for the Utility Regulator to review NIE's capital expenditure at the end of RP5 with a view to adjusting NIE's revenue entitlement (through logging up/down) and/or NIE's RAB.

¹⁸ NIE has proposed an incentive rate of 30%.

7. RECENT DEVELOPMENTS – EU THIRD ENERGY PACKAGE

- 7.1 As explained in Section 3 of Annex 1A.1 (Historical and Regulatory Background), the European Commission in its decision of 12 April 2013 confirmed that arrangements in place in relation to the vertical integration and operation of the transmission systems belonging to NIE meet the requirements of Article 9(9) of the IME3 Directive.
- 7.2 As a consequence of this decision, NIE's transmission planning function will in due course transfer to SONI (the transmission system operator in NI). NIE is commencing discussions with the Utility Regulator to clarify the specific activities, processes and resources that will transfer to SONI.
- 7.3 With respect to the matters addressed in this Chapter 4 (RP5 Capex – Structure), any change in responsibility for transmission planning may have an impact on the operation of any capex mechanism put in place for PR5. In particular, certain transmission investment decisions, including decisions to prioritise investment, for which NIE is currently responsible may in future be taken by SONI. NIE hopes to obtain clarity on this issue from the Utility Regulator at an early stage so that it might be taken into consideration by the Competition Commission in its determination of an appropriate capex mechanism for RP5.

CHAPTER 5

RP5 CAPEX – QUANTUM

SUMMARY

The Utility Regulator has proposed an allowance of £373.5 million for the capital investment needed to sustain and develop NIE's core T&D network infrastructure so that it continues to provide a reliable supply of electricity to customers. The proposal gives rise to a shortfall of £232.8 million in the £606.4 million identified by NIE as being required for RP5 to enable it to meet its statutory and licence obligations. In addition, capex amounting to £74.8 million is required for metering and connections investment against which the Utility Regulator has allowed £57.8 million leaving a shortfall of £17 million. NIE and the Utility Regulator have agreed that capex for renewables will be sought and approved on a case-by-case basis.

NIE has proposed a substantial increase in core capex for RP5. This is because:

- there was a high level of investment in the network in the 1960s and the assets installed then are now entering the replacement phase of their lifecycle;
- additional capex is required to address a network resilience risk associated with the 11kV network during extreme weather events (such as the March 2013 snow storm);
- additional capex is required to ensure compliance with new legislation and new work streams some of which are outside NIE's control (e.g. flood prevention);
- there are also several high value projects, each greater than £10 million, which the Utility Regulator agrees are required and justified.

NIE has the following very significant concerns with the quantum of the capex allowance in the Final Determination:

- There is a £115.3 million shortfall in the amount needed to fund the capex work volumes required by the Final Determination. The shortfall is due mainly to fundamental benchmarking errors made by the Utility Regulator and a misunderstanding of NIE's cost base.
- No allowance has been provided to reduce the risk of widespread and prolonged loss of supply resulting from ice accretion on the high proportion of small cross section conductor overhead lines on the 11kV rural network. The March 2013 snow storm confirms that the NIE network is very vulnerable to extreme weather events which result in the loss of supplies to large numbers of customers for a prolonged period. NIE's proposal that a limited allowance be provided to finance a pilot was not taken up by the Utility Regulator.

- Expenditure required for compliance with the Electricity Safety, Quality & Continuity Regulations (ESQCR) has been almost entirely disallowed on the erroneous basis that these works are covered by allowances for other programmes of work.
- With regard to asset replacement work, the Utility Regulator generally agrees with NIE's assessment of the volume of work to be done. However, there are important exceptions which mean that the Final Determination asset replacement volumes are not sufficient to enable NIE adequately to manage network risk. £21.8 million of additional capex is required for essential works to address this.
- The Final Determination fails to provide an *ex ante* allowance for significant load-related projects. Such projects will instead be subject to an *ex post* assessment following a review of network planning standards to be undertaken by NIE. This gives rise to a high level of regulatory risk. NIE is firmly of the view that it should be provided with an *ex ante* allowance based on requirements assessed against the current network planning standards.
- No provision has been made for investment in smart grid technology leaving NIE exposed to risks arising from the rapid development of small scale embedded generation.
- No allowance has been provided for network performance improvement to raise the level of service experienced by the worst served rural customers.

NIE requests the Competition Commission to provide in full the capex allowance sought by NIE as described in this Chapter.

1. INTRODUCTION

- 1.1 This chapter is concerned with the quantum of NIE's capex allowance for RP5. It explains why the capex allowance proposed by the Utility Regulator in its Final Determination falls well short of the amount required by NIE to enable it to maintain a safe and reliable network.
- 1.2 Other aspects of the Utility Regulator's proposals for RP5 capex are dealt with elsewhere in this Statement:
- NIE's concerns with the Utility Regulator's proposals for the structure of the RP5 capex arrangements, including the operation of the 'three funds', are dealt with in Chapter 4.
 - NIE's concerns with the Utility Regulator's benchmarking of NIE's efficiency are addressed in Chapter 7.

- NIE's case with respect to real price effects (which impact upon both the capex and opex allowances) is addressed principally in Chapter 8.
- NIE's concerns with the Utility Regulator's proposal to introduce a Reporter who would play a key role in assessing capex are dealt with in Chapter 14.

1.3 The Chapter is structured as follows:

- Section 2 provides background information which is relevant to understanding NIE's case for adequate capital investment in its T&D network during RP5.
- Section 3 contains an overview of the Final Determination proposals for the quantum of RP5 capex and contrasts these proposals with NIE's assessment of investment need.
- Section 4 sets out NIE's view on the Final Determination proposed allowance for load-related and non-load-related expenditure (see Glossary)
- Section 5 comments on the Final Determination allowance for metering, connections and renewables expenditure. Expenditure on these items is ring-fenced and is therefore treated differently to other network expenditure.

2. BACKGROUND

2.1 This section provides background information which is relevant to understanding NIE's case for adequate capital investment in its T&D network during RP5. It contains:

- a summary description of NIE's T&D network;
- a summary of the various drivers of capital investment in the T&D network; and
- a summary of NIE's RP5 business plan preparation process in respect of capex.

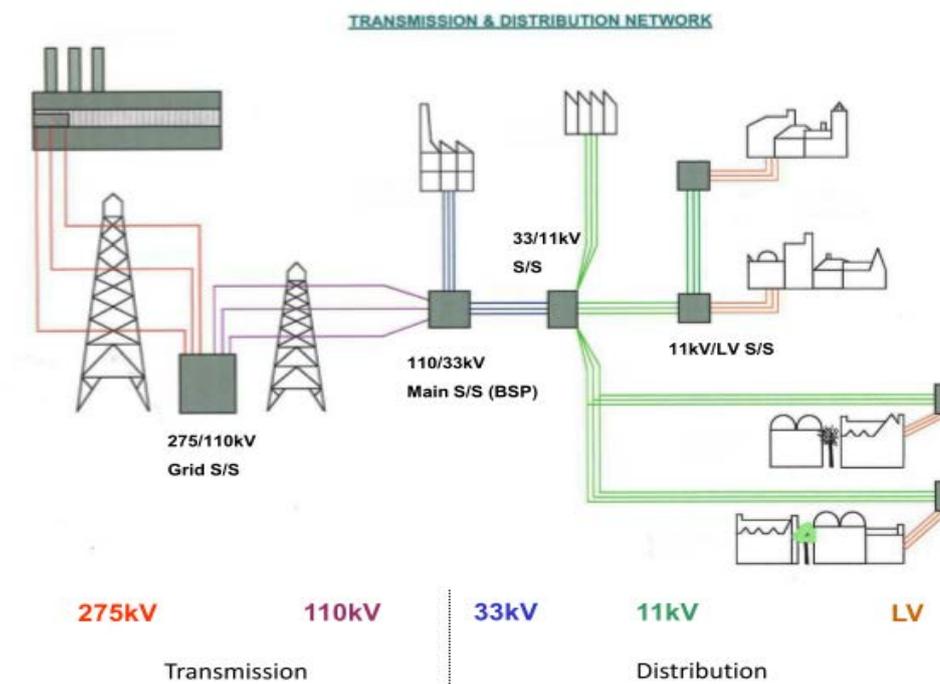
NIE's T&D network

2.2 NIE plans, owns, operates and maintains the distribution network in Northern Ireland. The distribution network operates at 33kV, 11kV, 6.6kV and 400/230 volts.

2.3 NIE also plans, owns and maintains the transmission network, which operates at 275kV and 110kV. The transmission network is operated by the Transmission System Operator (TSO), which in Northern Ireland is the System Operator for Northern Ireland (SONI).

- 2.4 The transmission network transmits large quantities of power from generators and interconnectors to bulk supply points (BSPs). The distribution network then distributes this power from the BSPs to customers via a network of lines, cables and step down transformers located in substations (S/S), as shown in Figure 5.1 below.
- 2.5 The T&D network in Northern Ireland is generally typical of such networks elsewhere in the UK. However, a distinguishing feature is that Northern Ireland is substantially rural in character, with a lower density of population and development than most of GB. This is reflected in the distribution network, which by way of example has a proliferation of 11kV overhead lines rather than underground cables which would be more common in urban areas. There is also a relatively high proportion of small pole mounted transformers supplying single dwellings and thus also a larger proportion of single phase¹ overhead line branches. Furthermore, approximately two thirds of the NI service area lies within 30km of the coast with an environment which has a detrimental impact on assets. A more detailed description of NIE's T&D networks is provided in Annex 5A.1 (NIE Network Guide).

Figure 5.1: Simplified representation of NIE's T&D network



¹ Electricity is normally generated by 3 phase generators, i.e. 3 electricity supplies are provided by a single generator. At the higher voltages, electricity is transmitted and distributed as a three phase, three wire system but at 11kV and lower voltages, where load densities are lower, a single phase or 2 wire system may be used.

Capex drivers

- 2.6 For the purposes of assessing NIE's capex requirement for RP5, it is helpful to distinguish between the following six drivers of capital investment in NIE's T&D network:
- Load-related expenditure: NIE must invest in its network when load growth results in overhead lines, cables, transformers or other network elements becoming overloaded.
 - Asset replacement or refurbishment expenditure: NIE must invest to address parts of the network that have deteriorated due to ageing or damage.
 - Compliance with legislation: NIE must maintain a network compliant with legislation which meets safety obligations and environmental standards. It must also comply with changes in legislation defining specific obligations for network investment.
 - Network resilience: NIE must invest to minimise the impact on customers of network failure due to extreme weather events.
 - Renewables-related expenditure: NIE must invest to reinforce the networks so that renewable generators can be connected. The NI Assembly has established a target and incentives for electricity consumed from renewable generation sources and NIE has a licence obligation to connect these new sources of generation.
 - New interconnection with other systems: NIE is currently in the planning phase of a new 400kV interconnector with RoI. This project is required for security of supply reasons, to reduce costs in the all-Island electricity market due to constraint payments to wind generators and to support the connection of renewable generation. The project is supported by the NI Assembly, the RoI Government and by the regulators in both jurisdictions.
- 2.7 The above drivers relate to capital investment in NIE's T&D network. Separate considerations apply to non-network capex, being capex that does not relate directly to spend on the networks. An example is expenditure on new IT systems. Non Network Capex is dealt with in Chapter 6 (RP5 Opex).
- 2.8 NIE recognises that its submission of £606.4 million is a significant increase over RP4 outturn expenditure². However, a straight comparison masks the underlying

² See Annex 5A.2 (Capex – Reconciling NIE's BPQ submission with the Forecast in this Statement) for an explanation of the adjustments made to NIE's BPQ submission to reflect the availability of new information and/or different assumptions contained within the Utility Regulator's draft determination and Final Determination.

reasons for the increase. In RP5, there are three new drivers of capital expenditure which were not a feature during RP4:

New legislation

- New legislation, primarily the Electricity Safety Quality and Continuity Regulations (ESQCR) and Road and Streetworks legislation place specific statutory requirement on NIE in terms of compliance. The capex required in RP5 to meet these obligations is approximately £34 million.

New work streams

- During RP5, NIE must commence asset replacement programmes on several asset classes which are only now falling due for replacement due to the risks associated with them remaining in service. Examples include 33kV overhead line tower refurbishment and cable replacement. The capex required in RP5 to meet these obligations is approximately £63 million.

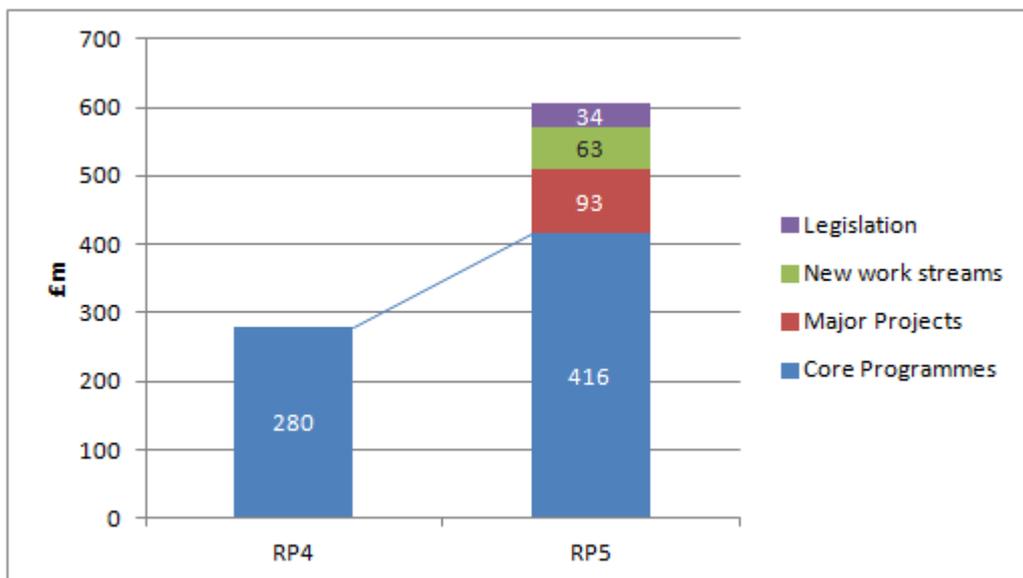
Major projects

- In RP5, there are a small number of complex high value projects generally requiring individual regulatory approval. Examples include two transmission voltage support schemes together costing £28 million. The capex required in RP5 to meet these obligations is approximately £93 million.

2.9 The increase in the remaining core programmes (£136 million) is driven by increased volumes of asset replacement work for an ageing network, exacerbated by the relatively modest asset replacement rate in previous price control periods.

2.10 The increase in NIE's capex requirement for RP5 relative to the allowance for RP4 is illustrated by Figure 5.2 below.

Figure 5.2: Capex – NIE proposals for RP5 relative to RP4



- 2.11 Despite the increased level of asset replacement expenditure proposed by NIE in RP5, assets will still be replaced only at the rate of 0.6% of the value³ of the asset base per annum. Since this expenditure will be focused on those assets over 40 years old, approximately 45% of the asset base, these older assets will be replaced at the rate of 1.3% per annum. At the end of RP5, 93.3% of the older assets on the network will still be in service at ages well beyond those of the mean asset lives of assets determined by Ofgem during DPCR5. This low replacement rate of assets results from adopting best asset management practice where assets are replaced (regardless of age) only when the probability of asset failure and the consequences of such failure are unacceptable – a threshold determined by the application of the quantifiable risk-based approach to assessing asset replacement needs which is set out in our strategy papers and explained in our responses to the Utility Regulator's questions.
- 2.12 If this asset replacement rate were to be sustained into the future, the current 40 year old assets would not be replaced until 75 years had elapsed, i.e. until they were 115 years old and the asset base would continue to get older. This is not a sustainable situation and the asset replacement rate will have to increase in future regulatory periods. Any significant deferral of asset replacement work will aggravate matters leading to network access problems in the future, deteriorating network performance and inefficient working.

NIE's RP5 business plan preparation process

- 2.13 NIE submitted its RP5 capex Business Plan Questionnaire (BPQ) to the Utility Regulator in January 2011. This was accompanied with supporting information in the form of supplementary papers. Of particular significance was a suite of 43 strategy papers which described in detail the derivation of capex required on an asset category basis.
- 2.14 NIE's BPQ submission on capex was based on a robust bottom-up assessment of the investment required to achieve the following objectives⁴:
- develop the network to allow new customers to be connected, and to accommodate growth in demand for electricity within the existing customer base;
 - maintain a resilient network providing a reliable supply of electricity to customers through targeted investment:
 - to avoid major losses of supply to customers;

³ Modern Equivalent Asset Valuation (MEAV)

⁴ These investment objectives were published in the NIE Paper 'T&D Network Capital Investment Requirements for RP5' which was placed on NIE's website on 20 June 2011 and is provided at Appendix 5.1.

- maintain existing levels of network performance:
 - to avoid losses of supply to smaller numbers of customers but more frequently;
- maintain a network compliant with legislation which meets safety obligations and environmental standards:
 - to prevent catastrophic failures of equipment;
 - to address customer facing assets such as cut-outs, LV equipment etc;
- manage the level of age-expired equipment on the network:
 - to prevent an unsustainable build-up of an ageing asset base; and
- where possible, reduce operating and maintenance costs:
 - to sustain an optimal level of opex on inspection, maintenance, and fault & emergency activity.

2.15 The bottom up assessment was carried out by NIE's professional engineers who have detailed knowledge of NIE's networks, including maintenance and fault history, and considerable relevant experience. They applied techniques widely used across the electricity supply industry for assessing asset condition and have up-to-date knowledge of the latest equipment, designs and methodologies available to address network investment demands.

2.16 NIE has a high level of confidence that the cost requirements presented in its capex submissions throughout the RP5 review process, including the forecast presented in this Statement, are well justified and reflect an efficient use of resources. This confidence is borne out of:

- the strength of the processes and policies that have been used in deriving the requested amounts for capex, which we describe below; and
- benchmarking shows that NIE is efficient and that this reflects positively on its policies and processes generally

2.17 Throughout the development of its business plan for RP5, NIE assessed its emerging findings against the following five criteria:

- Focus on stated objectives: are the proposed expenditures and programmes essential to NIE's objectives and its overall network stewardship responsibilities?
- Value for customers: is the delivery approach chosen cost-minimising for customers over the relevant time frame, and have possible alternatives been considered?

- Deliverability: is the programme of work credible and deliverable in terms of the internal / external resources required?
- Risks and contingency: is there appropriate consideration of risk along with credible contingency plans and mitigation policies?
- Consistency: is the plan internally consistent across its entirety, and externally consistent, for example with wider developments in the sector?

2.18 NIE has been careful to ensure that rigorous and detailed consideration of these five criteria has been given to each element of the plan. The resulting views of investment requirements were documented in the BPQ Strategy papers.

2.19 Direction was provided by NIE senior management at the outset and throughout the process. Senior management challenged the plan to ensure that the proposed investment requirements both minimised expenditure and adequately addressed the level of risk NIE would be expected to manage. The plan was developed through a three stage process.

Stage one: initial plan development.

- The initial plan, derived from a bottom up assessment of investment requirements of the network, focused on meeting the five criteria outlined above.
- The process was carried out using the same modular approach used by the GB DNOs in DPCR5 – i.e. an assessment of expenditure for:
 - Load-related schemes to address the risks associated with increased network loading;
 - asset replacement projects to address the risks associated with asset condition and performance; and
 - other non-load-related expenditure including new legislation requirements and expenditure required to improve network resilience and the level of service to worst served customers.
- Where possible, differing types expenditure were considered together to minimise expenditure.

Stage two: alternative strategies.

- NIE's investment engineers were challenged to:
 - demonstrate best use of Smart technology in order to reduce the volume of asset that would need to be replaced; and

- minimise load-related investment by reviewing assumptions on network risk, forecast uncertainty and project phasing.

Stage three: deferral

- The investment engineering team was tasked with exploring deferral opportunities in order to reduce replacement volumes, explicitly weighing-up the costs and benefits of undertaking the work during RP5.
 - Any resulting increase in network risk and its potential impact on customers was considered carefully, remaining cognisant throughout of the need to ensure public safety.
- 2.20 Development of the capital submission involved both (i) a small yet expert team of engineers under the control of a single Investment and Risk Manager and (ii) members of NIE senior management including the Managing Director, Chief Operating Officer and Operations Director. The involvement of the directors in the detail of the process ensured a clear and practical alignment between the engineering assessment of risk and the company's strategy for the management of corporate risk.
- 2.21 The capital investment submission was supported by a suite of 43 strategy papers detailing the risk ranking and prioritisation process, condition and risk considerations, and the proposals and costings for RP5 and RP6. These papers described in detail the analysis of risks and investment need that each item of expenditure addressed, together with investment options considered and the impact of deferring expenditure into RP6.
- 2.22 Every paper was robustly critiqued and challenged by a review panel consisting of the Chief Operating Officer, Operations Director, Programme Management and Network Investment & Risk Managers, and engineering staff in the Power Networks Division. The proposals were therefore subjected to significant peer and management review throughout the process.
- 2.23 NIE engaged Parsons Brinckerhoff (PB) to provide assistance with the preparation of its RP5 capex submission so that it was developed:
- in a manner consistent with processes and techniques adopted in current GB regulatory practice; and
 - in the light of a detailed understanding of the comparative requirements of GB DNOs as published in Ofgem's DPCR5 reports.
- 2.24 PB was well placed to fulfil this appointment given its role as Technical Consultant to Ofgem during the DPCR5 price control review.

2.25 As a consequence of the foregoing, NIE considers the submitted plan has been subjected to exceptional internal scrutiny and robust challenge, and therefore represents an optimised plan.

3. FINAL DETERMINATION OVERVIEW

3.1 NIE considers that the investment needed for the network during RP5 is £606.4 million, excluding non-network capex, metering and connections expenditure. This assessment of its 'core' capex requirements for RP5 reflects the latest best estimate of costs and is referred to in this Chapter as its **Forecast**.

3.2 The Forecast supersedes previous assessments of its capex requirement, including that contained in its BPQ submission and in NIE's response to the Utility Regulator's draft determination⁵. It includes the latest assessment of the allowance required for Real Price Effects (RPEs) and also includes £35 million to finance a pilot project to improve the resilience of the 11kV network to extreme weather events. These two items account for the difference between the Forecast and NIE's earlier capex assessment.

3.3 The Final Determination allows £373.5 million for network investment, which represents a shortfall of £232.8 million relative to the Forecast.

3.4 The shortfall is in two parts:

- First, the Final Determination provides inadequate allowances for the cost of carrying out volumes of work and activities that NIE and the Utility Regulator agree are necessary during RP5.
- Second, there is a need for NIE to carry out work that has been disallowed in the Final Determination in order to manage network risk to an acceptable level.

3.5 The composition of the shortfall in core capex is shown in Table 5.1 below.

⁵ See Annex 5A.2 (Capex – Reconciling NIE's BPQ submission with the Forecast in this Statement) for an explanation of the adjustments made to NIE's BPQ submission to reflect the availability of new information and/or different assumptions contained within the Utility Regulator's draft determination and Final Determination.

Table 5.1: Core capex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
(i) Cost categories for which there is agreement as to the need for the work but not the cost	379.9	264.6	115.3
(ii) Cost categories for which there is disagreement as to the need for some or all of the work	126.3	8.8	117.5
(iii) Cost categories for which both the need and the cost are agreed	100.1	100.1	-
Totals	606.4	373.5	232.8

- 3.6 These very significant shortfalls mean that NIE would be seriously underfunded to address its statutory and licence obligations and, in particular, would not be able to provide improvements in the level of service to rural customers.
- 3.7 NIE also submitted costs of £74.8 million for other investment items relating to connections and metering against which the Utility Regulator proposed an allowance of £57.8 million leaving a shortfall of £17 million. This shortfall is shown in Table 5.2 below.

Table 5.2: Other capex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Connections	37.3	37.3	0
Metering	37.5	20.5	17.0
Totals	74.8	57.8	17.0

- 3.8 NIE's concerns with respect to the Final Determination allowance for network infrastructure investment, load-related and non-load-related, are considered in Section 4 below.
- 3.9 NIE's concerns with respect to other investment items are considered in Section 5.

4. NIE'S CONCERNS – NETWORK INFRASTRUCTURE INVESTMENT

- 4.1 This Section addresses NIE's requirements for load-related and non-load-related expenditure. It critiques the Utility Regulator's assessment of NIE's submission and sets out NIE's concerns with the Final Determination outcomes.

4.2 In addressing NIE's concerns with the Final Determination, this Section is structured as follows:

- It deals first with shortfalls in allowances for volumes of work which NIE and the Utility Regulator agree are necessary in RP5 – i.e. Category (i) in Table 5.1 above.
- It then turns to shortfalls in allowances that arise because the Utility Regulator disagrees with NIE as to the need for such work – i.e. Category (ii) in Table 5.1 above.

Shortfalls in allowances for agreed work (£115.3 million)

4.3 For a number of cost categories, NIE and the Utility Regulator agree the volume of work that is required in RP5 but do not agree the cost of doing that work. This accounts for £115.3 million of the £232.8 million total shortfall in the Final Determination capex allowance.

4.4 Table 5.3 below illustrates how this £115.3 million shortfall can be broken down into six discrete cost categories.

Table 5.3: Shortfalls in allowances for agreed work – by cost category

Cost category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
A. Overhead lines	153.7	109.7	44.0
B. RPEs	37.5	0.6	36.9
C. Plant	118.4	103.5	14.9
D. Capitalised overheads	27.2	15.7	11.5
E. Project design, management & consultancy	12.0	6.4	5.6
F. Reactive	31.1	28.8	2.4
Total	379.9	264.6	115.3

4.5 A significant part of the £115.3 million disallowance arises from flaws in the Utility Regulator's benchmarking of NIE's cost base and its misunderstanding of NIE's indirect costs. These shortcomings (which account for some £61.1 million of the shortfall) are addressed in more detail in Chapter 7 (NIE's Efficiency) to which this Chapter makes several references.

4.6 Each of the six cost categories A to F shown in Table 5.3 is considered in turn below.

A. Overhead Lines (£44.0 million shortfall)

4.7 Overhead line expenditure is broken down into three sub-categories as shown in Table 5.4.

Table 5.4: Overhead lines shortfall

Overhead line sub-categories	Shortfall
	£m
(a) Distribution overhead line refurbishment	25.5
(b) Associated distribution patrol, survey & wayleaves costs	18.1
(c) Transmission overhead lines refurbishment	0.5
Total	44.0

- 4.8 Overhead line sub-categories (a) and (c) cover the replacement of worn and defective overhead line components to ensure satisfactory performance of the network particularly during high wind periods when weakened or faulty components fail. Sub-category (b) covers the associated distribution survey and wayleave costs incurred in detailing the specific work to be completed on each line and in negotiating access to the line for the work crews.
- 4.9 So far as NIE is aware, all £44 million of the shortfall with respect to overhead lines expenditure is attributable to erroneous benchmarking and efficiency assumptions adopted by the Utility Regulator.
- 4.10 NIE's position with respect to both of these efficiency assumptions is set out in Section 4 of Chapter 7 (NIE's Efficiency). In summary, the Utility Regulator's benchmarking analysis is flawed and should not be relied on. By contrast, NIE has compelling and robust evidence to demonstrate that it is efficient in its overhead line refurbishment and associated tree cutting operations. NIE's benchmarking shows that NIE's costs for both operations are low by comparison with the GB DNO upper quartile and that the Utility Regulator's proposed allowances are transparently and grossly inadequate.
- 4.11 There is therefore no sound basis for the Final Determination disallowances in respect of overhead lines.

B. Shortfall associated with RPEs (£36.9 million shortfall)

- 4.12 As shown in Table 5.3 the Utility Regulator has disallowed £36.9 million of costs associated with real price effects (RPEs).
- 4.13 NIE anticipates that it will face significant upward cost pressures in RP5 on the inputs to its business. NIE's analysis suggests that such increases will be over and above any effect already captured by RPI, and therefore an additional allowance will be needed for these real price effects.

4.14 The Utility Regulator has provided only a trivial allowance of £0.6 million for capex RPEs⁶ compared to NIE's current estimate of £37.5 million and this is insufficient to cover NIE's liability.

4.15 RPEs are considered in detail in Chapter 8 (Real price effects).

C. Plant (£14.9 million shortfall)

4.16 This category covers transmission and distribution transformers and switchgear.

4.17 As shown in Table 5., the Utility Regulator has disallowed £14.9 million of costs associated with plant items such as transformers and switch house refurbishment. The components of the shortfall are shown in Table 5.5 below.

Table 5.5: Plant shortfall

Plant sub-category	Shortfall
	£m
(a) Distribution secondary plant	12.9
(b) Distribution primary plant & transformers	1.25
(c) Transmission plant	0.7
Total	14.9

4.18 The distribution secondary plant category includes the replacement of 11kV/400 volt distribution substations, pole mounted switchgear, street located LV plant and ancillary plant in substations. The primary plant category includes 33kV and 11kV transformers and switchgear. The transmission plant category covers the replacement of 275/110kV and 110/33kV transformers, and 110kV switchgear. In each case the NIE Forecast was built up from the NIE database of unit costs. Benchmarking by Utility Regulator's engineering consultants, SKM, has shown that the direct costs associated with NIE T&D's capex plan are efficient⁷.

(a) Distribution secondary plant (£12.9 million shortfall).

4.19 Table 5.5 shows a disallowance of £12.9 million against distribution secondary plant. Although the amount of the disallowance is clear, there is considerable uncertainty as to the outputs which the Utility Regulator expects NIE to achieve with the allowance and in what individual sub categories of assets the reductions have been made.

4.20 The Final Determination states that the proposed allowance covers the outputs of four asset categories as outlined in NIE's strategy papers (that is, C8 RMU Substations, C9 Overhead Fed Ground Mounted Substations, C10 H Pole

⁶ Final Determination, paragraphs 5.47 to 5.50.

⁷ See paragraph 5.54 of the Final Determination

Substations and C11 4 pole substations). A further five asset categories (that is, C7 Secondary Switchgear, C12 sectionalisers, C13 Low Voltage Plant, C14 Primary & Secondary Ancillaries & C15 Wall Mounted distribution Switchboards) appear to have been omitted.

4.21 After seeking clarification from the Utility Regulator, NIE was told that:

*"SKM considered all of these papers and these should have been referenced in the deliverables."*⁸

4.22 However, no allowance appears to have been made for the replacement of some assets covered by the remaining five papers, yet the Utility Regulator appears to consider the work needs to be done. With such a substantial disallowance, NIE sought clarity from the Utility Regulator on its determination of physical outputs and target unit costs for this entire category and was informed:

*"We are not in a position to provide this level of detailed breakdown. It is up to NIE to deliver the outputs specified in their papers".*⁹

4.23 With such lack of transparency, NIE remains unclear as to the Utility Regulator's target costs for the range of secondary plant outputs, and as to which categories of asset replacement have had expenditure disallowed.

4.24 It is possible that the shortfall for secondary plant in part reflects the application by the Utility Regulator of erroneous efficiency assumptions with respect to NIE's indirect costs. However, nothing in the Final Determination or in subsequent engagement with the Utility Regulator explains the efficiency reduction and for that reason we have not specifically addressed the point in Chapter 7 (NIE's Efficiency), the chapter which addresses NIE's concerns with the Utility Regulator's benchmarking analysis.

4.25 Furthermore, in the category of work associated with distribution substation replacements (which is also part of the secondary plant sub-category), a reduction appears to have been made by the Utility Regulator incorrectly assuming that some secondary substations should have transformers refurbished at a lower unit cost than replacement.

4.26 These substations generally contain three main components: 11kV switchgear, an 11kV/400 volt transformer and a low voltage (400 volt) switchboard. These components are often located in confined areas and, in many cases, the older substations have discrete components interconnected with cable. Some LV

⁸ Follow-up questions to Utility Regulator on the Final Determination – response from the Utility Regulator dated 30 October 2012

⁹ Follow-up questions to Utility Regulator on the Final Determination – response from the Utility Regulator dated 12 November 2012

switchboards in these substations are very old wall-mounted open terminal boards that do not comply with modern standards or safety requirements and are therefore not considered safe.

- 4.27 SKM has accepted the need to replace the high voltage and low voltage switchgear in these substations and some of the associated transformers. SKM consider that the remaining transformers should be refurbished rather than replaced. However, the proposal by NIE to replace all such secondary substations with modern fully integrated substations is no more expensive on a first cost basis and is the cheapest on a life cycle cost basis. Furthermore it is the only practical solution in many cases.

(b) Distribution Primary Plant & Transformers (£1.25 million)

- 4.28 Table 5.5 shows a £1.25m disallowance on primary plant based on the Utility Regulator's view that NIE's indirect costs are inefficient. NIE considers this to be unjustified on the basis of its own benchmarking of indirects as addressed in Section 4 of Chapter 7 (NIE's Efficiency).

(c) Transmission Plant (£0.7 million):

- 4.29 With respect to transmission plant (sub-category (c) in Table 5.5), the Utility Regulator has made a disallowance of £0.7 million on unit costs associated with switch house refurbishments (£0.25 million) and reactor replacements (£0.47 million) resulting in an insufficient allowance.
- 4.30 The external cladding of the switch-houses at both Ballylumford and Kilroot Power stations are severely corroded and, in order to formulate an estimate of the cost of refurbishment, NIE had obtained an indicative budget price for refurbishment from a contractor.
- 4.31 The Utility Regulator has applied a 10% efficiency factor to the estimated costs stating "*these values have not been benchmarked*"¹⁰. However the costs will be very site specific so benchmarking is not straightforward. Furthermore, the work has not been subject to detailed design or tender processes and the tendered costs may be higher than the initial estimates. It is therefore inappropriate to apply a unit cost approach or such an arbitrary efficiency factor to this work.
- 4.32 NIE is unclear how the allowance for reactor replacement has been derived as it is less than 50% of the procurement cost of one unit. This appears to be an error by the Utility Regulator.

¹⁰ Final Determination ref: Utility Regulator document - Transmission Capex Appendix, Project 6, page 1

D. Capitalised Overheads (£11.5 million shortfall)

- 4.33 Capitalised overheads relate to costs associated with asset management and planning, procurement and stores, outage management, the installation and commissioning of technical equipment, safety and IT. NIE's BPQ submission for capitalised overheads is broadly consistent with RP4 outturn.
- 4.34 The Utility Regulator has proposed an allowance in respect of capitalised overheads that is 58% of NIE's forecast amount and 41% below RP4 outturn, as shown in Table 5.6.

Table 5.6: Capitalised Overheads

£m	RP4 outturn	NIE's RP5 Forecast	Final Determination
Capitalised Overheads	26.6	27.2	15.7

- 4.35 As shown in Table 5.3, the Utility Regulator has disallowed £11.5 million in respect of capitalised overheads. The disallowance appears to be comprised of two elements:
- the application of an inefficiency discount of 10% on the basis of the Utility Regulator's benchmarking study as to NIE's relative efficiency in the management of indirect costs; and
 - a reduction in the amount of overheads to be capitalised, on the basis that the overall amount of overheads attributable to relevant capital works can be expected to reduce pro rata with the reduction in the direct capital costs of such works.
- 4.36 As to the first point, in Chapter 7 (NIE's Efficiency), NIE explains that the Utility Regulator's conclusions as to NIE's relative efficiency in the management of indirect costs are wrong; NIE demonstrates that more rigorous benchmarking shows NIE to be efficient in the management of indirect costs, so that there is no case for any inefficiency discount at all.
- 4.37 As to the second point, the Utility Regulator's reasoning is based on an erroneous understanding of NIE's overheads and the extent to which they fall to be capitalised. For the most part the relevant overheads are a fixed cost (that is, they do not vary in proportion with the volume of relevant capital works undertaken). There is therefore no good reason to reduce allowable overheads pro rata with a reduction in the volume of the underlying capital works, or in the direct costs of such works.
- 4.38 However, in deciding how much of its overhead costs should be capitalised in its accounts, NIE does take account of the proportion which the relevant capex costs represent of total relevant capex and opex (mainly repair & maintenance): NIE considers that the most appropriate capitalisation method is to capitalise a proportion of overheads equivalent to:

$$\frac{\text{Relevant Capex}}{\text{Relevant Capex} + \text{Opex}} \times 100\%$$

- 4.39 However, for ease of application, NIE does not recompute the percentage of overhead costs to be capitalised each year. Instead, it reassesses the appropriate percentage periodically to reflect changes in the relative scale of relevant capex and opex¹¹.
- 4.40 By reducing the proportion of overheads to be capitalised pro rata to the reduction in capex costs, the Utility Regulator has reduced the capitalised overheads excessively. For completeness, it should also be noted that, to the extent that the overhead costs are efficiently incurred – as they are, in NIE's submission (see Chapter 7 (NIE's Efficiency) – any overhead costs which do not fall to be capitalised should be recoverable in full as additional allowable opex.

E. Project design, management & consultancy (£5.6 million shortfall)

- 4.41 Project design, management and consultancy costs are the costs associated with the design and delivery of substation projects. This work is primarily carried out in-house with limited outsourcing of consultancy work. The NIE requirement is based on RP4 historic costs but takes into account the RP5 requirements for increased substation works. The submitted costs of £12 million are a £5.3 million increase on RP4 outturn costs.
- 4.42 As shown in Table 5, the Utility Regulator has disallowed £5.6 million in respect of project design, management and consultancy costs. NIE understands that this disallowance has been justified by scaling back the amount requested in line with the scaling back of the overall capex plan and on the basis of the Utility Regulator's benchmarking of indirect costs.
- 4.43 NIE's position with respect to the Utility Regulator's efficiency assumption for indirect costs is set out in Section 4 of Chapter 7 (NIE's Efficiency). In respect of the Utility Regulator's proposed scaling back of NIE's allowance, NIE does not consider the approach adopted by the Utility Regulator to be reasonable. NIE considers that there is clear evidence that the volume of work in respect of substation programmes will exceed materially the level delivered during RP4. In these circumstances, NIE can see no basis to justify a reduction in the allowance. Moreover, NIE considers that the Utility Regulator's benchmarking analysis is flawed and should not be relied on.
- 4.44 It is not possible for NIE to deliver the programme of work proposed by the Utility Regulator for RP5 at a lower level of project management and design expenditure than was incurred by NIE in RP4.

¹¹ See Chapter 11 (RAB adjustment), at paragraphs 4.26 to 4.29.

F. Reactive (£2.4 million shortfall)

- 4.45 As shown in Table 5, the Utility Regulator has disallowed £2.4 million of costs associated with reactive work.
- 4.46 Reactive expenditure includes fault and emergency works and a range of works which by their nature are not specifically identifiable under pre-defined programmes of work. For example, it includes the cost of dealing with storm damage and responding to other unplanned events, minor refurbishment works associated with defects, and customer queries and reports.
- 4.47 The Utility Regulator has applied an unjustified efficiency reduction against this category of work which gives rise to a disallowance of £0.3 million. This results from the application of an inefficiency discount of 10% to indirect costs (as determined by the Utility Regulator) on what appears to be an inconsistent range of projects – in the case of reactive expenditure, this is 1.3% of NIE’s transmission reactive and 1% of NIE’s distribution reactive submission. The remaining £2.1 million of the disallowance relates to storms, which is addressed below.
- 4.48 In its submission, NIE made a dual proposal with respect to the treatment of storms:
- First, NIE sought an *ex ante* capex allowance of £2.6 million to cover individual storms costing up to £1 million per storm. This value reflects RP4 historic costs.
 - Second, for storms costing £1 million per storm or greater, NIE proposed they be classified as ‘exceptional weather events’ and that the costs would be recoverable on a case-by-case basis outside the general RP5 settlement. This is because events of this scale could cost many millions (as was the case for the March 2010 ice storm which cost approximately £4 million) and it would not be appropriate to cover this liability under an *ex-ante* arrangement.
- 4.49 Under storm conditions, there will be damage to the network such as broken poles, fallen conductors and blown fuses. NIE presented the Utility Regulator with an analysis of RP3 and RP4 historic expenditure (both capex and opex) on storms.
- 4.50 The Final Determination has allowed only £520,000 in respect of storms – i.e. only 20% of the *ex-ante* allowance sought by NIE. This is on the erroneous basis that an allowance is required to cover only the additional costs associated with carrying out work under emergency conditions e.g. carrying out unplanned work under hazardous conditions at out-of-hours rates. The Utility Regulator has made the error of assuming that the normal asset replacement costs of these items form part of planned programmes of work, e.g. overhead line refurbishment. This is not and cannot be the case.
- Any components replaced under storm conditions will be accounted for in subsequent line surveys prior to planned refurbishment and are thus already taken into account in the planned programme unit costs; i.e. unit rates for

overhead line refurbishment are already net of the cost of any ad hoc storm replacements previously carried out.

- The specification for overhead line refurbishment covers the total refurbishment requirements for a full km of overhead line. In a storm, components are replaced on a random basis along overhead lines as they fail on a random basis and it is therefore impossible to classify storm repairs as a unit of refurbishment.
- Storms and fallen trees also impact on sections of line which are not due refurbishment in a particular period.

4.51 With regard to NIE's proposal that the cost of exceptional weather events be recovered on a case by case basis, the Utility Regulator's position remains unclear. It appears that the Utility Regulator was prepared to consider this proposal but has not progressed the matter to a decision. In the Final Determination it states the following in what appears to be a drafting note left in the Final Determination in error¹²:

"do we agree with this? We need to add it to the licence if we do?"

4.52 NIE requests that in addition to addressing the capex shortfall, the Competition Commission makes clear in its report that the costs of storms costing £1 million or more should be recovered on a case by case basis outside the RP5 allowance.

Shortfalls in allowances arising from work that is not agreed (£117.5 million)

4.53 We addressed above the inadequacy of the allowances for the cost of carrying out volumes of work and activities that NIE and the Utility Regulator agree are necessary during RP5. We turn below to the need for NIE to carry out volumes of work that have been disallowed in the Final Determination. This accounts for £117.5 million of the £238 million total shortfall in the Final Determination capex allowance. The work is necessary to enable NIE effectively to manage network risk.

4.54 Table 5.7 below illustrates how this shortfall of £117.5 million can be broken down into seven discrete cost categories.

¹² Ref: Utility Regulator Final Determination: Appendix D, Distribution Capex, Project 19, page 24

Table 5.7: Work disallowed in the Final Determination

Disallowed cost categories	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
A. 11kV network resilience	35.0	0	35.0
B. ESQCR	25.0	1.25	23.8
C. Asset replacement	21.8	0	21.8
D. Load-related expenditure	23.5	6.6	16.9
E. Smart grid	9.4	0	9.4
F. Network performance	9.0	0	9.0
G. Flood protection	2.7	0.9	1.8
Total	126.3	8.8	117.5

4.55 Each of these seven cost categories is addressed in turn below.

A. 11kV network resilience (£35 million shortfall)

Description of work

4.56 In January 2011 NIE submitted a paper to the Utility Regulator¹³ which was prompted by an increasing concern (arising out of three events between 2001 and 2010) of the risks to electricity supplies when ice or wet snow forms on conductors (ice accretion), particularly on older sections of the 11kV overhead line network constructed with small section 25 mm² conductors. The additional weight of ice on the conductors has the potential to 'birdcage'¹⁴ and ultimately stretch them until they break and the whip lash action causes the poles to break also possibly with a cascade effect resulting in widespread and prolonged loss of supplies to customers.

4.57 NIE carried out further investigations into the likelihood of such events recurring and measures to mitigate their impact together with the costs of remedial action. NIE submitted a follow-up paper to the Utility Regulator in July 2011¹⁵ and meetings with the Utility Regulator were held in July 2011 and September 2011. The Utility Regulator requested NIE to investigate further the possibility of strengthening the network by shortening spans between poles as an alternative to rebuilding the network with larger conductors. An updated report which addressed the alternative options including that suggested by the Utility Regulator was submitted on 2 December 2011 and is provided at Appendix 5.4.

¹³ Provided at Appendix 5.2.

¹⁴ When conductors are twisted by the weight of ice on one side, the strands tend to unravel and produce a 'birdcage' effect.

¹⁵ Provided at Appendix 5.3.

- 4.58 The NIE covering letter (provided at Appendix 5.5) advised that it was impossible accurately to forecast the range of costs for the re-conductoring option (particularly costs associated with portable generation and [§<] that would arise during the execution of the work) without having some experience of their magnitude. NIE was firmly of the view that a pilot was required to establish a more accurate cost estimate¹⁶. The final comment in the letter suggested a meeting to explain more fully the details and findings of the survey and to clarify any issues arising from the Utility Regulator's review of the paper and otherwise to discuss the way forward.
- 4.59 This letter went unanswered (and remains so). However, in January 2012, the Utility Regulator proposed that all costs under consideration during RP5 (and in particular the costs relating to 11kV resilience) should be included in the capex database for assessment by the Utility Regulator. The sum of £127 million, the additional cost that would be incurred in RP5 if work commenced immediately at the proposed rate was duly added. However, it appears that no consideration was given to the recommended pilot either at this stage or later in the Price Review process.
- 4.60 The snow storm event in March 2013, which did not involve extensive ice accretion but which affected 150,000 rural customers in the eastern part of the province, confirms that there is due cause for concern. While at one time it was considered that such events were rare, the March 2013 event was the fourth such event in a 12 year period (and the third in a three year period). Some 800 staff including 140 additional staff from ESB were involved in the repair of more than 1,000 individual network faults and the restoration of supplies to customers over a four day period. The cost of this storm amounted to £2.4 million.

Final Determination and NIE's rebuttal

- 4.61 In the Final Determination, under the category of 11kV network refurbishment expenditure, the Utility Regulator comments:

"The substantial costs associated with this work have not been justified. Alternative options have not been considered. The 11kV overhead lines allows for a 534 km of overhead line (11kV and 33kV) amount of the network to be re-engineered each year. The need for additional work has not been established".¹⁷

- 4.62 However, the 11kV overhead line re-engineering work would address the re-conductoring of only approximately 160km of 11kV overhead line each year whereas, if the risk arising from ice accretion is to be addressed in a 15 year period, it would be necessary to complete 1,040kms of line each year. The Utility Regulator's

¹⁶ A paper setting out the proposed scope and objectives for such a pilot is provided at Appendix 5.6.

¹⁷ Final Determination, Appendix D, Distribution Capex, Project 56

reference to the re-engineering of 33kV overhead line is irrelevant and misleading because the main problem is not with the 33kV network.

4.63 This issue cannot be addressed as a straightforward cost/benefit matter. The conventional 'concept of the value of lost load' can be applied only to shorter term outages¹⁸. To the best of NIE's knowledge, there are no available estimates of the 'value of lost load' for outages that cause a prolonged loss of electricity infrastructure resulting in:

- personal hardship;
- danger to the public;
- an associated prolonged loss of public services including, among other things, public lighting, road signage lighting, radio transmitters(public, police and utilities), water, sewage and medical services; and
- a cessation of commercial activity.

Consequences

4.64 As stated above, as a result of recent events, NIE was forced to consider the consequences that could arise from an ice accretion event and concluded that some consequences would not be tolerated by stakeholders, including rural customers, commercial customers, and their local and assembly public representatives. In NIE's view, such stakeholders would not accept that in a modern economy, thousands of customers should be expected to endure supply interruptions for periods of two weeks or more. This would be particularly the case since customers supplied from similar networks in GB and in the RoI are not exposed to such risks, the owners of those networks having previously invested to substantially reduce the ice accretion risk. The GB DNOs addressed this risk following the publication of the Baldock Report in 1982¹⁹. In the RoI, the comparable 10kV network was largely rebuilt between 2000 and 2009.

4.65 NIE notes that investment will not totally eliminate the risk of loss of supplies following an ice accretion event but it will make the restoration of supplies significantly faster.

¹⁸ The concept of the 'value of lost load' is often used when assessing whether the cost of an improvement to reliability or availability of supply is justified by the value that a customer would place on the energy supplied which, without the investment, would otherwise not be supplied

¹⁹ The title of the report, which covers the findings of a panel of inquiry established by the Secretary of State for Energy, is 'Review of Technical Standards for Overhead Lines Following Storm Damage in December 1981 and January 1982'

- 4.66 In view of the significance of this project and what NIE regards as a prima facie case for its need as supported by the Ulster Farmers Union²⁰, it would be appropriate to proceed with a pilot and set a ring-fenced *ex ante* sum of £35 million to finance this. This is the additional expenditure required, inclusive of the increased survey and wayleave costs, to rebuild some 1,840 km²¹ over a four year period rather than carry out conventional refurbishment or re-engineering²². The full pace required to complete this work over a fifteen year period would be 1,040 km per annum.
- 4.67 Further consideration can then be given to the on-going pace of the work and its forecast cost during RP6 and subsequent regulatory periods.

B. ESQCR (£23.8 million shortfall)

- 4.68 The Electricity, Safety, Quality and Continuity Regulations 2002 (ESQCR) came into force on 31st January 2003 in GB and were further amended in 2006. They replaced the GB Electricity Supply Regulations. The regulations currently apply to public and private operators in England, Scotland and Wales. They became law in NI in December 2012.
- 4.69 Table 5.7 identifies a shortfall of £23.8 million in respect of additional work and activities under the ESQCR regulations that NIE requires to undertake in order to manage network risk.

Description

- 4.70 The ESQCR regulations specify safety standards and are aimed at protecting the general public and consumers from danger. Typical provisions cover tree cutting requirements, minimum clearances between electrical equipment and property, and the provision of safety notices. In addition, ESQCR specifies power quality and supply continuity requirements.
- 4.71 The amounts sought by NIE in respect of ESQCR expenditure for RP5 are set out in Table 5. below. Also shown are the Utility Regulator's comments in the Final Determination in relation to each item of ESQCR expenditure.

²⁰ See UFU press release dated 23 November 2012 provided at Appendix 5.7.

²¹ Approximately 25% of the full pace in year 2 of the RP5 period and 50% of the full pace for years 3, 4 and 5.

²² As this is a pilot scheme to determine scope and cost of delivery, these are estimated lengths of circuit only.

Table 5.8: NIE Submission for ESQCR expenditure and Final Determination comment

Item	£m	Utility Regulator comment
Compliance	18.4	Only known work to be financed
Patrolling	3.5	Funded in other programmes of work
Transmission tree cutting - falling distance	1.5	Funded in other programmes of work
Public awareness	0.85	Already undertaking
Asset Register	0.75	Funded in other programmes of work
Total	25.0	

Final Determination and NIE's rebuttal

4.72 In the Final Determination the Utility Regulator proposes an allowance of £1.25 million against the NIE submission of £25 million. The Utility Regulator states that:

"The amount allowed covers only the minimum work that has been completely justified based on surveys undertaken to date ... Further surveys and risk assessments are funded by this allowance to ensure an appropriate level of allowance in RP6"²³

4.73 With respect to each of the five strands of expenditure identified by NIE in its submission:

- The Utility Regulator's position that only work that has been completely justified based on surveys to date should be financed appears to have been disregarded in setting the allowance. Furthermore, although surveys are required to identify non-compliance issues such as inadequate clearances, additional expenditure amounting to £11.5 million arises from other requirements of ESQCR where surveys are not needed to identify liabilities; for instance the legislation calls for safety signs on all poles, whereas at present safety signs are not fitted to any of the 150,200 LV poles.
- The Utility Regulator considers that costs such as patrolling and tree cutting to the enhanced ESQCR specification are included in other programmes. This assertion is incorrect. NIE's submission relates exclusively to costs that are not already covered in other programmes of work. NIE has been particularly careful to identify in this cost category only the additional costs associated with ESQCR. NIE's current practice is to patrol overhead lines on a 15 year cycle but the legislation will require NIE to patrol the entire network within five years.

²³ Final Determination, Appendix D, Distribution Capex, Project 43, page 60.

- NIE's submitted costs for developing an asset register were included in the ESQCR category and not in the non-network capex expenditure category. Therefore the costs have not been funded elsewhere.
- Although the tree cutting costs included within the NIE submission extend to cutting trees in accordance with ENA TS 43.08 referred to by ESQCR, the costs for tree cutting on the transmission network included within the overhead line refurbishment work do not include the additional costs associated with clearing trees to the more stringent ENA ETR 132 which is a new requirement also referred to in ESQCR and which requires larger clearance distances.
- NIE accepts that the work of increasing public awareness is already in hand as part of NIE's corporate responsibility obligations but ESQCR will place new legal obligations on NIE to educate the public on safety issues which will require an increased requirement for campaigns associated with the specific issues relating to ESQCR.

Consequences

- 4.74 Failure to address ESQCR requirements would expose the public and customers to safety and quality of supply issues. However, NIE has no option but to invest to address statutory obligations. The Utility Regulator's Final Determination would leave NIE underfunded to address its statutory obligations in respect of ESQCR.
- 4.75 The legislation requires that compliance work should progress within a reasonable timescale and it will be necessary for NIE to undertake prioritised work as it is identified. ESQCR compliance expenditure in the period cannot therefore be restricted only to the work that is specifically known at this point in time. In addition to the £11.5 million of ESQCR expenditure already known without survey, survey work to date has identified further definite costs of £14.5 million for additional safety signage and for resilience tree cutting at 33kV. Detailed surveys are required to confirm the expenditure necessary to address vertical and horizontal property clearance issues but initial estimates against surveys completed to date indicate that this expenditure is expected to be in the region of £70 million and will have to be spread over RP5 and RP6.
- 4.76 NIE requires the entire funds identified in its submission (£25 million) to address ESQCR liabilities during RP5.

C. Asset replacement (£21.8 million shortfall)

- 4.77 The Utility Regulator generally agrees with NIE's assessment of the volume of asset replacement work required. However, there are a limited number of important exceptions which mean that the Final Determination asset replacement volumes are not sufficient to enable NIE properly to manage network risk.

- 4.78 The retention of age-expired assets on the network will cause an unacceptable increase in condition based risk and will result in higher volumes of asset replacement work in future price control periods than would otherwise be necessary. This in turn will lead to aggravated network outage constraints. Such deferrals could only be regarded as very poor asset management practice. NIE has already carried out an exercise to defer asset replacement expenditure (as described in Section 2 above) by the adoption of additional monitoring and maintenance and this was reflected in its submission. Further deferrals are considered unsafe.
- 4.79 Table 5.9 identifies three categories where work requires to be undertaken and funded. Each of the categories identified is discussed below.

Table 5.9 – Disallowed Asset Replacement Volumes

Project	NIE requirement	Value £m
(a) Transmission plant	One interbus transformer, 6 additional 110/33kV transformers, 3 22kV Reactors and plant refurbishment expenditure	12.5
(b) Distribution primary plant	Additional 33/11kV transformers	7.2
(c) Distribution storm repairs	No allowance provided	2.0
Total		21.8

(a) *Transmission plant (£12.5 million shortfall)*

Description

- 4.80 NIE submitted forecast costs for the replacement of transmission transformers and reactors and for plant refurbishment based on known asset condition and the consequences of failure.

Final Determination and NIE's rebuttal

- 4.81 For the Final Determination, the Utility Regulator's engineering consultants, SKM, carried out age-related asset replacement modelling post the Draft Determination which generally supported NIE's proposed asset replacement volumes for the majority of asset categories. However, volume reductions were made in a few asset categories, particularly those projects associated with transformer replacements. NIE accepts that age related modelling would appear to indicate that fewer transformer replacements should be required but actual asset condition on the ground, as confirmed by detailed condition assessments and consideration of the consequences of failure, dictate otherwise.
- 4.82 Age-related modelling uses a 'survivor' model (based on the retirement profile of network assets) which has been generally preferred and accepted in the industry over a number of price review periods. This model is best applied to asset categories with large volumes of assets such as secondary distribution assets at 11kV, 6.6kV

and 400 volts. However the primary assets in a network, (i.e. assets which form the 275kV, 110kV and 33kV networks) tend to be fewer in number in a smaller utility and in some asset categories, quantities can be in single figures. Explanatory notes on age-related modelling are provided in Annex 5A.3 (Age-related asset replacement modelling) together with some details of transformer and reactor asset replacement numbers and condition.

- 4.83 Neither the Utility Regulator nor SKM discussed asset condition with NIE in the cases where volume reductions were proposed. When Ofgem faced a similar situation in the context of DPCR5, it used the age related modelling to focus initial discussions with the DNOs. However, on the basis of actual asset condition information presented by the DNOs in the course of those discussions, in its Final Proposals Ofgem decided to reduce very few volumes²⁴.
- 4.84 Had the Utility Regulator engaged in similar rounds of interaction with NIE, or properly assessed condition information already submitted, it would have discovered that inappropriate use of modelling alone, without factoring in condition information, would lead to perverse results. For example, the age-related model had forecast that only a single reactor should be replaced. But in fact all four reactors that NIE had identified for replacement are of the same age and in the same poor asset condition²⁵.

Consequences

- 4.85 These items of transmission equipment are located in the major 275/110kV substations. Acceptance of the Final Determination would mean that three degraded units would have to remain on the system which would create a significant risk of catastrophic failure with the resulting collateral damage from fire, shrapnel and debris.

(b) Distribution plant (£7.2 million shortfall)

Description

- 4.86 A similar situation exists with respect to 33/11kV and 33/6.6kV transformers. There are some 396 33/11kV and 33/6.6kV transformers on the network, the majority of which were installed between the early 1950's and late 1970's. Of these, NIE proposed to replace 32 (8% of the total), 25 of which were installed between 1959 and 1969 and the remaining 7 between 1970 and 1974. As a consequence of their poor condition six of these younger transformers have risk assessment scores based on condition monitoring and diagnostic test results which are higher (more risky) than transformers installed in 1959²⁶. This further demonstrates the limitations of relying solely on age-related modelling and giving insufficient weight to asset condition.

²⁴ Ofgem Final Proposals for DPCR5, doc ref 146/09 1.25; also 146a/09 1.59

²⁵ Ref: Strategy Paper B5, 22kV Reactors

²⁶ Ref: Strategy papers B2 & B3; 110/33kV Transformers, and 33/11kV 7 33/6.6kV Transformers respectively

- 4.87 These transformers are located in primary substations which each supply between 5,000 and 15,000 customers.

Final Determination and NIE's rebuttal

- 4.88 The Utility Regulator's Final Determination allows for the replacement of nine transformers only. Twenty three transformers which are high risk on the basis of an assessment which takes account of both condition and the consequences of failure would have to remain in service.

Consequences

- 4.89 When a transformer fails, firstly there are safety implications and secondly, network reliability issues arise because of the length of time it takes to replace a faulty transformer. During RP4 there were six failures of such assets, two of which were catastrophic. In those cases, bushings failed causing extensive damage to windings and cores of the transformers. Consequences of failure can also include explosion, expulsion of burning oil, fire and risk to life and property from shrapnel. All but two of the substations at risk are close to customer concentrations.
- 4.90 Ofgem and the DNOs are jointly developing further the normalisation of the quantification of risk based on condition (health Indices) and consequences of failure which are considered when assessing asset replacement expenditure requirements. The SKM modelling would not have considered the consequences of failure.

(c) Distribution storm repairs (£2.0 million shortfall)

Description

- 4.91 In March 2010 an ice storm affected the network supplying the Cloghmills area of County Antrim. The last customers to be reconnected were off supply for a period of six days in spite of employing all available resources to restore supplies.
- 4.92 During the restoration period following the storm, the network was repaired as quickly as possible. In many cases, conductors were repaired using multiple mid-span joints, temporary repairs were made to damaged stays, and damaged cross arms and insulators were left in service on a temporary basis, practices that are to be avoided except under the specific circumstances which prevailed at the time.
- 4.93 The disallowed expenditure is required to address urgent remedial works arising from the March 2010 ice storm. The work has been identified as a result of surveys and addresses conductor, pole, stay, insulator and cross arm replacement requirements.

Final Determination and NIE's rebuttal

- 4.94 The Utility Regulator considers that this urgent work should be addressed within the distribution overhead line refurbishment work at the normal unit cost. However the permanent storm repairs require a specific and targeted programme of work both on

main lines and spur lines which falls outside the normal cyclic overhead line programmes of work due to the work specification and unit cost.

- 4.95 It is not appropriate to accommodate this programme of works within the existing planned programmes as the work is not equivalent to refurbishment or re-engineering as per the planned work programmes.

Consequences

- 4.96 Without rectification work, the condition of the affected circuits will result in circuits failing even under moderate wind conditions. This will result in a very poor level of service for customers who have recently experienced a prolonged loss of supply.

D. Load-related expenditure (£16.9 million shortfall)

- 4.97 Table 5.7 identifies a shortfall of £16.9 million in respect of additional work and activities associated with load-related expenditure that NIE requires to undertake in order to manage network risk.

Description

- 4.98 The disallowed expenditure relates to schemes that are required to address heavily loaded parts of the network including reinforcement required to:
- Facilitate developments at Belfast harbour,
 - Relieve overloaded 110kV circuits leaving Ballylumford Power Station; and
 - Provide addition capacity to rural towns.

Final Determination & NIE's rebuttal

- 4.99 The Utility Regulator considers that transmission and distribution load-related schemes amounting to £11.1 million and £5.8 million respectively cannot be approved and have therefore been disallowed. In most instances, the Utility Regulator considers that the schemes have not been justified at this stage but that they may be addressed under the Utility Regulator's proposed logging up arrangements. In some of these cases, it appears the Utility Regulator has failed to understand the investment driver and in others, the Utility Regulator did not request specific information from NIE which SKM considered was essential to justify the work. NIE did not volunteer this data because it believed that SKM had all the information that it required to endorse the proposed expenditure.
- 4.100 For all load-related investment in years 2 to 5 of RP5, the Utility Regulator expects investment decisions to be reviewed post the approval of new network planning standards towards the end of year 1. Expenditure will be logged down if it cannot be justified against the new standards.

- 4.101 This approach is not acceptable. NIE complies with the network planning standards incorporated into its existing licence obligations and the Utility Regulator has not sought to modify NIE's Licences to refer to new standards.
- 4.102 The issue of a review of the network planning standard was only raised at the draft determination stage of the price review. It would have been preferable had the Utility Regulator raised any concern with the adequacy of planning standards much earlier, preferably during RP4 in good time for NIE to make suitable preparation for RP5. This would have enabled the outcome of any review of NIE's planning standards to have been aligned with the wider consultation on, and determination of, the RP5 price control. Nevertheless, NIE is currently reviewing the transmission planning standards in conjunction with SONI and has engaged with the Utility Regulator regarding the timing of the review of all network planning standards.
- 4.103 However, NIE is firmly of the view that the determination of the RP5 price control and allowances therein should be consistent with NIE's obligations under the network planning standards and licence obligations that apply at this time; it should not assume changes which may or may not be implemented subsequently. Therefore, an ex-ante allowance should be established for load-related expenditure assessed against current planning standards.
- 4.104 NIE's view on the likely impact of a review of the network planning standard is provided in Annex 5A.4 (Network planning standards).

Consequences

- 4.105 Without reinforcement, there is a high risk that NIE would be in breach of its network planning licence standard, customers would be exposed to load shedding at times and it would not be possible to connect new customers in the high profile Belfast harbour development. None of these consequences are acceptable and NIE would have to provide the necessary reinforcement. This disallowance would therefore leave NIE underfunded.

E. Smart grid (£9.4 million shortfall)

- 4.106 Table 5.7 identifies a shortfall of £9.4 million in respect of additional work and activities associated with smart grid developments that NIE requires to undertake in order to manage network risk. The Utility Regulator considers that:

“We have included some of this investment under the relevant transmission projects (Transmission transformers). The other projects are not sufficiently well defined here to allow approval. The need for work in this area, particularly in response to small scale wind and the smart meter strategy, will become clearer over the next couple of years. We will therefore reconsider

investment for smart grids under fund 3 as NIE develop the case of need for individual trials and projects.”²⁷

4.107 The Utility Regulator has reallocated some allowances between projects. Although the Utility Regulator states that some revenue has been allowed in the transmission projects for smart grid, NIE can find no such uplift in the proposed Fund 1 allowance and has concluded that, in fact, no provision for the costs of smart grid has been made.

Description

4.108 During RP4, NIE has been proactive in research and development of innovative approaches to improve the utilisation of network assets. The following are initiatives which NIE has been actively progressing

- Developing a novel approach to applying dynamic rating to 110kV transmission overhead lines.
- Development of two software packages to assist network planners in maximising the amount of generation that can be connected to the distribution network.
- Identifying areas where renewable and distributed generation are likely to first appear and the potential impact on the distribution network.
- Monitoring the power quality performance of small-scale distributed generators and assessing the impact on the network.
- Feasibility study on demand-side response of domestic customers.

4.109 For RP5, NIE intends to build upon this experience and increase its efforts to take on further innovation projects. This will include smart technology initiatives that can be applied both in the short and longer terms to meet challenges in the design and operation of the network arising from renewable energy resources and the growth of emerging low carbon technologies (e.g. electrification of the heating and transport sectors).

4.110 Smart grid investments are therefore of benefit to customers in the medium and longer terms and should help ensure that the electricity infrastructure is capable of supporting the commercial development of Northern Ireland in the future, while getting the most out of existing and proposed assets. NIE discussed its approach in some detail in its Strategy Paper F7, Smart Technologies.

²⁷ Final Determination, Distribution Capex Appendix Project D49

4.111 NIE's capex submission included:

- £6 million for trialling smart technology projects;
- £3.35 million for applying advanced condition monitoring to network assets;

Final Determination and NIE's rebuttal

4.112 The Utility Regulator has not provided an *ex ante* allowance for either of these two items.

Smart Technology projects

4.113 The Utility Regulator has determined that Smart Grid projects be subject to individual approvals under Fund 3. For the reasons set out in Chapter 9 (Incentives & Innovation) and outlined below, NIE disagrees; an *ex ante* allowance is the more appropriate treatment.

4.114 In GB, there are incentives available to the DNOs in DPCR5 to provide a head start in trialling, developing and applying smart technologies. These incentives are comprised of the Innovation Funding Incentive (IFI) and the Low Carbon Networks Fund (LCNF) for funding R&D and trialling smart technology projects respectively. GB DNOs are eligible to spend up to 0.5 percent of DNO combined network revenue on IFI projects which on a comparable basis for NIE would equate to £5m, much more than the £2.5 million requested by NIE under the opex allowance.

4.115 For trialling smart technology, £500 million is available to GB DNOs through the LCNF. If NIE was to receive the same level of funding as an equivalent DNO in GB, NIE would be eligible for funding up to £13 million (assuming the £500 million was allocated to GB DNOs according to their customer numbers). Again, £13 million is substantially more than the £6 million requested by NIE for trialling smart technology projects.

Advanced condition monitoring

4.116 NIE's proposal to seek funding for the application of condition monitoring technology (£3.35 million) is intended to facilitate a reduction in asset replacement expenditure during RP5 and this reduction has already been assumed in NIE's capex proposals. In its Final Determination, the Utility Regulator suggests that the funding requested by NIE for advanced condition monitoring has been allowed as part of the asset replacement allowance (see paragraph 5.81). NIE can find no such uplift in the proposed Fund 1 allowance and has concluded that, in fact, the costs of advanced condition monitoring have not been provided for.

4.117 Without this provision, the Utility Regulator's proposals are inconsistent in that they assume the benefit of reduced asset replacement requirements yet make no provision for the costs of advanced condition monitoring which is required to achieve this reduction.

Consequences

4.118 Without this funding for smart grids NIE will be left vulnerable and exposed to risks arising from the increasingly dynamic nature of the network, particularly as a result of the increase in small scale embedded generation. NIE will be unable to assess and trial emerging smart grid technologies – and will be unable to factor such developments into future planning of its network, to the ultimate detriment of customers.

F. Network performance (£9 million shortfall)

4.119 Table 5.7 identifies a shortfall of £9 million in respect of additional work associated with network performance that NIE requires to undertake in order to manage network risk.

4.120 The work programmes cover the rollout of remote control facilities on the rural 11kV overhead line network and enhanced fault passage indication facilities on the 11kV underground network both of which would facilitate faster restoration of supplies following a fault.

Description

4.121 The quality of service for some rural customers can be significantly worse than that of the average NI customer, and NIE had therefore proposed a relatively modest £9 million programme aimed largely at improving quality of service for rural customers. The background to this investment proposal is set out in a BPQ Support Paper entitled 'F4 – Network Performance'. This paper discusses network performance trends, performance management and benchmarks NIE's network performance against that of peer companies.

4.122 During RP4, NIE commenced a modest programme to install remote control facilities on the 11kV overhead network, with the objective of improving customer service for targeted groups of rural customers. This is achieved by reducing the time to restore supplies after faults. The application of similar technology has been extensively applied to distribution networks in GB and is recognised generally as providing a cost effective means of improving quality of service for customers supplied from extensive rural networks.

4.123 NIE estimates that the group of approximately 80,000 rural customers supplied from circuits targeted for improvements during RP4 on average experience outages totalling some two hours per annum, which is approximately twice the duration of unplanned outages for the average NI customer. NIE's analysis demonstrates that improvement in the performance of circuits addressed in the early part of RP4 has reduced average outages by 30 minutes per annum for these customers.

4.124 The proposed continuation of this programme in RP5 would apply this technology on further circuits serving approximately 150,000 customers who currently experience similar levels of poor network performance. NIE estimates that by applying remote

control to these circuits, it can reduce outages for these customers by 20 minutes per annum.

Final Determination and NIE's rebuttal

- 4.125 The Utility Regulator proposed the introduction of a symmetrical network performance incentive scheme in response to NIE's view that such a scheme, if properly constructed, would leave it to NIE to manage the investment required to optimise the delivery of outputs over the longer period. However, the design of the scheme proposed by the Utility Regulator includes a dead band the width of which means that a very significant improvement is required before the incentive mechanism would yield additional funds to finance the necessary investment.
- 4.126 The design of the scheme is therefore such that no finance would become available to finance network performance improvements for worst served customers in the early to mid years of the RP5 period if at all during the period and the incentive would be reset at RP6 before it released finance to fund improvements obtained. NIE had proposed a more appropriate incentive scheme to the Utility Regulator for consideration and this is described further in Chapter 9 – Incentives & Innovation.
- 4.127 The need for NIE's proposed investment is borne out by the conclusions of consumer research²⁸ that the Utility Regulator undertook in 2010. The research showed that consumers in NI (both domestic & business consumers) consider the time taken to restore supply to be the most important network issue. The research highlighted that any interruption was viewed as having an impact on consumers and the longer the interruption the greater the impact. This research, weighted 72% towards urban consumers and 28% towards rural customers, also emphasised the difference in experiences between rural and urban consumers, with rural consumers more likely to have experienced power outages compared to their urban counterparts.
- 4.128 On behalf of rural customers, the Ulster Farmers Union reflected the need for a reliable rural network in general while commenting on the specific need for a resilient network (see Appendix 5.7):

“It is essential that consumers have access to a resilient and fit for purpose electricity network.....Without this investment, the network will become increasingly unstable, with possible electricity power failures during spells of bad weather, which will cause significant problems for farm businesses and the wider rural community...”

²⁸ Customer views of the Guaranteed Standards Scheme, Final report prepared for the Northern Ireland Authority for Utility Regulation, Perceptive Insights and Broadmind Consultancy, May 2010. A copy of this report is provided at Appendix 5.8.

4.129 The Utility Regulator is obliged by the Energy Order²⁹ to have regard to the interests of individuals residing in rural areas. The Utility Regulator should therefore have given appropriate weight to the specific needs of rural customers and the factors that differentiate them from the general body of customer opinion. Contrary to its assertion in the Final Determination³⁰, it should not rely on the conclusion that customers in general are satisfied with service standards when disallowing investment intended to benefit specifically rural customers whose experience of service quality can be very different from that of the average customer.

Consequences

4.130 The Utility Regulator's Final Determination means that finance will not be available to improve network performance for the worst served customers. Network performance in Northern Ireland will fall further behind that of peer companies in GB which continue to make improvements because of the effective incentive mechanisms that were put in place in DPCR5.

4.131 NIE submits that it is necessary to proceed with the proposed £9 million investment as the minimum required to improve performance for the worst served customers.

G. Flood protection (£1.8 million shortfall)

4.132 NIE had identified 15 distribution sites that have a high risk of flooding and requested an allowance of £2 million to provide permanent flood barriers or temporary flood control devices.

4.133 Table 5.7 identifies a shortfall of £1.8 million in respect of additional work and activities associated with the protection of substations against flooding that NIE requires to undertake in order to manage network risk. An allowance has been provided for three sites only which have been subject to historical flooding.

Description

4.134 Significant flood events in GB during 2005, 2007 and 2009 brought about the requirement from government that all essential utilities shall ensure their assets are resilient to flooding.

4.135 The Energy Networks Association (ENA) created a task force containing representatives from industry, BERR³¹, Ofgem, the environment agencies and the

²⁹ By virtue of article 12(3) of the Energy Order, the Utility Regulator and DETI are required to have regard for the interests of (a) individuals who are disabled or chronically sick; (b) individuals of pensionable age; (c) individuals with low incomes; and (d) individuals residing in rural areas.

³⁰ See Appendix D to the Final Determination, Distribution Capex Appendix - Project 48 - 11kV Network Performance

³¹ UK Department for Business, Enterprise and Regulatory Reform

Met Office. Engineering Technical Report (ETR) 138³² was produced which identified a systematic approach to ensure the resilience of electricity supplies against flood risk.

- 4.136 The approach entailed in ETR 138 was applied to NIE's network to identify all substations in flood plains. A desktop survey using the limited data available from the NI Rivers Agency was conducted and 35 primary distribution substations were identified as being "at risk."
- 4.137 These sites were subjected to an assessment of risk which took into account the probability of flooding and the potential consequences. A specialist company³³ in flood risk assessment and flood risk solutions was engaged to carry out detailed on-site assessments of each "at risk" substation and individual reports were provided for each site. The assessments took into account local knowledge, flood history and probable flood heights. A written risk assessment was provided for each site along with proposals to address the risk. NIE's submission was therefore based on a realistic fact based analysis of risks.

Final Determination and NIE's rebuttal

- 4.138 The remaining 12 sites classified as high risk also require flood defences to be provided.
- 4.139 In view of the increased flooding in GB in recent years, ETR138 is currently being revised and is expected to become more stringent.

Consequences

- 4.140 Provision has only been made for a small number of sites with a history of flooding; the remaining high risk sites would remain unprotected. Flood enforcements are essential for the protection of the main substation buildings, transformer bunds and external protection and control cubicles at sites that have been assessed as being "at risk". The impacts of site flooding include increased safety risk arising from proximity of water to high voltage equipment, equipment damage through water ingress, corrosion and potential requirement to isolate the entire substation in severe cases placing customer supplies at risk. Clean-up costs from flooding incidents can be significant.

5. NIE'S CONCERNS – OTHER INVESTMENT ITEMS

- 5.1 This section addresses the following investment items:

³² ETR 138:2009 Resilience to Flooding of Grid and Primary Substations

³³ Total Flood Solutions (TFS)

- Metering;
- Connections;
- Renewables integration and interconnection.

5.2 Metering and Connections activity are to be ring-fenced and are thus discussed separately from core capex.

Table 5.10: Other expenditure disallowances

	NIE Forecast £m	Final Determination £m	Shortfall £m
A. Metering	37.5	20.5	17.0
B. Connections	37.3	37.3	0
C. Renewables and Interconnection	To be individually submitted in due course	To be individually approved in due course	0
Total			17.0

A. *Metering (£16.9 million shortfall)*

5.3 NIE provides metering services to over 800,000 customers' premises in NI. These services include the provision of metering for new connections and the replacement of metering assets that have come to the end of their serviceable lives. About one third of domestic customers have Keypad meters (pre-payment meters) of which there are approximately 270,000.

5.4 In July 2012, the NI Assembly announced a decision to roll out smart electricity meters by 2020. Smart meters have the capability to store and communicate data to and from the service provider. The meters also provide customers with enhanced real-time information on their electricity consumption and costs to help inform their electricity usage.

5.5 The NI Assembly announcement indicated that detailed arrangements for the rollout of smart meters would be consulted on by the Utility Regulator in due course. The Utility Regulator's Forward Work Programme for 2013/14 states that this consultation process will not be finalised until early 2014.³⁴ At this stage, it is not clear whether the consultation will address only high-level arrangements or extend to cover all the decisions necessary to enable the rollout to commence. Also unclear is the potential

³⁴ See: http://www.uregni.gov.uk/news/view/utility_regulator_publishes_its_2013_14_forward_work_programme/

date for commencing a rollout of smart meters and NIE's role in both the rollout and the underlying market model.

5.6 The Meter Certification Regulations came into force in 1999, and as a result, NIE established a certification programme which targeted the replacement of the population of uncertified "dumb" meters with certified meters having equivalent (i.e. limited) functionality. [X]

5.7 [X].

5.8 [X]

5.9 [X]

5.10 [X]

5.11 [X]

Forecast costs

5.12 Table 5.11 below contrasts NIE's Forecast capital expenditure for RP5 on metering, Keypad meters and meter certification with the allowance contained in the Final Determination.

Table 5.11: Metering – comparison of NIE's Forecast with Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Metering (excluding Keypads and certification)	8.6	8.6	0
Keypads	10	10	0
Meter certification	18.9	1.9	17.0
Total	37.4	20.5	17.0

5.13 In its original BPQ submission, NIE forecast it would require £1.9 million for the limited (scaled back) volume of meter recertification. However, [X], an additional allowance of £17 million will be required to recommence the full meter certification programme [X]. NIE proposes that this allowance (£17 million) is ring-fenced for meter certification requirements carried out in advance of any subsequent smart metering programme approved subsequently.

5.14 NIE's revised forecast makes no provision for the cost of smart meter rollout on the assumption that such expenditure will be approved on an individual basis once there is greater clarity on the requirements.

Final Determination

- 5.15 The Final Determination includes a total allowance of £20.5 million for metering, comprising £8.6 million for metering (excluding Keypads and certification), £10.0 million for Keypads and £1.9 million for continuation of limited volumes of meter certification. The shortfall of £17 million equates to the incremental cost of recommencing a full meter certification programme [3<].
- 5.16 The allowance is to be ring-fenced for metering and would be subject to logging up / logging down.

Conclusion

- 5.17 Subject to our concerns about the operation of Fund 2 set out in Section 4 of Chapter 4 (RP5 Capex – Structure), NIE is content that capex on metering, Keypads and certification will be ring fenced and subject to logging up or down by reference to the amounts actually expended by NIE during RP5.
- 5.18 However, NIE is concerned that the Final Determination does not reflect the latest position in respect of meter certification requirements. NIE remains subject to legislative obligations with respect to certification, while the Final Determination assumes that those obligations will be lifted.
- 5.19 Regulatory certainty is needed to enable NIE to make firm plans on the approach to certification to be followed in RP5. This can only be achieved by providing NIE with an ex-ante allowance to deliver its meter certification obligations.
- 5.20 NIE requests that the Competition Commission increases the price control allowance for metering by £17 million, from £20.5 million to £37.5 million as proposed in NIE's submission. This would provide NIE with the flexibility to decide the extent of certification activity required during RP5 to manage its legal obligations, and to review the approach subsequently in the event that a smart metering rollout is confirmed in the course of RP5.
- 5.21 The details of the programme and costs for smart metering have yet to emerge. Because of this uncertainty, NIE did not include the costs of smart metering in its RP5 capex submission but made the express assumption that this would be funded subsequently under a separate provision.

B. Connections

- 5.22 NIE is content with the Utility Regulator's proposal that the sum of £37.3 million would be ring-fenced and logged up or down by reference to the amounts actually expended by NIE during RP5.
- 5.23 NIE does however have concerns about the administration of Fund 2. These are set out in Section 4 of Chapter 4 (RP5 Capex – Structure).

- 5.24 The background to NIE's submission, chargeability developments and expenditure forecasts are set out in Annex 5A.5 (Connections).

C. Renewables Integration and Interconnection

- 5.25 The capital investment plans for the next regulatory period must take account of the Strategic Energy Framework (SEF) published by the Department of Enterprise, Trade and Investment (DETI) which sets a target for 40% of electricity consumed in NI to be generated from renewable sources by 2020. Without a very substantial investment in NIE's network there will be insufficient network capacity to facilitate this significant increase in renewable generation. This is the principal driver behind the "renewables integration" element of NIE's RP5 capex plans.
- 5.26 In addition, there is strong government and regulatory support for increased interconnection between NI and the Republic of Ireland (RoI). The 400kV Tyrone–Cavan Interconnector project (already well advanced in the planning process) is therefore also included in the RP5 investment plans.
- 5.27 NIE and the Utility Regulator are agreed these projects will be subject to individual approval on a project-by-project basis. Concerns around the approval mechanism are detailed in Section 4 of Chapter 4 (RP5 Capex - Structure).
- 5.28 The background to NIE's submission, including forecasts of costs, is provided in Annex 5A.6 (Renewables integration).

CHAPTER 6

RP5 OPEX

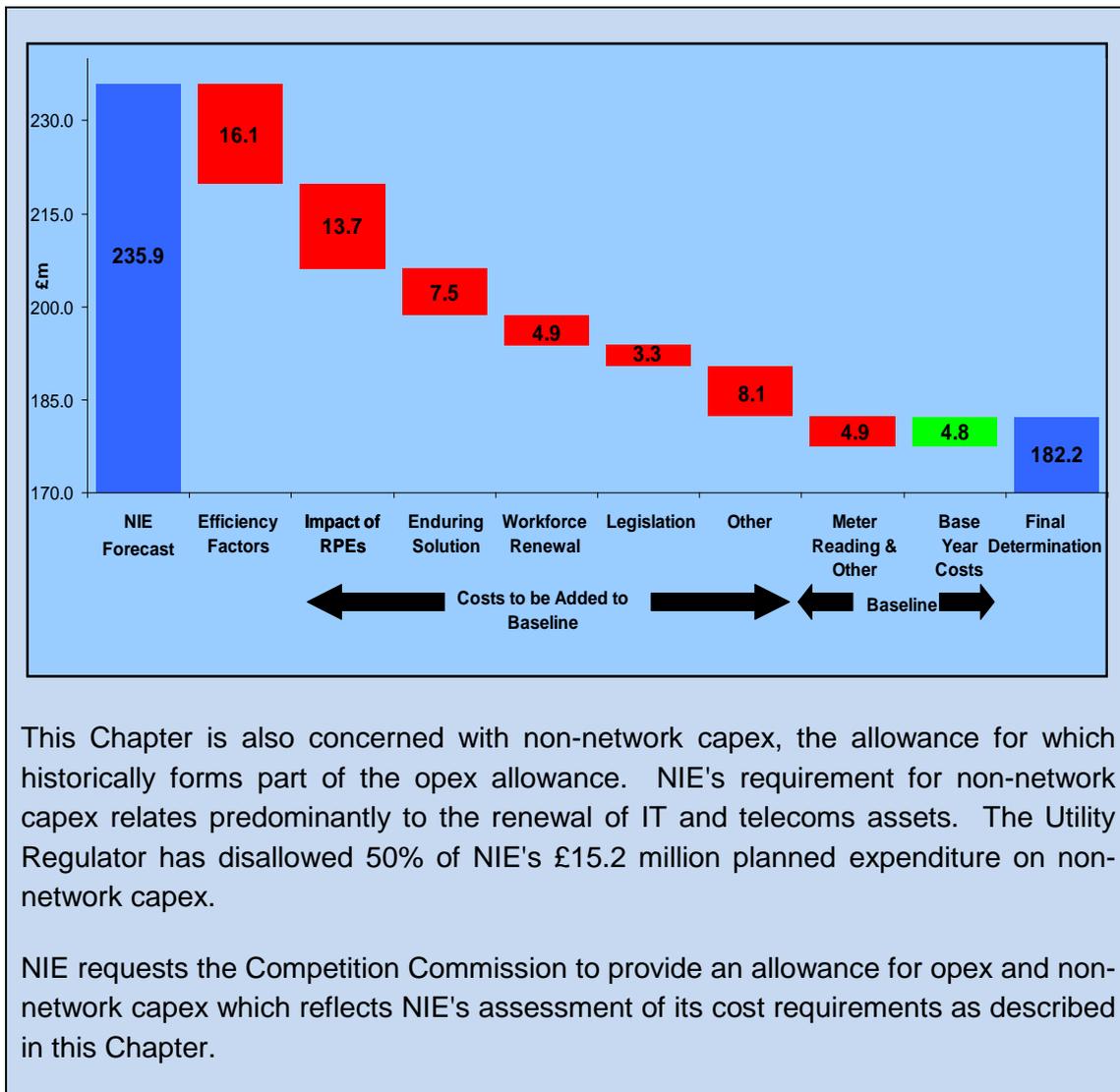
SUMMARY

The Utility Regulator has determined an allowance for operating costs (opex) in RP5 of £271 million. This falls substantially short of the £331.2 million needed for NIE to operate its regulated business over RP5 and as such is inadequate.

£53.7 million of the shortfall relates to controllable opex. The areas of concern include:

- Efficiency factors: the Utility Regulator has relied on a flawed efficiency benchmarking assessment to justify an initial 7% reduction in baseline opex. In doing so, the Utility Regulator has ignored compelling evidence from consultants Frontier Economics that NIE is a leading performer within the overall class of UK distribution network operators in terms of opex efficiency. Furthermore the Utility Regulator is minded to impose a 1% year-on-year reduction in controllable opex for which there is no reasonable justification.
- Costs to be added to the baseline: the Utility Regulator has failed adequately to allow for, and in some cases failed to recognise, very material costs which are new for RP5 (i.e. costs that did not arise in 2009/10 and do not therefore form part of baseline costs). This includes:
 - the impact of real price effects;
 - costs associated with the Enduring Solution IT system, which was implemented to facilitate the operation of the competitive supply market;
 - the cost of recruiting and training new employees (workforce renewal); and
 - costs arising from new legislation and changes in regulation.
- Baseline opex: in determining NIE's baseline costs, the Utility Regulator has made a significant error in its calculation of meter reading base year costs. The resulting shortfall in the meter reading allowance is offset by a further error (separate from meter reading costs), this time in NIE's favour: the inclusion in the baseline of the IAS19 current service pension charge.

The quantum of the shortfall across these controllable cost areas is illustrated in red in the diagram below. The green block represents an offsetting error.



1. INTRODUCTION

1.1 This chapter is principally concerned with NIE's requirement for an opex allowance for RP5. It also addresses NIE's requirement for non-network capex.

1.2 This Chapter is structured as follows:

- Section 2 outlines the development of the opex business plan submission.
- Section 3 contains a summary of the Utility Regulator's Final Determination for RP5 opex and contrasts this with NIE's Forecast costs.
- Section 4 sets out NIE's case on the base year starting point adopted by the Utility Regulator for its assessment of controllable opex and

adjustments for costs associated with meter reading, keypad meters and Rathlin Island.

- Section 5 sets out NIE's case on new costs (i.e. costs that were not incurred in the 2009/10 base year) arising from additional demands for RP5 that ought to be included in the controllable opex allowance. These include the impact of real price effects, costs associated with the Enduring Solution market opening IT system, workforce renewal, new legislation and changes in regulation.
- Section 6 summarises NIE's position on the initial 7% inefficiency discount and the 1% year-on-year reduction in controllable opex. NIE's position on the proposed opex discount factors is set out in detail in Chapter 7 (NIE's Efficiency).
- Section 7 deals with NIE's requirements for uncontrollable opex.
- Section 8 is concerned with non-network capex, which is included in this chapter because historically the regulatory allowance for non-network capex forms part of the opex allowance.
- Section 9 notes that the expected transfer of NIE's transmission planning function to SONI may have an impact on NIE's opex forecast for RP5.

1.3 The opex allowance forms a key component of NIE's price control and therefore an important aspect of the present reference. Given the nature of the issues at stake, it is necessary in this Chapter to provide considerable detail in support of individual items of NIE's opex requirement for RP5. In consequence, this is a lengthy and technical Chapter. NIE regrets the necessity for this but is concerned to emphasise the importance which it attaches to the issues addressed herein.

1.4 NIE requests the Competition Commission to determine NIE's RP5 price control so as to provide an allowance for opex and non-network capex which reflects NIE's assessment of its cost requirements as described in this Chapter.

2. DEVELOPMENT OF THE OPEX BUSINESS PLAN SUBMISSION

2.1 NIE's BPQ submission on opex was based on a robust bottom-up assessment of the needs of the business in respect of on-going activities and a range of new activities arising for the first time in RP5. Given the significant cost reductions that have been achieved since privatisation, NIE is confident that its baseline costs already reflect a high level of efficiency. This has been

confirmed by independent benchmarking. The main objective in preparing the RP5 opex plan was to ensure that future costs associated with existing and ongoing activities were controlled at prevailing efficient levels and those new activities would be undertaken with the same high level of efficiency.

- 2.2 The development of the opex submission proceeded through a number of steps to ensure that:
- all relevant expertise and experience in the business was captured and reflected in the plan;
 - NIE's culture of efficiency was embedded in the submission; and
 - the submission was challenged by senior management.
- 2.3 The process began with the commissioning of an initial round of estimates. NIE staff with the relevant knowledge and experience of the specific line item or department costs were requested to provide forecast figures for costs associated with existing and on-going activities.
- 2.4 Initial estimates were submitted to the NIE finance team for review and scrutiny. Review was also undertaken with the senior management team.
- 2.5 During November 2010, NIE staged a series of workshops aimed at providing managers with the information and background necessary to convert their estimates and supporting work into BPQ support papers. The sessions focussed on challenging managers to ensure they had the ability to demonstrate that their estimates were well considered and justified. Managers were instructed to ensure that their work would be able to pass a number of tests, namely.
- knowledge of the outputs that customers want and need to be delivered;
 - a clear strategy that dovetails into the overall business strategy;
 - an understanding of how to achieve value for money;
 - careful consideration of forecast costs, including cost drivers; and
 - consideration of the full range of options / solutions and confidence that proposals represent the best way forward.
- 2.6 Following the development of cost forecasts for existing and on-going activities, business managers sought to identify new activities that would give rise to additional cost. Senior management undertook a review that led to the creation of a checklist of factors that were challenging the business and would potentially give rise to increased cost during RP5. Potentially relevant drivers that were considered included:
- the impact of the implementation of the Enduring Solution IT project;

- the need to engage in a substantial programme of recruitment and training to address retirements from the workforce and increased demand for specialist labour (work force renewal); and
 - new legislation;
- 2.7 The individuals with the most relevant knowledge were asked to consider the impact of these factors on their business and identify new activities and costs that might arise. Where claims for new costs were raised by managers, these were subjected to scrutiny by both the finance team and the senior management team. Specific support papers were required for key cost increases identified in order to justify to senior management that the claim was reasonable and to ensure that any new activity would be undertaken with the same high level of efficiency that is expected of existing activities.
- 2.8 The final stage of the business plan process was for the finance team and senior management team to review the aggregate opex forecast for RP5 to ensure that opex associated with on-going activities remained aligned with RP4 levels and that costs associated with new activities were necessarily incurred and efficient.

3. THE FINAL DETERMINATION – OPEX

- 3.1 The opex allowance specified in the Final Determination falls short of NIE's Forecast¹ costs by £60.2 million over the RP5 period. This shortfall represents more than 18% of NIE's Forecast opex costs.
- 3.2 NIE is responsible for the planning, development, construction and maintenance of the transmission and distribution network in NI and also for the operation of the distribution network in NI. NIE's Forecast reflects the operating costs associated with these activities.
- 3.3 Table 6.1 below sets out NIE's Forecast for RP5 for both controllable and uncontrollable opex (terms which are described below) and contrasts that with the allowance specified in the Final Determination.

Table 6.1: Total opex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Controllable Opex	235.9	182.2	53.7
Uncontrollable Opex	<u>95.3</u>	<u>88.8</u>	<u>6.5</u>
Total Opex	331.2	271.0	60.2

¹ As defined in paragraph 3.4 below.

- 3.4 The data contained in the NIE Forecast column in Table 6.1 reflects NIE's latest assessment of its opex requirement (referred to in this Chapter as its **Forecast**). A reconciliation between the Forecast and NIE's BPQ submission is contained in Annex 6A.1 (Opex – Reconciling NIE's BPQ Submission with the Forecast in this Statement). The Forecast supersedes previous assessments of NIE's opex requirement, including that contained in its BPQ submission and in NIE's response to the Utility Regulator's draft determination.

Controllable opex

- 3.5 Controllable opex includes matters such as payroll, repairs and maintenance, IT & telecoms, corporate costs, insurance, property costs, professional services and meter reading.
- 3.6 In its Final Determination, the Utility Regulator adopted the following approach to determining the controllable opex allowance:
- NIE's actual expenditure in 2009/10 formed the 'base year' starting point for the assessment of opex;
 - This baseline was then adjusted downwards for 'one-off' costs and non-recurring costs;
 - New costs arising from additional demands identified by NIE for RP5 were then assessed on a line-by-line basis; and
 - The resulting figure formed the basis for the allowable controllable opex for each year of RP5, subject to efficiency adjustments, as described below.
- 3.7 In a parallel exercise, the Utility Regulator commissioned an econometric benchmarking analysis of NIE's costs compared with those of the GB DNOs. On the basis of this benchmarking, the Utility Regulator has determined to apply an initial efficiency factor of 7% to the adjusted baseline for controllable opex costs, to be applied over the first two years of RP5, thereby reducing NIE's allowance by £10.5 million.
- 3.8 On top of this initial efficiency factor, the Utility Regulator has determined to apply a 1% year-on-year reduction to total controllable opex resulting in a further £5.6 million reduction in the opex allowance. This is on the basis of assumptions of lower salary costs and synergies emerging from ESB's acquisition of NIE.
- 3.9 NIE submits that the Utility Regulator has failed to make a case for the application of efficiency discounts. NIE has compelling evidence to suggest that it is efficient in its operations, as revealed through a wide range of

benchmarking analysis and the proposed efficiency discounts are therefore unjustified. This is set out in detail in Chapter 7 (NIE's Efficiency).

- 3.10 The £53.7 million shortfall in the determined allowance for controllable opex is detailed in Table 6.2 below.

Table 6.2: Controllable opex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Controllable Opex:-			
Baseline Opex	167.6	167.5	0.1
Costs to be Added to Baseline:			
Real Price Effects	10.4	(3.3)	13.7
Enduring Solution	28.9	21.4	7.5
Workforce Renewal	4.9	0.0	4.9
Legislative & Regulatory	3.8	0.5	3.3
Renewables Baseline	12.3	9.8	2.5
Other	8.0	2.4	5.6
Total Costs to be Added to Baseline	68.3	30.8	37.5
Efficiency factors applied	0.0	(16.1)	16.1
Total	235.9	182.2	53.7

Uncontrollable opex

- 3.11 Uncontrollable opex refers to expenditure on which NIE is deemed to have little or no influence. This category has historically included rates, wayleaves and licence fees.
- 3.12 Table 6.3 below sets out NIE's Forecast for RP5 uncontrollable opex and contrasts that with the ex-ante allowance for uncontrollable opex specified in the Final Determination.

Table 6.3: Uncontrollable opex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Uncontrollable Opex	95.3	88.8	6.5

- 3.13 An analysis of the uncontrollable opex shortfall is included in Section 7.
- 3.14 NIE is content with the Final Determination position that all uncontrollable costs should be treated as fully recoverable

3.15 However, the licence modifications proposed by the Utility Regulator to implement the Final Determination show that NIE's entitlement in respect of uncontrollable costs would be based on the Utility Regulator's (rather than NIE's) forecast costs with a true-up adjustment in the following year to adjust for the difference between actual and forecasts costs. NIE has two concerns with this proposal:

- The first relates to setting the allowances *ex ante* at a lower level than the NIE Forecast. This means that NIE will incur an annual funding cost in respect of the shortfall between the actual cost and the *ex ante* allowances. This funding cost is estimated at approximately £0.3 million.
- The second is that the proposed licence modifications contain no mechanism for the recovery of the shortfall in the last year of RP5.

3.16 Both concerns can be overcome by defining uncontrollable costs in each Licence as a pass through cost without seeking to specify *ex ante* values. That was the approach adopted for the purposes of the RP4 price control and there is no reason why the same approach cannot be adopted in RP5.

4. BASELINE CONTROLLABLE OPEX

4.1 This Section 4 is concerned with the controllable opex baseline. Baseline opex consists of:

- Base year costs which are associated with a “business as usual” approach to activities carrying on from RP4;
- Costs associated with support activities such as meter reading, managing keypad meters and the electricity supply to Rathlin Island via an undersea cable from the mainland.

4.2 In the Final Determination, the Utility Regulator has used 2009/10 as the base year for setting the baseline opex allowance for RP5 and has proposed a number of base year adjustments for one-off and non-recurring costs.

4.3 Table 6.4 below compares NIE's Forecast baseline costs with the baseline costs applied by Utility Regulator in the Final Determination.

Table 6.4: Baseline opex – NIE's Forecast versus the Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Base Year Costs	148.2	153.0	(4.8)
Meter Reading, Keypads & Rathlin	<u>19.4</u>	<u>14.5</u>	<u>4.9</u>
Total Baseline Opex	167.6	167.5	0.1

4.4 The Utility Regulator's final baseline allowance of £167.5 million is equivalent to £33.5 million per annum comprised of:

- Base year costs of £30.6 million per annum; and
- Meter reading, keypad meters and Rathlin Island costs of £2.9 million per annum.

4.5 These two components of baseline opex are considered in turn below.

Base year costs

4.6 The table below is an extract from Table 6.4 above showing the base year costs component of baseline opex.

Table 6.5: Base year costs – NIE's Forecast versus the Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Base Year Costs	148.2	153.0	(4.8)

4.7 Subject to the adjustment referred to below in respect of pensions, NIE is broadly content with this aspect of the Final Determination.

4.8 Base year costs reflect operating costs associated with a "business as usual" approach to activities carrying on from RP4. It consists of four main components namely:

- salaries;
- repairs & maintenance;
- managed service charges; and
- bought in services.

- 4.9 In the preparation of the NIE Forecast, a 'bottom up' approach was used to develop the projected costs for RP5, building the forecast from a detailed analysis of the individual cost lines.
- 4.10 The allowance provided in the Final Determination is higher than NIE's Forecast of £148.2 million owing to the erroneous inclusion of an amount of £5.5 million (£1.1 million per annum) in relation to pension costs.
- 4.11 The Utility Regulator has incorrectly included the IAS19 current service pension charge in its base year allowance. Pension costs should not be included in this opex allowance as there is a separate allowance for pension costs.
- 4.12 This issue was raised in NIE's response to the Utility Regulator's draft determination and, although the issue is acknowledged by the Utility Regulator in its Final Determination, there is no evidence that any financial adjustment was made in relation thereto.
- 4.13 Adjusting for the pension charge reduces the Utility Regulator's allowance of £153.0 million (£30.6 million per annum over RP5) to £147.5 million (£29.5 million per annum). This allowance is £0.7 million less than NIE's Forecast RP5 costs of £148.2 million (average cost of £29.6 million per annum).

Meter reading, keypad meters and Rathlin Island costs

- 4.14 Table 6.6 below shows the components of baseline opex relating to meter reading, keypad meters and Rathlin Island costs.

Table 6.6: Meter reading, keypad meters and Rathlin Island – NIE's Forecast versus the Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Meter Reading	17.9	13.6	4.3
Keypad Meter Opex	1.0	0.7	0.3
Rathlin Opex	<u>0.5</u>	<u>0.2</u>	<u>0.3</u>
Total	19.4	14.5	4.9

Meter reading

- 4.15 NIE provides meter reading services for all electricity customers in NI. There are approximately 838,000 customers whose electricity supply is metered by either credit meters or prepayment (keypad) meters.
- 4.16 Under the Overall Standards of Performance determined by the Utility Regulator, NIE is required to obtain one actual meter reading for 99.5% of

customers per annum. To achieve this standard, NIE visits customers' premises on a quarterly basis.

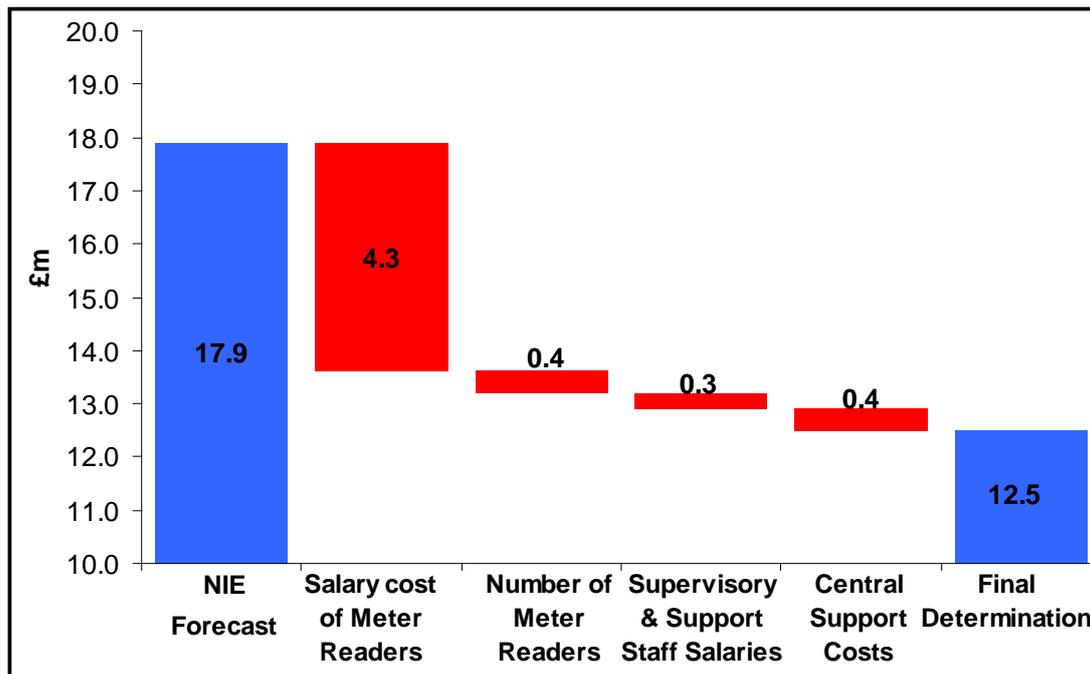
- 4.17 Prior to April 2005 meter reading was outsourced and was undertaken by an affiliated company, Sx3. However a decision was taken to transfer 75 staff plus 30 agency staff into NIE in April 2005. The key performance measure for meter readers is their "access rate". The meter reading access rate at the time of the transfer was circa 66%. Through efficiencies in working practices, restructuring of responsibilities, including a focus on performance management, the access rate has steadily increased throughout RP4 from 76% to 80.4%. Staff numbers were reduced over this period, until the Utility Regulator directed the introduction of keypad meter reading in 2011 when 22 additional resources were required in order to undertake this additional workload.
- 4.18 As at 1 December 2012, NIE had 109 staff engaged in meter reading activities comprising 95 meter readers and 14 support staff.
- 4.19 NIE's Forecast meter reading costs during RP5 are £17.9 million (£3.58 million per annum). In the final year of RP4, the Utility Regulator provided an allowance of £3.45 million. This compares with the Utility Regulator's Final Determination allowance for RP5 of £13.6 million (£12.5 million post efficiency), which equates to £2.7 million per annum (£2.5 million post efficiency). This implies a significant shortfall relative to the forecast costs associated with delivering this service.
- 4.20 Table 6.7 below compares NIE's Forecast costs for meter reading with the Utility Regulator's Final Determination allowance. The variance between NIE's Forecast and the Utility Regulator's allowance relates to differences in the assumptions as to salary costs for meter readers and supervisory staff, the number of meter readers required and central support costs.

Table 6.7: Meter reading - NIE's Forecast versus the Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Salary Costs (including Agency staff)	15.0	10.0	5.0
Fleet & Fuel	0.4	0.4	0.0
Mileage & Travel	0.2	0.2	0.0
I.T	0.1	0.1	0.0
Phones	0.1	0.1	0.0
Central Support	1.5	1.1	0.4
Other	0.3	0.3	0.0
Depreciation	<u>0.3</u>	<u>0.3</u>	<u>0.0</u>
Total	17.9	12.5²	5.4

4.21 As shown in Table 6.7 above, differences between NIE's Forecast and the Final Determination allowance arise in relation to salary costs and central support. These differences are shown in red in Table 6.8 below, which breaks down the £5.0 million difference in relation to salary costs into three sub-categories, salary cost of meter readers, number of meter readers and salary cost of supervisory and support staff. Central support cost differences account for the remaining £0.4 million.

² Table 6.7 presents costs after efficiency factors have been applied based on analysis provided by the Utility Regulator. Pre-application of efficiency factors the Utility Regulator's allowance is equivalent to £13.6 million.

Table 6.8: Meter reading – analysis of the shortfall

A. Salaries of meter readers

- 4.22 Differences in assumptions as to the salary costs of meter readers account for £4.3 million of the shortfall.
- 4.23 NIE has 95 meter readers comprising 42 NIE staff and 53 agency staff. The Utility Regulator has assumed an average salary allowance of £[X] for all meter readers. This allowance would provide for the basic salary cost of a meter reader but would not allow for the full employment costs which include National Insurance contributions, pension costs, cash for car allowance, incentive payments and the impact of the European Union agency workers directive (AWD)³.
- 4.24 As shown in Table 6.9 below, NIE currently incurs average salary costs of £[X] per meter reader (£[X] for NIE staff and £[X] for agency staff). This average cost per meter reader includes related costs such as car allowances and mileage payments and is £[X] more than the average cost per meter reader allowed by the Utility Regulator. Multiplying this differential by the number of meter readers on which the Utility Regulator has based its allowance (92) gives a difference of £0.86 million per annum, which is £4.3 million over RP5.

³ This was introduced in Great Britain in October 2011 and in NI on 5 December 2011. The AWD states that agency workers are entitled to the same terms and conditions of employment as permanent workers after a period of 12 weeks.

Table 6.9: Meter reading salary costs – Agency and NIE staff

	Agency Meter Reader	NIE Staff Meter Reader	Overall Average
£'000			
Average Basic Salary	[X]	[X]	[X]
Average NICs and Pension ⁴	[X]	[X]	[X]
Average Cash For Car Allowance	[X]	[X]	[X]
Average Mileage Payment	[X]	[X]	[X]
Average Incentive	[X]	[X]	[X]
Total Average Salary	[X]	[X]	[X]
Number of meter readers	53	42	95

4.25 [X]

4.26 The current average basic salary cost of meter readers who are employed by NIE are £[X] per annum plus NICs, an incentive scheme, pension costs and transport costs. The impact of the legacy terms and conditions increases this average basic salary cost to £[X].

4.27 NIE has benchmarked its basic salary costs against GB energy companies and they compare favourably. The basic salary offered by two such companies in GB ranged between £[X] and £[X]⁵.

B. Number of meter readers

4.28 Differences in assumptions as to the required number of meter readers account for £0.4 million of the shortfall.

4.29 The Utility Regulator has based its allowance on 92 meter readers compared to NIE's submission of 95. NIE's resource calculation is based on a meter reader making 175 calls per day and 214 working days per annum (260 days per annum less holidays, training and development and absenteeism of 2.65%).

4.30 The Utility Regulator's resource calculation is based on the same number of calls per day but assumes 221 working days. The Utility Regulator has not provided any analysis of its working day assumption which we expect excludes training, development and absenteeism.

4.31 NIE's Forecast reflects the number of meter readers employed as at 1 December 2012. It is anticipated that the number of meters will increase by approximately 19,000 over the course of RP5. However NIE believes this

⁴ NIE staff only.

⁵ In 2009/10 prices. Only basic salary information is readily available for benchmarking.

increase can be incorporated across the current level of meter readers through efficiency initiatives etc.

C. Supervisory and Support Staff salaries

- 4.32 Differences in assumptions as to supervisory and support staff salary costs account for £0.3 million of the shortfall.
- 4.33 These activities include those of a meter reading co-ordinator, three team leaders, three performance leaders and five field service representatives. Responsibilities include the performance management of the meter reading function, productivity and customer/supplier related issues.
- 4.34 The Utility Regulator's allowance for supervisory and support staff costs is £[>] compared to NIE's current average cost of £[>] as shown in Table 6.10 below.⁶ Benchmarking information is not readily available because companies structure these responsibilities in different ways.

Table 6.10: Meter reading – supervisory and support staff salary costs

09/10 Prices	Amount £'000
Average basic salary	[>]
Average basic salary including pension & NICs	[>]
Average cash for car allowance	[>]
Average bonus payments	[>]
Total	[>]

- 4.35 Multiplying this salary difference of £4,800 by 12 staff gives a difference of £57,600 per annum (£0.3 million over RP5). Reducing costs of supervisory and support staff would reduce the efficiency and as such the access rates of front line meter readers and operational costs would increase accordingly.

D. Central Support Costs

- 4.36 Differences in assumptions as to central support costs accounts for £0.4 million of the shortfall, as shown in Table 6.11 below.

Table 6.11: Meter reading – central support costs

Central Support Costs	NIE Forecast	Final Determination	Shortfall
	£'000	£'000	£'000
Overhead allocation	300	0	300

⁶ In its response to the draft determination, NIE noted the average salary cost of these staff as £[>] (Chapter 6 paragraph 3.14). However this referred to basic salary including pension and NICs but excluded incentive bonus payments and cash for car allowance.

Managerial Resources	480	340	140
Safety	220	220	0
Rent	185	185	0
HR	90	90	0
General insurance	55	55	0
Other costs (e.g. security, LHP, cleaning, printing and stationery etc)	<u>220</u>	<u>220</u>	<u>0</u>
Total	1,550	1,110	440

- 4.37 The shortfall in the Utility Regulator's allowance relates to the allocation of overheads to meter reading and the disallowance of a proportion of management costs.

Overhead allocation

- 4.38 The overhead allocation to meter reading relates to the allocation of group overheads based on headcount. Total group overheads allocated are approximately £1 million per annum of which £60,000 (6%) is allocated to meter reading based on headcount. Group overheads include general management, IT, finance, and facilities management.

Managerial Resources

- 4.39 The meter reading management charge relates to the apportionment of costs for managers who have responsibility for meter reading and metering. The total cost of these managers is £[<] per annum.

Conclusion on meter reading

- 4.40 The Utility Regulator provided no justification for the disallowance of the costs allocated to meter reading, which are consistent with the current level of costs incurred.
- 4.41 For the reasons stated above, the Utility Regulator's proposed allowance in respect of meter reading costs is insufficient to cover NIE's costs. NIE requests the Competition Commission to provide in full the allowance sought by NIE for meter reading on the basis of its Forecast.

Keypad meters

- 4.42 As shown in Table 6.6, the Final Determination provides an allowance of £0.7 million for costs associated with keypad meters. This is £0.3 million short of NIE's Forecast costs of £1.0 million.
- 4.43 Keypad meters were introduced to Northern Ireland in 2000 by NIE Supply (now Power NI) to replace an ageing card meter pre-payment system. The Utility Regulator subsequently assigned to NIE the ownership and management of keypad meters when NIE became common service provider in 2007/08. Keypad meters as a form of prepayment were to be made available to all supply companies entering the market.
- 4.44 NIE's role includes responsibility for supporting the infrastructure and the contractual arrangements with various companies for the provision of the secure encryption service to support keypad vending for customers, hardware redundancy arrangements, protection against single source provision failure and the provision of keypad plastic cards to customers. Currently there are approximately 296,000 installed keypads in Northern Ireland.
- 4.45 Costs arise as a result of this responsibility and these can be broken down as shown in Table 6.12 below.

Table 6.12: Breakdown of costs associated with keypad meters

	NIE Forecast
	£'000
Keypad Plastic Cards	422
Staff Costs	356
Business continuity services	133
Licence fees, access & support costs	107
Maintenance charges (Secure Meters)	<u>35</u>
Total	1,053

- 4.46 When the keypad metering programme was established in 2000, responsibility for delivering both the meters and supporting systems was outsourced to a third party service provider, Secure Meters (formerly P.R.I), by means of a competitive tendering process.
- 4.47 A commentary on each element of the breakdown of costs identified in Table 6.12 above is provided below:
- Keypad plastic cards are provided by a third party, Intercard Limited. The contract for the provision of plastic cards was competitively tendered in 2012. The costs arise from the requirement for NIE to provide every customer with a magnetic swipe card with their relevant

supplier's logo. As more suppliers enter the market, more keypad cards are required. Additional cards are also required in the event of a customer either losing or damaging a card. The forecast costs are based on six (currently four) suppliers operating in the keypad market.

- Staff costs are based on three FTEs and relate to the on-going cost of call-handling staff to process new installations, removals and changes of keypad meters as communicated by field electricians, using the specialised secure client software system. The requirement for three FTEs was derived from an activity analysis carried out by IBM in 2007, and was based on 2,000 keypad meter installations per month. This continues to be the average installation rate.
- Business continuity service costs are associated with a contractual agreement with third party service provider Lan 2 Lan following a review of infrastructure security in 2007. This agreement ensures that Lan 2 Lan will maintain the operation of the Secure Meter encryption system in the event that Secure Meters goes into liquidation.
- Licence fees, access and support costs. These annual costs are charged both to NIE and suppliers for the use of the Secure Client software and for costs arising from NIE's annual system assurance test including ESCROW. The purpose of ESCROW is to allow a third party to assemble software from source code in the event of liquidation, service provider failure etc. NIE employs a third party to annually test and hold Secure Meters source code so that it could be built into operating software in the event that Secure Meters was to fail. Other costs are for the provision of local hardware that may arise in the event of certain disaster recovery incidents.
- Maintenance charges consist of an annual maintenance charge for 24 hour breakdown assistance associated with the Secure Meters Encryption system for keypads.

4.48 The allowance provided in the Final Determination was set in line with actual costs incurred in 2009/10. This contrasts with the fact that the costs, as presented in Table 6.12 above, were submitted⁷ and approved by the Utility Regulator for the period February to October 2012. A copy of the approval letter is attached at Appendix 6.2.

4.49 This submission to the Utility Regulator reflected the recent increase in business continuity costs, primarily as a result of a significant hardware upgrade at Lan 2 Lan. This was required as the existing equipment supporting NIE's keypad systems is obsolete. Alternatives are not presently available as the NIE / Secure Meters / Lan 2 Lan contract is a complex tri-

⁷ Letter to the Utility Regulator dated 19 January 2012, attached at Appendix 6.1.

party arrangement. External IT specialists, Northgate Managed Services, have reviewed the equipment involved in the upgrade and the costs and confirmed to NIE that these are reasonable. The submission also reflected costs associated with plastic card provision which have been very volatile as more suppliers enter the keypad market, each with different models with respect to both the number of prepayment customers and the frequency with which they provide their customers with such cards. Costs in this area are outside of the control of NIE, which is required to respond as requested by the suppliers.

- 4.50 The Final Determination allowance leaves a shortfall of £0.3 million against keypad meter costs. It should be noted that the majority of these services are provided by specialist suppliers with limited exposure to competition; therefore NIE has limited influence on costs in this area. In addition the forecast cost of plastic cards is based on past experience and an assumption of six suppliers in the market. However demand for cards is driven by electricity suppliers.
- 4.51 For the reasons set out above, the allowance for keypad meters provided in the Final Determination is inadequate. NIE requests the Competition Commission to provide in full the allowance sought by NIE for keypad meters on the basis of its Forecast.

Rathlin Island

- 4.52 Table 6.13 is an extract from Table 6.6 above showing the Rathlin Island cost component of baseline opex.

Table 6.13: Rathlin Island – NIE's Forecast versus the Final Determination

Category	NIE forecast	Final Determination	Shortfall
	£m	£m	£m
Rathlin	0.5	0.2	0.3

- 4.53 These costs are associated with arrangements for the electricity supply to Rathlin Island via an undersea cable from the mainland.
- 4.54 Rathlin operating costs of £0.2 million comprise an annual charge to cover permissions for the cable on the seabed, salary costs for islanders who provide a range of associated services, and other overheads comprising telephone, electricity and servicing costs. The Final Determination has allowed for these operating costs in full.
- 4.55 However NIE's Forecast also includes costs associated with the need for periodic inspections of the cable over its lifetime. NIE currently estimates this cost to be £0.3 million in RP5. This amount includes no allowance for any

repair to the cable, whether pursuant to an inspection or otherwise. The Final Determination has not allowed any provision for recovery of these costs.

- 4.56 NIE requests the Competition Commission to provide in full the £0.3 million allowance sought by NIE in relation to these costs.

5. COSTS TO BE ADDED TO BASELINE

- 5.1 Over the course of RP5 a number of additional demands will be placed upon the business giving rise to costs over and above those incurred in the 2009/10 base year.

- 5.2 These 'new' costs include:

- the need to pay above the cost of living pay rises to retain specialist labour;
- IT and staffing support for the Enduring Solution market opening IT system;
- the need to renew the workforce;
- the introduction of new legislation and increased regulatory reporting;
- the resources to support the Renewables programme;
- storm costs; and
- other costs.

- 5.3 Other such costs are associated with smart technology, the RP6 price review, the Distribution Service Centre, the Network 25 document & Strategic Environmental Assessment and PAS 55 accreditation.

- 5.4 The Utility Regulator assessed NIE's submission in respect of these 'new' costs on a line-by-line basis. Only those costs which the Utility Regulator deemed to be efficient and appropriate were added to the adjusted baseline. As shown in Table 6.14 below, the Final Determination allowance in respect of such costs is £37.5 million less than NIE's Forecast costs over the RP5 period. This represents a shortfall of 55% relative to NIE's Forecast.

Table 6.14: Shortfall in the allowance for costs to be added to baseline

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Real Price Effects	10.4	(3.3)	13.7
Enduring Solution	28.9	21.4	7.5
Workforce Renewal	4.9	0.0	4.9
Legislative & Regulatory	3.8	0.5	3.3
R&D (Application of Smart Technologies)	2.5	0.0	2.5
Renewables Baseline	12.3	9.8	2.5
Storm Costs	1.6	1.6	0.0
Price Review	2.0	0.0	2.0
Other	1.9	0.8	1.1
Smart Metering	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Cost to be Added to Baseline	68.3	30.8	37.5

- 5.5 Each of the individual cost categories itemised in Table 6.14 above is considered in turn below.

Real Price Effects

- 5.6 Table 6.15 below is an extract from Table 6.14 showing the shortfall in the Final Determination opex allowance for 'new' costs for RP5 (i.e. costs that were not incurred in the 2009/10 base year) relating to real price effects.

Table 6.15: Real Price Effects – shortfall in costs to be added to the baseline

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Real Price Effects	10.4	(3.3)	13.7

- 5.7 Real Price Effects is the impact of labour and material price variations outside the range of the Retail Price Index (RPI).
- 5.8 In its Final Determination, the Utility Regulator has put in place a negative opex allowance of £3.3 million for real price effects (RPEs). Within NIE's Forecast, the latest best estimate of the opex impact is £10.4 million.

- 5.9 NIE strongly disagrees with the Utility Regulator's determination. We set out in full our arguments on RPEs in Chapter 8 (Real Price Effects) and therefore we do not repeat them here.

Enduring Solution

- 5.10 The table below is an extract from Table 6.14 above showing the shortfall in the Final Determination opex allowance for 'new' costs for RP5 (i.e. costs that were not incurred in the 2009/10 base year) relating to the Enduring Solution IT system.

Table 6.16: Enduring Solution – shortfall in costs to be added to baseline

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Enduring Solution	28.9	21.4	7.5

- 5.11 NIE's cost projections have been developed from a detailed, bottom-up analysis of the new processes and systems required to support full competition in the NI retail market. The projections have been validated through activity analysis in the period since go-live and external best practice information has been used to confirm that the operating costs are being incurred in an efficient manner.
- 5.12 The Final Determination includes an allowance of £21.4 million to operate the Enduring Solution IT system over the RP5 period. This is £7.5 million short of the £28.9 million which NIE considers is required for that purpose.

Background

- 5.13 In May 2012, NIE successfully implemented the Enduring Solution (**ES**) project. This was the largest and most complex IT project ever undertaken by NIE, and it was driven by the need to meet legislative and regulatory requirements for a fully competitive retail electricity market. Further details about the development of the competitive retail market in NI are contained in Annex 1A.1 (Historical and Regulatory Background). The project also delivered full separation of the customer billing processes and legacy IT systems previously shared between NIE (the network operator) and Power NI (the retail Supplier).
- 5.14 The ES IT systems have been operating very successfully since go-live. In the period between go-live in May 2012 and 31 January 2013 the systems have operated with 99.91% availability during normal service hours.

- 5.15 Market participants have been very positive about the new market systems. The Harmonisation Working Group⁸ (HWG) minutes from the meeting on 8 August 2012 record that *"The evidence supports that the project was a good delivery. Data contents holding up well. No problems or difficulties with Suppliers"* and *"... the NIAUR Board meeting noted that a formal well done was to be forwarded from Regulators to the Project"*.
- 5.16 Under the Agenda Item 'Update on the Enduring Solution', the HWG minutes from 19 September 2012 state that *"NIAUR noted that this item could be dropped from future HSG meetings. Nigel Wray provided the final update to HSG. They are currently in Post Go Live 'Care and Maintenance' phase. Data Quality is good and there are no major defects impacting the market. Global Aggregation is being implemented. Switching is going well. Project has been successful beyond expectations"*.
- 5.17 The ES project introduced significant changes to market and business processes, driving the need for new solutions and additional resources. It replaced low cost, static applications providing minimal functionality with complex, functionally rich, higher cost applications. As a result, ES has created a step change in NIE's operating costs.
- 5.18 The ES solution is necessarily complex to enable NIE to perform its unique role within the NI competitive electricity market. It has delivered unconstrained switching, whereby approximately 838,000 retail customers⁹ can freely move between electricity suppliers, introduced improved functionality for customers, ensured data integrity for the wholesale and retail markets and enabled harmonisation between the markets in NI and ROI.
- 5.19 NIE's role as market operator in NI is much broader than that undertaken by the DNOs in GB. NIE is responsible for managing all market processes and the provision and maintenance of all accurate, up-to-date data necessary to support the successful operation of the competitive retail and wholesale electricity markets. In GB responsibilities for these functions are spread across many different industry participants including meter data collectors, data aggregators, suppliers and meter installers. NIE performs all these functions itself and, as a consequence, the ES is a necessarily complex suite of applications, providing a much wider range of functionality than that required of any GB DNO.
- 5.20 The regulatory requirement for the separation of NIE from Power NI has led to a significant loss of synergy where NIE benefited previously from activities undertaken by Power NI, for example, to resolve data errors and restart failed processes associated with 700,000 domestic sites. Whilst the ES has been

⁸ The HWG is the retail market forum which manages the design and development of the harmonised market. It has representation from the regulators, the networks businesses (ESB and NIE) and suppliers.

⁹ As at 31 March 2013. Figure excludes de-energised, vacant sites.

designed to automate processes as far as possible, following separation NIE has had to recruit staff to deal with such "exceptions" (the term used to describe data errors such as invalid meter readings) and to produce Distribution Use of System (DUoS) bills on an individual site basis for an additional 700,000 sites.

- 5.21 The central system within the ES architecture is SAP IS-U. It supports a range of business critical processes including: distribution use of system billing; market operations (including customer switching); data aggregation; fieldwork; meter installations and exchanges; meter reading; new connections; customer contact; and finance.
- 5.22 NIE initially contemplated implementing an Oracle based solution for the ES, as this represented, at the outset, the 'least risk' option to meet the target market opening timescales. Although SAP IS-U provides more relevant distribution-related functionality as standard than the Oracle product (which is more targeted as a retail billing engine), Oracle was the technology already in place to support the interim NI market arrangements and the appropriate skills and resources were available to NIE to deliver the project. The acquisition of NIE by the ESB Group created the opportunity to access ESB Intellectual Property Rights in their SAP solution, as well as its experience and resources, which allowed NIE to implement a superior SAP solution within the expected timescales. At the time of the acquisition, the SAP-based solution employed by ESB had been successfully supporting a similar market with high volumes of switching for a number of years, which gave NIE confidence of the ability of a SAP-based solution effectively to support the demands of the NI market going forward.
- 5.23 To meet NIE's specific needs, significant functionality was developed within SAP IS-U. The developments included 300+ pieces of new custom code, 49 new workflows, 80 reports and 90 new system interfaces (creating 50,000 data transactions across interfaces per day), all requiring support and maintenance. There are 250+ internal users of the systems in addition to electricity suppliers, who all interface with the solution via electronic market messages and market websites. On average, 2,000 customer appointments per week are completed and work instructions from the systems are issued to 100+ field handheld units. All of these data transactions create the potential for exceptions (e.g. invalid meter readings) which must be addressed in a timely manner if the integrity of the market is to be maintained.
- 5.24 The retail market is driven by electronic market messages exchanged between participants and the introduction of ES (including harmonisation with RoI) increased the number of market message types from 36 to 84. The number of market messages flowing through market systems has increased from an average of 2,500 per day prior to ES go-live to an average of

32,000¹⁰ per day post go-live – a significant step change in data volumes and transactions.

- 5.25 All of these changes drive increased IT support costs, including infrastructure costs, software licence costs and IT support resource costs. There is a direct relationship between the numbers of market messages, the amount of functionality required to automate the outcomes from these messages and therefore the amount of support effort required to ensure the solutions can operate effectively, maintaining the required quality and service levels.
- 5.26 The NI retail electricity market depends upon the timely and accurate processing of large volumes of data gathered from multiple internal and external sources. The solutions implemented as part of the ES project were designed to meet this market requirement and amongst other things they deliver:
- Automation to manage internal and external interfaces and data flows, minimising manual intervention and reducing the number of staff required to operate the market effectively;
 - Sophisticated data validation to minimise human error and maintain critical data integrity;
 - A highly resilient and reliable infrastructure, ensuring appropriate availability of key market systems.
- 5.27 Lower cost solutions with less functionality would not deliver these important requirements.
- 5.28 The introduction of ES has also driven a significant increase in demand for NIE business support resources. NIE is now performing DUoS billing for approximately 838,000 sites compared with 160,000 pre-ES. In addition NIE is performing data aggregation, required for the wholesale settlement market, for approximately 838,000 sites compared with 100,000 sites pre-ES. The market-driven introduction of an appointment booking system has also led to an increase in the number of interactions with suppliers and customers.
- 5.29 Market governance arrangements have been complicated by harmonisation of the electricity markets in NI and RoI. For example, extensive consultation and agreement is required by all suppliers, DNOs and regulators (the Utility Regulator and CER) before changes can be made to market systems, whether or not a proposed change is to be operated in the NI jurisdiction. Additional NIE staff are required to support these new governance arrangements.

¹⁰ These are external market messages as distinct from 50,000 internal transactions across system interfaces as described in paragraph [4.14] above

- 5.30 Finally, additional skilled resources are required to manage third parties providing services for the more complex ES IT infrastructure.

NIE Submission and the Final Determination

- 5.31 Given the complexity of the ES project and the timing of the RP5 price control review process it was not possible to arrive at a fully informed position with respect to operating costs at the time of the original BPQ submission in February 2011. This was communicated to the Utility Regulator at the point when the initial estimate of £22.5 million for support costs for the RP5 period was provided. It was emphasised at that stage that the submission would be updated when the project reached a more advanced stage.
- 5.32 Since then, NIE has developed a progressively more informed view of the ES operating costs, with revised material being provided to the Utility Regulator in October and November 2011 and a final submission being provided in July 2012 following go-live. For each submission, a detailed, bottom-up analysis was prepared which was based upon the best information then available and which could be substantiated against the assumptions which accompanied the forecasts.
- 5.33 The forecast of ES support requirements in November 2011 was largely informed by visibility of the earlier stages of system testing and the associated assumptions with respect to the amount of functionality which needed to be supported. These early test phases had been planned and undertaken by the ES Systems Integrator. It was only at the point of user acceptance testing that NIE and its outsourced IT service providers were able to review the totality of the functionality being delivered and assess in more detail the degree of testing required to provide full coverage.
- 5.34 The data emerging from the user acceptance testing activity from December 2011 onwards indicated the presence of significantly more functionality requiring support than was previously anticipated. All of this functionality was being driven by the requirements of the new market processes.
- 5.35 In July 2012, following ES go-live, NIE provided the Utility Regulator with a final detailed analysis of costs associated with operation of the new market processes and systems over the RP5 period. A total of £28.9 million of operating costs have been identified comprising £30.3 million of ES operating costs offset by £1.4 million of savings in legacy IT costs. Within the Final Determination the Utility Regulator has included an allowance of £21.4 million to operate ES over the RP5 period, resulting in a shortfall of £7.5 million over that required by NIE.
- 5.36 Table 6.17 below compares NIE's assessment of its opex requirement for the ES IT system with the Final Determination allowance, broken down into its principal cost categories.

Table 6.17: Enduring Solution – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
1. Applications Support Resources – SAP	12.5	6.8	5.7
2. Applications Support Resources – Non SAP	0.8	1.8	(1.0)
3. Infrastructure Support Resources	2.4	2.7	(0.3)
4. Hardware, Software and Market Entry Costs	7.3	7.3	0.0
5. Outsourced Business Process (BPO) staff	2.9	2.4	0.5
6. Internal costs to support market processes	4.4	3.4	1.0
Total ES Operating Costs	30.3	24.4	5.9
7. Legacy Reductions	(1.4)	(2.0)	0.6
8. Support costs paid by ESB Networks	<u>0.0</u>	<u>(1.0)</u>	<u>1.0</u>
Total	28.9	21.4	7.5

5.37 An analysis of each cost category identified in Table 6.17 above is provided below.

Cost category 1: Applications Support Resources - SAP

5.38 Table 6.18 below is an extract from Table 6.17 above comparing NIE's assessment of its opex requirement for cost category 1 of the ES IT system (SAP-related applications support resources) with the Final Determination allowance.

Table 6.18: Enduring Solution – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Applications Support Resource Costs – SAP	12.5	6.8	5.7

Scope of Costs

- 5.39 This cost relates to the outsourced technical resources required to support the main ES application (SAP IS-U), to undertake routine maintenance, resolve defects, fix data issues, respond to business and Supplier queries and deliver software enhancements.

Basis for NIE Submission

- 5.40 NIE outsources its IT service delivery to Capita Managed IT Solutions (**Capita**), previously known as Northgate Managed Services, the contract having been competitively tendered for a minimum 5-year term in 2009. At the point of awarding the managed service contract it was understood that the new ES services would be incorporated into the managed service contract via change control. This approach was confirmed in the ES Procurement Strategy, which was approved by the ES Project Board, on which the Utility Regulator had a representative.
- 5.41 A change control to the existing managed service contract was the most cost effective and low risk way to achieve the go-live date and support the market during the bedding-in period. The managed service re-procurement in 2009 established a competitive resource cost base for use in future change control throughout the life of the agreement.
- 5.42 The introduction of a new technology solution into an existing managed service arrangement is in line with previous market opening projects. In 2006, the Utility Regulator agreed to NIE extending the existing managed service to incorporate support for the new Oracle product introduced to support Industrial & Commercial market processes.
- 5.43 The managed service re-procurement was a robust exercise undertaken with input from external procurement (Grant Thornton) and legal (DLA Piper) advisors. The contract is based upon the Office of Government Commerce (OGC) framework for service agreements and arrangements to manage contract change control are built into the template. NIE's client-side advisors on the ES implementation project (Neueda) assisted NIE in the negotiations with Capita to develop a robust, cost effective support model.
- 5.44 Due to the integrated nature of the ES and NIE legacy applications it was considered appropriate that one organisation would continue to provide an end-to-end service across the applications estate, including interfaces, and that the service desk arrangements would best be delivered by one organisation. The introduction of a second major outsourced IT provider would give rise to additional costs and greater risk for the market as ownership of specific system issues could become blurred and restoration processes extended. NIE is not currently resourced to manage two ICT outsourced providers.

- 5.45 Absorbing the ES service into an existing managed service contract has delivered other advantages, for example, there are no additional charges for service desk resources, service management processes and desktop services, even though the application footprint and user base has increased.
- 5.46 Early termination of the existing market services within the Capita contract would need to be negotiated, would involve early termination payments and TUPE of existing resources to a new provider. A number of the existing resources are ex-NIE staff who are Protected Employees and as such this would potentially crystallise pension deficit costs for any new provider, which are currently being managed out over the expected contract term.
- 5.47 All of the NIE ICT services, including those related to ES, will be retendered when the current Capita agreement terminates. Inclusion of the ES services within a bigger NIE contract will deliver lower cost services for the market, compared to having two separate contracts.
- 5.48 The Capita managed service for ES has been operating very successfully since go-live with consistently high service levels being maintained. Capita have acquired a number of additional skilled SAP resources to support the increased functionality and have subcontracted some specialist technical and development services to a partner organisation with offshore capabilities
- 5.49 Since ES go-live, Capita has been conducting a detailed activity analysis to confirm the level of resource required to operate and maintain the ES systems. A set of standard support categories were agreed with NIE and the effort expended by all the resources involved in provision of the service is being captured using timesheets against these categories.
- 5.50 The analysis has included staff involved in business as usual maintenance activities, in the resolution of defects, responding to business and Supplier queries and the implementation of change requests.
- 5.51 Standard timings have been developed for daily, weekly and monthly business as usual activities and these timings have been used to determine resource levels. The turnaround times on defects and the volumes identified per week have also been analysed to confirm current resourcing levels and to predict future levels when the system enters a more stable operational phase. Volumes of Supplier and business queries are reviewed on a monthly basis to identify potential problem areas which are driving additional support effort.
- 5.52 All of this analysis has been used to develop the projected outsourced technical support costs of £12.5 million over the RP5 period.
- 5.53 The resourcing level is being driven by the functional complexity and high volumes of market transactions being processed through the systems. NIE has reviewed and challenged this analysis to ensure that the resources are

skilled and deployed in appropriate numbers to deliver the required service at lowest overall cost.

- 5.54 In the early days of operation, NIE management met with Capita on a monthly basis to review the timesheet data and associated analysis and the effectiveness of the service being delivered. Based upon current activity levels and various assumptions about future activity levels, NIE has set Capita targets to reduce support resources to a steady state level by mid-2013.
- 5.55 The Northgate onshore average daily rate for SAP applications support is £[redacted] / day (09/10 prices) which is extremely competitive when compared to market rates for enterprise class¹¹ support resources, which command a premium when compared to other application support skills. Benchmark¹² daily rates for general SAP functional resources vary from £447/day to £552/day and for specialist SAP expertise (for example SAP IS-U) from £473/day to £633/day (all in 09/10 prices).
- 5.56 Due to the unique nature of NIE's market operator role and the degree of customisation included in the ES solution, there is no simple benchmark to confirm optimal operating costs. However, a range of external best practice information indicates that the proposed operating costs are extremely competitive.
- 5.57 Gartner Research Note G00127751 (2005) (attached at Appendix 6.3) states that "*Organisations should budget approximately 30% of initial development costs per annum to keep the application operational*". The relevant ES initial development costs were £32.4 million (2009/10 prices) and the relevant annual IT support costs are approximately £4.27 million¹³ (2009/10 prices), representing only 13% of implementation costs.
- 5.58 A further Gartner Research Note G00230382 (2012) (attached at Appendix 6.4) suggests that the 'best case scenario' for a system with a 15 year life span is that the cost to go live is 19% of total lifetime cost of ownership. For ES, with an implementation cost of £32.4 million (09/10 prices), this would suggest a best case opex cost of £170 million over 15 years. Assuming two major upgrades costing the same as the initial implementation over the period and removing £64.8 million from the headline figure, this would suggest true opex costs of £105 million over 15 years, or £7 million per annum. Again, this suggests our proposed opex costs of approximately £4.27 million are well below the figures which market experts suggest should be used for budgeting purposes.

¹¹ Enterprise class applications include systems from vendors such as SAP and Oracle.

¹² Source: Alexander Mann Solutions (2011/12 rate card).

¹³ £4.27 million is the average annual support cost for the entire ES solution, which includes these SAP Resource costs. £12.54m is a 5-year figure for the SAP resource costs only.

- 5.59 The Research Note also highlights the direct link between volumes of transactions within an IT system and the likelihood of on-going development and higher on-going support costs. As highlighted above, the ES IT systems are necessarily complex to meet market requirements, are processing significant volumes of transactions on a daily basis and will continue to be developed to meet evolving market and business requirements.
- 5.60 Within this cost category, NIE's submission includes £0.9 million over the five-year period for future system developments to meet new requirements emerging both within NIE and the NI market. This amount (which has been allowed in full by the Utility Regulator) was proposed on the basis that major changes driven by the market (and therefore beyond NIE's direct control) or significant system upgrades were not included in the submission amount and that cost recovery for these projects would need to be agreed separately.
- 5.61 Since before ES go-live in May 2012, NIE has been seeking confirmation from the Utility Regulator with respect to the principles to be applied to future cost recovery of market harmonisation costs. In April 2013, the joint regulators (Utility Regulator and CER) wrote to NIE confirming how costs incurred to date in connection with the shared market messaging system used in both jurisdictions (TIBCO) should be allocated between NIE and ESB Networks¹⁴. The regulators' letter also sets out a framework to describe how future harmonisation projects would be approved to proceed.
- 5.62 However, the quantum of costs for NIE emerging from future market decisions is uncertain and the letter does not describe how any future additional costs allocated to NIE, over and above the amount allowed in the Final Determination, would be recovered by NIE. NIE submits that efficiently incurred harmonisation costs should be treated as fully recoverable on a pass-through basis as and when future development projects are signed off by the joint regulators.

Basis for Disallowance

- 5.63 The Utility Regulator has disallowed £5.7 million of costs over the period – more than 45% of the total amount which NIE considers is necessary for this cost category.
- 5.64 The Utility Regulator has indicated that benchmarking information is available which suggests the NIE projected costs in this area are too high and in particular the number of resources required to effectively support the applications are too high.

¹⁴ A copy of the joint regulators' letter is provided at Appendix 6.5. It is dated 10 April 2013 but was not sent to NIE until 26 April 2013. NIE understands that the delay resulted from difficulties in obtaining signatures from the CER

- 5.65 As discussed above, due to the unique nature of NIE's market operator role and the degree of customisation included in the ES solution, there is no simple benchmark to confirm optimal operating costs.
- 5.66 Neither the detailed rationale used by the Utility Regulator to identify potential reductions or the benchmarking information underpinning the proposals have been shared with NIE. This information was requested following the Draft Determination but the Utility Regulator chose to withhold the information on the grounds of confidentiality.
- 5.67 It is therefore unclear on what basis the Utility Regulator expects NIE to achieve a more than 45% reduction in projected SAP Support costs.

Conclusion

- 5.68 The Final Determination represents an entirely inadequate level of funding to allow the retail market processes to operate effectively. At the proposed levels of resourcing, the new SAP IS-U application could not be properly maintained, leading to increasing data and system defects. As SAP IS-U is the core retail market system, this would impact suppliers and customers significantly. Within the foreseeable future, this would result in corruption of market data and a breakdown of retail processes.
- 5.69 Significant investment has been made in successfully implementing a robust solution which is supporting the market effectively. All of this investment will have been wasted if on-going operation is neglected to the point that the systems become unreliable and unusable.
- 5.70 NIE therefore requests the Competition Commission to provide in full the amount sought by NIE for SAP-related applications support resources for the ES IT system. NIE also requests the Competition Commission to confirm that future market harmonisation costs will be treated as fully recoverable on a pass through basis.

Cost category 2: Applications Support Resources – Non-SAP applications

- 5.71 Table 6.19 below is an extract from Table 6.17 above comparing NIE's assessment of its opex requirement for cost category 2 of the ES IT system (applications support resources for non-SAP ES applications) with the Final Determination allowance.

Table 6.19: Enduring Solution – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Applications Support Resource Costs – Non SAP	0.8	1.8	(1.0)

Scope of Costs

- 5.72 This cost category relates to the Capita technical resources required to support the other (non-SAP) ES applications, to undertake routine maintenance, resolve defects, fix data issues, respond to business and supplier queries and deliver software enhancements

Basis for NIE Submission

- 5.73 Since ES go-live, Capita have been conducting a detailed activity analysis to confirm the level of resource required to operate and maintain these ES systems. This is the same activity analysis process described in paragraphs 5.49 to 5.51 above. The analysis has included staff involved in business as usual maintenance activities, in the resolution of defects, responding to business and supplier queries and the implementation of change requests.
- 5.74 The resourcing level is being driven by the functional complexity and high volumes of market transactions being processed through the systems. As described in paragraph 5.54 above, NIE has reviewed and challenged this analysis to ensure that the resources are skilled and deployed in appropriate numbers to deliver the required service at lowest cost.
- 5.75 The Capita average daily rate for non-enterprise class applications support is £[redacted]/day (09/10 prices) which is competitive. Benchmark¹⁵ daily rates for applications support resources vary from £199/day (for simple business applications) to £330/day (all in 09/10 prices). The various ES applications in this category are business- and market-critical applications being supported by relatively experienced senior resources.

Basis for Disallowance

- 5.76 The Utility Regulator has allowed £1.0 million of costs above NIE's submission over the period. The rationale for the allowance is unclear as no detailed supporting information has been provided to NIE.
- 5.77 It would however appear that the Utility Regulator may have based the allowance upon NIE's previous ES submission provided in November 2011 - £1.7m was included for Applications Support in that submission. Following

¹⁵ Source: Alexander Mann Solutions (2011/12 rate card).

more detailed review of support costs this figure was subsequently reduced to £0.8m in the July 2012 submission.

- 5.78 Amongst other things, this reduction recognised the fact that the all-island market messaging application is now shared between NIE and ESB Networks and the support costs are therefore also shared by both organisations.
- 5.79 The Utility Regulator has also recognised savings in Applications Support and Infrastructure Support due to sharing of costs with ESB Networks by applying a separate reduction of £1.0m (Cost Category 8 below) to the overall ES allowance. It is not known how this reduction was calculated or how it relates to this Applications Support allowance.

Conclusion

- 5.80 The Final Determination represents a more than adequate allowance for Applications Support resources to ensure that the non-SAP ES systems continue to operate effectively.

Cost category 3: Infrastructure Support Resources

- 5.81 Table 6.20 below is an extract from Table 6.17 above comparing NIE's assessment of its opex requirement for cost category 3 of the ES IT system (infrastructure support resources) with the Final Determination allowance.

Table 6. 20: Enduring Solution – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Infrastructure Support Costs	2.4	2.7	(0.3)

Scope of Costs

- 5.82 This cost category relates to the Capita technical resources required to support all the infrastructure and network components associated with ES, including routine monitoring, maintenance and resolution of defects.

Basis for NIE Submission

- 5.83 As with Applications Support, the Infrastructure Support services will be delivered via a change control to the existing NIE Managed Service agreement
- 5.84 The model used to calculate the additional effort required was the tried and tested model which underpins the calculation of all infrastructure change controls under the Managed Service contract.

- 5.85 The increased resourcing level is being driven by the large number of new infrastructure components (servers, databases, operating systems and network equipment) introduced to the NIE estate due to ES.
- 5.86 The Capita daily rate for infrastructure support is £[redacted]/day (09/10 prices) which is extremely competitive. Current benchmark¹⁶ daily rates for network / infrastructure support specialists vary from £326/day to £402/day (all in 09/10 prices).

Basis for Disallowance

- 5.87 The Utility Regulator has allowed £0.3 million of costs above NIE's submission over the period. The rationale for the allowance is unclear as no detailed supporting information has been provided to NIE.
- 5.88 It would however appear that the Utility Regulator may have based the allowance upon NIE's previous ES submission¹⁷ provided in November 2011 - £2.6 million was included for Infrastructure Support in that submission. Following more detailed review of support costs this figure was subsequently reduced to £2.4 million in the July 2012 submission.
- 5.89 Amongst other things, this reduction recognised the fact that the all-island market messaging infrastructure is now shared between NIE and ESB Networks and the support costs are therefore also shared by both organisations.
- 5.90 The Utility Regulator has also recognised savings in Applications Support and Infrastructure Support due to sharing of costs with ESB Networks by applying a separate reduction of £1.0m (Cost Category 8 below) to the overall ES allowance. It is not known how this reduction was calculated or how it relates to this Infrastructure Support allowance.

Conclusion

- 5.91 The Final Determination represents a more than adequate allowance for infrastructure resources to ensure that the ES IT systems continue to operate effectively.

Cost category 4: Hardware, Software and Market Entry Costs

- 5.92 Table 6.21 below is an extract from Table 6.17 above comparing NIE's assessment of its opex requirement for cost category 4 of the ES IT system (hardware, software and market entry costs) with the Final Determination allowance.

¹⁶ Source: Alexander Mann Solutions (2011/12 rate card).

¹⁷ Provided at Appendix 6.6.

Table 6.21: Enduring Solution – hardware, software & market entry costs – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Hardware, Software and Market Entry Costs	7.3	7.3	0.0

Scope of Costs

- 5.93 This cost category relates to the third party costs associated with hardware maintenance, software licences and other market services such as carrying out an accreditation process for new Suppliers as they enter the market.

Basis for NIE Submission

- 5.94 The majority of these costs comprise standard vendor hardware maintenance and software licence costs which are proposed as a standard percentage of the initial implementation cost per annum. All of the hardware and software components in the ES solution were competitively tendered as part of the Systems Integrator procurement.
- 5.95 A small component of the submission (£0.5 million) relates to market services and these costs were developed based upon historical information and certain conservative assumptions about the future number of new suppliers who might wish to enter the market and need to be accredited.

Basis for Disallowance

- 5.96 The Utility Regulator has allowed all of the costs in the NIE submission over the period.

Conclusion

- 5.97 The Final Determination represents an adequate allowance for these third party licence and maintenance costs.

Cost Category 5: Outsourced Business Process staff

- 5.98 Table 6.22 below is an extract from Table 6.17 above comparing NIE's assessment of its opex requirement for cost category 5 of the ES IT system (outsourced business process (**BPO**) staff) with the Final Determination allowance.

Table 6.22: Enduring Solution – BPO staff – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Outsourced Business Process (BPO) staff	2.9	2.4	0.5

Scope of Costs

- 5.99 This cost relates to the Capita Business Process staff who process exceptions (e.g. invalid meter readings), correct erroneous transfers (e.g. invalid registrations that have to be backed out), engage with suppliers and manage meter point data.

Basis for NIE Submission

- 5.100 These costs are for 19 BPO staff who carry out the activities outlined above at an average daily rate of £[x]/day.
- 5.101 Prior to domestic retail market opening in NI, 16 BPO resources were required to support market operations for the Industrial and Commercial sector. In June 2010, the first new suppliers entered the domestic market and 6 new resources were recruited at that point to handle the additional volumes of transactions, resulting in a total of 22 BPO resources.
- 5.102 The step change in market transactions created by the introduction of full competition described above generated additional data exceptions and interactions with Suppliers which need to be managed by the BPO team. However, greater automation and improved validation has been introduced by the new IT systems which has offset the need for additional resources.
- 5.103 At the point of go-live, a review was undertaken of the market transaction volumes and the reduction in effort enabled by the IT systems and it was determined that the required steady state service levels could be delivered with 19 staff. Therefore the team size could be reduced by three from the pre-ES resourcing level.

Basis for Disallowance

5.104 The Utility Regulator has disallowed £0.5 million of the costs in the NIE submission over the period. It has ignored the increased volumes of market transactions and has assumed that the new systems will deliver a reduction in resources required. No detailed rationale for the disallowance has been provided.

Conclusion

5.105 The Final Determination represents an inadequate allowance for these BPO costs. The retail market relies on the maintenance of good quality data. If the BPO team size were reduced to the level proposed by the Utility Regulator there would be a significant risk that data errors would not be addressed in a timely manner leading to problems for suppliers and customers. It is likely that market service levels would not be met and that overall data quality within the system would degrade.

5.106 NIE therefore requests the Competition Commission to provide in full the amount sought by NIE for BPO staff costs for the ES IT system.

Cost category 6: Internal NIE staff costs

5.107 Table 6.23 below is an extract from Table 6.17 above comparing NIE's assessment of its opex requirement for cost category 6 of the ES IT system (internal NIE staff costs) with the Final Determination allowance.

Table 6.23: Enduring Solution – internal staff costs – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Internal NIE costs to support market processes	4.4	3.4	1.0

Scope of Costs

5.108 This cost relates to the new NIE staff who are required to operate the competitive market processes.

5.109 This includes the following activities:

- Production of distribution use of system bills for suppliers;
- Production of aggregated supplier data to the wholesale electricity market;

- Responding to customer queries about supplier switching processes;
- Management of governance arrangements to ensure market process adherence and developments in market design;
- Management of services provided by third party service providers to support the ES systems and keypad prepayment meter infrastructure;
- Administration of supplier data queries, connection agreements, and market documentation; and
- Resolution of data issues relating to metering fieldwork.

Basis for NIE Submission

- 5.110 Owing to the unique nature of NIE's market operator role and the way in which the NI market operates, there is no external benchmark to confirm optimal resourcing levels to support the processes.
- 5.111 However, prior to go-live, NIE carried out extensive analysis to assess the most efficient, cost-effective level of resource required to fulfil its obligations to the competitive retail and wholesale electricity markets. This exercise required ES project team leaders to assess resource levels for each business area based on their detailed knowledge of market systems and processes, follow-up discussion with individual business managers and finally robust challenges at Director level. Following this exercise, a resource model was developed (attached at Appendix 6.7) and shared with the Utility Regulator's representative on the project.
- 5.112 The analysis resulted in the need for an additional 14 permanent personnel. There were 13 pre-ES permanent staff, each approved separately by the Utility Regulator during the various phases of market opening. Therefore, at go-live, NIE required a total of 27 personnel to support the market.
- 5.113 Following go-live, further checks were carried out with each of the business units to assess the on-going resource need. These checks resulted in a reduction of two permanent resources from NIE's go-live requirement, thus reducing the total permanent resource to 25 FTEs.
- 5.114 A number of additional activities are driving the need for the post-ES increase resources, including:
- NIE is now performing DUoS billing for approximately 838,000 sites compared with 160,000 pre-ES. In addition NIE is performing data aggregation, required for the wholesale settlement market, for approximately 838,000 sites compared with 100,000 pre-ES.

- NIE requires resources to manage data and process issues that were managed previously by Power NI on the shared billing system.
- The market-driven introduction of an appointment booking system has led to an increase in the number of interactions with suppliers and customers.
- Market governance arrangements have been complicated by harmonisation of the electricity markets in NI and RoI. For example, extensive consultation and agreement is required by all suppliers, DNOs and Utility Regulators before changes can be made to market systems, whether or not a proposed change is to be operated in the NI jurisdiction
- Additional skilled resources are required to manage third parties providing services for the more complex ES IT infrastructure.

Basis for Disallowance

5.115 The Utility Regulator has disallowed £1.0 million of costs over RP5. Based on discussions with the Utility Regulator's representative on the project, approval of a number of resources recruited before implementation of ES has been withdrawn (3.5 FTE resources). In addition, the Utility Regulator has not approved some of the additional ES resources required to support the fully competitive market (a further 3.5 FTE resources).

Conclusion

5.116 The Final Determination represents an inadequate level of funding to enable NIE to fulfil its obligations as Market Operator. NIE has conducted a thorough and robust analysis to determine the minimum level of resource required to support the fully competitive market. The inadequate levels of staff resources implied by the Final Determination would have a significant negative impact on the provision by NIE of data provision services used for settlement of the wholesale market, as well as on the accuracy of DUoS and retail billing. Furthermore there would be delays in resolving business process exceptions (for example, in metering fieldwork) which would lead to a deterioration of services provided to end customers.

5.117 NIE therefore requests the Competition Commission to provide in full the amount sought by NIE for internal NIE staff costs for the ES IT system.

Legacy Reductions

5.118 Table 6.24 below is an extract from Table 6.17 above comparing NIE's assessment of legacy cost reductions arising from the ES IT system with that of the Utility Regulator in the Final Determination.

Table 6.24: Enduring Solution – legacy cost reductions – NIE's Forecast versus Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
<i>Legacy Reductions</i>	(1.4)	(2.0)	0.6

Scope of Costs

5.119 This category relates to savings in NIE's existing IT support costs due to certain application and infrastructure decommissioning following the introduction of the ES.

Basis for NIE Submission

5.120 In November 2011, NIE provided a projected figure for the savings which would accrue following the introduction of ES. This was in advance of a detailed decommissioning analysis and the figures in the submission were caveated as subject to change.

5.121 In July 2012, following ES go-live, NIE provided an updated analysis of legacy reductions to the Utility Regulator (attached at Appendix 6.8), detailing where the movements had emerged.

Basis for Disallowance

5.122 In the Final Determination, the Utility Regulator has chosen to ignore the information provided in July 2012 and has applied the higher reduction figure included in the November 2011 submission.

Conclusion

5.123 This represents an unacceptable disallowance of IT costs which NIE will continue to incur going forward.

5.124 NIE requests the Competition Commission to determine NIE's opex allowance for RP5 on the basis of NIE's updated assessment of legacy cost reductions arising from the ES IT system, rather than on the basis of an earlier, out of date assessment.

Cost Category 8: Support Costs Paid by ESB Networks

5.125 Table 6.25 below is an extract from Table 6.17 above showing an adjustment to ES costs made by the Utility Regulator in the Final Determination.

Table 6.25: Enduring Solution – Support Costs Paid by ESB Networks – Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
<i>Support Costs Paid by ESB Networks</i>	0.0	(1.0)	1.0

Scope of Costs

5.126 As part of ES, a new market messaging application and infrastructure, used to process messages between market participants and the market operator, was implemented for the NI market. As part of the market harmonisation initiative, this subsequently became an all-island solution which is also used by ESB Networks to manage ROI market messages.

5.127 The support costs for the application and associated infrastructure are now shared between NIE and ESB Networks. Cost reductions due to sharing were already built into NIE's submission (in cost categories 2 and 3 above).

Basis for Disallowance

5.128 In the Final Determination, the Utility Regulator has introduced this reduction to recognise the sharing of costs with ESB Networks. No information has been provided to NIE to show how the reduction has been calculated.

Conclusion

5.129 As the allowances for Non-SAP Applications Support (cost category 2) and Infrastructure Support (cost category 3) exceed the NIE submission by a total of £1.3m, this £1.0m represents an acceptable reduction in those allowances to recognise cost sharing with ESB Networks. Overall therefore, no adjustment is required to this cost category. The position would of course be different if the Competition Commission were to contemplate a reduction in the Final Determination allowance for cost category 2 and/or 3.

Conclusion on ES IT system costs

5.130 As set out above, NIE has developed a detailed submission of the costs required to operate the ES systems and processes supported by bottom-up analysis and external benchmark information. Activity analysis since go-live has confirmed the level of costs included within the submission.

5.131 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of the ES IT system.

Workforce Renewal

5.132 Table 6.26 below is an extract from Table 6.14 showing the shortfall in the Final Determination opex allowance for 'new' costs for RP5 (i.e. costs that were not incurred in the 2009/10 base year) relating to workforce renewal.

Table 6.26: Workforce renewal – shortfall in costs to be added to the baseline

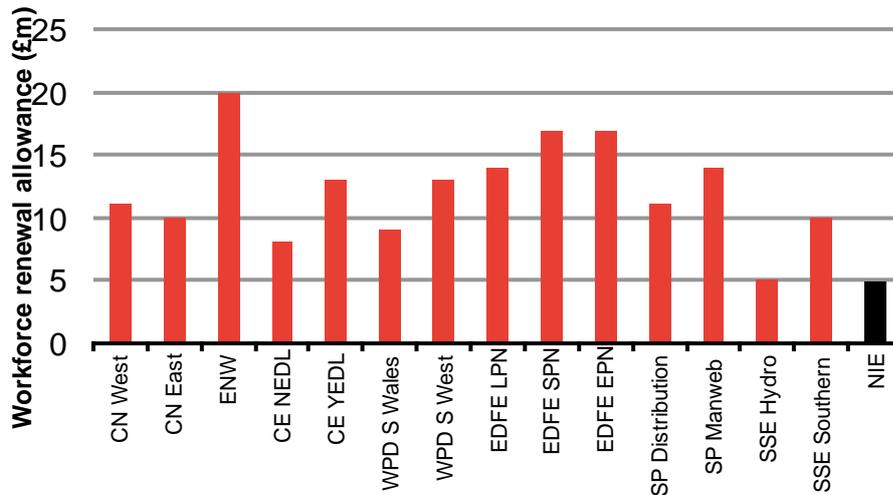
	NIE Forecast	Final Allowance	Shortfall
	£m	£m	£m
Workforce Renewal	4.9	0.0	4.9

5.133 In common with GB network operators, NIE recognises the need for a separate workforce renewal allowance in RP5. This is primarily due to the increase in employee numbers required to deliver the increase in RP5 capex alongside the expected significant increase in retirees in RP5 relative to RP4. NIE's Forecast in RP5 is for the increment costs over and above RP4 costs.

5.134 Ofgem provided a separate allowance of £173 million for GB DNOs in DPCR5. Table 6.27 below shows NIE's Forecast workforce renewal requirement in RP5 compared to GB DNO allowances approved by Ofgem. NIE understand from material published by Ofgem¹⁸ that these allowances have been overspent by 15% in aggregate for the first year of DPCR5.

¹⁸ See page 20 of the attached document (and associated spreadsheets):
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=702&refer=Networks/ElecDist/PriceCtrls/DPCR5>

Table 6.27: Workforce renewal – NIE’s Forecast workforce renewal requirement in RP5 compared to GB DNO allowances.



5.135 Workforce renewal costs relate to the recruiting and training of new employees. It is essential that NIE has in place a sufficiently resourced and skilled workforce in order to deliver the RP5 programme, to meet its required outputs, as well as wider government targets on renewables. NIE is required by statute to develop and maintain an efficient, co-ordinated and economical transmission and distribution system, which has the long-term ability to meet reasonable demands for electricity. This requires forward planning and training of skilled staff for the future.

5.136 The Minister for Employment & Learning has recently written to NIE confirming that the electricity industry is critical in supporting NI's regional infrastructure and confirming that the skills of the NIE workforce and the NIE apprenticeship training programme are important in supporting the economically important sectors going forward.

5.137 A Working Group has been established within NI to deal with the significant skills shortages experienced by the Advanced Manufacturing and Engineering Services sector. This working group is led by the Minister for Employment & Learning and also includes the Skills Adviser for NI. The NIE HR Director is a member of this working group and is also part of a Careers Strategy Group which has been formed to ensure that careers advice and guidance is relevant to the skills shortages faced by employers. Nationally, the UK Government has recognised the skills shortages faced by the power sector and has established the Energy and Utility Skills - Sector Skills Council and endorsed the formation of a National Skills Academy for Power. Energy and Utility Skills Power Division, has recently completed a survey that identifies 35,000 vacancies within the power sector across the UK over the next 10 years. In addition, a recent survey by PA Consulting highlights circa 415,000 new jobs in the renewables sector over the next 7 years.

- 5.138 The resource challenges that NIE will face are similar to the pressures that have been recognised by Ofgem, which provided GB DNOs with an explicit allowance for workforce renewal at DPCR5. NIE however is unique in that it has to develop the majority of its specialist staff from within the organisation given that there is no pool of skilled labour from which to draw within NI – in contrast to the GB DNOs who all draw from the same pool and from each other.
- 5.139 There are significant skills shortages for electrical engineers throughout the UK and in NI. Within NI the supply of appropriately skilled specialist staff with electrical engineering expertise is limited. Over the past 5 years NIE has been unable to fill 15 electrical engineering graduate positions due to a shortage of supply. There are many reasons for this which include: a poor perception of the sector as an attractive career option; parental influence guiding young people who are strong in science subjects into professions that are more highly regarded, for example lawyers, doctors, accountants; and a legacy education system that does not deliver sufficient numbers of young people with the appropriate grades in the appropriate subjects.
- 5.140 With respect to apprentices, none of the Government training centres within NI provide the appropriate high quality specialist apprenticeship training required by NIE. NIE therefore trains its own apprentices to a higher level than any other DNO through a formal accredited specialist electrical engineering apprenticeship to vocational QCF level 3 in our 3 specialist Technical Training facilities using our own internal specialist training resources.
- 5.141 During the apprenticeship, all NIE apprentices attain a BTEC National Diploma Level 3 ('ONC') in Electrical & Electronic Engineering. Other DNOs do not train all apprentices to this higher academic technical level and, in many cases, the vocational/practical apprentice training concludes at QCF Level 2.
- 5.142 The developed technical knowledge of the ONC, allied with the Level 3 vocational/practical QCF which NIE apprentices attain, enables NIE to progress many of them into further technical roles post-apprenticeship and enhances the skills profile of its apprentices.
- 5.143 NIE estimates that during RP5 it will need to recruit 655 new staff: 103 to replace forecast retirees, 190 to replace other leavers and 362 additional staff, including 200 new apprentices, to resource the RP5 work programme. The required skills are not available in the market place and so NIE operates its own technical training facilities.
- 5.144 The overall cost of recruiting and training these new employees in RP5 is projected to be £7.4 million, £5.0 million of which relates to new apprentices. This represents an additional cost of £4.9 million compared to the estimated

cost of £2.5 million incurred during RP4. These figures are reflected in NIE's Forecast.

Projected Costs

5.145 The projected numbers of staff and the associated costs involved in workforce renewal are summarised in the table below:

Table 6.28: Workforce renewal – forecast costs

	Number	Average cost of recruitment & training £k/person	Total Cost £m
Apprentices	200	26	5.0*
Industrial staff craftsperson	179	2	0.4
Industrial staff (other)	106	1	0.1
Engineers	34	2	0.1
Graduates	30	6	0.2
Power Academy	15	24**	0.3
Admin / Other	91	1	0.1
Up-skilling			1.2
Total	655		7.4

* Excludes £0.2 million which will be incurred in RP6

** Power Academy scholarship costs include annual IET Power Academy management fee, annual bursary, annual book allowance, summer conference fee and 'summer placement' salary with NIE (does not include 'year out' placement salary with NIE).

5.146 The projected cost reflects a significant increase since the 2009/10 base year. Workforce renewal costs in 2009/10 were £0.5 million compared to an average annual projected spend in RP5 of £1.5 million.

Need for recruitment and training costs

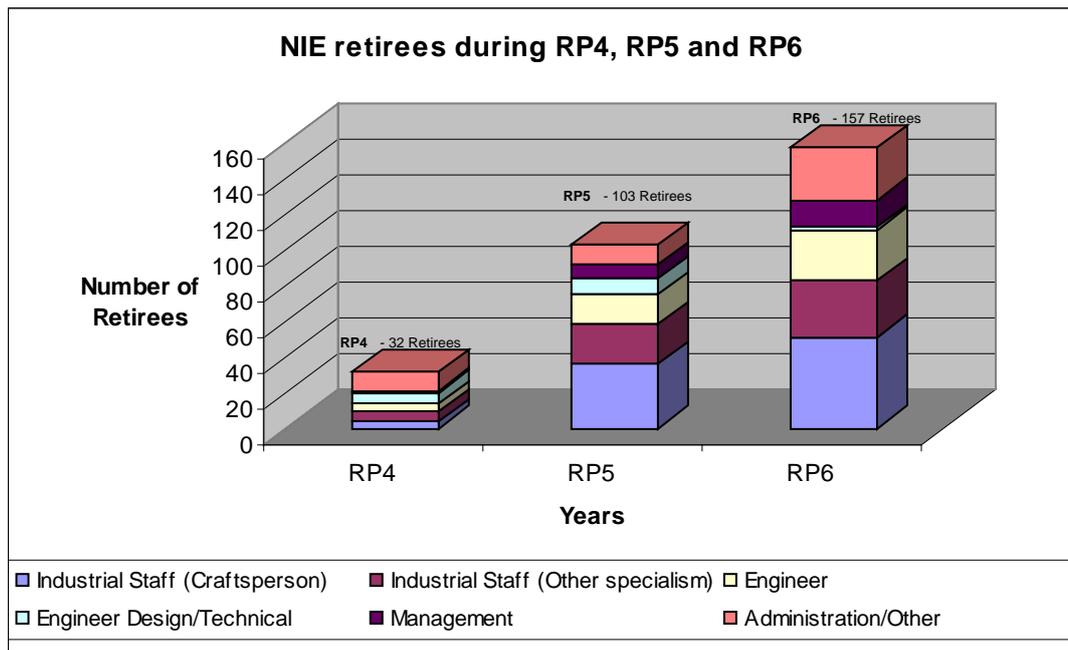
5.147 The need to recruit and train staff arises because of staff retiring, leavers and the need to deliver the RP5 capital plan. The assumptions underlying the number of leavers are as follows:

Retirees

5.148 The projected number of retirees in RP5 is 103 based on an assumed employee retirement age of 63. This number is conservative. The average retiree age in RP4 was 62 and based on this age, there would be 125 retirees in RP5.

5.149 This increasing retirement profile is shown in the table below:

Table 6.29: Profile of Retirees



Other Leavers

5.150 In addition to employees leaving on normal retirement, some staff will leave for other reasons (**Other Leavers**) during RP5. The projected number of Other Leavers is 190 (i.e. approximately 38 per annum in each year of RP5). This number is similar to the number of Other Leavers during RP4 (188). However it is already evident that the number of leavers will actually increase in RP5 as a result of the UK-wide skills shortages of power sector workers. This is evidenced by recent trends experienced by NIE of specialist engineers and skilled craftspersons leaving NIE attracted by considerably increased salaries in other parts of the UK power sector. The forecast number of ‘other leavers’ is therefore conservative.

Additional staff

5.151 It is estimated that 362 additional employees, as detailed in the table below, are required to deliver the RP5 investment plan. This estimate is based on the number of FTE employees required to deliver the RP4 individual work programmes flexed to meet RP5 volumes.

Table 6.30: Additional Staff by category

Employee Category	2012/13	2013/14	2014/15	2015/16	2016/17	Total
Industrial Staff (Craftsperson)	111	85	49	19	15	279
Industrial Staff (Other)	5	14	6	6	4	35
Engineer	7	2	1	1	0	11
Engineer Design / Technical	4	11	5	6	2	28
Administration/Other	3	3	2	1	0	9
Total	130	115	63	33	21	362

5.152 The majority of the 279 additional specialist staff (craftspersons) will be linesmen and substation electricians required to deliver the significantly increased asset replacement lines and substation programmes respectively. The 35 additional industrial staff (other) are primarily line patrol and survey staff and drawing office staff. These staff are required to support the development of work programmes for the field staff. The 11 additional engineers are primarily investment, project management, safety and procurement engineers required to support an increased investment plan. The 28 design / technical engineers are primarily required to design and commission the additional transmission and distribution substation works. The 9 additional administration / other staff are primarily required to work on the significant increased overhead lines programme in RP5.

Recruitment and training development strategy

5.153 Overall it is proposed to recruit 655 staff to replace the retirees and leavers and to meet the requirement for additional staff to deliver the proposed RP5 investment programme. The profile of the recruitment by staff category is as follows:

Table 6.31: Recruitment by category of staff

	Number
Apprentices	200
Industrial staff (craftsperson)	179
Industrial staff (other)	106
Engineers	34
Graduates	30
Power Academy	15
Admin/Other	91
Total	655

5.154 NIE will seek to recruit 179 specialised craftspersons and 34 engineers in the specialist skills labour market. These are considered to be maximum figures given shortages in the specialist skills market. The specialist skills shortfall will

be made up by recruiting and training 200 apprentices, graduate engineer recruitment, Power Academy scholarship development and progression of selected craftspersons, technicians and in due course, apprentices into engineering and other roles. This facilitates further career progression for apprentices.

- 5.155 The 106 industrial staff (other) and the 91 Admin/Other staff will in the main be recruited directly from the external market place.

Projected costs

- 5.156 The projected costs of training and recruiting each category of staff are as follows:

Table 6.32: Training and recruitment costs

Employee Category	Recruitment Cost	Training Cost	Total
Apprentice	£1,508	£24,719	£26,227
Graduate Trainee Engineer	£1,288	£4,496	£5,784
Industrial Staff (Craftsperson)	£819	£1,435	£2,254
Industrial Staff (Other Specialism)	£819	£478	£1,297
Engineer	£819	£957	£1,776
Administration/Other	£819	£478	£1,297

Apprentices: Training programmes last for a period of three years and are facilitated at NIE's specialist training centres. The training cost includes training centre tuition, training materials and tools, training administration, college fees, external training fees costs, apprentice travel, etc.

Table 6.33: Apprentice training costs (per apprentice)*

	Year 1	Year 2	Year 3	Total
	£	£	£	£
Training Cost (excludes apprentice salary)	14,278	11,782	10,425	36,485
DEL Funding	(3,922)	(3,922)	(3,922)	(11,766)
Net Cost	10,356	7,860	6,503	24,719

* Assumes existing level of Department of Employment and Learning funding per Apprentice

Graduate Trainee Engineers: Training costs are based on 2 year training programmes incorporating formal in house and external training courses.

Industrial staff (craftsperson): Costs relate to employee recruitment (advertising, administration, interviewing) and training. Training course costs for newly recruited industrial staff craftspersons have been based on

approximately 15 days training at approximately £100 per training day and include items such as NIE safety rules training, other safety related training and plant and specialist equipment training.

Industrial staff (other specialism): Industrial staff other specialism training costs are based on approximately 5 days training at approximately £100 per training day.

Engineers: Engineer recruits training costs are based on approximately 10 days training at approximately £100 per training day.

Administration/Other: Training costs are based on approximately 5 days training at approximately £100 per training day.

Up-skilling

- 5.157 There is a need for continuous up-skilling of staff as more experienced employees leave or retire and to deliver the increased investment plan in RP5. The up-skilling requirement will be met through a combination of internal and external courses including employee multi-skilling and up-skilling (lines, tree-cutting, jointing and stations), employee safety related training, driver training, tree surgery training, roads & street-works training and further education.
- 5.158 Internal training courses are delivered at NIE Training Centres by NIE employee training instructors with external training courses delivered by specialist external training providers.
- 5.159 NIE estimates that there will be 3,000 man-days of internal training across NIE in each year of RP5. This will equate to an estimated 429 instructor training days which will require three full-time instructors allowing for course preparation, delivery, assessment and reports. The cost of a full-time instructor is approximately £39,000 per annum and the total costs for three instructors per annum and across RP5 are estimated at £117,000 and £585,000 respectively.
- 5.160 Furthermore, NIE estimates that there will be 900 man-days of external training across NIE in RP5. This will require approximately 200 courses at an average cost of approximately £600 per course. Therefore, external training costs are estimated at £120,000 per annum and £600,000 throughout RP5.
- 5.161 NIE employees will receive, on average, three days of up-skilling training per year during RP5 at an estimated cost of £1.2 million.
- 5.162 The total costs of up-skilling are estimated as follows:

Table 6.34: Up-skilling Costs

Internal courses (3 FTE instructors) per annum	£117,000
External courses per annum	£120,000
Total per annum	£237,000
Total RP5	£1.2 million

Final Determination

5.163 The Utility Regulator proposes not to allow for additional workforce renewal costs and in the draft determination noted two key reasons:

- A significant proportion of such costs will be incurred by NIE Powerteam, rather than NIE directly: NIE Powerteam is not regulated and is not subject to NIE's price control allowance.
- In the light of current employment pressures, NIE will be able to recruit at lower remuneration packages than it projects and people who retire will almost always be replaced by staff at a lower or similar cost.

5.164 In responding to the draft determination, NIE made clear it disagrees strongly with these points:

- It is irrelevant whether the cost is incurred by NIE or NIE Powerteam: NIE Powerteam is an integral part of the NIE organisation and its activities are subject to effective price regulation as part of NIE.
- The demand for specialist labour remains high across the UK despite the prolonged economic downturn and NIE faces significant challenges to retain its existing staff and recruit the required specialist skills to maintain customer service levels. As demand outstrips supply, there is an upward pressure on wages: this drives up the overall market rate because recruiters and head-hunters target existing employees and encourage them to leave. Ultimately all of this activity drives up market rates and salaries.

5.165 The Utility Regulator provided no specific commentary in the Final Determination with respect to workforce renewal. NIE asked supplementary questions to the Utility Regulator following the publication of the Final Determination seeking clarification as to whether NIE's submission for Workforce Renewal costs had been considered further and whether there was any change to Utility Regulator's draft determination to disallow these costs.

5.166 The Utility Regulator responded that its Final Determination took into account the final capex proposals and its decision for workforce renewal remained unchanged from what was published in the draft determination.

5.167 The provision of no allowance for additional workforce renewal costs arising in RP5 is of considerable concern to NIE in view of its statutory duty to develop and maintain an efficient, co-ordinated and economical transmission and distribution system, which has a long-term ability to meet reasonable demands for electricity. As outlined above this is a necessary business cost for a specialist business such as NIE.

5.168 NIE requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of workforce renewal.

Legislative & Regulatory

5.169 In RP5 new legislation will have recently come into force or will be due to come into force during the period which will lead to additional compliance costs for NIE. This new legislation includes:

- the Road and Streetworks (**RASW**) legislation; and
- the Electricity Safety Quality and Continuity Regulations (**ESQCR**).

5.170 In addition, within the Final Determination, the Utility Regulator proposes the introduction of a Reporter in RP5.

5.171 Table 6.35 below compares NIE's Forecast costs for such legislative and regulatory requirements with the Final Determination allowance. This indicates a shortfall of £3.3 million over RP5.

Table 6.35: Legislative and Regulatory Costs – NIE's Forecast versus the Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
RASW legislation	2.1	0.5	1.6
Regulatory Reporting Requirements	1.5	0.0	1.5
ESQCR legislation	<u>0.2</u>	<u>0.0</u>	<u>0.2</u>
Total	3.8	0.5	3.3

Road and Street Works Legislation

5.172 NIE will incur additional costs associated with new RASW legislation once the Street Works (Amendment) (Northern Ireland) Order 2007 has been brought into force. The additional costs will impact on both capex and opex and will be associated for example with:

- overrun charges, where work exceeds the required time limit;

- permit schemes, in relation to which effectively NIE is required to pay to carry out work within specified areas.

5.173 In addition, this legislation allows for powers to direct when work can be carried out, either at weekends or after working hours etc, which can lead to additional labour costs and out of hours / contract rates.

5.174 In order to assess the impact of this legislation, NIE has assessed the legislation currently in force in England, monitored the data of its performance and calculated the associated costs. This data has been used to form the basis of the forecast costs for RP5.

5.175 Also included in the forecast are IT costs associated with the set up and maintenance of an IT system to manage NIE's compliance with the legislation. This is provided by a third party, Symology Insight Contract Management System under a contract awarded by competitive tender.

5.176 NIE's total forecast cost, the Utility Regulator's allowance and the variance between the two is set out in the table below.

Table 6.36: RASW legislation - NIE's Forecast versus the Final Determination

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
<u>Capex</u>			
D44 RASW Core	4.4	4.4	0.0
D47 RASW Connections	<u>1.7</u>	<u>1.7</u>	<u>0.0</u>
Total Capex	6.1	6.1	0.0
<u>Opex</u>			
Maintenance & reactive works	1.6	0.0	1.6
IT costs	<u>0.5</u>	<u>0.5</u>	<u>0.0</u>
Total Opex	2.1	0.5	1.6

5.177 The Utility Regulator has allowed for the forecast costs of £0.5 million associated with the IT system to manage compliance.

5.178 However, the Final Determination makes no allowance for the forecast opex costs associated with RASW legislation. This is logically inconsistent with the Utility Regulator's proposal to allow equivalent expenditure of £6.1 million in capex.

5.179 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of RASW legislation costs.

Regulatory Reporting Requirements

- 5.180 The Utility Regulator wishes to increase the scope and the level of detail of the information to be reported on regularly by NIE. It proposes to introduce a Reporter to assist in validating and assessing the data submitted by NIE.
- 5.181 NIE believes that the introduction of a Reporter is unnecessary for the reasons set out in Chapter 14 (Reporter). However, should the Competition Commission endorse the introduction of a Reporter, it is essential that the costs associated with a Reporter are properly reflected in NIE's opex allowance.
- 5.182 The Utility Regulator estimates the cost of the Reporter to be £1.5 million over RP5, which will be passed through to customers. But that is not the full cost. NIE expects to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc. By contrast, the Final Determination has made no allowance for internal costs for regulatory reporting requirements.
- 5.183 This issue is addressed further in Chapter 14 (Reporter).

Electricity Safety Quality and Continuity Regulations

- 5.184 The ESQCR establish a requirement for duty holders (including NIE) to focus attention particularly on the risk of danger from contact or interference with overhead lines by persons engaged in leisure or work activities. Duty holders must take proactive measures to advise the public of the hazards associated with overhead lines and educate the public on how to avoid danger.
- 5.185 The regulations came into force in NI on 31 December 2012.
- 5.186 Forecast costs of £0.2 million over RP5 are required for the production of information leaflets and advertising in order to meet NIE's obligations under this legislation.
- 5.187 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of ESQCR costs.

Research & Development (associated with the application of smart technologies)

- 5.188 Table 6.38 below is an extract from Table 6.14 showing the shortfall in the Final Determination opex allowance for 'new' costs for RP5 (i.e. costs that were not incurred in the 2009/10 base year) relating to R&D¹⁹.

¹⁹ In RP4, Research and Development costs were incurred of £1.0 million. However these were funded directly by NIE and relevant costs were removed by the Utility Regulator from the calculation of the 2009/10 base year.

Table 6.38: R&D – shortfall in costs to be added to the baseline

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
R&D	2.5	0.0	2.5

5.189 The table shows that the Utility Regulator has determined to make no allowance for research and development costs associated with the application of smart technologies.

5.190 It is widely recognised across the utility industry that the application of smart technologies is necessary to address the challenges in meeting Government targets²⁰ for sustainability, including the move towards a low carbon network. In order to achieve this move, radical and necessary changes to the design and operation of the existing network infrastructure are required, including greater utilisation of the existing network assets and developing a more active distribution network.

5.191 NIE has made good progress in delivering this type of programme during RP4²¹ and has utilised the learning to facilitate the connection of renewable generation to the network. This has included, for example, the utilisation and development of dynamic line ratings combined with high temperature conductors to increase capacity on critical 110kV infrastructure and the deployment of special protection schemes to enable the connection of windfarms without significant infrastructure investment. Furthermore NIE has continued to incorporate the learning from this programme into the development of the Distribution Code to assist in developing a more active distribution network. Moving forward, NIE intends to intensify its efforts as worldwide experience with smart technology grows and a better understanding is gained with regards to the uptake of embedded generation and other emerging technologies.

5.192 NIE's objective is not to be a research leader or to be at the leading edge in the area of smart technology but rather to adopt the “fast follower” stance wherever possible. But despite this, NIE believes investment in R&D remains necessary for the following reasons.

- The smart technology solution appropriate to NIE will depend on local system characteristics, in particular the current and future generation mix, and legacy network design. It will not always be possible to incorporate smart technology design that has worked elsewhere.

²⁰ In DETI's new Strategic Energy Framework for Northern Ireland published in September 2010, a target has been set for 40% of electricity to be generated from renewable energy sources by 2020.

²¹ Research and Development costs in RP4 were £1.0 million funded directly by NIE through the Sustainable Networks Programme under the terms of the RP4 price control.

Effort will be required to determine feasibility, make modifications to suit the NI network and pilot the technology prior to deployment.

- The uncertain future of emerging technologies (e.g. electric vehicles, various forms of microgeneration, clusters of heat pumps etc.) makes it difficult to factor such technologies into future planning of the network capacity. However, it is necessary for NIE to keep up with the latest technologies that may become connected to its network and to consider their potential impacts on future network design requirements. Otherwise, without any consideration, the uptake rate of these technologies may overtake the pace of required network reinforcement to the detriment of network performance and efficient network development.
- It is necessary continually to assess emerging technologies and participate with collaborative research in order to leverage funding from other sources including industry, academia and other electricity network operators.

5.193 NIE seeks £2.5 million for continued research and development during RP5. Broadly £1.0 million of this expenditure should be invested in external collaboration to leverage learning. A further £1.5 million should be allowed for research projects focusing on NI network needs. This is summarised in Table 6.39 below and is substantially less than the level of funding made available to GB DNOs. Under Ofgem's funding arrangements in GB²², a DNO of equivalent size to NIE would be eligible for funding of £5 million for research and development projects.

5.194 This is addressed further in Chapter 9 (Incentives and Innovation).

Table 6.39: R&D – NIE's Forecast – breakdown

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Participation in collaborative R&D	1.0	0.0	1.0
Individual R&D projects	<u>1.5</u>	<u>0.0</u>	<u>1.5</u>
Total	2.5	0.0	2.5

5.195 NIE proposed £2.5 million for R&D within an overall package of Innovation funding totalling £14.9 million, with the remainder included within the capex submission. This included £6.0 million for trialling smart technology projects.

²² Innovation Funding Incentive (IFI) was introduced in DPCR4 to fund technical research and has greatly benefited the GB DNOs in preparing for changes to facilitate the growth of renewable and distributed generation. GB DNOs are eligible to spend up to 0.5% of revenue on IFI projects which would equate to £5 million if applied to NIE.

- 5.196 In the Final Determination, the Utility Regulator has made no provision for R&D costs or smart technology trials as it considers the proposals have not yet been developed in sufficient detail. However, it has proposed that capex trials could be considered subsequently on a case by case basis in the course of RP5 through the Fund 3 capex arrangements.
- 5.197 R&D is by its nature uncertain in terms of the outputs to be achieved. Furthermore, it is an on-going operating activity which is critical in the very early stages of understanding innovative technologies, some of which may emerge as proposals for trials. It represents an overhead cost that is distinct from business as usual operating costs, and requires separate cost allowance. Without the opex allowance, NIE would not be able to fund the R&D which may lead to future trials and innovative network solutions in RP5 or future periods. Therefore, in practice, NIE will not be able to progress its innovation agenda.
- 5.198 Ofgem has recognised that conventional price control arrangements based solely on cost incentives does not deliver technical innovation, and that a different approach is required to incentivise technical innovation. Ofgem introduced its IFI arrangements in DPCR4 and Low Carbon Networks Fund (LCNF) in DPCR5. Furthermore, innovation is a now central to the development of the next GB price control, RIIO²³-ED1, which is to commence in April 2015.
- 5.199 The provision of no opex allowance for R&D is of significant concern to NIE. The implications of not undertaking R&D include an inability to assess future technologies or opportunities to improve network utilisation and / or management of networks with high levels of renewables, electric vehicles etc. In addition NIE will be unable to maintain a presence as a progressive network operator in the context of smart grid developments in GB and elsewhere. NIE will also be under prepared for RP6 as R&D undertaken in RP5 will form the basis of technologies to be applied in the next price review period.
- 5.200 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of R&D costs.

²³The RIIO model (Revenue = Incentives + Innovation + Outputs) builds on the success of the previous RPI-X regime, but better meets the investment and innovation challenge by placing much more emphasis on incentives to drive the innovation needed to deliver a sustainable energy network at value for money to existing and future consumers.' Ofgem.

Renewables baseline

5.201 Table 6.40 below is an extract from Table 6.14 showing the shortfall in the Final Determination opex allowance for 'new' costs for RP5 (i.e. costs that were not incurred in the 2009/10 base year) relating to the so-called renewables baseline.

Table 6.40: Renewables baseline – shortfall in costs to be added to the baseline

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Renewables baseline	12.2	9.8	2.4

5.202 Latest NI government targets set out in the Strategy Energy Framework published by DETI in September 2010, establishes a target of 40% of Northern Ireland's electricity's consumption to be met from renewable resources by the year 2020.

5.203 The 40% target presents a major challenge for the development and expansion of NIE's network infrastructure in order to facilitate increasingly high levels of renewable power generation over the next decade and beyond. NIE's response to this challenge has been to develop a coordinated network development plan incorporating short, medium (110kV Medium Term Plan) and longer term measures (Renewable Integration Development Program) designed to increase the capacity of the network to accommodate wind power over the coming years.

5.204 Owing to the uncertainty of the impact of future renewable generation at the time the RP4 price control was agreed, investment to support the renewable generation was not included in the RP4 capital budget. Therefore all development work in this area within the RP4 period has been subject to specific incremental approvals by the Utility Regulator.

5.205 NIE is anxious to avoid the continuation into RP5 of the approval process for opex applied during RP4 due to concerns about:

- effective project management;
- the identification and approval of incremental costs; and
- the retrospective disallowance of costs incurred.

NIE believes that the RP5 price control should incorporate a structural mechanism for the recovery of opex costs associated with renewables.

- 5.206 Accordingly, NIE proposed a 'renewables baseline' for RP5 aimed at providing a baseline opex allowance for renewables integration work.
- 5.207 It was originally envisaged that the renewables baseline allowance would provide for a core cohort of staff exclusively deployed on renewable-related work delivery. However, since NIE's original business plan submission, the business has been organisationally realigned in order to position it to deliver RP5 as efficiently as possible. NIE now proposes to operate a more flexible resource model designed to optimise business performance across the entire range of activities that the business is involved in. As with any other activity NIE is committed to deploying the appropriate volume and quality of resources in this area to ensure that clearly defined business targets are met.
- 5.208 The renewables baseline allowance is intended to cover three distinct categories of cost (referred to as Elements A to C):
- Element A – headcount and associated overheads;
 - Element B – an agreed allowance for external costs associated with preliminary development of the 110kV Medium Term Plan; and
 - Element C – an agreed allowance for external operating costs for on-going development of Renewable Integration Development Program projects.
- 5.209 With respect to Element A, NIE's original BPQ submission sought a baseline allowance to cover the management and direction of all associated transmission planning, pre-construction development and construction delivery activity.
- 5.210 The Utility Regulator has proposed to narrow the scope of Element A. It considers that, in view of the uncertainty around the timing and extent of renewables projects, the renewables baseline should cover 'preliminary development' activity only – and that further allowances as required for approved capital expenditure projects (either as 'pre-construction' or 'construction' stage projects) should be sought and approved on a project-by-project basis. NIE's Forecast costs reflect this narrowing of scope.
- 5.211 Table 6.41 below contrasts NIE's Forecast costs for the renewables baseline (based on 21 FTEs) with the Final Determination allowance.

Table 6.41: Renewables baseline – NIE's Forecast versus Final Determination

Element		NIE Forecast	Final Determination	Shortfall
		£m	£m	£m
A	Internal Costs:			
	Salaries	6.1	6.0	0.1
	Overheads – I.T & telecoms, accommodation etc.	1.0	1.0	0.0
	Wholesale market impact	0.5	0.0	0.5
	Allocation of Managed Service & Supply Chain	3.8	1.9	1.9
B	External costs – MTP	0.2	0.2	0.0
C	External costs - RIDP	<u>0.7</u>	<u>0.7</u>	<u>0.0</u>
	Total	12.3	9.8	2.5

5.212 In relation to salaries, NIE is content with the Utility Regulator's proposal to reduce the allowed headcount for 'preliminary development' works on the basis of the revised activity scope. However, there is a shortfall of £0.1 million in the proposed salary allowance compared to NIE's forecast cost which is based on a bottom up analysis of current average salaries. To the extent that NIE's renewables costs exceed the baseline allowance, NIE would expect to recover these costs as part of the capital cost of projects.

5.213 In assessing the need for these network investments, the Utility Regulator requires NIE to consider the impact on the wholesale market. However, the Final Determination makes no allowance for the costs associated with carrying out this impact analysis which NIE anticipates would be in the region of £0.5 million (one FTE together with associated overheads and IT).

5.214 The Utility Regulator has disallowed £1.9 million in respect of the allocation of overheads associated with procurement and stores, outage management, the installation and commissioning of technical equipment and safety. The disallowance is based on the assumption that the overall amount of overheads can be expected to reduce pro rata with the reduction in the scope of the renewables baseline activity.

5.215 The Utility Regulator's reasoning is based on an erroneous understanding of NIE's overheads and the extent to which they fall to be allocated between baseline opex, the renewables baseline and capex. For the most part the relevant overheads are a fixed cost (that is, they do not vary with the volume of relevant capital works undertaken). They also do not vary with the number of resources associated with the management and direction of all associated transmission planning, pre-construction development and construction delivery activity. There is therefore no good reason to reduce these costs on the basis of the underlying reduction in activity scope and resources.

- 5.216 To the extent that the overhead costs are efficiently incurred – as they are, in NIE's submission (see Chapter 7 (NIE's Efficiency)) – any overhead costs should be recoverable in full either through capex or opex.
- 5.217 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of the renewables baseline to cover 'preliminary development' works in support of proposed capital investments.

Price Review

- 5.218 The Utility Regulator has made no allowance in respect of costs associated with the RP6 price review which NIE expects to incur during RP5, as shown in Table 6.42 below.

Table 6.42: RP6 Price review costs

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Price Review – RP6	2.0	0.0	2.0

- 5.219 A regulated company's participation in price reviews require a level of specialist support across a range of disciplines including economic, regulatory, technical and legal advice where it would not be efficient to maintain such resource in-house. This consultancy support extends across all the main building blocks of a price control – capex, opex, pensions, WACC, and incentives and with respect to RP5, it has informed NIE's inputs to the process including responses to the Utility Regulator's Strategy Paper, the Business Planning Questionnaire (BPQ), the follow-up information requests, the draft determination and the Final Determination.
- 5.220 NIE has incurred and continues to incur costs associated with the RP5 price review. Given the timing of the Utility Regulator's RP5 review process, the bulk of these costs have been incurred between 2010/11 and 2012/13. Table 6.43 below shows actual costs (excluding the costs associated with Competition Commission referral).

Table 6.43: RP5 price review costs

	2010/11 Actual	2011/12 Actual	2012/13 Actual	Total
	£m	£m	£m	£m
Price Review	0.6	0.5	0.9	2.0

- 5.221 NIE submits that price review costs reflect a 'Business As Usual' activity, albeit not an annual one, but nonetheless one that should be taken into account and provided for when setting the opex allowance. NIE expects to incur a similar level of costs during RP5 in respect of the RP6 review. However in the calculation of the base year, the Utility Regulator excluded price review costs. Hence the opex allowance makes no provision for the £2.0 million of costs forecast to be incurred during RP5.
- 5.222 In response to a follow up question on the Final Determination, the Utility Regulator stated that this cost was disallowed based on OFGEM precedent. However, having reviewed the information available in the public domain, OFGEM does not appear to explicitly disallow such costs. Consultancy support costs are included within a generic opex category named 'Business Support Costs' and, OFGEM's strategy in DPCR5 was to set an allowance for such expenditure categories at a global level. Therefore as consultancy support costs were not defined to exclude such costs, it appears that such costs were not specifically disallowed.
- 5.223 The provision of no allowance for price review costs is not acceptable to NIE as, in line with RP5 and previous price control reviews, NIE will continue to require specialist support during RP5 for the RP6 review.
- 5.224 NIE therefore requests the Competition Commission to provide in full the opex allowance requested by NIE in respect of price review costs.
- 5.225 As regards the costs NIE will incur during the referral, (which are not included in the figures in Table 6.43 since the level of such costs is presently uncertain but will be ascertainable at a late stage of the Competition Commission investigation) NIE requests that the Competition Commission's final report includes an allowance for NIE's reasonably incurred costs of the Competition Commission investigation.

Storm Costs

- 5.226 The Utility Regulator has provided an allowance in respect of storm costs which NIE expects to incur during RP5, as shown in Table 6.44 below.

Table 6.44: Storm costs – shortfall in costs to be added to the baseline

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Storm Costs	1.6	1.6	0.0

- 5.227 Within NIE's BPQ submission, NIE provided the Utility Regulator with an analysis of both the capex and opex costs associated with storms during the period from 2003/04 to 2009/10. Over this period there were 38 storm events in respect of which NIE invoked its emergency plan and escalated its incident centres.
- 5.228 NIE proposed an opex allowance for storm costs of £0.3 million per annum in line with the experience over the aforementioned period. This is despite the fact that the average opex cost of storms over the last three years was £0.7 million per annum²⁴. NIE's submission also includes a corresponding sum of £2.6 million in capex which was determined on the same basis.
- 5.229 The Utility Regulator recognises the likelihood of the occurrence of storms and in its Final Determination has provided for the full requested allowance of £1.6 million in opex.
- 5.230 In addition, NIE made a proposal for major events where total storm costs exceeded £1.0 million²⁵. Under such circumstances NIE has proposed a 'Force Majeure' arrangement whereby extreme events would be assessed on an individual basis in terms of recovery of costs. In the Final Determination, the Utility Regulator has not progressed this proposal to a conclusion.
- 5.231 Although the Utility Regulator has provided the opex allowance element for storm costs, it has only allowed £0.5 million (20%) of the capex element. In considering therefore the total cost of storms predicted for RP5, NIE believes there is insufficient allowance to cover storm costs. This is addressed further in Section 4 of Chapter 5 (RP5 Capex – Quantum).

Other Costs

- 5.232 There have been a number of changes in recent years to the business environment within which NIE operates.
- 5.233 Broadly the costs associated with these changes have been omitted from the Utility Regulator's opex allowance. NIE's Forecast of these costs and the Utility Regulator's Final Determination are set out in Table 6.45 below.

²⁴ Major storms in January 2009, the ice storm in March 2010 and a further ice accretion event in December 2011.

²⁵ NIE experienced a snow storm in March 2013 which resulted in a total cost of approximately £2.4 million.

Table 6.45: Other costs

Other Costs	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Distribution Service Centre	0.8	0.0	0.8
Credit Rating	0.6	0.4	0.2
Distribution Code	0.1	0.0	0.1
PAS 55	0.1	0.1	0.0
Aggregated Generator Units	0.3	0.3	0.0
Network 25 and S.E.A	0.0	0.0	0.0
Guaranteed Standards	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total	1.9	0.8	1.1

Distribution Service Centre

5.234 The NIE forecast reflects additional resourcing requirements within NIE's Distribution Service Centre due to the proliferation of renewable generation connecting to the system which will continue to increase over RP5. During the last three years of RP4, approximately 110 renewable generators were connected to the distribution network (an average of 3 per month). These connections have increased such that there is now an average of 5 renewable generators connected per month. With over 90 generator connections currently accepted for construction, the generators connected each month will increase going forward into 2013. In addition, 3 large scale Wind Farm Power Stations (WFPS) were connected to the 33kV distribution network during 2011 and 2012, with 5 additional 33kV windfarms already planned for energisation during 2013.

5.235 There is a need to recruit a total of four additional personnel, three within the SCADA (Supervisory Control and Data Acquisition) section and one control engineer.

5.236 The three staff within the SCADA section are required to manage additional workload as set out below:

- The associated configuration, validation and testing as a result of the setup of these generators on the SCADA system, plus the implementation and test of the communications between these generator sites and the distribution control centre (via mobile telephony technology or radio).
- The connection of WFPS to the 33kV distribution network creates a further workload as there is additional SCADA database building, Remote Terminal Unit (RTU) testing, communication testing and commissioning processes associated with the Inter Control Centre Protocol (ICCP) communications link between NIE and SONI.

- Increased workload associated with the refurbishment of 243 substation RTU processors, and the corresponding battery replacement for these RTUs which have been in service for more than 11 years. It is important to note that the Utility Regulator has agreed the capex costs associated with the RTU hardware but not recognised any allowance for additional SCADA resources to undertake this work.
- Previously distribution plant and equipment was connected to SCADA with approximately 85% of the communications being hardwired and 15% being serial communications. However all new switchboards, including the NIE circuit breakers at the 33kV connected generators, are being provided with SCADA capability using serial communications. The RTU database configuration for these sites is more complex, requires SCADA engineers on site and is much more time intensive from a SCADA perspective.

5.237 The additional control engineer is required to meet any increase in the capital programme which will affect day time operations within the Distribution Control Centre, with increased number of planned outages needing to be controlled in a safe and efficient manner.

5.238 The total forecast costs for these requirements in RP5 are £0.8 million associated with an additional resource of four.

5.239 In the Final Determination, no allowance was provided for these additional resources.

5.240 The Utility Regulator's failure to provide an allowance for these additional resources is of concern to NIE. The requirement for such has arisen as a result of the proliferation of renewable generation connecting to the system.

5.241 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of distribution service centre costs.

Credit Rating

5.242 NIE is required by its Licences to maintain an investment grade credit rating.

5.243 In order to raise debt finance on the capital markets, NIE was required to obtain a public credit rating and in May 2011, the company obtained investment grade credit ratings from Fitch and Standard & Poor's (**S&P**). The total cost associated with obtaining these ratings was £0.3 million.

5.244 During RP5 the annual cost of maintaining these credit ratings is expected to be £70,000 (£35,000 in respect of each of Fitch and S&P). In addition during RP5, it is expected that NIE will require further funding from the capital

markets, and credit rating costs of a further bond issue expected to be in the region of the costs incurred in respect of the bond issue in 2011 (i.e. £0.3 million) are anticipated.

- 5.245 Total forecast costs for RP5 associated with the credit rating are £0.6 million.
- 5.246 The Utility Regulator has allowed for £0.4 million of costs associated with the credit rating, representing the annual cost of maintaining credit ratings with Fitch and S&P and a minimal amount for costs associated with a further bond issue during RP5. The Utility Regulator states that NIE did not provide sufficient evidence to demonstrate that bond issue costs would be as much as the £0.3 million sought by NIE.
- 5.247 As a result, the Final Determination fails adequately to allow for costs associated with credit rating costs of a further bond issue during RP5. The cost of maintaining credit ratings with Fitch and S&P over RP5 are £350,000. This implies that the Final Determination has allowed only £50,000 for costs associated with a further bond issue. This is in contrast with NIE's experience of a bond issue in 2011 which incurred costs of £0.3 million.
- 5.248 NIE therefore requests the Competition Commission to provide in full the Forecast opex allowance sought by NIE in respect of credit rating costs.

Distribution Code and Generator Connections Policy

- 5.249 The Distribution Code sets out the operating procedures and principles which govern NIE's relationship with all users of the distribution system. As such it is essential that this and NIE's overall policy for connections are reviewed and kept up to date to reflect emerging issues. The unprecedented volume of connections has resulted in the need to review NIE's approach to SCADA, generator controllability, communications etc, all of which require policy development and Distribution Code revisions.
- 5.250 During RP4 individual approval was given for these costs.
- 5.251 NIE is currently facing significant challenges in accommodating the very high number of applications associated with the connection of generation in the range of 50 to 500kW. The new Distribution Code came into force on 1 May 2010 and is designed to permit the development, maintenance and operation of an efficient, co-ordinated and economical distribution system.
- 5.252 NIE's submission of £0.1 million reflects past experience with costs of this nature.
- 5.253 In response to a supplementary question submitted to the Utility Regulator following the Final Determination the Utility Regulator stated that no allowance was provided for costs associated with revisions to the Distribution

Code on the basis of the Utility Regulator's view that "ample resources" are in place.

- 5.254 NIE does not accept the Utility Regulator's position. The cost of performing policy review work is not covered elsewhere in NIE's opex allowance. NIE therefore requests the Competition Commission to provide in full the opex allowance requested by NIE in respect of such costs.

PAS 55

- 5.255 PAS 55 is a publicly available specification published by the British Standards Institution. It demonstrates core competence in asset management and provides a clear audit trail. NIE notes that Ofgem requires the GB network companies to undertake certification in order to demonstrate their competence. Currently all GB DNOs and ESB, network company in the Republic of Ireland, have PAS 55 accreditation. There is no other specification available worldwide that is formally recognised as a demonstration of good asset management practice.
- 5.256 NIE aims to attain PAS 55 accreditation during RP5.
- 5.257 Forecast costs to attain the PAS 55 accreditation total £0.1 million.
- 5.258 The Utility Regulator set an allowance in line with NIE's submission for costs associated with gaining PAS 55 accreditation. NIE is content with this position.

Aggregated Generator Units

- 5.259 Aggregated Generator Units (AGUs) are a feature of the Single Electricity Market. To facilitate AGUs, changes were made to NIE's meter data collection and registration processes giving rise to additional costs for NIE. During RP4 individual approval was given for these costs. As AGUs are a permanent feature of the market, NIE's submission reflects the on-going support costs of £0.3 million in RP5.
- 5.260 The Utility Regulator set an allowance in line with NIE's submission for costs associated with the on-going costs due to aggregated generator units within the single electricity market. NIE is content with this position.

Network 25 and Strategic Energy Assessment (S.E.A)

- 5.261 NIE has agreed with DETI and the Utility Regulator to prepare and publish a Network 25 report setting out NIE's plans for the development of the transmission system to accommodate renewable generation.
- 5.262 NIE's BPQ submission of £0.4 million consisted of a forecast of external costs associated with the preparation and publication of the Network 25 plan and an

associated Strategic Environmental Assessment (SEA) to be carried out on the plan.

- 5.263 A nil allowance was provided in the Final Determination for the Network 25 plan and associated SEA on the basis that separate funding would be available for this expenditure.
- 5.264 NIE accepts that as European funding has recently been confirmed as available for these costs then no allowance is required and has adjusted its Forecast accordingly.

Guaranteed Standards

- 5.265 In the draft determination, the Utility Regulator proposed changes to Guaranteed Standards for RP5 including the introduction of three new standards, the tightening of the existing standard for supply restoration, as well as amendments to the rates of payment to customers who claim defaults against existing standards.
- 5.266 In principle, NIE considers it unreasonable to introduce new or tighter standards without also providing for the recovery of the costs incurred in meeting those standards.
- 5.267 NIE's response to the draft determination included a submission of £1.3 million in respect of costs based on an assessment of the additional costs that will result from the introduction of these new or tighter standards.
- 5.268 In the Final Determination, no allowance was made for costs associated with guaranteed standards on the basis that the introduction of new standards and tightening of existing standards is to be deferred and considered further during RP5. The Utility Regulator cites new evidence on the practicality and cost of the standards as the reason for deferring the introduction of the three new standards.
- 5.269 NIE accepts that if these changes are to be deferred beyond RP5, then no allowance is required and has adjusted its Forecast accordingly. However associated costs would need to be pursued if subsequent changes were to be introduced in the course of RP5. NIE supports the review of standards but believes it would be unreasonable not to allow costs associated with meeting such standards. Furthermore, NIE requests the Competition Commission to specify how the Utility Regulator should approach the introduction of any changes to the guaranteed standards during RP5. In particular, NIE requests that this includes a requirement for the Utility Regulator to discuss and agree with NIE the need for any increments to the RP5 opex and/or capex allowances (as determined by the Competition Commission pursuant to the present investigation) arising from the changes.

Smart Metering

- 5.270 In the present context, smart metering refers to the costs associated with the annual operation and maintenance of smart meters and associated operating systems. NIE's BPQ submission included an amount of £1.4 million for such costs.
- 5.271 These costs are uncertain pending a regulatory decision on the detailed arrangements for a smart metering programme in NI confirming the scope, timing and operating model to be adopted. Therefore NIE has adjusted its Forecast accordingly.

Table 6.46: Smart metering

Cost Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Smart Metering	0.0	0.0	0.0

- 5.272 NIE's response on capital expenditure associated with smart metering is detailed in Section 5 of Chapter 5 (RP5 Capex – Quantum). In line with the position adopted in that chapter, NIE propose that such expenditure (capex and opex) be approved on a separate basis once there is greater clarity on RP5 costs and will not form part of the overall RP5 allowance.

6. PROPOSED OPEX DISCOUNT FACTORS

- 6.1 The Utility Regulator has determined to apply both:
- an initial 7% inefficiency discount for controllable opex, to take the form of a reduction in the controllable opex adjusted baseline to be applied over the first two years of RP5. This will reduce NIE's opex allowance by £10.5 million; and
 - a 1% year-on-year reduction in controllable opex resulting in a further £5.6 million reduction in the opex allowance.
- 6.2 NIE's positions on the 7% initial inefficiency discount and the 1% year on year reduction are set out in Chapter 7 (NIE's Efficiency). We provide a summary of NIE's position in respect of each below.
- 6.3 The Utility Regulator's decision to apply an inefficiency discount is founded on unreliable benchmarking evidence, the analysis being based on flawed assumptions and inappropriate use of GB data without suitable adjustment. By contrast, NIE has presented robust evidence from Frontier Economics which confirms that NIE is a leading performer among the GB DNOs. On the

basis of this analysis there is no justification for any form of inefficiency discount.

6.4 In paragraph 10.103 of the draft determination, the Utility Regulator seeks to justify its proposal for a 1% year-on-year reduction in controllable opex on the basis of assumptions as to lower salary costs and synergies emerging from ESB's acquisition of NIE. NIE strongly disagrees that these assumptions are correct for the reasons provided below:

- First, the Utility Regulator asserts that pay increases are likely to be below RPI in NI over the next number of years. It provides no evidence to support this assertion. But even if this were the case for NI generally, different considerations apply to NIE and the electricity network industry. While the wider economy might be experiencing slow growth, the electricity network industry across Europe is experiencing rapid growth as a result of the policy imperative to decarbonise the economy. High demand for skilled network engineers and staff will result in a significant proportion of NIE's skilled and scarce staff experiencing earnings growth above RPI.
- Second, the Utility Regulator asserts that NIE is paying salaries above the NI average. As we have demonstrated in Chapter 7 (NIE's Efficiency), this is simply not the case.
- Third, the Utility Regulator believes that retirements will bring savings in average salary costs. Again, NIE disputes this since it ignores the need to promote and recruit (in a very tight market) individuals to fill some of the senior roles fulfilled by retiring staff.
- Fourth, the Utility Regulator believes there will be synergies arising from the acquisition of NIE by ESB. However, as a result of stringent ring fencing provisions currently being demanded by the Utility Regulator, it is unlikely that such savings will be available over the course of RP5 on any significant scale.

6.5 More generally, as NIE has made clear in its original BPQ submission, after almost 20 years of regulation NIE does not believe that there remain any large scale efficiency programmes that could be undertaken. Efficiency improvements going forward will be smaller in scale and driven incrementally.

6.6 Consequently, NIE does not believe that there is any evidence to suggest that a 1% target for on-going opex reductions is reasonable. Much of the Utility Regulator's case rests on its assertion that salary growth will be low, and NIE does not believe there is reasonable evidence to suggest that this will be the case. Similarly, there is no evidence to suggest that NIE will be able to improve its efficiency at a faster rate than the wider economy.

7. UNCONTROLLABLE COSTS

- 7.1 Table 6.47 below is an extract from Table 6.1 above contrasting NIE's adjusted submission for RP5 for uncontrollable opex with the allowance specified in the Final Determination.

Table 6.47: Uncontrollable opex – NI's forecast versus the Final Determination

	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Uncontrollable Opex	95.3	88.8	6.5

- 7.2 Uncontrollable operating costs comprise of licence fees, rates, wayleave costs and injurious affection costs reflecting necessary expenditure that is incurred but is beyond the influence of management.
- 7.3 A breakdown of uncontrollable costs is provided in Table 6.48 below:

Table 6.48: Uncontrollable opex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Rates	69.0	65.6	3.4
Wayleaves	21.2	18.1	3.1
Licence Fees	3.6	3.6	0.0
Injurious Affection	0.0	0.0	0.0
Reporter	<u>1.5</u>	<u>1.5</u>	<u>0.0</u>
Total	95.3	88.8	6.5

- 7.4 NIE's Forecast costs for the uncontrollable opex in RP5 have been developed on the basis described below.

Rates

- 7.5 The calculation of NIE's rates liability is set out in the Valuation (Electricity) Order (Northern Ireland) 2003 (2003 Order). The Net Annual Valuation (NAV) is calculated in accordance with a formula based on the growth in transmission circuit length and distribution MVA transformer capacity.

Wayleaves

- 7.6 A wayleave permits NIE to install electric lines and associated equipment on, over or under private land and to have access to that land. The landowner is compensated in the form of wayleave payments. NIE does not negotiate wayleave payments on a case-by-case basis with individual landowners. Rather, NIE's rates are based on rates paid by Scottish Power which are in line with the rates recommended by the Electricity Networks Association (ENA) which acts on behalf of the UK electricity network companies. The ENA uses rates reviewed in accordance with detailed studies carried out by the Agricultural Development Advisory Service (ADAS) to calculate, revise and recommend wayleave payment rates. NIE updates the farmers' unions annually with the recommended wayleave payment rates.

Licence Fees

- 7.7 NIE has a licence obligation to pay licence fees which are determined by the Utility Regulator.

Injurious Affection

- 7.8 Injurious affection is the diminution in value to a property caused by the existence and/or use of public works carried out under, or in the shadow of compulsory powers. NIE is currently in receipt of a number of claims for injurious affection and the Lands Tribunal of Northern Ireland is currently considering the legal and valuation issues associated with a number of these claims. The outcome of this process is uncertain. While precedent exists in GB, there is no precedent for the payment of such claims in Northern Ireland.
- 7.9 It follows that the costs associated with injurious affection that NIE will incur in the next few years are so unpredictable as to be unsuitable for *ex ante* regulation. A different approach may be possible in later regulatory periods once the scale of these costs becomes known.
- 7.10 The Utility Regulator is minded to treat injurious affection as an uncertain cost and has stated that it will await the results of the Lands Tribunal cases before considering how to treat associated costs. NIE is content with that approach.

Reporter

- 7.11 The Utility Regulator has decided to introduce a Reporter in RP5. The external costs associated with the Reporter will be treated as an uncontrollable cost. The Reporter will have a wide remit covering financial accounts, capex reports, capex database, RAB additions & disposals, compliance plan, annual reporting and other regulatory submissions. The Reporter will be embedded within NIE on a part time basis. NIE will have a licence obligation which will include appointing the Reporter and to cooperate fully and permit the Reporter to have access to the NIE network, documents, computer systems, electronic records and carry out inspections.
- 7.12 For the reasons set out in Chapter 14 (Reporter) NIE does not consider it necessary or appropriate to appoint a Reporter

Final Determination allowance

- 7.13 NIE is content with the Final Determination position that all uncontrollable costs should be treated as fully recoverable
- 7.14 However, the licence modifications proposed by the Utility Regulator to implement the Final Determination show that NIE's entitlement in respect of uncontrollable costs would be based on the Utility Regulator's (rather than NIE's) forecast costs with a true-up adjustment in the following year to adjust for the difference between actual and forecasts costs. NIE has two concerns with this proposal:
- The first relates to setting the allowances *ex ante* at a lower level than the NIE Forecast. This means that NIE will incur an annual funding cost in respect of the shortfall between the actual cost and the *ex ante* allowances. This funding cost is estimated at approximately £0.3 million.
 - The second is that the proposed licence modifications contain no mechanism for the recovery of the shortfall in the last year of RP5.
- 7.15 Both concerns can be overcome by defining uncontrollable costs in each Licence as a pass through cost without seeking to specify *ex ante* values. That was the approach adopted for the purposes of the RP4 price control and there is no reason why the same approach cannot be adopted in RP5.

8. NON-NETWORK CAPEX

- 8.1 Non-network capex is included in this opex chapter because historically the regulatory allowance for non-network capex forms part of the opex allowance. This is because the replacement cycle for many non-network capex items is

substantially shorter than for network-related capex, generally five years or less. NIE and the Utility Regulator agree that this treatment of non-network capex should continue into RP5.

Table 6.49: Non Network Capex – NIE's Forecast versus the Final Determination

Category	NIE Forecast	Final Determination	Shortfall
	£m	£m	£m
Non Network Capex	15.2	7.6	7.6

- 8.2 NIE's Forecast non-network capex for RP5 is £15.2 million comprising £15 million in respect of the costs associated with the implementation, replacement and upgrade of NIE's IT and Telecoms assets (ICT) and £0.2 million in respect of the replacement of office equipment, windows, security fencing, alarm systems/ security and the re-surfacing of car parks at various locations.
- 8.3 NIE submitted the detailed non-network capex ICT plan to the Utility Regulator on 11 February 2011. NIE subsequently responded in detail to questions from the Utility Regulator and its consultant (Gemserv) and made various supplementary submissions supporting the plan.

Final Determination

- 8.4 The Utility Regulator has disallowed 50% (£7.6 million) of NIE's planned expenditure and has explained its reasoning as follows:
- "We believe that the costs associated with Powerteam should form part of the unit rates that have been benchmarked for the delivery of the capex programme. The amount included reflects the fact that approx 50% of the request covers Powerteam staff."* (Appendix D to the Final Determination, Project 55).
- 8.5 The Utility Regulator's reasoning is wrong. NIE Powerteam does not incur any ICT capex costs. The only capex which NIE Powerteam incurs is in respect of vehicles, mobile plant and tools and equipment. These costs are included in the unit rates charged by NIE Powerteam and are included in the indirect cost benchmarking exercise (described in Chapter 7 (NIE's Efficiency). And as NIE Powerteam does not incur any ICT capex costs, no such costs are included in NIE Powerteam's charges. All non-network ICT capex is incurred by NIE.

Background – ICT Capex

8.6 Non-network ICT capex consists of 3 main components:

- IT Infrastructure: investment required to upgrade and develop data centre and desktop hardware used to operate and access NIE’s business applications. NIE uses 485 servers which support customer systems, work and asset management systems and financial applications. There are also 642 PCs, 259 laptops and 85 printers. During RP5, a significant proportion of these servers and other devices need to be refreshed to maintain the performance and availability required by the business. The need for refresh is driven by 5-year replacement cycles for all equipment with the exception of laptops, where the cycle is 3-years.
- Telecoms Infrastructure: investment required to upgrade and develop NIE’s business voice and data telecoms network. The NIE network connects 15 locations across NI and comprises various technical components such as call managers, voice gateways and network switches. During RP5, the majority of these components need to be refreshed to maintain the network performance and availability required by the business. The need for refresh is driven by 5-year replacement cycles for business voice and data telecoms equipment
- Business Applications: investment required to introduce the IT applications needed to meet new business requirements and upgrade existing applications to maintain supportability. This includes key operational systems such as Substation Asset Management, Overhead Lines Work Management, Meter Reading Management and Financial & Materials Management applications.

NIE's plan for RP5

8.7 NIE’s Forecast for non-network ICT capex is summarised in Table 6.50 below.

Table 6.50: Non-network ICT capex – NIE's Forecast

Category	NIE Forecast
	£m
IT Infrastructure	5.9
Telecoms	1.4
Business Applications	7.7
Total	15.0

- 8.8 The costs included in the plan represent the project costs to ensure that the various components of NIE's IT and Telecoms architecture remain fit for purpose and are effectively supported during the RP5 period. Many of the IT and telecommunications assets underpin critical operational and customer-facing processes. For example the NIE applications supporting effective restoration of customers' supplies following fault and emergency conditions rely upon robust and reliable communications networks. Systems used to handle customer calls, schedule customer appointments and plan and execute customer connections activity need a high level of availability if NIE is to maintain an acceptable level of customer service at lowest cost. Therefore it is important that system performance and availability levels are maintained.
- 8.9 The majority of investment required in RP5 is mandatory expenditure needed to replace and upgrade existing applications and infrastructure as they become end-of-life.

Build-up of costs

- 8.10 The costs included in the plan are built from the bottom up.

IT infrastructure and telecoms

- 8.11 For IT Infrastructure and Telecoms investment, costs include the purchase of new components and associated software licences required to replace end of life servers, desktop devices and telecoms equipment and the 3rd party labour costs associated with implementing and testing the new hardware. In preparing the investment plan, the ages of the main technical components were reviewed and a proposed refresh plan was developed which addressed end-of-life issues. This plan considered manufacturers' refresh cycles and scheduled various upgrade projects to ensure that third party support arrangements for the key components could be maintained.
- 8.12 One example of such infrastructure refresh investment is the equipment used to provide the business voice and data network. NIE implemented a programme to replace the majority of our CISCO network routers and switches during the period between 2009 & 2011. Based upon the requirement to retain CISCO support for these business critical components (5-year support cycle), the network assets that were purchased between 2009 & 2011 will be due for replacement between 2014 & 2016. Investment in this area during RP5 will be £1.2 million.
- 8.13 In some cases, where the business risk was considered to be acceptable, the decision was taken to defer replacement of some infrastructure components until RP6. For example, the refresh for some Windows servers planned for the last year of RP5 was pushed out by one year, reducing RP5 expenditure by £378,000.

- 8.14 For budgeting purposes, it was assumed that the new hardware components and licences can be competitively procured at the same cost as the initial purchase. This assumption broadly reflects NIE's practical experience, although it is difficult to make direct like for like comparisons as technology is constantly moving forward. The costs of third party resources required to implement the changes was estimated based upon previous implementations and calculated using the competitively tendered outsourced managed service daily rate.

Business Applications

- 8.15 For Business Applications the costs include the purchase of new software licences and the third party labour costs associated with developing, configuring, testing and implementing the new applications. An applications refresh programme was developed based upon published application support cycles for existing systems.
- 8.16 Software vendors will generally only provide full support for the more recent releases of their applications. Once a version becomes end-of-life, the vendor will not provide any service commitments to respond in the event of a defect or commit to fixing any new issues which are discovered in those end-of-life versions. This means that there is an increased risk of a significant problem emerging which would not be fixed in a timely manner (if at all) resulting in significant disruption to the business. This is an unacceptable situation for business critical applications.
- 8.17 To minimise RP5 expenditure, the decision was taken to defer replacement of some less critical applications until RP6 where the associated business risk was considered to be acceptable. For example, upgrades of the meter reading application (Routestar) and the appointment scheduling application (ServicePower) planned for the final year of RP5 were deferred by 12 months, thereby reducing RP5 expenditure by £650,000.
- 8.18 In addition, emerging business requirements during RP5 were considered to identify areas where new investment was required. These new requirements included an application to report network load and health indices, changes to network planning applications to meet the challenges of increased levels of distributed generation and development required to meet new legislative requirements in the areas of roads and streetworks.
- 8.19 The budget figures for application refresh projects were developed based upon the understanding of the third party services required to deliver the initial implementations and the assumption that these services and any new software licences required can be competitively procured in line with the previous projects. Estimates for new application implementations were based upon the current understanding of the requirements, the complexity of the functionality required, the likely approach to delivering the functionality (i.e.

enhancement of an existing application, new package configuration or bespoke development) and experience of similar implementations.

Conclusion

- 8.20 The non-network capex allowance proposed in the Final Determination does not represent an adequate level of funding to allow NIE to ensure that important ICT applications and infrastructure remain fit for purpose through RP5.
- 8.21 NIE would be inadequately funded to invest in the replacement or upgrade of critical Business Applications and in the new ICT assets required to meet regulatory and legislative requirements.
- 8.22 NIE therefore requests the Competition Commission to provide in full the Forecast allowance sought by NIE in respect of non-network capex.

9. RECENT DEVELOPMENTS – EU THIRD ENERGY PACKAGE

- 9.1 As explained in Section 3 of Annex 1A.1 (Historical and Regulatory Background), the European Commission in its decision of 12 April 2013 confirmed that arrangements in place in relation to the vertical integration and operation of the transmission systems belonging to NIE meet the requirements of Article 9(9) of the IME3 Directive.
- 9.2 As a consequence of this decision, NIE's transmission planning function will in due course transfer to SONI (the transmission system operator in NI). NIE is commencing discussions with the Utility Regulator to clarify the specific activities, processes and resources that will transfer to SONI.
- 9.3 With respect to the matters addressed in this Chapter 6 (RP5 Opex), any change in responsibility for transmission planning may have an impact on NIE's opex forecast for RP5, in particular in relation to the 'renewables baseline'. NIE hopes to obtain clarity on this issue from the Utility Regulator at an early stage so that it might be taken into consideration by the Competition Commission in its determination of an opex allowance for RP5.

CHAPTER 7

NIE'S EFFICIENCY

SUMMARY

In meeting the needs of its customers, NIE strives continuously to improve its efficiency through its own innovation and through the adoption of best practice developed elsewhere.

In its Final Determination the Utility Regulator has proposed that NIE's base year controllable opex be reduced by 7% and, furthermore, that a 1% efficiency factor be applied in each year thereafter. In relation to capex, of the total disallowances proposed by the Utility Regulator, £61.1 million relates to efficiency benchmarking and the treatment of indirect costs.

NIE considers that the Utility Regulator has failed to make a case for the application of these inefficiency discounts.

There are material flaws in the Utility Regulator's benchmarking analysis of indirect costs used to justify the 7% opex discount. In particular:

- it fails to achieve a like-for-like comparison of all costs – because it overstates the level of NIE's market opening costs to be included;
- it is internally inconsistent – because certain costs which have been disallowed in rolling forward the baseline have been included in the benchmarking;
- it is biased against NIE – because it applies a downward regional wage adjustment but does not consider other regional factors such as sparsity which increase NIE's costs; and
- it is inaccurate – because the regional wage adjustment does not accurately reflect the nature of NIE's workforce and is consequently overstated.

In its Final Determination the Utility Regulator provides no justification for the application of a further 1% inefficiency discount for opex and the four elements of the justification it provided in its draft determination are not supported by the available evidence.

The inefficiency discounts applied in respect of capex are inadequately justified by the Utility Regulator by the flawed benchmarking of indirect costs outlined above, by other crude and erroneous benchmarking and by the inappropriate scaling of indirect costs.

In contrast, NIE has compelling and robust evidence to show that it is efficient in its operations and that the proposed inefficiency discounts are therefore unjustified.

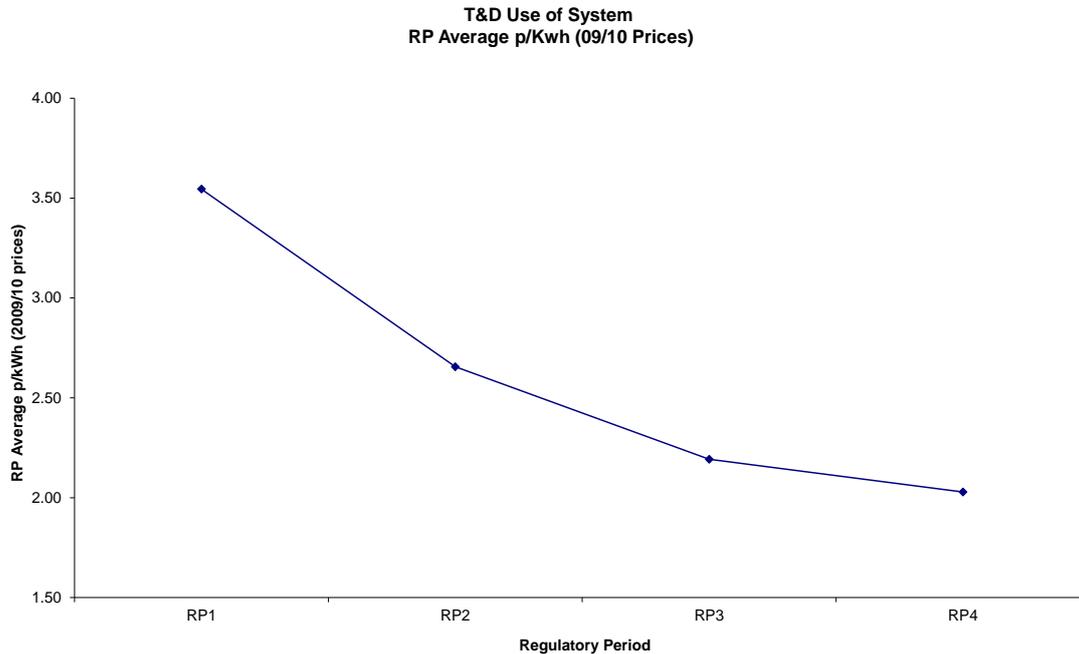
NIE has undertaken a comprehensive review of its efficiency relative to the fourteen GB DNOs. They represent a challenging peer group for NIE. They have been subject to effective incentive regulation by Ofgem for more than 20 years and, in consequence, they are widely considered to be operating at or near the efficiency frontier for the industry. The results of NIE's benchmarking show that NIE is a leading performer within the overall class of UK DNOs.

In light of the foregoing, NIE considers that the Utility Regulator has failed to make out a case for the application of any form of inefficiency discount to NIE's opex or capex allowances, and that no such discount is justified.

NIE requests the Competition Commission to eliminate these unjustified inefficiency discounts when it determines NIE's RP5 price control pursuant to the present reference.

1. INTRODUCTION

- 1.1 In meeting the needs of its customers, NIE strives continuously to improve its efficiency through its own innovation and through the adoption of best practice developed elsewhere. A culture of efficiency is deeply embedded across the NIE organisation.
- 1.2 The efficiencies which NIE has achieved are reflected in the very significant real reduction of 43% in network charges since privatisation in 1992. This is illustrated in Figure 7.1 below.

Figure 7.1: Network charges – average p/kWh (09/10 prices)

Source: NIE

- 1.3 During this period, NIE staff numbers have reduced from approximately 3,000 to approximately 1,300.
- 1.4 Customers have also benefited from enhanced levels of customer service. For example, the key metric of network performance, 'fault customer minutes lost', is now approximately one-third of what it was at privatisation and is converging with the benchmarks established by Ofgem for GB DNOs with comparable network topologies. During RP4 there were no defaults against guaranteed standards, all targets for overall standards were met and only 20 complaints were referred to the Consumer Council for NI.
- 1.5 In its Final Determination the Utility Regulator has proposed that NIE's baseline controllable opex be reduced by 7% and, furthermore, that a further 1% efficiency factor be applied in each year thereafter to both baseline opex and to the new costs to be added to the baseline. In relation to capex, out of the total disallowances proposed by the Utility Regulator, £61.1 million relates to efficiency benchmarking and the treatment of indirect costs.
- 1.6 In total, the Utility Regulator's proposed efficiency adjustments amount to £77.2 million, as shown in Table 7.1 below.

Table 7.1: Final Determination – proposed inefficiency discounts

	£m
Opex reduction in base year cost	10.5
Opex efficiency factor	5.6
Capex	61.1
Total	77.2

- 1.7 NIE considers that the Utility Regulator has failed to make a case for the application of these inefficiency discounts. NIE has compelling evidence to demonstrate that it is efficient in its operations, as revealed through benchmarking analysis of a wide range of cost categories, and that the proposed inefficiency discounts are therefore unjustified. This evidence is presented in summary form below. Full details can be found in the annexes and appendices identified in the text below.

Cost mapping against GB DNOs

- 1.8 In order to allow meaningful comparison with the GB DNOs, NIE has engaged Frontier Economics to undertake a detailed cost mapping exercise to replicate the GB regulatory classification of cost. A description of this work is provided in Annex 7A.1 (NIE's Efficiency – Cost mapping). This work has provided a firm foundation for benchmarking. The Annex also provides definitions of a number of terms used throughout this Chapter, in particular direct cost and indirect cost.
- 1.9 Looking forward, NIE considers that there would be considerable merit in its working with the Utility Regulator during the RP5 period to move towards the adoption of a set of regulatory accounting guidelines and processes that closely follow those that prevail in GB. This would facilitate benchmarking with the GB DNOs.
- 1.10 The remainder of this Chapter is structured as follows:
- Section 2 provides an outline of the Utility Regulator's analysis of indirect costs, and a summary of NIE's assessment of the material flaws in this analysis which cause the Utility Regulator significantly to understate NIE's efficiency.
 - Section 3 summarises the Utility Regulator's proposed justification for a 1% year-on-year reduction in controllable opex, and explains why NIE disagrees with the assumptions relied on by the Utility Regulator.
 - Section 4 concerns various shortfalls in the capex allowance, and explains why these are not justified.

- Section 5 provides an overview of four further pieces of analysis commissioned or undertaken by NIE, each of which confirms that NIE's efficiency is consistent with that of the leading GB DNOs.
- Section 6 summarises the suite of benchmarking work undertaken by NIE and discusses the extent to which this benchmarking covers NIE's cost base.
- Section 7 sets out NIE's conclusions with respect to the evidence on its efficiency and why each of the Utility Regulator's proposed inefficiency discounts is unreasonable.

2. OPEX REDUCTION IN BASE YEAR COSTS

- 2.1 The Utility Regulator has determined to apply an initial inefficiency discount for controllable opex, to take the form of a 7% reduction in the controllable opex baseline to be applied over the first two years of RP5. This would reduce NIE's opex allowance by £10.5 million. The scope of controllable opex and baseline opex is described in Chapter 6 (RP5 Opex).
- 2.2 The Utility Regulator justifies this discount by reference to benchmarking commissioned from CEPA, in which NIE is assessed against the 14 GB DNOs.
- 2.3 In April 2012, the Utility Regulator published its draft determination which included an appendix prepared by economic advisers CEPA¹ summarising its analysis of the operating efficiency of NIE. The Utility Regulator has also relied on CEPA's updated analysis² in making its Final Determination.
- 2.4 CEPA concluded that in respect of the costs included in its analysis (that is, indirect costs³) NIE was inefficient and that its costs should be reduced by 10%⁴.

¹ The appendix was entitled 'Efficiency Assessment of NIE's Operating Expenditure October 2011'.

² NIE and its advisors Frontier Economics have not been provided with full access to the detail of CEPA's analysis. However we understand that both CEPA's original analysis and its updated analysis for the Final Determination focused on 2008/09. The analysis commissioned by NIE has considered 2009/10 and then, in an update, 2010/11. NIE's analysis is therefore more up-to-date.

³ See Annex 7A.1 (NIE's Efficiency – Cost mapping) for a definition of indirect costs.

⁴ The 7% inefficiency discount factor applied to baseline controllable opex is derived from the 10% identified by CEPA in their analysis. CEPA estimates that this 10% discount should apply to 73.2% of NIE's controllable opex, while the remainder of controllable opex is R&M. No discount has been applied by the Utility Regulator to baseline R&M.

- 2.5 There were a number of material flaws in CEPA's analysis at the draft determination stage which caused CEPA's analysis to understate NIE's efficiency. NIE raised these concerns in its response to the draft determination, but CEPA and the Utility Regulator have chosen to address only one of these issues in the Final Determination, and then incompletely. NIE's critique of CEPA's work from the draft determination response therefore remains largely unchanged.
- 2.6 NIE's most significant concerns relate to unjustified additions to the cost base and the application of a regional wage adjustment. These are summarised below.
- Overstatement of NIE's market opening costs: In order to ensure consistency with the GB peer group, it is appropriate to add only a small proportion of NIE's market-opening costs to its cost base, consistent with the relatively narrow role of GB DNOs in the electricity retail market in GB. NIE estimated that the relevant costs it incurred in undertaking similar activities to those undertaken by GB DNOs were £0.13 million in 2009/10 and £0.185 million in 2010/11. However, NIE understands that CEPA's analysis for the Final Determination adds £0.5 million to NIE's costs in respect of these activities. No details on the basis of this estimate have been provided to NIE.
 - Inclusion of disallowed items in the benchmarking: The Utility Regulator has disallowed a number of costs from the controllable opex baseline (such as excess overtime, innovation schemes and the profit element of NIE Powerteam's costs). Since these costs are excluded from the proposed baseline used for calculating the RP5 opex allowance, it follows that they should also be excluded from the benchmarking. Otherwise, there is the possibility that the inefficiency discount to be applied to NIE's baseline could be inflated by costs that are excluded from the cost base to which this inefficiency discount is applied. We have not been provided with clarity on whether CEPA and the Utility Regulator have achieved a consistent treatment on all of these matters, but our understanding is that they have not, in particular in respect of NIE Powerteam's historic profit element.
 - Lack of account for the sparsity of NIE's network (and other regional differences): NIE considers that it is not reasonable to apply a downward regional wage adjustment (see below) without also taking account of other significant differences between regions. Previous work commissioned by NIE together with the evidence in the public domain from other regulatory reviews indicates that the sparse dispersion of NIE's customers tends to increase the costs of service significantly, relative to a typical GB DNO. Taking account of sparsity is likely at least to offset the effect of a regional wage adjustment.

- Overstatement of NIE's regional wage adjustment: CEPA's estimation and application of a regional wage adjustment has not been undertaken appropriately. CEPA has relied on regional data for two very high level occupational codes, which do not accurately reflect the nature of NIE's workforce. When a more reasonable adjustment is calculated, making use of more relevant occupational codes, the effect of the regional wage adjustment observed by CEPA is greatly reduced.
- 2.7 Prior to CEPA's involvement, NIE had commissioned its own analysis of its efficiency on the set of costs benchmarked by CEPA. A report summarising this analysis⁵, which was undertaken by Frontier Economics, was submitted to the Utility Regulator as part of NIE's Business Plan Questionnaire submission. The cost mapping exercise undertaken by Frontier (see Annex 7A.1 (NIE's Efficiency – Cost mapping) for a description of this work) was relied upon by CEPA in their analysis.
- 2.8 Frontier's conclusion was that NIE's performance was consistent with the leading GB DNOs and that NIE should be regarded as efficient.
- 2.9 Frontier's analysis has been updated following the original BPQ report submission in February 2011, to take account of updates to the cost mapping and to repeat the indirects analysis using the latest data. Consequently, a revised report⁶ was provided following the submission of NIE's BPQ. Frontier also prepared a further report⁷ in response to the Utility Regulator's draft determination, specifically CEPA's analysis of opex efficiency. However, Frontier's conclusions remained unchanged at each stage, and demonstrate that NIE's sustained performance is consistent with the leading GB DNOs.
- 2.10 The results of Frontier's analysis are presented in Table 7.2 below.

⁵ Frontier Economics, 'Econometric efficiency analysis of NIE's indirect costs and R&M costs', February 2011. This report is attached at Appendix 7.1.

⁶ Frontier Economics, 'Econometric efficiency analysis of NIE's indirect costs and R&M costs', June 2011. This report is attached at Appendix 7.2.

⁷ Frontier Economics, 'Review of CEPA's efficiency analysis', June 2012. This report is attached at Appendix 7.3.

Table 7.2: Summary of Frontier's benchmarking analysis

	NIE's efficiency score (100% = GB average)	Rank out of 15 DNOs (base case)	Rank out of smallest 4 DNOs in sample (the most comparable)	Rank in the 2010/11 update (see June 12 Report)
Indirect costs (09/10 cross-section results)	90%	4 th best out of 15.	1 st	4 th best out of 15.

Note: given the definition of efficiency score used in the table above, a lower % number than 100% indicates higher than average efficiency.

- 2.11 Frontier's results show that NIE's efficiency performance is in the upper quartile. Since the set of GB DNOs represents a demanding benchmark, this should be considered strong evidence that NIE is a very efficient network operator.
- 2.12 NIE maintains that CEPA's analysis of indirects is flawed for the reasons set out above, and significantly understates NIE's efficiency. NIE's view is that CEPA's indirects analysis should be rejected in favour of Frontier's.
- 2.13 As a consequence, NIE considers that there is no justification for the application of a 7% inefficiency discount to its baseline opex costs.

3. ON-GOING OPEX EFFICIENCY FACTOR

- 3.1 In addition to the proposed 7% discount to be applied to baseline opex, the Utility Regulator has determined to apply a further 1% year-on-year reduction in controllable opex (i.e. to baseline opex and also to costs to be added to the baseline) resulting in a further £5.6 million reduction in the opex allowance.
- 3.2 In paragraph 10.103 of the draft determination, the Utility Regulator seeks to justify its proposal for the 1% year-on-year reduction on the basis of assumptions as to lower salary costs and synergies emerging from ESB's acquisition of NIE. NIE submits that these assumptions are incorrect for the reasons provided below:
- First, the Utility Regulator asserts that pay increases are likely to be below RPI in NI over the next number of years. It provides no evidence to support this assertion. But even if this were the case for NI generally, different considerations apply to NIE. While the wider economy might be experiencing slow growth, the electricity network industry across Europe is experiencing rapid growth as a result of the policy imperative to decarbonise the economy. High demand for

skilled network engineers and staff will result in a significant proportion of NIE's skilled and scarce staff experiencing earnings growth above RPI.

- Second, the Utility Regulator asserts that NIE is paying salaries above the NI average. As explained in Section 5 below (and set out in detail in NIE's confidential paper 'NIE Labour Costs: Real Price Effects in RP5'⁸, provided at Appendix 7.4) this is simply not the case.
- Third, the Utility Regulator believes that retirements will bring savings in average salary costs. Again, NIE disputes this for the reasons set out in paragraph 3.3 below.
- Fourth, the Utility Regulator believes there will be synergies arising from the acquisition of NIE by ESB. However, this will be impossible given:
 - the stringent licence provisions that ring fence NIE from ESB; and
 - the European Commission's decision of 12 April 2013 in respect of the certification of the transmission arrangements in NI under IME3⁹, which would prohibit the provision of any corporate services by ESB.

Currently ESB provides two services to NIE in relation to insurance and the management of cash / treasury. However, these services will be prohibited in future.¹⁰

3.3 In respect of the third point (i.e. that retirements will bring salary savings), NIE considers that there is no evidence to suggest that this will be the case. Retirements may result in salary savings either when retirees are not replaced or when retirees are replaced by less experienced lower skilled and less

⁸ This paper was originally dated July 2012 and provided to the Utility Regulator as part of NIE's response to the draft determination. The document attached at Appendix 7.4 is an updated version of that paper.

⁹ The EU Third Energy Package: see Section 3 of Annex 1A.1 (Historical and Regulatory Background).

¹⁰ In addition to insurance and the management of cash / treasury, NIE and ESB Networks share the TIBCO market messaging application and associated infrastructure. However, NIE does not regard this as a synergy arising from the acquisition. The sharing of this infrastructure is a Northern Ireland/ROI harmonisation initiative and would have happened irrespective of the ownership of NIE. NIE's opex projections reflect the shared cost of the TIBCO system. Separately, NIE participates in the ESB group arrangement for Microsoft licensing. These licensing costs principally relate to the non-network IT capex plan of £15 million (see Chapter 6 (RP5 Opex)). However we would not propose to make any changes to this plan based on the group arrangement as the non-network IT capex plan was not developed at that level of granularity. (NB: Based upon an analysis of purchases over the last 6 months, the annual saving to NIE might have been of the order of £80,000).

costly employees. For the following reasons there is no basis on which to presume that any of these circumstances will arise during RP5.

- NIE has downsized its workforce from 3,000 at privatisation to currently 1,300 and is now operating at the optimum level to sustain effective operational capability and capacity. There is little if any further scope to consider not replacing a retiree.
- If an individual retires, they are normally replaced through NIE's well-established succession management and development processes which ensure a successor has been developed over a number of years to step into the role and replace the retiree.
- The individual replacing the retiree will have the appropriate skills, knowledge and expertise to ensure the continuing effectiveness of the service provided and the individual will be appointed at a similar salary level to the retiree and in some cases, depending on market rate, may be at a higher salary level than the retiree.
- New recruits do not directly replace retirees, since they will lack the skills and experience necessary to fill a more senior role.
- A similar process operates throughout all levels of the workforce, with suitably qualified and experienced staff being developed through NIE's model of continuous development and succession.
- Where no suitable internal candidate exists to fill a gap, NIE will consider making a skilled and experienced external appointment. However it has recently proven materially more expensive to recruit externally than to make internal appointments. NIE considers that this arises as a consequence of the strong demand for specialist staff. NIE's experience is that it is necessary to pay a higher salary than exists within NIE's standard pay structures in addition to incurring additional recruitment costs.

3.4 It is reasonable to anticipate that retirement will bring about savings in pension costs. While retiring senior personnel are likely to be members of the now closed Final Salary scheme, new joiners will instead participate in the defined contribution scheme which results in significantly lower costs. However, pension costs are not a part of the opex allowance and are dealt with through an entirely separate allowance.

3.5 Consequently, NIE does not accept the Utility Regulator's assertion with respect to salary savings from retirements, since it ignores the need to promote and recruit (in a very tight market) individuals to fill some of the senior roles fulfilled by retiring staff.

- 3.6 More generally as regards the 1% efficiency factor, as NIE has made clear in its original BPQ submission, after almost 20 years of regulation NIE does not consider that there remain any large scale efficiency programmes that could be undertaken. Efficiency improvements going forward will be smaller in scale and driven incrementally.
- 3.7 The Utility Regulator provided no further justification for this efficiency factor in its Final Determination.
- 3.8 Consequently, NIE does not consider that there is any evidence to suggest that a 1% target for on-going opex reductions is reasonable. Two of the four elements of the Utility Regulator's justification rest on its assertion that salary growth will be low, and we do not consider there is persuasive evidence to support this assertion. The remaining two elements have not been supported by any evidence and NIE considers both assumptions to be unjustified.

4. CAPEX COSTS DISALLOWED

- 4.1 As discussed in Chapter 5 (RP5 Capex – Quantum), there are a number of areas where there is agreement between NIE and the Utility Regulator in respect of the volume of work that needs to be undertaken during RP5. However, notwithstanding this agreement in respect of volumes, there are significant shortfalls in the amounts of funding the Utility Regulator has allowed when compared to NIE's assessment of the cost of that work. The shortfalls are generally based on analysis carried out by the Utility Regulator's technical advisor, SKM.
- 4.2 In three cases, the Utility Regulator justifies these shortfalls (totalling £61.1 million) at least in part on the basis of its assessment of NIE's efficiency. This is the case in respect of:
- Overhead lines, for which there is a £44.0 million shortfall;
 - Capitalised overheads, for which there is a £11.5 million shortfall; and
 - Project design, management & consultancy, for which there is a £5.6 million shortfall.
- 4.3 NIE considers that in each case the proposed discount is unjustified. Each cost category is considered in turn below.

Overhead lines (£44.0 million shortfall)

- 4.4 Overhead line expenditure comprises three sub-categories as shown in Table 7.3.

Table 7.3: Overhead lines shortfall

Overhead line expenditure shortfalls	£m
(a) Distribution overhead line refurbishment	25.5
(b) Associated overhead line indirect costs (distribution patrol, survey & wayleave costs)	18.1
(c) Transmission overhead line refurbishment	0.5
Total	44.0

- 4.5 Overhead line sub-categories (a) and (c) (i.e. distribution and transmission overhead line refurbishment) cover the replacement of worn and defective overhead line components to ensure satisfactory performance of the network particularly during periods of high wind when weakened or faulty components are prone to fail. Mandatory (i.e. legislative and network performance driven) tree cutting forms an important element of work performed under these sub-categories. The costs associated with work performed under these sub-categories comprise direct costs and the indirect costs associated with the labour content of the work¹¹.
- 4.6 Overhead line sub-category (b) (i.e. associated overhead line indirect costs) covers the associated distribution patrol, survey and wayleave costs incurred in detailing the specific work to be completed on each overhead line and in negotiating access to the line for the work crews. This sub-category is comprised entirely of costs classified as indirect costs.
- 4.7 So far as NIE is aware, all £44 million of the shortfall with respect to overhead lines expenditure is attributable to erroneous benchmarking and efficiency assumptions adopted by the Utility Regulator.
- 4.8 While Table 7.3 above shows a combined disallowance of £43.6 million against sub-categories (a) and (b) (i.e. distribution overhead line refurbishment and distribution patrol, survey & wayleave costs), in fact the Utility Regulator and its consultants, SKM, did not adopt these sub-categories (which were used in NIE's BPQ submission) for the purposes of their benchmarking analysis. Rather, SKM separated out the tree cutting expenditure associated with the activities falling within these sub-categories and benchmarked the refurbishment and tree cutting elements separately. SKM also considered a combined analysis of the direct costs associated with each of refurbishment and tree cutting, together with the relevant proportion of

¹¹ See Annex 7A.1 (NIE's Efficiency – Cost Mapping) for a definition of direct costs and indirect costs.

distribution patrol, survey and wayleave costs. Table 7.4 provides a summary of this reclassification of the £43.6 million into these components.

Table 7.4: SKM's reclassification of the shortfall in distribution overhead line sub-categories (a) and (b)

	Sub-category (a) costs disallowed	Sub-category (b) costs disallowed	Total
Tree cutting	17.0	5.5	22.5
Overhead line refurbishment	8.5	12.6	21.1
Totals	25.5	18.1	43.6

4.9 We adopt the same structure in the remainder of this section and consequently address in turn the Utility Regulator's analysis of:

- tree cutting;
- distribution overhead line refurbishment; and
- transmission overhead line refurbishment.

Tree cutting benchmarking (and associated distribution patrol, survey and wayleave costs)

4.10 As shown in Table 7.4 above, the Utility Regulator has made a disallowance of £22.5 million with respect to tree cutting, approximately £17.0 million of which relates to the direct cost of mandatory (legislative and network performance driven) tree cutting. The proportion of distribution patrol and survey costs associated with tree cutting (£5.5 million) was also disallowed.

4.11 The Utility Regulator justifies this disallowance on the basis of analysis undertaken by SKM, which compares NIE's tree cutting costs with those of ESB and the best performing GB DNOs. In response to a question, SKM advised that it relied on benchmarking work carried out for CER¹² in 2010 in arriving at its view based on NIE's RP5 tree cutting forecast.

4.12 In respect of the comparison with ESB and the GB DNOs, PB has reviewed the SKM benchmarking and considers it to be flawed for a number of reasons.

- SKM erroneously divided ESB's and the DNOs' tree cutting costs by total circuit length (overhead lines and underground cables) and not overhead line length alone¹³. Clearly no tree cutting is required along underground cable routes.

¹² Commission for Energy Regulation – the energy regulator in the RoI.

¹³ DNOs have a total overhead line length of 283,710 km (analysis excluded EDFE - LPN since overhead line lengths are de minimis and the company does not incur tree cutting

- The normalisation metric used in the Utility Regulator's benchmarking for assessing tree density of 'forestation area / km of overhead line' is not appropriate since a doubling of circuit length would imply that tree cutting expenditure would be halved rather than doubled.
- On SKM's reasoning, a more appropriate metric would be a % of DNO area covered by forest. But, in fact, NIE like other electricity utilities avoids running overhead lines through forested areas so 'forestation area / km of overhead line' is an inappropriate driver of need. A more appropriate comparator would be that of 'km of hedgerow / square km' as it is in hedgerows where overhead line conductors are unavoidably in proximity to trees and bushes.

4.13 PB had originally benchmarked NIE's historic tree cutting costs against the GB DNOs' historic costs. This demonstrated that NIE's costs were approximately 50% more efficient than the average DNO¹⁴.

4.14 PB has now updated this benchmarking to compare NIE's RP5 forecast tree cutting costs with information published by Ofgem on DNO tree cutting allowances for DPCR5. PB has undertaken this benchmarking:

- on the basis of direct costs only; and
- on the basis of direct costs plus associated indirect costs.

Benchmarking on the latter basis (i.e. direct plus indirect) also allows an assessment of the efficiency of costs falling within overhead line expenditure sub-category (b) (i.e. associated distribution patrol, survey and wayleaves costs). A description of this analysis is presented in Annex 7A.2 (Tree cutting and distribution overhead line refurbishment expenditure benchmarking).

4.15 A summary of the results of PB's benchmarking of tree cutting costs is shown in Table 7.5. PB's updated benchmarking of tree cutting costs and proposed allowances confirms the results of the previous analysis of historic costs. NIE compares very favourably relative to the GB DNOs, with its forecast direct cost per km approximately 50% of the GB DNO average (61% on a direct plus indirect basis). The analysis demonstrates that NIE's proposed tree cutting expenditure is low by comparison with the DNOs.

costs) and total underground cable length of 496,513 km giving a total circuit combined length of 780,223 km as published by Ofgem in the 2007/08 Quality of Supply Report: <http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=138&refer=Networks/ElecDist/QualofServ/QoSIncent>

¹⁴ See PB Report 'NIE T&D Unit Cost Benchmarking Final Report' dated February 2011, attached at Appendix 7.5.

Table 7.5: Summary of PB's tree cutting costs benchmarking

£'000/km	Direct costs	Direct + indirect costs
DNO Average	1.79	2.22
Upper quartile (excluding NIE)	1.38	1.73
SSE Hydro	0.87	1.17
NIE submitted costs	0.84	1.36
Utility Regulator FD Allowance	-	0.54

- 4.16 PB considers that the benchmarking also shows that the amount allowed by the Utility Regulator for tree cutting is grossly inadequate. SSE Hydro is one of the smallest DNOs in terms of customer numbers but one of the largest in terms of length of overhead lines. The bulk of its operating territory is in the Scottish highlands. Under DPRCR5, its allowance for tree cutting is approximately half the DNO average allowance and is the lowest of any DNO by far on a £/km basis. This reflects the fact that SSE Hydro has significantly fewer trees and hedgerows to cut than the other DNOs. By contrast, NI has approximately three times the length of hedge per square km than in GB in general and 16 times that in Scotland¹⁵. Despite this – and notwithstanding that SSE Hydro has approximately the same length of overhead line as NIE – the Utility Regulator has allowed NIE less than half the amount for tree cutting that Ofgem has allowed SSE Hydro.

Distribution overhead line refurbishment benchmarking (and associated distribution patrol, survey and wayleave costs)

- 4.17 As summarised in Table 7.4 above, with respect to distribution overhead line refurbishment (excluding tree cutting costs addressed above) the Utility Regulator has made a disallowance of £21.1 million. Of this disallowance approximately £8.5 million is related to the relevant direct costs with the remaining £12.6 million associated with distribution patrol, survey and wayleave costs.
- 4.18 In the Final Determination, the Utility Regulator states:

"SKM have benchmarked the unit costs of overhead line work with GB DNOs. Those rates include the costs associated with surveys and

¹⁵ Further details are provided in Annex 7A.2 (Tree cutting and distribution overhead line refurbishment expenditure benchmarking).

SKM have included these costs within the individual overhead line programmes. No separate allowance is required"

- 4.19 In respect of this benchmarking, in answer to questions raised by NIE the Utility Regulator commented that:
- SKM has confirmed that NIE's costs in RP4 were used as the benchmark basis and these costs included the fixed costs, but that
 - the GB DNO data used for benchmarking cannot be released for reasons of confidentiality.
- 4.20 Consequently, NIE understands that the Utility Regulator considers that it has conducted benchmarking analysis of overhead line work on a direct plus indirect cost basis. NIE does not accept that this is the case.
- 4.21 Contrary to the SKM claim, NIE's overhead line costs in RP4 were tabled exclusive of the fixed overhead costs, since such costs were submitted as a separate line item in the capex database (as agreed in advance with the Utility Regulator).
- 4.22 Patrol, survey and wayleave costs are classified as 'indirect' costs within the Ofgem Regulatory Instructions and Guidance (RIGs) and are not included in Ofgem's unit rates for overhead line work.
- 4.23 PB reviewed SKM's analysis and has benchmarked NIE's distribution overhead line refurbishment expenditure against the GB DNOs. Ofgem published DPCR5 Initial Proposals for overhead line allowances (direct costs) for each company and this information is therefore in the public domain. While it would be preferable to benchmark NIE against Ofgem's final allowances rather than against those set out in the Initial Proposals, the final allowances for each company were not published, although Ofgem noted that these final allowances were 4.4% higher than the initial allowances. PB considers that by using the published initial proposal allowances, the resulting analysis presented below is conservative (in that it understates NIE's relative efficiency).
- 4.24 As set out in Annex 7A.2 (Tree cutting and distribution overhead line refurbishment expenditure benchmarking), PB has undertaken benchmarking:
- on the basis of direct costs only; and
 - on the basis of direct costs plus associated indirect costs.

Benchmarking on the latter basis (i.e. direct plus indirect) also allows an assessment of the efficiency of costs falling within overhead line expenditure sub-category (b) (i.e. associated distribution patrol, survey and wayleaves costs).

- 4.25 A summary of PB's benchmarking of distribution overhead line refurbishment is contained in Table 7.6. On this basis NIE's direct costs per unit of work are 66% of the GB DNO average (86% on a direct plus indirect basis). Relative to the GB DNO peer group, PB considers this evidence to show that NIE's proposed costs in this respect are reasonable and that the Utility Regulator's allowance is inadequate.

Table 7.6: Summary of distribution overhead line refurbishment benchmarking

£k/km - based on Ofgem IPs	Direct Costs	Direct + Indirect Costs
DNO Average	2.74	3.42
Upper quartile (excluding NIE)	2.54	3.17
SSEH	2.61	3.55
NIE	1.84	3.0
Utility Regulator Allowance		2.35

Conclusion on overhead line refurbishment and tree cutting benchmarking

- 4.26 It is clear that NIE's overhead line refurbishment and associated tree cutting expenditure are efficient on both a direct cost basis and on a direct plus indirect basis.
- 4.27 There is therefore no basis for any of the Final Determination disallowances in respect of distribution overhead line refurbishment, associated tree cutting and associated patrol, survey and wayleave costs.

Transmission overhead line refurbishment

- 4.28 With respect to overhead line expenditure sub-category (c) (Transmission overhead line refurbishment), £0.5 million of NIE's forecast costs have been disallowed based on the Utility Regulator's indirect costs efficiency assumptions – i.e. based on the CEPA analysis discussed in Section 2 above.
- 4.29 For all the foregoing reasons set out in Section 2, NIE considers this discount unjustified.

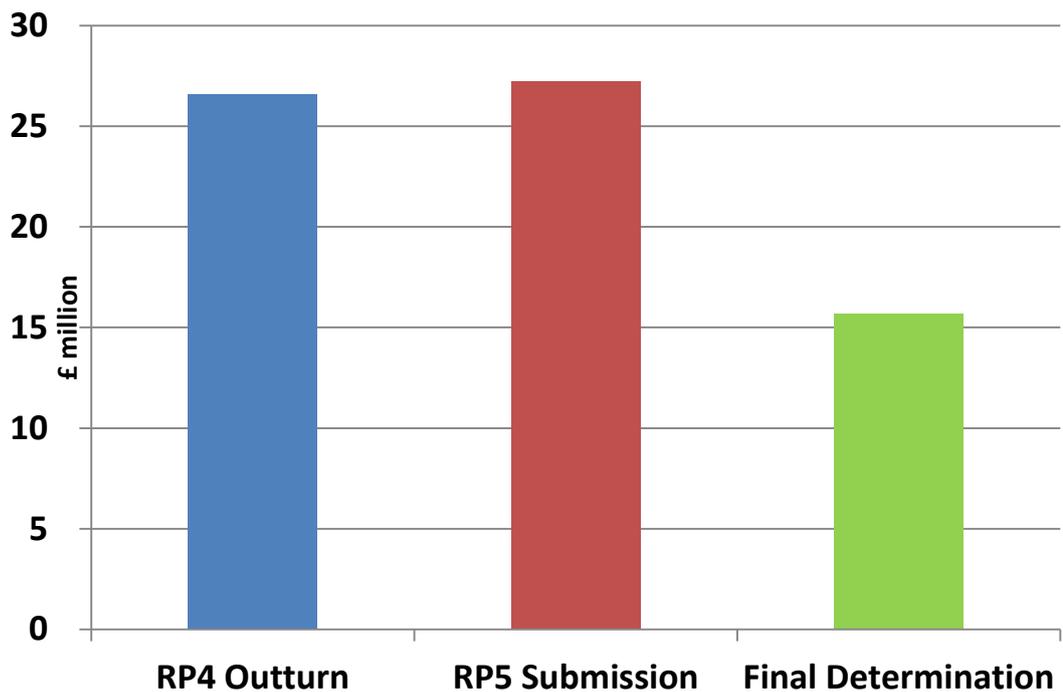
Capitalised overheads (£11.5 million shortfall)

- 4.30 Capitalised overheads relate to costs associated with asset management and planning, procurement and stores, outage management, the installation and commissioning of technical equipment, safety and IT. NIE’s BPQ submission for capitalised overheads totalled £27.2 million, 2% higher than the outturn level for RP4.
- 4.31 The Utility Regulator has proposed an allowance in respect of capitalised overheads that is 58% of NIE’s forecast amount and 41% below RP4 outturn, as shown in Table 7.7 and Figure 7.2 below.

Table 7.7: Capitalised overheads

£m	RP4 outturn	NIE's RP5 forecast	Final Determination
Capitalised overheads	26.6	27.2	15.7

Figure 7.2: Capitalised overheads



- 4.32 The Utility Regulator has disallowed £11.5 million in respect of capitalised overheads. The disallowance appears to comprise of two elements:
 - the application of an inefficiency discount of 10% pursuant to the conclusions of the Utility Regulator's benchmarking study as to NIE's efficiency in the management of indirect costs; and

- a reduction in the amount of overheads to be capitalised, on the basis that the overall amount of overheads attributable to relevant capital works can be expected to reduce pro rata with the reduction in the direct capital costs of such works.

4.33 As to the first point, this is addressed in detail in Section 2 above, in which NIE demonstrates that benchmarking shows NIE to be efficient in the management of indirect costs, so that there is no case for any inefficiency discount at all.

4.34 As to the second point, the Utility Regulator's reasoning is based on an erroneous understanding of NIE's overheads and the extent to which they fall to be capitalised.

4.35 In deciding how much of its overhead costs should be capitalised in its accounts, NIE does take account of the proportion which the relevant capex costs represent of total relevant capex and opex (mainly R&M): NIE considers that the most appropriate capitalisation method is to capitalise a proportion of overheads equivalent to:

$$\frac{\text{relevant capex}}{\text{relevant capex} + \text{opex}} \times 100\%$$

However, for ease of application, NIE does not recompute the percentage of overhead costs to be capitalised each year. Instead, it reassesses the appropriate percentage periodically to reflect changes in the relative scale of relevant capex and opex¹⁶.

4.36 However, for the most part, the relevant overheads are a fixed cost (that is, they do not vary with the volume of relevant capital works undertaken). There is therefore no good reason to reduce pro rata the allowable overheads on the basis that the underlying capital works, or the direct costs of such works, are reduced.

4.37 Thus by reducing the proportion of overheads to be capitalised pro rata to the reduction in capex costs, the Utility Regulator has reduced the capitalised overheads excessively. (For completeness, it should also be noted that, to the extent that the overhead costs are efficiently incurred – as they are, in NIE's submission (see Section 2) – any overhead costs which do not fall to be capitalised should be recoverable in full as additional allowable opex.)

Project design, management and consultancy (£5.6 million shortfall)

4.38 Project Design, Management and Consultancy costs are the costs associated with the design and delivery of substation projects. This work is primarily

¹⁶ See Chapter 11 (RAB adjustment), at paragraphs 4.26 to 4.29.

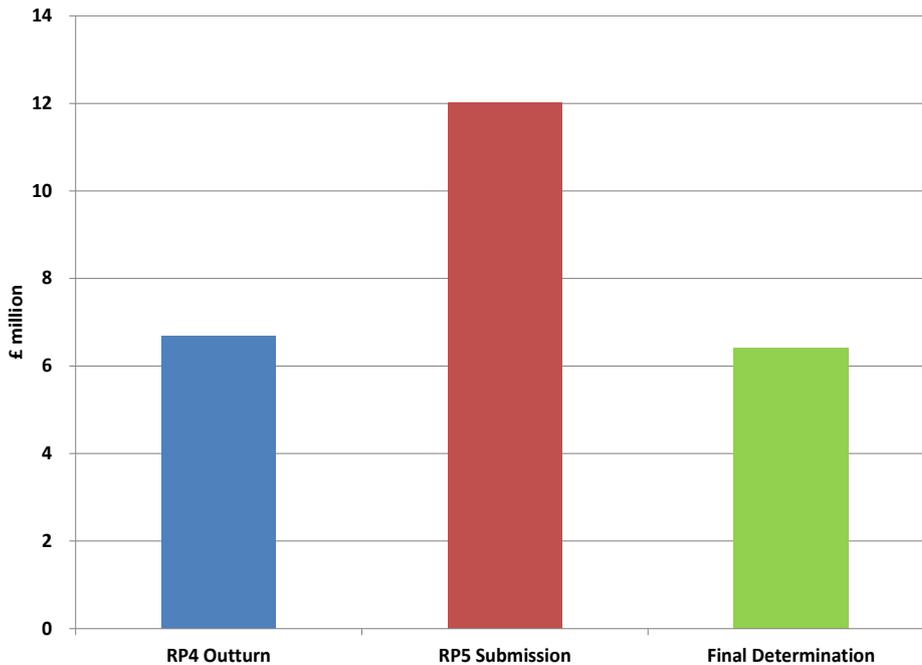
carried out in-house with limited outsourcing of consultancy work. NIE's forecast is based on RP4 historic costs but takes into account the RP5 requirements for increased substation works. The submitted costs of £12 million are a £5.3 million increase on RP4 outturn costs.

4.39 Table 7.8 and Figure 7.3 illustrate NIE's forecast in respect of project design, management and consultancy costs for RP5 against RP4 outturn and the Utility Regulator's proposal.

Table 7.7: Project management, design & consultancy

£m	RP4 outturn	NIE's RP5 forecast	Final Determination
Project design, management & consultancy	6.7	12.0	6.4

Figure 7.3: Project management, design & consultancy



4.40 The Utility Regulator has disallowed £5.6 million of these costs. NIE understands that this disallowance has been justified by scaling back the amount requested in line with the scaling back of the overall capex plan and on the basis of the Utility Regulator's benchmarking of indirect costs. NIE understands that the Utility Regulator has not changed its allowance from the draft determination stage and has not taken account of evidence provided by NIE in the interim. It has also not taken account of changes in its own position between the draft determination and the Final Determination, which resulted in an increase in the aggregate quantum of capex allowed and

should consequently have resulted in an increased allowance in respect of project design, management and consultancy costs. The Utility Regulator's position in respect of these costs is therefore internally inconsistent.

- 4.41 In arriving at its forecast of project design, management and consultancy costs, NIE began with its RP4 costs (the 09/10 costs were included in the indirects benchmarking which showed NIE to be efficient) and then increased these costs linearly to reflect the significant increase in the volume of substation projects that need to be delivered during RP5.
- 4.42 This bottom up assessment resulted in estimated RP5 costs increasing from the £7.9 million forecasted for RP4 (forecasted at base year) to £12 million.
- 4.43 NIE considers this proposed increase to be reasonable, since it is based on an efficient level of RP4 costs uplifted to reflect increases in work volume.
- 4.44 For the reasons set out above in Section 2, in which NIE demonstrates that benchmarking shows NIE to be efficient in the management of indirect costs, there is no case for any inefficiency discount at all.
- 4.45 In respect of the Utility Regulator's proposed scaling back of NIE's allowance, NIE does not consider the approach adopted by the Utility Regulator to be reasonable. As noted above, NIE considers that there is clear evidence that the volume of work in respect of substation programmes will exceed materially the level delivered during RP4. Owing to this, NIE can see no basis to justify a reduction.
- 4.46 The net effect of the Utility Regulator's two adjustments is to reduce the required allowance to a level 4% below outturn RP4 expenditure in this area. It is not possible for NIE to deliver the programme of work proposed by the Utility Regulator for RP5 at a lower level of project management and design expenditure than was incurred by NIE in RP4 for a lower level of works.

5. FURTHER SUPPORTING EVIDENCE

5.1 The preceding sections have provided an overview of certain of the pieces of analyses that NIE has undertaken or commissioned in order to assess its efficiency in so far as they are relevant to the specific disallowances determined by the Utility Regulator. Below we provide a summary of four additional pieces of benchmarking analysis. These are:

- capex unit costs;
- repairs and maintenance;
- allowed revenue; and
- salaries.

5.2 Each piece supports the view that NIE's efficiency is consistent with that of the leading GB DNOs. The methodologies adopted are in line with typical practice during regulatory proceedings. NIE considers that this wider set of benchmarking provides important context that is relevant to the Competition Commission's task.

Capex unit costs

5.3 NIE commissioned PB to conduct a bottom-up benchmarking analysis of NIE's capex (and tree cutting) in support of NIE's RP5 submission. PB conducted a unit cost benchmarking exercise of NIE's replacement unit costs for a defined set of asset categories. A copy of PB's report¹⁷ is provided at Appendix 7.5.

5.4 NIE's unit costs have been compared with the PB database of unit costs for overhead lines, underground cables, transformers, substation ancillary items, switchgear and secondary distribution, at the various voltage levels relating to the NIE network. The unit costs developed by PB comprise the basic costs of material supply and installation as would be incurred by a DNO, transmission operator, or paid to a contractor, based on a set of cost-built assumptions (for example, ground type, cost of evacuation, overhead line type, pole arrangement, etc.). NIE notes that PB was the Technical Advisor to Ofgem during the DPCR5 price review, and is therefore well placed to undertake this analysis of NIE against the GB DNOs on a comparable basis.

5.5 PB's analysis demonstrates that NIE's capex performance is better than the benchmark on 83% of all the benchmarked asset categories. For the other 17% of asset categories considered NIE's higher cost was explained by

¹⁷ PB Power, 'NIE T&D Unit Cost Benchmarking Final Report', February 2011.

specific additional costs borne by NIE but not by the GB DNOs, such as higher transport costs for certain assets.

- 5.6 NIE notes that the results of PB's unit cost work have been confirmed by the Utility Regulator's analysis commissioned to SKM.

*"Benchmarking by SKM has shown that the direct costs associated with NIE T&D's capex plan are efficient."*¹⁸

- 5.7 SKM has confirmed that NIE's direct cost outperformance relative to the GB DNOs is up to 20%:

"The unit cost benchmarking conducted by NIE's consultants on their behalf and presented as paper BPQ08 is comprehensive and based on a reasonable data set of unit costs that are consistent with the Ofgem benchmarking undertaken as part of DPCR5.

We have confirmed that these unit costs have been used in the NIE RP5 Capex plan that has been submitted.

*...we would agree with NIE's consultants that they have demonstrated that the direct costs are lower but we say that the degree of outperformance is up to 20%".*¹⁹

Repairs and Maintenance

- 5.8 NIE commissioned an analysis of its repairs and maintenance (R&M) costs from Frontier Economics. R&M costs cover the activities associated with inspections & maintenance, faults, and tree cutting.
- 5.9 The analysis drew on data made publically available by Ofgem at DPCR5 for the 14 GB DNOs. Frontier undertook an analysis of a three year panel using data between 2007/08 and 2009/10, and a cross-sectional analysis using just the 2009/10 data to provide a cross-check on the panel results, and to ensure consistency with the analysis for indirect costs (described in Section 2 above).
- 5.10 Frontier's analysis found that NIE ranked first out of the fifteen in the sample and that its R&M costs were 75% of the GB average.
- 5.11 The Utility Regulator has not presented an analysis of R&M. However, along with its analysis of indirect costs, CEPA also conducted an analysis of 'total opex', which includes indirect costs and direct opex costs. This cost base includes:

¹⁸ Final Determination, paragraph 5.54 (page 33).

¹⁹ SKM, 'NIAUR – Unit Cost Review as part of Sublot 1B Review of RP5 Capital Expenditure', October 2011: provided at Appendix 7.6. This was a draft report by SKM to the Utility Regulator sent to NIE in 2011 for comment.

- inspections and maintenance;
 - faults;
 - tree cutting;
 - indirect costs closely associated with direct costs; and
 - business support costs.
- 5.12 CEPA's base case results show that NIE ranks 7th in the sample. However, given the clustering of GB DNO performance NIE is only 0.2% away from the upper quartile. We note that the flaws contained in CEPA's assessment of indirects apply equally to its assessment of total opex (which includes R&M costs), suggesting that this analysis also understates materially NIE's efficiency.
- 5.13 Consequently NIE considers that the Utility Regulator's own analysis provides compelling evidence to suggest that there is no justification for the application of an inefficiency discount to NIE's baseline opex.

Allowed revenue

- 5.14 NIE commissioned an analysis of the efficiency of its allowed revenue from Frontier Economics.
- 5.15 Benchmarking aggregate measures such as allowed revenue offers a high level or 'top-down' picture of the relative value provided to customers by the network operator. An analysis of allowed revenue allows broad conclusions to be drawn about whether the operation as a whole is performing efficiently and providing good value for money in comparison to its peers. A copy of Frontier's report is provided at Appendix 7.7.
- 5.16 Frontier benchmarked an aggregate measure of NIE's allowed revenue against the 14 GB DNOs. Frontier made a number of adjustments to NIE's allowed revenue data to ensure that it is consistent and comparable with the allowed revenue for the GB DNOs – e.g. excluding revenue associated with the 275kV element of its transmission business. Frontier also considered adjustments to take account of different depreciation lifetimes used in the preparation of regulatory accounts between NI and GB.
- 5.17 In this analysis NIE ranks as the second most efficient DNO out of the 15 in the sample in the base case, and is 16% more efficient than a modelled average DNO of the same scale. Sensitivity tests (e.g. varying the proportion of revenue allocated to the excluded transmission part of the business) have demonstrated that these conclusions are robust to changes in modelling assumptions. This analysis demonstrates that NIE provides good value for money for customers in NI, given the scale of the network.

5.18 The Utility Regulator has not commented on the results of this analysis in any of its consultation papers during RP5 and does not appear to have accounted for this evidence in reaching its conclusions on efficiency.

Salaries

5.19 NIE has undertaken its own analysis of the efficiency of the remuneration it offers to its specialist workforce²⁰. NIE has compared its own salaries to benchmarks taken from:

- NI Government statistics on the relevant Standard Occupational Classification codes (SOCs);
- The XPerthHR Salary Survey of Engineers and Technicians; and
- The Croner Reward Market Rate Report & IDS Pay & Conditions in Engineering Report.

5.20 Each of these sources of information confirms that NIE's salaries are efficient, i.e. clearly below the relevant benchmark.

5.21 According to NI Government statistics, [redacted].

5.22 The key conclusion from this analysis is that NIE salaries are very much at the lower end of what is on offer for similar jobs in NI and the UK.

6. SUMMARY OF BENCHMARKING ANALYSIS

6.1 NIE's position across all of the studies undertaken is summarised in Table 7.8 below.

Table 7.8: Summary of NIE's benchmarking performance

	NIE's position
Indirect costs	4th best out of 15 DNOs, above upper quartile
Capex	Better than benchmark on 83% of cost lines
Repairs and maintenance costs (R&M)	1st best out of 15 DNOs
Allowed revenues	2nd best out of 15 DNOs, above upper quartile
Salaries	[redacted]

²⁰ See 'NIE Labour Costs: Real Price Effects in RP5', a strictly confidential paper originally submitted to the Utility Regulator as part of NIE's response to the draft determination. An updated version of this paper is provided at Appendix 7.4.

- 6.2 The suite of benchmarking analysis undertaken or commissioned by NIE covers NIE's entire cost base aside from the exceptions set out below.
- 6.3 The unit cost benchmarking undertaken by PB, covers NIE's materials and bought in service costs; and internal labour costs (excluding non-timesheet staff costs, fleet, premises and tools and equipment costs which are included in the indirect cost benchmarking) in respect of replacement related capex.
- 6.4 NIE has undertaken no benchmarking of new build capex or load related capex. However, since all capex is procured and delivered essentially through identical processes, irrespective of whether it is replacement capex or otherwise, NIE is confident that its strong performance on replacement capex is carried through into all its capex.
- 6.5 In respect of indirect costs included in capex, the indirect cost benchmarking undertaken by Frontier covers capitalised overheads; costs associated with overhead line surveys and wayleaves, project design, project management and limited consultancy costs; and the indirect cost uplift on internal labour charges. The indirect cost benchmarking excludes transmission costs at the 275kV level²¹.
- 6.6 The indirect cost benchmarking undertaken by Frontier covers all NIE's indirect operating costs except costs associated with connections, metering (including both installation of new meters and meter reading) and market opening costs (except for £0.2 million). These costs are excluded from the indirect benchmarking to ensure that comparisons with the GB DNOs are on a like-for-like basis with those reported by Ofgem.
- 6.7 NIE's direct operating costs are covered by Frontier's analysis of R&M as described above.

7. CONCLUSIONS

- 7.1 The results of each element of NIE's analysis of its efficiency have unambiguously confirmed that it is efficient in its operations. On the basis of the above analysis, NIE considers that:
- there is no reasonable basis to apply an inefficiency discount to NIE's baseline opex;

²¹ GB DNOs, with the exception of the Scottish DNOs, also operate network at the 110kV level, so only costs associated with the highest voltage tier have been excluded from the indirects benchmarking. The capex unit cost benchmarking included analysis of the unit cost of 110kV and 275 kV replacement work.

- the Utility Regulator has not provided any reasonable justification for its proposed 1% year-on-year reduction in controllable opex;
- no inefficiency discount should be applied to NIE's indirect costs associated with capex; and
- the amounts requested by NIE in its capex plan for direct and indirect activities associated with volumes which are agreed should be provided for in full.

7.2 In the light of the available evidence, NIE requests the Competition Commission to eliminate these unjustified inefficiency discounts when it determines NIE's RP5 price control pursuant to the present reference.

7.3 As described in Annex 7A.1 (NIE's Efficiency – Cost mapping), NIE's analysis has been supported by a detailed cost mapping exercise. Absent an exercise of this kind, robust comparison of NIE with the GB DNOs would not be possible. NIE considers that there would be considerable benefit in its working with the Utility Regulator over the course of the RP5 period to move towards the adoption of the GB regulatory classification of costs. This would facilitate benchmarking with the GB DNOs. NIE invites the Competition Commission to recommend the adoption of such an approach for future regulatory periods.

CHAPTER 8

REAL PRICE EFFECTS

SUMMARY

NIE expects to face significant upward cost pressures in RP5 on the inputs to its business, which will exceed any effect already captured by RPI. In its response to the Utility Regulator's draft determination, NIE requested a total allowance of £66.8 million for such real price effects (**RPEs**) spread across opex and capex.

The Utility Regulator agrees that NIE's capex and opex programmes are subject to different inflationary pressures from the basket of goods included in RPI. However, the Utility Regulator has provided a negative total allowance of £-2.7 million for RPEs.

NIE has reviewed the Utility Regulator's method of determining RPEs in detail. In order to focus the Competition Commission's efforts on the most significant issues, NIE is content to adopt the Utility Regulator's method of calculating RPEs and a number of its assumptions.

However, there are three key areas where NIE disagrees with the Utility Regulator's assumptions made in applying this method. These are:

- the Utility Regulator's assumptions in respect of labour RPEs in 2010/11, 2011/12 and 2012/13;
- the Utility Regulator's choice of material weights for capex; and
- the proportion of NIE's workforce that the Utility Regulator regards as general, rather than specialist.

NIE also considers that a new EU directive that sets new standards for transformer performance will give rise to an additional price-related cost increase, for which an additional allowance of £5.0 million is necessary.

NIE's updated assessment is that it requires an RPE allowance over RP5 of £47.9 million, comprising £37.5 million in capex and £10.4 million in opex.

NIE requests the Competition Commission to determine a price control for RP5 which reflects NIE's position with respect to RPEs.

1. INTRODUCTION

- 1.1 NIE expects to face significant upward cost pressures in RP5 on the inputs to its business, which will exceed any effect already captured by RPI. In its response to the Utility Regulator's draft determination, NIE requested a total allowance of £66.8 million for such real price effects (**RPEs**) spread across opex and capex.
- 1.2 The Utility Regulator agrees that NIE's capex and opex programmes are subject to different inflationary pressures from the basket of goods included in RPI. However, in its Final Determination, the Utility Regulator provided a negative total allowance of £-2.7 million for RPEs.
- 1.3 NIE has reviewed the method employed by the Utility Regulator to estimate RPEs. NIE considers that this method is reasonable and consistent with that adopted by other regulators including, in particular, Ofgem (e.g. at each of its recent price control reviews of the GB energy networks). NIE has therefore adopted the Utility Regulator's method for the purposes of this Statement. This has resulted in differences in estimation of the required quantum of funding relative to the method which NIE adopted for the purpose of its response to the draft determination – albeit that these differences are small. Of greater significance is the fact that NIE disagrees with a number of assumptions that the Utility Regulator has made in applying this method.
- 1.4 There are three key areas where NIE disagrees with the Utility Regulator's assumptions. These are:
- the Utility Regulator's assumptions in respect of labour RPEs in 2010/11, 2011/12 and 2012/13;
 - the Utility Regulator's choice of material weights for capex; and
 - the proportion of NIE's workforce that the Utility Regulator regards as general, rather than specialist.
- 1.5 NIE also considers that a new EU directive that sets new standards for transformer performance will give rise to an additional price-related cost increase, for which an additional allowance of £5 million is necessary.
- 1.6 For the purposes of this Statement, NIE has updated its assessment of its RPE funding requirement to take account of these matters and to make use of updated information where available. NIE's updated assessment is that it requires an RPE allowance over RP5 of £47.9 million, comprising £37.5 million in capex and £10.4 million in opex.
- 1.7 A summary of NIE's response to the draft determination on RPEs, the Utility Regulator's Final Determination and NIE's updated assessment is set out in Table 8.1 below.

Table 8.1: RPEs - NIE's response to the Draft Determination, the Final Determination and NIE's updated assessment

	NIE response to the Draft Determination	Final Determination	NIE updated assessment
	£m	£m	£m
Capex	58.1	0.6	37.5
of which:			
- labour	10.2	(5.9)	15.3
- materials	42.8	6.5	16.7
- new EU directive	-	-	5.0
- contractors	5.1	-	-
Opex	8.7	(3.3)	10.4
of which:			
- labour	4.5	(4.0)	9.5
- materials	4.0	0.8	0.9
- contractors	0.2	-	-
Total	66.8	(2.7)	47.9

1.8 The remainder of this Chapter is structured as follows:

- Section 2 provides a high level outline of the Utility Regulator's method, and NIE's areas of disagreement with its application, emphasising the impact of each individual area of difference on NIE's RPE request.
- Sections 3, 4 and 5 assess the differences in the position adopted by NIE in respect of each of NIE's three key areas of disagreement with the Utility Regulator.
- Section 6 summarises the remaining differences in assumptions between NIE and the Utility Regulator.
- Section 7 provides NIE's conclusions on RPEs.

2. GENERAL METHODOLOGY

2.1 NIE has reviewed the Utility Regulator's method of estimating RPEs in detail. In order to place the substantive elements of NIE's critique of the Utility Regulator's method in an appropriate context, this section summarises the key stages in the Utility Regulator's method, emphasising NIE's three key areas of disagreement with the Utility Regulator as to the application of the Utility Regulator's method.

2.2 In its Final Determination, the Utility Regulator sought to assess the additional revenue allowance required to deal with RPEs by taking the following Steps:

- Step 1 – measuring RPI: ascertaining an index for RPI from a published source.
- Step 2 – measuring inflation for individual inputs: ascertaining a measure of inflation for various inputs to NIE's business (which we broadly classify as either labour or materials):
 - A. for the historic period from 2010/11 to 2011/12¹; and
 - B. for the forecast period from 2012/13 to 2016/17.
- Step 3 – calculating RPEs for individual inputs: comparing these measures of inflation for NIE's inputs (from Step 2) with the RPI values (from Step 1) to determine to what extent particular input costs are subject to RPEs.
- Step 4 – determining individual input weights: determining the relative weight of each input to NIE's business to reflect its relative contribution to NIE's overall costs (looking at opex and capex separately), including:
 - A. the relative weight of labour and material inputs; and
 - B. the relative weights of the components of labour and materials, which are:
 - (i) for labour, the weight of general labour, relative to specialist labour;
 - (ii) for materials, the relative weights of 'general/civils', 'electrical' and 'plant and equipment' materials.
- Step 5 – calculating a single weighted average RPE for NIE: weighting the RPEs for individual costs (from Step 3) with the input weights (from Step 4), so as to determine a single "blended" RPE rate for NIE's overall opex budget and NIE's overall capex budget; and
- Step 6 – applying this weighted average RPE to NIE's cost base: applying the blended rate (from Step 5) to NIE's overall business costs, based on the appropriate volumes for NIE's opex and capex budgets, to arrive at a lump sum value for RPEs during RP5.

¹ Except in respect of labour RPEs, where outturn data is also available for 2012/13, requiring a forecast period from 2013/14 to 2016/17.

- 2.3 Substantially the same methodology was also used by Ofgem in setting DPCR5 for the GB DNOs.
- 2.4 While NIE considers the Utility Regulator's method to be reasonable, there are three key areas where NIE disagrees with the assumptions that the Utility Regulator has made in order to apply this method. These have a material impact on NIE's RPE request. These are:
- The Utility Regulator's assumptions in respect of labour RPEs in 2010/11, 2011/12, and 2012/13. This is in relation to Step 2A in the method described above, and is addressed in Section 3 below. The impact of this area of disagreement on NIE's RPE request is £39.1 million.
 - The Utility Regulator's choice of material weights for capex. This is in relation to Step 4A and Step 4B(ii) in the method described above, and is addressed in Section 4 below. The impact of this area of disagreement on NIE's RPE request is £7.1 million.
 - The proportion of NIE's workforce that the Utility Regulator regards as general, rather than specialist. This is in relation to Step 4B(i) in the method described above, and is discussed in detail in Section 5 below. The impact of this area of disagreement on NIE's RPE request is £5.1 million.
- 2.5 In addition to these three key areas of disagreement emphasised above, the following changes also affect NIE's updated RPEs request:
- Both NIE and the Utility Regulator initially used the March 2012 Office for Budget Responsibility (**OBR**) projections² to ascertain the RPI and general labour index, but NIE has now updated its forecasts to take account of subsequent OBR projections³. This affects Step 1 and Step 2 in the Utility Regulator's calculations, and has an impact of £-9.6 million on NIE's RPE request relative to the allowance for RPEs contained in the Final Determination.
 - NIE does not accept the Utility Regulator's assumptions on the overall scale of NIE's opex and capex expenditure feeding into Step 6. Updating Step 6 with NIE's view of the appropriate overall scale of NIE's opex and capex has an impact of £0.3 million on NIE's RPE

² Economics and Fiscal Outlook, OBR, March 2012:

<http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-march-2012/>

³ The OBR releases economic forecasts twice a year. The forecasts in this Chapter 8 have been updated to reflect the Economics and Fiscal Outlook for December 2012:

<http://budgetresponsibility.independent.gov.uk/economic-and-fiscal-outlook-december-2012/> .

OBR has since published a further Economics and Fiscal Outlook for March 2013.

request relative to the allowance for RPEs contained in the Final Determination.

- NIE considers that a new EU directive that sets new standards for transformer performance will also give rise to an additional price-related cost increase, for which an additional allowance of £5 million is necessary. NIE proposes this as an additional step to the Utility Regulator's calculation, which has an impact of £5 million on NIE's RPE request relative to the allowance for RPEs contained in the Final Determination.

2.6 The differences between the Utility Regulator's Final Determination and NIE's updated assessment are summarised in Table 8.2 below.

Table 8.2: RPEs – Differences between the Final Determination and NIE's updated assessment

	Labour	Materials	Total
	£m	£m	£m
Final Determination	-9.9	7.3	-2.7
Incremental effect of three key areas of disagreement			
- Labour RPE's 10/11, 11/12 and 12/13	38.7	0.0	39.1
- Material weights	1.2	5.9	7.1
- Specialist/general labour split	5.0	0.0	5.1
Incremental effect of other areas of change			
- Updated OBR and inflation forecasts	-9.2	-0.4	-9.6
- Volume	-2.5	2.8	0.3
- Change in law	0.0	5.1	5.0
Sub total	23.1	20.6	44.3
<i>Interaction effect</i>	1.7	2.0	3.6
NIE's updated assessment	24.8	22.6	47.9

2.7 Table 8.2 shows the incremental impact on NIE's RPEs request of each area of NIE's disagreements with the Utility Regulator individually, relative to the Utility Regulator's Final Determination allowance. For example, the impact of

adopting NIE's view of material weights, rather than the Utility Regulator's view, while accepting the Utility Regulator's assumptions for the remainder of the analysis would increase NIE's total RPEs allowance by £7.1 million, which comprises of £1.2 million for labour RPEs and £5.9 million for materials RPEs.

- 2.8 However, there are interactions between these areas of disagreement. For example, the impact of adopting NIE's assumptions on the volume of opex and capex is only £0.3 million in table 8.1 above. This number is significantly higher if it is combined with the impact of adopting NIE's view of labour RPEs for 2010/11, 2011/12 and 2012/13. Table 8.2 therefore also shows the aggregate monetary impact of these interactions as a separate item. There are also interactions between the labour and materials components of RPEs such that in certain instances the total effect of each area of disagreement is not equal to the sum of the labour and materials impacts.

Summary of NIE's updated position on RPEs

- 2.9 NIE's updated view on price series and input weights is summarised in Table 8.3 below. Areas where NIE disagrees with the Utility Regulator are highlighted. Where elements of the table are not highlighted it should be understood that NIE is willing to accept the Utility Regulator's value.
- The RPEs in Table 8.3 are the result of the calculation in Step 3 of the Utility Regulator's method. They reflect NIE's updated view in respect of input prices (which step effect Step 2A in the method) together with its updated view on RPI in Step 1.
 - The opex and capex weights in Table 8.3 are the results of completing Step 4 of the Utility Regulator's method. They reflect NIE's updated view in respect of input weights, in particular with respect to capex materials and the split of labour between specialist and general.
- 2.10 Using a weighted average of these price series, the year-on-year RPE for capex and opex is calculated for each year, as described in Step 5 of the Utility Regulator's method. Finally, the blended opex and capex RPE is applied to NIE's opex and capex cost base to arrive at a lump sum value for RPEs during RP5, as described in Step 6.

Table 8.3: NIE's updated RPEs

%	Capex weight	Opex weight	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Labour – general	19.7	23.3	0.55	1.24	1.82	(0.6)	0.2	0.7	0.5
Labour – specialist	33.1	54.0	0.55	1.24	1.82	0.6	1.4	1.9	1.7
Materials – general	11.6	7.7	1.5	2.5	(1.1)	0.7	1.7	1.3	1.0
Materials – specialist	18.6	0.0	6.7	5.9	(1.1)	1.1	2.1	1.8	1.5
Plant and equipment	5.9	0.0	(3.2)	(3.1)	(1.1)	0.2	1.2	0.8	0.5
Other	11.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capex RPEs			1.5%	1.9%	0.6%	0.4%	1.2%	1.3%	1.1%
Opex RPEs			0.5%	1.1%	1.3%	0.3%	1.0%	1.3%	1.1%

2.11 We examine NIE's key areas of disagreement in Sections 3 to 5 below, with the remaining differences summarised in Section 6.

3. LABOUR RPEs IN 2010/11, 2011/12 AND 2012/13

3.1 NIE disagrees with the Utility Regulator's assumptions in respect of labour RPEs in 2010/11, 2011/12 and 2012/13. This is in relation to Step 2A of the Utility Regulator's method as described in paragraph 2.2 above. The impact of this area of disagreement on NIE's RPE request is £39.1 million. Table 8.4 below compares the Utility Regulator's choice of labour RPEs in 2010/11, 2011/12 and 2012/13 with NIE's view.

Table 8.4: Labour RPEs in 2010/11, 2011/12 and 2012/13

RPE indices affecting Step 2A of the Utility Regulator's method	2010/11	2011/12	2012/13
	%	%	%
Utility Regulator's view			
Labour – general	(3.4)	(2.8)	(0.5)
Labour – specialist	(1.6)	(3.4)	0.8
NIE's view			
Labour – general	0.55%	1.24%	1.82%
Labour – specialist	0.55%	1.24%	1.82%

3.2 In respect of labour RPEs for 2010/11, 2011/12 and 2012/13, the Utility Regulator's analysis reveals that in the wider economy there were reductions in real wages. This is not in dispute. However, it is not appropriate to make use of this data when calculating RPEs for NIE since:

- it is irrelevant to NIE, since NIE did not benefit from the reductions in real labour costs observed in the wider economy over this period;
- NIE's experience and practice is entirely consistent with wider experience in the energy and utilities sector, in particular the electricity networks and renewables sector; and
- NIE's labour costs remain at or below relevant salary efficiency benchmarks for the NI marketplace and the UK DNO sector and advanced manufacturing sector for comparative roles.

3.3 It therefore follows that to apply the negative RPEs that have prevailed in the wider economy over this period would have the effect of applying a further and unwarranted efficiency discount to NIE's labour costs. We expand below on each of these points.

Changes in NIE's labour costs in 2010/11, 2011/12 and 2012/13

3.4 NIE did not benefit from the real wage reductions which the Utility Regulator identifies as having occurred in the general economy. NIE's pay settlements over the relevant period are summarised in Table 8.5 below. The resulting outturn RPEs from these settlements are summarised in Table 8.6 below. The table demonstrates that NIE has experienced real increases in its labour costs over the relevant period. Since the RPEs set out in Table 8.6 have been calculated on average for NIE's entire labour force, NIE considers that they should apply to both specialist and general labour for 2010/11, 2011/12 and 2012/13.

Table 8.5: NIE's pay settlements

Settlement	2010/11	2011/12	2012/13	Settlement weights
Prospect (Union)	[X]	[X]	[X]	27.0%
Unite (Union)	[X]	[X]	[X]	41.0%
Personal contract (PC)	[X]	[X]	[X]	32.0%
Weighted average	[X]	[X]	[X]	100.0%

Note: Prospect and PC pay settlements are re-set every April and the values in the table for each relevant financial year simply reflect the relevant pay settlement. The Unite settlement is re-set in November in each year and consequently the effective pay settlement for each financial year is derived as the average of two settlements each effective from November.

Table 8.6: Outturn labour RPEs

	NIE settlement	Other increases (as a result of within grade progression)	Total nominal pay increase	Ex post RPI	RPE
2010/11	[X]	[X]	[X]	5.0%	0.5%
2011/12	[X]	[X]	[X]	4.8%	1.2%
2012/13	[X]	[X]	[X]	3.1%	1.8%

- 3.5 While the RPEs NIE has experienced are markedly different from those proposed by the Utility Regulator, NIE considers the level of each of its pay settlements to have been appropriate, necessary and efficient.
- 3.6 NIE has over many years exercised tight control over its labour costs. NIE's pay strategy is based on external benchmarking⁴ against market rates combined with annual pay awards that have been linked with RPI. Any above-RPI pay awards have been based on efficiency/productivity improvements which have helped the company up-skill its workforce and reduce employee numbers from 3,000 at privatisation to approximately 1,300 today (comparing the T&D business on a like-for-like basis).
- 3.7 These pay increases should also be considered in the light of the highly efficient terms and conditions that they have facilitated, which NIE considers to be market leading. For example, 24% of NIE's staff at all levels in the business are on personal contracts that do not involve overtime and require flexibility regarding hours worked and a further 18% are on 42.5 hour weeks. In addition, over 50% of NIE's employees are on modern contracting-based terms and conditions which involve reduced holiday entitlement, flexible working, home direct to site working etc. Additional hours schemes (added hours paid at single time) and scheduled rates schemes are in place to manage peaks in workload at minimum cost. NIE also closed its final salary pension scheme to new entrants in 1998, and was one of the first UK DNOs to do so. Over 50% of NIE's employees are in a defined contribution scheme, which results in substantially lower costs than are associated with the final salary scheme. The majority of DNOs still have most of their workforce on traditional DNO terms & conditions (which include 37 hour working weeks, paid overtime for all hours above this and final salary pension schemes) and less than 5% of staff on personal contracts.

⁴ NIE relies on the evidence available in sources such as Croner, Income Data Services (IDS) and XPerHR, in addition to gathering its own intelligence on pay settlements and from advertisements placed by its competitors in the labour market.

- 3.8 In negotiating its pay settlements, NIE is mindful of wider developments in the renewables sector and the electricity networks industry. The very significant increases in expenditure on electrical networks allowed by Ofgem at its most recent transmission and distribution reviews, together with the rapid growth in the renewables and offshore sector (as part of a policy of decarbonisation), have created strong demand for skilled and experienced electrical engineers. NIE is not immune to this. Over the past three years, despite NIE agreeing the generally above-RPI pay settlements outlined above, the number of people leaving to take up employment with across the UK and beyond has trebled. NIE has also experienced increased discontentment in its workforce regarding recognition and reward. In its most recent employee survey only 37% of employees were satisfied with recognition & reward in the company (10% lower than the benchmark for similar companies).
- 3.9 NIE considers that, in recent times, increases in its labour cost have been necessary to ensure that key individuals are retained and that, as addressed below, despite these real-terms increases, the remuneration NIE offers its staff remains efficient.

Change in labour costs in the electricity network sector

- 3.10 NIE's recent experience and practice in respect of labour costs is consistent with wider experience in the UK electricity network industry.
- 3.11 The strong demand for NIE's skilled and experienced staff has arisen out of the major reengineering of the electricity sector that has been prompted by the pan-European policy imperative to decarbonise the economy. NIE's direct competitors in the labour market (the GB DNOs and National Grid) have been subjected to the same pressures and have responded accordingly in negotiating their pay settlements.
- 3.12 NIE gathers evidence of pay settlements in the utility sector [X].

Table 8.7: Comparison of NIE's nominal annual average labour cost increases with GB peers

	Compound annual average over the last				
	6 years	5 years	4 years	3 years	2 years
NIE weighted average	[X]	[X]	[X]	[X]	[X]
GB average	[X]	[X]	[X]	[X]	[X]
Difference (NIE versus GB)	[X]	[X]	[X]	[X]	[X]

- 3.13 The data on underlying individual GB pay settlements summarised in Table 8.7 is often available without an effective start date (i.e. it is known only that the pay settlement was effective from some point in the given calendar year, but not the exact date). It is therefore generally not possible to calculate the effective average pay award agreed on a financial year basis. For that reason, NIE has not been able to derive pay awards for its peers on precisely the same basis as presented in Table 8.6. The analysis in Table 8.7 has been undertaken by simply allocating each pay settlement to the given calendar year and then deriving compound annual averages from the resulting underlying calendar year data. For consistency, the same approach has been adopted with NIE's pay settlements.
- 3.14 NIE has also not included within the analysis presented in Table 8.7 the effect of additional individual awards offered to staff that are not subject to the collective agreement. While all of NIE's peers will adopt a similar approach, and will therefore offer similar further increases to its staff, data on the extent of this is unavailable in the public domain. NIE considers that the most consistent basis for comparison is therefore to examine only the headline level of collective pay agreements.
- 3.15 While the resulting NIE pay increases differ slightly from those reported in Tables 8.5 and 8.6 above (since they are now mapped to calendar years and exclude additional individual awards), they are derived from the same underlying data and are consequently consistent. NIE considers the analysis contained in the Table 8.7 to be reasonable and that it will provide a reliable basis on which to compare NIE's pay settlements with others.
- 3.16 The analysis reveals that NIE's pay settlements for the most recent two or three years appear slightly high relative to GB practice. However, these recent pay settlements need to be understood in the context of a longer timeframe and in particular in the light of the pay freeze NIE implemented for its entire staff in 2009. NIE's annual average settlements over a slightly longer period, for example, over the most recent four, five or six years, very closely match those offered by its direct competitors in the labour market, as measured by the average award across the six GB DNOs and National Grid. The effect of NIE's pay strategy over that longer period has therefore been very similar to UK electricity network benchmarks.

3.17 NIE also wishes to draw attention to two other features that emerge from the data.

- As can be seen from the table in Annex 8A.1 (Pay settlements data), NIE was the only UK electricity network operator to impose a pay freeze for all employees in 2009. The slightly above average pay rises in subsequent years should be understood to contain an element of catching up with salary levels on offer elsewhere.
- Over the last four to five years, NIE's pay settlements have matched closely those offered by SSE, and are significantly below those offered by WPD, the two companies that were amongst the strongest performers in Ofgem's benchmarking of DNOs at DPCR5.

3.18 NIE submits that the evidence it has presented on the pay settlements struck by its peers in GB supports its position with respect to:

- the appropriateness of its recent pay settlements; and consequently
- the labour RPEs that should be assumed for 2010/11, 2011/12 and 2012/13.

There is therefore no justification for the application of large negative RPEs in respect of labour for those years.

NIE's labour costs remain efficient

3.19 Despite the real increases in NIE's labour costs outlined above, as would be expected given the broadly similar pay settlements agreed by NIE and its peers, NIE's salaries remain competitive and within the appropriate benchmarks for comparative roles across the sector.

3.20 As shown in Table 8.8 below, benchmarking of the salaries of skilled craftsmen through the Croner Reward Market Rate Report, IDS surveys, and the XpertHR Salary Survey of Engineers and Technicians shows that NIE employees (both NIE and NIE Powerteam) are typically paid below market rates.

Table 8.8: Croner Reward Market Rate Report, IDS 'Pay and Conditions in Engineering Survey 2012' and XpertHR Salary Survey findings⁵

Role	NIE average	Croner average	Difference from Croner average	IDS average	Difference from IDS average	XpertHR average	Difference from XpertHR average
Jointer	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Linesman	[X]	[X]	[X]	[X]	[X]	[X]	[X]
PME	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Tree-cutter	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Senior management	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Management	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Senior engineers	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Engineers	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Technicians	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Senior professional admin	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Senior administrative staff	[X]	[X]	[X]	[X]	[X]	[X]	[X]
Professional administrative staff	[X]	[X]	[X]	[X]	[X]	[X]	[X]

3.21 These conclusions are also supported by NIE's benchmarking results, which indicate that the outcome of NIE's approach to managing its business – of which agreeing wages and salaries is part – has led to an efficient cost base and value for money for customers: see Chapter 7 (NIE's Efficiency).

3.22 To apply the negative RPEs that have prevailed in the wider economy over this period to NIE would have the effect of applying a further and unwarranted efficiency discount to NIE's labour costs. NIE's recent salary awards when considered over a reasonable period of time are entirely consistent with other DNOs and National Grid. NIE's wage increases as outlined above have been necessary to ensure that NIE remains competitive and retains its specialist workforce at a time of strong demand from competitors for its skilled labour. There is no basis to disallow these awards on efficiency grounds.

⁵ Source: Croner's Benchmarking Survey, IDS Data January 2012; XpertHR January 2012.

- 3.23 There is no dispute between NIE and the Utility Regulator in respect of labour RPEs for subsequent years. However, for the avoidance of doubt, NIE considers that future positive RPEs are certain to emerge for the reasons set out below and that these will need to be fully funded.
- 3.24 NIE's skilled labour force is in danger of being headhunted by competitors. NIE's wage increases as outlined above have been necessary to ensure that NIE remains competitive and retains its specialist workforce at a time of strong demand from competitors for its skilled labour. Despite these wage increases NIE still experienced more leavers during 2012 than in previous years.
- 3.25 Owing to current and future labour market conditions NIE does not expect to be able to sustain RPI-only pay increases since there will be increasing demand from GB for staff with specialist skills. The GB TSOs and DNOs are launching substantial investment plans for the coming years, and are already recruiting aggressively. This, together with a tightening in the supply of labour and the high mobility that characterises this market, is already generating substantial upward pressures on labour costs across the electricity network industry.
- 3.26 NIE has provided the Utility Regulator with a wealth of evidence to demonstrate that salary levels for specialist labour within NIE are efficient when compared to the appropriate market as highlighted in the numerous job adverts outlining relevant job roles and salary levels⁶. This includes evidence to show that salaries for its staff are below the average levels for NI, as contained in the Annual Survey of Hours and Earnings (ASHE)⁷ database. NIE and its customers have benefited from these low salaries in the recent past but, in particular in the light of the competition for skilled staff from elsewhere, significant increases in this relatively low base level of remuneration should be anticipated.
- 3.27 Consequently, NIE will need to increase its wage rates over the course of RP5 to ensure that it continues to be able to retain its skilled staff under stronger competitive pressures. Netting off past wage reductions that did not have any impact on NIE's cost base is unreasonable when considered in the appropriate context and will only deprive NIE of the resource it needs to recruit and retain the best staff. NIE therefore considers that it is appropriate to set labour RPE increases for 2010/11, 2011/12, and 2012/13 to reflect its

⁶ See NIE's confidential paper "NIE Labour Costs: Real Price Effects in RP5" dated 19 July 2012, updated May 2013 to include recent relevant evidence/adverts regarding relevant roles and salaries submitted as part of NIE's response to the Utility Regulator's draft determination.

⁷ ASHE is conducted by the Office for National Statistics in GB, with an equivalent survey conducted by DETI in NI.

actual experience over that period (i.e. positive RPEs of 0.55%, 1.24% and 1.82%).

4. CAPEX MATERIAL WEIGHTS

- 4.1 NIE disagrees with the Utility Regulator's choice of material weights for capex. This relates to Step 4A and Step 4B(ii) of the Utility Regulator's method of assessing RPEs as described in paragraph 2.2 above.
- 4.2 The impact of this area of disagreement on NIE's RPE request is £7.1 million. Table 8.9 below compares the Utility Regulator's choice of material weights for capex with NIE's view.

Table 8.9: Material weights for capex

%	Utility Regulator's view	NIE's view
General materials	10%	11.6%
Materials electrical	9.7%	18.6%
Plant and equipment	6.3%	5.9%
Total	26.0%	36.2%

- 4.3 In preparing its estimates of input weights, the Utility Regulator has indicated that it has chosen to make use of the estimates made by Ofgem at DPCR5. The Utility Regulator assumes a weight of 26% for capex materials, with 'plant and equipment' included within 'materials'.
- 4.4 NIE rejects the Utility Regulator's choice of material weights for capex in its RPE calculations.
- 4.5 The Utility Regulator has based its view of the relevant materials weights solely by reference to the values applied to the GB DNOs by Ofgem at DPCR5. NIE considers this approach unreasonable since:
- NIE's materials weight will be higher than the GB DNOs since its mix of work is different owing to the fact that NIE is also the transmission owner;
 - as explained in detail for the purposes of Chapter 7 (NIE's Efficiency)⁸, NI regulatory accounting rules are different from those that apply in GB and the Utility Regulator has made no attempt to verify directly whether splits derived from GB cost estimates are applicable to NIE's costs without adjustment; and

⁸ See in particular Annex 7A.1 (NIE's Efficiency – Cost Mapping).

- in any event, the Utility Regulator has erred in deriving its estimated input weights since it has made use of a simple arithmetic average of Ofgem's weights for different categories of cost, when a weighted average, reflecting the size of each category, would be more appropriate.
- 4.6 As a consequence of the foregoing, the Utility Regulator's proposed weights do not reflect NIE's own analysis of materials.
- 4.7 NIE considers its estimate of the material content of its capex proposals to be a verifiable fact. NIE's view is that the overall capex material weight should be 36.2%, rather than the Utility Regulator's 26.0%. The justification for the breakdown of NIE's proposed capex materials weights is set out below. This relates to Step 4B(ii) of the Utility Regulator's method of assessing RPEs.
- 4.8 NIE has analysed data on its historic capex spend in the last three years in order to form a view on the relevant materials weights, working within the breakdown proposed by the Utility Regulator and First Economics. NIE considers that the following weights should be adopted, based on its analysis.
- Materials – electrical: NIE has reviewed its recent activity against the coverage of the relevant BEAMA's price series, which includes transformers, switchgear, conductors, cable, meters, outdoor cabinets and remote control distribution equipment. NIE's expenditure in these areas as a proportion of capex over the last 3 years was 18.6%.
 - Materials – general/civil: NIE has estimated the materials – general/civils content of its own work and has additionally worked with its subcontractors to estimate the civils content of their work⁹. In total NIE estimates that 11.6% of its capex expenditure falls in this category.
 - Plant and equipment: NIE has reviewed its outturn expenditure on fleet, PPE, tools and equipment, plant hire for both NIE Powerteam and NIE's subcontractors and has estimated a weighting of 5.9% for NIE. While this is not materially different from the Utility Regulator's own estimate, NIE proposes to make use of its own more accurate estimate.
- 4.9 NIE has also determined its capex labour weights by analysing data on its historic capex spend in the last three years. In total, NIE estimates that 52.8% of its capex is labour. For opex, NIE accepts the Utility Regulator's

⁹ As a consequence of this work, it is no longer necessary to include a separate line for contractors within the RPEs calculation. NIE's estimate of RPEs is therefore on a fully consolidated basis, reflecting the combined use of labour and materials of different types by itself and its contractors.

assessment of aggregate spend allocated to labour. Section 5 below provides NIE's assessment of the proportion of workforce it regards as general, rather than specialist.

- 4.10 NIE submits that the estimated input weights set out above should be used in order to derive a more accurate estimate of the necessary level of RPE funding.
- 4.11 NIE submits that the remainder of its capex cost base (that is not classified as materials or labour) should be categorised as 'other', and assumed to move in line with RPI, which is Ofgem's approach.

5. CHOICE OF LABOUR WEIGHTS

- 5.1 NIE disagrees with the proportion of its workforce that the Utility Regulator regards as general, rather than specialist. This relates to Step 4B(i) of the Utility Regulator's method of assessing RPEs. The impact of this area of disagreement on NIE's RPE request is £5.1 million.
- 5.2 Table 8.10 below compares the Utility Regulator's choice of relative labour weights with NIE's view.

Table 8.10: Relative weights for general and specialist labour

%	Utility Regulator's view		NIE's view	
	Capex	Opex	Capex	Opex
General labour	57%	67%	37%	30%
Specialist labour	44%	33%	63%	70%
Total	100%	100%	100%	100%

- 5.3 The Utility Regulator's labour weights have been informed by Ofgem's decisions made in the DPCR5 Final Proposals. NIE rejects the Utility Regulator's choice of labour weights. NIE's weights have been derived following a detailed review of its own employees coupled with an assessment of the labour contained in its agreements with subcontractors.
- 5.4 NIE considers that the Utility Regulator has significantly under-estimated the proportion of its workforce that should be regarded as specialist, rather than general. NIE considers that there are three reasons for this, which are that the Utility Regulator:
- has taken no account of the operating model that NIE has found it necessary to adopt in order to address efficiently the challenges of serving a sparsely populated region;
 - has not properly evaluated the up-skilling model adopted by NIE to achieve the reduction in labour from 3,000 to 1,300 through not

replacing leavers over many years and up-skilling the employees that remain especially in the administration and craft roles; and

- has not assessed whether it is reasonable to consider that a recruit from the general labour market would be an adequate substitute for an existing member of NIE's skilled workforce should they leave.
- 5.5 Owing to the sparsity of the region served by NIE, its staff are spread geographically across the region. Therefore, more of NIE's employees need to have the requisite level of skills to enable them to be responsible for their own-decision making without direct supervision, both in terms of management of network operations and in their day-to-day interaction with customers. Similarly, they also need to be sufficiently skilled and flexible to be able to address a wide range of operational and technical challenges in remote locations.
- 5.6 As a consequence, NIE submits that there is a clear rationale for it to have a higher proportion of skilled staff than ostensibly similar companies operating in GB.
- 5.7 As NIE's efficiency analysis demonstrates, NIE's choice of operational model has proven to be highly efficient in managing its costs relative to its peers in GB, most of which do not face similar geographic challenges. The high proportion of skilled labour has allowed NIE to reduce the size of its workforce over time to an efficient level. Total employee numbers have fallen from about 3,000 at the time of privatisation to about 1,300 today. The high quality of NIE's staff is also reflected in the very low number of safety-related incidents and complaints to the Consumer Council that have been recorded year after year.
- 5.8 In addition to the considerations set out above, in reaching a judgement on how to classify its workforce between specialist and general NIE has considered the ease with which individuals could be replaced from the general labour market were they to leave. NIE considers that the great majority of its workforce could not be readily replaced, given the skillset that they are required to have.
- 5.9 The majority of the existing NIE industrial staff are skilled craftspersons. This group includes linesmen, jointers, plant maintenance electricians, surveyors, technicians, as well as multi-skilled individuals. All of these individuals will have received at least three years of specifically targeted training in order to allow them to perform the required role. This is the entry requirement skill level for NIE.
- 5.10 Should NIE seek to replace leavers from this group with a recruit from the general labour market it would therefore need to incur substantial cost to ensure this individual has the necessary skills and there would be a period of

several years before the individual was sufficiently skilled to operate at the level required. A recruit from the general labour pool can in no way be considered an adequate substitute for these highly skilled individuals.

- 5.11 NIE's experience of partially trained recruits, in particular apprentices who have trained to be electrical craftspersons outside NIE, is that they are typically unable to operate across the range of high voltage activities and at the level that is expected of NIE's existing workforce. NIE needs to invest significantly in training programmes to bring the skills of new recruits to an acceptable level.
- 5.12 Moreover, there has been a marked drop in the number of graduates applying to NIE. This is because in recent years there has been a significant fall in the number of students studying for electrical engineering degrees at universities across the UK. Again, this limits NIE's ability to replace staff and increases the cost and lead time of doing so.
- 5.13 Should NIE seek to replace a leaver with a suitably well trained and experienced replacement, it is typically unable to do so. Unlike the GB DNOs, NIE has no locally based pool of skilled specialist labour to draw from other than general electrical apprentices. NIE's experience is that it is typically unable to recruit staff presently based in GB.
- 5.14 These supply side constraints are compounded by a strong and increasing demand for specialist skills. NIE already faces significant challenges to recruit skilled craftspersons. Given the programme of investment in the electricity industry in GB over the coming years, NIE expects that it will continue to face significant challenges.
- 5.15 Consequently, NIE considers that its specialist labour includes managerial, professional engineering and technical staff, as well as a majority of its craftspersons and specialist administrative staff, since individuals in each of these professions will each receive years of bespoke training and cannot be replaced from the general labour market without significant cost.
- 5.16 Furthermore, these demand and supply constraints generate an upward pressure on specialist staff salaries. In its response to the RP5 draft determination, NIE has provided ample evidence of the high mobility that characterises this market and the associated salaries which NIE needs to offer in order to retain and attract the required skills. While NIE's response to the draft determination has demonstrated that its specialist staff salaries are efficient, it is essential that it continues to be able to offer competitive salaries to attract the skills it requires. To do so, it needs to have an RPE allowance based on the appropriate labour weight (as between general and specialist labour).

6. OTHER AREAS OF DISAGREEMENT

Size of plan for which RPEs should estimated

- 6.1 Once the Utility Regulator has arrived at a weighted average RPE for NIE's opex and capex, Step 6 of its methodology requires it to apply these RPEs to NIE's opex and capex budgets to arrive at a lump sum value for RPEs during RP5.
- 6.2 Although NIE agrees with this methodology, NIE has requested a significantly higher quantum of capex and opex than the amounts allowed by the Utility Regulator. The quantum of capex and opex requested by NIE is addressed in Chapter 5 (RP5 Capex – Quantum) and Chapter 6 (RP5 Opex) respectively.
- 6.3 NIE considers that RPE calculations should therefore be based on capex of £545.9 million¹⁰ and opex of £225.5 million¹¹, rather than on the Utility Regulator's Final Determination for capex (£395.5 million) and opex (£185.4 million).
- 6.4 Taken in isolation this change would increase the required funding for RPEs by £0.3 million.

Change in law

- 6.5 Since submitting its original estimate of RPEs, NIE has become aware of a further issue arising from the new EU Transformer ECO-Directive 2009/125/EC. This directive requires transformers up to 36kV to be designed and constructed to meet new maximum load and no-load loss requirements. This will require manufacturers to use more expensive materials and utilise different construction methods and consequently, NIE will incur increased transformer procurement costs¹². The directive is expected to have an impact on transformer prices from July 2014 onwards. In addition, the requirements set out in the directive will increase the size and weight of all transformers, which will also impact on transport, civil and installation costs. These costs have not been assessed as they are currently of an unknown quantity.

¹⁰ The £545.9 million of capex to which RPEs have been applied is the total capex of £698.4 million as shown in Annex 5A.2 (Capex – Reconciling NIE's BPQ submission with the Forecast in this Statement) less RPEs (£37.5 million), non-network capex (£15.2 million), NMS (£2.1 million), keypad metering (£10.0 million), 11kV network resilience (£35.0 million), items classified by the Utility Regulator as Fund 3 (£43.4 million) and Smart Grid (£9.4 million).

¹¹ The quantum of opex considered here is consistent with NIE's controllable opex submission as set out in Chapter 6 (RP5 Opex), i.e. £235.9 million less RPE's included therein of £10.4 million = £225.5 million.

¹² NIE acknowledges that this cost increase would not typically be treated as a RPE, although the effect of the change in legislation is to increase the prices to which NIE will be exposed going forward. However, NIE considers these future cost increases to be a matter for which it should be fully funded and therefore wishes to include a treatment of it within this Statement.

- 6.6 NIE has estimated the effect of the directive over the course of RP5, based on:
- the number of transformers included within NIE's asset replacement and load related programmes, including the time profile of when transformers will be added or replaced (as the case may be);
 - additional transformers replaced during fault and emergency response; and
 - an initial estimate of the uplift in the cost of transformers of different types.
- 6.7 Based on this analysis, NIE considers that total additional funding of £5.0 million will be necessary over the period from 2014 to the end of RP5. This estimate includes £0.8 million arising from a working assumption that the scope of the Directive will be extended to include transformers operating at voltages above 36kV.

Updated forecasts from the OBR

- 6.8 Both NIE and the Utility Regulator initially used the March 2012 OBR projections¹³ to ascertain the RPI index. NIE's updated view relies on the same index to project RPI. However, NIE has now updated its forecasts to take account of subsequent OBR projections¹⁴. Nevertheless, there is no substantive dispute as to the appropriate measure of RPI for the relevant period.
- 6.9 Similarly, both NIE and the Utility Regulator made use of the OBR's labour market forecasts. Again, NIE has now updated its forecasts to take account of subsequent OBR projections.
- 6.10 Notwithstanding these changes, there is no substantive dispute as to the appropriate measure of RPI or labour prices for the relevant period.
- 6.11 Updating the estimation of RPEs to account for the December 2012 forecasts of the OBR reduces the level of RPE funding required by £9.6 million.

¹³ Economics and Fiscal Outlook, OBR, March 2012.

¹⁴ The OBR releases economic forecasts twice a year. The forecasts in this Chapter 8 have been updated to reflect the Economics and Fiscal Outlook for December 2012. OBR has since published a further Economics and Fiscal Outlook for March 2013.

7. CONCLUSION

7.1 As explained above, NIE agrees with the Utility Regulator's general framework for calculating RPEs, which it considers to be broadly consistent with wider regulatory practice.

7.2 However, NIE disagrees with the following three important assumptions that the Utility Regulator makes in order to determine the quantum of RPE funding that should be allowed:

- Treatment of 2010/11, 2011/12 and 2012/13: NIE considers that the Utility Regulator has acted unreasonably in determining negative labour RPEs for 2010/11, 2011/12, and 2012/13. Positive RPEs should be used instead, reflecting NIE's experience of positive real increases in labour costs over the relevant period.
- Materials weights for capex: NIE considers that the capex weight on specialist materials should be adjusted to reflect its own detailed analysis of recent expenditure, rather than the inappropriate levels suggested by the Utility Regulator in its Final Determination.
- Labour weights for opex and capex: NIE considers that the input weights for labour for both opex and capex should reflect the underlying split of 70:30 for opex and 63:37 for capex (specialist:general) revealed by analysis of its workforce.

7.3 In addition, the following considerations also have an impact on NIE's updated view.

- Size of the plan: NIE considers that RPE calculations should be based on NIE's latest estimate of capex (£ 545.9 million) and opex (£225.5 million), rather than on the Utility Regulator's final determinations for capex (£395.5 million) and opex (£185.4 million).
- Change in legislation: NIE considers that additional funding of £5.0 million is necessary to cover the cost of the introduction of a new EU ECO directive that will result in the use of higher cost transformers.
- Updated information from OBR: NIE is willing to accept the method used by the Utility Regulator and First Economics for projected RPEs for both labour and materials, subject to updating of the Utility Regulator's figures to reflect the December 2012 OBR forecasts for labour costs and RPI.

7.4 Based on these changes, NIE's updated assessment is that it requires an RPE allowance of £47.9 million, comprising:

- an allowance of £37.5 million for capex RPEs; and

- an allowance of £10.4 million for opex RPEs.

7.5 NIE requests the Competition Commission to determine a price control for RP5 which reflects NIE's position with respect to RPEs.

CHAPTER 9

INCENTIVES AND INNOVATION

SUMMARY

The Utility Regulator has proposed only limited incentive arrangements for RP5.

The Final Determination proposals are deficient and not in the interests of customers because:

- the overall package does not encourage innovation and creates only weak incentives for cost efficiency;
- some incentives are asymmetric (in that the likelihood of under-performance is greater than the opportunity for out-performance);
- the arrangements to incentivise capex efficiency incorporate a rigid investment plan that would unduly constrain many of NIE's network investment decisions. Other aspects of the arrangements involve an ex post review of operational decisions and/or a requirement to agree, ex ante, changes to capex plans;
- they offer no meaningful incentives to improve network performance or revenue protection (illegal abstraction of electricity);
- they defer consideration of potential changes in Guaranteed Standards outside the RP5 price control process which adds material uncertainties to NIE's RP5 cost liabilities; and
- they are inconsistent with recent GB regulatory trends (e.g. Ofgem's DPRC5 and RIIO-T1, as well as the development of RIIO-ED1).

Incentives which NIE considers to be important are missing and do not appear to have been considered by the Utility Regulator, despite having been proposed by NIE early in 2011.

Furthermore, the Utility Regulator has made no provision for funding innovation through the application of smart technology. Without this funding, NIE will be unable to assess emerging technologies and participate in collaborative research – and, as such, will be unable to factor such developments into future planning of its network, to the ultimate detriment of NI customers.

In summary, NIE considers that the Final Determination incentive proposals are poorly designed and calibrated, and too limited to incentivise NIE to improve efficiency and performance.

NIE requests the Competition Commission to adopt NIE's proposals for a package of incentives and innovation funding which would be more effective in stimulating the delivery of efficiency and performance, and would fairly reward NIE for what it achieves. NIE's proposals are consistent with the approach to incentives taken by Ofgem in relation to the GB DNOs and best practice in incentive-based regulation.

1. INTRODUCTION

1.1 The Final Determination proposes the incorporation of certain limited incentive mechanisms within the RP5 price control. It also sets out the Utility Regulator's position with respect to innovation funding.

1.2 This chapter sets out NIE's position with respect to both incentives and innovation funding. It is structured as follows:

- Section 2 contains an overview of:
 - the Final Determination proposals for incentive mechanisms to be incorporated within the RP5 price control; and
 - the Utility Regulator's position with respect to innovation funding.
- Section 3 sets out NIE's comments on the Final Determination proposals for RP5 incentive mechanisms. It further describes the changes that are needed to those proposals to ensure that NIE is effectively incentivised to achieve efficiency and innovation.
- Section 4 sets out NIE's comments on the Final Determination proposals with respect to innovation funding and explains why it is important that NIE receives the innovation funding which it sought as part of its BPQ submission.

2. THE UTILITY REGULATOR'S PROPOSALS

2.1 The Final Determination sets out the Utility Regulator's proposals for incentive mechanisms to be incorporated within the RP5 price control. The Utility Regulator explains that its incentives are designed to ensure that NIE:

"takes the right decisions when considering capital and operating expenditure approaches." (paragraph 9.2)

- 2.2 So far as relates to capex, the Utility Regulator states that incentivising NIE to improve efficiency is a key objective of the RP5 price control (see paragraph 5.35). The mechanism proposed to achieve this objective is the 'three funds' capex structure, described in Chapter 4 (RP5 Capex – Structure) of this Statement.
- 2.3 So far as relates to opex, the Utility Regulator proposes to adopt a specific revenue allowance for opex in RP5. The Final Determination proposals for opex are described in Chapter 6 (RP5 Opex) of this Statement.
- 2.4 So far as relates to distribution losses, the Utility Regulator appears to accept NIE's submissions that it is not presently practicable to introduce a losses incentive (since loss levels have not been measurable or reliably measured to date). The Utility Regulator encourages NIE to develop detailed measurements and baseline information during the RP5 period so that it is in a position to consider additional incentives later in the period or in RP6 (see paragraph 9.3).
- 2.5 So far as relates to revenue protection, the Utility Regulator proposes to maintain a revenue protection incentive, on the same basis as applied for RP4 (see paragraphs 9.19 to 9.21).
- 2.6 So far as relates to network performance, the Utility Regulator proposes to apply an incentive for performance as measured by customer minutes lost (CML¹) and customer interruptions (CI²) resulting from unplanned supply outages, excluding transmission related outages or supply outages occurring during periods of exceptional weather (see paragraph 9.12 to 9.17).
- 2.7 The Utility Regulator proposes a CML/CI incentive scheme based on target CML of 56 unplanned CML and target CI of 61.1 unplanned CI. The incentive would apply for annual performance outside a "deadband" range defined by upper and lower thresholds which are +/- 10% of the CML/CI targets. The CML incentive should operate at a rate of £180,000 for each minute by which CML in any given year is above or below the upper or lower thresholds. The CI incentive would operate at a rate of £30,000 for each interruption above or below the defined thresholds. The Utility Regulator proposes to apply a "cap and collar" to the incentive mechanism to limit the scope for exceptional revenue gains or losses to five times the annual incentive rate³.

¹ Customer Minutes Lost per connected customer.

² Customer Interruptions per 100 connected customers.

³ CML: £900,000 per annum (5 x £180,000); CI: £150,000 (5 x £30,000).

- 2.8 So far as relates to customer service incentives, the Utility Regulator proposes only to increase payment rates for defaults from the existing Guaranteed Standards Scheme (GSS)⁴, and to consider further the development of new or revised GSS during the RP5 period (see paragraph 9.18).
- 2.9 The Utility Regulator also encourages NIE to develop health and load indices for the NIE network with a view to potentially introducing new incentives later in RP5 or in the RP6 price control (see paragraph 9.3). These indices aim to enhance regulatory reporting to provide a better understanding of the anticipated effect of the five-year capex expenditure programme on the health and performance of the network. This is discussed further in Chapter 4 (RP5 Capex – Structure) and Chapter 5 (RP5 Capex – Quantum).
- 2.10 The Final Determination further sets out the Utility Regulator's position on innovation funding, with reference to NIE's submission to fund smart technology within RP5 (see chapter 10 of the Final Determination). It states that these funds were requested as part of NIE's capex submission and have been assessed as part of that submission. It notes that any expenditure that has already been justified has been included in capex Fund 1. Where NIE's plans for smart technology are not currently sufficiently developed, NIE will have the opportunity to develop these further for consideration during RP5 under the capex Fund 3 arrangements.

3. NIE'S CASE – INCENTIVES

- 3.1 NIE considers that the incentive mechanisms proposed by the Utility Regulator are not in the interests of customers. A well-constructed system of incentive-based regulation can provide many benefits⁵ for customers in delivering significant improvements in both efficiency and network performance, as has been demonstrated in GB and many other jurisdictions. But the incentive mechanisms proposed in the Final Determination are unlikely to do so.
- 3.2 Overall, the incentives are heavily skewed towards penalising NIE for underperformance, whilst allowing little prospect of additional recovery for superior performance. Coupled with the unreasonableness of the basic capex and opex allowances (which are likely to prevent NIE from maintaining output standards

⁴ Confirmed by the Utility Regulator to NIE in correspondence subsequent to the Final Determination (dated 24 October 2012).

⁵ For example Ofgem stated in its RPI-X@20 recommendations document that "*The existing 'RPI-X' regulatory framework has served consumers well, delivering lower prices, better quality of service and more than £35bn in network investment since privatisation twenty years ago.*" (see <http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RPI-X@Recommendations.pdf> at page 2, paragraph 7).

observed to date), and the low allowed rate of return, it is clear that the Utility Regulator's proposed price control as a whole will provide very little incentive or opportunity for NIE to introduce innovations or seek out other actions which might enable it to provide a better quality of service to customers and other users of the network.

3.3 In this Section 3, we explain NIE's specific concerns with the Final Determination proposals for incentivising each of:

- opex;
- capex;
- network performance;
- customer service (including Guaranteed Standards);
- connection of renewable generation;
- distribution losses; and
- revenue protection.

3.4 In each case, where appropriate, we further set out the changes that NIE considers are needed to the Final Determination proposals to ensure that NIE is effectively incentivised to achieve efficiency and innovation. Except where otherwise stated, these changes are based on the incentives package proposed by NIE as part of its BPQ submission⁶.

3.5 NIE invites the Competition Commission to consider NIE's proposals for incentives which we believe to be more apt to stimulate NIE to achieve appropriate standards of efficiency and innovation, and fairly to reward NIE for what it achieves. Our proposals are consistent with the approach to incentives taken by Ofgem in respect of GB DNOs.

⁶ NIE's proposals for RP5 Incentives were set out in our BQP Support Paper of February 2011, a copy of which is provided at Appendix 9.1.

Opex incentives

- 3.6 The Final Determination proposes a 'traditional' RPI-X arrangement to incentivise opex efficiency, which NIE supports in principle. But as explained in Chapter 6 (RP5 Opex), the proposed quantum of the allowance is inadequate. In practice, therefore, the Final Determination proposals present an asymmetric opex efficiency incentive for NIE which, if implemented, would mean that, from the outset, the opex incentive would be biased towards underperformance.
- 3.7 NIE requests the Competition Commission to adopt the RP5 opex allowance proposed by NIE in Chapter 6 (RP5 Opex) in order to provide the appropriate basis for a symmetrical opex efficiency incentive.

Capex incentives

- 3.8 So far as relates to the incentives for capex efficiency, NIE has addressed the Utility Regulator's proposals in Chapter 4 (RP5 Capex – Structure). For the reasons outlined in that chapter, the Utility Regulator's proposals are ill-suited to the attainment of its objectives for an appropriate incentive regime. In particular:
- The 'three fund' structure substantially interferes with NIE's management freedom to decide from time to time on the optimal capital investment programme for the T&D network. Moreover, it substantially diminishes NIE's freedom and incentive to introduce innovative solutions, in place of conventional investment in new or replacement assets, and to substitute between different funds in an optimal manner.
 - The fact that NIE will be required, during the course of the RP5 period, to revisit its capex plans to reflect changing network circumstances, does not mean that its initial plans were substandard. There is no benefit in requiring NIE to stick to its initial plans, simply to discipline NIE's management into providing more "accurate" plans. It is a normal and desirable feature of capex planning that the plan should be dynamic, and implementation should be responsive to changing needs and priorities and external constraints.
- 3.9 In contrast to the Utility Regulator's proposals, the capex funding arrangements advocated by NIE would enable the price control to deal appropriately with programmes the costs of which are more predictable, and with large and uncertain projects, while continuing, for the substantial part of NIE's capex, to give effect to normal principles of RPI-X regulation. NIE's proposals in relation to the RP5 capex funding arrangements are set out in Chapter 4 (RP5 Capex – Structure).

Network performance incentives

- 3.10 The Final Determination proposes network performance incentives based on measured CMLs and CIs, excluding for this purpose CMLs and CIs arising from both planned outages and transmission outages (whether planned or unplanned). Supply interruptions associated with “extreme weather events” will also be excluded. The proposed incentive would apply relative to a target level of performance for RP5, with the extent of revenue gains or losses under the incentive to be limited by a “cap and collar” mechanism.
- 3.11 NIE is content in principle with these features of the Final Determination network performance incentive. However, it has real concerns with the following three aspects of the proposed incentive:
- the basis on which the CML/CI performance targets have been set;
 - the inclusion of a deadband immediately above and below the target which limits the operation of the incentive to periods when annual performance is significantly better or worse than target; and
 - the relatively weak incentive rate that is proposed which limits revenue exposure to approximately 0.5% of annual regulated revenue (compared to NIE’s proposal of 1.5%).
- 3.12 Each of these concerns is addressed below.

Target setting

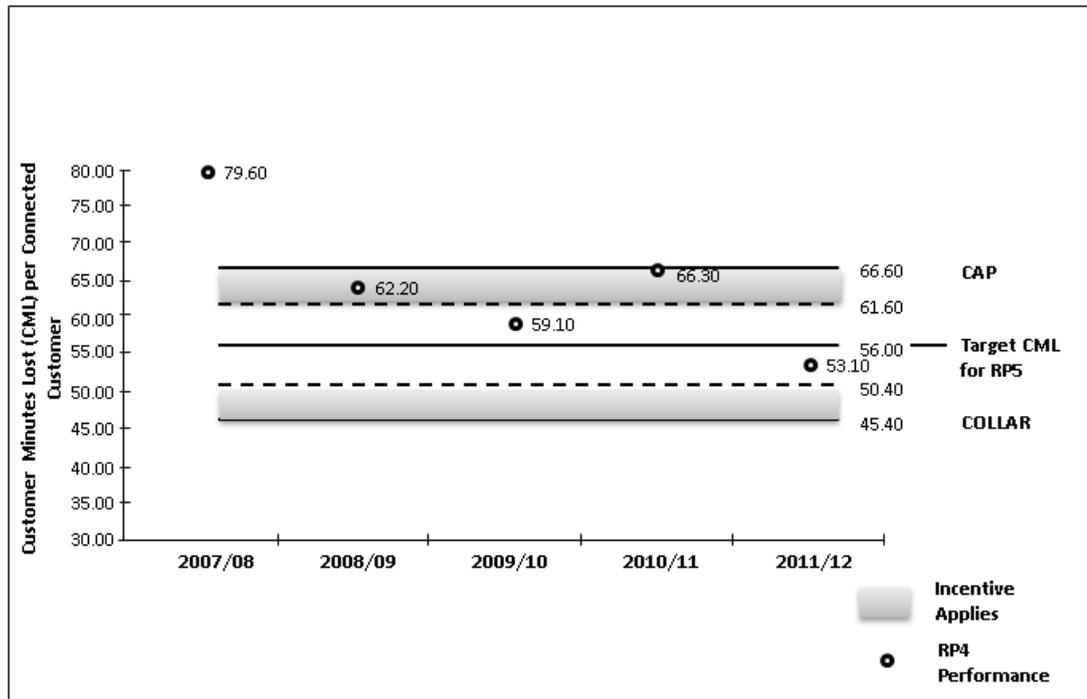
- 3.13 The Final Determination describes the proposed network performance mechanism as a symmetrical incentive (see paragraph 9.12). We would therefore expect the mechanism to have been calibrated on a basis that affords NIE a reasonable prospect of outperforming the target relative to the risk of underperformance. But that is not the case. In practice, the CML and CI performance targets specified in the Final Determination would present NIE with a substantially greater likelihood of losing revenue than of gaining revenue.
- 3.14 The concern is that the proposed CML/CI target values are not representative of current performance levels and establish, in effect, a target for improvements in network performance during RP5 without any corresponding allowance to cover the costs of achieving such improvement. This is because the proposed CML/CI targets are based on the best annual performance achieved by NIE against CML and CI during RP4. This contrasts with the position adopted in the draft determination, in which the Utility Regulator had proposed targets based on average performance during RP4. This latter approach aligned with NIE’s own

proposal and was consistent with the approach adopted by Ofgem in setting targets for the GB DNOs for DPCR5.

- 3.15 Setting targets based on the best annual figure does not adequately take account of underlying fluctuations in annual performance for reasons outside the control of the network operator. Annual network performance statistics will exhibit natural fluctuations because of the random nature of network failures and particularly the influence of external factors such as weather and third party interference. Setting targets for RP5 based on the best annual figure recorded during RP4 creates an asymmetry of risk that is of concern to NIE.
- 3.16 The inclusion of a deadband should have in theory mitigated the risk of natural variations in annual performance referred to above. However, this would only be the case if the target was based on average performance so that natural fluctuations were equally likely to produce outcomes above or below the target. However, setting the target based on the best recorded outcome distorts the position of the deadband making it is possible that even minor adverse fluctuations will exceed the upper threshold of the deadband (resulting in penalties). On the other hand, exceptionally favourable variations would be required to exceed the lower threshold and achieve incentive gains. This gives rise to asymmetry of risk for NIE.
- 3.17 This asymmetry is illustrated by Figure 9.1 below which contrasts the Final Determination CML incentive mechanism with actual CML performance during RP4. A poor CML performance results in a high CML. CML performance in excess of 61.60 would result in NIE incurring a penalty. If the Final Determination scheme had been in place during RP4, NIE would have incurred a penalty in three of the five years (2007/08, 2008/09 and 2010/11). Conversely, NIE would require CML to be below 50.40 in order to gain from the incentive scheme. But as the central target has been based on the best performing year⁷, by definition there was no year in RP4 where CML was sufficiently low for NIE to have qualified for incentive payments. This asymmetry can be eliminated if the central target is based on average RP4 performance, rather than skewed by basing it on best performance as proposed by the Utility Regulator.

⁷ The Utility Regulator has calibrated the scheme using a figure of 56.0 CML for 2011/12 rather than the correct figure of 53.1 CML.

Figure 9.1: RP4 performance relative to Final Determination CML incentive mechanism



Deadband

- 3.18 While recognising that the inclusion of a deadband can have benefits in mitigating exposure to natural variations in annual performance, NIE is concerned that the proposed inclusion of a deadband erodes the incentive to improve network performance. Therefore, on balance, NIE does not support the inclusion of a deadband.
- 3.19 As the measures currently available to improve network performance are unlikely to produce rapid or significant improvements in performance, it is unlikely that the performance gains necessary to exceed the deadband could be achieved during RP5. NIE would run the further risk of forgoing the benefit entirely, were any improvements achieved within the deadband to be subsequently factored into a more stringent target for RP6. Therefore, there is little prospect of NIE gaining additional revenue to cover the cost of any initiatives put in place. In practice, this feature effectively removes any meaningful incentive to improve performance.

Incentive rate

- 3.20 As explained above, the proposed deadband makes it less likely that revenue gains and losses will occur during RP5. But even if NIE's performance were to extend beyond the deadband, the Utility Regulator's proposals limit potential revenue gains and losses to approximately £1 million per annum, equivalent to

approximately +/-0.5% of regulated revenue⁸. In contrast, NIE had proposed that the network performance incentive should be calibrated with potential revenue exposure of +/-1.5%.

Conclusion and NIE's proposals

- 3.21 Incentive mechanisms for performance improvements should be symmetrical and calibrated appropriately with reference to competing incentives for cost efficiency. A co-ordinated approach to calibration would provide NIE with the ability to make informed choices that balance cost with the delivery of outputs. Otherwise, NIE is incentivised to forego investment in comparatively low cost improvements, which has the potential to deliver perverse outcomes for customers. NIE's proposals for network performance incentives provided this balance; in contrast, the Final Determination proposals provide no meaningful incentives for improving network performance.
- 3.22 Network performance incentives have been in place in GB for several price control periods and have brought benefits to customers. A properly balanced incentive will enable quality of service for customers in NI to keep pace with service levels in comparable regions of GB.
- 3.23 The Utility Regulator has proposed significant reductions in the RP5 capex allowance proposed by NIE, which if implemented, would lead to deterioration in network performance in the medium to long term. It would be unreasonable were NIE to be penalised for not achieving targets that, based on the capex determination, it may not be able to pursue.
- 3.24 Accordingly, NIE requests the Competition Commission to implement NIE's BPQ proposals for the calibration of the RP5 network performance incentives in place of those contained in the Final Determination. NIE's proposals incorporate the following features.
- Annual exposure for NIE and customers to be limited to +/-1.5% of regulated revenue through a cap and collar mechanism, with this exposure weighted 60:40 for CML:CI to reflect the greater importance that customers attribute to duration rather than number of supply interruptions.
 - The incentive arrangement to operate relative to target over a range for CML of +/-15% and CI of +/-10%. It follows that the maximum penalty in respect of CML (0.9% of regulated revenue⁹) would be triggered by a CML that was 15% or more above target. Penalties for a CML between the

⁸ Based on NIE's BPQ submission and the estimated level of regulated revenue of £1.13 billion over RP5.

⁹ 60% of 1.5%.

target and a point 15% above target would be determined on a straight line basis.

- Targets to be set based on NIE's average performance over the first four years of RP4 (2007/08 to 2010/11) after exclusion of weather related events, with CML targets adjusted to reflect the £9 million capex allowance being sought by NIE to improve network CML performance during RP5¹⁰. This is also reflected in a wider range over which the incentive operates for CML (15%¹¹ compared with 10% for CI).
- For the avoidance of doubt, NIE's proposal does not include a "dead-band" as proposed by the Utility Regulator.

Customer service incentives

- 3.25 The Final Determination proposes no incentives for improving customer service. This decision was based on the Utility Regulator's judgment that customers are generally satisfied with existing service levels.
- 3.26 NIE considers that a properly balanced incentive framework would enable service levels for customers in NI to keep pace with comparable regions of GB. It was this view that formed the basis of NIE's BPQ submission proposal for a customer service incentive.
- 3.27 NIE's proposal for a customer service incentive contemplated that NIE would work with the Utility Regulator during the RP5 price control review process to develop incentive measures, and that those measures would be subject to, and informed by, public consultation. In the event, the necessary engagement with the Utility Regulator has not taken place and the incentive measures are not sufficiently developed as a result.
- 3.28 In these circumstances, NIE reluctantly accepts that the introduction of customer service incentives should be deferred to RP6.

Connection of renewable generation incentive

- 3.29 NIE proposed incentives for connection of renewable generation to the distribution network in response to government's 2020 targets¹². The Utility Regulator makes no reference to NIE's proposal in either its draft determination or the Final Determination, nor does it make any reference to providing incentives for NIE to

¹⁰ Assuming NIE's wider capex proposals, which are designed to maintain network performance, are allowed in full.

¹¹ Incentive would operate over a range that is 15% either side of a central target.

¹² See Annex 5A.5 for a description of the capex associated with renewables integration.

contribute to the delivery of government's strategic energy framework. The reason for this omission is unclear.

- 3.30 As with the customer service incentive, NIE's proposal for a connection of renewable generation incentive contemplated that NIE would work with the Utility Regulator during the RP5 price control review process to develop incentive measures, and that those measures would be subject to, and informed by, public consultation. In the event, the necessary engagement with the Utility Regulator has not taken place and the incentive measures are not sufficiently developed as a result.
- 3.31 In these circumstances, NIE reluctantly accepts that the introduction of connection of renewable generation should be deferred to RP6.

Distribution losses incentive

- 3.32 The Utility Regulator recognises the need to obtain historical data ahead of establishing a distribution losses incentive. NIE supports this approach and welcomes the opportunity to work with the Utility Regulator during RP5 to establish a viable distribution losses incentive mechanism.
- 3.33 However, NIE takes the opportunity to reiterate the limitations of an output-based incentive arrangement and the need to ensure any scheme is designed appropriately to reflect the extent of NIE's ability to influence network losses and the potential impact of measurement error.

Revenue protection incentive

- 3.34 The Utility Regulator proposes that the revenue protection incentive in place during RP4 should continue into RP5. As outlined in its BPQ submission (see Appendix 9.1), NIE has proposed to strengthen the existing (RP4) incentives to reduce electricity theft, including an extension of the incentive arrangements to cover domestic premises.
- 3.35 The existing incentives relate only to certain non-domestic vacant premises. Any monies recovered by NIE for past illegal abstraction under the scheme are currently shared on a 50:50 basis between NIE and customers, with customers funding the cost of operating the scheme. NIE has proposed a change for RP5 under which NIE would bear the costs of the scheme and in return would retain in full any monies recovered for past illegal abstraction. This would provide NIE with a strong incentive to manage the scheme at the appropriate level with the flexibility to operate the scheme to maximise the detection of illegal abstraction. Customers would continue to benefit in full from the prevention of any further illegal abstraction that would otherwise have occurred, and therefore gain from earlier

detection. The changes proposed by NIE would therefore benefit both customers and NIE.

- 3.36 NIE has further proposed extending incentives to detect illegal abstraction at premises other than the non-domestic vacant premises eligible for the current incentive scheme. This would apply mainly to domestic premises. Under this proposal, NIE would bear the cost of increasing resources to outperform an annual target for units recovered under the scheme. In return, NIE would be incentivised by receiving an increase in revenue entitlement for each unit recovered in excess of the target.
- 3.37 NIE's proposals to strengthen revenue protection incentives have not been accepted by Utility Regulator. The reasons for this are not made clear: the Final Determination proposes simply to maintain the existing RP4 arrangements. Two points arise:
- Revenue protection represents a significant and controllable aspect of the cost of network losses borne by customers. The Utility Regulator's proposals to maintain only existing incentives represent a missed opportunity to put in place a practical incentive arrangement to the benefit of customers.
 - The Utility Regulator did not address the substance of NIE's proposal for revenue protection incentives in either its draft determination or the Final Determination. As a result, customers and suppliers have not been made aware of the options proposed by NIE and their potential benefits, and therefore have not had the opportunity to make informed comments on the Utility Regulator's proposals for the RP5 revenue protection incentive.
- 3.38 Separately, the Final Determination fails to make an adjustment to NIE's opex allowance to align that allowance with the Utility Regulator's decision to make no change to the revenue protection incentive arrangements. Such an adjustment is necessary to allow recovery of the cost of providing additional revenue protection electricians to meet the needs of keypad meter reading activity (totalling £767,000 over RP5). These costs were not included in NIE's opex submission on the basis that, under NIE's revenue protection incentive proposal, the costs would be funded out of incentive revenue. If NIE's revenue protection incentive proposals are not ultimately adopted, an uplift in the opex allowance will be necessary.
- 3.39 NIE requests the Competition Commission to adopt NIE's proposals to strengthen the existing revenue protection incentives.

Guaranteed standards and 'exceptional weather events'

- 3.40 In its draft determination, the Utility Regulator had proposed changes to Guaranteed Standards (**GS**) for RP5 including the introduction of three new standards and the tightening of the existing standard for supply restoration (**GS2**). In its response to the draft determination, NIE expressed its concerns that the Utility Regulator had not discussed these matters with NIE to inform a robust assessment of what might be possible and what it would cost.
- 3.41 In the Final Determination, the Utility Regulator proposes not to introduce new standards at present but to consider their development further during RP5 (see paragraph 9.18). However, it proposes significant increases in the rates of payment to customers in the event that NIE defaults against the current set of standards.
- 3.42 Furthermore, the Utility Regulator proposes to consult on the criteria for 'exceptional weather events' which will determine which events are to be excluded from the network performance incentive (see paragraph 9.12).
- 3.43 NIE is concerned that the Utility Regulator proposes to determine these issues outside the RP5 price review process. The introduction of new standards during RP5 has the potential to add materially¹³ to NIE's operating and capital costs. Similarly, changes to regulatory arrangements for 'exceptional weather events' have the potential to change how existing standards are applied in practice, and therefore have the potential to increase costs if existing standards become more onerous to achieve. This risk is heightened by the Utility Regulator's proposal to increase rates of payment for defaults against all standards. This applies particularly to GS2.
- 3.44 Currently under GS2, NIE is required to make a payment to customers if it fails to restore supplies within 24 hours. An exemption applies in the event of severe weather. There are currently no formally prescribed criteria for assessing when an exemption should apply. However, established practice has been for NIE to apply to the Utility Regulator for an exemption from GS2 on the basis of criteria that have been applied over many years through custom and practice. On this basis, the Utility Regulator agrees an exemption from GS2 applies for events where the number of faults affecting the high voltage distribution network exceeds 13 times the daily mean.
- 3.45 This criterion reflects the standard of supply restoration that can realistically be achieved following an exceptional weather event, consistent with the nature of

¹³ Based on the Utility Regulator's proposals for new standards contained in its draft determination, NIE has estimated these would add approximately £1.3 million to NIE's operating costs during RP5 and, depending on their design, may also require additional capex of £2.4 million in RP5.

NIE's network and NIE's currently optimised resourcing levels and well-developed emergency restoration plan. It aligns loosely (but not exactly) with the formal criteria developed by Ofgem for application to the GB DNOs.

- 3.46 It is not clear (but it would seem logical) that the criteria for 'exceptional weather events' to apply to the operation of network performance incentives would apply also to exemptions under GS2. If these criteria were to become more stringent following the Utility Regulator's proposed consultation, then it might become increasingly unrealistic for NIE to comply with GS2 following an exceptional weather event. This would increase the level of default payments owed to customers.
- 3.47 Likewise, it is important that the criteria for 'exceptional weather events' applicable to the operation of the network performance incentive are defined in a manner consistent with the calibration of the network performance incentive. The targets for the incentive would be based on historical data and would therefore reflect the exclusion criteria that have been applied historically.
- 3.48 For these reasons, NIE requests the Competition Commission to confirm that the criteria for 'exceptional weather events' to be applied to exemptions from the network performance incentive and GS2 should be consistent with historical data and precedent – i.e. the criteria should have the effect of granting an exemption for events where the number of faults affecting the high voltage distribution network exceeds 13 times the daily mean.
- 3.49 Furthermore, NIE requests the Competition Commission to specify how the Utility Regulator should approach the introduction of any changes to the GSs (or Overall Standards¹⁴) during RP5. In particular, NIE requests that this includes a requirement for the Utility Regulator to discuss and agree with NIE the need for any increments to the RP5 opex and/or capex allowances (as determined by the Competition Commission pursuant to the present investigation) arising from the changes.

4. NIE'S CASE – INNOVATION FUNDING

- 4.1 In RP4, NIE has been proactive in research and development (**R&D**) of innovative approaches to improve the utilisation of network assets. For RP5, NIE intends to build upon this experience and increase its efforts to take on more challenging innovation projects. These will include smart technology initiatives that can be

¹⁴ NIE is required by its T&D licence to conduct its business so as to reasonably achieve certain overall standards of performance. Guaranteed standards, by contrast, set service levels which must be met in each individual case and for which NIE is obliged to make compensation payments to customers in the event of failure to meet these standards.

applied in the short and long term to meet the challenges in the design and operation of the network arising from renewable energy resources and the growth of emerging low carbon technologies.

- 4.2 NIE's BPQ submission included £14.93 million to fund smart technology over RP5 including:
- £2.5 million for its R&D programme;
 - £6 million for trialling smart technology projects;
 - £3.35 million for applying advanced condition monitoring to network assets; and
 - £3.08 million for upgrading its distribution network management system to facilitate smart grids.
- 4.3 NIE sought an opex allowance for the R&D initiative (£2.5 million) and a capex allowance for the remaining three initiatives (£12.43 million in aggregate).
- 4.4 The Utility Regulator has separately approved the upgrade to the distribution network management system outside of the RP5 price control process leaving a residual requirement of £9.35 million in capex (and £2.5 million in opex).
- 4.5 The Final Determination includes no ex ante capex or opex allowances for any of these requirements. However, the Utility Regulator proposes to consider smart technology projects under its proposed capex Fund 3 arrangements.
- 4.6 Without this funding, NIE will be unable to assess emerging technologies and participate with collaborative research to factor this into future planning of the network. In contrast, Ofgem has provided GB DNOs with substantial funding to support development of smart technology recognising its importance in stimulating its application.
- 4.7 As has been identified by Ofgem in GB, this investment is needed to drive the innovation needed to deliver a sustainable energy network at value for money to existing and future customers.

Research and development

- 4.8 NIE has made good progress in delivering a research and development (R&D) programme during RP4¹⁵. The learning so gained has led to greater understanding of the issues and solutions necessary for:

¹⁵ NIE's R&D costs in RP4 were £1.0 million funded directly by NIE through the Sustainable Networks Programme under the terms agreed for the RP4 price control.

- managing more active distribution networks; and
 - coping with the greater penetration of renewable generation that is likely to result from the government's sustainability targets.
- 4.9 This has included, for example, the development and deployment of dynamic line ratings combined with high temperature conductors to increase capacity on critical 110kV infrastructure and the deployment of special protection schemes to enable the connection of windfarms without significant infrastructure investment.
- 4.10 Moving forward, NIE intends to intensify its efforts as worldwide experience with smart technology grows and a better understanding is gained of the impact on the network of embedded generation and other emerging technologies. Significantly more R&D is required to achieve the radical changes to the design and operation of the existing network necessary to develop a more active or 'smart' distribution network that can meet the needs of customers in future price control periods.
- 4.11 R&D is, by its nature, uncertain in terms of the outputs to be achieved. Furthermore, it is an on-going operating activity which is critical in the very early stages of understanding innovative technologies, some of which may emerge as proposals for trials. It represents an overhead cost that is distinct from 'business as usual' operating costs, and requires a separate cost allowance. Without the necessary opex allowance to undertake a programme of R&D into innovative/smart network technologies and solutions, NIE will have limited scope to even identify smart grid opportunities and develop proposals for smart grid trials. Therefore, in practice, NIE will not be able to progress its innovation agenda.
- 4.12 Ofgem has recognised that conventional price control arrangements based solely on cost incentives do not deliver technical innovation, and that a different approach is required to incentivise technical innovation. As a result, Ofgem introduced its Innovation Funding Incentive (IFI) arrangements in DPCR4 and the Low Carbon Networks Fund (LCNF) in DPCR5. Furthermore, innovation is now central to the development of the next GB DNO price control, RIIO-ED1, which is to commence in April 2015.
- 4.13 NIE's proposal is substantially less than the level of funding currently made available to GB DNOs. Under Ofgem's funding arrangements in GB¹⁶, a DNO of equivalent size to NIE would be eligible for funding of £5 million for research and development projects.

¹⁶ The Innovation Funding Incentive (IFI) was introduced in DPCR4 to fund technical research and has greatly benefited the GB DNOs in preparing for changes to facilitate the growth of renewable and distributed generation. GB DNOs are eligible to spend up to 0.5% of revenue on IFI projects which would equate to £5 million if applied to NIE.

- 4.14 The failure to provide an opex allowance for R&D is not in the interests of customers. The implications of not undertaking R&D include an inability to assess future technologies or opportunities to improve network utilisation and/or management of networks with, for example, high levels of renewable generation and electric vehicles. Without proper consideration, opportunities could be missed to develop innovative approaches to the design of the network that could otherwise minimise both future investment costs and the impact of new technologies, such as electric vehicles, on the quality of supply available to customers.
- 4.15 In addition, NIE will be unable to maintain a presence as a progressive network operator in the context of smart grid developments in GB and elsewhere. Opportunities currently exist for NIE to work in cooperation with other DNOs to leverage more effectively the opportunity to meet the challenges it faces in developing a smart grid. This opportunity will be forgone if NIE has no R&D funding to contribute to collaborative R&D, or to identify and implement the learning available more generally into improvements into NIE's operational processes. This presents a risk NIE will be under-prepared for RP6 as R&D undertaken in RP5 will form the basis of technologies to be applied in the next price review period.
- 4.16 In summary, the absence of any allowance for R&D will result in NI not keeping pace with GB in the delivery of a sustainable energy network providing value for money to existing and future customers.

Smart grid initiatives

- 4.17 The Final Determination provides that NIE will have the opportunity to develop its plans for smart grid initiatives for consideration during RP5 under the capex Fund 3 arrangements
- 4.18 NIE does not consider capex Fund 3 to be the appropriate treatment for smart grid projects. This is because individually the projects are not sufficiently material to warrant the administrative burden and Utility Regulator engagement associated with the operation of the Fund 3 arrangements. It would risk introducing inefficiency through regulatory micro-management of issues that should be best left to NIE to manage along with its wider obligations.
- 4.19 Rather than Fund 3, NIE proposes that ex ante funding should be allowed within Fund 2 for a range of smart grid capex initiatives. NIE's position in this regard is set out in Chapter 5 (RP5 Capex – Quantum).

Advanced condition monitoring

- 4.20 NIE's proposal to seek funding for the application of condition monitoring technology (£3.35 million) is intended to facilitate a reduction in asset replacement expenditure during RP5 and this reduction has already been assumed in NIE's capex proposals. In its Final Determination, the Utility Regulator suggests that the funding requested by NIE for advanced condition monitoring has been allowed as part of the asset replacement allowance (see paragraph 5.81). NIE can find no such uplift in the proposed Fund 1 allowance and has concluded that, in fact, the costs of advanced condition monitoring have not been provided for.
- 4.21 Without this provision, the Utility Regulator's proposals are inconsistent in that they assume the benefit of reduced asset replacement requirements yet make no provision for the costs of advanced condition monitoring which is required to achieve the reduction in asset replacement requirements.
- 4.22 NIE therefore requests the Competition Commission to provide a capex allowance for either:
- the condition monitoring equipment; or
 - the asset replacement expenditure that could not be deferred without the condition monitoring equipment.
- 4.23 NIE's strong preference is for the former.

CHAPTER 10

PENSIONS

SUMMARY

The Utility Regulator has introduced a set of 'pension principles' for RP5. This includes the principle that NIE should be allowed to recover any deficit repair costs associated with the defined benefit scheme for both NIE and NIE Powerteam which it cannot legally avoid.

NIE agrees with this and the other pension principles. But it has very significant concerns with two aspects of the Final Determination which relate to the recovery of pension deficit costs:

- First, the Utility Regulator has failed to provide for an allowance of £24 million of pension contributions paid by NIE in excess of allowances and which is stranded as a result of changing the pension cost recovery mechanism between RP4 and RP5.
- Second, while NIE is prepared to accept that its shareholders should, in principle, fund 30% of early retirement deficit costs (estimated to contribute approximately £41.2 million to the deficit measured at 31 March 2012), the Utility Regulator has failed to recognise that NIE has already funded these costs through special shareholder contributions made in 2005/6 and 2006/7. These contributions have reduced the deficit by £71.4 million and therefore more than offset any cost to the scheme associated with NIE's share of early retirement deficit costs.

In addition to the above, there is a requirement to "true up" the difference between actual contributions agreed by NIE in negotiations with the pension scheme trustees and the amounts allowed under the price control. NIE is content to accept the Utility Regulator's proposal for a 15-year recovery period to 31 March 2027, notwithstanding that it has agreed a shorter recovery period with the trustees (13 years to 31 March 2022). But financing costs borne by NIE as a result of making actual contributions in advance of recovering those costs from customers should be recoverable through future price controls and attract the regulatory rate of return. Such an approach would accord with that adopted by Ofgem in relation to the GB DNOs.

NIE requests the Competition Commission to determine an allowance for NIE's pension costs in RP5 that corrects for these deficiencies in the Final Determination allowance.

1. INTRODUCTION

1.1 The Utility Regulator has introduced a set of 'pension principles' for RP5. The pension principles adopted in the Final Determination¹ are as follows:

- NIE should be allowed to recover the efficient on-going pension costs for employees who are members of either the defined benefit pension scheme or the defined contribution scheme.
- NIE should be allowed to recover any deficit repair costs, associated with the defined benefit pension scheme for both NIE and NIE Powerteam, which it cannot legally avoid.
- Customers will achieve the benefit of any surplus which may exist during future price controls.
- Pension scheme trustees have a legal obligation to manage the pension fund prudently and in accordance with good investment principles and actuarial practice. Assuming that these legal obligations are complied with, there is little opportunity for NIE to achieve efficiencies in the way it manages the defined benefit scheme, other than by closing the scheme to new members.
- Pension deficits that occur in any price control period may have been influenced by avoidable or inefficient actions taken in previous price control periods. The Utility Regulator will adjust for the impact of unfunded early retirement deficit costs.
- Pension deficits will be assessed by reference to the most recent formal actuarial valuation.²

1.2 In line with these principles, the Final Determination has allowed full recovery of the £10.5 million of on-going pension costs that NIE originally requested for RP5. Since making its business plan submission, NIE's projection of on-going pension costs for RP5 has increased by £0.6 million to £11.1 million, reflecting an increase in employer costs following the March 2011 actuarial valuation. Further details are provided in Section 6 below. But apart from the need for allowances to reflect this latest data, NIE is content with the Utility Regulator's approach to on-going pension costs.

¹ See paragraph 7.56 of the Final Determination.

² Although as a "one off action", the Utility Regulator's starting point for its RP5 allowance is the deficit amount stated in the funding update at 31 March 2012, rather than the most recent actuarial valuation at 31 March 2011 (a copy of which is attached at Appendix 10.1).

- 1.3 By contrast, for the reasons set out in this Chapter NIE has very significant concerns with certain aspects of the Final Determination which relate to the recovery of pension deficit costs.

Pension deficit costs – NIE's concerns

- 1.4 At the level of general principles, there is much common ground between NIE and the Utility Regulator in relation to the recovery of pension deficit costs.
- 1.5 In essence, the Utility Regulator accepts that NIE's pension deficit repair costs are largely uncontrollable and, as a result, NIE should be allowed to recover those costs through the price control³. The Utility Regulator's general approach is summarised in paragraph 7.55 of the Final Determination as follows:

"This final determination, and our associated regulatory principles, essentially allocates the unavoidable risk of pension deficit costs with consumers rather than with NIE T&D shareholders."

- 1.6 The Utility Regulator makes one exception to this general approach. The draft determination had proposed a number of adjustments to the recoverable pension deficit arising from alleged previous legally avoidable or inefficient actions by NIE. But in the Final Determination, the Utility Regulator has restricted such adjustments to a proportion (30%) of early retirement deficit costs (**ERDCs**) which it considers should be funded by NIE's shareholders rather than through the price control. This approach to ERDCs aligns with that adopted by Ofgem in relation to the GB DNOs and the position adopted by the Utility Regulator for the RP4 price control.
- 1.7 NIE firmly believes that the Utility Regulator's general approach – that consumers should bear the unavoidable risk of pension deficit costs – is the correct one. The approach accords with long-established regulatory principles for the treatment for uncontrollable costs. Those principles require that outturn costs are recovered in full where they diverge from ex ante allowances; if it were otherwise, the regulated company would be left bearing a risk that it can in no way control.
- 1.8 NIE is also content in principle to bear 30% of deficit costs that are attributable to ERDCs, based on the Ofgem precedent.

³ It its first day submission to the Competition Commission (UR-5, paragraphs 17), the Utility Regulator notes that it might have adopted a different approach and states that in the Competition Commission's 2010 report on Bristol Water's price control, the Commission split the responsibility for Bristol Water's pension deficit between customers and shareholders on a 90:10 basis. The important difference between Bristol Water and NIE is that more than 97% of the NIE final salary scheme members have protected rights which NIE is legally obliged to provide for. There are therefore effectively no further steps which NIE can take to manage its pension liability. There is therefore nothing to be gained by 'incentivising' NIE to manage its pension liability.

- 1.9 But despite this common ground, NIE has two very significant concerns with the pension deficit cost recovery provisions of the Final Determination:
- First, the Utility Regulator has failed to provide for an allowance of £24 million (excluding rate of return) of pension contributions paid by NIE in excess of allowances and which is stranded as a result of changing the pension cost recovery mechanism between RP4 and RP5.
 - Second, while NIE is prepared to accept that its shareholders should, in principle, fund 30% of ERDCs (estimated to contribute approximately £41.2 million to the deficit measured at 31 March 2012), the Utility Regulator has failed to recognise that NIE has already funded these costs through special shareholder contributions made in 2005/6 and 2006/7. These contributions have reduced the deficit by £71.4 million and therefore more than offset any cost to the scheme associated with 30% of ERDCs.
- 1.10 In addition to the above, there is a requirement for a mechanism to "true up" NIE's allowed revenues to reflect the timing difference between actual contributions agreed by NIE in negotiations with the trustees under the regulatory framework for pension scheme funding, and the amounts allowed under the price control. NIE is willing to accept the Utility Regulator's proposal for a 15-year recovery period commencing 31 March 2012, notwithstanding that it has agreed a shorter (13 year) deficit repair period with the trustees commencing 31 March 2009. NIE accepts that setting allowances on the basis of a 15-year recovery period is consistent with the approach adopted by Ofgem⁴. However, any financing costs borne by NIE as a result of making actual contributions months or years in advance of recovering those costs from customers should be recoverable through future price controls and attract the regulatory rate of return.

2. BACKGROUND TO THE SCHEME AND THE DEFICIT

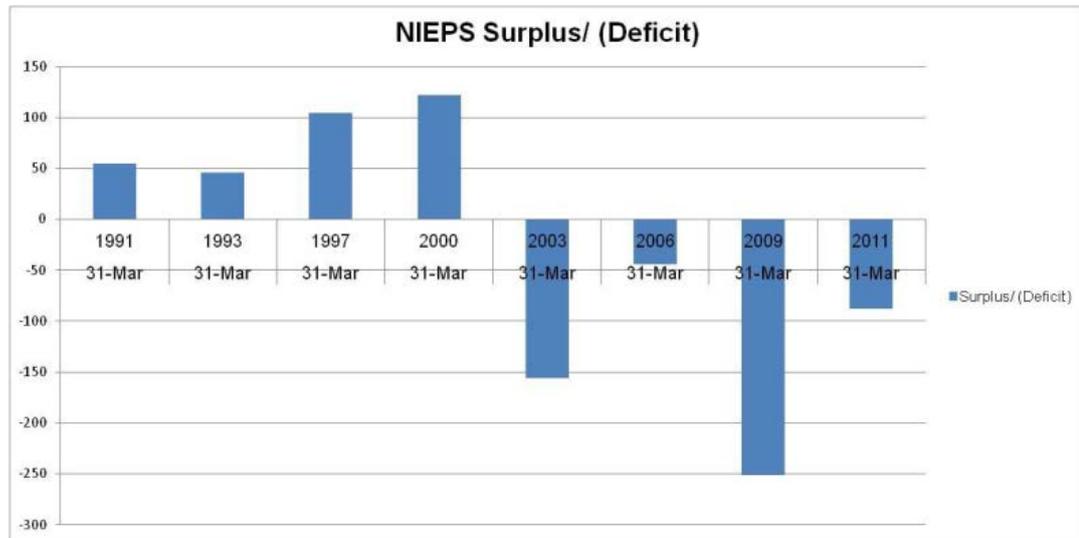
- 2.1 Before explaining the concerns outlined above in detail, this Section 2 provides a brief historical background to the scheme, the deficit and the proposed deficit repair payments. Section 3 explains why NIE has limited control over pensions costs.
- 2.2 NIE was privatised in 1993 and effectively inherited the sponsorship of the Northern Ireland Electricity Pension Scheme (**NIEPS**), a final salary pension scheme. As explained further in Section 3 below, a key feature of the scheme is that the existing and future benefits of pre-privatisation employees and former

⁴ See paragraph 3.70 of Ofgem's DPCR5 Final Proposals, 7 December 2009 http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf .

employees of NIE are protected by statute. The benefits enjoyed by such employees, known as "protected persons", cannot be reduced without their consent, and this applies to both past and future service. Protected persons represent some 97% of the scheme's final salary members.

- 2.3 A final salary scheme (also known as a "defined benefit" or "DB" scheme) is a source of significant risk for the sponsoring employer because the scheme's liabilities are unpredictable and vary with time due to factors beyond the employer's control. Such factors include investment returns (including projected future returns) and changing projections of the pension scheme members' life expectancy. As a result, a deficit may arise in relation to a final salary scheme which the employer will be required to address via additional contributions. Conversely, where the fund is in surplus, an employer may enjoy "contribution holidays". By contrast, in a defined contribution scheme (also known as a "DC" scheme), the employer's future contribution obligations are more predictable, since they are limited to the contributions specified in relevant employment contracts.
- 2.4 The NIEPS is a multi-employer scheme. Current employers that participate in the NIEPS are: NIE, NIE Powerteam, Powerteam Electrical Services (UK) Limited and Capital Pensions Management Limited. The Utility Regulator has determined that the pension costs for the regulated businesses NIE and NIE Powerteam are recoverable under RP5, and that these make up 99.26% of the total liabilities of NIEPS. NIE accepts this aspect of the Final Determination.
- 2.5 In order to manage its pensions costs more effectively, NIE closed the final salary section of the NIEPS (known as the "Focus" section) to new entrants in March 1998. NIE was one of the first privatised electricity companies in the UK to do this. New employees are instead offered membership to a defined contribution section of the NIEPS (known as the "Options" section). The costs to NIE per employee of contributions to the defined contribution scheme are less than one third of the cost of contributions to the final salary scheme⁵, although National Insurance contributions are a little higher for Options members as they are not contracted out of the earnings-related component of State pension benefits. However, since nearly all remaining members of the Focus section are protected persons, there is no possibility of switching existing Focus members to the Options section of the scheme.
- 2.6 Since privatisation, the financial position of NIEPS has shifted from a surplus to a deficit position. (Note however that the scheme was fully funded in 2007 following the payment of shareholder contributions.) The surplus/deficit at each formal valuation date since privatisation is shown in Figure 10.1 below.

⁵ 7.7% of pay versus 24.7% of pay. Note that these figures have since been updated to 8.3% and 26.9% respectively as part of the 31 March 2011 formal valuation of NIEPS.

Figure 10.1: NIEPS surplus / (deficit)

Source: *Final Determination* fig.7.1 page 63, extracted from formal actuarial valuations as at each date.

- 2.7 The deficit contributions agreed by the Trustees and NIE following the 2009 and 2011 valuations of NIEPS made an allowance for investment performance and other developments in the period immediately following the valuation dates. For the 2009 valuation⁶, post valuation date experience was favourable and the agreed deficit repair plan aimed to address a funding deficit of £175 million as at 31 March 2010, rather than the deficit of £251 million stated in the 2009 valuation. For the 2011 valuation⁷, post valuation date experience was adverse and the existing deficit repair plan was retained in order to address a deficit of approximately £150 million as at 30 September 2011. The annual actuarial report as at 31 March 2012 (provided at Appendix 10.3) shows a deficit of £156.4 million.
- 2.8 Aon Hewitt's report of 12 June 2012 (submitted to the Utility Regulator as part of NIE's response to the draft determination) sets out the economic background that led to actuarial valuations in the 1990s reporting surpluses, and how employers, trustees and Ofgem dealt with these surpluses and the resulting benefit improvements. This report is provided at Appendix 10.4.
- 2.9 Throughout the 1990s, there were demands within the electricity industry for benefit improvements from unions and trustees. These demands competed with the employers' preference for a reduction in pension contributions. NIEPS was in surplus during the 1990s due to strong investment performance from a strong and prospering UK economy and during that time the surplus was drawn on to fund:
- Benefit improvements for the members; and

⁶ A copy of the 2009 actuarial valuation is provided at Appendix 10.2.

⁷ A copy of the 2011 actuarial valuation is provided at Appendix 10.1.

- Contribution reductions for the sponsor. This included the cost of funding benefits accruing as well as ERDCs payable when members retire early on enhanced terms.
- 2.10 As a general guide, surplus was distributed broadly 2:1 in favour of the employer in line with the ratio of company and member contributions which had been paid in the past. This approach was common within the UK privatised electricity industry.
- 2.11 The benefit improvements and employer contribution reductions applied to NIEPS in the 1990s were therefore agreed having regard to practice within the industry generally and followed the same principles and objectives. Action to deal with 'excessive' surpluses was also required by HMRC to avoid abuse of tax reliefs.
- 2.12 The 2003⁸ and 2006⁹ valuations revealed a deficit in NIEPS, which had been caused largely because of poor investment returns in the early 2000s and increases to members' life expectancies. The shareholder agreed to clear the deficit as at 31 March 2006 by the payment of special contributions and the annual actuarial report carried out as at 31 March 2007¹⁰ and reported to members in a subsequent newsletter showed that NIEPS was fully funded at that date.
- 2.13 However, the 2009 valuation of NIEPS revealed that a new deficit of £251 million had emerged, mostly as a result of poor investment returns at the time of the market downturn in 2008/9 and further increases to members' life expectancies¹¹. A fall in the funding position at this time was common to most pension schemes in the UK. NIE and the trustees agreed to take account of favourable experience which occurred after the 31 March 2009 valuation date and before completing the valuation when agreeing the deficit contributions to be paid into the scheme and therefore agreed a deficit repayment plan which aimed to eliminate a deficit of £175 million at 31 March 2010. The deficit was to be eliminated over a period of 13 years following the 31 March 2009 valuation (concluding on 31 March 2022), with an agreed payment plan comprising payments of £11.8 million in 2010/11, £12.7 million in 2011/12, and £15.4 million (indexed to RPI) for each of the next ten years to 31 March 2022.
- 2.14 The most recent formal actuarial valuation as at 31 March 2011 indicated an improving position with a deficit of £87.6 million. However, it was known as the valuation progressed that the funding position was deteriorating due to economic circumstances reflecting sovereign debt-related concerns within the Eurozone and global recessionary pressures. In the last quarter of 2011, the deficit fluctuated between £150 million and £200 million (it briefly fell below £150 million in late

⁸ A copy of the 2003 actuarial valuation is provided at Appendix 10.5.

⁹ A copy of the 2006 actuarial valuation is provided at Appendix 10.6.

¹⁰ Provided at Appendix 10.7.

¹¹ See Aon Hewitt's paper 'Northern Ireland Electricity Pension Scheme – Reasons for current deficit' dated 24 January 2011 provided at Appendix 10.8.

October but ended the year at around £200 million)¹². In these circumstances, the Trustees might potentially have asked for an increase to the contribution payments agreed following the 2009 valuation (the outstanding value of which was in the region of £150 million). But as noted in paragraph 2.7 above, the outcome from the 31 March 2011 valuation was to retain the payments under the previous schedule of contributions.

3. LIMITS TO NIE'S CONTROL OF PENSION COSTS

3.1 Like other regulated network utilities with defined benefit schemes, NIE has limited ability to control its pension costs, since:

- all reasonable structural changes available to control NIEPS costs have been made, in particular closure of defined benefit schemes to new members; and
- the very large majority of past and present members of the NIEPS have their rights protected by primary legislation put in place at privatisation - not only in relation to benefits accrued to date but also in respect of future service.

3.2 NIE in particular acted promptly to control its pension costs. The final salary (Focus) section of the NIEPS was closed to new entrants in March 1998. NIE was one of the first privatised electricity companies to do so. The Government Actuary's Department report to Ofgem in 2009¹³ suggests that only two of the 14 GB DNOs withdrew the option for new entrants to join a final salary scheme before this.

3.3 The impact of protected persons legislation on the ability of NIE to manage the cost of the existing defined benefit scheme is also significant. As already noted, protected persons currently represent around 97% of the Scheme's final salary members and represent a similarly high percentage of NIE's liabilities.

3.4 The issue of controllability of pension costs has been examined at length in GB where Ofgem ran a 16 month consultation on the topic. On the role of protected persons legislation in limiting the ability to amend the benefits that accrue to members of such schemes, Ofgem found that:

“We have reviewed the evidence submitted by DNOs in response and the protected person legislation directly. We have concluded that the protected

¹² See Aon Hewitt's paper 'Post 31 March 2011 experience on the funding deficit' dated 25 January 2012 provided at Appendix 10.9.

¹³ Government Actuary's Department, 'Ofgem – Price control pension principles – Analysis of questionnaire responses', 30 July 2009:
<http://www.ofgem.gov.uk/Networks/Documents1/Ofgem%20Report-finalsigned.pdf> .

persons legislation provides limited scope to amend benefits already accrued and payable now or in the future to a member or beneficiary, or to adversely amend either future pension rights of protected persons or their contributions. It is only possible to change benefits or increase contributions of protected members in some circumstances if a two-thirds majority of scheme members consent.”¹⁴

3.5 In its second consultation document on pensions, Ofgem also stated that:

“With one exception, they have mitigated these costs by closing the schemes to new members. They cannot without the consent of trustees and members amend scheme benefits or future accruals.”¹⁵

3.6 Since pension costs are not within the control of NIE, the appropriate regulatory treatment is cost pass through. This has been recognised by the Utility Regulator and reflected in its pension principles.

4. NEED FOR ADJUSTMENT TO REFLECT CHANGE IN PRICE CONTROL METHODOLOGY

4.1 The mechanism adopted in the Final Determination to calculate the recovery of pension deficit repair costs for RP5 differs from that used in RP4. NIE does not dispute the change of methodology in principle (subject to the concerns relating to ERDCs and financing costs addressed elsewhere in this Chapter). However, deficit contributions paid in RP4 exceed allowances by £24 million and NIE submits that this amount should be recoverable over the RP5 price control period just as it would have been recoverable but for the change in methodology. In the absence of an adjustment, these costs will be stranded and in effect will have been met by shareholders rather than customers. The Utility Regulator has not allowed for these costs to be recovered and has provided no principled reason for so deciding.

4.2 In order to explain this issue, it is necessary first to describe how the RP4 price control dealt with pension costs and then to contrast that approach with the approach adopted for RP5 in the Final Determination.

¹⁴ See paragraph 5.14 of Ofgem's DPCR5 Final Proposals technical paper 'Allowed Revenues and Financial Issues':
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_5_Financial%20Issues.pdf

¹⁵ Paragraphs 3.6 and 3.7 (page 28) of Ofgem's Price Control Pension Principles, Second Consultation:
<http://www.ofgem.gov.uk/Networks/Documents1/Price%20control%20pension%20principles%20second%20FINAL.pdf>

- 4.3 The RP4 price control provided for the recovery of pension costs via a "rolling mechanism" similar to that adopted in respect of controllable opex. The principle was that the allowance for pension costs in any given year of RP4 would be equal to the actual pension costs incurred in the equivalent year of RP3 (RPI-indexed).¹⁶ If the Utility Regulator had adopted the same rolling mechanism for RP5, then actual RP4 year 1 costs would be recoverable in RP5 year 1, and so on. Thus, the overall effect of the rolling mechanism, over a succession of price control periods, would be to allow NIE to recover all its costs, but with a five year time lag, and with NIE bearing the risk of financing costs beyond RPI incurred in the meantime where pension deficit repair costs were rising from one price control period to the next (or vice versa if costs were decreasing).
- 4.4 In accepting the RP4 price control proposals, NIE took account of the fact that it would carry the risk of such financing costs (beyond the RPI increase allowed for). But in evaluating its overall exposure to risk from accepting the RP4 price control, it took comfort from the fact that it was assured of the recovery of its actual pension costs, albeit with a 5 year time lag.
- 4.5 NIE's actual pension costs in RP4 were £57 million. This is £24 million higher than the rolling allowance amount of £33 million which was based on pensions costs incurred in RP3. Were the rolling mechanism to have continued into RP5, NIE's pension allowance for RP5 would have been based on the £57 million cost incurred in RP4. Ultimately, under the rolling mechanism, all pensions costs would be allowed, albeit with a time lag.
- 4.6 The rolling mechanism, however, has been abandoned for RP5. The new mechanism provides an ex ante allowance for on-going costs and an allowance for deficit repair costs at levels to be re-determined every three years on the basis of the deficit or surplus revealed at each formal scheme valuation.¹⁷
- 4.7 The new mechanism, by its very nature, does not account for the shortfall of £24 million which was incurred in RP4 (and which otherwise would have been recovered in RP5). A one-off adjustment is required to take account of this.

¹⁶ Note that this was subject to an adjustment for a proportion of ERDCs, which is explained further in Section 5 below. For simplicity, the ERDC adjustment is ignored in this Section 4 as it is not directly relevant to the issue of the shortfall caused by the Utility Regulator's change in methodology. References in this section to complete pass-through of pension deficit repair costs should be taken to mean those costs other than the relevant proportion of ERDCs.

¹⁷ Note that this is a simplification. For example, only a proportion of ERDCs are permitted (dealt with in detail below) and the starting-point for the deficit underlying the RP5 allowances is based on the formal actuarial update from the Scheme Actuary at 31 March 2012 rather than the most recent formal valuation

<http://www.ofgem.gov.uk/Networks/Documents1/Price%20control%20pension%20principles%20second%20FINAL.pdf> .

- 4.8 Not to allow the recovery of the £24 million shortfall violates the Utility Regulator's own principles in both price controls. In its Final Proposals for RP4, the Utility Regulator described its proposed rolling mechanism in the following terms:

"the actual [pension deficit repair costs] in each year of the current price control period is rolled forward with RPI indexation to become the [pension deficit repair costs] allowance for the corresponding year in the next period".¹⁸

- 4.9 In RP5, one of the Utility Regulator's pension principles is that NIE should be allowed to recover any deficit repair costs associated with the defined benefit pension scheme which it cannot legally avoid". Indeed, the Final Determination states (at paragraph 7.56) that:

"whilst we are starting with new pension principles for RP5 which essentially remove the deficit risk from NIE T&D going forward, the remainder of our approach is consistent with the approach we signalled in RP4 and that which is adopted by Ofgem."

- 4.10 The only reason the Utility Regulator gives for not allowing the £24 million shortfall consequential on the change from the rolling mechanism to the new mechanism is that:

"... correspondence from NIE T&D to us, dated 28 October 2005, states that "NIE will be carrying the risk that the actual level of contributions payable during RP4...will be higher... and has a clear incentive to ensure that any such cost increases are minimised". We will therefore not allow recovery of any contributions paid by NIE T&D that were in excess of the company's pensions allowance in RP4." (paragraph 7.48 of the Final Determination)

- 4.11 This explanation is unsustainable for two reasons.

- First, the Utility Regulator appears to have misunderstood what was meant by NIE's e-mail dated 28 October 2005, a copy of which is provided at Appendix 10.11.

NIE's clear understanding of the rolling mechanism, including at the time it was discussing the mechanism in 2005 prior to agreeing the RP4 price

¹⁸ Page 2 of the Utility Regulator's RP4 Final Proposals September 2006 (RP4), provided at Appendix 10.10. Note that, for clarity, the edited quotation here substitutes "[pension deficit repair costs]" for "controllable Opex" which appeared in the original text. NIE and the Utility Regulator agreed that pension deficit repair costs should be treated in the same way as controllable opex from a mechanistic point of view (see page 6 of the Utility Regulator's RP4 Proposals Paper, 14 December 2005) (notwithstanding that they also agree that pension deficit repair costs are uncontrollable).

control, was that it would entail the recovery of any increased actual contributions in the next price control. NIE was also well aware of the risk and incentive properties inherent in the delayed recovery of outturn costs at a later time. NIE's statement in its e-mail to the Utility Regulator that "*NIE will be carrying the risk that the actual level of contributions payable during RP4 ... will be higher*" must be read in this light. NIE was referring to the financing risks inherent in the 5-year delay in recovery. NIE was not referring to the risk that actual contributions would never be recovered. The adoption of that latter interpretation of NIE's statement would be inconsistent with the fundamental principle behind the rolling mechanism that actual costs fall to be recovered in the subsequent price control. It would also have meant that NIE had chosen to accept the risk of bearing the full cost of pension contributions that exceeded those paid in RP3 notwithstanding that NIE has very little control over the overall quantum of pension deficit repair payments. That would have been an incredible position for NIE to adopt. It is therefore difficult to believe that the Utility Regulator could have interpreted the e-mail in the manner implied in the Final Determination, namely as an acceptance by NIE that it would never recover actual contributions that exceed the allowance, whatever the scale of those contributions.

- Second, and moreover, even if the e-mail correspondence from NIE to which the Utility Regulator refers evidenced some expectation that NIE did not envisage that it would recover any higher pension deficit repair costs incurred in RP4 (ever), this in and of itself discloses no reason why the Utility Regulator should depart from the principle that all pension deficit costs should ultimately be recovered, since this principle is common to both the RP4 methodology ultimately adopted by the Utility Regulator and its final RP5 methodology. The principle that such higher costs should be recovered (albeit in the next price control period, and adjusted only for RPI without any further allowance for financing costs to cover the delay in recovery) was a fundamental factor of the rolling mechanism adopted for RP4.

4.12 In summary, a consequence of the change from the rolling mechanism in RP4 to the new mechanism in RP5 is that £24 million in costs is left unaccounted for, notwithstanding that the principles underlying both mechanisms provide for actual costs to be recovered. These costs should be recoverable over the RP5 price control period, having arisen simply as a result of the change in price control methodology.

4.13 Accordingly, NIE requests the Competition Commission to determine an allowance for NIE's pension costs in RP5 that provides in full for the recovery of these costs.

5. FAILURE TO RECOGNISE THAT ERDCs HAVE ALREADY BEEN FUNDED BY NIE'S SHAREHOLDERS

- 5.1 In order to reduce its costs (and with resultant benefits to consumers), NIE has from time to time engaged in redundancy exercises. Members of the final salary scheme who are made redundant are automatically entitled to unreduced pension benefits for early retirement. This automatic trigger of early retirement benefits on redundancy was inherited by NIE at privatisation. Such enhanced benefits add to the liabilities of the pension scheme. Since 2003 all costs associated with enhanced benefits on early retirement have been met by the company immediately at the time of retirement. Prior to 2003, the costs associated with enhanced early retirement terms were settled from an allocation of surplus identified at previous valuations.
- 5.2 The Final Determination provides that NIE's shareholders should be responsible for funding 30% of ERDCs. The Final Determination provides for an adjustment to the total deficit payments recoverable via the price control which represents the 30% proportion of past ERDCs the Utility Regulator considers NIE should fund. This adjustment amounts to a present value of £41.2 million in total (£14.7 million over the period of the RP5 price control). The figure of £41.2 million has been determined based on 30% of the cost of granting enhanced early retirements in the late 1990s and early 2000s which were not funded by NIE at the time. The figures include an adjustment for the returns achieved on the NIEPS's investments up to 31 March 2012 and are expressed in 2009/10 prices.
- 5.3 NIE is content in principle to bear 30% of ERDCs, which is consistent with the proportion of equivalent ERDCs allocated to the GB DNOs by Ofgem. It is also consistent with the position adopted by the Utility Regulator for the RP4 price control. However, the Utility Regulator has failed to recognise that NIE has already fully funded these costs through special shareholder contributions made in 2005/6 and 2006/7.
- 5.4 Two special contributions were paid into the scheme:
- 5.4.1 A special contribution of £25 million was paid in July 2005 by NIE's parent company at the time, Viridian Group plc, following the sale of a subsidiary company called SX3.
- 5.4.2 A special contribution of £50 million was made in March 2007 in the context of the acquisition of Viridian Group plc by Arcapita, and was proposed in order to clear the deficit in the scheme at the time (recorded in the then most recent formal actuarial valuation at 31 March 2006 as £44.1 million).

- 5.5 Out of the total £75 million of special contributions, £2.7 million was paid by NIE, £63.3m by NIE Powerteam and £9m by other Viridian entities.
- 5.6 The £2.7 million funded by NIE is included in the calculation of NIE's under-recovery of pension costs for RP4 (£24 million) addressed in Section 4 above.
- 5.7 Of the £63.3 million paid by NIE Powerteam, £12 million was accounted for as a prepayment of its costs for 2007/08, 2008/09 and 2009/10. This means that NIE Powerteam has paid additional contributions to the scheme of £51.3 million which have been funded by shareholders.
- 5.8 Adopting the same approach as the Utility Regulator for valuing the impact of ERDCs, these contributions have reduced the deficit by £71.4 million. These special contributions therefore more than offset the £41.2 million to be borne by NIE's shareholders for 30% of past ERDCs. But for the avoidance of doubt, NIE does not, in the context of the principles adopted by the Utility Regulator in the Final Determination, seek to recover from customers any amount covered by special contributions which is in excess of the amount attributable to 30% of ERDCs.
- 5.9 Having decided in the Final Determination that, in principle, the only portion of the deficit repair costs that should be payable by NIE (and not recoverable from customers through the price control) is 30% of ERDCs, the Utility Regulator should have recognised the past contributions paid by the shareholder.
- 5.10 But instead of acting consistently with the principle it had itself adopted, the Utility Regulator positively decided to ignore those contributions. Its stated reason for doing so is set out in one sentence in paragraph 7.48 of the Final Determination:

"We will ... ignore the effect of special or extra contributions that the company had paid. In its response to the draft determination, NIE T&D noted that it "did not seek to recover the value of special contributions paid"."

- 5.11 Not only is this decision wrong in principle; the sole reason for the decision provided by the Utility Regulator is unsustainable. The quote from NIE's response to the draft determination is incomplete (and inaccurate) and, as a result, gives a misleading impression of NIE's response. What NIE actually said in its response was:

"... NIE did not seek to recover the value of the special contributions in excess of the early retirement costs borne by the shareholder" (emphasis added)¹⁹

¹⁹ Paragraph 7.2, Chapter 7 of NIE's response to the Draft Determination (a copy of Chapter 7 of NIE's response is provided at Appendix 10.12).

- 5.12 NIE's contention was therefore quite the opposite of that which the Utility Regulator seeks to represent: NIE's position was (and is) very clearly that special contributions should be taken into account to offset any amounts payable by shareholders in respect of ERDCs. It was also expressing the point made in paragraph 5.8 above, namely that NIE was not seeking to recover from customers amounts in respect of special contributions which exceed the ERDCs payable by shareholders.
- 5.13 Furthermore, the Final Determination is at odds with the position taken in the draft determination, in which the Utility Regulator indicated that it would take into account special contributions.²⁰ While changes of approach are to be expected if properly justified, in this case the Utility Regulator not only failed to give any proper reason for the change, but the change itself is inconsistent with the overarching principles adopted in the Final Determination.
- 5.14 NIE therefore requests the Competition Commission to determine an allowance for NIE's pension costs in RP5 that recognises that past shareholder contributions more than offset the amount to be borne by shareholders in respect of ERDCs.

6. RECOVERY OF ACTUAL CONTRIBUTIONS PAYABLE

- 6.1 The deficit payments provided for in the Final Determination are based on a 15-year repayment period from 31 March 2012 to 31 March 2027. Table 7.2 on page 72 of the Final Determination sets out the Utility Regulator's calculations of the pension payments to be recovered during the RP5 price control period based on a deficit of £156.4 million (i.e. the deficit reported in the annual actuarial report as at 31 March 2012).
- 6.2 Table 10.1 below shows NIE's projected pension costs for the five year period to 31 December 2017 compared to the UR's proposed allowance. The table excludes any adjustment for the RP4 under-recovery of £24 million.

²⁰ See Paragraph 11.57 of the Draft Determination.

Table 10.1: NIE's projected pension costs versus the Final Determination for 5 years to 31 December 2017

£m	NIE RP5 projection	FD	Difference
On-going costs	11.1	10.5	(0.6)
Deficit repair	65.8 ²¹	63.1	(2.7)
ERDC disallowance	-	(15.2)	(15.2)
Total	76.9	58.4	(18.5)

- 6.3 The difference between NIE's projection and the Final Determination in respect of on-going costs reflects an increase in the cost following completion of the 31 March 2011 actuarial valuation (employer cost increase from 24.7% to 26.9% of salaries). This change was noted in our response to the draft determination but is ignored in the Final Determination.
- 6.4 The difference between NIE's projection and the Final Determination in respect of deficit repair costs mainly reflects:
- The Utility Regulator basing its allowance on the deficit as at 31 March 2012 and the assumption of a 15-year deficit repair period concluding March 2027. By contrast, NIE's projections are based on actual contributions payable by NIE over a 13-year recovery period concluding March 2022 and reflected in the schedule of contributions agreed with the trustees under statute and the Pensions Regulator's code of practice for pensions scheme funding.
 - The Utility Regulator's proposed disallowance in respect of ERDCs: £ 15.2 million during RP5 (£41.2 million in total over 15 years).
- 6.5 NIE acknowledges that the Final Determination provides for the deficit recovery allowance to be re-determined on the basis of the deficit at each future triennial formal valuation. The Utility Regulator's proposed allowances will therefore change following each formal valuation (i.e. as opposed to at each 5-year price control review) as the size of the deficit is re-assessed. The results of the next formal valuation due as at 31 March 2014 will be reflected in an adjusted RP5 pension allowance from October 2015 (at the latest).

²¹ In Table 7.1 of its response to the Draft Determination, NIE stated its adjusted BPQ deficit repair costs to be £65.8 million. Although the figure provided in the above table is the same, the calculation of the figure is different. The new calculation reflects an increase in the projected cost to £66.3 million due to the second RP4 extension (from 30 September 2012 to 31 December 2012) which was announced by the Utility Regulator in the Final Determination and also the Utility Regulator's proposed regulatory fraction of 99.26% (i.e. £66.3 million * 99.26% = £65.8 million).

- 6.6 But despite the introduction of this adjustment mechanism under RP5, the Utility Regulator's proposals would not reflect actual contributions paid into the scheme for the reasons cited in paragraph 6.3 and 6.4 above or in circumstances where actual contributions paid between valuations differ to those set out in the Schedule of Contributions agreed as part of each valuation (for example, the Schedule of Contributions could be updated in between valuations due a change in circumstances). NIE will therefore incur financing costs as a result of making actual contributions months or years in advance of recovering those costs from customers. Such costs should be recoverable from customers through future price controls, in line with the policy adopted by Ofgem for the GB DNOs²². Regulatory allowances, either at the start of each five year price control or when reset every three years following an actuarial valuation, need to allow for any differences between the allowances and actual contributions paid. NIE should be kept whole on a NPV neutral basis consistent with the Ofgem approach.
- 6.7 Accordingly, NIE requests the Competition Commission to determine an allowance for NIE's pension costs in RP5 that provides in full for the recovery of these financing costs.

²² See paragraph 3.71 of Ofgem's DPCR5 Final Proposals dated 7 December 2009: http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf. In March 2013, Ofgem published its strategy decision for the next GB DNO price control review (RIIO-ED1). Ofgem has determined to continue, with minor refinements, the methodology and pension principles that formed the basis of its DPCR5 Final Proposals: see chapter 6 (Pensions) and Appendices 6 and 7 of the Financial Issues supplementary annex to the RIIO-ED1 overview paper: <http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecFinancialIssues.pdf>

CHAPTER 11

RAB ADJUSTMENT

SUMMARY

The Utility Regulator's Final Determination concludes that NIE's opening RAB for RP5 should be reduced by £31.7 million, on the basis that changes in NIE's capitalisation practices during the last two years of RP3 and during RP4 led it to capitalise additional amounts in respect of overheads (£8.6 million); repairs and maintenance (R&M) (£11.5 million) and tree-cutting costs (£11.6 million).

NIE rejects the Utility Regulator's reasoning and conclusions:

- The Utility Regulator's conclusions rely to a substantial extent on a report commissioned from external consultants. However, that consultants' report is fundamentally unsound, and the Utility Regulator's Final Determination does not answer the detailed critique of that report undertaken by KPMG for NIE.
- The way in which NIE has capitalised expenditure in its regulatory accounts is compliant with condition 2 of NIE's licence and there is therefore no case for a correction to NIE's regulatory accounts for RP3 and RP4.
- Nor is there any good case for a discretionary ex post adjustment to the opening RAB for RP5 by a decision retrospectively to reduce the amounts of expenditure capitalised in NIE's accounts during RP3 and RP4. There are no exceptional factors justifying an ex post adjustment. The Utility Regulator's decision to impose such an ex post adjustment rests on a misunderstanding of condition 2 of NIE's licence and fails to take account of, or appropriately to evaluate, the factors which the Utility Regulator is required by statute to apply in reaching such a judgment. The adjustment has been assessed in isolation, without regard to other relevant regulatory considerations.
- In all these circumstances, an ex post adjustment to NIE's RAB is apt to undermine confidence in the predictability and fairness of the regulatory regime.
- In consequence, the adjustment to NIE's RAB which the Utility Regulator proposes is likely to be damaging to customers in the longer term, since, by diminishing investors' confidence in the regulatory regime, it will make it more expensive for NIE to finance its future capital programme. This is particularly damaging at a time when NIE needs to finance a large capital programme.

It is now for the Competition Commission to consider these matters afresh, and NIE is confident that the Competition Commission will reject any adjustment to NIE's RAB.

1. INTRODUCTION AND EXECUTIVE SUMMARY

1.1 This chapter contains NIE's response to section 4 of the Final Determination, which decides that there should be a downward adjustment to NIE's RAB of £31.7 million. This figure reflects the depreciated value in NIE's RAB of additional amounts which, the Utility Regulator alleges, have been capitalised in NIE's RAB by virtue of changes to NIE's practices in respect of the capitalisation of: overheads (£8.6 million), repairs and maintenance (R&M) costs (£11.5 million) and tree-cutting costs (£11.6 million)¹.

1.2 The chapter is structured as follows:

- The present Section 1 contains an introduction, to explain how the Utility Regulator came to propose adjustments to NIE's RAB, and an executive summary of NIE's case in reply.
- Section 2 describes the substance of licence condition 2 of NIE's licence² and the rationale underlying the RP3 and RP4 price controls, since much of the Regulator's case rests on its assessment of how these price controls were expected to operate.
- Section 3 summarises the case advanced by the Utility Regulator in its separate draft determination (published in August 2012³), and, in particular, the emphasis which the Utility Regulator placed on the "rules" which it alleged had governed the RP4 price control.
- Section 4 summarises NIE's reply to the draft determination in respect of these issues, including its critique of the quantitative analysis undertaken by the Utility Regulator's consultants, and NIE's account of the rationale underlying the RP3 and RP4 price controls.
- Section 5 summarises the case advanced by the Utility Regulator in its Final Determination, which differs somewhat from the case advanced in the draft determination. The Utility Regulator now rejects any suggestion that NIE has broken any formal rules but decides instead to make a discretionary adjustment to NIE's RAB. In this section, NIE addresses the Utility Regulator's arguments and comments in detail on the Regulator's total failure to evaluate whether its discretionary adjustment to NIE's RAB conforms to its statutory duties and objectives (including, in particular, its duties to protect

¹ For completeness, we would mention that the Utility Regulator's Determination assumes that the gross amounts "wrongly" added to the RAB amounted (before depreciation) to £35.6 million, comprising £9.8 million of overheads; £13.2 million in respect of R&M costs and £12.6 million in respect of tree-cutting costs. Generally, in this Statement, we refer to the relevant figures net of depreciation, but we use the gross figures where we refer to an underlying document which also cites gross figures.

² In this Chapter 11, reference is made to NIE's licence (singular) rather than to its two Licences. This reflects the fact that NIE had a single licence for most of the relevant period (RP3 and RP4) to which this chapter relates.

³ The Utility Regulator first raised these matters with NIE in February 2012, with the result that they were not addressed in the principal draft determination preceding the adoption of the Final Determination.

consumers as to the prices which they pay for the transmission and distribution of electricity, whilst allowing NIE efficiently to finance its regulated functions), and concludes that it does not.

- Section 6 contains NIE's overall conclusions.

- 1.3 In August 2012, the Utility Regulator issued a separate draft determination (attached at Appendix 11.1) in which it set out its case in support of its proposed adjustments to NIE's RAB.⁴ The draft determination concluded that much of NIE's apparent opex outperformance during RP4 was attributable to changes in its capitalisation practices. The draft determination was accompanied by a report commissioned by the Utility Regulator from CEPA, SKM and PKF (the **CEPA report**). NIE responded to the draft determination, arguing that the Utility Regulator's proposed adjustments to the RAB were unjustified, either on the basis advanced in the draft determination or by reference to the Utility Regulator's wider statutory duties and objectives. NIE submitted, with its response, an independent report by KPMG (the **KPMG report**), which contained a critique of the CEPA report. A copy of NIE's response and the KPMG report is provided at Appendix 11.2.
- 1.4 In its Final Determination, the Utility Regulator rejects the bulk of the case advanced by NIE, without offering any coherent or convincing explanation for doing so, and decides to proceed with substantially all the adjustments advocated in the draft determination. The Utility Regulator continues to rely on the CEPA report, despite the important deficiencies identified by KPMG. In the present chapter, NIE therefore reiterates the points which it made in response to the draft determination, and also comments on new points raised in the Final Determination.
- 1.5 The Final Determination deals only briefly with the issues discussed at length in the draft determination. It is therefore not immediately clear whether the Utility Regulator persists in its contention that alleged changes in NIE's capitalisation practices have resulted in double-charging of customers. However, in light of the reasoning contained in the Final Determination, NIE submits that that contention is now unsustainable. In the draft determination, the Utility Regulator contended that, by virtue of the detailed workings of the RP4 price control, NIE was entitled to recover revenues which included depreciation in respect of, and a return on, actual additions to its RAB, as they occurred during RP4. Thus, if expenditure was wrongly added to the RAB, it was apt to result in an (almost) immediate increase in the level of NIE's allowed revenues. The draft determination therefore contemplated that NIE should not merely have to accept a reduction to its opening RAB for RP5, but should suffer a further reduction in its allowed revenues for RP5 to reflect amounts it had "double-charged" to customers during RP4. But the Final Determination drops that second

⁴ The Utility Regulator also proposed that NIE's allowed revenues for RP5 should be reduced to the extent of amounts which NIE had, allegedly, over-recovered during RP3 and RP4 to reflect depreciation and a return on the amounts wrongly capitalised during RP3 and RP4. However, in the Final Determination, the Utility Regulator accepts that its computation of those amounts was wrong, and that, once the errors are corrected, it is clear that there was no such over-recovery. In the Final Determination, the Utility Regulator also abandons an argument relating to the accounting treatment of the proceeds of asset disposals. See paragraphs 4.62 and 4.64 of the Final Determination.

requirement, in recognition of the fact that the capitalisation of the amounts now in issue during the last two years of RP3 and during RP4 did not result in any material increase in the level of NIE's allowed revenues (taking account of the appropriate treatment of WACC and of taxation)⁵.

- 1.6 There is therefore no basis for any remaining suggestion that NIE has, to any material extent, double-recovered to date. The key question is simply whether the Utility Regulator has made out a case for reducing NIE's opening RAB for RP5 by reference to the depreciated value of amounts alleged to have been wrongly added to the RAB during the final 2 years of RP3 and during RP4.
- 1.7 NIE firmly rejects the Utility Regulator's case for the proposed adjustments to the RAB. NIE outperformed its RP4 controllable opex allowance by £62 million (amounting to some 3% of regulated revenues for RP4) and considers that this outperformance is a legitimate return to NIE under the system of RPI-X incentive regulation, having regard to the efficiency of its operations.
- 1.8 NIE takes issue with all the key elements of the Utility Regulator's analysis in support of its adjustments to the RAB. NIE has not, in any relevant sense, changed its capitalisation practices. Its accounts have been properly prepared in accordance with relevant accounting standards and relevant licence obligations. These conclusions are supported by the independent review undertaken by KPMG for NIE. KPMG's review did not identify any changes in NIE's capitalisation practices as defined by IAS 8 (Accounting policies, changes in accounting estimates and errors), or any inappropriate capitalisation of expenditure resulting from breaches of applicable accounting standards. NIE's regulated transmission and distribution charges have been set within the levels contemplated in the RP4 price control settlement, in line with the overall capex budget agreed for the RP4 period and the agreed opex allowance. In consequence, the Utility Regulator has no sound basis for reclassifying NIE's expenditure so as to reduce the amounts added to the RAB during RP3 and RP4. Any suggestion that NIE has acted improperly in any way is firmly rejected.
- 1.9 NIE submits that much of the draft determination (and, in consequence, much of the analysis adopted in the Final Determination) is misconceived: it is based on assumptions which are incorrect; it addresses questions which are, in principle, irrelevant to the setting of the RP5 price control; and its findings and conclusions are therefore also irrelevant. In addition, the CEPA report is unsound.
- 1.10 In this summary section, we outline the key elements of NIE's critique of the Utility Regulator's analysis and of the work comprised in the CEPA report. NIE's critique shows that:
- NIE has at all times compiled its regulatory accounts in accordance with condition 2 of its licence, and condition 2 allows NIE periodically to re-assess the amounts to be capitalised in respect of particular heads of cost.

⁵ See paragraphs 4.64 to 4.65 of the Final Determination.

- Contrary to the view expressed by the Utility Regulator in the draft determination, there were no additional implied "rules" in the RP4 price control (and there was no need for such rules), beyond the provisions of licence condition 2, as to how NIE should estimate the amounts of expenditure to be capitalised.
- NIE has not changed its capitalisation practices. Most of the changes in opex and capex which the Utility Regulator has identified arise from changes in the underlying nature of NIE's activities and from improvements in, and the updating of, NIE's methods of estimating amounts to be capitalised in NIE's accounts.
- The Utility Regulator fails to recognise that the RP4 price control has worked effectively and to the benefit of consumers.
- The work described in the CEPA report embodies important errors, which render the report's conclusions unreliable.
- The Utility Regulator received annual updates from NIE as to its outturn capex and opex, and audited regulatory accounts on an annual basis, but it did not raise any objection until the closing stages of the RP5 price control review. The review of NIE's capitalisation practices did not start until February 2012.
- The draft determination and the Final Determination represent an attempt to re-open the RP3 and RP4 price controls, without any compelling reason and without regard to the Utility Regulator's wider statutory duties and objectives.

1.11 In practice, many of the deficiencies of the Utility Regulator's reasoning and conclusions appear to be attributable to the way in which the Utility Regulator instructed its consultants to undertake detailed analysis of NIE's accounting data, without first discussing the consultants' terms of reference with NIE, and without encouraging the consultants to consult NIE as to how the data was to be interpreted. The consultants' work was, in consequence, inaccurate as a result of their deficient understanding of NIE's programmes and processes, and misinterpretations of the data. And the tasks which the consultants were asked to undertake proceeded on the basis of an erroneous set of assumptions as to how the RP4 price control was intended to operate.

1.12 As noted above, NIE commissioned KPMG to prepare an independent report to assist with its response to the draft determination. The KPMG report explains many of the shortcomings in the CEPA report's analysis and conclusions. KPMG conclude that the Utility Regulator's consultants provide no evidence of changes in capitalisation practice, as defined in IAS 8, nor of any inappropriate capitalisation of expenditure, contrary to relevant accounting standards, and that the methodologies which the Utility Regulator's consultants used were simplistic and were not apt to identify changes in capitalisation practice. NIE is satisfied that its regulatory accounts

have been properly prepared, and NIE's auditors have not reported any breaches of applicable accounting standards or inappropriate capitalisation of expenditure.

2. BACKGROUND

- 2.1 This section describes, by way of background, the role of the regulatory accounts prepared by NIE in accordance with licence condition 2 and the structure of the price controls applied to NIE's T&D Business in RP3 and RP4.

Condition 2 of NIE's licence – NIE's regulatory accounts

- 2.2 NIE draws up regulatory accounts annually in accordance with condition 2 of its licence, which distinguish between operating expenditures and capital expenditures. Capital expenditures are capitalised in the accounts to form, in due course, part of NIE's RAB. Condition 2 requires NIE to draw up its accounts in accordance with relevant accounting standards, as if NIE's T&D Business were conducted by a separate company. Condition 2 also regulates how NIE should account for transactions between NIE's T&D Business and other parts of NIE's overall undertaking.

The RP4 and RP3 price controls

- 2.3 The price control applicable to NIE's T&D Business is reset periodically to allow NIE to recover only such revenues as the Utility Regulator judges reasonably necessary to enable NIE to finance its T&D activities, by recovering its opex expenditures, depreciation charges on its RAB from time to time, and a return on the capital employed in the assets making up the RAB.
- 2.4 The underlying logic of the RP4 price control arrangements was as follows:
- There should be simple mechanisms to ensure that, so far as related to controllable opex, any savings achieved by NIE in one regulatory period should feed through to lower prices in the next period; and, so far as related to capex, the recovery of depreciation and a return on capital employed would be based on actual rather than forecast capex.
 - The controllable opex allowance for each year of RP4 was therefore set, in real terms, at the level of the outturn controllable opex for the equivalent year of RP3 (subject to one-off reductions for years 1 and 2 of RP4). The RP4 opex mechanism was designed to avoid the need for granular ex ante assessment of NIE's operating costs, whilst incentivising NIE to spend less on opex than was provided for in the revenue allowances, so that the lower outturn opex could be used to inform the opex allowance to apply for the next price control period (RP5)⁶. But the Utility Regulator's approach in the Final

⁶ This latter point is clear from the Utility Regulator's proposals for RP4 (December 2005), provided at Appendix 11.3, where the Utility Regulator stated that "the difference between allowed opex and actual expenditure would be realised as efficiency gains by the company. At the time of the next price control review, the Utility Regulator would see the reduction in opex levels and would set a

Determination entirely defeats the first objective, by subjecting NIE's outturn opex to a detailed ex post comparison with opex incurred in RP3.

- The Utility Regulator likewise fails to recognise that the RP4 opex mechanism has been successful in incentivising NIE to reduce its opex expenditure: NIE has delivered significant real efficiencies in RP3 and RP4 which are already flowing through to customers and will continue to do so in RP5. NIE's position as a top quartile performer in terms of cost efficiency is supported by the detailed benchmarking analysis carried out by NIE's consultants.
- The RP4 capex mechanism was designed to avoid the possibility of NIE's RAB being increased by more than its actual capex spend, where actual capex fell short of what NIE had forecast at the beginning of the price control period. That has been successfully achieved, but the Utility Regulator pays no regard to the successful attainment of this objective of the RP4 arrangements.
- The RP4 opex and capex arrangements, in combination, were designed to ensure that, in the long run, it should not matter whether particular expenditure was treated as capex or opex, since, in broad terms, it would be recovered one way or the other, either over the life of the asset (capex), or in the regulatory period in which it was incurred (opex). The effect of the rolling opex allowance and the updating of the RAB by reference to outturn capex expenditure was (in effect) to allow NIE to recover all its opex and capex expenditures with (in the case of opex) a five-year time lag and (in the case of capex), via depreciation charges and a regulated rate of return on the RAB over the regulatory life of the relevant assets. Any particular expenditure would be recoverable only once – as either opex or capex. (This is consistent with points made by NIE in its Composite Proposal for RP4, which the Utility Regulator misrepresents in its Final Determination.)
- Condition 2 of NIE's licence (which regulates the way in which NIE should draw up its regulatory accounts) ensures that NIE applies appropriate principles for the treatment of expenditure as capex or opex. It thereby supports the effective operation of the RP4 price control mechanism, and also ensures equity among different generations of customers, by allowing the Utility Regulator to set price controls which allow for the fair recovery of overall costs according to the period in which opex is incurred, and the life of assets resulting from capex expenditure.

2.5 The RP4 price control included a further safeguard for consumers. It provided that, if the mechanisms described in paragraph 2.4 above would have resulted in increased charges to customers, relative to RP3 charges, then the safeguard cap should apply to preclude NIE from increasing charges beyond an agreed RP3 reference price.

correspondingly lower entitlement for the next period. Customers would see the benefits from efficiency improvements through lower bills in the subsequent price control period "

- 2.6 In contrast, the RP3 price control set an overall revenue limit, from which the opex allowance was derived, once the capex allowance had been determined. NIE was permitted to recover depreciation and earn a return on new capex based on the forecast (allowed) capex amounts, but its actual capex was substituted at the end of RP3, to form the opening RAB for RP4. In this way, NIE benefited, to the extent that it incurred less capex than forecast in RP3, since it earned a return on a higher assumed capex amount until the end of RP3; but, to the extent that NIE incurred capex beyond the amount allowed by the RP3 price control, NIE earned no return on such additional capex until the start of RP4.
- 2.7 Both the RP3 and RP4 price controls were structured to allow NIE to recover efficiently incurred opex⁷ during the price control period in which it is incurred, while allowing NIE to recover its investment in capital assets over a longer period fixed by the Utility Regulator. This reflects the fact that investment in capital assets benefits customers for several (and potentially many) years after the initial investment is made. It is therefore equitable and efficient to recover the cost of such investment over a longer period, from the various generations of customers who may be expected to enjoy the benefit of such investment.
- 2.8 Like other regulated utilities, NIE relies on the fact that, once the regulator has agreed that a particular investment should form part of its RAB, the costs of such investment will be recovered in a predictable manner; in particular, amounts properly added to the RAB will not later be disallowed, save in exceptional circumstances which are demonstrated to justify such an intervention. The value of the RAB from time to time is, for the purposes of NIE's price controls, derived from NIE's regulatory accounts, subject to rules (forming part of each price control settlement) as to how much new capital expenditure NIE should be permitted to add to the RAB during the current price control period.

The RP4 price control has worked effectively and to the benefit of consumers

- 2.9 NIE's allowance for operating costs in RP4 (£202 million) was based on the actual level of costs incurred in the previous regulatory period. The actual costs for RP4 were £140 million, representing an outperformance of £62 million. This outperformance was achieved through cost reductions as shown in the table below.

⁷ For RP3, the efficient level of opex was derived from the total revenue allowance, by agreement between the Utility Regulator and NIE; for RP4, the efficient level of opex was equivalent, in real terms, to the outturn opex for the equivalent year of RP3, subject to one off reductions for years 1 and 2 of RP4.

Table 11.1: RP4 opex outperformance

Reduction	£ million
Salary costs	9.6
Corporate costs	8.5
R&M costs	15.6
IT and telecoms costs	11.3
Managed service costs	8.4
Insurance costs	4.2
Other reductions	4.6
Total	62.2

- 2.10 In light of what is said above, it is clear that the RP4 price control has worked well: it has driven reductions in NIE's opex and has enabled NIE to adopt new and more effective ways of managing its assets. NIE reduced its gross operating costs (before the capitalisation of overheads) by more than £65 million between RP3 and RP4, and those reductions are factored into the assessment of allowable costs for RP5. The Utility Regulator has erred in failing to recognise that the RP4 price control has worked effectively to protect consumers and to incentivise efficiency on the part of NIE without any need for such adjustments as it now proposes.

3. THE UTILITY REGULATOR'S CASE: THE DRAFT DETERMINATION

- 3.1 The Utility Regulator's case, as set out in the draft determination, was substantially as follows:
- It is the Utility Regulator's task to examine, at the end of the price control period, whether apparently substantial opex savings (such as those observed in RP3 and RP4) are all efficiency-related.
 - The opex savings in years 1 to 3 of RP3 appear to arise from operational efficiency improvements. But the savings in later years appear to be broadly matched with increased capitalisation of overheads, R&M costs and tree-cutting costs. This justified a more detailed examination of NIE's capitalisation practices in respect of such costs.
 - The Utility Regulator therefore commissioned the CEPA report to examine these matters. The CEPA report concluded that a significant amount of the reported opex outperformance, for the last 2 years of RP3 and for all of RP4, resulted from a change in capitalisation practices.
 - The Utility Regulator considered that, because of the regulatory rules that were in place for RP4, the classification of costs between opex and capex was particularly important; the regulatory agreement at the time of setting the RP4 rules was based on an understanding that costs were, and would

continue to be, classified in a consistent manner; in this regard, the Utility Regulator cited comments made by NIE, in its RP4 submissions, to the effect that costs should be recovered as opex or capex, but not both. NIE understood the Regulator to be alleging that NIE had breached “rules” which formed part of the RP4 “arrangements”.⁸

- The Utility Regulator adopted the conclusions of the CEPA report to the effect that changes in NIE's capitalisation practices had resulted in the capitalisation of an additional £8.6 million in respect of overheads (mainly costs associated with purchasing and logistics; managed services; NIE's network department; connections; and IT); £11.6 million in respect of R&M costs (mainly costs associated with fault and emergency repairs, non-recoverable alterations⁹, and routine maintenance); and £11.5 million in respect of tree-cutting costs (mainly costs associated with NIE's submitted RP4 programme of targeted asset replacement on the overhead line network, which entails a substantial amount of tree-cutting activity)¹⁰.
- The Utility Regulator concluded that these amounts should have been borne out of NIE's fixed opex allowances, but had instead been treated as capital expenditure. Accordingly, over time, the NIE consumer would pay twice for the same costs.

See paragraphs 1.3, 3.12 and 3.14 of the draft determination and section 1.5 of the CEPA report.

- 3.2 The Utility Regulator essentially reiterates these conclusions in section 4 of the Final Determination.
- 3.3 However, there is a significant difference between the regulatory justification impliedly advanced for intervention in the draft determination and in the Final Determination. In the draft determination, the Utility Regulator appeared to be arguing that NIE had broken "rules" forming part of the RP4 price control “arrangements”. See paragraph 3.1 above. But, in the Final Determination, the Utility Regulator appears to accept that NIE has not broken any specific rules, but argues instead that the alleged changes in NIE's capitalisation practices are inconsistent with the overall principles associated with the RP4 price control. See, for example, paragraphs 4.34 to 4.40 of the Final Determination.
- 3.4 This is an important distinction, and one which the Utility Regulator now recognises: in its first day submission to the Competition Commission (UR-6, paragraph 18), the Utility Regulator admits that NIE has not breached any licence condition. If NIE were alleged to be in breach of some licence obligation, then that should be addressed via

⁸ It seems that this is also how other readers interpreted the draft determination. For example, one respondent asked whether NIE should be subject to further penal sanction, beyond the proposed RAB adjustment, apparently on the basis of its understanding that the Utility Regulator was alleging a breach of NIE's licence conditions. See paragraph 4.33 of the Final Determination.

⁹ That is, alterations to the network in respect of which the cost is not recoverable from any particular customer of the network.

¹⁰ For convenience, we refer to the depreciated amounts. See footnote 1 above.

proper enforcement proceedings. Conversely if, as is now acknowledged to be the case, the Utility Regulator alleges that some general regulatory principle justifies a discretionary retrospective adjustment to NIE's RAB, then the Utility Regulator (and, now, the Competition Commission) should recognise that there is a very strong presumption against the making of a discretionary, retrospective adjustment, and should take account of all relevant considerations before deciding whether such an adjustment to NIE's RAB is the best means of attaining their relevant statutory objectives. NIE notes that the Utility Regulator has made no attempt to make such an assessment, and submits that any proper assessment of all relevant factors would show that the proposed adjustment is not justified or appropriate.

- 3.5 In addition, the Utility Regulator appears in the Final Determination to have abandoned the allegations – which formed a significant part of the draft determination – that NIE's charges during RP4 entailed any material element of double recovery during RP4 of costs which had (it is alleged) been wrongly capitalised: see paragraphs 1.4 and 1.5 above. The Utility Regulator now accepts that NIE's allowed revenues during RP4 were not materially affected by the capitalisation of the amounts now in issue. Any concern as to whether there will be double recovery relates only to recoveries to be made during RP5 and beyond¹¹.

4. NIE'S RESPONSE TO THE DRAFT DETERMINATION

No change in capitalisation practice

- 4.1 NIE firmly rejects the suggestion that NIE's capitalisation practices have unfairly disadvantaged consumers. NIE has not changed its capitalisation practices and its practices have at all times complied with relevant accounting standards, and its regulatory accounts have been drawn in accordance with licence condition 2.
- 4.2 An independent review of the CEPA report undertaken for NIE by KPMG did not identify any changes in NIE's capitalisation practices as defined by IAS 8 (Accounting policies, changes in accounting estimates and errors), or any inappropriate capitalisation of expenditure entailing breaches of applicable accounting standards. The Utility Regulator and the CEPA report identify only very limited changes in the way in which NIE estimates the amounts to be capitalised in its accounts: NIE has updated its estimates of the amounts to be capitalised in respect of overheads; and it has employed new ways of estimating the amount of repairs and maintenance expenditure to be capitalised (based on better tools for capture of the underlying data and business process improvements). But these do not amount to changes in capitalisation practices, but in the estimates derived from the application of consistent practices. (It is also important to note that, in some cases, increases in the amounts of expenditure capitalised reflect changes in the underlying mix of NIE's activities between opex and capex activities. This is discussed in more detail below.)

Compliance with NIE's licence

¹¹ And, so far as NIE understands the Utility Regulator's position, this is what is meant by the reference to double counting in paragraph 4.32 of the Final Determination

- 4.3 Condition 2 of NIE's licence does not preclude NIE from modifying the methods by which it estimates the amounts to be capitalised in respect of particular heads of expenditure from time to time (or the resulting estimates), provided that NIE's accounts conform to appropriate accounting standards, and are otherwise consistent with the particular obligations imposed by condition 2.
- 4.4 NIE has at all times complied with condition 2 in the preparation of its regulatory accounts. Indeed, it would be difficult for NIE to comply with condition 2 if it were not allowed to alter the methods by which it estimates the amounts to be capitalised from time to time (or the resulting estimates), since periodic re-assessment of such estimates is necessary and appropriate to ensure that its accounts continue to give a true and fair view of the matters to which they relate.
- 4.5 NIE's auditors have expressed themselves satisfied that NIE's regulatory accounts comply with condition 2 of NIE's licence (and this entails a judgment that the accounting practices used by NIE are sound) by providing an audit opinion to that effect in respect of NIE's regulatory accounts for each relevant accounting period.

The CEPA report provides no sound basis for adjustments to NIE's RAB

The CEPA report

- 4.6 The particular adjustments which the Utility Regulator proposes to make to NIE's RAB are based on its acceptance of the key analysis and findings in the CEPA report. It is therefore important to examine that report to ascertain whether it provides a sound basis for such adjustments.

Terms of reference and overall approach

- 4.7 It is to be noted at the outset that the CEPA report does not disclose the consultants' full terms of reference.
- 4.8 However, the report's account of the RP5 price control and the background to the RP4 price control (sections 1.1 and 1.2) suggests that the Utility Regulator's instructions are likely to have pre-judged issues which had not been aired with NIE, and that the instructions are likely to have been designed to draw out potential adjustments to NIE's detriment, whilst paying insufficient regard to the basic principles of RPI-X price control regulation. We would, for example, draw attention to the following.
- 4.9 Section 1.1 of the report records that the report focuses on "changes in capitalisation practice that, had they been discussed and agreed with the Utility Regulator, would not have been acceptable or would have required a different accounting treatment and would not therefore have been so beneficial to NIE." This wording suggests that the Utility Regulator instructed the consultants to the effect that NIE should have obtained the Utility Regulator's consent before changing any element of its capitalisation practices (including, for example, even its estimate of the proportion of a particular head of costs to be capitalised). But this is incorrect. It is unfortunate that the consultants should have embarked on their work on this erroneous basis.

- 4.10 It is also unclear on what basis the consultants expected to know what the Utility Regulator would or would not have agreed with NIE if NIE had made a reasoned case in support of a change to its capitalisation practice. If the Utility Regulator instructed the consultants that it would not have agreed to particular changes, then that is a decision which the Utility Regulator has made without consultation and without giving any reasons for it.
- 4.11 Moreover, the consultants' comments make clear that they have focused only on changes which they consider would have operated to NIE's benefit, not to those which might have operated to NIE's detriment¹². The report therefore presents a somewhat partial picture of the issues to which it relates. It is clear that, if the consultants had sought to approach the matter even-handedly, they should also have recognised, and factored into their proposed adjustments, heads of expenditure in which NIE has incurred more opex in RP4 than in RP3 (amounting to some £3.6 million)¹³.
- 4.12 Section 1.1 of the CEPA report further explains that the consultants' work was prompted by the Utility Regulator's alleged discovery, as part of the RP5 review process, that NIE's outturn controllable opex costs were "significantly lower than their agreed allowance for RP4". This is presented as if it were a matter of surprise and, in itself, a cause for concern. But the Utility Regulator should not have been taken by surprise. NIE had delivered audited regulatory accounts to the Utility Regulator annually throughout RP3 and RP4, and those accounts disclosed NIE's opex costs from year to year. Nor should a fall off in opex be seen as a cause for concern. Indeed, the Utility Regulator's consultants acknowledge, at the end of section 1.1, that the Utility Regulator had intended that the rolling opex mechanism in RP4 should provide NIE with an incentive to further reduce controllable operating costs. The tone of the consultant's comments suggests a very incomplete understanding of the RPI-X system of price control regulation, and, in particular, of the incentive properties of the RP4 price control mechanism. RPI-X price control regulation generally incentivises regulated companies to reduce their overall costs, by allowing them to retain the benefit of any outperformance for a specified period, after which any new price controls will be reset so as to pass on to consumers the recurring benefit of the company's efficiency savings. The RP4 opex mechanism set NIE's controllable opex allowance without direct regard to NIE's likely opex requirements, but by reference to historic outturn figures. There was therefore no reason to view a reduction in outturn opex with concern or suspicion. The mechanism had worked, insofar as it passed on to consumers the benefit of efficiencies achieved during RP3, and provided a lower baseline figure by reference to which to set the opex allowance for RP5.
- 4.13 In introducing the summary of their findings in section 1.3, the consultants explain that, where NIE has outperformed by reference to its opex allowance, they have focused on confirming "that this was caused by efficiency savings and not by other means". It turns out, from a reading of the full report, that the consultants appear to have been under the impression that NIE should be entitled to retain the benefit of

¹² See for example page 49 of the CEPA report.

¹³ Page 28 of the KPMG report.

outperformance only to the extent that it was attributable to the achievement of efficiency savings in the undertaking of like for like activities (e.g. lower unit procurement costs, or higher productivity per employee), and that any other source of outperformance (e.g. the installation of new types of asset, or the undertaking of new kinds of capital work, which avoid opex costs) should be subject to a discretionary clawback of any "undeserved" or "windfall" benefits. For the reasons given in paragraph 4.12 above, and in light of the overall philosophy of RPI-X price control regulation, NIE submits that this is entirely inappropriate, and that the consultants misdirected themselves in applying such a test.

The history of NIE's capitalisation practices

- 4.14 The CEPA report proceeds on the assumption that NIE made changes to its capitalisation practices late in 2005, after the terms of the RP4 price control had been settled, at which point – by implication – it would have been apparent to NIE that there might be short term benefits to NIE in capitalising more of its expenditure. This is also reflected in the Utility Regulator's draft determination, where, at paragraph 2.5, the Utility Regulator states: "On 21 December 2005 the NIE T&D executive approved changes to their capitalisation practices"¹⁴.
- 4.15 In fact, this is incorrect. As NIE had already explained to the Utility Regulator¹⁵, an approval given by NIE's Executive Committee in December 2005 was to bring documentation into line with practice rather than to approve a change in practice. At its meeting on 21 December 2005¹⁶, the NIE Executive Committee approved an update to NIE's Capital Expenditure Procedures Manual (CEPM). The primary purpose of the CEPM is to describe the procedures relating to the appraisal, approval and monitoring of network related capital expenditure.
- 4.16 Appendix 1 of the 2000 version of the CEPM set out a "Capital vs Revenue Classification". However, this classification was not applied in practice. On 21 December 2005, the NIE Executive approved a number of revisions to the CEPM, one of which updated Appendix 1 to bring it into line with the capitalisation policy set out in the paper entitled "Northern Ireland Electricity, Accounting for Fixed Assets and Depreciation, Implications of FRS15" which dates from 2001, (the **2001 Paper**)¹⁷. The 2001 paper sets out the criteria applied when deciding whether expenditure is either capital or revenue in nature. Those criteria have been applied since 2001.
- 4.17 The draft determination further suggests that the Utility Regulator did not know about the "change" to NIE's capitalisation practice when it settled on the RP4 price control. Paragraph 2.6 of the draft determination states that the NIE Executive approval of 21

¹⁴ The Utility Regulator does not deal with this issue in the body of its Final Determination, but includes comments in Appendix G, at page 9. So far as presently relevant, the Utility Regulator notes only that NIE did not obtain consent to change the estimate of the proportion of certain costs to be capitalised. But, for the reasons given in paragraph 5.8 below, NIE did not require the Utility Regulator's consent.

¹⁵ Correspondence dated 30 September 2011, provided at Appendix 11.4.

¹⁶ Minutes of the meeting of the NIE Executive Committee held on 21 December 2005 are provided at Appendix 11.5.

¹⁷ Provided at Appendix 11.6

December 2005 “occurred after we had written to the company that we were minded to accept its ‘composite proposal’.”

- 4.18 NIE had already pointed out to the Utility Regulator that there was, in fact, no "change" to NIE's capitalisation practice in December 2005. But, quite apart from whether any changes to the CEPM were substantive or not, it is misleading for the Utility Regulator to suggest that it did not know about them before settling the terms of the RP4 price control.
- 4.19 In fact, NIE provided the Utility Regulator with a copy of the 2005 revision of the CEPM on 22 December 2005. This was part of the first tranche of information provided by NIE to the Utility Regulator and its consultants, Mott MacDonald, in their review of NIE's capital investment programme for RP3 and RP4, which review was undertaken in the period from December 2005 to June 2006. The Utility Regulator did not publish its Final Proposals for RP4 until September 2006.
- 4.20 Thus, in reality, when the Utility Regulator settled the RP4 price control, the Utility Regulator and its consultants (Mott MacDonald) were in possession of both the 2005 and 2000 versions of the CEPM.
- 4.21 It is a matter of serious concern to NIE that, in preparing the CEPA report, the Utility Regulator's consultants should have been under the misapprehension that the RP4 price control was settled in circumstances where NIE had, in effect, withheld information from the Utility Regulator as to the principles by reference to which expenditure was being, and was to be, capitalised during RP3 and RP4.

Source data and co-operation with NIE

- 4.22 The Utility Regulator's consultants proceeded with the tasks entrusted to them by taking a large volume of accounting records and supporting information from NIE, analysing it in the manner described in the CEPA report, and drawing conclusions as to the extent to which NIE had modified its "accounting practices" in a way which had the effect (relative to its previous accounting practices) of increasing the extent to which costs were capitalised, and reducing the amounts charged to opex.
- 4.23 It was clearly critical to the soundness of the consultants' conclusions that they should have extracted data accurately from NIE's accounting records and manipulated and interpreted that data appropriately.
- 4.24 The KPMG report identifies various important deficiencies in the data extracted and used by the Utility Regulator's consultants and in the manipulation of that data to address the issues discussed in the consultants' report¹⁸. We summarise those criticisms in the following paragraphs, but we would refer the Competition Commission to KPMG's full report for a fuller account of them.

¹⁸ It is to be noted that the Utility Regulator provided NIE with sight of an earlier draft of the consultants' report and with the proposed final draft of the report. NIE drew attention to material deficiencies and errors in the earlier draft and more minor deficiencies and errors in the close-to-final draft, but these stages in the proceedings are not mentioned the Final Determination.

Shortcomings in the consultants' work

- 4.25 In light of these considerations, NIE considers that the CEPA report should be viewed with caution, and that any judgments which it contains as to the propriety of NIE's conduct should be carefully scrutinised to determine whether the consultants have misdirected themselves as to NIE's underlying obligations and as to the functioning of the RP4 price control.

Capitalisation of overheads

- 4.26 The CEPA report concludes¹⁹ that, during the final 2 years of RP3 and the whole of RP4, NIE has capitalised a larger proportion of overheads than in previous accounting periods; as a result, NIE has capitalised £9.8 million²⁰ more in overheads than it would have done if it had not changed the proportion of overheads to be capitalised; it considers that NIE's RAB should therefore be reduced by £9.8 million, with consequential adjustments to the amounts recoverable by way of depreciation and return on the RAB.
- 4.27 KPMG's review of the CEPA report (pages 19 to 23, summarised at page 7) notes that:
- During the period under review, NIE adopted new percentage rates in respect of the proportion of overheads to be capitalised. (In fact, the new percentage rates reflected an updated assessment of the proportion of capex to opex in recent years, before any capitalisation of overheads).
 - The £9.8 million adjustment which the CEPA report recommends is based on a simple calculation of the difference between the amount of overheads which would have been capitalised at the "old" percentage rates and the higher amounts capitalised at the "new" rates. The consultants make no attempt to assess or recognise the legitimacy of NIE's re-assessment of the proportion of overheads attributable to capital projects.
 - The changes made by NIE to capitalisation rates reflect the normal on-going review and updating of overhead capitalisation rates; such changes are appropriate and are made in accordance with IAS 8 (Accounting policies, changes in accounting estimates and errors).
 - In short, the changes do not represent a change in accounting policy or "capitalisation practice", but in the estimate of the amounts to be capitalised, in the light of new evidence. Throughout the whole period, NIE has adopted the same overall approach – that is, to capitalise such amounts of overheads expenditure as are properly referable to capex projects, and its assessment of the amounts so referable have been updated to render them more accurate.
- 4.28 Indeed, it is notable that the overheads capitalised in RP4 (£45.1 million, representing 10.2% of NIE's gross capex of £444.4 million) were lower than those

¹⁶ See in particular section 6.6 of the CEPA report.

²⁰ i.e. £8.3 million plus an additional £1.5 million referable to 2011/12.

capitalised in RP3 (£48.0 million, representing 12.5% of its gross capex of £385 million), and lower than those included in the RP4 capex budget (£48.1 million).

- 4.29 NIE has consistently followed a practice whereby it capitalises a proportion of its overheads, in reliance on the principle that the proportion of overheads to be capitalised should reflect how much of NIE's overall expenditure is directly recognised as capex expenditure.

Repairs and maintenance

- 4.30 The CEPA report concludes²¹ that the amounts appearing in NIE's accounts for the final two years of RP3 and the first 4 years of RP4 as opex incurred by NIE on repairs and maintenance (R&M) are less than the amounts appearing in earlier corresponding base years. Since the consultants suspected that this reduction was attributable at least in part to a change by NIE in its practice as to the capitalisation of expenditure on R&M, the report calculates an outperformance difference of £20.5 million for the six years of their analysis (2 years of RP3 and 4 years of RP4) by reference to an equivalent base year's cost (average of years 1 to 3 of RP3 for years 4 and 5 of RP3 and the equivalent base year of RP3 for the first 4 years of RP4). Having identified this "outperformance difference", by way of this simplistic data and comparison analysis, the consultants then set out to attribute their own reasons for the outperformance. As a starting point, the report examines the extent to which amounts initially entered as R&M opex in NIE's accounts have been transferred to capex (so-called "direct R&M capitalisation", with an attributable amount of £7.0 million) and, where that does not fully account for any fall off in R&M opex in a particular year in question relative to its base year, the extent to which any reduction in R&M opex is matched by an increase in capex in an accounting category which they deem covers broadly the same kind of work (so called "capital programme substitution" with an attributable amount of £6.2 million). The report claims that the direct R&M capitalisation amount of £7.0 million and the capital programme substitution amount of £6.2 million represent inappropriate capitalisation of opex. Overall, the CEPA report proposes that the additions to the RAB be reduced by £13.2 million.

- 4.31 KPMG's review of the CEPA report (pages 24 to 37, summarised at pages 8 to 9) notes that:

- The CEPA report is in error in that it assumes that any amount initially entered in NIE's accounts as opex and then transferred to capex has been wrongly re-categorised as capex (so-called direct R&M capitalisation). In fact, NIE first records amounts as opex, and then transfers such amounts to capex when they are properly to be treated as capex, as part of its normal methods of accounting entry. It cannot simply be inferred that any such transfer is inappropriate and the consultants have not provided any evidence of changes in capitalisation practices or inappropriate capitalisation of opex in this regard.

²¹ See in particular section 6.5 of the CEPA report.

- The CEPA report assumes a simple cause-and-effect relationship between reductions in opex and increases in capex: it assumes that, where there is a reduction in opex in excess of the direct R&M capitalisation amount and an increase in a loosely-related category of capex, the reduction and increase result from capitalisation of expenditure in respect of a single underlying activity which would, in a previous accounting period, have been treated as opex (so-called capital programme substitution). The CEPA report does not provide any actual evidence of changes in capitalisation practices or inappropriate capitalisation of opex to the extent proposed by their data analysis.
- Thus, the CEPA report does not examine at all the extent to which the reductions in opex and the increases in capex in NIE's accounts reflect changes in the nature of the underlying activity (so that the application to such new activities of exactly the same accounting policies and methods of estimation as were used in previous periods would still lead to such reductions and increases).
- The CEPA report's starting point (the base year expenditures) is flawed: the "normalised" opex figures for years 4 and 5 of RP3 (which form the base amounts for the equivalent years of RP4) assume that outturn opex in years 4 and 5 of RP3 should have been equivalent to the average outturn expenditure for years 1 to 3 of RP3. But this takes no account of increasing efficiency savings realised throughout RP3 (and which the consultants themselves acknowledge elsewhere in their report) and results in an overstatement of the purported adjustment of £2.7 million.
- The approach taken in the CEPA report is not even-handed: it looks only at reductions in opex, not increases in opex, and its adjustments are not amended to take account of offsetting increases in opex (amounting, on their own analysis, to some £3.6 million) and, in KPMG's view, representing an overstatement of the purported adjustment of this amount.
- The CEPA report's calculations embody numerous errors, which cast doubt on the reliability of the underlying work and resulting conclusions.

4.32 In short, the Utility Regulator's consultants have misunderstood how NIE draws up its accounts and have wrongly attributed significance to the transfer of entries from opex to capex; they have identified unfounded relationships between a fall off in opex and an increase in capex in broadly matched categories of activity; and they have failed to recognise important changes in the mix of NIE's activities between RP3 and RP4, which have legitimately given rise to increases in capex and a reduction in opex. For all these reasons, the adjustments proposed in respect of R&M costs are not justified.

Tree-cutting

- 4.33 The CEPA report concludes²² that NIE's capex expenditure includes more tree-cutting costs during the final two years of RP3 and during RP4, relative to earlier years; the increase in capex costs for tree-cutting is attributable to excessive unit costs for tree-cutting and to NIE's having decided to capitalise a higher proportion of tree-cutting costs. The CEPA report therefore proposes a reclassification of £12.6 million²³ (after eliminating double counting with the R&M adjustment), designed to reverse the effect of the capitalisation of amounts in excess of one third of tree-cutting costs.
- 4.34 KPMG's review of the CEPA report (pages 38 to 42, summarised at page 10) notes that:
- The adjustment proposed by the CEPA report is based on the difference between the amount of tree-cutting costs capitalised and the amount expected to be capitalised, assuming capitalisation of one third of tree-cutting costs. But the report provides no sound basis for expecting only one third of tree-cutting costs to be capitalised, other than by reference to historic information in the first three years of RP3. NIE's RP4 capex submissions provided no basis for such an estimate and KPMG do not consider that a policy of capitalising one third of tree-cutting costs would be appropriate. The CEPA report merely cites historic information from the first three years of RP3. But the one third figure was merely the outturn figure for the first three years of RP3 and reflected the mix of reactive and strategic tree-cutting being undertaken then. There is no reason to regard that particular mix as defining a norm.
 - During the RP4 process, NIE advised the Utility Regulator of its plans for programmes of asset replacement and asset refurbishment on overhead lines, which would entail substantial tree-cutting activities. It was therefore to be expected that more tree-cutting costs would be capitalised.
 - The consultants have not provided any evidence of a change in capitalisation practice as defined in IAS 8, nor any evidence of inappropriate capitalisation of expenditure on tree-cutting, entailing breach of applicable accounting standards.
 - The consultants have no convincing basis for concluding that the costs of tree-cutting per kilometre are excessive. They take no account of the greater density of vegetation, compared with the vegetation which had been cut in previous periods.
- 4.35 NIE would also draw attention to the following deficiencies in the Utility Regulator's analysis of the extent to which NIE's capitalisation of tree-cutting costs would entail double-charging of customers:

²² See in particular section 7 of the CEPA report.

²³ i.e. £8.6 million plus an additional amount of £4 million for 2011/12.

- NIE has not changed its capitalisation practices in respect of tree-cutting. NIE incurs tree-cutting costs in two ways (i) as reactive (or hotspot) tree-cutting; or (ii) as part of planned overhead line refurbishment programmes. Tree-cutting costs associated with (i) have always been treated as opex and tree cutting costs associated with (ii) have always been treated as capex.
- In consequence of its new capital programme for overhead line refurbishment, NIE undertakes less reactive tree-cutting activity and there is therefore a lesser charge to opex for such tree-cutting activities. To that extent, NIE is unlikely to have repeated, during RP4, the same amount of reactive tree-cutting as it undertook in RP3, and it is therefore unlikely to have spent the same amount of opex on reactive tree-cutting during RP4 as it did during RP3. But that does not mean that it has wrongly benefited to the extent that the RP4 controllable opex allowance included amounts referable to reactive tree-cutting costs in RP3. The RP4 controllable opex allowance was set on a top down basis, without any expectation that NIE would repeat in RP4, on a like for like basis, all the activities which had contributed to its opex expenditure during RP3. There is therefore no proper basis for the Utility Regulator now to reopen the RP4 settlement so as to penalise NIE for having introduced new more efficient ways of managing its network, simply because the overall mix of work differed from what had been done in previous years.
- In NIE's submission, it is particularly telling that, during the RP4 process, in May 2006, the Utility Regulator's own consultants, Mott McDonald, stated that NIE's proposed tree-cutting programme, as part of its low voltage overhead mains investment plan, was a "sensible strategy" and went on to say that: *"However, from the numbers above not all tree trimming is covered by targeted asset replacement or re-engineering suggesting that some expenditure may need transferring to maintenance expenditure. This will require confirmation between Ofreg and NIE."* (Italics in original). Thus, Mott McDonald was satisfied that NIE's strategy for management of overhead lines (which it knew to include substantial elements of tree-cutting) was appropriate, and drew this strategy to the Utility Regulator's attention²⁴.
- In setting the final capex budgets for RP4 (i.e. the amounts which NIE was expected to spend on capex projects, and to add to the RAB) pursuant to Mott McDonald's report, the Utility Regulator applied a discount to NIE's proposed capex programme but did not apply any discount specifically in respect of the amount of tree-cutting expenditure that was expected to be undertaken, and capitalised, as part of the asset replacement and refurbishment programmes. Nor did the Utility Regulator suggest any amendment to the opex allowance to allow part of the expected tree-cutting costs to be treated as opex.

²⁴ Mott McDonald Limited, OFREG review of NIE capital investment, NIE capital investment programme for RP3 and RP4, May 2006, page 5-50. This document is provided at Appendix 11.7.

4.36 In short, the Utility Regulator's consultants, and the Utility Regulator, have misrepresented the evolution of NIE's strategy in dealing with the risks posed to its overhead network by trees and other vegetation, the way in which that strategy was reflected in NIE's capex proposals for RP4, the extent to which those proposals were accepted in the Utility Regulator's capex budgets for RP4, and the resulting capex and opex expenditures appearing in NIE's regulatory accounts.

NIE's response to the Utility Regulator's analysis of the RP3 and RP4 price controls

4.37 As well as arguing that it had not changed its capitalisation practices to the detriment of consumers, NIE argued, in response to the draft determination, that the Utility Regulator had erred in its analysis of the rules which governed the RP4 price control – both the rules laid down in condition 2 of NIE's licence as to the preparation of its regulatory accounts, and the specific rules adopted as part of the RP4 price control.

4.38 NIE considered that the Utility Regulator's analysis in the draft determination suggested that it relied on two implied "rules" which it regarded as applicable to NIE:

- the first new "rule": that it formed part of the RP4 price control settlement that NIE should not alter its "capitalisation practices" in any way that would alter the amounts treated as capex under any particular head of expenditure, and that the amounts of capex recoverable, and the amounts to be added to the RAB from one year to the next, should be calculated by reference to accounts drawn up by reference to unaltered "capitalisation practices"; and
- the second new "rule": that it formed part of the RP4 price control settlement that the Utility Regulator should review NIE's outperformance against its opex allowance ex post to determine to what extent such outperformance was attributable to efficiency, and that, prima facie, any outperformance might be clawed back at the end of RP4 if it was not the outcome of improvements in operational efficiency in the conduct of activities on a like for like basis.

4.39 So far as related to the first new "rule":

- The Utility Regulator suggested that licence condition 2 requires NIE not to alter any of its "capitalisation practices" in the preparation of its regulatory accounts. The Utility Regulator did not define precisely (by reference to condition 2 of the licence) what it meant by "capitalisation practices" nor what particular practices it considered NIE to have changed.
- In reality, as explained below, NIE has not altered the basis on which it draws up its accounts,²⁵ nor its accounting policies, nor its capitalisation practices, as that term is understood by reference to IAS 8.
- NIE has, however, in some cases, re-assessed the estimates of the amounts to be capitalised under particular heads of expenditure (notably overheads),

²⁵ Except that it changed from a current cost basis to a historic cost basis in 2005/6, with the consent of the UR.

or it has used more sophisticated methods to identify amounts to be capitalised, through business process improvements and improved data collection tools which provide better visibility as to the purpose for which costs are incurred (notably in respect of some elements of repairs and maintenance expenditure). But these new methods of estimation, or new estimates, do not amount to changes in the basis on which the accounts are prepared, or the accounting policies used, or relevant capitalisation practices. In other cases, there have been changes in NIE's underlying activities (entailing more capex work and less opex activity), which has necessarily led to the capitalisation of a higher percentage of NIE's costs, without any change in NIE's capitalisation practices.

- Licence condition 2 requires that NIE's regulatory accounts be prepared each year on a consistent basis. But condition 2 also requires that NIE prepare its accounts in accordance with relevant accounting standards (imported via the Companies (Northern Ireland) Order 1986), and procure an audit opinion as to whether the accounts provide a true and fair view, in accordance with such standards. In this context, the requirement for consistency may require NIE to adopt consistent accounting policies and practices from one year to the next (which NIE has done), but it does not preclude NIE from re-assessing from time to time the methods by which it estimates the amounts to be capitalised under particular heads of expenditure (or the resulting estimates), where a modified method or a different estimate is consistent with the presentation of a true and fair view, in compliance with applicable accounting standards. Indeed, it may be necessary for NIE to adopt modified methods of estimation, or estimates, from time to time in order to provide a true and fair view and to secure continued compliance with such standards²⁶. Moreover, the provisions of condition 2.4 which restrict NIE's freedom to alter the bases of charges, apportionments etc. as between Separate Businesses would be otiose if condition 2.3 bore the meaning for which the Utility Regulator contended.
- Nor do the terms of the RP4 settlement preclude NIE from adopting modified accounting methodologies and practices, provided that they comply with licence condition 2. The rationale for RP4 does not require the application of such a "rule" and the Utility Regulator has misunderstood NIE's submissions as to its Composite Proposal to the extent that it concludes otherwise.
- Licence condition 2, and the supplementary cap applied to NIE's charges during RP4 were, in combination, amply protective of the interests of consumers, and there was no need for (and no proposal for) the application of additional accounting rules such as the Utility Regulator sought to apply as part of the RP4 arrangements.
- NIE has complied with licence condition 2, as described above.

²⁶ See also the KPMG report at pages 16 to 17.

- It was not open to the Utility Regulator to argue that some implicit or potential obligation in condition 2 not to alter "capitalisation practices" became more stringent during RP4 because of the nature of the RP4 price control arrangements²⁷. Such an argument is not consistent with the terms and logic of condition 2. Nor does the structure of the RP4 price control necessitate it.
- Moreover, it was notable that the Utility Regulator intended to adjust the RAB to reverse certain additions made to the RAB during RP3, to the extent that they derived from alleged changes in NIE's capitalisation practices in the later years of RP3. This suggested that the Utility Regulator did not consider that any "rule" precluding the making of such changes derived from the terms of, or underlying rationale for, the RP4 settlement. If the "rule" were part of the RP4 settlement, then it would be wrong to apply it retrospectively into RP3.
- Indeed, the fact that the annual opex allowance in RP3 was derived as a residual amount from a total revenue allowance precludes any useful consideration of how NIE was expected to spend the RP3 opex allowance and, in particular, whether particular expenditure in RP3 was expected to be treated as opex or capex. The Utility Regulator's only objective was to constrain the total revenue allowance within specified levels, and the way in which that total allowance was split as between capex and opex was a matter of only lesser concern.

4.40 So far as relates to the second new "rule":

- the Utility Regulator wished, in the draft determination, to apply a "rule" that NIE's outturn opex should be reviewed ex post and any outperformance clawed back, to the extent that it is not attributable to simple operational efficiency gains. However, the RP4 settlement provides no basis for the application of such a "rule";
- however, the adoption of the "rolling opex" mechanism for RP4 was designed to obviate the need to conduct a detailed examination of the source of particular savings in controllable opex. It formed no part of the RP4 settlement that there should be detailed assessments of how NIE has spent its opex allowance, or how the composition of its opex expenditure in one period compared with the composition of its opex expenditure in the corresponding year of a previous regulatory period;
- the Utility Regulator (and its consultants) appear, at times, to have fallen into the error of assuming that NIE should carry on "opex elements" of its business, from one price control period to the next, by repeating the same kinds of maintenance activities as it conducted in previous price control periods, and should be rewarded (by retaining the benefits of outperformance) only to the extent that it conducts such similar activities more efficiently. The Utility Regulator (and its consultants) appeared to consider that NIE enjoyed an undeserved windfall to the extent that NIE found new

²⁷ See paragraph 3.12 of the draft determination.

ways of attaining appropriate outputs which avoided incurring repeat opex at all, or which entailed more efficient capital work instead of maintenance work, or to the extent that opex incurred in one period on particular items simply did not recur in future periods²⁸. But such an approach is wholly alien to the rationale for the RP4 settlement; and

- since the annual opex allowance in RP3 was determined as a residual amount, and since the annual opex allowance in RP4 was determined mechanistically by reference to the outturn opex expenditure in the corresponding year of RP3, there can have been no firm expectation as to how (or how much of) the opex allowance would be spent, and there can therefore be no proper basis for holding now that any particular saving is illegitimate²⁹.

5. THE UTILITY REGULATOR'S FINAL DETERMINATION AND NIE'S RESPONSE

- 5.1 The Utility Regulator's Final Determination does not explicitly accept any of NIE's criticisms of the draft determination or of the CEPA report. However, as noted in paragraph 3.3 above, the Final Determination appears to accept (and the Utility Regulator's opening submission to the Competition Commission accepts) that NIE has not broken any relevant rules, but places emphasis on the Utility Regulator's power to intervene on an (impliedly) discretionary basis to adjust the RAB where it would be inconsistent with some general "principle" to leave the RAB unadjusted. We comment as follows on the additional points made in the Final Determination.
- 5.2 Section 4 of the Final Determination sets out the Utility Regulator's assessment of the case for an adjustment to NIE's RAB and its final decision. After introductory and background sections (paragraphs 4.2 to 4.8), the Utility Regulator summarises responses received to its draft determination (paragraphs 4.9 to 4.28)³⁰. Its own answer to those responses is set out in paragraphs 4.29 to 4.60. Paragraphs 4.29 to 4.60 of the Final Determination therefore contain the substance of the Utility Regulator's additional reasoning.
- 5.3 At paragraph 4.29, the Utility Regulator argues that it is standard practice to conduct an ex post review of NIE's outperformance in the previous price control period.
- 5.4 NIE considers that this proposition is misleading:

²⁸ For example, during RP4, NIE introduced SCADA (supervisory control and data acquisition systems) in power station substations. This has entailed capital expenditure, but has resulted in the reduction and eventual elimination of control room and switching services agreements and associated opex. Similarly, NIE is undertaking a programme to replace transmission switchgear with modern equivalent assets, and this will render the existing air operating systems redundant, with a resulting reduction in maintenance requirements.

²⁹ Unless it results in a breach of an output obligation, which is not alleged.

³⁰ For completeness, we would point out that the Utility Regulator mis-states the scope of the KPMG report in paragraph 4.10. The KPMG report dealt only with the CEPA report's assessment of NIE's capitalisation practices. It did not deal with the RP4 rules; asset disposals; revenue adjustment or RAB adjustment, which were not within their terms of reference.

- The Utility Regulator receives copies of NIE's regulatory accounts annually, and the purpose of its doing so is to enable it to monitor NIE's performance from time to time. There is no good reason to leave issues outstanding until the end of a 5 year price control period.
- The Utility Regulator makes no reference to the rationale for such an ex post review. It is, of course, open to the Utility Regulator to investigate whether NIE has complied with its statutory and licence obligations, but, in the present case, the Utility Regulator does not regard the matter as entailing a breach of accounting or other rules (and it would not be procedurally appropriate to seek to correct for any breach of licence obligations via adjustments to the RP5 price control). In contrast, in NIE's submission, it is not normal practice for a regulator to investigate a regulated company's performance ex post with a view to clawing back some part of the company's outperformance, by a discretionary ex post adjustment to a price control which has now expired. Moreover, it was a clear part of the rationale for the RP4 price control that it would obviate the need for a granular assessment of NIE's opex expenditure.

5.5 In paragraph 4.34, the Utility Regulator makes clear that it is not suggesting that there is a case for any form of enforcement action against NIE: it has not broken any accounting rules (nor is any other breach of any other rule suggested). (See also Appendix G, page 4 to the Final Determination.)

5.6 NIE submits that this concession has important implications for the Utility Regulator's proposed adjustment to NIE's RAB: the Utility Regulator has decided, in its discretion, to make an ex post adjustment to a settled price control, after its expiry. As explained in paragraphs 5.21 to 5.30 below, such an adjustment should be adopted only in exceptional circumstances, and where the Utility Regulator is satisfied that the adjustment represents the best means of fulfilling its statutory objectives. It is clear that, in the present case, the Utility Regulator has not considered its statutory duties, but has "automatically" reversed what the CEPA report finds to be cases of additional capitalisation, as if it were correcting some error in NIE's compliance with its price controls. But, on the Utility Regulator's own admission, this is not a case of non-compliance.

5.7 In paragraphs 4.36 to 4.44, the Utility Regulator reverts to its initial suggestion that NIE is subject to special rules by virtue of the RP4 price control and by virtue of condition 2 of its licence.

5.8 NIE submits that there is no merit in the Utility Regulator's argument:

- It is inconsistent with the Utility Regulator's previous concession that NIE has not breached any relevant rule (whether of its price control conditions or of any other condition of its licence);
- NIE has already explained that the passage quoted in paragraph 4.31 of the Final Determination, envisaged only that, in broad terms, and over the longer term, expenditure would be recovered as opex or capex, and savings in opex

through the undertaking of additional capex would feed through into lower opex allowances in future periods: see paragraph 2.4 above.

- The provision of licence condition 2, which the Utility Regulator quotes in paragraph 4.43 of the Final Determination, does not support the Utility Regulator's case. The Utility Regulator quotes only part of condition 2, and quotes it out of context: it is clear from a reading of condition 2 as a whole that the particular provisions which the Utility Regulator quotes apply only to costs which are apportioned as between the T&D Business and other businesses of NIE (i.e. internal apportionments as between T&D and other businesses) and do not apply more generally. To the extent that the provisions quoted by the Utility Regulator have any bearing on the matter, they would appear to suggest that, if the Utility Regulator had intended that NIE should obtain consent to adjust its assessment of the proportion of overheads or R&M costs to be capitalised, the licence would have provided expressly for NIE to obtain such consent.

- 5.9 The Final Determination also rejects KPMG's criticisms of the CEPA report.
- 5.10 NIE has invited KPMG to comment on the relevant sections of the Final Determination and KPMG has approved the following paragraphs (5.11 to 5.20) of this submission as reflecting their conclusions in light of their review.
- 5.11 In paragraphs 4.46 to 4.51 of the Final Determination, the Utility Regulator suggests that NIE and KPMG have not recognised the depth of investigation underlying the CEPA report, and that the CEPA report may not fairly be characterised as being limited to data analysis. The Utility Regulator cites numerous meetings and other contacts with NIE, and asserts that the CEPA report is supported by considerable engineering rigour.
- 5.12 NIE acknowledges that, having initially worked on their own on data supplied by NIE, the Utility Regulator's consultants did latterly work with NIE to understand the data more fully and use more appropriate data sets. But the Utility Regulator's answer does not resolve NIE's and KPMG's key concerns as to the robustness of the CEPA report, which are as follows.
- 5.13 When the consultants did start working with NIE, they acknowledged that they had made errors in the selection and manipulation of data, and set about correcting those errors. But the very fact that they had set about their work without understanding the need to discuss the data in detail with NIE casts doubt on the robustness of the final report.
- 5.14 NIE remains concerned as to potential bias and incompleteness in the consultants' terms of reference. In particular, the Utility Regulator now acknowledges that NIE has not broken any rules, or changed its accounting policies or practices, but has merely changed the estimates of particular amounts to be capitalised. Yet the consultants' terms of reference invited them to proceed as if it were established that

NIE had made changes to its capitalisation practices³¹. (Indeed, it is surprising to note that, notwithstanding the Utility Regulator's frequent references to NIE's having changed its capitalisation practices, the Utility Regulator now states that this is not what it really meant; it meant instead that "NIE T&D has changed the way in which the policy was applied in practice". The Utility Regulator also notes that the references to changes in NIEs capitalisation policies should not be considered in the "sense meant" by accounting standards, and that it has not concluded that any accountancy standard has been broken.)

5.15 NIE remains concerned at errors in the computations contained in, or underlying, the CEPA report. No explanation has been provided as to errors and inaccuracies identified by KPMG (and which continue to cause concern to KPMG) as to:

- Inconsistencies in respect of the categorisation of identified movements;
- Mathematical errors in respect of base year costs;
- Sub-totals not agreeing to supporting analysis;
- Sub-totals being linked to incorrect data;
- Hard-coding of adjustments that are not supported;
- 19 inconsistencies or inaccuracies identified within the analysis for "reduction due to direct R&M Capitalisation (identified)";
- 12 inconsistencies or inaccuracies identified within the analysis for "reduction due to capital programme substitution (identified)";
- 5 inconsistencies or inaccuracies identified within the analysis for "reduction due to capital programme substitution (probable)";
- Supporting analyses not agreeing to the overall summary;
- Incorrect use of assumptions in respect of category E defects;
- Data used in respect of category E defects that could not be reconciled to NIE data;
- Incorrect exclusion/understatement of capital costs in respect of category M plant workshop;
- Incorrect reclassification of category P miscellaneous;
- Inconsistent treatment in respect of PG3 non-recoverable alterations;

³¹ See paragraphs 1.3, 1.4, 2.5, 2.8, 6.2 of the draft determination, and section 1.1 of the CEPA report.

- Data in respect of PG4 faults and emergency does not reconcile to underlying source data;
 - Incorrect classification of an AML "District" in respect of PG5 customer driven expenditure.
- 5.16 The Utility Regulator has provided no answer to the point that the consultants have failed to recognise the range of possible explanations as to why a reduction in opex might be "matched" by an increase in capex: they have simply assumed that a fall off in opex and a "matching" increase in capex results from changes to capitalisation practices. The CEPA report shows no sign of any engineering rigour, in that it fails to recognise, for example, why (other than through changes in capitalisation practices), NIE might have spent less opex on some kinds of R&M, and more on capex projects designed to reduce the need for R&M opex.
- 5.17 In paragraph 4.54, the Utility Regulator criticises NIE for having been "very careful" to define its terms when describing whether there has been a change in its capitalisation practices. The Utility Regulator appears to object to NIE's reliance on definitions used in IAS 8, and its conclusion that, although NIE has changed its estimate of the proportion of overheads to be capitalised, it has not changed its capitalisation practice in this regard, since the proportion is still estimated by reference to the same underlying principles.
- 5.18 This criticism is misplaced: NIE is obliged by licence condition 2 to draw up its regulatory accounts in accordance with applicable accounting standards, including IAS 8. NIE is therefore entitled – and it makes good sense – to look to IAS 8 for guidance as to what amounts to a change in capitalisation practice. Indeed, relevant accounting standards require NIE to review the proportion of overheads to be capitalised from time to time, to ensure that NIE is applying its best estimate of the amounts required to be capitalised.
- 5.19 For the same reason, NIE firmly rejects the Utility Regulator's suggestion that it has "not denied" that a change in capitalisation practice has taken place: see Appendix G to the Final Determination, at pages 5 and 6. NIE has repeatedly denied that it has introduced any changes to its capitalisation practices. See paragraph 1.2 and section 4 of NIE's Response to the draft determination.
- 5.20 In summary, the Utility Regulator has failed to show that the CEPA report provides a sound basis for identifying, or quantifying the effect of, alleged changes in NIE's capitalisation practices.

The Utility Regulator's failure to consider whether its statutory objectives are best served by a retrospective adjustment to NIE's RAB

- 5.21 In the following paragraphs we ignore the concerns expressed above as to the calculation of the quantum of the proposed adjustment, and we look instead at whether, in deciding to adjust NIE's opening RAB for RP5, the Utility Regulator took account of all the factors which are relevant in deciding whether such an adjustment

represents the best means of fulfilling its regulatory objectives, by reference to its regulatory duties. We assume that it is established that NIE has not changed its accounting practices in any way that would entail a breach of licence condition 2, but that it has updated and improved the way in which it estimates the amounts to be capitalised in respect of overheads and R&M costs, and that it has undertaken less reactive tree-cutting and more strategic tree-cutting as part of its overhead line refurbishment strategy. The question is therefore whether, by reference to all its statutory duties, it is appropriate for the Utility Regulator (or, now, the Competition Commission) to adjust NIE's RAB to reverse the effect of these developments.

- 5.22 The duties imposed upon the Utility Regulator by Article 12 of the Energy (Northern Ireland) Order 2003 (as amended) reflect (among other considerations) the importance of protecting consumers as to the price at which electricity is available for supply, the quality of supply, and the need to ensure that NIE can finance its regulated activities.
- 5.23 It is clear from the materials which NIE submitted to the Utility Regulator as part of the RP5 process, and the case which NIE has now made to the Competition Commission, that NIE needs to be able to continue to invest in its network to maintain the quality of transmission and distribution services, and to enable new sources of generation to be connected to the network. In these circumstances, it is particularly important that the Utility Regulator's decisions (and any decisions of the Competition Commission) should be soundly and robustly based on evidence, and soundly reasoned, so as to maintain the confidence of investors in the fairness and soundness of the regulatory regime under which NIE operates. NIE needs to raise finance from investors to fund its further capex projects, and the availability and cost of such finance will be adversely affected by what investors will regard as an unjustified intervention, and by the fear that there will be similarly unjustified interventions in future.
- 5.24 In this regard, NIE has emphasised to the Utility Regulator, and would similarly urge upon the Competition Commission, the benefits associated with the observance of good regulatory practice, in terms of transparency, predictability and consistency of approach. These considerations serve to emphasise that the Utility Regulator would need very compelling reasons to go back to the RP4 (and, a fortiori, the RP3) price control arrangements, with a view to reopening the assessments made then as to the way in which NIE's RAB should be updated to reflect the addition of new assets, and the way in which NIE should recover depreciation and a return on the RAB from time to time.
- 5.25 Although the Utility Regulator sought, in the draft determination, to portray its proposed intervention as an implementation of "rules" which were always intended to govern the RP4 price control (and which were, apparently, to be applied without regard to other regulatory considerations), it is clear from the Final Determination that the Utility Regulator now acknowledges that the RAB adjustment is a discretionary ex post adjustment. Any decision whether to make such a discretionary adjustment must therefore be determined by reference to a proper application and balancing of the Utility Regulator's statutory duties.

- 5.26 In its report on Phoenix Natural Gas Limited (**PNGL**)³², the Competition Commission recognised that any revision of a previous regulatory determination should be well reasoned, properly signalled, subject to fair and effective consultation and, normally, forward looking (Competition Commission report, paragraph 32). The Competition Commission further noted that to reduce ex post and without clear signalling the opening value of a RAB is a step that should not normally be taken without very good justification, and only then after a period of consultation on the proposals.
- 5.27 NIE submits that, for the reasons outlined in sections 1 to 4 above, the Utility Regulator has, in the present case, failed to meet this demanding standard for the application of a reduction to NIE's opening RAB for RP5.
- 5.28 The following points are also relevant to any assessment of whether it is appropriate to adjust NIE's RAB in the present case:

No good reason for delay

- Details of NIE's capitalisation practices were available to the Utility Regulator and its consultants in setting the RP4 price control and the Utility Regulator raised no objection to them. The Utility Regulator's consultants specifically drew the Utility Regulator's attention to the proposed capitalisation of tree-cutting costs incurred as part of the overhead line refurbishment strategy: see paragraph 4.35 above.
- In accepting the RP4 price control, NIE relied on its understanding that the Utility Regulator accepted NIE's capex budgets, including the budgets for overhead line refurbishment, and the assumed capital costs of the tree-cutting to be undertaken as part of the refurbishment programme. Absent any objection to them NIE was entitled to assume that the tree-cutting costs of its overhead line refurbishment work could be capitalised, to form part of the RAB.
- There was nothing in the RP3 or RP4 price control settlements to suggest that the Utility Regulator would wish later to revisit questions as to whether NIE had capitalised too much of its expenditure on overheads, R&M and tree-cutting.
- NIE has provided copies of its audited regulatory accounts to the Utility Regulator each year, and the Utility Regulator has raised no objection to the accounts, notwithstanding the fact that the features which prompted its investigation of NIE's capitalisation practices (i.e. NIE's significant opex savings) could have been identified earlier.

NIE's accounting treatments are appropriate and normal

- NIE's accounting treatment of overheads and R&M costs (including the capitalisation of some of those costs) is perfectly reasonable, is in line with accounting standards, is informed by data available from its SAP general

³² A copy of this report is provided at Appendix 11.8

ledger and Job Management System information systems, and is satisfactory to its auditors.

- It is important that NIE's regulatory accounts should contain as robust as possible a classification of costs into opex and capex, and that the updating of the RAB should be based on the best possible accounting records, since the proper classification of costs between capex and opex is essential to the attainment of equity between present and future customers. It would be wrong for today's customers to pay (through a higher opex allowance) amounts which have been invested in assets which will benefit future generations (and should be reflected in the RAB), just as it would be wrong for future customers to have to contribute, via depreciation charges and a return on the RAB, to costs which have produced no lasting benefit. The Utility Regulator's approach pays no regard to this important principle.

Customers have benefited from the RP3 and RP4 price controls

- The overall amounts of capitalised expenditure are not excessive. Operational efficiencies achieved during RP3 and RP4 have led to overall cost savings and real benefits for consumers, and will continue to benefit customers in RP5 and beyond.

The Utility Regulator's proposed adjustment is inconsistent with the logic of the RP3 and RP4 price controls

- Conversely, the Utility Regulator's proposed intervention flies in the face of the underlying logic of the RP3 and RP4 price controls.
- The setting of NIE's controllable opex allowance for RP4 on the basis of outturn opex figures for the equivalent years of RP3 was a high level mechanism, which did not carry with it any implication that NIE would spend its RP4 opex allowance on the same kind of activities, to the same extent, as it had in RP3³³. It was open to NIE to decide how best to spend its overall opex allowance (and, if possible, to make savings which meant that not all of it needed to be spent at all). There is therefore no sense in which the opex allowance could be said to have been designed to cover specific items of expenditure, and therefore no sense in which NIE can be said to enjoy the prospect of recovering the same expenditure twice (as both opex during RP4 and capex during RP5 and in future periods) so long as it has accounted for particular expenditure in accordance with licence condition 2;
- Conversely, if (which NIE denies) the Utility Regulator was entitled to expect that NIE would use its allowed opex during RP4 to carry out like-for-like activities to those carried out during RP3, and if the Utility Regulator was

³³ For that reason, the present case is not analogous to the Competition Commission's finding in the PNGL case that PNGL had double recovered certain elements of its business rates (paragraphs 5.101 ff. of the Competition Commission report) and the Utility Regulator's attempt to draw an analogy between the two cases in its press release of 19 December 2012 (provided at Appendix 11.9) on publication of the Competition Commission's report on PNGL is misconceived.

therefore correct in arguing that NIE has benefited by transferring to its capex account costs which were "covered" by the opex budget, the Utility Regulator would, prima facie, appear to have erred by failing to take account of other ways in which the RP4 price control operated to the detriment of NIE, or to the benefit of customers, beyond what was contemplated at the outset of RP4. But, on reflection, it is clear that it would not be appropriate for the Utility Regulator to seek to review, with hindsight, whether particular elements of NIE's opex activities had worked out unexpectedly well, or unexpectedly badly, relative to expectations at the beginning of RP4, since it is contrary to the underlying philosophy of RPI-X price control regulation to seek to do so. Since no such comprehensive reckoning can (or should) be undertaken ex post, it is necessarily unfair to make ex post adjustments just to individual items (here, particular additions to NIE's RAB) which appear to the Utility Regulator to have been unexpectedly favourable to NIE.

Ex post intervention undermines confidence in NIE's ability to recover its reasonably incurred costs

- Like all regulated companies, NIE expects that, once items of expenditure have been appropriately entered in its RAB, it will be allowed to recover the full cost, through depreciation charges and a fair return on the capital employed from time to time. To remove items from the RAB, ex post, in the exercise of a regulatory discretion, undermines confidence in that expectation.
- NIE now needs to undertake substantial new capital investments to replace aged assets and to meet new demands on its network. If NIE is to be able to raise finance efficiently for such projects, it is particularly important that investors should be confident of NIE's ability to recover the costs of its capital programme.

5.29 In summary, it is damaging to confidence in the regulatory regime (and hence to investors' willingness to invest in NIE) for the Utility Regulator to re-open matters which have been satisfactorily settled in previous price control decisions: the Utility Regulator adopted fair and reasonable decisions as to the price controls to be applied for RP3 and RP4, and they have served their purpose well. An ex post intervention, going back into two previous price control periods, without an exceptionally compelling justification, will merely serve to reduce investors' confidence in the NI regulatory system, to the ultimate detriment of consumers, at a time when NIE needs to finance major capital expenditures. In short, the Utility Regulator (and now the Competition Commission) should take account of all relevant factors in deciding whether it is appropriate to adjust the RAB to NIE's further detriment.

5.30 Instead of making a soundly-based judgment as to whether there should be ex post adjustments, the Utility Regulator's Final Determination fails to consider how such adjustments sit with its statutory objectives and duties. In short, the Final Determination is unfair to NIE, damaging to investor confidence, inequitable as

among different generations of consumers, and ultimately to the detriment of all consumers. NIE invites the Competition Commission to reject the Utility Regulator's proposed adjustments to NIE's RAB, as being unjustified, and unsuited to the optimal attainment of the Regulator's statutory objectives.

6. CONCLUSIONS

6.1 In conclusion, NIE submits that:

- There is a very strong presumption against a retrospective reduction in NIE's RAB;
- The case advanced by the Utility Regulator for such an adjustment is not compelling;
- The RP4 price control has worked to the advantage of consumers, by incentivising NIE to achieve efficiencies which will be reflected in the setting of future price controls (including the RP5 price control);
- As the Utility Regulator now acknowledges, there has been no material double-charging of customers to date;
- Any argument that there would be double-charging during RP5 or beyond, if NIE were allowed to retain its existing RAB, is misconceived, and rests on an assumption that the RP3 and RP4 opex allowances were "earmarked" to cover particular costs which NIE has instead capitalised. That is simply incorrect. The true constraint on NIE as to whether it may capitalise particular costs comes out of licence condition 2, and NIE has at all times complied with licence condition 2. Licence condition 2 is adequately framed to protect the interests of consumers so far as such interests rely on the integrity of NIE's regulatory accounts;
- Quite apart from these points of principle, the Utility Regulator has failed to justify the amount of the proposed RAB reduction. The CEPA report is fundamentally unsound. Quite apart from its computational errors, it does no more than identify changes in the percentage of overheads which have been capitalised, "match" reductions in R&M opex with increases in broadly comparable capex categories, and note the increase in capitalised tree-cutting costs. But it does not demonstrate that these features of NIE's accounts result from changes in capitalisation practices.
- In fact, the changes result from changes in NIE's underlying activities, improvements in its ability to identify costs which ought to be capitalised, and a re-assessment (on the basis of consistent criteria over time) of the percentage of overheads which ought properly to be capitalised, as being referable to particular capital projects.

- For all these reasons, there is no sound basis for the Utility Regulator's proposed RAB reduction.
- But, even if the Utility Regulator had made out a prima facie case in support of a discretionary ex post RAB reduction, it would be wrong to proceed with such an adjustment without also taking account of other potentially countervailing factors, which bear on whether such an adjustment would be best suited to the attainment of the Utility Regulator's (and the Competition Commission's) statutory objectives. In particular, the Utility Regulator should have taken account of the damage to confidence in the regulatory regime which would result from a discretionary reduction in NIE's RAB, of which no prior warning had been given, and which is inconsistent with the way in which NIE's price controls, and related licence conditions, have operated for the last 10 years.
- Such an ex post adjustment is bound to diminish confidence in the predictability and fairness of the regulatory regime, and to prevent NIE from raising finance as efficiently as it otherwise could. This will increase the cost to NIE of delivering its substantial capital programme, to the ultimate detriment of consumers, who will have to pay the higher prices entailed by such higher costs.

6.2 In short, the Utility Regulator should have concluded (and the Competition Commission should now conclude) that the public interest is better served by making no retrospective adjustment to NIE's RAB.

CHAPTER 12

UNRESOLVED ISSUES FROM RP4

SUMMARY

There are three outstanding issues with respect to the RP4 period which NIE seeks to ensure are fairly and definitively resolved as part of the RP5 price control process. In some cases, the Utility Regulator's consideration of these issues has been subject to considerable delay.

The issues are:

- the Utility Regulator's failure to approve RP4 capex efficiency incentive payments, with a total value of £4.2 million;
- costs incurred by NIE in RP4 which have not been approved in relation to the Enduring Solution IT project, with a value of £1.3 million; and:
- an outstanding question regarding the interpretation of the capital allowances term in the RP4 price control with a value of £0.9 million.

To the extent that these issues remain unresolved, NIE has under-recovered relative to its full RP4 revenue entitlement. This can be rectified only via the RP5 price control and these values should therefore be taken into account when determining the RP5 price control.

NIE requests the Competition Commission to definitively resolve each of these outstanding issues by addressing them directly in its report.

1. INTRODUCTION

1.1 This Chapter describes a number of issues with respect to the transition from the RP4 price control to the RP5 price control which, in NIE's submission, need to be fairly and definitively resolved as part of the RP5 price control process. They all relate to matters arising under the RP4 price control condition, as set out in Annex 2 to NIE's Licences. NIE refers the Competition Commission to the full text of Annex 2, in which the various terms used in the following paragraphs are defined.

1.2 These unresolved issues are summarised in Table 12.1 below.

Table 12.1: Unresolved issues from RP4

	£m
Capex efficiency incentive income	
Capex Efficiency Incentive Payments	4.2
Costs incurred by NIE which have not been approved	
Enduring Solution IT Project	1.3
Capital Allowances	
CA _t	0.9
Total	6.4

1.3 The first two items (capex efficiency incentive income and Enduring Solution IT project costs) arise pursuant to the D_t term provided for in paragraph 2.3 of Annex 2, and the final item (capital allowances) arises pursuant to the CA_t term provided for in paragraph 2.3 of Annex 2.

1.4 In principle, all these matters should have been amenable to resolution by agreement between the Utility Regulator and NIE. However, in practice, it has not been possible to reach agreement. In consequence:

- to the extent that NIE should have been permitted to recover additional amounts under the D_t term of the RP4 price control, the Utility Regulator has precluded it from doing so; and
- the Utility Regulator has required NIE to set its tariffs from 1 October 2010 at a level which, in NIE's submission, does not allow NIE the full benefit of the Tax_t term, by virtue of the Utility Regulator's misinterpretation of the CA_t term within the overall Tax_t term.

NIE has therefore under-recovered, relative to its full revenue entitlement, under the RP4 price control condition.

1.5 In respect of two of the issues identified in Table 12.1 above, the Utility Regulator apparently relies on the same reasoning as appears in its Final Determination for RP5 to refuse approval of NIE's claims. For example:

- the Utility Regulator has refused to approve NIE's claim, under the D_t term of the RP4 price control, for operating costs incurred in respect of the Enduring Solution system, allegedly for the same reasons as have caused it to disallow part of NIE's forecast costs for the Enduring Solution system for the RP5 period; and

- the Utility Regulator is questioning NIE's calculation of its entitlement to capex efficiency incentive payments, on the basis that the agreed method of calculating NIE's entitlement may overstate its capex efficiency by looking only at a subset of NIE's capex activities. The Utility Regulator's unwillingness to approve NIE's claims appears to be informed, at least in part, by the conclusions of the Utility Regulator's efficiency benchmarking which forms part of the Final Determination of the RP5 price control.

Thus, the assessment of NIE's claims will require resolution of some of the same issues as are raised in other parts of this Statement.

- 1.6 Moreover, the draft terms of the RP5 price control published by the Utility Regulator provide that any under-recovery by NIE of charges which it should have been permitted to levy during RP4 should be disregarded for the purposes of the RP5 price control (that is, the correction factor (K_t) to be applied in year one of the RP5 price control has been set at zero).
- 1.7 In the circumstances set out in this Section 1, it is necessary and efficient for the Competition Commission to examine and resolve these matters as part of its present investigation, and, in setting NIE's allowable revenues for RP5, to take account of the additional amounts which, under the proper operation of the D_t and CA_t terms of the RP4 price control, NIE should have been entitled to levy by way of regulated T&D charges during RP4.

2. CAPEX EFFICIENCY INCENTIVE PAYMENTS

- 2.1 The RP4 price control conditions provided for in paragraph 2.3 of Annex 2 contained a D_t term which provided a mechanism for NIE to recover additional regulated revenues in respect of:

"amounts arising under arrangements approved by the Authority which are designed to incentivise efficiency in network capital investments, and which shall be calculated in accordance with the 2006 Direction" (D_t term, subparagraph (iv)).

Although the D_t term did not envisage that it would be necessary for NIE to obtain the Utility Regulator's approval before charging such amounts to users, the 2006 Direction¹ (page 4) does implicitly require NIE to obtain the Utility Regulator's approval of relevant capex efficiency gains, before they can be translated into an additional revenue entitlement. The 2006 Direction specifies how the relevant gains should be calculated, and was informed by work undertaken by NIE and the

¹ A copy of the Utility Regulator's 2006 Direction is provided at Appendix 12.1.

Utility Regulator to develop a workable capex efficiency arrangement for RP4, by reference to particular procurement costs and labour costs.

- 2.2 In practice, NIE submits its claims for capital efficiency incentive allowances to the Utility Regulator annually, in Part B of its T&D Capital Investment report. In calculating the amounts to be claimed, NIE has followed the terms of the 2006 Direction. In particular, NIE bases its assessment of labour productivity on key capex outputs relating to cable works (cable jointing), overhead line construction, 11 kV line refurbishment, undereaves replacement and plant replacement. These selected activities have been used consistently throughout RP4. They are chosen to reflect the need to measure year on year efficiency gains (or losses) by reference to activities which are repeated from year to year (rather than by reference to one-off projects which are not comparable from year to year). The capex efficiency incentive payments relate only to efficiencies captured within these specified areas of activity and are not applied to the remainder of NIE's capex activities. This means that (over time) customers receive the full benefit of the efficiency savings from such other capex activities (ie those which are not included within the efficiency incentive calculation) since, under the RP4 price control, the RAB has been updated by reference to actual capex expenditure from year to year.
- 2.3 The Utility Regulator approved NIE's assessments for 2007/8 and 2008/9, without objection to the method by which they had been calculated. NIE has applied for approval of additional capex efficiency revenues attributable to relevant capex efficiency gains as follows:
- For 2009/10, with a value of £0.5 million (claim submitted in July 2010);
 - For 2010/11, with a value of £1.0 million (claim submitted in July 2011); and
 - For 2011/12, with a value of £1.5 million (claim submitted in July 2012)

but the Utility Regulator has, to date, declined to approve these claims.

- 2.4 The Utility Regulator is now questioning whether it is appropriate to use the methods agreed and applied, without objection, in previous years to measure NIE's efficiency in respect of procurement and manpower costs for the purposes of implementing the calculation provided for by the 2006 Direction. The Utility Regulator's concerns in respect of these particular issues were not raised with NIE until the beginning of 2012. The Utility Regulator has now appointed consultants (PKF) to audit both the productivity element and the procurement element of the claims. Their report is scheduled to be completed shortly. This means that, even on the most optimistic assessment, it will have taken almost 3 years to resolve NIE's claim for 2009/10, and more than 2 years to resolve the claim for 2010/11.

None of the outstanding claims will have been resolved in time to be taken into account in the setting of NIE's RP4 charges.

- 2.5 NIE's correspondence with the Utility Regulator in respect of these claims is provided at Appendix 12.2, together with an extract of the Utility Regulator's draft determination in respect of the RP5 price controls (paragraph 5.35 refers), and an extract of the terms of reference for the audit by PKF.
- 2.6 On 30 April 2013, NIE applied for approval of further capex efficiency incentive payments attributable to relevant capex efficiency gains for the RP4 extension period (9 months to 31 December 2012), with a value of £1.2 million.
- 2.7 NIE submits that capex efficiencies for years 3 to 5 of the RP4 period and the 9-month extension to RP4 should be assessed and rewarded on the same basis as was agreed in respect of NIE's claims for 2007/08 and 2008/09. It is not appropriate for the Utility Regulator to change the basis of operation of the incentive mechanism during RP4, without formally amending the 2006 Direction in accordance with its terms.

3. COSTS INCURRED BY NIE WHICH HAVE NOT BEEN APPROVED

- 3.1 The D_t term of the RP4 price control also provided, in sub-paragraph (viii), that NIE should be entitled to recover additional regulated revenues in respect of:

"any other costs which the Authority shall determine, upon an application to it by the Licensee shall be included as excluded transmission and distribution costs."

- 3.2 Items falling within this limb of the D_t term therefore require the Utility Regulator's approval before they can be recovered from customers.
- 3.3 The Utility Regulator has withheld approval of costs which NIE has incurred in respect of the Enduring Solution IT project, with a value of £1.3 million.
- 3.4 NIE has incurred operating costs in relation to the Enduring Solution IT project for the period up to 31 December 2012 of £5.4 million². However the Utility Regulator has only approved £4.1 million of these costs which represents a shortfall in the approval requirement of £1.3 million. Copies of the relevant correspondence are provided at Appendix 12.3.
- 3.5 NIE considers that the relevant operating costs associated with the Enduring Solution system have been efficiently incurred and NIE should have been entitled

² See Chapter 6 (RP5 Opex) for a description of the costs that NIE will incur to support the Enduring Solution during RP5.

to recover them under the D_t term of the RP4 price control. Full details of the expenditure, and why it has been incurred, are set out in NIE's submissions to the Utility Regulator provided at Appendix 12.3. The Utility Regulator has not provided any reasonable rationale for disallowing costs, but has merely referred to having applied the same considerations as are applied in the Final Determination for RP5, in disallowing part of NIE's forecast Enduring Solution costs. However, as noted in Section 5 of Chapter 6 (RP5 Opex), it is unclear to NIE why these costs have been disallowed in setting the RP5 price control.

4. CAPITAL ALLOWANCES

- 4.1 The provisions of the RP4 price control which regulate the return which NIE may earn on capital employed in its T&D Business allow for a basic return to be adjusted by an amount in respect of NIE's tax liability on such return, so as to provide for NIE to earn an appropriate post-tax return. The tax adjustment is provided for in the Tax_t term of paragraph 2.3 of Annex 2, and provides for the base return to be grossed up by reference to a specified rate of taxation. The calculation provides for adjustments to be made for non-network capex, depreciation, interest and capital allowances. The adjustment for capital allowances (CA_t) provides that there should be deducted from the base return:

"an amount in pounds sterling equal to the level of capital allowances agreed with HM Revenue & Customs in respect of relevant year t calculated in accordance with the Capital Allowances Act 2001 (or successor legislation) and relevant industry agreements or rules."

NIE considers that the CA_t term should be construed as referring not to the total amount of capital allowances theoretically available to NIE in year t , but to the allowances claimed and offset against NIE's taxable profits. In practice, the only figure which NIE agrees with HMRC is the amount of capital allowances which it claims in year t , rather than some potentially higher amount which it could have claimed. However, the Utility Regulator takes the converse view, namely that the CA_t term should be construed as referring to the maximum amount of capital allowances available to be claimed in year t , on the basis that NIE should not be permitted to increase customers' bills by choosing not to optimise the tax position of the regulated T&D Business.

NIE's treatment of capital allowances

- 4.2 NIE disclaimed capital allowances in respect of the fiscal years 2006/07 (£17.2 million) and 2008/09 (£5 million). NIE disclaimed the allowances because there were current year non-trading tax losses available in other entities within the same UK tax group and the group opted to increase NIE's taxable profits (by disclaiming capital allowances) so as to be able to utilise the non-trading tax losses and thereby to optimise the group's tax position. If NIE had not disclaimed the capital allowances, the non-trading losses would have been 'trapped' and could only be utilised against future non-trading profits of the same entity in which they arose. Conversely, the disclaimed capital allowances remained available to offset against taxable profits in future years. NIE paid other group companies for the losses surrendered to NIE on the basis of the statutory corporation tax rate of 28% as permitted by condition 9(5)(b)(vi) of NIE's licence.

2006/07 Disclaim

- 4.3 2006/07 was the last year of RP3 during which NIE's allowed rate of return was calculated on a pre-tax basis. The disclaim of capital allowances (£17.2 million) resulted in NIE's tax bill being increased but, because NIE's regulatory allowance in RP3 was calculated on a pre-tax basis, this had no effect on customers' bills. However, the disclaim meant that customers could benefit in future years because the capital allowances pool carried forward into RP4 was higher than it would otherwise have been if NIE had claimed the full amount of capital allowances.
- 4.4 The benefit to customers of the 2006/07 disclaim during RP4 was £3.5 million and the benefit to customers in RP5 and future periods will be £1.9 million giving a total benefit to customers of £5.4 million.

2008/09 Disclaim

- 4.5 On the basis of NIE's construction of the CA_t term, the disclaim of capital allowances in 2008/09 (£5 million) should have had the effect of increasing customers' bills by £1.9 million pursuant to the price control definition of Tax_t .

However, this increase would have been offset by lower charges in future years (£1.0 million in RP4 and £0.6 million in future periods) because a higher capital allowances pool would have been carried forward than would otherwise have been available if NIE had claimed the full amount of capital allowances.

- 4.6 Although the claiming of capital allowances is a timing issue, there is a net cost to customers of £0.3 million associated with the 2008/09 disclaim because the value of the deferred capital allowances has declined, owing to reductions in the statutory tax rate.

The issue

- 4.7 As noted above, the Utility Regulator proposes that the CA_t term should be interpreted as referring to the maximum amount of allowances which NIE could claim in year t . On that basis, the Utility Regulator required NIE to set its tariffs from 1 October 2010 on the assumption that the CA_t term requires NIE to take account of the maximum available capital allowances, rather than the capital allowances claimed in 2008/9 and in successive years. This approach entails NIE's forgoing RP4 revenues of £0.9 million, in respect of the 2008/09 disclaim, relative to the revenues to which NIE would be entitled by reference to its proposed reading of the CA_t term.
- 4.8 NIE submits that the Utility Regulator's interpretation of the CA_t term is wrong, for the reasons outlined above, but also submits that, even if the Utility Regulator were correct in its interpretation, it is inconsistent for the Utility Regulator to seek to reverse the 2008/09 capital allowances disclaim but not to reverse the 2006/07 disclaim. As explained above, the 2006/7 disclaim had no adverse effect on customers (as the price control provided for a pre-tax return), but benefited customers in future years by ensuring that a larger pool of capital allowances would be available to be offset against taxable profits in future years. NIE contends that the Utility Regulator should take account of the overall effect of NIE's approach, and should recognise that the combined impact of the disclaims is beneficial to customers both cumulatively to date and in every future year.
- 4.9 NIE considers that, in consequence of the matters outlined above, it has under-recovered, relative to its RP4 revenue entitlement. The matter remains unresolved. The matter needs to be resolved now (among other reasons) so that it will be clear what is, for regulatory purposes, the value of the residual pool of capital allowances available to NIE at the opening of RP5. NIE therefore asks the Competition Commission to address the issue directly in its report. To the extent that there will need to be a CA_t term in the RP5 price control, it will be helpful if the Competition Commission would clarify how it should be applied.

- 4.10 A copy of the legal opinion on this matter which NIE obtained and submitted to the Utility Regulator is provided at Appendix 12.4, and a copy of the Utility Regulator's response is provided at Appendix 12.5.

CHAPTER 13

NIE POWERTEAM

SUMMARY

The Utility Regulator has used the RP5 review process to question whether the arrangements between NIE and NIE Powerteam are in the interests of customers. The Final Determination states that the Utility Regulator expects NIE to demonstrate that services delivered by NIE Powerteam are competitively procured and market tested.

The Final Determination may have been overtaken by events. Since the Final Determination was issued, NIE has proposed that during RP5 ownership of NIE Powerteam should transfer so that it becomes a wholly-owned subsidiary of NIE as part of the IME3 Directive certification arrangements.

Notwithstanding this change, NIE is firmly of the view that it should be the responsibility of management to decide how its business is organised. NIE is already incentivised to manage NIE Powerteam's costs efficiently as part of NIE's own overall costs. The existing NIE business, of which NIE Powerteam is an integral part, is already highly efficient.

NIE has no 'in principle' objection to subcontracting its activities where it is appropriate to do so. NIE has subcontracted and continues to subcontract a subset of its activities (generally lower skilled activities such as highway excavation, cable laying and pole erection) which by their nature lend themselves to such treatment. However, NIE considers that the current balance between outsourcing and in-house service delivery is the right one for cogent strategic reasons relating to:

- the efficiency of NIE's business;
- NIE's ability to provide a rapid 24/7 emergency response, and
- the need to secure long term access to a multi-skilled resource which provides flexibility in the delivery of work.

The Utility Regulator should restrict itself to specifying efficiency targets and incentive mechanisms and should leave to NIE's management the task of deciding how best to deliver its statutory and regulatory obligations.

NIE requests the Competition Commission to endorse NIE's position and to make clear in its report on the present reference that it would not be in the interests of customers for the Utility Regulator to mandate NIE to competitively tender the services provided by NIE Powerteam.

1. INTRODUCTION

- 1.1 The Utility Regulator has used the RP5 review process to question whether the arrangements between NIE and NIE Powerteam are in the interests of consumers. Although the Utility Regulator has withdrawn its original proposal to bring the current arrangements between NIE and NIE Powerteam to an end, the Final Determination states that the Utility Regulator expects NIE to demonstrate that services delivered by NIE Powerteam are competitively procured and market tested.
- 1.2 The Final Determination may have been overtaken by events. NIE has proposed that, in the course of RP5, ownership of NIE Powerteam should transfer so that it becomes a wholly-owned subsidiary of NIE. (NIE Powerteam and NIE are currently both direct subsidiaries of ESBNI Limited.) The proposal has arisen in the context of the IME3 Directive and NIE's application for certification as TSO under the existing arrangements for transmission and the European Commission's 12 April 2013 decision in relation to that application. This proposal, together with setting NIE Powerteam's charges at cost, should provide further assurance that NIE Powerteam's objectives are entirely aligned with those of NIE.
- 1.3 Notwithstanding these changes, for the reasons set out in this Chapter, NIE submits that it is inappropriate for the Utility Regulator to seek to impose competitive tendering. NIE is already incentivised to manage NIE Powerteam's costs efficiently as part of NIE's own overall costs and it should be the responsibility of management to decide how its costs are managed. Efficiency benchmarking demonstrates that NIE, operating under the existing internal arrangements with NIE Powerteam, is a leading performer relative to the GB DNOs. It is not in the interests of customers for the Utility Regulator to seek to interfere with a business structure that is 'working'.
- 1.4 This Chapter is structured as follows:
- Section 2 describes the role of NIE Powerteam and explains that, by establishing NIE Powerteam, NIE has been able to drive down costs for the benefit of customers.
 - Section 3 sets out the Utility Regulator's position in the Final Determination.
 - Section 4 explains that NIE Powerteam is already subject to effective regulation and that there is no need to impose competitive tendering to ensure that customers obtain best value for money with respect to the delivery of services by NIE Powerteam.

- Section 5 explains why NIE's existing operating model provides significant benefits to customers.
- Section 6 draws conclusions and invites the Competition Commission to endorse NIE's position.

2. NIE POWERTEAM'S ROLE AND ACTIVITIES

- 2.1 NIE Powerteam is a separate legal entity from NIE but forms an integral part of the NIE organisation. Its exclusive¹ function today is to undertake activities forming part of NIE's T&D Business.
- 2.2 NIE Powerteam was established by NIE in 1999 with the twin objectives of driving down NIE's costs for the benefit of customers and growing external business. These objectives were achieved by resourcing the new company with operational staff transferred from NIE and with new recruits, thus facilitating the introduction of productivity schemes and modern terms and conditions of employment, and by deploying surplus staff to work on external business (thus avoiding compulsory redundancies). Transfers to external business included staff who were on legacy terms and conditions and these staff were either not replaced or replaced by new staff on modern terms and conditions. The external business is now conducted through a separate ESB-owned company, Powerteam Electrical Services (UK) Limited, which is independent of both NIE and NIE Powerteam with its own management and staff.
- 2.3 NIE Powerteam has approximately 1,000 employees (whereas NIE has only approximately 300 employees). NIE Powerteam's four main business units are:
- Customer Operations;
 - Overhead Lines;
 - Stations Delivery; and
 - Metering.
- 2.4 In addition to the core functions of each business unit, all units within NIE Powerteam provide a response to fault and emergency events associated with the network. This includes carrying out switching operations and tests to locate and isolate faulted equipment, organising staff and materials to complete repairs, fitting

¹ NIE Powerteam provides de minimis training services to third parties with revenue of less than £100,000 per annum (less than 0.2% of NIE Powerteam revenues). Occasionally NIE Powerteam provides assistance to other DNOs in restoring supplies after storm damage to their networks.

of portable generators, and restoring supplies to customers when work is complete. All employees have a designated escalation role for major events.

Employment terms and conditions

- 2.5 Since the establishment of NIE Powerteam, all newly-appointed employees, including apprentices, have been recruited on terms and conditions that align with those offered by NIE's competitors in the labour market. These terms and conditions include:
- salaries that are aligned with competitive market rates;
 - longer working hours (for example, instead of 37 hours either 39.5, 42.5 or 45 hours per week);
 - less costly overtime arrangements than NIE;
 - home-to-site working that maximises the time on site;
 - various flexible working arrangements that maximise productivity during the working day;
 - defined contribution pension arrangements; and
 - condition-based sickness absence entitlement (potential to revert all employees to SSP if collectively their sickness absence is above 3%).
- 2.6 These contracting terms and conditions were not acceptable to the trade unions with respect to employment within NIE. However, they were acceptable to the trade unions with respect to employment within the new NIE Powerteam company as long as they matched those of third party contractors.
- 2.7 New operational employees since 1999 have been recruited into NIE Powerteam. In addition, in 2000 and 2001, some 700 NIE operational staff were transferred under TUPE regulations from NIE into NIE Powerteam on their existing terms and conditions. This gave NIE the opportunity to introduce productivity schemes in a number of key areas to drive efficiencies which would not otherwise have been easily achieved.
- 2.8 Many of these schemes were based on units of work. In relation to cable jointing, for example, the initial outputs per day were 6 units. On introducing the productivity scheme the units were increased to 7.5 units per day. This increased overall productivity by 20%. Further to this in 2009 an additional 5% target was applied resulting in 8 units per day being achieved. With respect to overhead lines, productivity schemes were also developed and introduced within tree cutting,

under-eaves and overhead lines teams. These again were based on increasing productivity by measuring performance against contractor rates.

- 2.9 In summary, NIE Powerteam has played an extremely valuable role in ensuring the implementation of efficient market tested and effective terms and conditions that have facilitated significant productivity improvement that could not otherwise have been achieved. The performance of NIE Powerteam is one of the key reasons why NIE is a leading performer relative to the GB DNOs, as described in Chapter 7 (NIE's Efficiency), and ultimately customers benefit from its efficient provision of network services.

3. THE FINAL DETERMINATION

- 3.1 The Utility Regulator has concluded that NIE should be required to demonstrate that services currently delivered by NIE Powerteam are competitively tendered and market tested.
- 3.2 The Final Determination states (at paragraph 6.52):

"There does not appear to be sufficient evidence that consumers benefit from the current arrangements; nor is there evidence to support the assertion that NIE Powerteam Ltd is competitive. We therefore expect NIE T&D to demonstrate that services delivered by NIE Powerteam Ltd are competitively procured and market tested; this should help ensure that the arrangements are in the best interests of consumers." (emphasis added)

and (at paragraph 6.5 of the Final Determination)

"We do expect NIE T&D to demonstrate that services delivered by NIE Powerteam Ltd are competitive. Monitoring of market testing and procurement arrangements should also occur on a regular basis (annually) to ensure that the arrangements are in the best interests of consumers." (emphasis added)

- 3.3 Moreover, at several points within Appendix E to the Final Determination (which sets out the Utility Regulator's comments on NIE's response to the Draft Determination), the Utility Regulator makes clear that:

"As Powerteam is not subject to competition, we expect NIE T&D to demonstrate that consumers are getting the best value for money from the Powerteam arrangements. This will then be considered in our assessment for RP6."

- 3.4 It is not clear precisely what the Utility Regulator expects NIE to do by way of competitive tendering and annual monitoring of market testing and procurement

arrangements. Despite this, the Final Determination suggests that any failure by NIE to deliver on the Utility Regulator's expectations will result in NIE being penalised in its price control for RP6.

4. NIE POWERTEAM IS SUBJECT TO EFFECTIVE REGULATION

- 4.1 As an integral part of NIE's business, NIE Powerteam's costs are subject to review by the Utility Regulator for price control purposes in precisely the same way that costs incurred directly by NIE are subject to review. As set out in Chapter 7 (NIE's Efficiency), NIE has provided the Utility Regulator with benchmarking analysis of the efficiency of its cost base, which includes charges from NIE Powerteam. This evidence shows that NIE is a leading performer relative to the GB DNOs. There is therefore no need to impose competitive tendering to ensure that customers obtain best value for money with respect to the delivery of services by NIE Powerteam.
- 4.2 The status of NIE Powerteam as an integral part of NIE is recognised in Condition 12 of NIE's T&D licence which makes clear that the general obligation on NIE to ensure that its T&D Business has full managerial and operational independence from any Associated Business does not apply to NIE Powerteam. NIE Powerteam is effectively treated as part of the T&D Business for the purpose of that licence obligation.
- 4.3 It is wrong for the Utility Regulator to suggest, as it did in the draft determination, that NIE Powerteam is unregulated. That implies that the Utility Regulator has no control over what customers pay to fund the level of costs incurred by NIE Powerteam. However, the Utility Regulator is not obliged to fund NIE to pay charges levied by NIE Powerteam whatever the level of those charges or how efficiently NIE Powerteam has incurred its costs. Regardless of the actual charges levied by NIE Powerteam for the services it provides to NIE, the Utility Regulator will allow NIE only sufficient revenue to recover what it determines to be the efficient level of costs for those services. Equally, under the price control NIE is fully incentivised to minimise the costs of service delivery – and NIE Powerteam exists for precisely this reason.
- 4.4 During RP4 there was a profit sharing arrangement in relation to NIE Powerteam's profits. Under this arrangement, which was reflected in the charge restriction condition of NIE's licence, 50% of NIE Powerteam's profits were credited to customers via lower allowed revenue. The net profit retained by NIE under these arrangements in RP4 was approximately £1.5 million (approximately 0.15% of RP4 total revenues).
- 4.5 For the purposes of RP5, however, NIE has proposed that all charges from NIE Powerteam to NIE will be at cost (with no profit margin). Direct labour charges will be based on an hourly rate which includes the recovery of non-timesheet staff

costs, fleet, premises and tools and equipment costs. Charges for managed services will also be at cost reflecting the cost of staff involved in delivering the services and related overheads.

5. NIE'S OPERATING MODEL

- 5.1 NIE could not accept the Utility Regulator's proposal to mandate NIE to competitively procure and market test the services provided by NIE Powerteam. NIE considers that it should be the responsibility of its management to decide how its business is organised. The existing NIE business, of which NIE Powerteam is an integral part, is already highly efficient. This has been confirmed by benchmarking analysis, including salary benchmarking, described in Chapter 7 (NIE's Efficiency). This benchmarking treats NIE's and NIE Powerteam's costs on a consolidated basis.
- 5.2 NIE has no 'in principle' objection to subcontracting its activities where it is appropriate to do so. NIE has subcontracted and continues to subcontract a subset of its activities (generally lower skilled activities such as highway excavation, cable laying and pole erection) which by their nature lend themselves to such treatment. However, NIE considers that the current balance between outsourcing and in-house service delivery is the right one for reasons not just of efficiency but for other cogent strategic reasons as explained in the paragraphs below.
- 5.3 The NIE Powerteam model allows for the most effective and efficient response to fault and emergency events, particularly major events such as storms. It is crucially important to retain this capability. If NIE had to use the services of multiple external contractors, it would not be able to provide the same response capability due to a loss in economies of scale and in the timely availability of resources.
- 5.4 The model further enables NIE to develop and maintain a highly-skilled workforce within NIE's organisation. NIE is incentivised to invest in its future workforce on a long-term basis whereas an external contractor would have little incentive so to invest. The majority of contractors build up their workforce to meet only the short to medium term needs of their contract demands. They would be unlikely to invest in apprenticeship programmes and graduate programmes. The loss of NIE's long-term investment in its workforce would be particularly keenly felt in this specialist sector where training workers generally involves long timescales and significant costs, and where the age profile of workers is increasing. This would have serious implications for future customers as NI would soon lack the skilled workforce necessary to enable the T&D network to be operated safely, efficiently and economically.

5.5 The existing model also gives flexibilities in delivery that are difficult to achieve from contractors. The nature of NIE's work is such that the need for individual services can be volatile over time and there are many interdependencies between services. To address this, NIE has developed a business model in which the workers are multi-skilled and ensures the workforce is used efficiently with high utilisation rates. For example:

- Transmission overhead linesmen have the dual skills to work on the transmission system during summer outages and on the distribution system during the winter. They also provide cover for emergency situations on a 24/7 basis.
- Distribution overhead linesmen are multi-skilled in the areas of network switching, live-line working, low voltage cable-jointing and customer point metering. This facilitates 'one-stop jobs' resulting in improved efficiency and customer service.
- Underground cable jointers are able to work on cables from low voltage through to 33kV, which enables them to provide customer connections, progress capital project works and also support cost-effective emergency cover.
- Engineers are authorised to operate the network and are on standby even though they work in back office areas during a normal working day. They are typically on standby rotas near their homes, to reduce response times and provide additional resource capacity during major incidents.
- Some engineers are multi-skilled to operate across a variety of engineering design, commissioning, network operations, network planning and asset management which facilitates optimum resource utilisation to meet the demands of a flexible capital investment programme.

6. CONCLUSION

6.1 For the reasons outlined in Section 5, NIE submits that mandatory competitive tendering for network services would not be in the best interests of customers. NIE's management has decided that the existing operating model is the optimum way for NIE to operate and maintain its network as regards efficiency, 24/7 emergency response and assured long term availability of a multi-skilled resource which provides flexibility in the delivery of work.

6.2 The Utility Regulator should restrict itself to specifying efficiency targets and incentive mechanisms and should leave to NIE management the task of deciding how best the targets may be met.

- 6.3 NIE requests the Competition Commission to endorse NIE's position and to make clear in its report on the present reference that it would not be in the interests of customers for the Utility Regulator to mandate NIE to competitively tender the services provided by NIE Powerteam.

CHAPTER 14

REPORTER

SUMMARY

The Utility Regulator wishes to increase the scope and the level of detail of the information to be reported on regularly by NIE. It proposes to modify NIE's licences to require NIE to facilitate the introduction of a Reporter who would be embedded within the company and would assist the Utility Regulator in validating and assessing the data submitted by NIE.

NIE believes that the introduction of a Reporter is unnecessary.

A significant part of the Reporter's role arises out of the Utility Regulator's proposed arrangements for regulating capex. The part played by the Reporter in those arrangements would result in a blurring of roles and responsibilities and for the reasons set out in Chapter 4 (RP5 Capex – Structure), NIE regards the proposals for regulating capex as an inappropriate departure from Ofgem precedent. Much of the Reporter's role as envisaged by the Utility Regulator will not be required if the Competition Commission adopts the traditional approach to regulating capex.

The remainder of the Reporter's role relates to auditing and validating information including financial accounts (which are already subject to audit), capex reporting, compliance plan and other regulatory submissions. NIE will work with the Utility Regulator towards meeting its requirements for increased reporting in these areas, but the requirements should be proportionate and targeted. In NIE's view these elements of reporting do not justify the expense of having a Reporter embedded within NIE.

The Utility Regulator estimates the cost of the Reporter to be £1.5 million over RP5, which will be passed through to customers. But that is not the full cost. NIE would expect to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc. Despite initial appearances, the Final Determination has made no allowance for such costs.

Ofwat has recently decided to dispense with Reporters and Ofgem does not use Reporters. Its introduction would be a further step towards a regulatory model in NI that tends towards micro-management and would run counter to the trend in best practice regulation.

NIE requests the Competition Commission to decline to mandate the introduction of a Reporter.

1. THE UTILITY REGULATOR'S PROPOSALS

- 1.1 The Utility Regulator has used the Final Determination to confirm its intention to introduce a new role for a Reporter to assist the Utility Regulator to fulfil its statutory duties.
- 1.2 The Reporter would be an independent professional supported by a team of named individuals. The appointment would be made by NIE, with the appointment subject to approval by the Utility Regulator. The Reporter would act as an "auditor, certifier and commentator" on aspects of NIE's regulatory submissions and be embedded within NIE on a part-time basis for the duration of the RP5 price control period. As such, the Reporter would add an additional layer of regulation rather than assume responsibility for functions currently discharged by the Utility Regulator.
- 1.3 According to the draft Terms of Reference provided in Appendix L to the Final Determination, the Reporter would have a very wide-ranging role which would extend to an audit or validation of the following categories of information to be submitted by NIE:
 - Financial accounts
 - Capital expenditure reports
 - Capital expenditure database
 - RAB additions and disposals
 - Compliance plan
 - Annual reporting requirements
 - Other regulatory submissions
- 1.4 The Utility Regulator may also require the Reporter to carry out supplementary or special investigations of particular aspects of NIE's business.
- 1.5 NIE will be under a licence obligation to put in place the Reporter with effect from 31 August 2013.
- 1.6 A significant part of the Reporter's role relates to the Utility Regulator's proposed arrangements for regulating capex. Further detail about this and other aspects of the Reporter's role is found throughout the Final Determination and is summarised below:

Capex – Fund 1

- 1.7 In relation to Fund 1, the Reporter will verify the asset replacement work each year and sign off on the actual spend that is added to the RAB.
- 1.8 In addition, the Reporter will verify information that is to be provided by NIE on an annual basis for each programme including:
- average unit costs;
 - actual spend and number of units installed;
 - expected spend and number of units to be installed before the end of RP5; and
 - the reasons for any change from the original programme.
- 1.9 The Reporter will comment on the implications of any changes to the programme. The unit costs will be assessed and any efficiency identified. The Reporter will provide a formal report to NIE at the end of each annual review.

Capex – Fund 2

- 1.10 As part of the annual reporting cycle, the Reporter will assess the projects that NIE intends to undertake and actually undertakes under Fund 2. The Reporter will also audit NIE's decision making process, to ensure that projects it intends to initiate during the following year are necessary and efficient. This will be an annual process, timed so that it is co-ordinated with NIE's submission of the annual capex reporting and database. NIE will take the risk that the Reporter agrees ex post that the company's investments are necessary and efficient; NIE will only be able to add necessary and efficiently incurred spend onto the RAB as assessed by the Reporter.
- 1.11 The Utility Regulator will require information about the reasons for investment for each Fund 2 project. This will include:
- existing loading on the assets, including the number of hours above the rated capacity under normal operation;
 - expected changes in demand over the coming years; and
 - a description of how the planning standards and prudent investment strategy have been applied in each case.
- 1.12 The Reporter will also comment on the implications of any changes to the programme, assess unit costs and efficiency.

Capex – Fund 3

- 1.13 The Final Determination provides that Fund 3 projects will have the same reporting requirements as Fund 1 and Fund 2, with the following additional requirements:
- biannual progress reports for each project (both renewables and smart investments);
 - post-project appraisals, including verification by the transmission system operator that the specified functionality has been delivered;
 - a biannual overall update on the amount of renewable generation connected to the system, including the amount of firm access; this should include the overall progress towards a grid that can support the amount of renewable generation required to meet the NI Assembly's 40% target for generation from renewable sources.
- 1.14 The Reporter will verify NIE's Fund 3 reporting when requested to do so by the Utility Regulator.
- 1.15 The Reporter's role will also extend to:
- ensuring that the estimates that NIE makes as part of the initial submission reflect efficiently incurred costs; and
 - assessing the delivery of projects and any claims for the payment of efficiency incentives.

Connections

- 1.16 The Utility Regulator will require NIE to provide regular reports on connections and the timing of connections so that it can monitor NIE's performance in this area. The Final Determination states that the use of the Reporter will be essential in this regard. The Reporter will need to verify any additions to the RAB that result from the difference between connection estimates and actual costs.

Licence condition

- 1.17 The Utility Regulator has proposed adding a new licence condition in relation to the function of the Reporter. Among other things, this will require NIE to cooperate fully with the Reporter in order to facilitate any tasks that may be assigned to him by the Utility Regulator and NIE must in particular permit the Reporter:
- at all reasonable times, to have access to any electric line, plant or meter, and any premises occupied by NIE or to which NIE has a right of access;

- at all reasonable times, to inspect and take copies of any documents held by NIE, including by providing access to any computer system or electronic records, and carry out inspections, measurements or tests; and
- to be accompanied and supported by such persons, and to carry and use such equipment, as he may reasonably require for the purposes of carrying out the tasks assigned to him.

2. NIE'S CASE

Diminished role for Reporter under traditional capex arrangements

- 2.1 The introduction of a Reporter would be a further step towards a regulatory model in NI that tends towards micro-management. As noted in Chapter 4 (RP5 Capex - Structure), this tendency is particularly evident in the Utility Regulator's proposals for the 'three fund' structure of the capex element of the RP5 price control in which the Reporter would play a key role. A regulatory model based on micro-management runs counter to the trend in best practice regulation, weakens accountability and gives NIE little confidence that the Utility Regulator is embracing the principles of incentive-based regulation.
- 2.2 The introduction of a Reporter will give rise to uncertainty with respect to whether it is NIE or the Reporter that is responsible for decision making. If bad decisions result in the T&D network not achieving specified output standards and those decisions are attributable to delay or bad decisions by the Reporter, it would be wrong for NIE to be penalised for those decisions, whether in terms of the impact on incentive arrangements, the setting of the next price control or statutory enforcement action. The introduction of a Reporter will effectively blur the boundary between NIE's responsibilities and those of the Utility Regulator.
- 2.3 There are also uncertainties with respect to the Reporter's responsibilities. It has no statutory responsibilities, and the proposed licence condition 46 envisages that it will be appointed by contract by NIE. It is unclear whether NIE would be able to recover compensation if it was unable to meet its statutory or licence duties efficiently because of the Reporter's intervention or inaction. The Reporter is not envisaged by legislation and its status is legally uncertain.
- 2.4 Moreover, under general principles of public law, it is inappropriate for the Utility Regulator to delegate to a Reporter the taking of decisions as to how the Regulator should best discharge its statutory functions. Yet it appears that the Utility Regulator envisages that it should fall to the Reporter to make regulatory decisions as to the operation of elements of the capex fund elements of the RP5 price

control, in a manner which amounts to potentially unlawful delegation of the Utility Regulator's functions. See paragraph 2.6 below.

- 2.5 The Utility Regulator envisages a role for the Reporter that is considerably more 'hands on' and involved in day-to-day management decisions than the role previously allocated to reporters by Ofwat. Under the discontinued Ofwat regime, a reporter had two principal functions:
- scrutinising the historical data presented in a water company's annual return (the June returns); and
 - scrutinising the forecast data presented in the submissions made by a water company as part of the 5-yearly price control review process.
- 2.6 Under the regime proposed by the Utility Regulator, the Reporter's role would extend beyond those two functions to include the following (among others):
- on an annual basis, assessing the individual projects that NIE intends to undertake and actually undertakes under Fund 2. This role would include examining whether the individual projects that NIE intends to initiate are necessary and efficient (and potentially deciding whether particular costs should be recoverable);
 - providing the Utility Regulator with detailed information about the reasons for the investment in each Fund 2 project (and potentially deciding whether particular costs should be recoverable);
 - In relation to the operation of the Fund 3 mechanism, ensuring that the estimates that NIE makes as part of its initial submission on a Fund 3 project reflect efficiently incurred costs; and assessing the delivery of projects and any claims for the payment of efficiency incentives.

As a consequence of its 'hands-on' role, the uncertain legal status of the Reporter in NI assumes a much greater significance than was the case in relation to the discontinued Ofwat regime.

- 2.7 NIE's recent experience of having a Reporter embedded within the Enduring Solution IT project¹ underlines NIE's concerns. The Enduring Solution Reporter had unconstrained access to NIE staff at all levels, including junior team members. Such an unstructured engagement caused confusion and distracted from the focused efforts of the various team members to deliver within their areas of the project. In a number of instances it was the Reporter, rather than the Utility Regulator, who appeared to set regulatory direction, yet at other times the

¹ As explained in Chapter 6 (RP5 Opex), the Enduring Solution was an IT project designed to meet the requirements of a fully competitive retail market. Further detail is provided in Annex 14A.1, "Case Study: The use of a Reporter in the Enduring Solution Programme".

Reporter claimed he could not speak for the Utility Regulator. At times confusion between the Reporter's view and the Utility Regulator's view hampered decision making within the project and on occasions the Reporter's own personal opinions and particular areas of interest appeared to drive market policy in a direction that lacked wider stakeholder support.

- 2.8 The introduction of a Reporter would have the effect of severely restricting NIE's ability to reprioritise investment in response to the dynamic nature of risks and investment drivers over the five year price control. This is because reprioritising expenditure would expose NIE to the risk of ex-post disallowance should the investment be considered by the Reporter to be inefficient or unnecessary.
- 2.9 Moreover, the introduction of a Reporter is likely also to lead to additional delays and difficulties in respect of the operation of the proposed "three fund" structure for the capex element of the RP5 price control. As noted in Section 1 above, the Reporter will have functions in relation to:
- any change to the original programme for Fund 1;
 - NIE's decision to undertake Fund 2 projects and the implications of any changes to the programme; and
 - verifying NIE's reporting in relation to the authorisation process for Fund 3 projects.
- 2.10 In addition, the role of the Reporter, particularly in confirming the need for investment in each Fund 2 project, effectively gives the Reporter a veto in respect of individual Fund 2 projects and undermines the role of NIE's senior management in managing network risk.
- 2.11 NIE endorses the view expressed by respondents to the draft determination that the introduction of a Reporter would increase timescales for project approvals under the three fund structure, and would make the process less efficient.
- 2.12 A significant part of the Reporter's role arises out of the Utility Regulator's proposed arrangements for regulating capex with which NIE disagrees for the reasons set out above and in Chapter 4 (RP5 Capex – Structure). Much of the role of the Reporter envisaged by the Utility Regulator will not be required if the Competition Commission adopts the traditional approach to regulating capex.
- 2.13 The remainder of the Reporter's role relates to auditing and validating information including financial accounts (which are already subject to audit), capex reporting, compliance plan and other regulatory submissions. NIE will work with the Utility Regulator towards meeting its requirements for increased reporting in these areas. NIE considers the information should be used principally to inform future price controls and the requirements should be proportionate and targeted. In NIE's view,

this element of the role does not merit the expense of having a Reporter embedded within NIE.

Cost

- 2.14 The Utility Regulator estimates the cost of the Reporter to be £1.5 million over RP5, which would be passed through to customers. But this is not the full cost. NIE would expect to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc. However, the Final Determination has not made any allowance for internal costs for regulatory reporting requirements². These costs are likely to be considerable based on NIE's recent experience of having a Reporter embedded within the Enduring Solution IT project, with estimated internal costs associated with the Reporter approaching £0.5 million.
- 2.15 The introduction of a Reporter would be an unnecessary addition to the costs of energy regulation in NI where the per capita costs are in the region of six times what Ofgem costs in GB³.

Best practice

- 2.16 For the reasons stated above, NIE is firmly of the view that the introduction of a Reporter is unnecessary and would be a further step towards a regulatory model in NI that tends towards micro-management. This would run counter to the trend in best practice regulation, create unnecessary costs for customers and delay decision making.
- 2.17 Ofgem does not use Reporters for the GB DNOs. Moreover, Ofwat has recently decided to dispense with Reporters as it moves towards a more risk-based approach to regulation in which regulated companies take responsibility for ensuring the accuracy of the data that they provide to Ofwat.
- 2.18 Any concern as to the level of information required by the Utility Regulator to fulfil its duties can be adequately managed by laying down clear rules and guidance on regulatory reporting requirements, as other regulators have done (e.g. Ofgem). As indicated in Chapter 7 (NIE's Efficiency), NIE considers there would be considerable merit in its working with the Utility Regulator during the RP5 period to

² Although the Utility Regulator's analysis of the Final Determination opex allowance provided to NIE on 23 October 2012 confirmed £0.5 million had been included for internal costs for regulatory reporting requirements, this confirmation was withdrawn on 15 November 2012 when the Utility Regulator stated that the allowance for regulatory reporting requirements should be zero.

³ See the analysis of regulatory costs contained in section 8.2 of the paper entitled "The Utility Regulator's approach to NIE's Transmission and Distribution Price Control RP5" by Professor Stephen Littlechild, dated 13 July 2012. A copy of this paper is provided at Appendix 14.1. This paper was commissioned by NIE's shareholder, ESB, and attached to ESB's 18 July 2012 response to the Utility Regulator's draft determination.

move towards the adoption of a set of regulatory accounting guidelines and processes that closely follow those that prevail in GB.

3. RECENT DEVELOPMENTS – EU THIRD ENERGY PACKAGE

- 3.1 As explained in Section 3 of Annex 1A.1 (Historical and Regulatory Background), the European Commission in its decision of 12 April 2013 confirmed that arrangements in place in relation to the vertical integration and operation of the transmission systems belonging to NIE meet the requirements of Article 9(9) of the IME3 Directive.
- 3.2 As a consequence of this decision, NIE's transmission planning function will in due course transfer to SONI (the transmission system operator in NI). NIE is commencing discussions with the Utility Regulator to clarify the specific activities, processes and resources that will transfer to SONI.
- 3.3 Any change in responsibility for transmission planning would have implications for the role of a Reporter. In particular, if responsibility for certain investment decisions transfers to SONI, there would be no basis for a Reporter appointed by NIE to concern itself with such decisions. This further diminishes the case for the introduction of a Reporter. NIE hopes to obtain clarity on this issue from the Utility Regulator at an early stage so that it might be taken into consideration by the Competition Commission when deciding whether to mandate the introduction of a Reporter.

CHAPTER 15

WACC

SUMMARY

NIE submits that the allowed rate of return to NIE under the RP5 price control should take account of:

- GB precedent – in particular, Ofgem's position at DPCR5;
- NIE-specific factors; and
- market movements since DPCR5.

The allowed rate of return should be consistent with wider GB precedent, with departures from that precedent only where clearly justified. Full account should be taken of Ofgem's returns on regulated equity (RORE) analysis which focuses on the effective return on equity, and not on just the headline rate allowed for WACC.

In respect of NIE-specific factors, the allowed rate of return should take full account of the observed premium paid on NIE debt relative to comparable GB bonds. Similarly, the evidence as to the premium payable on NIE's debt implies that NIE's cost of equity is also higher than its GB counterparts' and justifies a related uplift on the cost of equity.

NIE's updated analysis identifies a range of 5.1% to 6.0% (vanilla, real) for the WACC for RP5. At the time NIE submitted its response to the draft determination NIE's point estimate of the WACC was 5.7%. Based on the latest market data, a figure towards the lower end of the range might be justified. However, owing to continued financial market volatility and in the interests of continuity with previous submissions NIE has continued to apply a WACC of 5.7% for the purpose of its financial modelling in this Statement.

NIE requests the Competition Commission to determine a price control for RP5 which reflects NIE's position with respect to the WACC.

1. INTRODUCTION

1.1 This Chapter sets out NIE's views on the weighted average cost of capital (**WACC**) for RP5.

1.2 WACC is a key component of NIE's price control. As noted in Chapter 3 (Statutory framework for the investigation):

- The Energy Order requires the Utility Regulator to (among other things) have regard to the need to ensure that NIE is able to finance its regulated activities¹; and
- The Electricity Order requires the Competition Commission to have regard to the same matter(s) in relation to its determination of the present reference.

The statutory framework therefore requires that WACC be set at a level that is sufficient to allow NIE to finance its regulated activities.

2. THE FINAL DETERMINATION

2.1 The Final Determination proposals with respect to WACC are summarised in Table 15.1 below. The table also shows:

- NIE's proposals for WACC as set out in its response to the draft determination²; and
- the headline WACC awarded to the GB DNOs by Ofgem at the last distribution price control review (DPCR5). As set out below, the effective returns awarded to the GB DNOs at DPCR5 were considerably higher than the headline level.

Table 15.1: WACC

	GB DNOs	NIE proposals	Final Determination
Gearing	65%	60%	50%
Pre tax cost of debt %	3.6	4.3	3.39
Post tax cost of equity %	6.7	7.7	5.7
Vanilla WACC - % real	4.7	5.7	4.55

2.2 The Utility Regulator's draft determination had proposed that a separate (lower) WACC should apply to renewables-driven investment. In the event, this proposal was not carried forward into the Final Determination, which provides for the application of a uniform WACC across all investment.

¹ Strictly speaking, the duty arises with respect to the activities which are the subject of obligations imposed by or under Part II of the Electricity Order or the Energy Order.

² NIE updated its assessment of WACC in the period between its original BPQ submission and its response to the draft determination. Its updated assessment took account of the latest data then available.

3. NIE'S VIEWS ON WACC

3.1 For the purposes of the RP5 price control review, and working with Frontier Economics, NIE developed an approach to determining the cost of capital for NIE for RP5 that comprises three distinct stages:

- Stage 1 takes Ofgem's decision at DPCR5 as the starting point for determining NIE's WACC for RP5. For this purpose, Ofgem's decision includes not just the headline allowed rate of return but also the actual "baked-in" returns that DNOs were allowed, which are in excess of the baseline WACC (the so called RORE uplift).
- Stage 2 adjusts the WACC calculated at Stage 1 to take account of relevant NIE-specific factors.
- Stage 3 evaluates whether financial market evidence on the WACC has changed significantly since DPCR5, to such an extent that merits a change to the parameters of Ofgem's decision.

3.2 NIE continues to consider that the adoption of this approach is appropriate since:

- the GB DNOs are NIE's competitors in capital markets; and
- it would provide clarity to investors that NIE will be able to earn broadly comparable returns to the GB DNOs, after taking account of objectively justifiable differences.

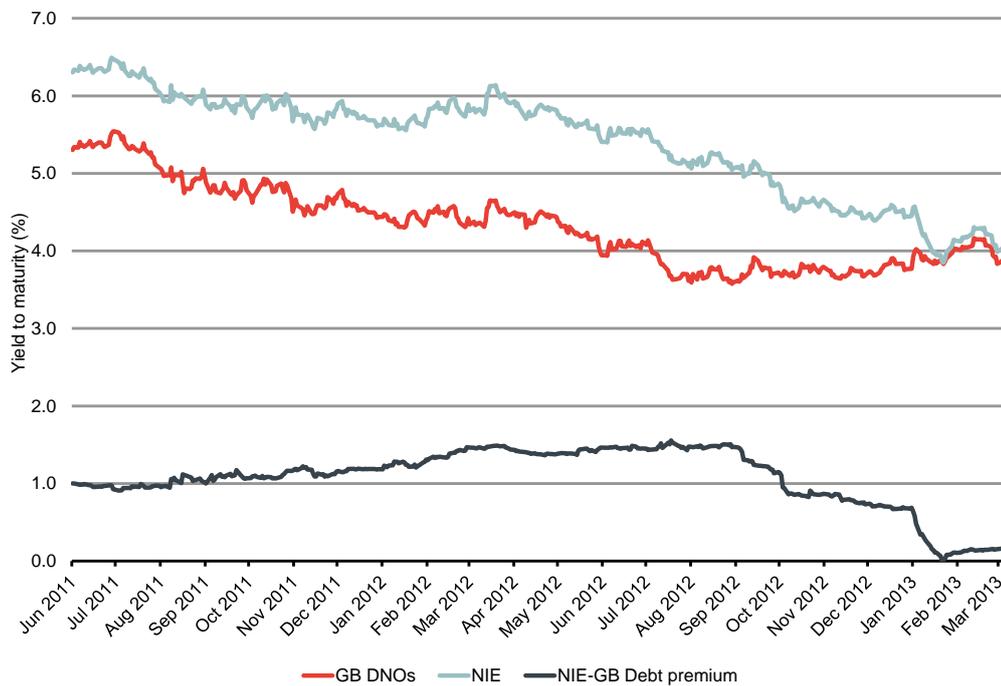
3.3 NIE provides below a brief overview of its position on each of the key elements of the WACC (and, hence, what should be the allowed rate of return). A range is provided for each parameter. Since providing its response to the draft determination, NIE has revised and updated its position to take full account of the most recent data available. It has done so in a manner consistent with NIE's position throughout the price control review. In particular, NIE provides an update on the observed debt premium, which has moved since NIE's last submission on this matter, together with an update on the rationale for uplifting the allowed cost of equity in the light of this debt premium.

Cost of debt

3.4 In respect of the cost of debt, in reaching its view on the appropriate level, NIE has adopted the approach followed by Ofgem at DPCR5 – that is, making use of a trailing average derived from a market benchmark of corporate debt costs. However, as Frontier detailed in their most recent report on WACC (submitted as an appendix to NIE’s response to the draft determination and provided at Appendix 15.1 to this Statement), there is clear evidence that yields on NIE’s bonds are higher than the yields on comparable debt issued by GB resident utilities³. NIE therefore considers that it is appropriate to uplift the cost of debt for NIE, above the level that would be appropriate for a GB DNO.

3.5 At the time of its response to the draft determination, NIE observed a premium of 123 bps for its long dated bond (maturing in 2026), against a sample of 6 bonds issued by GB resident utilities with similar times to maturity. An updated assessment of the size of the premium is presented in Figure 15.1 below.⁴

Figure 15.1: Yield to maturity of NIE and comparator GB DNO bonds



Source: Frontier Economics

³ The existence of a premium on NI utility debt has been recognised by the regulatory authorities (i.e. CER and the Utility Regulator) in their recent decision paper on capacity payments (reference AIP/SEM/12/078), provided at Appendix 15.2. A 50 bps uplift was applied to the estimate of the cost of debt (see page 29).

⁴ One of the six comparator bonds NIE quoted in its response to the draft determination (Electricity North West maturing on 25/03/2026) is no longer available from the data provider. This analysis therefore consists of only five comparator bonds.

- 3.6 Market data reveals that the spread between yields on NIE bonds and the peer group identified in NIE's response to the draft determination has narrowed in recent months. It will be necessary to keep this under review as the Competition Commission proceeds with its investigation in order to ensure that an appropriate estimate of this premium is taken into account and in order to understand whether the recent reduction in premium will be sustained.
- 3.7 The average debt premium (as estimated using the NIE bond that matures in 2026) for the past six and twelve months, as of 5 March 2013, has been 65bps and 104bps respectively. NIE considers that using these values will lead to a conservative estimation of the premium that might be observed on a new bond (i.e. it is likely to understate the extent of that premium). This follows since the 2026 bond is approximately 13 years from maturity, whereas a new bond might be expected to have a tenor of 20 or more years. Given the current upward sloping structure of the yield curve of corporate bonds, it is reasonable to presume that a new NIE bond with 20+ years to maturity will trade at a higher premium than is observed for a bond with a tenor of 13 years.⁵
- 3.8 Further evidence in support of this premium can be found by examining the yield on bonds issued by Phoenix Natural Gas (**Phoenix**) versus a set of comparable GB bonds. So far as NIE is aware, with the exception of NIE, Phoenix is the only corporate entity that has issued a traded bond and has all its operations in NI. Since the Phoenix bond has a markedly different period to maturity it is necessary to consider a different set of comparator bonds. The sample selected is shown in Table 15.2.

⁵ This is supported by the BBB-rated UK utilities corporate bond yield curve provided by Bloomberg.

Table 15.2: Maturity dates and credit ratings for Phoenix and comparator GB utilities

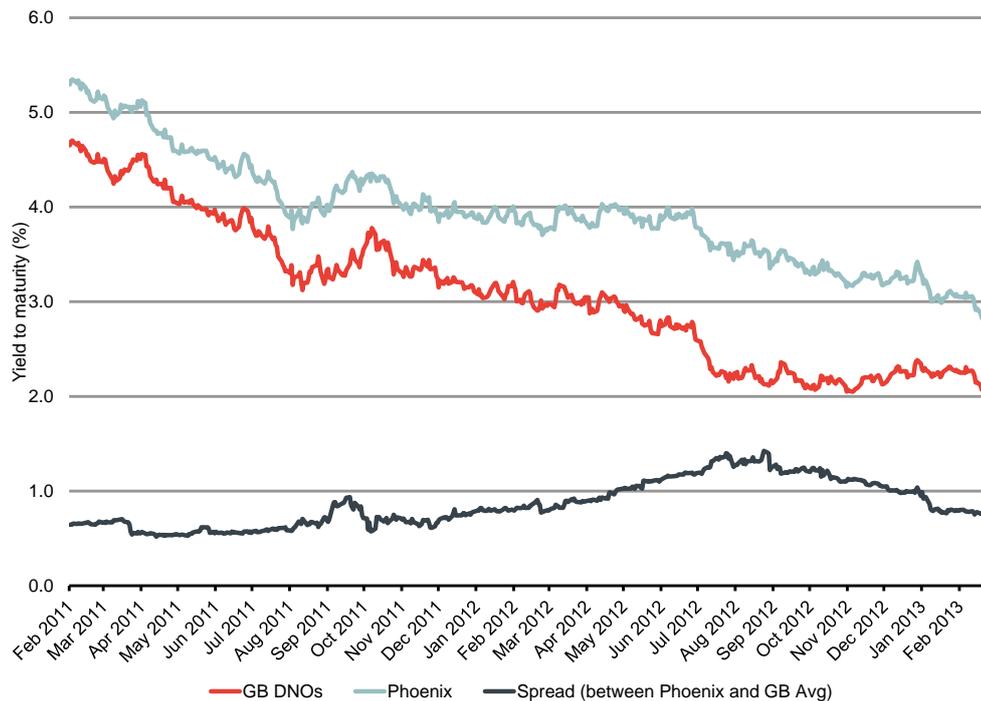
Issuer	Maturity date	Bloomberg rating
Phoenix Gas	10/07/2017	BBB
Wales and Western Utilities (gas)	02/12/2016	BBB+
Southern Gas Networks (gas)	02/11/2018	BBB
Scotland Gas Networks (gas)	21/02/2017	NA*
Severn Trent Water (water)	22/01/2018	BBB+
SSE plc	10/01/2018	A-

Source: Bloomberg

* Bloomberg has not assigned a composite rating to Scotland Gas Network. The current agency ratings are Baa1/AA-/BBB+.

3.9 The yield to maturity of the Phoenix bond compared to the average yield on the GB utility bonds in the sample is illustrated in Figure 15.2.

Figure 15.2: Difference between Phoenix Gas and average GB comparator redemption yields



Source: Frontier Economics

3.10 Similar to the yield on NIE’s bond, there has been a recent fall in the size of this premium. Nevertheless, the average premium over the last six and twelve months (as of 5 March 2013) has been 96 bps and 106 bps respectively.

- 3.11 The trailing average derived from the market benchmark adopted by Ofgem (i.e. iBoxx indices) has decreased since NIE's response to the draft determination. Ofgem's most recent regulatory determinations (for the GB gas distributors and National Grid's two transmission businesses, both published on 17 December 2012) state that the relevant trailing average is now 2.92%, as of December 2012.^{6 7} Furthermore, the 30bps headroom above this trailing average that Ofgem built into DPCR5 has not been applied in these recent determinations.
- 3.12 Given the most recent market evidence, NIE considers that its cost of debt falls in the range 3.6% to 4.3% (real). The lower bound is constructed from the current trailing average of the iBoxx index, adding on 65bps of debt spread that is consistent with the average debt spread that existed between the yield on NIE's debt and the yield on GB DNO debts over the last six months. The upper bound is constructed from the current trailing average of the iBoxx index, including the 30bps headroom applied by Ofgem at DPCR5 (for transaction costs and the risk created by fixing a rate for a five year period) and 104bps to reflect the average debt spread that existed over the past twelve months.

Gearing

- 3.13 In respect of gearing, NIE notes that Ofgem set the notional gearing for GB DNOs at 65% at DPCR5. NIE has previously considered a notional level of gearing of 60% to be appropriate. Gearing at this level is consistent with the lower end of the range observed in the utility sector and lies within the range of gearing identified by the Utility Regulator's own expert adviser⁸ and with recent decisions by other regulators (see Table 15.3 below). It is also consistent with what has hitherto been NIE's expectation of the level of gearing that is likely to prevail during RP5, in the light of:
- the capex that will need to be delivered under Fund 1 and Fund 2; and
 - the prospect of significant expenditure in support of renewable generation integration under Fund 3.

⁶ Ofgem Gas distributors Final Proposals 17 December 2012 http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/1_RIIOGD1_FP_overview_dec12.pdf

⁷ Ofgem National Grid 2 transmission businesses Final Proposals 17 December 2012 http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/1_RIIO-T1_FP_overview_dec12.pdf

⁸ See "An Estimate of NIE T&D's Costs of Capital", First Economics, December 2011, which was appended to the Utility Regulator's draft determination and is attached at Appendix 15.3 to this Statement. The discussion on gearing can be found in section 4 of that paper.

Table 15.3: Gearing assumptions – recent GB regulatory precedents

Decision	Gearing assumption	Year
Ofgem – TPCR4	60%	2006
Ofgem – DPCR5	65%	2009
Ofwat – PR09	57.5%	2009
CC – Bristol Water	60%	2010
Ofgem – RIIO T1 NG Electricity	60%	2012
Ofgem – RIIO T1 NG Gas	62.5%	2012
Ofgem – RIIO T1 SHETL	55%	2012
Ofgem – RIIO T1 SPTL	55%	2012
Ofgem – RIIO GD1	65%	2012

- 3.14 In contrast, in its estimation of the WACC for NIE for RP5, the Utility Regulator has assumed a notional level of gearing of 50%.
- 3.15 NIE regards a gearing level of 50% as suboptimal, having regard to regulatory precedent and the views of the Utility Regulator’s own advisors as stated at the time of the draft determination. The Utility Regulator accepted as appropriate First Economics’ recommendation in respect of gearing in its draft determination and has provided no analysis to support its change of view.
- 3.16 Provided that the return on equity allowed in the price determination is reasonable, NIE considers that a notional gearing of range of 55% to 65% is appropriate. However, it continues to consider a point estimate of 60% to be most appropriate.

Baseline cost of equity

- 3.17 In its submissions during the RP5 review process, NIE has set out its case on the underlying elements of the cost of equity, i.e. the risk free rate, equity risk premium (ERP) and underlying asset beta.
- 3.18 NIE continues to consider that a risk free rate of 2% is appropriate for RP5. As set out in Frontier’s paper of May 2011 (provided at Appendix 15.4), setting the real risk-free rate at this level would ensure consistency with Ofgem’s DPCR5 determination and is consistent with taking a long-term view of market parameters during periods of anomalous economic activity, which is considered to be sound regulatory practice. NIE therefore agrees with the Utility Regulator in this respect.
- 3.19 NIE continues to consider that an ERP of 5.25% can be justified on the basis of consistency with Ofgem precedent. Furthermore, an estimate at this level remains within the range that can be supported by reference to prevailing market data. However, NIE acknowledges that a lower estimate of 5%, as proposed by the Utility Regulator in the Final Determination, could also be

supported and would be consistent with potentially relevant precedent (e.g. from the Competition Commission investigation of Bristol Water in 2010).⁹ NIE therefore considers that the ERP falls in the range 5% to 5.25%.

- 3.20 NIE has argued in its submissions that the Utility Regulator should take a long-term view of the asset beta, consistent with the approach taken by Ofgem in past price controls. The Utility Regulator has proposed an asset beta of 0.42 for transmission and distribution assets. NIE considers that this is a reasonable estimate that is consistent with the principle of adopting a long-term view on asset beta, particularly during periods of extreme market turbulence.
- 3.21 On the basis of these inputs, it is possible to derive a range for the baseline cost of equity:
- A lower bound for baseline cost of equity of 6.1% is calculated using a notional gearing level of 55%, asset beta of 0.42 (and hence an equity beta of 0.81), ERP of 5% and risk-free rate of 2%.
 - An upper bound of 7.3% is calculated with a notional gearing level of 65%, asset beta of 0.42 (and hence an equity beta of 1.01), ERP of 5.25% and risk-free rate of 2%.

Uplift in cost of equity

- 3.22 In respect of the cost of equity, NIE has hitherto proposed a level for the cost of equity that is consistent with the intent and effect of Ofgem's determination with respect to DPCR5. In reaching its decision on the appropriate level for the cost of equity, Ofgem recognised that returns to shareholders would be determined by not only the headline rate allowed for in its decision on the WACC, but also by its calibration of the wider incentive package. Ofgem therefore undertook an analysis of the returns on regulated equity (RORE) to understand the effect on returns of the extent to which certain of its allowances/targets were not set at "central" levels, but were in fact generous¹⁰. Where calibrations of incentive mechanisms and/or cost allowances were expected to result in additional returns for companies that were able to meet, not beat, regulatory targets, Ofgem understood that this was identical in effect to having calibrated the relevant incentive mechanism at a central level and provided a higher baseline level of return on equity.

⁹ http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2010/fulltext/558_final_report.pdf

¹⁰ See for example, paragraph 1.9, Electricity Distribution Price Control Review: Final Proposals, Ofgem, 7 December 2009: "*Our analysis suggests that a company that runs its network at the level of costs we have allowed should earn "baseline" returns on equity of between 7.1% and 9.6%*" http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf . Returns at these levels should be compared with Ofgem's headline rate for allowed returns on equity of 6.7% (real, post tax).

This principle is also recognised by the CC, for example in its consideration of the Bristol Water case¹¹.

- 3.23 NIE's proposal for the cost of equity in its response to the draft determination (7.7% post-tax real) therefore reflects the effective return on equity set by Ofgem for the GB DNO sector on average, taking account of its RORE analysis. Indeed, in the light of NIE's strong performance across a range of efficiency analysis (see Chapter 4 (NIE's Efficiency), which reveals that NIE is a leading performer relative to the 14 GB DNOs), it is strongly arguable that using the GB DNO average RORE uplift is conservative. On the basis of the evidence presently available, it may reasonably be inferred that NIE would have received an above average RORE uplift had it been assessed using the processes developed by Ofgem at DPCR5 given its strong operational performance.
- 3.24 NIE also considered that it would be appropriate to uplift the cost of equity to take account of the observed premium on NIE's debt. This provided a further justification of the cost of equity requested by NIE in its response to the draft determination.
- 3.25 There is a large body of academic literature that examines the relationship between debt premium and equity premium. These studies have found considerable evidence that common factors affect both the equity premium and debt premium on corporate bonds. The economic intuition for this result was first proposed by Merton (1974)¹²: both debt and equity are contingent claims on the same productive underlying assets. Therefore, the same risk factors that determine the value of the underlying assets must also drive the costs of debt and equity, and the value of these forms of capital to investors.
- 3.26 The spread between the yield on NIE's bonds and the yield on ostensibly similar bonds issued by GB resident utilities reveals that there are higher risks attributable to operating networks in NI compared to GB. Some of this additional risk will be systematic in nature and will therefore generate a premium on the cost of equity. NIE's equity investors should be compensated for these risks and an appropriate uplift should therefore be factored into the estimated cost of equity. Even the diversifiable element of the risks associated with the debt premium can translate into higher equity costs. A

¹¹ See for example paragraph 9.8, page 64 of the Competition Commission's Final Report: *"The return required by the marginal investor will depend on other aspects of price-cap setting, for example projections of opex. If, for example, the opex projections are relatively conservative and consequently the market expects the company to outperform, the marginal investor's required return will be lower and hence the cost of equity will be lower. In setting K, we make central projections of opex and other elements in the price control (which we interpret as expected values). Consequently, we can estimate the cost of capital without considering effects from opex or other elements"*.

¹² Merton, R. (1974) On the pricing of corporate debt: the risk structure of interest rates, Paper presented to the American Finance Association Meetings

wide range of academic studies have found a positive relationship between risk and equity return¹³.

- 3.27 Finance theory implies that any NI-GB equity premium should be a larger quantum than the observed NI-GB debt premium. This is because equity holders are residual claimants on the assets of the firm. Under normal circumstances, in the event of default, debt holders enjoy a positive probability of recovering some of their investment (as measured by the recovery rate). However, equity holders will lose everything with certainty. In other words, the expected losses to equity holders are greater than the expected losses to debt holders. In order to compensate for this disparity of outcomes, NI equity holders will require a higher incremental return than do NI debt holders.
- 3.28 The required NI-GB equity premium cannot be observed directly. As an alternative, it is possible to scale up the observed NI-GB debt premium using an estimate of the sensitivity of equity value to changes in the value of debt in order to estimate the NI-GB equity premium. This follows the approach set out in Campello et al (2008).¹⁴
- 3.29 Analysis suggests a material equity premium, of the order 200 bps, given the observed average debt premium of the order of 100 bps. Based on this it is reasonable to estimate that the appropriate uplift to the cost of equity falls in the range 1% to 2%. Combined with the baseline cost of equity explained above, NIE considers that the appropriate cost of equity should fall in the range 7.1% to 9.3%.

NIE's estimate of its WACC

- 3.30 A summary of NIE's position in relation to its WACC is set out in the Table 15.4 below.

Table 15.4: Summary of individual parameters and overall WACC estimate

Parameter	Lower	NIE's	Upper	NIE's
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¹³ Examples of such studies include:

- Keim, D. and R. Stambaugh (1986) Predicting Returns in the Stock and Bond Markets, *Journal of Financial Economics* 17, 357–90.
- Fama, E. and K. French (1989) Business Conditions and Expected Returns on Stocks and Bonds, *Journal of Financial Economics* 25, 23–49.
- Fama, E. and K. French (1993) Common Risk Factors in the Returns on Stock and Bonds, *Journal of Financial Economics* 33, 3–56.
- Campbell, J. and J. Ammer (1993) What Moves the Stock and Bond Markets? A Variance Decomposition for Long-Term Asset Returns, *Journal of Finance* 48, 3–37.
- Ferson, W. and C. Harvey (1999) Conditioning Variables and the Cross Section of Stock Returns, *Journal of Finance* 54, 1325–60.
- Cremers, K. (2002) Stock Return Predictability: A Bayesian Model Selection Perspective, *Review of Financial Studies* 15, 1223–49.

¹⁴ Campello, M., Chen, L. and L. Zhang (2008) Expected Returns, Yield Spreads, and Asset Pricing Tests, *Review of Financial Studies* 21(3), 1297-1338.

	bound	response to draft determination	bound	updated point estimate
Risk-free rate	2.0%	2.0%	2.0%	2.0%
ERP	5.0 %	5.25%	5.25%	5.25%
Equity beta* (transmission and distribution assets; renewables-driven investments)	0.81	0.90	1.01	0.90
Baseline cost of equity (real)	6.1%	6.7%	7.3%	6.7%
Uplift to the cost of equity (supported through both application of a RORE uplift and/or impact of the observed debt premium on the appropriate cost of equity)	1%	1%	2%	1%
Expected return on equity (post-tax, real)	7.1%	7.7%	9.3%	7.7%
Baseline cost of debt (using Ofgem trailing average approach)	2.92%	3.30%	3.22%	2.92%
NI-specific debt premium	0.65%	1.00%	1.04%	0.65%
Cost of debt (pre-tax, real)	3.6%	4.3%	4.3%	3.6%
Gearing	55%	60%	65%	60%
WACC (vanilla, real)	5.1%	5.7%	6.0%	5.2%

* Assumes asset beta of 0.42, debt beta of 0.1 and respective gearing levels.

- 3.31 NIE considers that, despite the need to update the estimate of WACC for movements in market data, the level that the estimate of WACC contained in its response to the draft determination, 5.67% (vanilla, real), remains supported, and is within the range estimated above.
- 3.32 However, NIE also acknowledges that recent movements in market data suggest that a point estimate towards the lower end of the range might be justified. NIE's updated point estimate of its WACC for RP5 is 5.2% (vanilla, real), based on a return on equity of 7.7% and a cost of debt of 3.6%.

CHAPTER 16

IMPACT ON TARIFFS

1. INTRODUCTION

- 1.1 In this Chapter 16 we set out the impact that NIE's proposals as described in this Statement would have on network charges.
- 1.2 In line with the approach adopted in the Final Determination, the figures provided in this Chapter generally exclude the cost of network expansion for renewables and interconnection. Further information about renewables and interconnection is provided in Section 5 below¹.

The impact of the Final Determination

- 1.3 In Section 16 of the Final Determination, the Utility Regulator sets out the impact that its Final Determination proposals would have on network charges (excluding renewables and interconnection). This data is replicated in Table 16.1 below.

Table 16.1: Impact of Utility Regulator's proposals on network charges - annual cost for average use

Customer Type	Oct 11 to Sep 12	Oct 12 – Sept 13	Oct 13 – Sept 14	Oct 14 – Sept 15	Oct 15 – Sept 16	Oct 16 – Sept 17	Total saving over 5 years
	£	£	£	£	£	£	£
Domestic	132	141	136	126	129	129	(1)
Small Business (Quarterly Billing)	497	529	510	473	485	485	(5)
Half hourly Metered MV <70kVA	1,107	1,179	1,137	1,052	1,080	1,078	(9)
Half hourly Metered MV	7,652	8,157	7,862	7,272	7,465	7,448	(55)
Half hourly Metered HV	39,163	41,137	39,841	37,248	38,258	38,343	(987)
Half hourly Metered EHV	124,927	127,808	124,867	118,984	122,322	123,560	(7,095)

¹ See also Table 16.6 in Section 3 below which shows RP5 allowed revenue for renewables and interconnection.

2. IMPACT OF NIE'S PROPOSALS ON NETWORK CHARGES

2.1 Table 16.2 below shows the impact of NIE's proposals on network charges on a p/kWh basis for the main customer groups.

Table 16.2: Impact of NIE's proposals on network charges – p/kWh*

Customer Type	Oct 11 to Sept 12	Oct 12 – Sept 13	Oct 13 – Sept 14	Oct 14 – Sept 15	Oct 15 – Sept 16	Oct 16 – Sept 17	Average annual increase
	p/kWh	p/kWh	p/kWh	p/kWh	p/kWh	p/kWh	%
Domestic	3.144	3.661	3.704	3.582	3.634	3.704	3.3%
Small Business (Quarterly Billing)	2.556	2.976	3.011	2.912	2.954	3.011	3.3%
Half hourly Metered MV <70kVA	2.437	2.839	2.872	2.777	2.817	2.871	3.3%
Half hourly Metered MV	2.268	2.643	2.674	2.585	2.623	2.673	3.3%
Half hourly Metered HV	0.929	1.075	1.090	1.055	1.072	1.093	3.3%
Half hourly Metered EHV	0.452	0.517	0.526	0.511	0.520	0.530	3.2%

* Assumes unit growth of 0.7% in 2013/14 and 1.35% per annum in subsequent years (equivalent to the annual average increase in demand since privatisation).

2.2 NIE's proposals would result in an increase in network charges (p/kWh) of approximately 3.3% per annum over RP5. This level of increase compares with the average annual increase in network charges of 5.6% for the GB DNOs following Ofgem's most recent price control review (DPCR5) as shown in Table 16.3 below.

Table 16.3: GB DNO average annual tariff increases over DPCR5

	Average annual increase
CN West	4.3%
CN East	4.7%
ENW	8.5%
CE NEDL	7.7%
CE YEDL	6.5%
WPD S Wales	6.2%
WPD S West	7.5%
EDFE LPN	7.1%
ESFE SPN	8.8%
EDFE EPN	5.5%
SP Distribution	-4.3%
SP Manweb	11.1%
SSE Hydro	4.3%
SSE Southern	3.9%
Total	5.6%

Source: Ofgem, DPCR5 Final Proposals, main document, page 10, Table 1.1

2.3 Table 16.4 below shows the impact of NIE's proposals on the average annual network charge (£/annum) for the main customer groups.

Table 16.4: Impact of NIE's proposals on network charges (excluding renewables and interconnection) - annual cost for average use*

Customer Type	Oct 11 to Sept 12	Oct 12 – Sept 13	Oct 13 – Sept 14	Oct 14 – Sept 15	Oct 15 – Sept 16	Oct 16 – Sept 17	Average annual increase	
	£	£	£	£	£	£	£	%
Domestic	132	149	152	148	151	155	5	3.3%
Small Business (Quarterly Billing)	496	561	573	557	569	584	17	3.3%
Half hourly Metered MV <70kVA	1,104	1,250	1,274	1,240	1,266	1,299	39	3.3%
Half hourly Metered MV	7,633	8,641	8,812	8,573	8,753	8,980	269	3.3%
Half hourly Metered HV	39,082	43,936	44,890	43,766	44,726	45,893	1,362	3.3%
Half hourly Metered EHV	124,744	138,528	142,030	138,992	142,248	146,018	4,255	3.2%

* Assumes growth in customer numbers of 0.7% per annum

3. ALLOWED REVENUE

3.1 Table 16.5 below compares the revenue (excluding renewables and interconnection) that NIE would be entitled to receive based on the Utility Regulator's proposals as set out in the Final Determination and NIE's proposals as described in this Statement.

Table 16.5: RP5 allowed revenue (excluding renewables and interconnection)²

	Final Determination	NIE Statement of Case	Variance	Comment
	£m	£m	£m	
RAB Return and Depreciation	576.8	674.5	97.7	Variance due to differences in capex, rate of return and RAB adjustment plus errors in the Utility Regulator's entitlement calculations.
Controllable Opex	172.4	223.7	51.3	As per Chapter 6 excluding renewables baseline costs.
Renewables Baseline	9.8	0.0	(9.8)	See table 16.6 below.
Recharges to Powerteam	0.0	(3.6)	(3.6)	Internal recharges should be excluded
Uncontrollable Opex	88.8	95.3	6.5	As per Chapter 6.
Pension – Ongoing Costs	10.5	11.1	0.6	As per Chapter 10
Pension – Deficit Repair	47.9	65.8	17.9	As per Chapter 10
Pension – Under-recovery RP4	0.0	24.0	24.0	As per Chapter 10.
Non Network Capex	7.6	15.2	7.6	As per Chapter 6
Network IT capex	2.4	0.0	(2.4)	NIE has treated network IT as capex
RP4 carry over Items	3.8	5.1	1.3	As explained in section 4 below
Unresolved issues from RP4	0.0	5.5	5.5	As per Chapter 12. Excluding CA _t dispute which is principally a timing issue.
Market opening systems	42.0	41.9	(0.1)	Error in the Utility Regulator's calculation of depreciation offset by reduction in allowed returns.
Financeability adjustment	9.0	0.0	(9.0)	Carry forward of RP6 revenues
Other	<u>4.2</u>	<u>0.0</u>	<u>(4.2)</u>	Other items in the Utility Regulator's model.
Total	975.2	1158.5	183.3	

3.2 Table 16.6 below compares the renewables and interconnection revenue that NIE would be entitled to receive based on the Utility Regulator's proposals as set out in the Final Determination and NIE's proposals as described in this Statement.

² The Final Determination figures relate to the 5-year period Oct 2012 to Sept 2017, while the NIE figures relate to the 5-year period January 2013 to December 2017.

Table 16.6: RP5 allowed revenue – renewables and interconnection

	Final Determination	NIE Statement of Case	Variance	Comment
	£m	£m	£m	
RAB Return and Depreciation	37.2	22.4	(14.8)	Variance due to differences in capex, rate of return and errors in the Utility Regulator's entitlement calculations.
Operating costs	0.0	12.2	12.2	As per Chapter 6. Final Determination proposed allowance of £9.8m included in table 16.5.
RP4 carry over Items	0.0	3.4	3.4	As explained in section 4 below.
Total	37.2	38.0	0.8	

3.3 The figures in Table 16.6 above do not include any additional costs that could arise through the charging arrangements for authorised generators connecting to the network as part of a generator cluster. The licence modifications to implement the RP5 price control should provide specifically for the recovery of these costs.³

4. RP4 CARRY OVER ITEMS

4.1 RP4 carry over items relate to the recovery of costs which have been specifically approved by the Utility Regulator under the D_t arrangements for RP4. These items are shown in Table 16.6 below. The licence modifications to implement the RP5 price control should provide specifically for the recovery of these costs. For the avoidance of doubt, these costs are excluded from NIE's RP5 opex, capex and pensions cost projections.

Table 16.7: RP4 carry over items

Projected expenditure	Jan 13 – Dec 13	Jan 14 – Dec 14	Total
	£m	£m	£m
Network Management System	2.1	0.0	2.1
SONI pension deficit	<u>1.7</u>	<u>1.3</u>	<u>3.0</u>
	3.8	1.3	5.1
North South Interconnector	3.0	0.0	3.0
Renewables Projects	<u>0.4</u>	0.0	<u>0.4</u>
	3.4		3.4

4.2 Further details about these expenditure items are provided below:

- Network Management System - The Utility Regulator has approved total costs of £3.3 million to upgrade the Network Management System (NMS)

³ This accords with the position adopted by the Utility Regulator at a meeting with NIE held on 13 March 2013 regarding the development of cluster methodology. see page 4 of the minutes from that meeting provided at Appendix 16.1.

which is a business critical IT application used for day to day control of the 33kV, 11kV and 6.6kV (HV) distribution networks, managing high voltage switching and fault and emergency response (including storms). The amount unspent as at 31 December 2012 was £2.1 million.

- SONI Pension Deficit - This D_t approval relates to the recovery of pensions costs associated with the disposal of SONI in the financial year March 2009. The amount still to be recovered as at 31 December 2012 was £3.0 million comprising £1.7 million in 2013 and £1.3 million in 2014.
- North South Interconnector - The licence modifications to implement the RP5 price control should also include costs which have been approved in relation to expenditure associated with completing the public inquiry process and obtaining planning approval for the Northern Ireland portion of the proposed 400 kV Tyrone to Cavan Interconnector. The Utility Regulator has approved costs to December 2013 of which £3.0 million was unspent as at 31 December 2012.
- Renewables Projects – This relates to the recovery of costs associated with renewables projects which have been approved by the Utility Regulator.

5. IMPACT OF NIE'S PROPOSALS ON CUSTOMERS' BILLS

- 5.1 NIE's network charges comprise approximately 20%⁴ of the overall electricity bill for customers. As noted above, NIE's RP5 plan would result in an increase in network charges (p/kWh) of 3.3% per annum. This increase in network charges would entail annual price increases of approximately 0.7% in overall electricity bills for customers.

Renewables and interconnection

- 5.2 NIE's investment plans also include expenditure associated with the proposed new North-South interconnector and the connection of renewable generation in pursuit of DETI's target for NI of 40% of electricity consumption from renewable sources by 2020. This investment could add a further 3% to NIE's domestic network charges by the end of RP5 (assuming £122 million of expenditure).
- 5.3 The increased network charges associated with the proposed new North-South interconnector and the connection of renewable generation should not be considered in isolation from the customer benefits from the beneficial effects on the wholesale price of electricity. The market operators (EirGrid and SONI) estimate that the new interconnector will bring savings in all-island wholesale energy costs of €20m per annum rising closer to €40m per annum in the medium term. NIE agrees with the Utility

⁴ See paragraph 16.8 (page 115) of the Final Determination. Further information about the make-up of Power NI's regulated retail electricity tariffs is provided in the Utility Regulator's briefing on Power NI's 1 October 2012 Tariff Review attached at Appendix 16.2. Power NI's tariffs relate to domestic and small business customers. As shown in Table 16.2 above, NIE's network charges (p/kWh) are lower for half hourly metered customers and the network charges therefore represent a lower proportion of the overall electricity bill for these customers.

Regulator's proposal that these investments should be subject to specific regulatory approval under Fund 3.

CHAPTER 17

FINANCEABILITY

SUMMARY

The Utility Regulator has a statutory duty to have regard to the need to secure that NIE is able to finance its regulated activities. NIE is also required by its two Licences (condition 9A, in each case) to maintain an investment grade credit rating. The assessment of whether a given price control proposal is consistent with these obligations requires an evaluation of the overall financial health of NIE under that proposal.

The Utility Regulator has presented in its Final Determination an analysis of whether NIE is likely to be financeable during RP5 by reference to financial metrics relevant to NIE's credit rating. On the basis of a number of substantial assumptions, the Utility Regulator finds that NIE should be able to maintain a strong investment grade credit rating of BBB+/A-.

NIE rejects the Utility Regulator's financial assessment which is based on modelling errors, flawed assumptions over future costs and fails to recognise the effect of unjustified disallowances. The Utility Regulator has also failed to take account of the real and perceived increase in regulatory risk that would arise from its Final Determination, which we expect would act as a further drag on NIE's credit rating. Furthermore, the Utility Regulator fails to consider the implications of the exceptionally low returns to the equity investor resulting from the Final Determination.

Specifically, NIE notes that the Utility Regulator has:

- provided an insufficient capex allowance, that NIE anticipates will leave a funding gap of £115.3 million in respect of volumes of work required by the Final Determination;
- provided an inadequate controllable opex allowance leaving a shortfall of £53.7 million;
- used unreasonable assumptions in determining the WACC, in particular failing to take proper account of relevant GB precedent and the additional costs of raising finance faced by NI-resident utilities;
- proposed to disallow £41.2 million of NIE's reasonably and efficiently incurred pension deficit without reasonable justification;
- failed to provide an allowance for £24 million of pension contributions paid by NIE in excess of allowances during RP4;

- proposed a reduction in the value of NIE's RAB of £31.7 million, following the Utility Regulator's investigation into NIE's 'capitalisation practices', that is unjustified and retrospective in nature;
- proposed to impose deficient processes and procedures, and unacceptable regulatory requirements, for the duration of RP5 which taken together introduce significant additional regulatory risk to NIE's activities;
- relied upon a financial model that has made several errors in calculating NIE's revenue entitlement that, if corrected would reduce NIE's operating profits by approximately £15 million over RP5; and
- had to bring forward £9 million of revenue entitlement from RP6 to achieve the financial metrics required to maintain a strong investment grade credit rating. It is not clear how this will affect the RP6 price control.

When the financeability analysis is repeated with more realistic assumptions, in particular with respect to future costs, it is clear that the resultant financial metrics and in particular a sub-investment grade PMICR are not consistent with the credit rating of BBB+/A- targeted by the Utility Regulator. This is evidenced by the decision by Fitch to place and retain NIE's senior unsecured credit rating on negative watch pending an analysis of NIE's business plan once a decision is made on the RP5 price control.

Furthermore it is clear that under the Final Determination, the Utility Regulator assumes an unprecedented and unreasonable level of support from NIE's shareholder. It should be noted that when disallowed costs and allowances are taken into account, the effective return on equity falls to below 2% during RP5.

These findings were central to NIE's decision to reject the Final Determination.

NIE considers that the financeability concerns arising from the Final Determination should be addressed by adopting the approach outlined by the Competition Commission in its findings with respect to Bristol Water. That would require:

- core cost allowances to be set at appropriate and reasonable levels – i.e. the levels sought by NIE in this Statement;
- full funding for other significant items (i.e. NIE's pension deficit and opening RP5 RAB) that the Utility Regulator has proposed in part to disallow without reasonable justification;
- the cost of debt and equity used in determining WACC to be reasonable; and
- long term interests of customers to be protected by maintaining investor confidence in the regulatory framework in NI. That framework should be

transparent, predictable and aligned with tried and tested Ofgem precedent, which is understood by investors.

NIE requests the Competition Commission to determine a price control for RP5 that addresses in full NIE's concerns with respect to financeability.

1. INTRODUCTION

1.1 This Chapter is concerned with NIE's ability to finance its activities should the Final Determination be implemented. It shows that the allowances provided in the Final Determination fall substantially short of the revenues required by NIE to maintain a strong investment grade credit rating and provide an acceptable return to the equity investor, directly impacting on NIE's ability efficiently to finance its activities.

1.2 This chapter is structured as follows:

- Section 2 outlines the Utility Regulator's financing duties.
- Section 3 summarises the Utility Regulator's financeability assessment.
- Section 4 provides a critique of the Utility Regulator's financeability assessment.
- Section 5 outlines challenges for NIE in the financial markets.
- Section 6 summarises the impact for the equity investor of the Final Determination.
- Section 7 concludes on the implications for NIE's ability to finance its activities should the Final Determination be implemented.

2. THE UTILITY REGULATOR'S FINANCING DUTY

2.1 The Utility Regulator is subject to statutory general duties which govern the manner in which it exercises its functions.¹ These general duties impose limits on the discretion which the Utility Regulator enjoys in relation to its conduct, including in relation to the determination of NIE's price controls.

¹ For a detailed summary of the Utility Regulator's statutory duties, see Annex 1A.1 (Historical and Regulatory Background). This Section 2 focuses on those of the Utility Regulator's duties that are particularly relevant to the assessment of financeability.

Future consumers

- 2.2 The Utility Regulator's principal objective when carrying out its functions is to protect the interests of electricity consumers. This includes the interests of future, as well as existing, consumers. It follows that, when determining NIE's price controls, the Utility Regulator is required to take account of the consequences of its determination for future consumers. A price control determination which gives rise to a significant increase in regulatory risk without commensurate countervailing benefits would be detrimental to the interests of future consumers, who will be called upon to fund the increase in NIE's cost of capital that results.

Financing duty

- 2.3 When carrying out its functions in a manner which furthers its principal objective, the Utility Regulator is required (among other things) to have regard to the need to secure that NIE is able to finance its regulated activities². This is commonly referred to as the "financing duty". The implication is that the interests of existing and future consumers are best served if NIE is able to finance its regulated activities efficiently.
- 2.4 The Competition Commission has considered the meaning and effect of the financing duty in the context of its August 2010 report on Bristol Water's price control (the **Bristol Water Report**).
- 2.5 The Competition Commission concluded that the financing duty is fulfilled by ensuring that the opex and capex projections and the cost of debt and equity (and therefore WACC) on which the price control is based are reasonable. If these are reasonable – and the regulated company has reasonable options which enable it to raise finance in a cost efficient way while complying with its licence conditions – then the regulated company should be able to finance its functions under a price control based on such projections. In making its assessment, the regulator is entitled to make reasonable assumptions about financial structure, including gearing and the provision by shareholders of finance in some form.
- 2.6 Relevant to the financing duty is Condition 9A of each of NIE's Licences which requires NIE to maintain an investment grade credit rating. In the Bristol Water Report, the Competition Commission accepted that it should not reach a price control determination that would cause the regulated company to breach such a licence condition.
- 2.7 For the reasons set out in this Statement and summarised in this Chapter, NIE considers that the Utility Regulator's position in respect of each of cost of capital, opex, pensions and capex falls well short of what is reasonable and specifically:

² Strictly speaking, the duty arises with respect to the activities which are the subject of obligations imposed by or under Part II of the Electricity (Northern Ireland) Order 1992 or the Energy (Northern Ireland) Order 2003.

- would cause financial ratios to deteriorate to levels inconsistent with a strong investment grade credit rating; and
- would result in a return on equity falling to unacceptable levels making it increasingly difficult for NIE to raise new equity investment.

3. THE UTILITY REGULATOR'S FINANCEABILITY ASSESSMENT

3.1 In its draft determination, the Utility Regulator acknowledged its statutory duty to ensure that NIE is able to finance its regulated activities. It further recognised that:

- the longer term interests of consumers in any capital intensive business depend upon maintaining the confidence of investors; and
- customers' value for money is maximised when a monopoly company can finance its activities efficiently.

3.2 The Utility Regulator has presented in its Final Determination an analysis of whether NIE is likely to be financeable during RP5. It has proposed a target credit rating of BBB+/A-

3.3 In its draft determination the Utility Regulator noted that in assessing financeability it had:

“paid particular focus on PMICR in line with recent regulatory practice”.

3.4 With respect to PMICR, the Utility Regulator concludes in the Final Determination that it:

“regard[s] 1.4 as an acceptable level but regard[s] 1.5 to be a more desirable benchmark”.

3.5 Subject to certain assumptions, the Utility Regulator finds that NIE should be able to maintain PMICR within this range throughout RP5. For the purposes of conducting its analysis, the Utility Regulator makes the following assumptions:

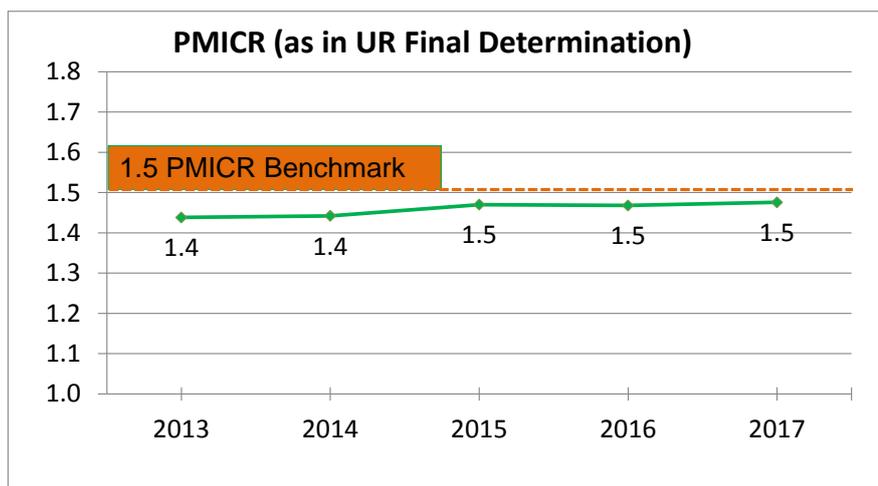
- notional gearing of 50%;
- a “base case” level of expenditure which assumes:
 - outturn expenditure on opex and capex in line with the cost allowances proposed by the Utility Regulator; and
 - no expenditure associated with Fund 3;

- payment of dividends to shareholders in line with the returns to equity embodied in the allowed rate of return;
- the bringing forward of £9 million of RP6 revenue in an NPV neutral way; The Utility Regulator refers to this scenario as “*base case + £9 million NPV neutral fix*”; and
- NIE will receive revenues from its shareholder to finance in full certain items that the Utility Regulator intends to disallow, namely:
 - £41.2 million of NIE’s pensions deficit: see Chapter 10 (Pensions); and
 - £31.7 million of NIE’s RAB following the Utility Regulator’s investigation into NIE’s 'capitalisation practices'.

3.6 On the basis of these assumptions, the Utility Regulator concludes that:

- PMICR lies in the range of 1.4 to 1.5 throughout RP5, as shown in Figure 17.1 below; and
- consequently, NIE should be able to finance its activities (i.e. that both the Utility Regulator and NIE are able to satisfy their obligations as outlined above).

Figure 17.1: PMICR – Utility Regulator’s base case + £9 million



Source: The Utility Regulator’s assessment of NIE’s financeability, Final Determination.

3.7 The Utility Regulator discusses the potential impact on financeability of additional capex in support of renewables and interconnection but concludes that, if

necessary, this capex could be funded through dividend retention and/or equity injection in order to ensure the preservation of PMICR within the desired range.

- 3.8 The Utility Regulator also considers the potential effect of its assumptions with respect to pension deficit disallowance and its disallowance of a portion of NIE's opening RAB, but concludes that the impact of these adjustments is small and they are in any event a matter for NIE. These disallowances result in a reduction of NIE revenues of approximately £20 million.

4. A CRITIQUE OF THE UTILITY REGULATOR'S FINANCEABILITY ASSESSMENT

- 4.1 NIE agrees with the Utility Regulator's view that a BBB+/A- credit rating is appropriate for NIE.

- 4.2 However, NIE disagrees with the Utility Regulator's financeability assessment and therefore its conclusions. The analysis is flawed because it relies heavily upon financial metrics derived from a financial model that:

- contains material modelling and calculation errors;
- uses an unrealistic and inappropriate set of assumptions in key areas; and
- excludes significant costs that NIE will incur in RP5.

- 4.3 NIE considers that in order to arrive at a more appropriate assessment of financeability it is necessary to follow an approach consistent with that adopted by the Competition Commission in the Bristol Water Report and undertake an analysis that is based on reasonable projections of costs and allowances.

- 4.4 NIE has updated the Utility Regulator's model to:

- correct identified errors;
- reflect more appropriate assumptions; and
- include all reasonable capex and opex expenditure.

Correction of identified errors

- 4.5 NIE identified a number of calculation and modelling errors within the Utility Regulator's financial model. These included overstatements (in nominal prices) of approximately:

- £16 million in revenue and £13 million in tax paid due to inaccurate calculation of capital allowances; and

- £6 million in revenue due to duplication of pension allowance.

4.6 A detailed listing of the adjustments and errors identified by NIE is provided in Annex 17A.1 (Errors in the Utility Regulator's Financial Model).

Use of appropriate assumptions

4.7 The Utility Regulator had made assumptions with respect to NIE’s closing balance sheet at 31 December 2012. In order to present the most up-to-date information, NIE has updated the opening RP5 balance sheet to reflect the actual position at 31 December 2012.

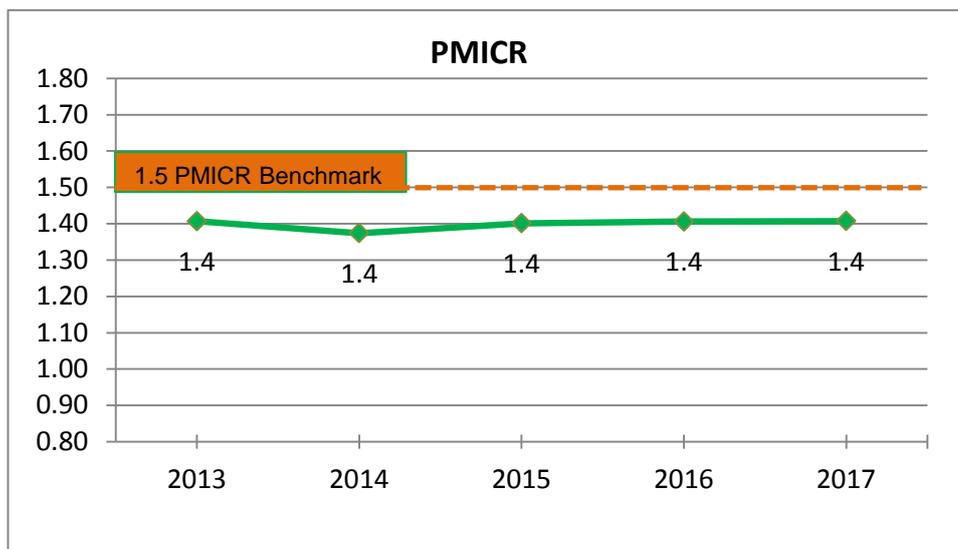
4.8 The Utility Regulator assumes in its financeability assessment and specifically in the calculation of PMICR that the revenue shortfall relating to the reduction in the recoverable pension deficit and the proposed RAB reduction following the capitalisation adjustment will be funded by NIE’s shareholder. NIE disagrees with this assumption.

4.9 The Utility Regulator has used an unrealistically high cost of new debt (in some cases as high as 9% nominal). NIE believes that a rate of 6% is more appropriate.

Impact on PMICR of correcting errors and assumptions

4.10 When identified errors are corrected and NIE’s preferred assumptions are reflected in the Utility Regulator’s model, PMICR deteriorates as demonstrated in Figure 17.2 below.

Figure 17.2: PMICR – Utility Regulator's base case + £9 million, with corrections, and removing the revenues associated with pension deficit disallowance and RAB adjustment



Source: *The Utility Regulator's Model, NIE's corrections*

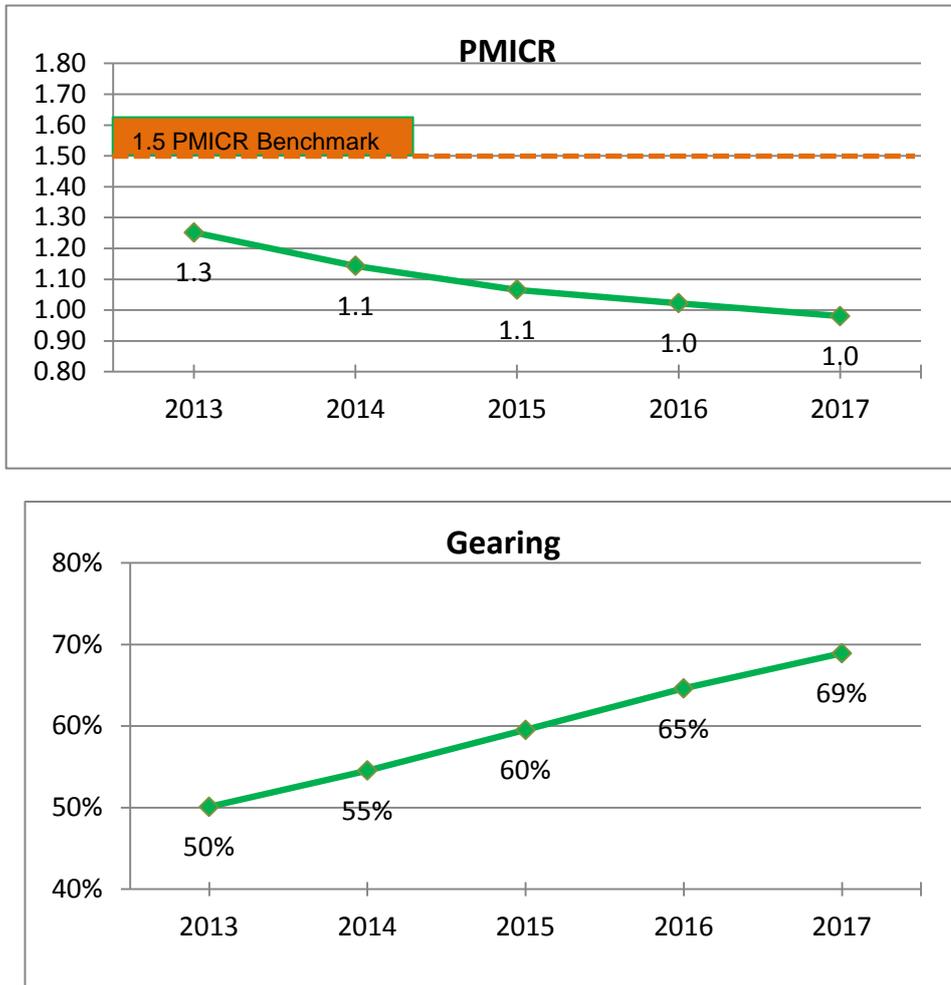
- 4.11 The level of PMICR depicted in Figure 17.2 reflects the Utility Regulator's intention to bring forward £9 million of revenue from RP6 in order to improve NIE's financial ratios during RP5. NIE considers that it would not be necessary to bring forward revenue in this way if the Utility Regulator's determination of core allowances and the cost of capital were set at appropriate levels. There is a concern that bringing forward future revenues will simply result in further financeability problems during RP6.
- 4.12 Even with the £9 million revenue from RP6 brought forward, PMICR is consistently below the "desirable benchmark" of 1.5 that the Utility Regulator targets in the Final Determination. But further significant adjustments are required, as explained below.

Inclusion of all reasonable capex and opex expenditure

- 4.13 In calculating total NIE expenditure over RP5 the Utility Regulator has determined that NIE will be able to deliver the requested programme of work within the core cost allowances (both capex and opex) included in the Final Determination
- 4.14 As addressed in Chapter 5 (RP5 Capex – Quantum) and Chapter 6 (RP5 Opex), the Final Determination falls short by £115.3 million and £53.7 million for capex funding and controllable opex respectively on the allowances which NIE considers to be necessary and reasonable.
- 4.15 It is not clear from the Final Determination how the Utility Regulator has considered the funding implications for the significant volume of additional capex in respect of Fund 3. NIE's investment plan includes expenditure associated with the proposed new North-South Interconnector and the connection of renewable generation of £122 million. It also includes a further £43 million in relation to projects that the Utility Regulator allocated to Fund 3 in the Final Determination. NIE considers that this expenditure should also be considered in the assessment of financeability
- 4.16 As shown in Figure 17.3 below, when these additional costs are taken into account, PMICR falls to a level approaching 1.0 by the end of RP5. Moreover, gearing³ increases to levels entirely inconsistent with the Utility Regulator's preferred gearing levels.

³ in the calculation of gearing set out in Figure 17.3 above, NIE has excluded from the RAB the capex shortfall (£115.3 million).

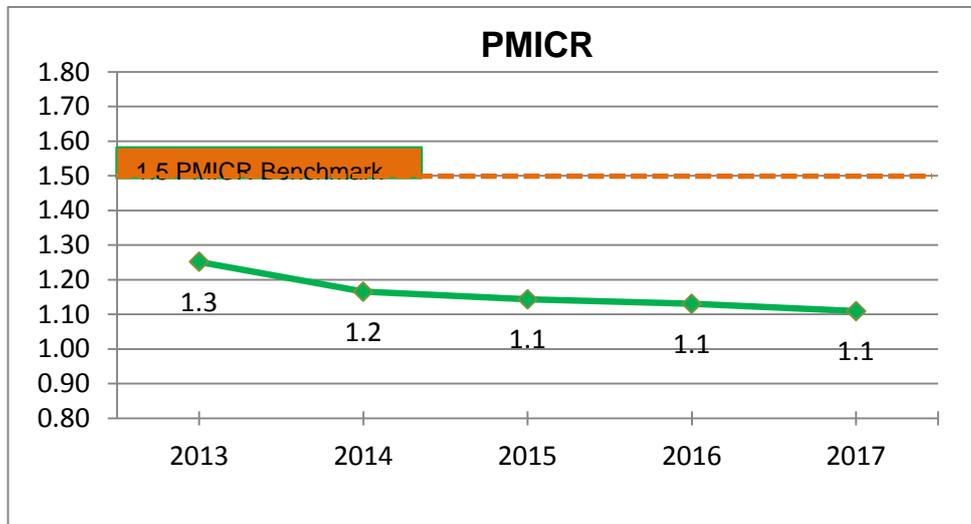
Figure 17.3: PMICR and Gearing: Utility Regulator's Base Case + £9 million with corrections and adjustments, plus NIE's estimates of additional expenditures (including Fund 3)



Source: The Utility Regulator's model, NIE's corrections and cost estimation

- 4.17 The Utility Regulator assumes that there will be a requirement for NIE to reinvest during RP5 by way of retaining dividends and/or capital injections and that the level of investment is to be appropriate and proportional.
- 4.18 NIE acknowledges that a level of shareholder investment to facilitate a capex programme during a growth phase is reasonable. However, as illustrated in Figure 17.4 below, even if NIE was to retain all dividends for the duration of RP5, PMICR would still average approximately 1.2 over RP5. This is well below the Utility Regulator's target range of 1.5, primarily due to the inadequate allowances included in the Final Determination.

Figure 17.4. PMICR and Gearing with Utility Regulator’s Base Case + £9million with corrections and adjustments, plus NIE’s estimates of additional expenditures (including Fund 3). No Dividends paid over RP5



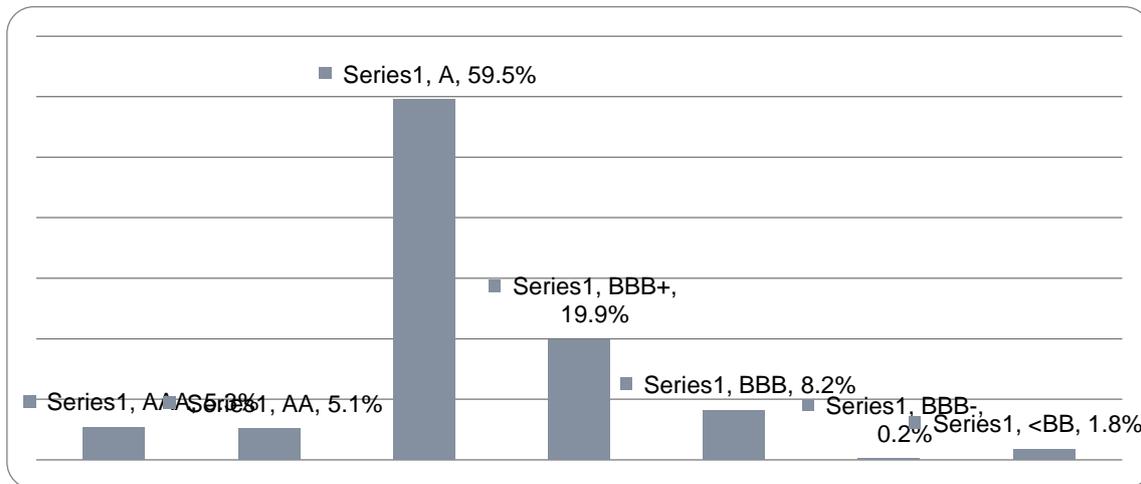
Source: The Utility Regulator’s model, NIE’s corrections and cost estimation

4.19 In addition to the capex funding shortfall of £115.3 million factored into the above financial analysis, Chapter 5 (RP5 Capex – Quantum) identifies further shortfalls of £117.5 million for work which NIE considers necessary to manage core network risk and £17.0 million for metering recertification. The financial impact of these shortfalls is not reflected in the unacceptable PMICR metrics noted above.

5. CHALLENGES FOR NIE IN THE FINANCIAL MARKETS

- 5.1 In the current debt market environment, NIE will have to rely on selling its credit story to banks and bond investors where the demand is highly dependent on ratings and the company's perceived business and regulatory risk relative to comparable companies.
- 5.2 The importance of maintaining a strong investment grade credit rating is highlighted in Figure 17.5. Since 2005, over 70% of the bond market issuance from utility companies has been rated A or above, 90% has been rated BBB+ or above with only 10% of the market open to issuers with a BBB rating or below. In order to compete for efficient funding in an increasingly competitive market, NIE must retain a strong investment credit rating at BBB+ or above.

Figure 17.5: Utility bond ratings mix (volume of issuance €bn last 7 years)



Source Rothchilds

- 5.3 In assessing credit risks, ratings agencies need to be satisfied that the regulatory arrangements afford debt investors a sufficient degree of confidence that the company will be able to meet its obligations. Within this context, rating agencies will consider both key financial metrics and regulatory risk.
- 5.4 Fitch placed NIE's Senior Unsecured Rating on negative watch in May 2012⁴ following its review of the draft determination. In its commentary⁵ Fitch indicated that the Utility Regulator's draft determination:

"... provides for more challenging financial assumptions than Fitch Ratings would typically expect for a UK regulator"

In a subsequent update in September 2012⁶ when the rating negative watch was reaffirmed Fitch indicated that:

"the reduced PMICR [of 1.0x] in isolation indicates the lower end of investment-grade or even speculative grade ratings"

- 5.5 After the Final Determination was published in January 2013, Fitch indicated⁷ that:

"... a negative rating action on NIE's senior unsecured rating would be considered if forecast PMICR falls below 1.4x....on a sustained basis".

⁴ Fitch report dated 17 May 2012, provided at Appendix 17.1.

⁵ Fitch commentary dated 21 May 2012, provided at Appendix 17.2.

⁶ Fitch report dated 5 September 2012, provided at Appendix 17.3.

⁷ Fitch press release dated 31 January 2013, provided at Appendix 17.4

- 5.6 NIE's assessment of the Final Determination indicates that PMICR during RP5 will be well below the threshold referred to above.
- 5.7 Investors expect regulatory frameworks to be stable and predictable, with any changes well justified and clearly signalled in advance. Fitch's rating methodology as outlined in its publication "Rating EMEA Regulated Network Utilities – August 2012" (provided at Appendix 17.5) indicates:

"Regulation is the main credit risk factor for a network utility"

and that

"Transparency and predictability are the pillars of the regulatory framework considered most beneficial to the credit profile of a regulated asset company. Regulatory risk increases as the framework becomes less transparent and predictable... a track record of regulatory intervention, changes in price-setting mechanisms, recourse to exemption provisions, are all considered elements detrimental to the transparency and predictability of the regulatory framework."

- 5.8 Under Moody's rating methodology, an assessment of the stability and predictability of the regulatory regime, revenue risk and cost and investment recovery make up 40% of the weighting in the rating of regulated network utilities. Specifically, Moody's Rating Methodology of August 2009 (provided at Appendix 17.6) notes.

"The ability to recover prudently incurred costs in a timely manner is one of the most important credit considerations for regulated electric and gas networks, as the lack of timely recovery of such costs may cause financial stress. Therefore the predictability and supportiveness of the regulatory framework in which a network operates is a key credit consideration."

- 5.9 Standard & Poor's stated in its publication of 13 February 2013⁸, that the Final Determination was:

"... challenging for NIE and this introduces a level of uncertainty around the regulatory framework in Northern Ireland that we do not generally anticipate when assessing the business risk profile of a regulated utility. If implemented we consider it could weaken NIE's business risk profile".

- 5.10 NIE has noted its concerns about the unpredictability of the Utility Regulator and certain worrying elements of the proposed regulatory framework, including:

⁸ Provided at Appendix 17.7.

- the re-opening of elements of the RP4 price control and the disallowance of NIE's entitlement to recover a return on amounts added to its RAB during RP4 following the Utility Regulator's investigation into NIE's 'capitalisation practices'; and
- the introduction of a set of arrangements for capex that involve a high level of ex post scrutiny of any departure from specified investments and the risk of significant delay should ex ante regulatory approval be required.

5.11 In the Final Determination, the Utility Regulator stated that it has consulted ratings agencies (Fitch, Moody's, and Standard & Poor's), and that it has taken the agencies' views into account. However, the Utility Regulator has not set out – whether in its first day submission to the Competition Commission or elsewhere – the agencies' views on the proposals or the implications for NIE's financeability despite the fact that both Fitch and Standard and Poor's have raised concerns about the contents of the Final Determination in subsequent publications. In an update on 30 April 2013 Fitch retained NIE's senior unsecured credit rating on negative watch pending an analysis of NIE's business plan once a final decision is available on the RP5 price control.

5.12 A credit rating downgrade would create significant financeability problems for NIE. NIE has £575 million of debt outstanding in the bond market. A downgrade of the company's credit rating would erode investor confidence, damage its reputation in the bank loan and corporate bond markets and jeopardise its ability to raise funds efficiently to finance its activities. The adverse impact of the Utility Regulator's Final Determination, as reflected in both the deterioration of core credit metrics and increased regulatory risk places significant downward pressure on NIE's credit rating.

6. IMPACT ON EQUITY INVESTORS

6.1 NIE relies on both debt and equity investors to finance its activities. As noted in Section 4, NIE acknowledges that during a growth phase a level of investment by NIE's shareholder is reasonable, provided that an acceptable level of return is achieved.

6.2 The Final Determination allows for a low baseline equity return of 5.7%. However, when the unreasonable level of funding the Utility Regulator assumed to be provided by NIE's shareholder is considered, average effective equity return falls to below 2%. In consequence, NIE's shareholder is precluded from earning a fair return on its investment, and NIE's ability to source additional equity funding is significantly reduced.

- 6.3 NIE regards the 50% gearing level proposed in the Final Determination as suboptimal, having regard to regulatory precedent and the views of the Utility Regulator's own advisors. In the draft determination the Utility Regulator accepted as appropriate First Economics' recommendation of a gearing level of 60% and has provided no analysis to support the 50% gearing included in the Final Determination.
- 6.4 A 50% gearing threshold would assume unparalleled levels of shareholder support completely at odds with normal regulatory practice. To maintain gearing at a 50% level would require a total suppression of all dividends and an additional equity injection of over £100 million would be required during the RP5 period.

7. CONCLUSION

- 7.1 NIE agrees with the Utility Regulator's position that NIE should maintain a target credit rating of A-/BBB+.
- 7.2 NIE is concerned that the financeability assessment carried out by the Utility Regulator is fundamentally flawed as it
- contains material errors;
 - uses unreasonable assumptions;
 - excludes significant costs; and
 - fails to consider the impact of increased regulatory risk.
- 7.3 Once the errors and unreasonable assumptions included in the Utility Regulator's financeability assessment are corrected, the PMICR resulting from the Final Determination is not consistent with an A-/BBB+ rating. At a lower rating, NIE would encounter significant challenges in accessing the capital markets and securing funding at efficient rates.
- 7.4 Regulatory risks, in particular the lack of transparency in the proposed arrangements and the departure from well established regulatory practice, increases the risk profile of NIE from a credit rating and investor perspective. The inability of NIE to maintain investor confidence is not in the long term interests of customers as it prevents NIE from raising efficient funding.
- 7.5 Under the Final Determination the effective return on shareholder funds is less than 2% during RP5. This unprecedented and unjustifiable approach is unfair to NIE's shareholder and will significantly reduce NIE's ability to source additional equity funding.

- 7.6 NIE considers that the appropriate remedy to its financeability concerns is to ensure that:
- core cost allowances are set at appropriate and reasonable levels – i.e. the levels sought by NIE in this Statement;
 - there is full funding for other significant items (i.e. NIE's pension deficit and opening RP5 RAB) that the Utility Regulator has proposed in part to disallow without reasonable justification;
 - cost of debt and cost of equity used in the calculation of WACC are reasonable; and
 - long term interests of customers are protected by maintaining investor confidence in the regulatory framework in NI. That framework should be transparent, predictable and aligned with established and tested Ofgem precedent, which is understood by investors.
- 7.7 NIE requests the Competition Commission to determine a price control for RP5 that addresses in full NIE's concerns with respect to financeability.

GLOSSARY

2003 Order	Valuation (Electricity) Order (Northern Ireland) 2003
2006 Direction	Direction issued by the Utility Regulator in 2006 for the implementation of RP4
ADAS	Agricultural Development Advisory Service
Aon Hewitt	Actuary to the NIE pension scheme
AWD	European Union agency workers directive
BERR	The Department of Business, Enterprise and Regulatory Reform
BPQ	Business Plan, Investment and Efficiency Questionnaire
BSP	Bulk Supply Point (110/33kV substation)
BW Report	Competition Commission report on Bristol Water's price control dated August 2010
Capex	Capital Expenditure
Capita	Capita Managed IT Solutions (previously known as Northgate Managed Services Limited) - contracted to NIE to provide managed IT and business process services
Capital Pensions Management	Pension scheme administrators
CC	Customer connected
CEPA	Cambridge Economic Policy Associates provided consultancy support for the Utility Regulator
CI	Customer interruptions
CML	Customer minutes lost
CSV	Composite Scale Variable
DETI	Department of Enterprise, Trade and Investment
Distribution	33kV and lower voltage networks. The networks forming part of the distribution system, including (in each case) any electrical plant and/or meters used in connection with distribution.
DNO	Distribution Network Operator
DPCR4	Electricity distribution price control review set by Ofgem in effect 1 April 2005 – 31 March 2010
DPCR5	Electricity distribution price control review set by Ofgem in effect 1 April 2010 – 31 March 2015
Draft Determination	The draft RP5 price control determination issued by the Utility Regulator on 19 April 2012
DSC	Distribution Service Centre
DUoS	Distribution Use of System
Dt	An allowance for transmission and distribution costs as detailed in Annex 2 of NIE's Licences

EirGrid	Transmission System Operator for the Republic of Ireland and the Market Operator of the wholesale electricity trading system in Ireland
ENA	Electricity Networks Association
ERP	Equity risk premium
Energy Order	The Energy (Northern Ireland) Order 2003
ES	Enduring Solution – an IT project directed at facilitating the competitive supply market and customer switching
ESB	Electricity Supply Board
ESQCR	Electricity Safety Quality and Continuity Regulations
ETR	Engineering Technical Report 138:2009 Resilience to Flooding of Grid and Primary Substations
F&E	Faults and Emergency
Fitch	Credit rating agency
Frontier	Frontier Economics providing consultancy support to NIE
FTE	Full time equivalent
GB DNOs	The 14 Great Britain electricity distribution network operators
GSS	Guaranteed Standards Scheme
HMRC	HM Revenue & Customs
HV	High Voltage
IAS	International Accounting Standard
ICT	Information and communication technology
IFI	Innovation funding incentive
IME3 Directive	Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009
Injurious affection	The diminution in value to a property caused by the existence and/or use of public works carried out under, or in the shadow of compulsory powers
Interconnection	The physical linking of two or more electricity networks via their transmission systems
Invest NI	Invest Northern Ireland - Regional business development agency
IT	Information Technology
Keypad	Pre pay meter
KPI	Key performance indicator
KPMG	KPMG LLP (UK). Provided consultancy support to NIE
kV	kilovolt
LCNF	Low carbon networks fund
LV	Low Voltage
MEAV	Modern Equivalent Asset Value

MMC	Monopolies and Mergers Commission – the predecessor to the Competition Commission
Moody's	Credit rating agency
MTP	Medium Term Plan
MVA	A unit of measure of apparent power
MW	Megawatt – measure of electrical power
NI	Northern Ireland
NIE	Northern Ireland Electricity Ltd
NIE Powerteam	NIE Powerteam Ltd – part of the NIE organisation the only function of which is to undertake activities forming part of NIE's T&D Business
NIEPS	NIE pension scheme
Northgate	Northgate Managed Services (now Capita) - an IT provider contracted to NIE to provide managed services
NSIC	North-south interconnector
O&M	Operation and maintenance
Ofgem	Office of the Gas and Electricity Markets in Great Britain
Ofwat	Economic regulator of the water and sewerage sectors in England and Wales
OHL	Overhead line
ONS	Office for National Statistics
Opex	Operating expenditure
P&L	Profit and loss
PB	Parsons Brinkerhoff. Provided consultancy support to NIE
PES	Powerteam Electrical Services (UK) Limited
PMICR	Post-maintenance interest cover ratio
R&D	Research and Development
R&M	Repair and maintenance
RAB	Regulatory Asset Base
RASW	Road and Streetworks legislation
Renewables Integration	Projects relating to the reinforcement of the T&D network to accommodate new renewable generation
RIDP	Renewable Integration Development Project. A joint venture between NIE, EirGrid and SONI whose aim is to identify the optimum reinforcement of the electricity transmission grid in the north and the north west of the island to cater for expected power output from renewable energy sources.
RIIO	Ofgem's recently developed performance-based model for setting price controls (Revenue=Incentives+Innovation+Outputs)

RIIO-T1	<i>RIIO-T1</i> is the first transmission price control review in GB to reflect the new regulatory framework resulting from the RPI-X@20 review
RIIO-ED1	<i>RIIO-ED1</i> will be the first electricity distribution price control review in GB to reflect the new regulatory framework resulting from the RPI-X@20 review
RMU	Ring Main Unit
RoI	Republic of Ireland
RORE	Return on regulated equity
RP1	Regulatory Period 1 in effect from 1 April 1992 – 31 March 1997
RP2	Regulatory Period 2 in effect from 1 April 1997 – 31 March 2002
RP3	Regulatory Period 3 in effect from 1 April 2002 – 31 March 2007
RP4	Regulatory Period 4 in effect from 1 April 2007 – 31 March 2012 extended to 30 September 2012, and then again to 31 December 2012
RP5	Regulatory Period 5 anticipated to be in effect from 1 January 2013 – 31 March 2017
RP6	Regulatory Period 6
RPE	Real Price Effects
RPI	Retail Price Index
RPI-X	Retail Price Index where X is the expected efficiency savings
SAP IS-U	A Customer Registration and Billing IT system used by NIE T&D
SCADA	Supervisory control and data acquisition
SEF	Strategic Energy Framework
SEM	Single Electricity Market
SKM	Sinclair Knight Merz - provided consultancy support for the Utility Regulator
Smart Technology	The application of innovation to develop a smarter electricity network that uses information and communications technology to gather and act on knowledge from the network and customers to improve the efficiency, reliability, economics, and sustainability of the transmission and distribution of electricity.
SONI	Transmission System Operator for Northern Ireland
Standard and Poor	Credit rating agency
T&D	Transmission and Distribution
T&D Business	NIE's licensed transmission and distribution business
TAR	Targeted Asset Replacement
Totex	Total Expenditure (Capex and Opex)

Transmission	110kV and above. High voltage electric lines and cables operated by a TSO for the purposes of transmission of electricity from one Power Station to a substation or to another Power Station or between sub-stations or to or from any Interconnector including any Plant and Apparatus and meters owned or operated by the TSO or TO in connection with the transmission of electricity.
TroubleMan	Trouble Management IT system used by NIE
TO	Transmission Owner- in Northern Ireland this is NIE
TSO	Transmission System Operator
UFU	Ulster Farmers' Union
Utility Regulator	Northern Ireland Authority for Utility Regulation
WACC	Weighted Average Cost of Capital
Wayleave	Provides rights for an electricity company to install and retain their apparatus; either underground cables or overhead lines across land with annual payments being made to the landowner and occupier.

ANNEX 1A.1

HISTORICAL AND REGULATORY BACKGROUND

1. INTRODUCTION

- 1.1 NIE owns the electricity transmission and distribution network which provides supplies to all of NI's 840,000 customers.
- 1.2 NIE is subject to economic and customer service regulation by the Northern Ireland Authority for Utility Regulation (**Utility Regulator**)¹.
- 1.3 NIE is licensed under the Electricity (Northern Ireland) Order 1992, as amended (**Electricity Order**)². This legislation is supplemented, most notably in respect of the functions and duties of the Utility Regulator and NIE respectively, by the Energy (Northern Ireland) Order 2003, as amended (**Energy Order**)³.
- 1.4 This Annex provides an overview of NIE's business since privatisation and of the regulatory environment in which it operates. It is structured as follows:
 - Section 2 sets out the changes in NIE's corporate structure since privatisation;
 - Section 3 addresses the development of and structural changes to the electricity market in NI;
 - Section 4 outlines NIE's current business operations and financial information;
 - Section 5 describes the regulatory framework for the transmission and distribution of electricity in NI; and
 - Section 6 provides an overview of the RP5 price control process from commencement to the Utility Regulator's Final Determination.

¹ Article 3 of the Energy (Northern Ireland) Order 2003 establishes the Northern Ireland Authority for Energy Regulation. Article 3 of the Water and Sewerage Services (Northern Ireland) Order 2006 provides that that body shall be known as the Northern Ireland Authority for Utility Regulation.

² An amended and consolidated version of the Electricity Order is provided at Appendix 1.1. This legislation was obtained from HMG's legislation.gov.uk website (www.legislation.gov.uk) on 1 May 2013.

³ An amended and consolidated version of the Energy Order is provided at Appendix 1.2. This legislation was obtained from HMG's legislation.gov.uk website (www.legislation.gov.uk) on 1 May 2013.

2. NIE'S CORPORATE STRUCTURE SINCE PRIVATISATION

The privatisation of NIE

- 2.1 Through the process of privatisation NIE was granted, in March 1992, licences to transmit electricity and to act as a public electricity supplier. Conditions of its licences regulated its activities in relation to:
- power procurement (including transmission system operation)⁴;
 - electricity transmission and distribution; and
 - electricity supply.
- 2.2 NIE was incorporated on 25 October 1991 as a public limited company. The generating operations of Northern Ireland Electricity Service (the legacy electricity public utility) were separated from NIE and sold to third parties in April 1992, removing electricity generation from the scope of NIE's regulated business activities. After privatisation, NIE operated certain unregulated businesses (directly and through its subsidiaries) in addition to its licensed activities. These included electrical appliance retailing and the provision of electrical engineering services. NIE was floated on the London Stock Exchange in June 1993.

Corporate restructuring and ownership of NIE

- 2.3 Through a capital reorganisation in 1998, NIE created a new holding company, Viridian Group PLC (**Viridian Group**) which acquired the entire issued share capital of NIE. NIE remained a public company but was delisted from the London Stock Exchange. The purpose of the reorganisation was to separate NIE's regulated and unregulated business activities. As a result, unregulated business operations including IT, telecommunications, property, transport, insurance and financial services were transferred to a separate subsidiary within the Viridian Group. NIE retained, and focused on, the regulated businesses of power procurement, transmission, distribution and electricity supply.
- 2.4 NIE's affiliate, NIE Powerteam Limited (**NIE Powerteam**) was established as a vehicle to facilitate the modernisation of the terms and conditions of NIE's operational staff. Further details about how NIE Powerteam has enabled NIE to drive down costs are provided in Chapter 13 (NIE Powerteam).
- 2.5 In 2000, NIE separated its transmission system operation functions into a newly incorporated NIE subsidiary, SONI Limited (**SONI**), to comply with new EU legal requirements.

⁴ The Power Procurement Business was responsible for procuring sufficient capacity and output to meet total electricity demand in NI, and on-selling such capacity and output to NI electricity suppliers.

- 2.6 In December 2006, Viridian Group was acquired by Arcapita Bank B.S.C.⁵ This acquisition had little impact on NIE which continued to be a subsidiary of Viridian Group (which then became privately held and re-registered as a private limited company in 2007).⁶
- 2.7 In November 2007 and pursuant to the launch of the Single Electricity Market (addressed in Section 3 below), NIE ceased operating its regulated power procurement and supply businesses. These were transferred to a separately licensed subsidiary of Viridian Group, NIE Energy Limited (now Power NI Energy Limited). Moreover, NIE also agreed with the Utility Regulator and the Department of Enterprise, Trade and Investment (**DETI**) to divest SONI in order to further enhance the independence of the transmission system operator in NI.⁷ In August 2008, NIE and EirGrid plc (the independent transmission system operator in the RoI) reached conditional agreement for the sale of SONI and in March 2009, SONI was sold to EirGrid plc.
- 2.8 In July 2010, Electricity Supply Board (**ESB**)⁸ and Viridian Group reached conditional agreement for the sale of NIE to ESB. NIE was re-registered as a private company in November 2010 and acquired by an ESB subsidiary, ESBNI Limited (**ESBNI**), in December 2010. ESBNI also acquired NIE Powerteam, Powerteam Electrical Services (UK) Limited and Capital Pensions Management Limited from Viridian Group:
- As noted above, NIE Powerteam was used as a vehicle to facilitate the modernisation of the terms and conditions of NIE's operational staff. NIE Powerteam provides its services exclusively to NIE and consequently substantially all of NIE Powerteam's revenues are generated from NIE⁹.
 - Powerteam Electrical Services (UK) Limited (**PES**) designs, supplies and constructs high voltage electrical infrastructure solutions for third party utility and private operators throughout GB and Ireland. PES is entirely independent from NIE Powerteam.
 - Capital Pensions Management Limited is effectively an in-house team of three staff managing NIE's pension scheme.

⁵ Through an intermediary subsidiary ElectricInvest Acquisitions Limited.

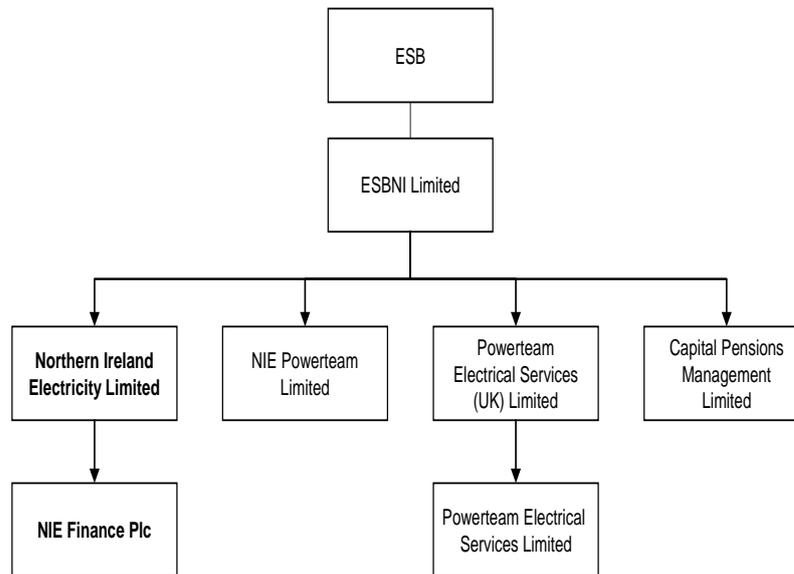
⁶ Nonetheless, following the acquisition and pursuant to RP4, licence amendments were introduced in respect of indebtedness, financial gearing, credit rating and restrictions on dividends (see Section 5 below).

⁷ NIE's transmission and distribution licence was amended accordingly in October 2007.

⁸ ESB is owned by the Irish Government (95%) and by employees (5%). Its activities include licensed transmission asset owner, distribution system operator and meter operator in the RoI and it is one of the electricity suppliers in the island of Ireland.

⁹ NIE Powerteam provides *de minimis* training services to third parties with revenue of less than £100,000 per annum (less than 0.2% of NIE Powerteam revenues). Occasionally, NIE Powerteam provides assistance to other DNOs in restoring supplies after storm damage to their networks.

- 2.9 The organogram below shows the current company structure of the ESBNI subgroup of ESB. Ring fencing restrictions contained in NIE's licence conditions are outlined in Section 5 below.



3. DEVELOPMENT OF NI ELECTRICITY MARKET

- 3.1 Prior to privatisation in 1992, Northern Ireland Electricity Service was the public utility responsible for electricity generation, transmission (including system operation), distribution and supply throughout NI. The process of privatisation started a trend of gradual de-regulation and market liberalisation in the generation, transmission, distribution and supply of electricity in NI. The first stage in this process was the sale of NIE's generation capacity to three separate trade buyers who purchased power station assets with the benefit and burden of long term power purchase agreements (pursuant to which NIE was the sole off-taker through its then power procurement business). There were also attempts to deregulate retail market entry although this was, at the time, largely unsuccessful.¹⁰
- 3.2 Prior to November 2007 incremental measures were taken to widen the level of competition within the NI electricity supply market, first with the introduction of competition for supply to all large customers in 1999 and then with the introduction of competition for supply to all non-residential customers in 2005.
- 3.3 An important structural and regulatory change in the NI electricity market occurred in November 2007 with the implementation of the Single Electricity Market in the island of Ireland (**SEM**).

¹⁰ New retail market entrants were required to buy their power on a regulated bulk supply tariff from NIE's power procurement business (as sole off-taker), which left limited scope for price competition among suppliers.

The SEM

- 3.4 The SEM was designed to promote the establishment and operation of a single competitive wholesale electricity market in NI and the RoI. It was implemented by means of the Electricity (Single Wholesale Market) Order (Northern Ireland) 2007 (**SEM Order**)¹¹.
- 3.5 The SEM consists of a gross mandatory pool market, into which all electricity generated in or imported into the island of Ireland must be sold, and from which all wholesale electricity for consumption in or to be exported from the island of Ireland must be purchased.
- 3.6 The SEM Order establishes a committee (**SEM Committee**), which takes decisions in relation to SEM matters across the island of Ireland. It therefore takes decisions on behalf of the Utility Regulator in certain circumstances. The SEM Committee is made up of three representatives from the Utility Regulator, three representatives from the RoI Commission for Energy Regulation (**CER**) and two independent members. For the purpose of the SEM Order, SEM matters are stated to be those where:

"the SEM Committee determines that the exercise of a relevant function of the [Utility Regulator] in relation to that matter materially affects, or is likely materially to affect, the SEM".¹²

- 3.7 The SEM Order sets out that the principal objective of:
- DETI, in carrying out its electricity functions in relation to matters which it considers materially affect the SEM;
 - the Utility Regulator, in giving effect to any decision of the SEM Committee; and
 - the SEM Committee, in taking decisions on behalf of the Utility Regulator,
- is the protection of the interest of consumers of electricity in NI and RoI by promoting effective competition between persons engaged in, or in commercial activities connected with, the sale or purchase of electricity through the SEM.
- 3.8 DETI, the Utility Regulator and the SEM Committee must, in carrying out their duties (in furtherance of the principal objective) have regard to certain factors including the need to:
- secure that all reasonable demands for electricity in NI and RoI are met;

¹¹ An amended and consolidated version of the SEM Order is provided at Appendix 1.3. This legislation was obtained from HMG's legislation.gov.uk website (www.legislation.gov.uk) on 1 May 2013.

¹² Article 6(3) of the SEM Order.

- secure that authorised persons are able to finance the activities which are the subject of obligations;
- secure that the functions of DETI, the Irish Minister (for Communications, Energy and Natural Resources) and CER in relation to the SEM are exercised in a co-ordinated manner;
- ensure transparent pricing in the SEM; and
- avoid unfair discrimination between NI and Irish consumers.

3.9 On 1 November 2007 the Electricity Regulations (Northern Ireland) 2007 (**2007 Regulations**)¹³ came into force. The 2007 Regulations implemented Directive 2003/54/EC¹⁴ and sought to achieve legal and functional separation of transmission and distribution system activities from those of supply and generation, and ensure greater market freedom for consumers to purchase electricity from their supplier of choice.

EU Third Energy Package

3.10 A further structural change in the NI market has been driven by the EU Third Energy Package (**IME3**). IME3 consists of, so far as relevant to electricity market liberalisation:

- a directive on the common rules for the internal market in electricity (2009/72/EC) (the **IME3 Directive**)¹⁵; and
- two regulations, one on conditions for access to the network for cross-border exchange of electricity (EC/714/2009) and one on the establishment of the Agency for the Cooperation of Energy Regulators (ACER) (EC/713/2009).

3.11 IME3 has been (partially) implemented in NI by the Gas and Electricity (Internal Markets) Regulations (Northern Ireland) 2011 (**2011 Regulations**)^{16, 17}. IME3 is aimed at achieving a range of policy objectives including:

¹³ A copy of the original version of the 2007 Regulations is provided at Appendix 1.4. This legislation was obtained from HMG's legislation.gov.uk website (www.legislation.gov.uk).

¹⁴ Directive 2003/54/EC formed part of a package of EU legislation known as the Second Energy Package.

¹⁵ A copy of the original version of the IME3 Directive is provided at Appendix 1.5. This legislation was obtained from the official website of the European Union (www.eur-lex.europa.eu).

¹⁶ A copy of the original version of the 2011 Regulations is provided at Appendix 1.6. This legislation was obtained from HMG's legislation.gov.uk website (www.legislation.gov.uk).

¹⁷ DETI has consulted on further legislative measures to transpose IME3. See Section 5 below for proposals to amend the licence condition modification process. A separate consultation was published by DETI in January 2013 which proposes (among other things) various consequential amendments to existing NI electricity legislation.

- ensuring fair competition between EU companies and companies from third countries;
- strengthening the powers of national regulators;
- creating of an agency for the cooperation of energy operators;
- certification for all transmission system operators; and
- unbundling energy supply and production from network operations.

- 3.12 The most relevant of the IME3 objectives to NIE's regulated activities are the unbundling of transmission and distribution networks and the certification of all transmission system operators. As explained in Section 2, NIE owns the NI transmission network (bearing responsibility for planning, development and maintenance) which is independently operated by SONI. NIE also owns and operates the NI distribution network.
- 3.13 The 2011 Regulations have introduced certain measures in NI to ensure compliance with the unbundling requirements of IME3. Part III of the 2011 Regulations sets out the new ownership (or unbundling) regime for transmission networks, implementing full separation of electricity transmission from production and supply and sets down procedures for the certification of transmission operators. Part V of the 2011 Regulations introduced new (and transitional) powers for the Utility Regulator unilaterally to amend electricity licences to ensure that licenced activities comply with the requirements of IME3.
- 3.14 Article 10(B) of the Electricity Order as introduced by the 2011 Regulations, requires transmission licensees to be certified as independent in accordance with the unbundling requirements of IME3.
- 3.15 The provisions governing certification application, grant and monitoring are set out in Articles 10C to 10L of the Electricity Order. In January 2012, NIE submitted an application to the SEM Committee for certification of the transmission arrangements between NIE and SONI under Article 9(9) of the IME3 Directive and Article 10C of the Electricity Order. The Utility Regulator has exercised its power to extend the relevant date for certification, first to 31 December 2012 and then to 3 March 2013 in accordance with Article 10B(4)(5).
- 3.16 On 15 February 2013, the SEM Committee concluded that the existing transmission arrangements in NI have provided more effective independence of the transmission system operator than the provisions of Chapter V of the IME3

Directive¹⁸. On that basis, the SEM Committee decided¹⁹ to grant NIE's application for certification, subject to:

- the implementation of proposed 'improvements' relating to the independence of the transmission system operator; and
- the verification of the European Commission under Article 9(10) of the IME3 Directive.

3.17 The 'improvements' to the existing NI transmission arrangements to which the SEM Committee's decision was subject include:

- the transfer of NIE's planning function to SONI;
- the ring-fencing of resources of, and tasks undertaken by, NIE Powerteam;
- the need for all of NIE's directors to be directly employed by NIE;
- the phasing out of the provisions of corporate services by ESB to NIE; and
- certain modifications to NIE's licence to reflect ESB's acquisition of NIE.

3.18 On 12 April 2013, the European Commission published its decision²⁰ in relation to the SEM Committee's preliminary certification decision. The decision makes reference to the improvements to the existing NI transmission arrangements proposed by the SEM Committee. It concludes that the arrangements in place in relation to the vertical integration and operation of the transmission systems belonging to NIE meet the requirements of Article 9(9) of the IME3 Directive and could clearly guarantee more effective independence of the transmission system operators than the provisions of Chapter V of the IME3 Directive.

3.19 The decision concludes that SONI (rather than NIE) shall be certified as the transmission system operator for NI. DETI has proposed some legislative changes to enable this to happen.

¹⁸ Chapter V of the IME3 Directive sets out the requirements of the Independent Transmission Operator model, one of three models for unbundling approved by the IME3 Directive. Having arrangements in place which guarantee more effective independence of the transmission system operator than the provisions of Chapter V is a requirement for certification under Article 9(9) of the IME3 Directive.

¹⁹ A copy of the SEM Committee preliminary decision is provided at Appendix 1.7.

²⁰ A copy of the European Commission's decision is provided at Appendix 1.8.

4. NIE'S BUSINESS OPERATIONS

Transmission and distribution

- 4.1 NIE is the owner of the electricity transmission network in NI and the owner and operator of the distribution network. In its capacity as transmission owner and pursuant to its licence, NIE is responsible, in conjunction with SONI (under the terms of the Transmission Interface Agreement), for planning, developing and maintaining the transmission network. In its capacity as distribution owner/operator NIE is responsible, in accordance with its licence, for planning, developing, maintaining and operating the distribution network. Taken together, the transmission and distribution networks are used to convey electricity between generating stations, interconnectors and customers' premises.
- 4.2 NIE's transmission and distribution (**T&D**) operations comprise:
- Maintenance and development of the T&D network so that it continues to provide a reliable supply of electricity to customers;
 - development of the network to accommodate the connection of renewable generation in accordance with the Government's renewable energy integration targets for 2020;
 - increasing interconnection transfer capacity between the electricity networks in NI and RoI; and
 - wider market services.
- 4.3 NIE's T&D network contains a number of interconnected networks of overhead lines and underground cables which are used for the transfer of electricity to approximately 840,000 customers via a number of substations. There are approximately 2,200 km (circuit length) of transmission system, 43,500 km of distribution system and 250 major substations throughout the NIE network.
- 4.4 NIE derives its revenue to recover the costs of its transmission and distribution activities principally through:
- distribution use of system charges levied on electricity suppliers; and
 - transmission services charges levied on SONI.

Renewables integration

- 4.5 In its "Strategic Energy Framework for Northern Ireland – 2010", DETI has set a NI target of 40% of electricity to be generated from renewable sources by 2020. NIE therefore has to take action to enable network development to meet this threshold through driving advancements in grid investment, technology and connection

policy. NIE has developed short and medium term plans (and is currently working with SONI and Eirgrid to develop long term plans) to achieve the required levels of network development so as to connect the required level of renewable generation to the network.

Interconnectors

- 4.6 NIE owns and maintains, within NI, transmission circuits interconnecting the NI and the RoI transmission systems. NIE's transmission system is connected to that of the RoI through 275kV and 110kV interconnectors and to that in Scotland via the Moyle Interconnector. NIE has been working with Eirgrid to develop the 400kV North-South interconnector to further strengthen the interconnection of the electricity networks of NI and RoI. As part of this process NIE submitted, in December 2009, a planning application for consent to construct a new 275/400kV substation near Moy, Co. Tyrone and a new 400kV overhead transmission line from the substation to the crossing point at the border of NI and the RoI. This was referred by the NI Minister for the Environment to the Planning Appeals Commission for a public inquiry. Whilst the public inquiry commenced in March 2012, it has been adjourned following a request from the Planning Appeals Commission for the planning application to be re-advertised and for relevant environmental statements to be modified. No date has been set for re-commencement of the public inquiry.

Market services

- 4.7 NIE, in its role as "common service provider", operates the market registration service and the market data service, and acts as meter data provider to facilitate the operation of the SEM and the downstream retail market. NIE has recently implemented a new IT system in conjunction with Power NI²¹ (the **Enduring Solution**) which went live in May 2012. The Enduring Solution project was initiated in consultation with the Utility Regulator to:
- provide full business separation between NIE and Power NI's systems;
 - provide unlimited capacity for consumers to switch electricity supplier; and
 - accommodate potential future changes to market requirements.

Land Bank

- 4.8 NIE holds legal title for certain sites in NI as quasi trustee under the terms of NIE's licence condition 23 (the **Land Bank**). The Land Bank business of NIE manages these Land Bank sites under direction from the Utility Regulator and for the benefit of electricity customers. The Utility Regulator consulted on the future of a number

²¹ A licenced electricity supplier (and previously NIE Energy Limited).

of Land Bank sites in May 2010 and subsequently directed NIE to retain an agent to receive proposals for the disposal of those sites. The disposal process is on-going.

NIE organisational structure

- 4.9 Although NIE sits within the ESB group, it is subject to strict ring-fencing obligations pursuant to its licence (described in Section 5 below).
- 4.10 In accordance with its licence obligations, NIE's board comprises three independent non-executive directors and two executive directors. The current members of the NIE board are set out below.

Name	Title	Biographical Details
Joe O'Mahony	Managing Director Chairman of the Executive Committee	Appointed as Managing Director (Designate) in January 2011 and to the Board in March 2011. He took over as Managing Director in July 2011. He has held a number of senior management positions in ESB including Head of the Wind Development business and Head of Network Projects.
Peter Ewing	Deputy Managing Director and Director of Regulation	Appointed NIE's Deputy Managing Director and Director of Regulation in December 2010 on ESB's acquisition of NIE and was appointed to the Board in July 2011. He joined NIE in 1998 as Director of Finance and was appointed General Manager Viridian Group Finance in 2003. In 2007 he was appointed to the Viridian Group Board as Group Finance Director.
Stephen Kingon, CBE	Independent Non-Executive Chairman	Appointed independent non-executive Chairman of the Board in March 2011. Currently the Chairman of the NI Centre for Competitiveness, co-chairman of the North/South Roundtable Group, member of Belfast Harbour Commissioners and non-executive director of a number of other companies. He was Chairman of Invest Northern Ireland for six years until December 2011 and was

		formerly Managing Partner of PricewaterhouseCoopers in Northern Ireland.
Rotha Johnson, CBE	Independent Non-Executive Director and chairperson of the Audit Committee	Appointed independent non-executive director in March 2011. Currently Pro-Chancellor of Queen's University Belfast, National Trustee for Northern Ireland for the BBC Trust, a member of Belfast Harbour Commissioners and an independent board member at the Department of Justice in Northern Ireland.
Ronnie Mercer	Independent Non-Executive Director	Appointed independent non-executive director in March 2011. Chairman of Scottish Water since 2006 and is Chairman of Business Stream. Held senior executive positions at Scottish Power including Group Director, Infrastructure and Executive Vice President, Operations of the PacifiCorp subsidiary.

NIE financial information

- 4.11 The table below sets out NIE's financial results for the past five years by reference to (a) capital expenditure, (b) operating expenditure and (c) dividends.

Financial accounts	Capital expenditure (£ million)	Operational expenditure (£ million)	Dividends declared and paid by the company (£ million)
31/3/2008	120.0	81	Ordinary: 94.4 Preference: 2.1
31/3/2009	104.6	86.2	Ordinary: 110.6
31/3/2010	95.1	90	Ordinary: 55
31/3/2011	109.1	112.8	Ordinary: none
31/3/2012	130.6	87.6	Ordinary: none

NIE pension arrangements

- 4.12 NIE is the principal employer in the multi-employer Northern Ireland Electricity Pension Scheme (**NIEPS**)²². Prior to privatisation, nationalised electricity service

²² The other employers are NIE Powerteam, PES and Capital Pensions Management Limited.

pensions were generally modelled on public sector arrangements²³. By agreement between the UK Government and trade unions, pensions for past and future service were, post privatisation, protected under the Protected Persons Regulations which prevent any reduction in pension entitlement without employee consent. The table below shows the number of members in the NIEPS as at 27 November 2012.

	Defined Benefits section (Focus)	Defined Contributions section (Options)
Active members	639	725
Deferred members	824	581
Pensioners	4,445	54
Total	5,908	1,360

- 4.13 In March 1998, NIE closed its defined benefit (final salary) pension scheme to new members. NIE was one of the first privatised electricity companies in the UK to move from a defined benefit scheme to the more cost-efficient defined contribution scheme.
- 4.14 Further information about the NIEPS, its funding deficit and the limits to NIE's ability to control its pension costs are provided in Chapter 10 (Pensions).

5. NIE REGULATORY FRAMEWORK

- 5.1 The regulated electricity market in NI is governed by a suite of legislation which pulls together the post privatisation regime and subsequent market liberalising legislation.
- 5.2 The primary legislative framework for electricity licensing is contained in the Electricity Order. This is supplemented, most notably in respect of the functions and duties of the Utility Regulator and licensees respectively, by the Energy Order.
- 5.3 Both the Electricity Order and the Energy Order have been amended by the SEM Order and the 2011 Regulations in order to achieve the objectives of market integration within the island of Ireland and to comply with wider market liberalisation pursuant to IME3.
- 5.4 Articles 10(1)(b), 10(1)(bb), 10(A) and 10(AA) of the Electricity Order contain provisions relating to the grant of transmission and distribution licences within NI.

²³ 1/80th pension, 3/80th lump retirement sum and 50% spousal pension.

NIE has a separate licence for each of its transmission and distribution activities²⁴. Modified licences were issued to NIE by the Utility Regulator on 11 March 2013 under powers granted by the 2011 Regulations²⁵.

Functions and duties of the Utility Regulator

- 5.5 The functions and duties of the Utility Regulator are contained within the Electricity Order and the Energy Order.
- 5.6 The Utility Regulator's statutory functions as set out in the Electricity Order include:
- granting licences for the generation, transmission, distribution and supply of electricity in Northern Ireland (Article 10, 10A, 10AA and 11);
 - certifying, monitoring and reviewing transmission licensees as independent operators pursuant to IME3 (Article 10B to 10K);²⁶
 - the power to modify electricity licence conditions (Article 14 to 18 as discussed in more detail below); and
 - a general obligation to keep under review and collect information in respect of activities connected with the generation, transmission, distribution and supply of electricity in NI.
- 5.7 The Utility Regulator's enforcement powers are contained in Articles 41 to 50 of the Energy Order. Where the Utility Regulator is satisfied that an electricity licence holder is contravening (or likely to contravene) any conditions of its licence or certain statutory provisions it has the power to:
- issue a final or provisional order to secure compliance with such conditions; and/or
 - impose a financial penalty of such amount as is reasonable in all the circumstances of the case (not to exceed 10% of turnover).

²⁴ A copy of NIE's 'Participate in Transmission' licence is provided at Appendix 1.9 and a copy of its 'Electricity Distribution Licence' is provided at Appendix 1.10. See below in this Section 5 for a high level overview of certain substantive provisions of these two licences.

²⁵ Prior to the introduction of the 2011 Regulations, NIE held a single 'Participate in Transmission' licence. The 2011 Regulations introduced electricity distribution as a separately licensable activity (by amending the Electricity Order) and provided for the NIE's existing licence to take effect as two separate licences, one for each of NIE's transmission and distribution activities (see Article 90 of the 2011 Regulations). On 11 March 2013, the Utility Regulator issued two separate licence documents to reflect this position. Article 90 empowered the Utility Regulator to make incidental and consequential modifications to each successor licence. However, licence separation was largely a mechanical exercise involving the allocation of conditions relating to transmission and distribution to the appropriate licence. Conditions relating to both transmission and distribution (in particular the price control conditions) were duplicated in both licences.

²⁶ This includes a power to withdraw a certification pursuant to Article 10K of the Electricity Order.

5.8 With respect to its role as electricity regulator, additional functions of the Utility Regulator are set out in Articles 3 to 8A of the Energy Order in respect of designation as national authority, reporting activities, publication of advice and information about consumer matters, powers in relation to external matters and a duty to have regard to the need for consultation and co-operation with other authorities

5.9 In fulfilling its statutory functions the Utility Regulator's principal objective, pursuant to Article 12(1) of the Energy Order, is to:

"protect the interests of consumers of electricity supplied by authorised suppliers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the generation, transmission, distribution or supply of electricity."

5.10 Article 12(1A) makes clear that the interests of consumers include the achievement of the objectives in Article 36(a) to (h) of the IME3 Directive. In summary, such objectives aim to achieve the wider policy objective of market liberalisation, including:

- promoting a competitive, secure and environmentally sustainable internal market;
- developing competitive and properly functioning regional markets;
- eliminating restrictions on trade in electricity between Member States including developing appropriate cross-border transmission capacities;
- the development of secure, reliable and efficient non-discriminatory systems that are consumer oriented;
- facilitating access to the network for new generation capacity, particularly renewables;
- ensuring that system operators and system users are granted appropriate long and short term incentives to increase efficiency and foster market integration;
- ensuring customers benefit through the efficient functioning of their national market;
- achieving high standards of universal and public services in electricity supply.

5.11 The Utility Regulator is required by Article 12(2) to perform its functions:

"... in the manner which it considers is best calculated to further the principal objective, having regard to:

- (a) the need to secure that all reasonable demands in NI or RoI for electricity are met;*
- (b) the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed by or under Part II of the Electricity Order or this Order."*

5.12 In performing the duties set out in Article 12(1), 12(1A) and 12(2) the Utility Regulator is required to have further regard to the need to protect the interests of individuals who are disabled, chronically sick, of pensionable age, on low income or reside in rural areas. This does not imply that the Utility Regulator cannot have regard to the interests of other individuals.²⁷

5.13 Subject to the duties set out in Article 12(2) the Utility Regulator is required to carry out its electricity functions in a manner it considers best calculated to:

- promote the efficient use of electricity and efficiency and economy by licensees;
- protect the public from dangers arising from the generation, transmission, distribution or supply of electricity;
- secure a diverse, viable and environmentally sustainable long-term energy supply;
- promote research into, and the development and use of, new techniques by licensees; and
- secure the establishment and maintenance of machinery for promoting the health and safety of persons employed in the generation, transmission, distribution or supply of electricity.

5.14 The Utility Regulator's statutory duties and functions under the Energy Order have been extended through the 2011 Regulations (in accordance with IME3). In addition to the expansion of such duties and the widening of consumer interests to which the Utility Regulator is required to have regard, IME3 prompted the incorporation of additional monitoring obligations on the Utility Regulator pursuant to Article 37(1) of the IME3 Directive.

²⁷ Article 12(3) of the Energy Order.

NIE's statutory duties

5.15 NIE's statutory duties as an electricity distributor and licenced participant in transmission are contained in Article 12 of the Electricity Order which provides that:

12.(1) It shall be the duty of an electricity distributor to—

(a) develop and maintain an efficient, coordinated and economical system of electricity distribution which has the long-term ability to meet reasonable demands for the distribution of electricity ; and .

(b) facilitate competition in the supply and generation of electricity.

(2) It shall be the duty of the holder of a licence under Article 10(1)(b), as appropriate having regard to the activities authorised by the licence, to—

(a) take such steps as are reasonably practicable to— .

(i) ensure the development and maintenance of an efficient, co-ordinated and economical system of electricity transmission which has the long-term ability to meet reasonable demands for the transmission of electricity; and

(ii) contribute to security of supply through adequate transmission capacity and system reliability; and

(b) facilitate competition in the supply and generation of electricity.

NIE's licence conditions

5.16 A copy of NIE's 'Participate in Transmission' licence is provided at Appendix 1.9 and a copy of its 'Electricity Distribution Licence' is provided at Appendix 1.10. This section provides a high level overview of certain substantive provisions of these two licences.

5.17 Because NIE's two licences are both derived from a single combined licence, the numbering of licence conditions is common to both. Many conditions apply equally to transmission and distribution activities, in which case the condition appears in both licences (with the same condition number)²⁸. Where however a particular condition of the predecessor licence relates only to NIE's transmission activities, the equivalent condition in the electricity distribution licence is simply labelled "not used" (and vice versa). The summary of licence conditions that follows does not therefore generally distinguish between the two licences. It should be understood

²⁸ In some cases, a predecessor condition that is stated to apply to both transmission and distribution activities will be separated so that the equivalent provision in the electricity distribution licence refers only to NIE's distribution activities (and vice versa).

that where a licence condition relates only to one of NIE's distribution or transmission activities, that condition will appear only in the relevant licence.

Licence Condition 2 requires NIE to draw up regulatory accounts in respect of its regulated business, to have them audited and deliver copies to the Utility Regulator.

Licence Condition 3 requires NIE to act, at all times, in a manner calculated to secure that it has sufficient resource to enable it carry on each of the transmission and distribution businesses and the Land Bank business in compliance with its statutory obligations and licence conditions.

Licence Condition 3A requires NIE to ensure that its board of directors comprise a majority of independent non-executive directors who possess relevant experience and knowledge.

Licence Condition 4 prohibits NIE from declaring or recommending a dividend or distribution or from redeeming or repurchasing any share capital unless it has issued a certificate to the Utility Regulator ahead of doing so. Such certificate must state that certain licence conditions have been complied with and must identify the amount of any distribution/redemption and the date on which it will be made.

Licence Condition 7 sets out the fees that NIE must pay to the Utility Regulator (i.e. NIE's share of the cost of regulation).

Licence Condition 8 sets out the obligation to provide to the Utility Regulator such information as the Utility Regulator may require to perform its statutory functions.

Licence Condition 9A requires NIE to take all appropriate steps to ensure that it obtains and maintains an investment grade credit rating of not less than BBB- (or the Baa3 equivalent rating from Moody's Investment Service Inc).

Licence Condition 12 states that NIE must maintain the full managerial and operational independence of the transmission and distribution businesses (i.e. the regulated businesses) from any of its associated businesses, excluding NIE Powerteam. Following the introduction of the SEM (1 November 2007) NIE was required to comply with a Utility Regulator approved compliance plan.

Licence Condition 13 imposes restrictions on NIE coordinating or directing the flow of electricity onto or over the transmission network (other than as permitted by the licence or as set out in the Transmission Interface Arrangements with SONI).²⁹ It

²⁹ Licence Condition 17 contains provisions relating to Transmission Interface Arrangements.

also prevents NIE from purchasing or acquiring electricity unless required in undertaking the transmission and distribution business.

Licence Condition 14 contains the ring fencing obligation which prohibits the core regulated business activities of NIE being held or carried on by any of its affiliates.

Licence Condition 17 sets out NIE's obligations in respect of the Transmission Interface Arrangements (**TIA**) which are held jointly with SONI. The aims of the TIA include:

- the efficient discharge of NIE's and SONI's statutory and licence obligations;
- the efficient and economical development, maintenance and operation of the transmission system;
- effective competition in the generation and supply of electricity on the island of Ireland; and
- the promotion of good industry practice and efficiency in implementation and administration (as to matters covered by the Transmission Interface Arrangements).

Licence Condition 18 requires NIE to provide, pursuant to the Transmission Interface Arrangements, the following services:

- ensuring that parts of the transmission system which are intended to convey or affect the flow of electricity are fit for purpose;
- enabling SONI (as transmission system operator) to direct the configuration of system parts made available to it and giving effect to any such direction; and
- allowing the transmission system operator to obtain information needed to enable it to co-ordinate the flow of electricity over the transmission system.

Licence Condition 19 sets out the requirement to plan, develop and maintain the total system (i.e. the transmission system and the distribution system taken together) and operate the distribution system in accordance with system security and planning standards approved by the Utility Regulator.

Licence Condition 23 requires NIE to deal with the Land Bank in accordance with directions given by the Utility Regulator.

Licence Condition 28 states that the NIE shall establish, operate and maintain market registration services and market data services. The purpose of the market registration service is to create a register of technical and other data as necessary to facilitate supply by a licensed supplier to premises connected to the total system and to provide information for settlement purposes. The market data service facilitates collection, processing and valuation of electricity flows at metered and unmetered premises. NIE also transfers such data as reasonably required and requested by licensed suppliers and SONI (as transmission system operator and NI market operator).

Annex 1 to the electricity distribution licence only contains the restriction on, and the calculation for obtaining, the maximum allowed PSO³⁰ revenue (and applicable PSO Charges) that NIE can generate in any relevant year.

Annex 2 to each licence is the transmission and distribution charge restriction condition which caps the revenue NIE can earn from its levied distribution and transmission charges. Annex 2 is identical in each licence. Regulation 90(3) of the 2011 Regulations provides that Annex 2 to each licence shall be taken as relating to the activities authorised by both licences taken together.

Licence modification

- 5.18 Article 14 provides for licence modification by agreement between a licensee and the Utility Regulator³¹. When the licensee does not agree to a licence modification, the Utility Regulator has the option to refer the matter to the Competition Commission under Article 15.
- 5.19 A reference made to the Competition Commission under Article 15 should be framed by the Utility Regulator to require the Competition Commission to investigate and report on:
- whether existing conditions in NIE's licence operate (or may be expected to operate) against the public interest; and
 - if so, whether the adverse effects (actual or expected) to the public interest can be remedied or prevented by licence condition modifications.
- 5.20 The Competition Commission's powers of investigation and applicable time limits are contained in Articles 15A and 15B of the Energy Order. Article 16 requires the

³⁰ PSO (public service obligation) charges relate to matters which benefit all electricity consumers in NI. They arise from costs approved by the Utility Regulator incurred by Power NI's power procurement and supply businesses, the NI Sustainable Energy Programme, and NIE's costs associated with market opening and the Land Bank business.

³¹ Article 14(5)(b) of the Electricity Order allows the Utility Regulator to introduce a modification to a standard licence condition, even if consent is not given, if the standard licence condition imposes a burden which would be reduced by the modification without reducing the protection given, and if no relevant licence holder would be unduly disadvantaged.

Competition Commission to report on the terms of reference as framed by the Utility Regulator and to include:

- definite conclusions and reasoning on the questions raised in the reference;
- where it concludes that any matters in the reference do operate against the public interest, the effects adverse to the public interest that such matters have (or may be expected to have);
- where it concludes there are adverse effects (or there may be adverse effects) and such effects can be remedied or prevented by modifications, to specify the licence condition modifications that would achieve this aim.

5.21 Pursuant to Article 17, the Utility Regulator is required to make licence modifications that it considers requisite for the purpose of remedying or preventing the adverse effects identified by the Competition Commission in its report. The Competition Commission holds a power to veto proposed Utility Regulator licence modifications under Article 17A within four weeks of being notified of such modifications. The Competition Commission may exercise its veto where it considers that the proposed modifications do not remedy or prevent all or any of the adverse effects of public interest harm identified in its report as ones that could be remedied or prevented by modifications.

5.22 DETI issued a consultation on 9 July 2012 inviting views on its stated proposal to amend the existing licence condition modification and appeal procedures (as set out in Articles 14 to 17 of the Electricity Order). DETI is proposing to alter the procedure in line with that adopted by the GB Department of Energy and Climate Change. This would enable the Utility Regulator to modify licence conditions without the existing requirement for licensee consent and would give licensees a right of appeal to the Competition Commission in response to a decision by the Utility Regulator to modify.

5.23 DETI has stated that it considers the current procedure for electricity licence modification to be non-compliant with IME3:

"The fact that the Utility Regulator may only modify the conditions of particular electricity and gas licences either with the consent of the licence holders or on grounds which are much more limited and require the involvement and are subject to review and veto by the Competition Commission/Utility Regulator does not reflect the requirements of the Third Package Directives, particularly the requirements that national regulators must be able to take autonomous decisions, be functionally independent and be able to carry out their regulatory duties in an efficient and expeditious manner. In addition, it does not guarantee the Utility Regulator

a power to issue binding decisions, for example those binding decisions of ACER and the European Commission, as necessary."³²

- 5.24 The consultation closed on 12 October 2012 but DETI has not yet published a decision.
- 5.25 Article 38(1) of the Energy Order contains a general provision which requires the Utility Regulator and the Competition Commission (and other bodies) to have regard to the requirements and prohibitions laid down in the IME3 Directive when modifying any electricity licence.
- 5.26 In addition to the powers and procedure for licence modification contained in Articles 14 to 17A of the Electricity Order, the Utility Regulator (and DETI) has the power (pursuant to Regulation 11(1) of the 2011 Regulations) to make such modifications to the conditions of an electricity licence as it considers requisite or expedient to enable satisfaction of the conditions required for certification of transmission operators under IME3 (see Section 3 above). Such modification may require:
- the licence holder to enter into new agreements or arrangements;
 - provision for determining the terms on which such new agreements or arrangements are to be entered into; and
 - the licence holder to amend or terminate, or agree to the amendment or termination of existing arrangements.
- 5.27 Transitional provisions contained at regulation 91 of the 2011 Regulations empowered the Utility Regulator (with the consent of DETI) to modify electricity licence provisions for the purpose of ensuring compliance with the IME3 Directive. The transitional licence modification provisions were initially applicable for 12 months from 15 April 2011, with a power for DETI to extend the period for a further 12 months. On 13 April 2012, the Department exercised this power and extended the period by the full 12 months permitted by the Regulations to 15 April 2013. Subsequently, on 12 April 2013, the Department amended³³ the 2011 Regulations, further extending the power to modify licences to 30 April 2014.

³² DETI, 'Consultation on the revised procedure for electricity and natural gas licence modifications and appeals process', July 2012: http://www.detini.gov.uk/consultation_on_revised_procedure_for_licence_modifications_and_appeals_process.pdf.

³³ Regulation 91 of the 2011 Regulations was amended by regulation 33 of the Gas and Electricity (Internal Markets) Regulations (Northern Ireland) 2013. The 2013 Regulations are principally concerned with amendments to the Gas (Northern Ireland) Order 1996, although they do make minor amendments to electricity-related legislation. A copy of the 2013 Regulations can be obtained at: <http://www.legislation.gov.uk/nisr/2013/92/contents/made>

5.28 Furthermore the Office of Fair Trading, Competition Commission or Secretary of State may, pursuant to Article 19 of the Electricity Order, make an order to modify electricity licence conditions, where deemed to be requisite or expedient in relation to:

- a concentration under the Enterprise Act 2002; or
- a market investigation under the Enterprise Act 2002 where a market feature or combination of market features prevent, restrict or distort competition in relation to the generation, transmission, distribution or supply of electricity.

5.29 Article 3 of the SEM Order gave DETI and the Utility Regulator the power to modify the conditions of a licence where it is necessary or expedient in order to implement, facilitate or give full effect to the SEM. These modification powers were transitional and expired on 30 October 2009.

Previous price control reviews

5.30 In each of the price control review periods, the relevant parts of NIE's licence (currently Annex 2) have been reviewed by the Utility Regulator to make provision for allowed revenues for the next price control period. The price control review process culminates in a proposal by the Utility Regulator to amend the relevant provisions of the licence to reflect the new price control. The process for adopting a new price review is therefore the same as applies to the modification of a licence condition.

5.31 Since privatisation, price controls have been applied for each of the four five year regulatory periods as follows:

- 1 April 1992 to 31 March 1997 (**RP1**);
- 1 April 1997 to 31 March 2002 (**RP2**);
- 1 April 2002 – 31 March 2007 (**RP3**); and
- 1 April 2007 to 31 March 2012 (**RP4**).

RP1 price control

5.32 The price control which applied during RP1 was notified to NIE by DETI.

RP2 price control

5.33 In RP2 the Utility Regulator and NIE failed to reach agreement on the final proposal for the price control, resulting in a referral to the then Monopolies and Mergers Commission (**MMC**). The MMC reported in March 1997 but the Utility

Regulator did not accept the outcome of the referral. RP2 was not settled until two years later following a judicial review in the High Court of NI, judgment by the Court of Appeal in NI upholding the MMC's conclusions as binding on the Utility Regulator and refusal by the House of Lords to grant the Utility Regulator permission to appeal.

RP3 price control

- 5.34 The Utility Regulator proposed, and NIE agreed, licence modifications to implement the RP3 price control.

RP4 price control

- 5.35 The agreed licence modifications to implement the RP4 price control were made by the Utility Regulator in December 2006. The key features of the RP4 price control are set out below.

- The allowance for controllable opex in each year of RP4 was set equal to the RPI-indexed level of actual costs incurred during the corresponding year in RP3 subject to one off reductions for the first two years of RP4 (of £2.6 million and £1.6 million respectively). The Utility Regulator considered that this approach would simplify the calculation of the opex allowance but would also incentivise NIE to reduce costs creating customer savings.
- Uncontrollable opex (i.e. rates, wayleaves costs and licence fees) did not form part of the rolling mechanism and was recoverable on a pass through basis.
- The allowance for pensions costs in each year of RP4 was set equal to the RPI-indexed level of actual costs incurred during the corresponding year in RP3 subject to a disallowance of £225,000 per annum in respect of early retirement deficiency costs.
- RAB additions during RP4 were based on actual capex rather than allowed capex with a separate mechanism for incentivising capital efficiency. The five year capex budget (net of customer contributions) was agreed at the start of RP4 (£374 million, in 2010/11 prices compared to £306 million in RP3, in 2010/11 prices). The RP4 price control allowed NIE to charge depreciation on such capex from then on (in accordance with the Regulator's specified depreciation profile), and to earn an allowed rate of return on such capex from the year in which it was incurred.
- The capex efficiency incentive mechanism required annual reporting by NIE on the progress of its capex programme and significant changes in its investment priorities. Notified efficiency gains related to procurement of

materials and services and labour productivity. For every £1 of demonstrated efficiency, NIE retained 38.9p and customers retained 61.1p.

- Cost of capital provided for the allowed rate of return to be set at the GB DNO level for the distribution portion of the regulated asset base. The Utility Regulator provided for a 0.35% post tax reduction from the GB rate in relation to the assumed 18% of transmission assets. This resulted in a post-tax real rate of return of 4.84% for "distribution assets" and of 4.49% for "transmission assets". The distribution rate of return tracked any downward movement in the GB rate at the next price control (affecting the last two years of NIE's scheduled RP4 period).

5.36 On 6 October 2011, the Utility Regulator announced a six month delay in the implementation of the RP5 price control and an extension of the RP4 price control in the interim period between 1 April 2012 and 30 September 2012. The Utility Regulator has now further extended RP4 to 31 December 2012.³⁴

6. THE RP5 PRICE CONTROL PROCESS

6.1 The RP5 price control review process formally commenced in July 2010 with the Utility Regulator publishing its "Strategy Paper for the RP5 price control" for consultation. The Final Determination was issued on 23 October 2012.

Timetable

6.2 The table below shows the other main milestones in the price review process.

Date	Event
22 October 2010	BPQ issued
January - March 2011	NIE's response to BPQ submitted
1 July 2011	NIE urges transparency and two-way engagement
7 December 2011	NIE's letter on the extension of RP4.
16 February 2012	NIE's "letter of concern"
19 April 2012	RP5 Draft Determination published
19 July 2012	NIE's response to RP5 Draft Determination submitted

³⁴ See Utility Regulator's Final Determination, section 3.1 (page 1).

30 August 2012	Capitalisation Practice Draft Determination published
27 September 2012	NIE's response to Capitalisation Practice Draft Determination submitted
23 October 2012	Final Determination published
20 November 2012	NIE's response to Final Determination submitted

NIE's concerns about the RP5 process

6.3 On 1 July 2011 NIE wrote to the Utility Regulator urging an increase in the level of transparency and two-way engagement³⁵ within the process. NIE wrote again on 16 February 2012, restating its concern over the dearth of meaningful two-way engagement and setting out a number of other concerns with the process to date. Copies of both letters are provided in Appendix 1.11. Other concerns highlighted in the February letter included the following:

- the importance of maintaining alignment with GB regulatory precedent;
- the need for a detailed explanation on how the proposed execution of the capex allowance through a "3 Funds" structure can be made to work in practice, with sufficient flexibility and incentivisation;
- concerns over the methodology being used to assess the quantum of capex to be allowed;
- lack of progress in addressing the risk to the 11kV network associated with ice accretion; and
- the introduction of a Reporter which would run counter to the trend in best practice regulation that is proportionate and targeted.

RP4 Extensions

6.4 On 6 October 2011, the Utility Regulator announced a six month delay in the implementation of the RP5 price control and that an extension of the RP4 price control would be implemented in the interim period between 1 April 2012 and 30 September 2012. A further extension was announced in the Final Determination. Further details of these extensions, and of NIE's concerns in respect of them, are provided in Annex 1A.2 (RP4 Extensions).

³⁵ See page 3, "Going Forward".

Meeting with the Energy Board Advisory Group

- 6.5 Having submitted a detailed response to the draft determination on 19 July 2012, NIE met with the Utility Regulator's Energy Board Advisory Group on 12 September 2012 to present a summary of the reasons why NIE would be unable responsibly to accept a price control such as proposed in the draft determination. A copy of the slide pack used at the meeting is included in Appendix 1.12.

NIE's Response to the Final Determination

- 6.6 The Utility Regulator published its Final Determination for RP5, a licence modification notice and a draft modified licence on 23 October 2012. NIE submitted its response to the Final Determination on 20 November 2012 informing the Utility Regulator that it was unable to accept the terms of the Final Determination. A copy of NIE's letter is included in Appendix 1.13.

ANNEX 1A.2

RP4 EXTENSIONS

1. THE RP4 PRICE CONTROL

- 1.1 When the RP4 price control was adopted, its terms contemplated that it would apply for five years (from 1 April 2007 until 31 March 2012), and would then be replaced by a successor RP5 price control. The fact that the RP4 price control would apply for only five years was clear from the Utility Regulator's Final Proposals, on which the formal price control conditions were based, and from the terms of the price control conditions themselves (as set out in Annex 2 to each of NIE's two Licences). For example, the values to be attributed to several of the terms of the price control are specified in tables within the price control condition itself, with a separate value being set out for each year of the price control. No mechanism is provided for the calculation of appropriate values for further years (albeit that, in some cases, the basis of calculation of the values set out in the tables will be clear from the RP4 Final Proposals).
- 1.2 When the RP4 price control was formally adopted, it was contemplated that the Utility Regulator would complete its review of the price control in time to adopt a new RP5 price control to take effect from 1 April 2012.

2. THE INTERIM EXTENSIONS TO THE RP4 PRICE CONTROL

- 2.1 In the event, the Utility Regulator failed to complete the review of RP4 on time. On 6 October 2011, the Utility Regulator announced a six month delay in the implementation of the RP5 price control and that an extension of the RP4 price control would be implemented to cover the interim period between 1 April 2012 and 30 September 2012.
- 2.2 When NIE was first informed of the Utility Regulator's intention to extend the RP4 price control, it wrote to the Utility Regulator expressing concern over the Utility Regulator's decision unilaterally to extend the RP4 price control by six months without following due process. This correspondence is provided at Appendix 1.14 NIE argued that, if there was to be an interim extension of the RP4 price control, the Utility Regulator should adopt appropriate modifications to the RP4 price control with NIE's consent, after due consultation, in compliance with Article 14 of the Electricity Order. NIE produced a legal opinion to the effect that this was the proper way for the Utility Regulator to effect an interim extension to the RP4 price control.

2.3 On 23 August 2012, the Utility Regulator wrote to NIE announcing its intention to delay the start of RP5 by, and to extend RP4 for, a further three months. NIE responded on 10 September 2012 expressing its objections to the further delay. This correspondence is provided at Appendix 1.15. However, the Utility Regulator formally announced this second extension as part of its Final Determination on 23 October 2012. NIE has now set its tariffs, to apply up to 30 September 2013, on the basis of a further extension of the RP4 price control, but has done so on the basis that the adoption of these tariffs is without prejudice to the arguments to be advanced by NIE to the Competition Commission.

2.4 In paragraph 3.10 of the Final Determination, the Utility Regulator describes its decision to extend RP4 as a "pragmatic approach" while noting that it "did not see a practical solution other than to extend RP4 and use the existing price control formula".

3. IMPLICATIONS OF THE INTERIM EXTENSIONS OF THE RP4 PRICE CONTROL

3.1 The two extensions, and the Utility Regulator's approach to them, do not signal a well-managed regulatory environment in NI. The present Statement makes clear that NIE considers that substantial changes are required to the RP4 price control, to create a new price control which will be apt to meet the Utility Regulator's statutory objectives for RP5. The interim extensions to the RP4 price control do not contribute to the attainment of those objectives.

3.2 Moreover, by failing to consult on its first proposed extension of the RP4 price control, the Utility Regulator avoided the need to explain fully how the ad hoc extension would relate to the RP5 price control to be adopted in due course, and whether any deficiencies in the revenue entitlements available to NIE during the extension periods would be made good via the RP5 allowances. Nor does the Final Determination fully explain the basis of the second ad hoc extension, nor how any transition to the RP5 price control is to be managed.

3.3 NIE recognises that the Competition Commission cannot now rectify the uncertainties which NIE has faced to date from the adoption of interim extensions to the RP4 price control. But it would urge the Competition Commission to take account of the unsatisfactory nature of the ad hoc extensions to the RP4 price control in making recommendations as to how the Utility Regulator should approach future periodic reviews of NIE's price control.

3.4 In this regard, it is notable that the Utility Regulator's approach to the RP4 rollover contrasts unfavourably with that adopted by Ofgem. On the various occasions on which Ofgem has sought to roll-over an existing price control, it has done so by means of licence modifications on which it has consulted publicly. This is

illustrated by the process adopted by Ofgem for its roll-over of the current energy transmission price controls to the year 2012/13, which involved no less than four separate consultations. The need for licence modifications was accepted without question.

- 3.5 The Utility Regulator has sought to attribute the delay to NIE's late submission of information required under the Business Plan Questionnaire (BPQ). NIE refuted the Utility Regulator's positioning in this regard in a letter dated 1 July 2011, provided at Appendix 1.16. As set out more fully in that letter, within two weeks of the target date NIE had submitted the great majority of the data requested. The data that was delayed related mainly to the capex databases and the split of costs between NIE's transmission business and its distribution business. In relation to the former, the capex databases are essentially a summary of the information set out in the very detailed capex plan and the comprehensive series of supporting papers that were submitted on time. In relation to the latter, the split of costs between transmission and distribution does not appear to have played a key part in the preparation by the Utility Regulator of the draft determination. In any event, according to the original timetable (tabled at a meeting between NIE and the Utility Regulator on 2 February 2010), the Utility Regulator was five months late in issuing the BPQ. There is therefore no proper basis on which to attribute responsibility to NIE for the delay in the conduct of the periodic review of the RP4 price controls.

ANNEX 5A.1

NIE NETWORK GUIDE

*Understanding
Northern Ireland's
Electricity Network*



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CHAPTER 1 - Northern Ireland Electricity (NIE)

Northern Ireland Electricity (NIE) owns the electricity network in Northern Ireland which is made up of thousands of kilometres of lines and cables, substations and meters.

NIE owns and maintains the wires and meters for everyone; no matter who bills the customer for their energy usage. Our 1300 employees work around the clock to plan, build, maintain and develop Northern Ireland's electricity network. Our main priority is to ensure that our customers have a safe and reliable supply of electricity.

Our network starts at substations situated adjacent to power stations or wind farms and finishes at around 875,000 meter boxes in homes and businesses across Northern Ireland.

NIE's network transports electricity on its journey from where it is made to where it is used.



1.1 What does NIE do?

Along with maintaining and looking after the transmission and distribution network so that it can transport electricity to customers, NIE also carries out some other critical work:

Meter reading – NIE reads every electricity meter in Northern Ireland. NIE processes the data, and passes it on to the relevant electricity supplier who sends a bill to their customers. (In mainland GB, this service is not carried out by the Distribution Network operator (DNO) but by a meter operator).

Connections – NIE connects new customers to the electricity network and also upgrades, alters or disconnects existing network connections.

Power cuts – NIE deals with network damage caused by severe weather, vandalism, third party damage and other events, through its maintenance, refurbishment and tree cutting programmes and public safety campaigns.

Planning for the future – One of NIE's key roles is planning the electricity network for the future, renewing older parts of the network, integrating new technologies and responding to the challenges of renewable energy.



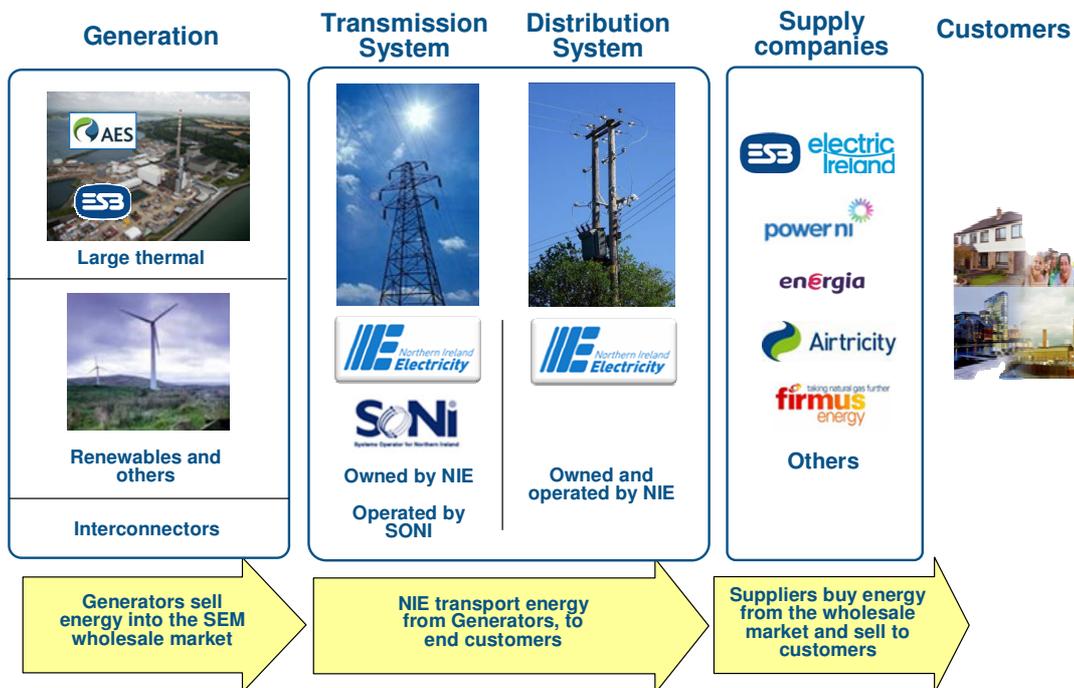
CHAPTER 2 - The Changing Role of NIE

The electricity market in Northern Ireland has changed significantly over the years. NIE used to be the only company operating in the electricity industry. Since the early 1990s, government and regulatory decisions have introduced competition to the market.

Generators, such as power stations and wind farms, are now owned and operated by private companies and compete to sell electricity into the Single Electricity Market (SEM). This is an all-Ireland mandatory pool. Similarly electricity suppliers (companies that issue the bills for electricity usage) compete for customers. Homes and businesses can choose their electricity supplier as a result of the competition afforded by the SEM.

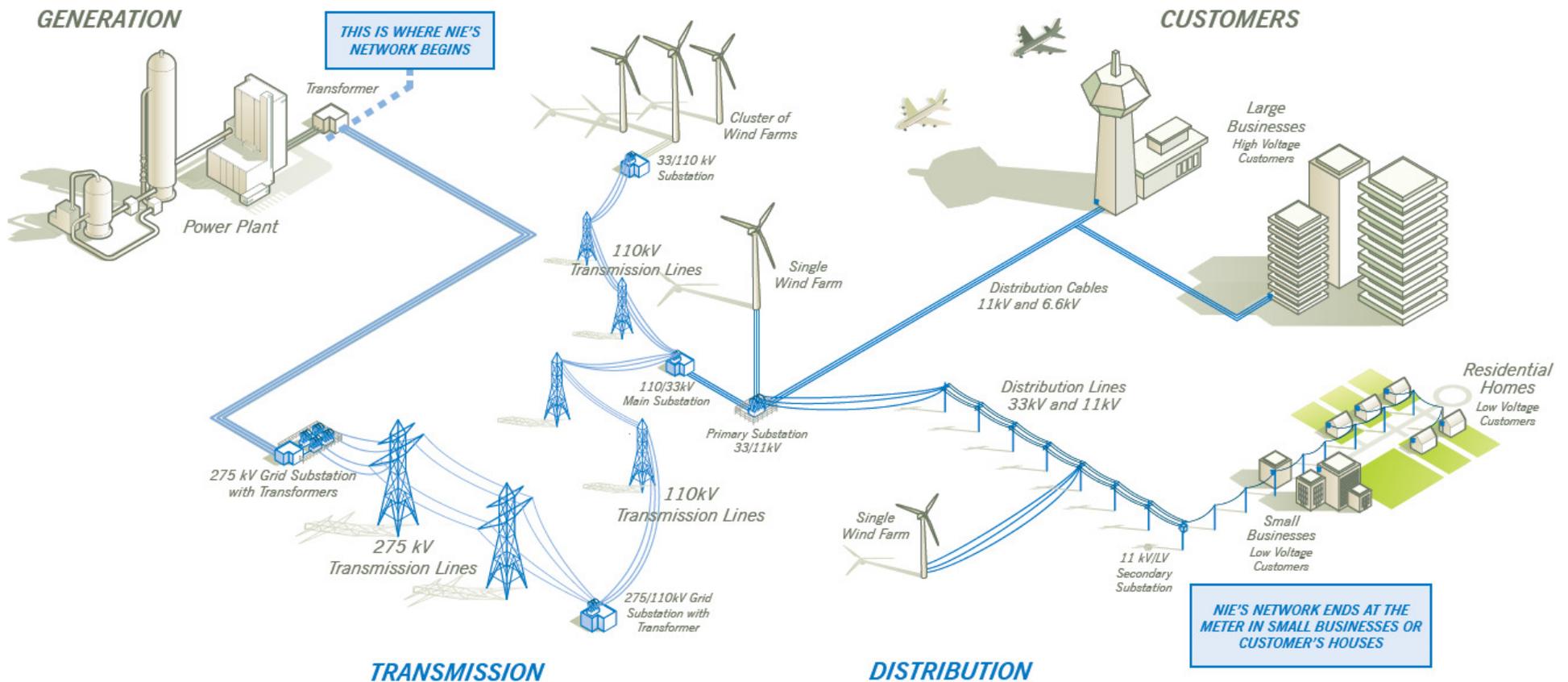
Today, NIE is the network owner. The company owns the transmission and distribution (T&D) networks. It is not permitted to generate or supply electricity. As a natural monopoly it is the only electricity network company in NI, and is therefore regulated by the Utility Regulator (UR).

Electricity Industry Structure



CHAPTER 3 - The Journey of Electricity

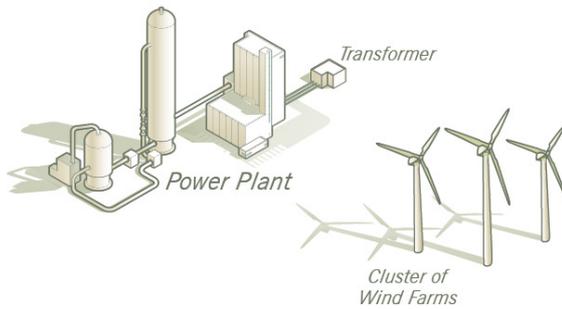
NIE owns the electricity transmission and distribution network which transports electricity on its journey from where it is made to where it is used



NIE's transmission and distribution network consists of 45,000 kilometres of overhead lines and underground cables across Northern Ireland

3.1 Generation

GENERATION



Electricity is produced by generators. These can be large power plants that use coal, oil or gas or can be other types of electricity generators like wind farms.

Power stations generate electric current in very large quantities for supply to the electricity network. The current is sent through transformers which increase the voltage to levels necessary to transmit the power efficiently over long distances.

The major fossil fuel power stations in Northern Ireland are located at Ballylumford, Kilroot and Coolkeeragh.

With the abundance of wind energy in Northern Ireland, more and more wind farms are being built to connect to the grid and generate electricity. Currently there are 29 large wind farms and multiple one-off small wind turbines in Northern Ireland producing approx 11% of electricity consumed.

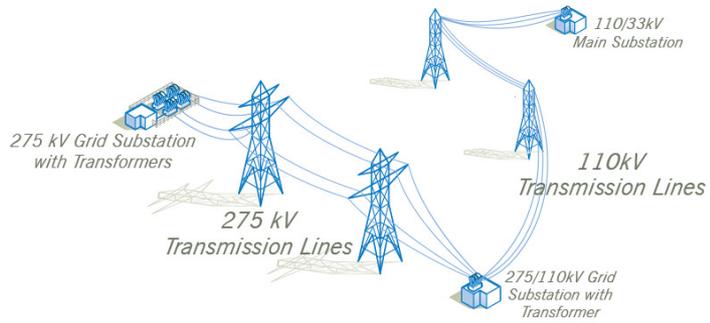


3.2 Transmission

Electric-power transmission is the bulk transfer of electrical energy, from generating power plants to electrical substations located near demand centres. When a number of transmission lines are connected together this becomes a transmission network.

Electricity is transmitted at very high voltages (110 kV or above) to minimise the energy lost when transported over long distances. In Northern Ireland electricity is transmitted at 275kV or 110kV.

TRANSMISSION

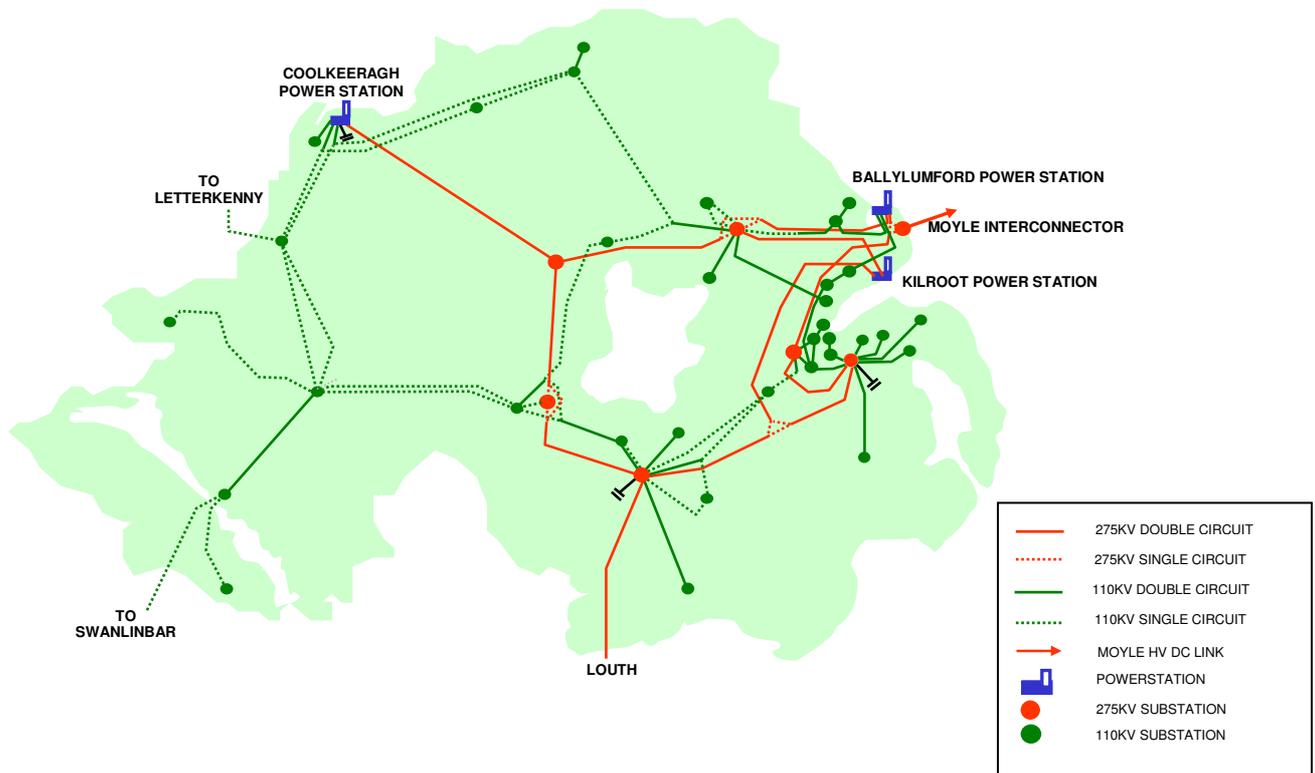


There are over 400km of 275kV transmission lines and over 900km of 110kV transmission lines across Northern Ireland. These are mainly carried on steel pylons although some wood pole construction is used at 110kV. There is also around 90km of 110kV underground cable. NIE owns and maintains these transmission lines and cables in Northern Ireland. Operation is the responsibility of SONI (System Operator for Northern Ireland).

When transmission lines reach substations which are located close to major load centres, the voltage is lowered so it can be sent through smaller power lines or cables

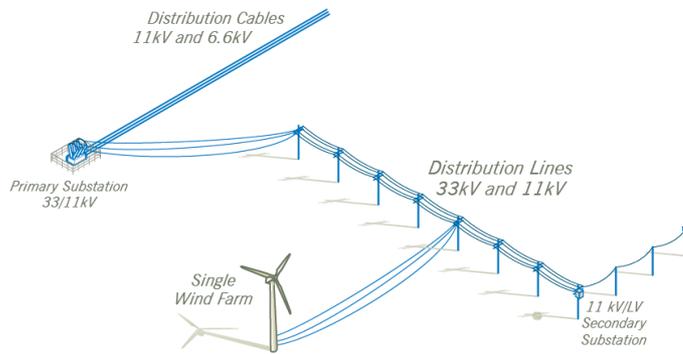
The NI network is connected to the Scottish network via the Moyle Interconnector, which runs from Islandmagee to Ayrshire. There is a 275 kilovolts (kV) double circuit interconnector between Tandragee and Louth in the Republic of Ireland, and there are two smaller 110kV connections at Enniskillen and Strabane.

The Northern Ireland Transmission Network



3.3 Distribution

DISTRIBUTION



The distribution network carries electricity from the transmission system and delivers it through high voltage and low voltage networks of wood pole lines and cables to consumers' premises. The distribution system begins as the electricity circuit leaves the sub-station and ends as it enters the customer's meter. Most distribution lines connect to another substation or transformer that reduces the voltage again to take the power safely into customers' houses

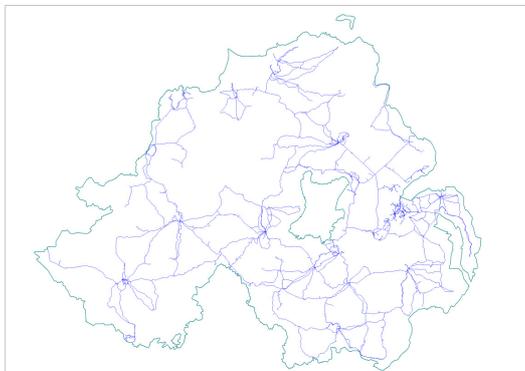
Distribution lines and cables distribute electricity at voltages of 33kV, 11kV and 6.6kV. The distribution network includes 230 33/11kV and 33/6.6kV substations, 74,000 distribution transformers (mainly pole mounted) at 11kV-Low Voltage (LV) and 6.6kV-LV and 11,000 distribution pillars and underground distribution boxes.

Conductors for distribution may be overhead lines carried on wooden poles, or in urban areas they are cables buried underground.

NIE owns, maintains and operates the distribution system in Northern Ireland.

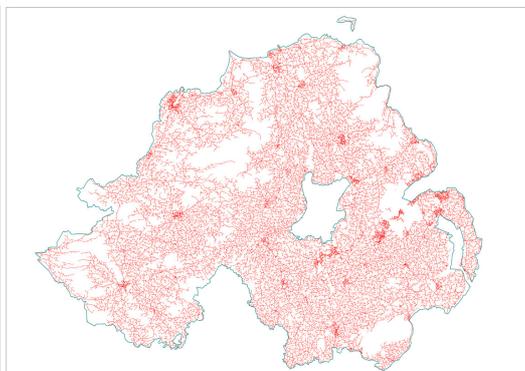
NIE has 3.5 times more overhead line per customer compared to the average GB DNO

33kV Distribution Network in NI



3,110 km overhead lines and
640km underground cables

11kV Distribution Network in NI

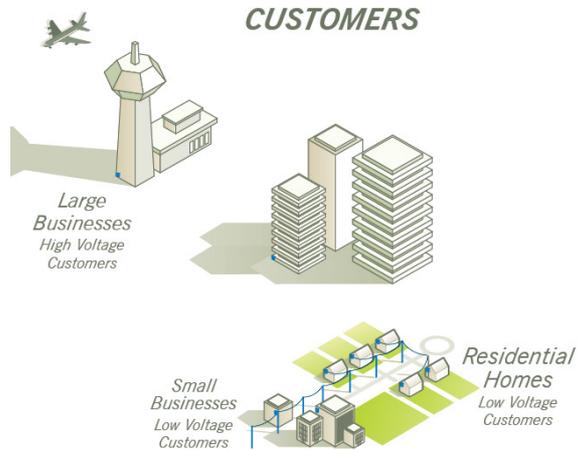


20,800km overhead lines
3,500km underground cables

3.4 Customers

Some large businesses connect to the network at high voltage as they have a high power usage. These businesses connect directly to the distribution network at 33kV, 11kV or 6.6kV. Some customers even connect at higher voltages of 110kV in Northern Ireland.

Houses connect to the distribution network through a service cable (overhead lines or underground cable) to where the meter is located. The service cable is supplied from an 11kV/LV transformer which transforms the voltage to 230V, the standard voltage for domestic wiring, lighting and appliances.



The transformer may be pole-mounted or set on the ground in a protective enclosure. In rural areas a pole-mounted transformer often serves only one customer. In higher populated areas multiple customers may be connected through one transformer, mini-pillar or underground box.

The meter measures how much electricity a customer uses. NIE owns the network up to and including the electricity meters.



Residential meter connected at 230V

3.5 Suppliers

Electricity suppliers buy electricity and sell it to customers. A supplier is the company that issues a customer's electricity bill and deals with billing enquiries.

CHAPTER 4 - The Main Components of an Electricity network

4.1 Overhead Lines



Transmission overhead line carried on pylons

An **overhead line** is a set of electricity conductors used to transport electricity.

An overhead line can be used for transmission and distribution depending on the size of the conductor and the voltage it carries.

Transmission overhead lines are very big and can carry voltages of 275kV or 110kV. These conductors are suspended on large pylons of different shapes and sizes.

Some 110kV transmission lines are also suspended on wooden poles.

Distribution overhead lines are typically suspended on wooden poles and carry voltages of 33kV and 11kV.

Overhead lines are generally not insulated. Heat produced by the electricity flowing through the bare overhead conductors is removed by the flow of air over the conductors.

As Northern Ireland has a very dispersed population, made up of lots of single homes in the countryside, overhead lines are the cheapest and most effective way to connect them to the electricity network.



Distribution overhead line carried on wooden poles

4.2 Underground Cables



Underground Cables

Unlike overhead lines, an **underground cable** must have electrical insulation around the conductor. An underground cable must also have an external protective covering to protect from damage when buried in the ground.

Underground cables, because of the insulation and surrounding environment, tend to retain the heat produced in the copper conductor. This heat then has to be dissipated to the surrounding environment. To compensate for this, underground cables are generally bigger to reduce their electrical resistance and heat produced. At 33kV and above, cables can be oil-cooled by oil channels within the cable structure.

higher the voltage, the bigger the cable must be. For this reason a transmission cable would be many times the size of a distribution cable.

In towns or cities, electricity is mostly transported by cables which run underneath roads and footpaths.

4.3 Substations

Substations are important parts of the electricity grid. They convert electricity from one voltage level to another. Substations come in many different types. They can either be outdoors and surrounded by a brick wall, metal enclosure, fence, mounted on a wooden pole, or can be indoors and enclosed within a brick building or metal fence.

Substations may be described by their voltage class, their applications within the power system and by the style and materials of the structures used. In NIE there are 4 main types of substations:

Grid Substation



Outdoor Equipment



275kV Transformer

Grid Substations- these are 275kV/110kV transmission substations typically *supplying around 100,000 customers*. In Northern Ireland there are 10 275kV substations.

Main Substation



110kV Transformer

Main Substations (also called bulk supply points) - these are 110/33kV substations usually *supplying around 25,000 customers*. There are 32 110/33kV substations on the NI network.

Primary Substations- a primary substation can be either 33/11kV or 33/6.6kV. Primary substations *usually supply around 4,000-5,000 customers* although larger primary substations may supply up to 12,000 customers. There are 230 of these substations across NI.

Primary Substation



Outdoor Equipment



33/11kV Transformer

Secondary Substations- in Northern Ireland there are around 78,000 secondary substations ranging from pole mounted transformers, to kiosk substations – the type found in housing developments. They are either 11kV/LV or 6.6kV/LV and can supply *up to 500 customers*.



Substations generally have switching, protection and control equipment, and transformers.

Transformers are devices that can change the voltage. Transformers decrease the voltage to the next voltage level for the onward transmission or distribution of power.

Transformers come in a range of sizes depending on the voltage that is being stepped down. They can range in size from small pole mounted transformer to huge units weighing hundreds of tons used in grid substations stations. All operate on the same basic principles, although the range of designs is wide.

Transformers are essential for high-voltage power transmission, which makes long-distance transmission economically practical by reducing the current and hence the losses in a transmission line.

Another function performed by a substation is **switching**, which is the connecting and disconnecting of lines or other components to and from the system. Switching is essential for configuring the network for optimum efficient operation; reconfiguring the network following a fault to restore customers' supplies; isolating/de-energising pieces of equipment so that maintenance can be carried out; or other work.

Switching Equipment



11kV Switchgear



33kV Switchgear

When a fault occurs on the network, the substation plays an important role in isolating (switching off) the faulty part of the network. This reduces further damage to the faulty part of the network and the surrounding components, and through switching and back-feeds supply can be restored to as many customers as possible.

Substations contain important **protection and control equipment** which operates as a result of a fault to isolate the faulty component and prevent damage. In a large substation, circuit breakers are used to interrupt any short circuits or overload currents that may occur on the network. Smaller distribution stations may use circuit breakers or fuses for protection of distribution circuits.

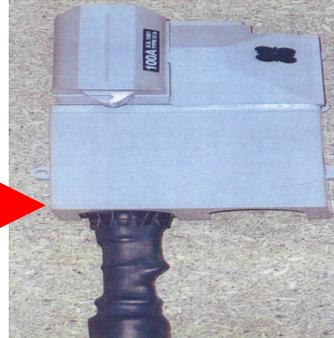
4.4 Meters and Cut-Outs

An electricity meter (or energy meter) is a device that measures the amount of electric energy consumed by a residence, business. Electricity meters are calibrated in billing units, i.e. kilowatt hours (kWh)

NIE has approximately 812,000 domestic customers and 63,000 small to medium sized enterprise (SME) customers. The majority of domestic and SME Low Voltage service cables supplying these premises are terminated in a service cut-out with a fuse. The purpose of the fuse is to provide backup fault protection to the customer's installation and to protect the service cable from overloads.



Example of an Old Cut-out



Example of a New Cut-out

There are several types of meter:

- **Standard meters** or 'digit meters' count the number of revolutions on an aluminium disc which rotates at a speed that is proportional to the power used. Therefore, the number of revolutions indicates the energy used.
- **Digital meters** record the amount of electricity used and give a digital reading of the total consumption.
- An **Economy 7 meter** or a 'Clock Type' meter will show both night and daytime readings as these both have different rates.
- With a **prepayment meter** a customer pays upfront before they use any electricity and their meter can show how many units are left and also the total units consumed.
- **Smart meters** work using a wireless transmitter that is clipped between the fuse-box and the electricity meter. This transfers information to a wireless display which indicates how much energy is being used. Smart meters also enable a meter reading to be taken remotely.



Old 'Standard Meter'

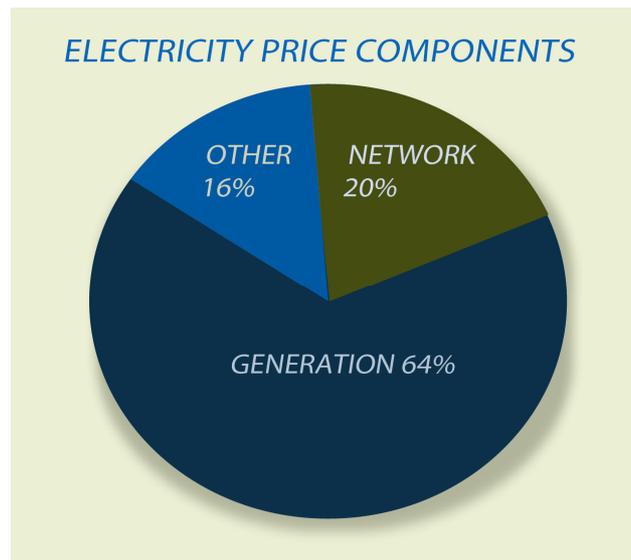


New Style Smart Meter

CHAPTER 5 - Breakdown of Costs

Customers pay for the units of electricity they use. Each unit is made up of a number of different costs.

Customers pay their chosen electricity supplier for their electricity supply, who in turn pays NIE for the use of the electricity network, and the generating companies for the generation of the electricity.



Network Costs

Electricity suppliers pay NIE network charges for the transport of electricity. This is known as the 'use of system charge.' In the case of domestic customers, the network charges make up around 20% of electricity bills.

CHAPTER 6 - The Changing Nature of Electricity Networks

Reinforcement of transmission systems is driven generally by changes in the amounts of either generation or load that are connected to the system. In Northern Ireland, a key driver of transmission reinforcement currently is the need for major increases in the connection of renewable power generation, to meet climate change targets. In Northern Ireland, the Assembly published its Strategic Energy Framework (SEF) in 2010, with the aim of creating “a more secure and sustainable energy system”. The SEF has set a target of 40% of electrical consumption from renewable energy in Northern Ireland by 2020. Various incentive mechanisms have contributed to the substantial increase in renewable energy developments such as wind farms. NIE has an obligation to connect these to the system.

The present electricity network was largely in place by the late 1960s, with an electrically strong transmission network having been developed to link major fossil fuelled power stations and to deliver bulk electricity to the more heavily populated parts of the country.

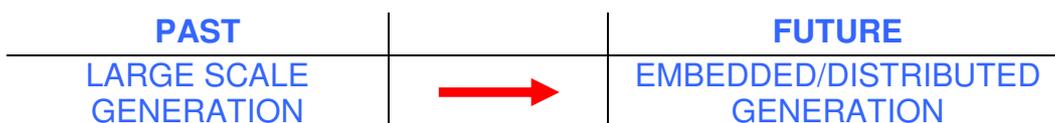
In their recent report for the Electricity Networks Association, KEMA summarise the main characteristics of present power systems as follows:

- Two-way power flows on the Transmission Network – bulk power flows which can change direction depending on which generation is operating. The system has been designed with this capability.
- One-way power flow on the Distribution Networks – uni-directional electricity flow, fed from grid supply points on the transmission system and delivering energy to customers.
- Remote generation – large power plants located away from demand centres.
- Passive grid – with limited communication and automation equipment, the distribution networks are designed to satisfy peak demand in a passive manner
- Passive customers – consumers are connected ‘passively’ to the system – not actively.

There is an increasing need to change the nature and technical ability of the grid along with the way it is managed to cope with future requirements



Recent years have seen renewable energy sources being connected province-wide, with lots of wind generation primarily in the north and west of the province, where the topography and climatic conditions are most favourable. Wind farms in Northern Ireland tend to be remote from the other areas of highest load. This means substantial network reinforcement to accommodate renewable generation connections and to facilitate the renewable energy target.



With the increase in the amount of distributed generation (DG), like solar panels and small wind turbines, the generation capacity embedded in the distribution networks is rising. This form of generation is relatively small in individual capacities, but high in numbers. Several of the embedded and renewable energy technologies, e.g. wind and solar, raise emerging technical challenges in the distribution network which was not designed for this purpose.



A significant increase in embedded generation may result in a reversal of electricity flows, subject to generation and demand levels at certain periods. This would require distribution networks to adapt their passive nature to become 'active', having the ability to accept bi-directional electricity flows



A strategy to ensure network stability is to create a well interconnected transmission system. This helps the quality of supply, e.g. frequency and voltage variations across the system and has economic benefits (connecting together all participants across the transmission system makes it feasible to select the cheapest generation available in the system). An interconnected transmission and distribution network also allows for the bulk transmission of power from generation to demand centres and increases security of supply.



The electricity network needs to ensure security of supply whilst facilitating all of the above. A core element of this system will be a network which has the ability to transfer significantly more energy between a diverse range of dynamic generators and consumers whilst maintaining the balance between supply and demand at multiple levels within the network. To achieve this, significant developments are required in integrated and intelligent monitoring and control of the network. The resulting network will be a Smart Grid.

CHAPTER 7 - How NIE differs from other GB Distribution Network Operators (DNOs)

Electricity generators, including those generating electricity from renewable energy sources, normally connect to either the transmission grid or the distribution networks.

While transmission and distribution grids operate under the same principles regardless of location, there are some major differences between NIE and other GB Distribution Network Operators:

1. NIE owns and maintains the transmission network

The GB transmission grid consists of around 25,000 circuit kilometres of high voltage overhead lines and 800,000 circuit kilometres of overhead lines and underground cables (the regional distribution networks).

National Grid owns the England and Wales transmission system and Scottish Power Transmission (SPT) and Scottish Hydro Electric Transmission Limited (SHETL) each own part of the transmission system in Scotland. There are 14 licensed distribution network operators (DNOs) each responsible for a distribution service area across England, Scotland and Wales.

In Northern Ireland, NIE owns and maintains the transmission grid as well as the distribution network. NIE also operates the distribution network across all of Northern Ireland.



NIE engineers refurbish a transmission line

2. NIE has different transmission and distribution voltages.

Transmission grid voltages are normally 275kV and above in GB however the 132kV voltage is also part of the transmission network in Scotland. National Grid also has Extra High Voltage (EHV) 400kV lines and cables in their transmission network

In Northern Ireland, there are currently no 400kV lines or cables, and while there is a common 275kV transmission voltage, in NI the unique 110kV network (equivalent to GB 132kV) also forms part of the transmission network.

In England, Scotland and Wales, distribution network voltage levels are normally 6.6kV, 11kV, 33kV, 66kV (and 132kV in England and Wales). Certain areas employ 66kV as a primary voltage instead of 33kV and some 132kV substations feed into 6.6kV city networks in which case the secondary voltages are 6.6kV instead of 11kV and 33kV. There are also some modern 20kV networks.

In Northern Ireland the distribution network operates at 33kV and 11kV with some remaining 6.6kV network primarily in Belfast.

	GB	Northern Ireland	
Transmission Voltages	400kV		Transmission Voltages
	275kV	275kV	
Distribution Voltages	132kV	110kV	Distribution Voltages
	66kV		
	33kV	33kV	
	11kV	11kV	
	6.6kV	6.6kV	

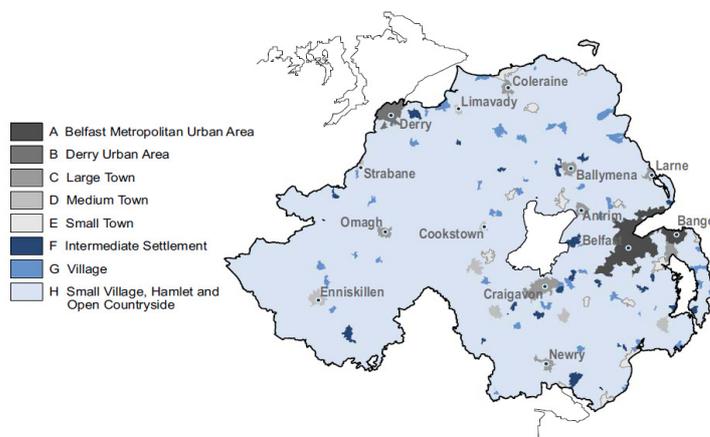
3. NIE has a much more rural network

Northern Ireland is 'more rural' than Great Britain. For example, the Department for Social Development (DSD, 2008) classifies 32% of Northern Ireland households as 'rural' while the Expenditure and Food Survey classifies 21% of Great Britain households as rural (ONS, 2008).¹

Settlement patterns in Northern Ireland are different than in England, Scotland and Wales, in that the rural population tends to be scattered across a comparatively wide geographical area, rather than clustering in hamlets and villages as in Great Britain.

Providing electricity supplies to this sparser rural community in Northern Ireland therefore requires a larger number of pole mounted transformers, in some cases serving only one or two customers.

Map 14 The Northern Ireland Urban-Rural Classification of settlements for output areas



Contains Ordnance Survey data © Crown copyright and database right 2011
Source: Northern Ireland Statistics and Research Agency

The dispersed nature of the rural population in Northern Ireland can be illustrated by considering the quantities of installed septic tanks, which are required to accommodate single dwellings in the countryside which do not have access to the main sewage system. 17% of homes in Northern Ireland use septic tanks, compared with a UK average of just 4%.²

4. NIE has a larger proportion of single phase branches



LV Single Phase Line

The 33 kV, 11 kV and 6.6 kV overhead networks comprise approximately 24,000km of wood pole construction overhead line of which 3110km are 33 kV and approximately 20,800 km are 11 kV and 6.6 kV. The 11kV network is made up of main lines that form the "backbone" of the network and "spur lines" that radiate to the extremities of a very extensive rural distribution system. The 33kV is generally configured as radial or ring circuits with very few spur lines. Around 60% of NIE's network is made up of spur lines vs. 40% main lines.

The 11kV network was constructed to make supplies available to a large number of rural customers. Rural customers had small individual loads and while there were many km of network, loads on circuits were not high. This led to a design based upon a light construction and a large amount of single phase network.

¹ http://www.minimumincomestandard.org/downloads/Reports/MIS_NI_report.pdf

² <http://www.niassembly.gov.uk/researchandlibrary/2009/10309.pdf>

5. Northern Ireland has higher renewables targets

The 2009 Renewable Energy Directive sets a target for **the UK to achieve 15% of its energy consumption from renewable sources by 2020**. While analysis demonstrates it is possible to achieve the target and industry says it has the capacity to deploy at the rate required, the scale of the increase over the next 10 years represents a huge challenge.

The Strategic Energy Framework (SEF) published by the Department of Enterprise, Trade and Investment (DETI) sets a target for **40% of electricity consumed in NI to be generated from renewable sources by 2020**. Without a very substantial investment in NIE's network there will be insufficient network capacity to facilitate this significant increase in renewable generation.

The nature and location of the sources of renewable energy that will require connection will impact on how the network must be developed. The expectation within DETI's SEF is that the majority of the renewable energy required to achieve the 40% target is likely to come from large scale (greater than 250kW) on-shore wind generation.



Off-shore wind, tidal energy, biomass fuelled generation and small scale (less than 250kW) renewable generation will also play a part in meeting the target. However there is considerable uncertainty surrounding these potential sources, their location and timing.

6. NIE runs the metering business within Northern Ireland

In GB, a meter operator is an organization responsible for installing and maintaining electricity and gas meters. Since 1998 there has been full competition for meter operators, allowing the meter operator for a particular supply to be contracted with the energy supplier by either the supplier's discretion or at the customer's direction. Consumption data from the installed metering is then collected by the appointed data collector to be submitted for billing.

These services are split across Small, Medium and Large customers.

There are also distinct differences between the meter services provided:

- Meter Provision- these companies fund the meter cost and installation
- Meter Maintenance- these companies operate as an Electricity meter Operator and carry out repairs and maintenance to meters
- Meter Reading- these companies operate a service to read meters, either manually or remotely

In Northern Ireland NIE carry out all of these services for small, medium and large customers right across the province. NIE reads all electricity meters every three months and passes these readings on to the relevant electricity supplier who sends a bill to their customers.

ANNEX 5A.2

**CAPEX – RECONCILING NIE'S BPQ SUBMISSION
WITH THE FORECAST IN THIS STATEMENT**

Chapter 5 (RP5 Capex – Quantum) of this Statement has been prepared on the basis of NIE's latest assessment of its capex requirement for RP5 (referred to in that Chapter and this Annex as the **Forecast**).

Chapter 5 refers to a Forecast capex requirement of £606.4 million against the Final Determination allowance of £373.5 million. The purpose of this Annex is to reconcile the Forecast with the statement of NIE's capex requirement contained in its original BPQ submission.

Table 5A.2.1 shows both 'core' capex (in Part A) and 'other' capex (in Part B) – i.e., connections, metering, keypad metering, non network capex and network management system (NMS). It has been proposed by the Utility Regulator that these 'other' capex categories are ring fenced and treated separately or, in the case of non-network capex and the NMS, are recovered as costs are incurred.

Table 5A.2.1: RP5 capex – reconciling BPQ with Forecast

Cost category	NIE BPQ	NIE Forecast	Final Determination
	£m	£m	£m
<u>Part A – Core capex</u>			
Transmission			
Asset replacement	87.1	87.1	73.3
Load related	37.0	37.0	25.8
Distribution			
Asset replacement	229.5	229.5	178.3
Load related	24.6	24.6	18.8
Legislation	29.4	29.4	5.7
Customer priorities	12.5	12.5	1.8
Overheads	57.3	57.3	22.1
Network IT	3.7	3.7	3.7
Smart grid	9.4	9.4	0.0
Items classified as Fund 3 projects	43.4	43.4	43.4
11kV network resilience (Forecast proposal is for £35 million pilot scheme)	127.0	35.0	0.0

	660.9	568.9	372.9
RPEs	38.2	37.5	0.6
Total (Part A)	699.1	606.4	373.5
<u>Part B – Other capex</u>			
Connections (change from BPQ reflects 100% chargeability)	59.3	37.3	37.3
Metering	27.5	27.5	10.5
Keypad metering	10.0	10.0	10.0
Non-network capex	15.3	15.2	7.6
Network Management System (NMS)	3.1	2.1	0.0
Total (Part A and Part B)	814.2	698.4	438.9¹

¹ UR Final Determination £395 million = £438.9 million less £43.4 million (Fund 3 classified projects)

ANNEX 5A.3

AGE RELATED ASSET REPLACEMENT MODELLING

Introduction

1. Age related asset replacement modelling is a technique used to calculate either:
 - asset replacement volume forecasts if provided with age profiles of asset categories and retirement profiles; or
 - mean asset lives if provided with age profiles of asset categories and either historical or projected asset replacement volumes.
2. When carried out for a number of companies with similar asset categories, replacement volume forecasts and mean asset lives can be benchmarked.
3. In autumn 2011, SKM attempted to use modelling to review NIE forecasts but the modelling was flawed due to inappropriate input parameters. The Utility Regulator then abandoned modelling as a means to determining allowances and used a bottom-up approach to review each project. This approach was the basis of the initial proposals in the draft determination.
4. Subsequent to the draft determination, in autumn 2012, SKM returned to modelling to review asset replacement volumes proposed by NIE using the mean asset lives determined by Ofgem for the purposes of DPCR5. As a result of this modelling, the replacement volumes forecast by NIE were largely accepted but with some reductions in the large transformers, 22kV reactors and distribution transformer categories only.
5. As explained below, wood pole overhead lines do not lend themselves to modelling techniques. In any event, the Utility Regulator and SKM accepted NIE's asset refurbishment practices and volumes for these categories of assets also.

Model description

6. Modelling techniques can be employed for all asset categories where appropriate data exists. In the electricity supply industry, asset volumes and ages are now sufficiently accurate for age-related modelling to generate reliable results, with the exception of wood pole overhead line circuits where component-by-component replacement or refurbishment makes it difficult to monitor the age profile of the assets.
7. The first age-related asset replacement model to be used was the 'Birthday' model which assumes that assets will require replacement on the birthday of their mean

asset life. However this model generates a backlog of asset replacement requirements for those assets which remain on the network for longer than the mean life of the asset and some assumption has to be made on the pace at which these assets would be replaced. The model was refined somewhat by the addition of asset condition information but it has fallen out of favour and has not been used in recent price reviews.

8. The preferred model is the 'Survivor' model. Fundamentally the model requires three input data items for each defined asset category, viz:
 - age profile;
 - retirement profile; and
 - unit cost.
9. The age profile defines the number of assets still in service and the current age of those assets.
10. The retirement profile represents the ages at which assets are retired from the system. These profiles are generally expressed as the fraction of assets that would be expected to be retired in each year over a given number of years of operation. For DPCR5 modelling in GB (and RP5 for NIE) the retirement profiles were based on Gaussian distributions defined according to the standard deviation and mean life of the asset types represented. A Poisson distribution was employed which takes the standard deviation as the square root of the nominal life. As part of the modelling process in DPCR5, Ofgem derived industry weighted average replacement profiles for each asset type.
11. The asset replacement calculation involves the cross-multiplication of the estimated original population of the assets of a given age with the assumed retirement fraction for assets of the same age. This process is carried out for assets of all ages such that the output of the model represents the total volume of assets to be replaced.
12. The modelling of asset replacement normally addresses non-fault replacement and refurbishment, i.e. proactive condition-based asset replacement. Assets which are normally replaced on fault, such as small pole-mounted distribution transformers, are not normally modelled.

Interpretation of results

13. Since the model is based on an assumed distribution failure curve, the model is more suitable to high volume asset categories. The results for low volume asset categories in particular are less robust and cannot be accepted without further consideration. The model will generate fractions of assets to be replaced in any

year but the assets may well have been installed over a relatively short period and may all be in a similar condition such that they could all be expected to fail within a relatively short interval, depending on usage.

14. For example, NIE installed five 22kV reactors between 1965 and 1970, four of which are very much in the same condition and one is in slightly better condition. And yet the model run by SKM predicts that a single reactor should be replaced in the RP5 period.
15. Similarly, of the 29 110/33kV transformers which NIE has in service, 14 were installed between 1960 and 1970 and eight of these have very high risk assessment scores.
16. While the results for low volume assets in particular cannot be accepted without further consideration, the same is true to some degree for all asset categories since the real driver for asset replacement is asset condition and not age.
17. Assets of the same age may be in very different condition for good reason. The fact that a company may be replacing assets at a younger age than other companies does not mean that it is either inefficient or has poorer asset management practices. In DPCR5 the model outputs were therefore used by Ofgem to focus discussion with the DNOs on those asset categories where assets were being replaced at a younger age than similar assets in other companies. DNOs were given the opportunity to explain why this should be so and Ofgem consequently made very few volume reductions in its final proposals. In its Final Proposals for DPCR5¹, Ofgem says:

"3.29. As can be seen in Table 3.5 the majority of the reduction we have made to DNOs' forecasts of core Network Investment relates to asset replacement expenditure. In general this is driven by cuts we have made to the DNOs' forecast unit costs, and in most cases we have made no changes to the volume of replacement in the DNOs' plans. We have also made reductions to some of the DNOs' forecasts for general reinforcement (volume and unit costs), demand (unit costs), legal and safety (unit costs) and diversion (volume)."

and

¹ See Ofgem's DPCR5 Final Proposals supplementary paper 'Allowed revenue – Cost assessment':
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/FP_3_Cost%20Assessment%20with%20SS%20comments.pdf

"3.31 *In total the baseline has increased by £486.2m from Initial Proposals. One of the largest increases in the baseline was for asset replacement, which was driven by:*

- *updating our age based modelling to take account of the age profile data for the 2008-09 period,*
- *taking account of further information provided by the DNOs in support of their forecast volumes,*
- *detailed reconciliation provided by the DNOs between volumes, unit costs and total expenditure, and*
- *updating our unit costs analysis to take account of the above and any further information.*

and in a separate appendix²:

"1.56. *Following the results of our initial modelling using an age based survivor model (described in the May Document), the DNOs were given the opportunity to provide justification and further supporting evidence for their proposed volumes through bilateral meetings and supplementary questions.*

1.57. *The type of supporting evidence varied depending on the type of asset. Examples of supporting evidence which caused Ofgem to accept the DNOs' forecast volumes where these were higher than the outcome of our modelling were:*

- *individual named schemes with supporting narratives highlighting the business case for replacement of high value assets,*
- *asset specific condition information (e.g. DGA results, inspection reports, photographic evidence of poor external condition, etc.),*
- *spreadsheets showing the calculation of health indices including the underlying input data,*
- *documentation of poor or worsening performance,*
- *evidence of known type faults, failure modes and safety issues, and*

² See Ofgem's DPCR5 Final Proposals supplementary paper 'Allowed revenue – Cost assessment appendix':

http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_3_Cost%20Assessment%20Network%20Investment_appendix.pdf

- *reports from specialist external consultants.*

1.58. *In setting the baseline volumes for Initial Proposals, where a DNO was able to provide compelling evidence such as that outlined above, the DNO's forecast volume was accepted. Where information was poor or lacking, the DNO's volume was reduced, with the output of the age based modelling setting the lower limit."*

18. In RP5 in NI, this latter step of discussing model outputs and joint consideration of why some assets should be replaced at a younger age did not take place. This was possibly due to insufficient time between when the modelling was carried out, subsequent to the draft determination, and the date on which the Final Determination was published.

ANNEX 5A.4**NETWORK PLANNING STANDARDS**

1. This annex considers the Utility Regulator's requirement for NIE to carry out a review of the network planning standards within the first year of RP5 and thereafter to replan the network to the new approved standard and revise its investment plan accordingly.
2. The issue of a review of the network planning standard was raised with NIE for the first time at the draft determination stage of the RP5 price review. It would have been preferable for the Utility Regulator to have raised any concerns with the adequacy of planning standards much earlier, preferably in good time for NIE to make suitable preparation for RP5. This would have enabled the outcome of any review of NIE's planning standards to have been aligned with the wider consultation on and determination of the RP5 price control.
3. NIE has engaged with the Utility Regulator regarding the timing of a review of the network planning standards but is firmly of the view that the determination of the RP5 price control and allowances therein should be consistent with NIE's obligations under the network planning standards and licence obligations that apply at the present time; the RP5 price control should not assume changes which may or may not be implemented subsequently. Accordingly, an ex-ante allowance should be established for load-related expenditure assessed against current planning standards.
4. A review of the planning standard should include an assessment of any impact on expenditure. NIE considers that if a significant impact on load-related expenditure during RP5 is forecast as a result of the introduction of new planning standards, then an adjustment in price control allowances should be considered through appropriate 'uncertainty' mechanisms contained within the price control.
5. At this stage, NIE is of the view that any change that may follow from a review of current planning standards would likely be limited to the introduction of mechanisms for taking account of the contribution of embedded generation in evaluating security of supply. Moreover, NIE considers that this would be unlikely to have a significant downwards impact on the level of load-related expenditure that NIE has assessed as being required during the RP5 period against current planning standards. The reasons for NIE's view include:
 - Updated planning standards are likely to set out revised or new assumptions for assessing the probable impact of embedded generation when establishing a demand forecast for a section of the

network. However, NIE's submission is predominantly based on historic and current network loading including, in particular, instances in which overloads on the network have already been recorded (i.e. in relation to sections of the network which are already loaded above firm capacity). NIE is not proposing a wide-ranging network upgrade against anticipated demand growth but rather to reinforce the existing pinch points on the network which are currently giving rise to concern. The adoption of an updated network planning standard will not reduce the current overload situations on the network;

- It is predominantly wind generation which is being connected to the network. This type of generation is intermittent in nature and thus makes a relatively low contribution to network security;
 - The areas which are heavily loaded due to demand are generally built up areas which are not suitable for the connection of large scale wind generation; and
 - The installation of photo-voltaic (PV) sources does not generate at the evening peak in winter due to the peak generally occurring during the hours of darkness.
6. Indeed, NIE's experience is that, increasingly, generation will drive the need for network reinforcement. Renewable generation tends to cluster in areas of high wind, resulting in aggregated power flows that exceed circuit and transformer ratings. This for example has driven the need to replace the transformers at Omagh and NIE is currently considering the growing pressure on 33kV circuits as a result of the significant growth in generators in the range 200 to 500kW.

ANNEX 5A.5

CONNECTIONS

Background

1. NIE has a licence obligation to offer terms for the connection of customers' premises to the distribution network.
2. In April 2012 the Utility Regulator decided, independently of the RP5 price control review, that NIE should adopt a new connections charging policy, under which a party seeking a new or enhanced connection to NIE's network should pay 100% of the costs of the connection. This replaces the previous arrangements whereby the party paid 60% of the costs, with the remainder being recoverable via the T&D price control.
3. There will be a transitional period during which NIE will continue to deliver connections on the old charging basis. The Utility Regulator's decision paper specified that for applications received before 1 October 2012 with the offer of terms being made before 1 January 2013, and the connection completed within a two year limit, the old charging policy would continue to apply. Connection offers made by NIE since publication of the Utility Regulator's decision reflect these transitional arrangements and entitle NIE to charge on the new basis unless the conditions for the application of the old charging policy are satisfied.
4. However, no time limit was specified within the offers of terms for connection made to customers prior to the publication of the Utility Regulator's decision. If a customer had accepted such an offer, NIE must proceed with the work on the basis of the terms the customer had accepted i.e. the terms based on the old charging policy. It is not uncommon for connection works associated with housing developments to be completed some four or five years after the date on which the offer was accepted. It may therefore take five years or more to complete the transition to the new charging arrangements.
5. The RP5 price control should therefore include an allowance for the connections costs which will not be recovered directly by way of connection charges levied on the connecting party.
6. In addition to connecting new customers, NIE makes alterations to the network to facilitate work or development being undertaken by individual customers. The cost of this customer-driven work is not always chargeable to the customer and the cost of non-recoverable alterations is therefore added to the RAB and recovered through the T&D price control.

7. The introduction of new road and streetworks (RASW) legislation will increase the costs of connections and customer driven alterations in RP5 due to the introduction of new systems and processes such as overrun charges and fixed penalty notices. These together with the requirements for greater out of hours working will have the impact of increasing excavation and reinstatement rates.

Forecast net connections additions to the RAB for RP5

8. NIE forecasts that, during the run off period of the old connection charging system, the amounts shown in the table below will be added to the RAB:

£m	Year 1	Year 2	Year 3	Year 4	Year 5	RP5 Total
NIE's net connections costs ¹	7.5	3.8	2.3	1.5	0.8	15.8
RASW costs (net connections)	0.8	0.4	0.2	0.1	0.1	1.6
Total non-recoverable alterations	3.9	3.9	3.9	3.9	4.0	19.7
RASW costs (non-recoverable alterations)	0.02	0.02	0.02	0.02	0.02	0.1
Total net connections Capex	12.2	8.1	6.5	5.6	4.8	37.3

9. The £15.8 million for 'NIE's net connections costs' (by which we mean the expenditure not directly recovered by customer charging) is based on a five year transition period. NIE estimates that during year 1 of RP5, 100% (£7.5 million) of net connection costs relating to quotations accepted under the old charging policy would transfer to the RAB. This value would decrease to 50% (£3.8 million) by year 2 and progressively decrease thereafter as the number of connections completed under the old charging policy reduces.
10. NIE's forecast includes £19.7 million for total non-recoverable alterations. These are alterations that are due under 'permitted development' arrangements and are thus not chargeable to a customer. It also includes £1.7 million of additional costs associated with RASW legislation which applies to all construction work.

¹ Connections costs not recoverable from the party seeking connection in the period following the introduction of 100% chargeability.

Final Determination

11. The Utility Regulator has accepted NIE's forecasts. The Utility Regulator proposes that the sum of £37.3 million would be ring-fenced so that it can be adjusted, ex post, by reference to the amounts actually expended by NIE during RP5.
12. Furthermore, the Utility Regulator has decided to retain standard charging for housing sites which contain 12 or more dwellings. This standard charge is based upon the average cost of connections aggregated for all developments. In practical terms, there can be a considerable time period between incurring the cost of establishing the necessary infrastructure (to supply a housing development) in the first instance and recovering the costs. The Utility Regulator has recognised this issue, and has agreed to provide a 'Housing Site' RAB to NIE to facilitate this forward investment.

ANNEX 5A.6

RENEWABLES INTEGRATION

1. The electricity network in NI is facing an unprecedented demand for the connection of new sources of renewable generation. The principal driver for this is Government energy policy which has established clear targets for 2020. Achievement of Government's renewable energy target is likely to involve very significant investment in the transmission network.
2. The nature and location of the sources of renewable energy that will require connection will impact on how the network must be developed. The expectation within the Strategic Energy Framework (SEF)¹ is that the majority of renewable energy required to achieve the 40% target is likely to come from large scale (greater than 250kW) on-shore wind generation and off shore wind and tidal generation. Crown Estates has recently awarded investigation leases for a total of 800MW of off-shore and tidal generation targeted to come on stream by 2020.
3. Other technologies such as solar, anaerobic digestion, biomass and small/medium scale wind (less than 250kW) renewable generation will also play a part in meeting DETI's target.
4. In addition, the number of planning applications being made for the development of more widely distributed medium scale renewable generation is rising rapidly, driven by a very supportive incentive regime for such generation in NI. However, a proportion of these projects will be unable viably to meet the costs of connecting to the 11kV network.
5. NIE's strategic response to the challenge of integrating renewable generation, taking account of the surrounding uncertainty, has been to develop, in conjunction with the System Operator for Northern Ireland (SONI), a coordinated network development plan incorporating a combination of short, medium and longer term measures.
6. Initial short term measures, which are now complete, were focused on increasing the capabilities of the existing network.
7. Medium term measures require a phased series of 110kV network reinforcements to increase capacity and to remove "bottlenecks", along with the development of wind farm clusters. Clusters are used to connect groups of windfarms to new 110/33kV substations connected into the transmission network with a single wood pole 110kV overhead line. This approach reduces

¹ Published by the Department of Enterprise, Trade and Investment (DETI)

environmental impact and facilitates planning consents by avoiding a proliferation of 33kV overhead lines.

8. By the end of RP5 it is intended that the Medium Term Plan will achieve the maximum connection capacity that can be delivered without longer term major 275kV transmission grid reinforcements. NIE estimates that this will facilitate achievement of around half of DETI's 40% target. The Medium Term Plan is critical to the near term expansion of renewable generation capacity in NI and is therefore an important immediate focus.
9. Achieving the full 40% target will require substantial expansion of the 275kV transmission system and this is the focus of the Long Term Plan. It will present considerable challenges in securing planning consents for overhead tower lines which will add to the uncertainty of the timing of the investment. Without a more supportive policy environment that ensures that all consents processes for new renewable energy infrastructure are efficient and proportionate, particularly in terms of planning consents, it is unlikely that all the 275kV transmission infrastructure can be in place by 2020. The major element of the long term plan relates to the Renewable Integration Development Project (RIDP) - a joint collaboration between NIE, SONI and EirGrid which is nearing completion. It is assumed that the first step of the RIDP execution phase will focus on strengthening the 275kV network transfer capabilities to the west of NI where the majority of windfarms are being developed. The majority of this long term expenditure will fall in RP6.

Additional interconnection

10. Government and regulatory policy is supportive of the proposed 400kV Tyrone – Cavan interconnector between NI and RoI which will deliver specific benefits for customers. For example it will improve competition in the Single Electricity Market: the market operators (EirGrid and SONI) estimate that the new interconnector will bring savings in all-island wholesale energy costs of €20 million per annum rising closer to €40m in the medium term. In addition, the proposed interconnector is critical to supporting the development of renewable power generation and it will improve security of supply on the island.
11. NIE has been working jointly with EirGrid regarding the development of the interconnector. A public inquiry by the Planning Appeals Commission in respect of NIE's planning application commenced in March 2012. The public inquiry has been adjourned following a request from the Planning Appeals Commission for the planning application to be re-advertised and for relevant environmental statements to be modified. No date has yet been set for re-commencement of the public inquiry.

Forecast expenditure on renewables integration and interconnection

12. In early 2011 NIE provided the Utility Regulator with its forecast for £291 million of investment in renewables integration and interconnection during RP5. The submission made it clear that the costs of many of the Medium Term Plan projects and windfarm clusters would need to be updated following completion of pre-construction work which clarifies exact line routes, costs, etc. The figures for RIDP costs were described as being for indicative purposes only, since the scope of RIDP would not be known until the initial analysis phase was completed.
13. For the purposes of NIE's response to the draft determination in July 2012, an updated forecast of £180.7 million for RP5 was submitted to the Utility Regulator.
14. The significant reduction in forecast spend for RP5 reflected NIE's reappraisal of work to be performed during RP5, taking into account developments since the original forecast some 18 months previously. The principal reason for the reduced forecast was NIE's updated expectation that expenditure on RIDP during RP5 will be limited to pre-construction activity only. This reflects an increased expectation that the developing and consenting process for major new overhead line infrastructure of this nature will take a considerable period of time. Other less significant adjustments were made to the phasing and best estimates of expenditure on Medium Term Plan projects, windfarm clusters and the North-South interconnector.
15. A further nine months have elapsed and the July 2012 forecasts have been updated again. The latest forecast is for expenditure of £122 million as shown in the table below.

Forecast RP5 expenditure on renewables integration and interconnection

£m	NIE adjusted BPQ	Latest Forecast	Increase / (Decrease)
Medium Term Plan	76.8	53.8	(23.0)
RIDP	7.1	10.1	3.0
Windfarm Clusters (net)	7.0	(7.4)	(14.4)
Off Shore & transmission connected generation	0	7.8	7.8
North-South Interconnector	89.8	57.7	(32.1)
Total	180.7	122.0	(58.7)

16. The updated forecast reflects the most recent review of the timing, requirement and costing of individual projects as well as increased contributions assumed from developers for windfarm clusters. It takes account of the recent granting of development rights for off shore wind

generation and tidal generation and developments relating to a planned compressed air storage facility. The forecast also reflects the on-going delay in achieving planning consent for the North-South Interconnector, which has brought about a forecast slippage of one year such that a portion of the overall construction programme expenditure is now placed within the RP6 period rather than within RP5.

17. The nature of these projects is such that the current best estimates will be subject to further review and the figures will change again. For example, more accurate costs in relation to the North-South Interconnector will only be known when the current planning appeal process is complete and the scope of the project has been finalised.
18. NIE and the Utility Regulator are agreed these projects will be subject to individual approval on a project-by-project basis. Concerns around the approval mechanism are detailed in Section 5 of Chapter 4 (RP5 Capex - Structure).

ANNEX 6A.1

**OPEX – RECONCILING NIE'S BPQ SUBMISSION
WITH THE FORECAST IN THIS STATEMENT**

Chapter 6 (RP5 Opex) of this Statement has been prepared on the basis of NIE's latest assessment of its opex requirement for RP5 (referred to in that Chapter and this Annex as the **Forecast**).

The purpose of this Annex is to reconcile the Forecast with the statement of NIE's opex requirement contained in:

- its original BPQ submission; and
- the adjusted BPQ that formed the basis of NIE's July 2012 response to the Utility Regulator's draft determination (the **Adjusted BPQ**).

References in this Annex to NIE Adjustments are references to adjustments made to NIE's assessment of its opex requirement to reflect the availability of new information and/or different assumptions contained within the Utility Regulator's draft determination and Final Determination.

Table 6A.1.1 below contains a summary of the NIE Adjustments to the BPQ and Adjusted BPQ respectively.

Table 6A.1.1: Summary of NIE Adjustments

	NIE BPQ	NIE Adjustments¹	NIE Adjusted BPQ	NIE Adjustments²	NIE Forecast
Controllable Opex	237.5	(0.4)	237.1	(1.2)	235.9
Uncontrollable Opex	<u>107.3</u>	<u>(12.0)</u>	<u>95.3</u>	<u>0.0</u>	<u>95.3</u>
Total Opex	344.8	(12.4)	332.4	(1.2)	331.2

Table 6A.1.2 below sets out a detailed breakdown of all NIE Adjustments.

¹ Adjustments to the NIE BPQ and reflected in the NIE Adjusted BPQ submitted as part of NIE's response to the Utility Regulator's draft determination.

² Adjustments to the NIE Adjusted BPQ and contained in the NIE Forecast reflecting NIE's latest assessment of its opex requirement.

Table 6A.1.2: Breakdown of NIE Adjustments

Cost Category	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	NIE Adjustments	NIE Forecast	Comments
£m						
Controllable Opex:						
Baseline Opex						
Meter Reading	17.2	1.3	18.5	(0.6)	17.9	Reflects latest forecast of costs including the impact of the introduction of the agency workers directive.
Keypad Meters	1.3	(0.2)	1.1	(0.1)	1.0	Reflects latest forecast of costs.
Rathlin Island	0.4	(0.2)	0.2	0.3	0.5	Costs associated with periodic inspections of the undersea cable initially excluded. Included in the Forecast following direction by the Utility Regulator.
Costs to be Added to Baseline						
Real Price Effects	8.8	(0.1)	8.7	1.7	10.4	Reflects latest forecast of costs. Refer to Chapter 8 Real Price Effects.
Enduring Solution	22.5	6.9	29.4	(0.5)	28.9	Reflects latest forecast of costs (refer to Chapter 6) and exclusion of pension element within salary costs.
Workforce Renewal	7.4	(2.5)	4.9	0.0	4.9	Adjustment to reflect incremental costs in RP5 only.
Regulatory Reporting Requirements	1.3	0.2	1.5	0.0	1.5	Adjustment based on the Utility Regulator's determination on the introduction of a Reporter in RP5 and NIE's assessment of associated internal requirements.
ESQCR Legislation	0.4	(0.2)	0.2	0.0	0.2	Latest forecast of costs.

R&D (Application of Smart Technologies)	2.1	0.4	2.5	0.0	2.5	Adjustment to correct price base of costs.
Renewables Baseline	19.3	(6.7)	12.6	(0.3)	12.3	Adjustment based on the Utility Regulator's determination to narrow the scope of the Baseline and a requirement to consider the impact of the wholesale market and exclusion of the pension element within salary costs
Price Review	1.2	0.8	2.0	0.0	2.0	Reflects latest forecast of costs following actual costs incurred in RP4 in preparation for RP5.
Credit Rating	0.3	0.3	0.6	0.0	0.6	Reflects the inclusion of costs associated with a bond issue in RP5.
Distribution Code and Generator Connections Policy	0.0	0.1	0.1	0.0	0.1	Reflects assessment of policy review required during RP5.
PAS 55	0.0	0.1	0.1	0.0	0.1	Reflects costs associated with attaining PAS 55 accreditation.
Network 25 and S.E.A	0.0	0.4	0.4	(0.4)	0.0	Costs initially included for publication of document etc. Excluded on confirmation of European funding for this activity.
Guaranteed Standards	0.0	1.3	1.3	(1.3)	0.0	Adjustments based on the Utility Regulator's determination on guaranteed standards.

Injurious Affection	0.9	(0.9)	0.0	0.0	0.0	Adjustment based on the Utility Regulator's determination to treat injurious affection as an uncertain cost and await the results of the Lands Tribunal cases.
Smart Metering	1.4	(1.4)	0.0	0.0	0.0	Reflects NIE's proposal to seek approval for expenditure on a separate basis.
<u>Uncontrollable Opex:</u>						
Licence Fees	5.7	(2.1)	3.6	0.0	3.6	Adjustment based on the Utility Regulator's determination on the allowance for licence fees.
Injurious Affection	11.4	(11.4)	0.0	0.0	0.0	Adjustment based on the Utility Regulator's determination to treat injurious affection as an uncertain cost and await the results of the Lands Tribunal cases.
Reporter	0.0	<u>1.5</u>	1.5	<u>0.0</u>	1.5	Adjustment based on the Utility Regulator's determination to introduce a Reporter at a cost of £1.5m over RP5.
Net Adjustment		(12.4)		(1.2)		

ANNEX 7A.1

NIE'S EFFICIENCY – COST MAPPING

1. In order to allow meaningful comparison with the GB DNOs, NIE engaged Frontier Economics to undertake a detailed cost mapping exercise to replicate the GB regulatory classification of cost. This Annex 7A.1 contains a description of that work.
2. Frontier has compared NIE's performance to that of the GB DNOs, who are considered to be the most directly relevant peer group. However, Frontier has found it necessary to undertake a detailed cost mapping exercise to classify NIE's costs in accordance with the Ofgem regulatory guidelines. This cost mapping exercise has been made available in full to the Utility Regulator and its consultants and they have agreed that the work has been undertaken robustly.
3. We provide below a breakdown of NIE's cost base, and a mapping that shows which costs are included in the different benchmarking studies that NIE has commissioned from its consultants. In particular we define how the terms "direct" and "indirect" are used in a benchmarking context.

NIE's cost base

4. NIE reports its costs on a basis consistent with its statutory accounts which are prepared in accordance with IFRS.
 - NIE's capital costs comprise:
 - materials and bought in services;
 - direct internal labour charges based on an hourly rate (which includes the recovery of indirect costs such as non-timesheet staff costs, fleet, premises and tools and equipment costs);
 - project design and management costs
 - patrol, survey and the upfront costs of obtaining wayleaves and negotiating access in respect of overhead lines; and
 - capitalised overheads (including appropriate proportions of asset management, connections, procurement, supply chain, managed service and IT costs).
 - NIE's operating costs comprise controllable and uncontrollable costs. Controllable costs mainly relate to asset management, repairs and

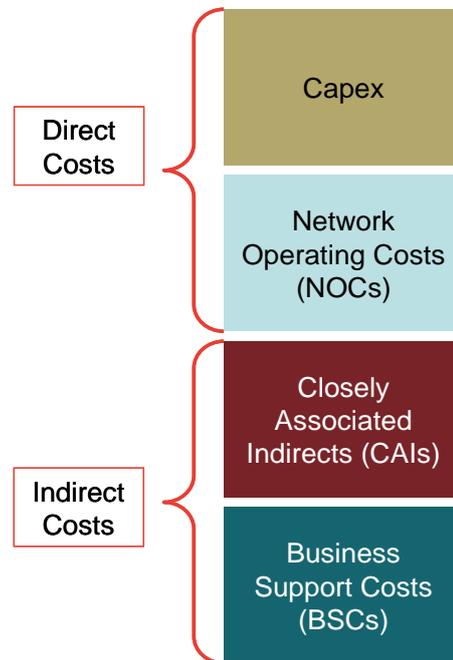
maintenance (R&M); connections, procurement, supply chain, managed service and IT costs. Controllable costs are net of the proportion of costs which relate to capital work (capitalised overheads). Uncontrollable costs comprise rates, wayleave payments and licence fees.

5. NIE operates a business model pursuant to which NIE Powerteam undertakes a wide range of activities the costs of which are charged to NIE’s core Transmission and Distribution business. The cost base for both NIE’s capital costs and operating costs therefore include recharges from NIE Powerteam. NIE Powerteam is a separate legal entity from NIE but forms an integral part of the NIE organisation. Its exclusive function is to undertake activities forming part of NIE's T&D Business.

Mapping of NIE’s cost base to the costs included in NIE’s benchmarking studies

6. At DPCR5, following a trend initiated during the DPCR4 period, Ofgem moved away from the traditional ‘opex-capex’ accounting classification of costs. Ofgem instead introduced a new ‘activities-based’ approach, whereby costs are allocated to four¹ basic activity building blocks as set out in Figure 7A.1.1.

Figure 7A.1.1: Ofgem's activity building blocks²



¹ Ofgem also makes available an allowance for non-operational capex which is typically relatively small. The figure therefore focuses on the main activities identified by Ofgem.

² The size of the blocks in diagram does not reflect the share of the activity block in total costs. For 2009/10, on average across the DNOs, capex was 48% of total costs, NOCs were 19% of total costs, and indirects were 33% of total costs.

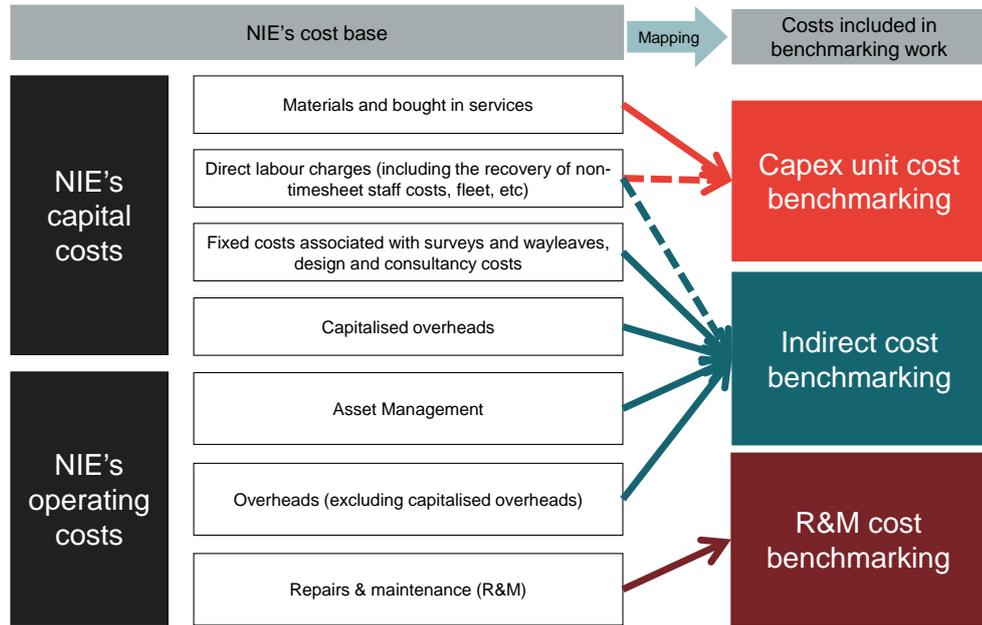
7. Broadly speaking, the split between direct costs and indirect costs can be defined as follows:
- Direct activities are “*those activities which involve physical contact with system assets*”³; and
 - Indirect activities are “*those activities which do not involve physical contact with system assets*”.
8. Working closely with NIE, Frontier undertook an extensive cost mapping exercise in order to report NIE’s costs on a basis equivalent to those in GB, enabling benchmarking on a like-for-like basis of NIE’s direct costs (including R&M) and indirect costs against GB peers.
9. This exercise was undertaken rigorously. Frontier and NIE reviewed each of NIE Powerteam’s cost centres in order to ascertain whether the underlying activity would be regarded by Ofgem to be direct, indirect, or excluded. For example, meter reading was excluded, since it is an activity no longer undertaken by GB DNOs, as was the proportion of indirect costs associated with connections⁴, since this is an excluded service in GB. The individual cost items that were assigned to that cost centre were then reviewed in detail in order to assess whether any of the individual costs items would be badged as direct or indirect costs by Ofgem. The end result was a matrix assessment of the appropriate classification of each cost item associated with each cost centre, based solely on the underlying nature of the cost and, where appropriate, the reversing of any accounting charges between cost centres (e.g. the capitalisation of overheads).
10. This cost mapping has been made available to the Utility Regulator in its entirety and a review undertaken by CEPA confirmed its robustness⁵.
11. This mapping of NIE’s cost base with the costs included in NIE’s benchmarking is illustrated in Figure 7A.1.2 below.

³ Ofgem, “Electricity Distribution Price Control: Glossary of Terms for the Regulatory Instructions and Guidance: Version 1”, 26 May 2010.

⁴ The proportion of indirects associated with connections was estimated on the basis of a detailed analysis of individual job roles and timesheet data for 2009/10.

⁵ See page 5 of CEPA’s report of October 2011 (made available as part of the Utility Regulator’s draft determination), Section 2.2. “*NIE’s submission provided NIAUR with the spreadsheet models created for the benchmarking process and separate spreadsheets showing the cost mapping conducted. We have reviewed these spreadsheets in conjunction with the benchmarking report submission and consider that overall the benchmarking approach appears to be robust and the cost mapping has been done in a consistent manner to separate indirect and direct costs.*”

Figure 7A.1.2: Mapping of NIE’s cost base to the relevant benchmarking studies



Note: Blocks are not drawn to scale

ANNEX 7A.2

**TREE CUTTING AND DISTRIBUTION OVERHEAD LINE REFURBISHMENT
EXPENDITURE BENCHMARKING**

NIE RP5

**Tree Cutting and
Distribution Overhead
Line Refurbishment
Expenditure
Benchmarking**

April 2013

FINAL

NIE RP5 – Tree Cutting and Distribution Overhead Line Refurbishment Expenditure Benchmarking

Final Report

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1. Introduction

- 1.1 This report describes Parson Brinkerhoff's (PB) benchmarking of NIE's costs in relation to tree cutting associated with distribution overhead line (OHL) refurbishment; and the costs of OHL refurbishment itself. The report provides a summary in respect of NIE's costs and benchmarking analysis compared to the GB DNOs.
- 1.2 Tree cutting covers the proactive cyclic cutting of trees in proximity to overhead lines at all voltages in accordance with statutory requirements. Reactive tree cutting required as a result of reported issues and incidents is covered under Opex.
- 1.3 Distribution overhead line refurbishment covers the costs of programmes to replace worn and defective overhead line components to ensure satisfactory performance of the network particularly during periods of high wind when weakened or faulty components are prone to fail.
- 1.4 Associated with the tree cutting and overhead line refurbishment work are distribution patrol, and survey costs, incurred in detailing the specific work to be completed on each overhead line and wayleave costs incurred in negotiating access to the lines for the work crews.
- 1.5 This benchmarking updates and is additional to the benchmarking which PB carried out for NIE in relation to tree cutting costs in February 2011. That benchmarking exercise compared NIE RP4 costs with comparable costs for the GB DNO for tree cutting costs in financial years 2007 and 2008 published in Ofgem's Annual Cost Reviews for those years. That benchmarking concluded that NIE RP4 tree cutting costs were the third lowest in terms of cost per km when benchmarked against total overhead line length and were approximately half the average DNO costs.
- 1.6 The approach which PB has taken in analysing costs for the purpose of this report is set out in the Appendix which also provides references to source material. In particular the Appendix explains the terms 'direct' and 'indirect' as defined by Ofgem in GB and as adopted in the analysis presented in this report.
- 1.7 The appendix also explains why the approach taken is conservative and is likely to understate NIE's efficiency.
- 1.8 All costs are presented on a 2009/10 price base to either 1 or 2 decimal points as considered appropriate and some totals may display rounding errors.

2. Tree Cutting Benchmarking

NIE costs

2.1 NIE's forecast costs for RP5 with respect to tree cutting are set out in Table 1 below:

Table 1: NIE's Tree Cutting costs

	OHL Length	Tree Cutting Costs	Fixed Overheads ¹
	km	£m	£m
LV	5400	8.1	1.4
HV	20800	20.8	3.5
33kV	3110	3.1	0.5
110kV	576	1.2	
Reactive		2.00	
Total	29,886	35.2	5.5

2.2 PB has benchmarked NIE's forecast costs against data collected for GB DNOs. As described in the Appendix, this benchmarking has been undertaken on a direct cost basis and also on a direct plus indirect cost basis. In order to ensure a robust comparison with the GB DNOs, it is therefore necessary to categorise the costs identified above as either direct or indirect.

2.3 NIE's tree cutting costs (£35.2 million) include a 65% labour content (i.e. NIE Powerteam hourly rate), which is itself comprised of 44% indirect cost. The labour related indirects included in the £35.2 million of expenditure therefore amounts to £10.1 million (£35.2m x 65% x 44%). Direct costs are therefore **£25.2 million**.

2.4 Direct plus Indirect costs are **£40.7 million**, i.e. £25.2 million + £10.1 million + £5.5 million.

Direct cost comparison - NIE v DNOs

2.5 The table below compares NIE's forecast direct costs for RP5 to the Ofgem DNO allowances for DPCR5.

¹ Fixed overheads include Patrol, Survey and wayleaving costs, classified by Ofgem as indirect costs.

Table 2: Tree Cutting Benchmarking - Direct Costs

DNO	OHL - kms	£m - Direct Costs	£k/km/ Regulatory period
NEDL	14913	23.2	1.55
YEDL	13586	29.2	2.15
CNE	22750	29.7	1.30
CNW	23856	33.0	1.38
EDFE	34583	87.2	2.52
EDFS	12763	37.6	2.95
ENW	13053	20.5	1.57
SPD	21118	27.9	1.32
SPM	21444	56.2	2.62
SSEH	31551	27.3	0.87
SSES	27470	61.8	2.25
WPDS	18164	27.6	1.52
WPDW	28459	46.7	1.64
Total/Average	283,710	507.9	1.79
		Upper Quartile ²	1.38
NIE	29,886	25.16	0.84

Direct plus indirect cost comparison - NIE v DNOs

2.6 The table below compares NIE's direct and indirect costs to the Ofgem DNO allowances for DPCR5.

2.7 The closely associated indirects for each DNO are calculated as a percentage of total network expenditure from Ofgem published information as described in the Appendix. The application of an average indirects ratio is likely to understate the indirects overheads associated with high labour content work as also explained in the appendix.

² Throughout this report, 'Upper Quartile' is used to denote the best performers.

Table 3 –Tree Cutting Benchmarking – Direct plus Indirect Costs

DNO	OHL - kms	£m - Direct Costs	Average Indirects Ratio	Direct plus Indirect Costs	£k/km
NEDL	14913	23.2	1.22	28.27	1.90
YEDL	13586	29.2	1.19	34.70	2.55
CNE	22750	29.7	1.24	36.79	1.62
CNW	23856	33.0	1.25	41.16	1.73
EDFE	34583	87.2	1.24	108.47	3.14
EDFS	12763	37.6	1.22	46.01	3.60
ENW	13053	20.5	1.20	24.62	1.89
SPD	21118	27.9	1.26	35.04	1.66
SPM	21444	56.2	1.21	68.16	3.18
SSEH	31551	27.3	1.36	37.07	1.17
SSES	27470	61.8	1.27	78.44	2.86
WPDS	18164	27.6	1.23	34.03	1.87
WPDW	28459	46.7	1.23	57.41	2.02
Total/Average	283,710	507.9		630.18	2.22
				Upper Quartile	1.73
NIE	29,886			40.7	1.36

Summary Benchmarking Results

2.8 The results of the above benchmarking are collated in the following table:

Table 4 – Summary of Tree Cutting costs benchmarking

£k/km	Direct Costs	Direct plus Indirect Costs
DNO Average	1.79	2.22
Upper Quartile (Excl NIE)	1.38	1.73
SSE Hydro	0.87	1.17
NIE submitted costs	0.84	1.36
Utility Regulator FD Allowance		0.54

- 2.9 PB's updated benchmarking of tree cutting costs confirms the results of the previous analysis of historic costs carried out in February 2011. NIE compares very favourably against the GB DNOs, with its forecast direct cost per km approximately 50% of the GB DNO average (61% on a direct plus indirect basis).
- 2.10 Based on this analysis, PB believes that the benchmarking shows clearly that the amount allowed by the Utility Regulator to NIE for tree cutting is grossly inadequate. The Utility Regulator has proposed an allowance of £0.54k/km on a direct plus indirect cost basis. This is (a) less than one third of the DNO best performers; and (b) less than half of that allowed to SSE Hydro (and only 62% of SSE Hydro's direct costs allowance).
- 2.11 SSE Hydro is one of the smallest DNOs in terms of customer numbers but one of the largest in terms of length of overhead lines. Its allowance under DPCR5 for tree cutting expenditure is approximately half the DNO average allowance and is the lowest of any DNO by far on a £/km basis. The bulk of SSE Hydro's operating territory is in the Scottish highlands. It has approximately the same length of overhead line as NIE but has fewer trees to cut as discussed in 2.17 below.

Critique of UR benchmarking against ESB and DNOs

- 2.12 The Utility Regulator reduced the tree cutting allowance for NIE on the basis of benchmarking carried out by SKM for CER in 2010.
- 2.13 PB believes that the Utility Regulator's analysis is unreliable as a consequence of errors in the analysis carried out for CER. Specifically; SKM divided tree cutting costs by the total length of circuit, i.e. overhead line and underground cable, rather than by overhead line length alone. The SKM report 'CER Transmission & Distribution Price Control – Review of Distribution Operating Costs 2006 – 2015' comments on page 70;

GB tree cutting costs are €196m for 780,482 km of overhead line or €251 per km of overhead line

- 2.14 SKM's error is apparent from the following table which shows the breakdown of the GB DNO circuit lengths extracted from the Ofgem 2007/08 Quality of Supply Report.

Table 5 – DNO Circuit Lengths

Type of Circuit	Length - kms ³
Overhead Line	283,710
Underground Cable	496,513
Total	780,223

- 2.15 A similar error has been made with respect to ESB's tree cutting costs although there is a relatively small amount of underground cable in the ESB (22,725kms compared to 146,602 kms Overhead line⁴).
- 2.16 Additionally, SKM made use of a forestation normalisation metric, specifically 'forestation area/km of overhead line' in the CER benchmarking. PB considers this approach to be clearly inappropriate since the use of this metric implies that a doubling of circuit length would give rise to a halving of tree cutting expenditure when in fact it would be doubled. For example, a forestation area of 3 million hectares and an overhead line length of 300,000 kms (approx UK metrics) gives a metric of 10 hectares of forest/km of overhead line (which in itself is meaningless). However if line length were double at 600,000 kms, although the tree cutting requirement would double since there is twice as much overhead line, the metric would reduce to 5 hectares per km of overhead line.
- 2.17 Like other electricity utilities, NIE avoids running overhead lines through forested areas so 'forestation area / km of overhead line' is not a reliable driver of need. A more appropriate comparator would be that of 'km of hedgerow/ square km' as it is in hedgerows where overhead line conductors are unavoidably in proximity to trees and bushes. Tree cutting in NI and elsewhere is required where trees and bushes grow in hedgerows that are crossed by overhead lines or, in many cases where lines run above the hedges to reduce the number of poles located out in fields which hinder agricultural operations. Due to the small field sizes in NI, there is approximately 3 times the length of hedge per square km in NI than in GB as a whole and 16 times that in Scotland⁵.

³ Analysis excludes UK LPN since both overhead line lengths and tree cutting costs are de minimus.

⁴ http://www.esb.ie/esbnetworks/en/downloads/esb_networks_summary_statistics_2012.pdf

⁵: <http://www.science.ulster.ac.uk/nics/BOUN/bhe.htm> and Woodlands Trust publication - Hedges-and-hedgerow-trees-position-2010.pdf

2.18 The SKM chosen tree cutting driver of 'forestation hectares/km' of overhead line is therefore not sensible and is also misleading.

3. Overhead Line Refurbishment Expenditure Benchmarking

NIE Costs

3.1 NIE's forecast costs with respect to overhead line refurbishment are set out in Table 6 below.

Table 6: NIE's distribution overhead line refurbishment costs (excluding tree cutting)

	OHL Length	Refurbishment Costs	Fixed Overheads⁶
	km	£m	£m
LV	5400	13.3	2.44
HV	20800	47.2	8.66
33kV	3110	8.4	1.54
110kV	576	8.2	
Total	29,886	77.1	12.65

3.2 Again, PB has benchmarked NIE on both a direct and direct plus indirect cost basis.

3.3 The NIE refurbishment costs include a 65% labour content which attracts 44% overheads. The labour related overheads included in the £77.1 million of expenditure therefore amounts to £22.0million (£77.1 x 65% x 44%). Direct costs are therefore **£55 million** and direct plus indirect costs are **£89.7 million** (£55 million + £22.05 million + £12.65 million).

Direct cost comparison: NIE v DNOs

3.4 PB has examined NIE's overhead line refurbishment costs per km of overhead line against those of the GB DNOs. PB has benchmarked expenditure on a £k/km basis since this reflects the efficacy of the totality of the various programmes of cyclic based overhead line work.

3.5 The table below compares NIE's forecast direct costs for RP5 to the Ofgem DNO initial proposals for DPCR5. Ofgem did not publish DPCR5 allowances for DNO overhead line refurbishment on a company basis but noted that, on

⁶ Fixed overheads include Patrol, Survey and wayleaving costs, classified by Ofgem as indirect costs

average, these were 4.4% higher than the initial proposals. The following table therefore understates NIE's comparative efficiency.

Table 7: Overhead Line Refurbishment - Direct Costs

	kms	£m 09/10	£k/km
NEDL	14913	54.5	3.65
YEDL	13586	51.2	3.77
CNE	22750	54.9	2.41
CNW	23856	60.6	2.54
EPN	34583	27.8	0.80
SPN	12763	31.6	2.48
ENW	13053	50.5	3.87
SPD	21118	77.2	3.66
SPM	21444	66.0	3.08
SSEH	31551	82.4	2.61
SSES	27470	83.6	3.05
S Wales	18164	55.9	3.08
S West	28459	81.6	2.87
Total/Average	283,710	777.9	2.74
		Upper Quartile	2.54
NIE	29,886	55.0	1.84

Direct plus Indirect cost comparison: NIE v DNOs

3.6 The table below compares NIE's direct and indirect costs to the Ofgem DNO initial proposals for DPCR5. Again the application of an average indirects ratio is likely to understate the DNO indirect costs for high labour content work.

Table 8: Overhead Line Refurbishment – Direct plus Indirect Costs

	km	£m 09/10	Average Indirects Ratio	Direct plus Indirect Costs	£k/km
NEDL	14913	54.5	1.22	66.52	4.46
YEDL	13586	51.2	1.19	60.91	4.48
CNE	22750	54.9	1.24	68.07	2.99
CNW	23856	60.6	1.25	75.61	3.17
EPN	34583	27.8	1.24	34.61	1.00
SPN	12763	31.6	1.22	38.68	3.03
ENW	13053	50.5	1.20	60.69	4.65
SPD	21118	77.2	1.26	96.94	4.59
SPM	21444	66.0	1.21	79.94	3.73
SSEH	31551	82.4	1.36	111.91	3.55
SSES	27470	83.6	1.27	106.12	3.86
S Wales	18164	55.9	1.23	68.96	3.80
S West	28459	81.6	1.23	100.21	3.52
Total/Average	283710	777.9		969.17	3.42
				Upper Quartile	3.17
NIE		29886		89.7	3.0

Summary Benchmarking Results

3.7 A summary of NIE's benchmarking is presented in Table 9 below.

Table 9: Benchmarked Overhead Line Refurbishment Costs

£k/km - based on Ofgem IPs	Direct Costs	Direct plus Indirect Costs
DNO Average	2.74	3.42
Upper Quartile (Excl NIE)	2.54	3.17
SSEH	2.61	3.55
NIE	1.84	3.0
Utility Regulator Allowance	-	2.35

- 3.8 Analysis of this table reveals that NIE's refurbishment expenditure is low by comparison with the DNO best performers.
- 3.9 The benchmarking shows that NIE's direct costs per unit of work are 66% of the GB DNO average (88% on a direct plus indirect basis). Relative to the GB DNO peer group, PB considers this evidence to show that NIE's proposed costs in this respect are reasonable and that the Utility Regulator's allowance is inadequate.

Critique of Utility Regulator's benchmarking

- 3.10 Since SSE Hydro has a similar length of overhead line as NIE, it is useful to make broad comparisons against this company.
- 3.11 At the Initial Proposal stage of DPCR5, Ofgem proposed an allowance for SSE Hydro of approximately £82 million, direct costs basis, circa £112 million on a direct plus indirect costs basis assuming indirects are spread homogeneously across all expenditure, whereas NIE's submission was for £55 million on a direct cost base or £89.6m on a direct plus indirects costs basis for approximately the same length of overhead line.
- 3.12 The Utility Regulator's Final Decision is that NIE only requires £70.4 million for overhead line refurbishment which is approximately 63% of the SSE Hydro allowance.
- 3.13 A fuller critique of the SKM overhead line refurbishment expenditure benchmarking methodology is not possible since very few details have been provided and SKM advised that the DNO information used for benchmarking purposes is confidential.

Appendix - PB's benchmarking approach

The benchmarking undertaken by PB was conducted on both a direct cost and a direct plus indirect cost basis.

Direct cost only basis

Ofgem published DNO DPCR5 allowances for tree cutting⁷ and initial proposals for overhead line refurbishment allowances⁸. Ofgem did not publish DNO DPCR5 allowances for overhead line refurbishment but noted that, on average, these were 4.4% higher than the published initial proposals. These allowances (and initial proposals) represent Ofgem's estimate of the efficient direct cost of undertaking each activity and have been used to benchmark NIE's costs.

NIE Powerteam's costs are recovered through an hourly rate. NIE's estimate of the direct cost of undertaking work will therefore include certain costs that Ofgem would regard as indirect. To facilitate a like-for-like comparison of direct costs it is therefore necessary to adjust NIE's direct costs to remove any indirect element.

Direct plus Indirects cost basis

The Utility Regulator and SKM have asserted that their benchmarking analysis in respect of tree cutting and overhead line refurbishment has been conducted on a direct plus indirect cost basis. NIE has been unable to establish that this is in fact the case but PB has sought to undertake direct plus indirect cost analysis. To do so, it is necessary to uplift both Ofgem's direct cost allowances and NIE's own costs to include an allocation of overheads.

Ofgem's allowances for network operating costs and capex (of which tree cutting and overhead line refurbishment are a subset) are presented exclusive of any overheads. Associated indirect costs (and wider business support costs) are recovered through separate allowances. Ofgem's final allowances for closely associated indirects (and business support costs) were also published by Ofgem in its DPCR5 Financial Model and this provides the basis from which to derive an uplift to the GB DNOs direct costs.

⁷ See Ofgem's DPCR5 Financial Model, DNO tree cutting allowances, Row 429 on individual DNO Tabs.
<http://search.ofgem.gov.uk/search.aspx?aid=6581&pckid=755724950&pt=6018936&sw=Financial+Issues+-+DPCR5+20091204+%28final+Proposals+for+DNOs%29.xls>

⁸ See Ofgem Initial Proposals ref doc 94a/09 - Page 23.
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/Initial%20Proposals_3_Allowed%20revenue%20cost%20assessment%20Appendix.pdf

Ofgem's definition of which indirect costs fall into which category is set out in the Glossary to the RIGs (Ofgem document Ref:36d/12) and summarised in the table below.

Table - Summary of Ofgem's classification of indirect costs

Closely associated indirect costs	Business support costs
<ul style="list-style-type: none"> • Network Design and Engineering • Project Management • Engineering Management and Clerical Support • System Mapping • Control Centre • Call Centre • Stores • Operational Training • Vehicles and Transport 	<ul style="list-style-type: none"> • Network Policy • HR and Non-Operational Training • Finance & Regulation • CEO etc • IT & Telecoms • Property Management

On average, GB DNO closely associated indirects uplift direct costs by 25% and business support indirects by a further 17% but there is considerable variation between the companies (see Table 8 of main report).

PB has estimated the direct plus indirect costs of the GB DNOs by uplifting direct cost allowances proportionately in respect of the specific allowances for indirects, i.e. sharing the indirect costs pro rata according to value across the entire direct (network operating costs plus network capex) work budget. In its direct plus indirect cost comparison, PB has uplifted the GB DNO costs only for Closely Associated Indirects, not for business support costs.

It is also necessary to derive a similar uplift to NIE's costs. In doing so, PB has included a comparable set of indirect costs (specifically the distribution patrol, survey and wayleave costs⁹ that are entered as a separate line item in NIE's capex plan). The other categories of indirect cost not included within distribution patrol, survey and wayleave are undertaken by NIE Powerteam and therefore a proportionate share of these costs is recovered through the indirect component of labour.

⁹ Included by Ofgem as a subset of the 'Network Design and Engineering' category of closely associated indirects.



PB considers that its approach to estimating its performance on a direct plus indirect cost basis is conservative (i.e. likely to understate NIE's actual efficiency) for two reasons.

- This methodology adopted to uplift the GB DNO data assumes that overheads are homogeneously applied across all work programmes. However, owing to NIE's approach to recovering NIE Powerteam's costs through an hourly rate for labour, high labour content work such as tree cutting will bear a relatively higher level of indirects.
- Since NIE unit costs also contain an element of business support costs (given the cost base from which NIE Powerteam's hourly rate is constructed), NIE's estimate of direct costs will include some business support costs whereas the GB DNOs' costs will not. While these are removed from the direct cost comparison along with other indirects contained in the labour charge, they remain in the indirect comparison.

PB believes that NIE's costs on a direct plus indirect cost basis are therefore likely to be overstated.

PB is also of the view that since the overhead line benchmarking was carried out against the Ofgem Initial Proposals for the DNOs, rather than the final allowances which were 4.4% higher on average, the DNO costs have been understated in both the direct cost analysis and the direct plus indirect cost analysis.

With respect to these latter points, the approach taken ensures that the benchmarking does not over estimate NIE's efficiency; rather it is underestimated.

Had the difference between NIE's and the DNO's costs been marginal, then an adjustment to correct for the more onerous approach taken would have been necessary. However, the differences are so large, in NIE's favour, that no such adjustment is necessary to confirm that NIE's costs are low in comparison to those of the better performing DNOs.

ANNEX 8A.1
PAY SETTLEMENT DATA

[X]

ANNEX 14A.1

**CASE STUDY: THE USE OF A REPORTER IN THE
ENDURING SOLUTION PROGRAMME**



ANNEX 17A.1

ERRORS IN THE UTILITY REGULATOR'S FINANCIAL MODEL

1. NIE FINANCIAL MODELLING

- 1.1 In developing this Statement with respect to financeability, NIE has considered whether it should make use of its own model, or whether it would be feasible to adopt the Utility Regulator's model as a basis for making its arguments.
- 1.2 When reviewing the Utility Regulator's model a number of errors were identified. These included, inter alia:
- calculation of tax entitlement;
 - calculation of opening Written Down Values for determination of Capital Allowances;
 - calculation of pension allowance;
 - calculation of tax;
 - calculation of interest.
- 1.3 Some of these errors are interdependent and cannot be viewed in isolation, For example variances related to tax and interest calculations will depend on profitability, capital expenditure etc. However, the table below provides indicative figures (in nominal prices) to illustrate the scale of the most material errors.

Error	Reason	Outcome	Approximate Impact (Over RP5)
Tax Entitlement (excluding Fund 3)	Incorrect opening written down value used in calculating tax allowance	Revenue and EBITDA overstated	£16m
Pension Allowance	Current service cost included in both opex and pension allowance	Revenue and EBITDA overstated	£6m
Interest	Interest paid drawn from incorrect cells in cashflow. Interest charge calculated on incorrect opening debt balance	Interest paid overstated	n/a*
Tax Paid	Incorrect opening written down	Tax liability and	£13m**

	value used to calculate capital allowances	tax paid over period overstated	
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* Cannot be quantified as dependent on other assumptions that impact on debt and profit

** Base case

- 1.4 NIE considered that, in order to allow ease of reference back to the financeability assessment presented in the Final Determination, it would be preferable to use the Utility Regulator's model after adjusting for:
- differences in underlying assumptions; and
 - errors in the Utility Regulator's modelling
- 1.5 NIE has updated the Utility Regulator's model on a step-by-step basis to correct identified modelling errors and make use of the most up-to-date information, particularly with respect to opening balance sheet at 31 December 2012. NIE has not carried out a full audit of the Utility Regulator's model however, by correcting the errors identified and replicating the underlying assumptions the amended model produced results that were materially in line with NIE's independent modelling.
- 1.6 NIE therefore considers that using the Utility Regulator's updated model would be appropriate as a starting point to assess the financeability difficulties NIE would experience during RP5 should the settlement proposed in the Final Determination be implemented.

2. ERRORS IN UTILITY REGULATOR MODEL

- 2.1 Following review of the Regulatory Model used by the Utility Regulator to assess financeability NIE noted a number of issues with this model that need to be amended if the financial metrics produced are to be relied upon.

Opening balances

- 2.2 NIE believes that it is appropriate to update the opening balance sheet position at 31 December 2012 to reflect the actual position at that date. NIE accepts that as the Utility Regulator prepared the Final Determination several months before the actual RP5 opening balances were known it would have been impossible for the model to reflect this position.
- 2.3 However, the Utility Regulator's assumptions mean that opening net debt is materially overstated in its model. Given that this balance has a material impact on key ratios it was considered appropriate to update this figure to present a more accurate position.

Revenue

2.4 There are a number of errors within the calculations of Regulated Entitlement. These include:

- incorporation of RAB reduction proposed in Final Determination;
- calculation of RAB inflation adjustment;
- WACC used for calculating return on the domestic market opening RAB;
- calculation of pension allowance relating to current service costs;
- accelerated depreciation on domestic market opening systems commencing in RP4; and
- incorrect capital allowances balances brought forward as noted below resulting in an overstatement of tax entitlement.

Capital Allowances & Tax

2.5 The Utility Regulator has materially understated opening Written Down Values for the purposes of calculating capital allowances. As a result tax entitlement and tax liability each year has been overstated. This error arises as a result of:

- Opening pools being understated as they do not include balances associated with non core capital expenditure;
- The capital allowance Written Down Value associated with the capitalisation adjustment excluded;
- Inaccurate calculations of capital allowances for the deferred revenue pool;
- Metering capex incorrectly classified in the long life pool when this should be in the general pool;
- No adjustment has been made for domestic contributions after March 2012; and
- The non network capex figures in the tax allowances computation do not agree with the Final Determination allowances.

Interest

2.6 Notwithstanding the actual interest rate applied by the Utility Regulator as referenced in paragraph 4.9, NIE noted a number of errors in the calculation of interest charge and payments. These included:

- Interest paid charge in cashflow statement calculated in the wrong period; and
- Interest accrual not included in net debt for the purposes of calculating gearing. Credit Rating Agencies typically include this in their calculation of net debt so NIE maintains that financeability ratios should be based on the same parameters.

Non Network Capex

2.7 Non Network capex is included in RAB additions. Non Network Capex receives a separate allowance and is not added to RAB additions.