

Northern Ireland Electricity Limited

Transmission and Distribution
RP5 Price Control

Response to the Utility Regulator's
Draft Determination

19 July 2012



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CHAPTER 1

INTRODUCTION AND EXECUTIVE SUMMARY

1. INTRODUCTION

- 1.1 This document (the **Response**) comprises the response of Northern Ireland Electricity Limited (**NIE**) to the draft price control determination (the **Draft Determination**) issued by the Utility Regulator on 19 April 2012.
- 1.2 The Utility Regulator has provisionally decided to adopt a new price control for NIE's Transmission and Distribution (**T&D**) Business for the fifth regulatory period (**RP5**) which would disallow NIE from recovering much of the revenue which it judges to be necessary to enable it to provide T&D services to the standard required by statutory and licence obligations and to satisfy the reasonable demands of customers, in terms of safety, security and quality of service.
- 1.3 NIE recognises that its core capital investment proposals would entail annual price increases of approximately 0.8% of overall electricity bills for customers. 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 2% to the overall electricity bill by the end of RP5.
- 1.4 NIE understands that price increases are always unwelcome, and particularly so at a time of economic hardship for many customers. In view of the very substantial gap between NIE's proposals and the Utility Regulator's Draft Determination, NIE has considered very carefully whether it can accept the Utility Regulator's proposals, or suggest some means of meeting the Utility Regulator part-way, by eliminating from its own plans some of the items of expenditure which it proposes to undertake. But NIE has concluded that the business plan which it submitted to the Utility Regulator, and which forms the basis for its assessment of its revenue requirement, includes 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. The increases in NIE's network tariffs that would result should be viewed in the context of greater price increases for electricity network operators in GB.
- 1.5 NIE presently believes that it would be unable responsibly to accept a price control such as the Utility Regulator proposes. NIE is therefore working with the Utility Regulator to understand why the Utility Regulator has rejected much of NIE's

business plan, and to explain to the Utility Regulator why it considers its own proposals to be well-founded.

2. STRUCTURE OF THE RESPONSE

2.1 The Response addresses in detail the Utility Regulator's Draft Determination. The present chapter provides a summary of NIE's key objections to the Utility Regulator's present proposals, and describes the adverse consequences for customers if those proposals were to be adopted. Subsequent chapters deal with the following matters:

- Chapter 2 sets out principles of good regulation which should underpin the RP5 price control. It identifies aspects of the Draft Determination that depart from those principles and therefore give cause for concern.
- Chapter 3 concerns various matters relating to the previous price control period, RP4, including NIE's performance in that period. This is important because it forms the starting point for the Utility Regulator's RP5 price control proposals, including its proposed efficiency discounts.
- Chapters 4 and 5 respond to the Utility Regulator's proposals with respect to capex (i.e. the allowance for capital investment):
 - Chapter 4 deals with the quantum of the capex proposals;
 - Chapter 5 deals with the structure of the capex proposals.
- Chapter 6 responds to the Utility Regulator's proposals with respect to opex (i.e. the allowance for operating costs).
- Chapter 7 is concerned with pensions, in particular the proposed allowance for NIE's pension deficit repair costs.
- Chapter 8 deals with the proposed transitional allowance for connections to NIE's network.
- Chapter 9 is concerned with the Utility Regulator's proposals with respect to incentives and innovation.
- Chapter 10 is concerned with safety and the environment.
- Chapter 11 addresses proposed changes to the arrangements for annual reporting.

- Chapters 12 and 13 are concerned with the Utility Regulator's proposals on the weighted average cost of capital and the regulatory asset base (RAB) and depreciation respectively.
- Chapters 14 and 15 set out allowed revenue and the impact on tariffs based on NIE's own proposals.
- Chapter 16 concludes this Response by describing the implications of the Utility Regulator's proposals for NIE's financeability.

2.2 The relationship between the chapters of this Response and the corresponding sections of the Draft Determination is shown in the table below:

Chapter	NIE's Response	Draft Determination
1	Introduction and Executive Summary	-
2	Regulatory Principles to Underpin RP5	-
3	RP4 Overview	Sections 5 to 8 (and aspects of 9 and 10)
4	RP5 Capex – quantum	Section 9
5	RP5 Capex – structure	Section 9
6	RP5 Opex	Section 10
7	Pensions	Section 11
8	Connections	Section 12
9	Incentives and Innovation	Sections 13 and 14
10	Safety and the Environment	Section 15
11	Annual Reporting	Section 21
12	Weighted Average Cost of Capital	Section 16
13	RAB & Depreciation	Section 17
14	Allowed Revenue	Section 19
15	Impact on Tariffs	Section 20
16	Financeability	Section 18

2.3 This Response is concerned exclusively with two broad areas of fundamental concern to NIE, namely:

- the proposed structure of the price control; and
- the proposed quantum of the allowed revenues.

2.4 In order to maintain this focus, this Response does not attempt to answer every point raised by the Utility Regulator in its Draft Determination, and therefore it should not be inferred that NIE agrees with those other elements of the Draft Determination which it does not address in this Response.

3. PRICE BASE

3.1 In line with the Draft Determination, all costs referred to in this Response are in 2009/10 prices unless otherwise stated.

4. BACKGROUND

4.1 NIE owns the electricity transmission and distribution network which provides supplies to all of NI's 830,000 customers.

4.2 The network comprises some 250 substations together with 45,700km of mainly overhead lines supplying some 75,000 transformers. It is interconnected with the transmission networks in the Republic of Ireland and Scotland.

4.3 NIE has a statutory obligation to maintain a safe and reliable network. It is also subject to obligations under its licence which regulate in more detail how NIE should conduct its T&D Business. These obligations supplement the general law, which lays down minimum standards of safety and environmental protection which NIE is required to observe.

4.4 In December 2010 the Republic of Ireland's Electricity Supply Board (**ESB**) acquired NIE. ESB is committed to supporting NIE's investment in its T&D Business, provided that it can expect to earn a reasonable rate of return on its investment.

5. THE KEY DEFICIENCIES IN THE UTILITY REGULATOR'S PROPOSALS

Poor incentive properties

5.1 The Utility Regulator describes its proposals for the RP5 price control as being based on established principles of RPI-X price control regulation. Under these principles, the allowed price control revenues are assessed on the basis of three key building blocks, namely:

- capex;
- opex (including pensions costs); 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 particular incentive targets.

5.2 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 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. Conversely, if the company underperforms, that will reduce the return to shareholders.

5.3 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 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.

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

- assessing what past performance reveals about the level at which the next price control should be set; and

- 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).

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

5.5 Despite the Utility Regulator's claims to the contrary, the Draft Determination does not observe these essential principles of the RPI-X approach to price control regulation. In particular:

- the Utility Regulator proposes to re-open elements of the previous price control (**RP4**), with the possibility that it will disallow NIE's entitlement to recover a return on amounts added to its RAB during RP4. The Utility Regulator appears to have in mind to apply, *ex post*, new rules as to what expenditure NIE should be entitled to capitalise;
- the Utility Regulator intends to look back as far as RP2 with a view to disallowing pension costs which NIE is obliged to meet under legislation introduced at the time NIE was privatised in 1992. The Utility Regulator's proposals reflect a hypothetical approach which involves making retrospective adjustments in respect of decisions taken in earlier regulatory periods dating back to the 1990s. This is inconsistent with the approach adopted by the Utility Regulator for RP4 and with that adopted by Ofgem in its recent price control reviews for the GB DNOs.
- in respect of RP5, the Utility Regulator intends to subject all of NIE's 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*. 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;
- 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 bring to an end arrangements under which its affiliate, NIE Powerteam, undertakes activities of the T&D Business and by requiring NIE to put large amounts of its activities out to competitive tender, instead of conducting them itself. This attempt to micro-manage NIE's business is inconsistent with the principles of incentive-based regulation;

- the Utility Regulator's proposals fail to provide sufficient incentives to stimulate NIE to achieve improvements and innovations in its T&D Business. Taken together, the basic allowed return on capital, and the limited prospect of any further upside, fail to provide NIE with sufficient incentives to run its business to a standard which would be best for customers.

5.6 In short, the Utility Regulator's proposals fail to embody the substantive benefits of incentive-based RPI-X regulation.

Insufficient allowed revenues

5.7 The Utility Regulator's proposed RP5 price control 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 Utility Regulator proposes to disallow approximately 50% of NIE's proposed core capex. This reflects (among other things) the Utility Regulator's rejection of NIE's arguments that its aged network assets need to be replaced in a timely fashion to avoid degradation of service and the risk of catastrophic failure. Whereas many T&D assets typically have a serviceable life of 40 years, almost one third of NIE's network assets are already between 45 and 80 years old;
- the Utility Regulator has also failed to take proper account of the cost to NIE of meeting new safety-related legislation, and the transitional costs associated with the move to a new method of financing new connections to the T&D network;
- the Utility Regulator intends to disallow substantial parts of the revenues which NIE needs to meet its pension deficit repair obligations notwithstanding a recent statement from the Pensions Regulator which endorses the approach taken by the pension scheme trustees in their negotiations with NIE in relation to the pension deficit repair costs;
- the Utility Regulator has judged that NIE is relatively inefficient, and proposes to discount the revenue allowance for capex and opex 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 fundamentally flawed, 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 distribution network operators (**DNOs**);
- the Utility Regulator's allowed rate of return on investment is too low, and this is exacerbated by not allowing NIE to recover its true opex needs and

its pension deficit repair costs, and not providing sufficient incentive mechanisms to enable NIE to earn additional revenues by better performance. The returns available to NIE would be much lower than those available to GB DNOs under their most recent distribution price control (**DPCR5**), and this would place NIE at a significant disadvantage in competing with such businesses for funding. Under the Draft Determination and taking account of the inadequate provision for pensions, opex and incentives, NIE's return on equity during RP5 would be less than 2%. NIE's return would be lowered further taking into consideration the Utility Regulator's proposed underfunding in respect of capex. This compares with the average expected return for GB DNOs during DPCR5 of 7.7%.

- 5.8 As a result of these factors, NIE faces the prospect of receiving insufficient funding to undertake the capital works which it judges necessary to provide customers with a network which is fit for purpose.
- 5.9 In addition, the proposals 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, has resulted in downward pressure on NIE's credit rating (BBB+). This is reflected in the decision by Fitch to put NIE's secured credit rating on negative watch following publication of the Draft Determination. Retention of a BBB+ credit rating is essential for NIE if it is to compete for finance. Since 2005, 86% of the bond market issuance from utility companies is from companies rated BBB+ or above. NIE's ability to access the bond markets and its cost of debt will depend on demonstrating a strong credit rating comparable with the other UK network utilities that operate in a transparent regulatory environment widely understood by the markets. The longer term interests of NI customers are not served by the Draft Determination which as the Utility Regulator correctly recognises "*depends on maintaining the confidence of investors which will enable the company to finance its investments efficiently*". Rather the Draft Determination significantly increases the risk of NIE losing its investment grade credit rating which its licence requires it to maintain.

Likely delays and inefficiencies

- 5.10 The Utility Regulator's proposals envisage 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, designed to accommodate new renewable generation projects, or new interconnection.

The Utility Regulator would monitor NIE's compliance with a prescribed business plan for Fund 1, would monitor the cost of and the need for projects within Fund 2, and would require NIE to obtain prior approval before undertaking projects covered by Fund 3.

- 5.11 Undertaking this kind of oversight will impose substantial new burdens on the Utility Regulator and NIE. If the Utility Regulator is unable to deal promptly with applications by NIE for approval for specific projects, this will lead to delays and inefficiencies in the execution of such projects and will impair the development of those sectors of the economy in NI which depend on them.
- 5.12 Since NIE will be subject to different regulatory obligations according to which fund covers particular work, it will be very important for any price control conditions which give effect to the three fund proposals to define the scope of each fund, and the rules applicable to it, very precisely. If that is not achieved, further uncertainty and delay will be introduced, together with the risk of a further *ex post* analysis of NIE's conduct at the end of RP5, to test whether NIE has operated the rules applicable to the three funds in such manner as the Utility Regulator will (*ex post*) decide to have been appropriate. 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 they can, in response to changing priorities. The Utility Regulator's present attempts to impose *ex post* rules on NIE as to how it should have capitalised expenditure during RP4 illustrate the difficulties for NIE of operating under regulatory arrangements which are inadequately defined in formal licence conditions.
- 5.13 It is also to be noted that the ring-fencing of particular revenues to particular kinds of work (and the related segregation between transmission and distribution projects) will substantially reduce NIE's flexibility to re-prioritise expenditure to meet changing demands.

Adverse consequences for customers

- 5.14 The problems outlined above pose very real risks to customers, as well as to NIE. In particular:
- Delays, or a prohibition by the Utility Regulator, in respect of the undertaking of major new projects to support further renewable generation in NI will impede the attainment of Government targets for increases in the proportion of renewable generation available in NI, with consequential environmental, economic and security of supply detriments;

- Uncertainty in the treatment of load-related expenditure by the Utility Regulator would give rise to risks in the undertaking of other major load-related projects which may 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;
- 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 customer and staff safety and customer satisfaction;
- NIE will be unable to deploy monies efficiently to respond to changing priorities; and
- NIE will be unable 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. This will result in detriments to those who might have been able to secure training from NIE, and detriments to customers generally, as NIE will be unable to call on a skilled workforce in future years to meet the demands on its T&D Business.

The balance between service and price

5.15 The Utility Regulator's proposal to disallow much of NIE's proposed business as usual (**BAU**) capex is of particular concern. NIE's RP5 capex plan is based on a bottom-up assessment of network needs, taking account of the need to:

- maintain a resilient network providing a reliable supply of electricity to customers;
- comply with legislation covering safety obligations and environmental standards;
- properly manage the level of age-expired equipment on the network;
- develop the network to allow new customers to be connected and to accommodate growth in the demand for electricity; and
- control operating and maintenance costs as the network grows.

5.16 The Utility Regulator's proposal to cut NIE's planned capex would, if acted upon, have significant adverse consequences, which would include:

- *Network reliability* – 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;

- *Safety* – many age expired assets would remain in service for a further period of 5 years or more with the higher risk of catastrophic failure; for customers this would mean greater risk of injury, for example from meter board fires, conductor drops and electrocution due to corroded equipment in public places; for staff there would be more hazardous working conditions including the need to impose operational restrictions on plant;
- *Storm resilience* – reductions in overhead line refurbishment would mean greater damage in storm conditions, and longer and more frequent loss of supplies. Restoration periods could in some plausible scenarios be much longer than have been experienced to date;
- *Economic impact* – lack of long term investment in the distribution network could curtail inward investment in many areas, particularly outside Belfast; and
- *Creating greater issues for future customers* – the modest “savings” created for today’s customers through deferring essential capex not only comes with the risks outlined above, but also creates an unsustainable “bow wave” of aged asset replacement for the next regulatory period.

5.17 NIE considers that the risks of serious detriment to customers outlined above mean that it is necessary for NIE to undertake the work envisaged by its RP5 business plan, even though the financing of that work will necessitate annual price increases to customers of approximately 0.8% of their overall electricity bills (excluding investment in renewables and interconnection). To seek to constrain bills at lower levels – whilst desirable as an end in itself – would leave NIE unable to finance the provision of a safe, secure T&D service, capable of providing an adequate quality of service to existing users, to new renewable generators, and to new businesses and households who can be expected to establish themselves in NI as a result of existing Government policies, and whose success will contribute to the prosperity of NI as a whole.

5.18 In addition to BAU capex, NIE proposed expenditure of £127 million in RP5 to begin upgrading the 11kV overhead line network to mitigate the risk to rural customers' supplies arising from severe weather events involving ice accretion. The Utility Regulator's proposed response would not provide sufficient funding even for a suitable pilot scheme.

6. CONCLUSIONS

6.1 The overall effect of the Utility Regulator's proposals would be:

- an unsustainably low level of network investment with a consequential increase in risk to network safety, reliability and resilience;
- a materially lower level of funding relative to the GB electricity distribution companies 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 that will be detrimental to customers' interests.

6.2 Accordingly, the proposed price control would not serve customers' best interests. Customers would be left with an aged and unreliable network, which would need substantial investment in future price control periods. NIE would be unable efficiently to finance such investments, and it would not have been able to take the measures needed to replenish its skilled workforce by training apprentices and graduates to be the skilled engineers of the future. NIE would be unable to develop its network to serve industry and commerce in NI, to the detriment of all NI's population.

6.3 NIE elaborates on these matters in the remainder of this Response, and hopes that its Response will assist the Utility Regulator in arriving at a Final Determination that will be acceptable to NIE, so as to enable NIE to provide an adequate service to the population of NI over RP5 and for the foreseeable future and to finance its activities efficiently.

CHAPTER 2

REGULATORY PRINCIPLES TO UNDERPIN RP5

SUMMARY

The Utility Regulator is subject to statutory general duties which govern the manner in which it exercises its functions, including in relation to setting the RP5 price control. These include duties to protect the interests of future, as well as existing, customers and to secure that NIE is able to finance its regulated activities. A price control which defers urgently needed network investment would not strike an appropriate balance between the interests of future and existing customers. Moreover, the Utility Regulator's proposals with respect to opex, capex and the cost of debt and equity fall well short of the level required to enable NIE to finance its regulated activities. The Utility Regulator would be acting in breach of its statutory general duties if it were to adopt its 'minded to' position in the final determination.

The Utility Regulator's proposals depart from the well-established incentive-based model that is applied to networks in GB in favour of a system of regulation by micro-management and *ex post* assessment. The system of incentive-based regulation has led to significant benefits to customers in terms of prices paid and service quality experienced, and is replicated around the world. In contrast, the regulatory model towards which the Utility Regulator is moving is not widely adopted, and will ultimately be detrimental to customers.

Incentive-based regulation rests on two key principles:

1. the application of clear rules for the valuation and recovery of the costs incurred in running the network. These rules must be set in advance and subject to retrospective review only to enforce proper compliance; and
2. the application of specific incentive mechanisms to further encourage operators to seek innovative and effective efficiency improvements.

Three of the Utility Regulator's proposals are inconsistent with these principles. The Utility Regulator proposes to:

- Revisit, and potentially reduce, the asset value of the business that has been built up in compliance with price controls applicable for RP3 and RP4.
- Revisit pensions by making retrospective adjustments to the recoverable deficit in respect of actions taken by NIE during RP2 and RP3, on the basis of information accessible to the Utility Regulator for review at previous price controls.

- Introduce a set of arrangements for capex that involve either a high degree of *ex post* scrutiny of any departure from a detailed database of specified investments or the risk of significant delay in the event regulatory approval is requested *ex ante*.

All of these proposals have the effect of weakening the credibility and predictability of the regulatory regime, since no decision – even one taken at a previous price control review – can ever be regarded as “final”. This introduces significant uncertainty, diminishes investor confidence, undermines incentives and is ultimately detrimental to customers.

Moreover, the threat of *ex post* write-off will motivate NIE to seek to obtain as much comfort in advance from the Utility Regulator, and this will draw the Utility Regulator ever more closely into the operational decisions that should properly be the responsibility of NIE's management.

The Draft Determination undermines the second principle of incentive-based regulation by proposing incentive arrangements for RP5 which are weak, limited in scope, inflexible and likely to discourage innovation. This approach to incentives, coupled with the proposed unrealistically low return on equity is suggestive of a regulatory model that is concerned only with the remuneration of debt, with a limited role for equity holders to provide the spur to management to improve performance.

1. INTRODUCTION

1.1 This chapter addresses a range of issues concerning principles of good regulation. The issues raised are of general application to the RP5 price control process and form the basis of NIE's response to the Draft Determination contained in subsequent chapters.

1.2 In particular:

- We set out the Utility Regulator's key statutory duties, and explain how the Utility Regulator's proposals are inadequate to discharge its duties with respect to protecting future consumers and ensuring that NIE is able to finance its regulated activities.
- At various places throughout this response we refer to relevant regulatory precedent, in particular the approaches adopted by Ofgem. We explain why departures from Ofgem's approach deserve careful consideration. In this context:
 - We highlight the most significant departures from Ofgem precedent in terms of the Utility Regulator's proposed economic model; and

- We explain why the processes and procedures adopted by Ofgem in reaching its policy decisions provide a basis for believing that Ofgem's approach to regulation will be generally well founded and well tested.

2. UTILITY REGULATOR'S STATUTORY DUTIES

2.1 The Utility Regulator is subject to statutory general duties which govern the manner in which it exercises its functions¹. 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.

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.

2.3 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 that defers urgently needed network investment with the result that future consumers inherit both:

- an increasingly unreliable network; and
- a disproportionate burden of network investment, relative to that borne by consumers in earlier price control periods,

would not reflect an appropriate balance between the interests of future and existing consumers. Similarly, 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 the future consumers who will be called upon to fund the increase in NIE's cost of capital that results.

Financing duty

2.4 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 require that NIE is able to finance its regulated activities.

¹ These statutory duties are contained in Article 12 of the Energy (Northern Ireland) Order 2003.

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.

- 2.5 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 **BW Report**).
- 2.6 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 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.
- 2.7 Relevant to the financing duty is Condition 9A of NIE's T&D licence which requires NIE to maintain an investment grade credit rating. In the BW 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.
- 2.8 The Competition Commission's assessment of financeability compared projected levels of certain indicators of a company's financial health (credit ratios), against target levels, which were set with regard to how ratings agencies assess credit strength. The projected levels of these credit ratios depend on the building blocks of the calculation of required revenue, including opex, capex and cost of capital. The Competition Commission's overall concern was to ensure that these financial projections were consistent with the regulated company retaining an investment grade credit rating.
- 2.9 For the reasons detailed in the following chapters of this Response, NIE considers that the Utility Regulator's minded to position in respect of each of opex, pensions, capex and the cost of debt and equity falls well short of what is reasonable. The Utility Regulator would therefore be acting in breach of its statutory general duties if it were to adopt its minded to position in the final determination.

3. REGULATORY BEST PRACTICE

- 3.1 In numerous places in this Response we refer to Ofgem precedent, by which we mean the treatment and practice adopted by Ofgem to address substantially similar issues when they have arisen in GB for the network companies it regulates.
- 3.2 NIE's position is that Ofgem's approach to regulation is generally reasonable in that it typically has sound incentive properties and strikes a broadly appropriate balance between the interests of the company, customers and investors. For the

avoidance of doubt, it is not our position that Ofgem precedent should be followed slavishly and in all instances. But Ofgem precedent could and should form the foundation on which NIE's price control is conducted with material departures from Ofgem precedent requiring careful consideration.

3.3 We consider that the Ofgem precedent is important for four reasons:

- First, NIE and the GB DNOs operate similar businesses to broadly similar technical and safety standards, under similar employment, tax and environmental legislation. Given wider energy policy objectives, both sets of networks will be subjected to similar demands and challenges going forward. Both GB and NI networks were installed at similar points in time and will therefore have similar (but not identical) age profiles in terms of fixed assets and workforce. Given the international markets for network components and transfer of international best practice, operational practices will be broadly similar across the entire UK. While there are some important regional differences (e.g. additional transport costs from crossing the Irish Sea, a sparsely populated operating region, some variations in installed asset type, inclusion of transmission and distribution within the same business, evidence of higher debt financing costs) it seems reasonable to start from the position that, in many instances, the most effective regulatory arrangements for GB will also be well suited to NI conditions.
- Second, the GB precedent applies an economic model of regulation that, whilst still imperfect and still evolving, has a number of extremely desirable characteristics, in contrast to some of the characteristics of regulation that the Utility Regulator proposes in its Draft Determination.
- Third, the processes and procedures adopted by Ofgem in reaching its policy decisions conform closely to best practice. Ofgem is well resourced, runs comprehensive, open and transparent consultations and understands that its decisions will be subject to a high level of scrutiny. These factors provide grounds for believing that Ofgem's approach to regulation will be generally well founded and well tested.
- Fourth, investors compare the returns available from NIE with those available from similar GB companies, and NIE's cost of capital will be higher if it is subject to a regulatory regime which presents additional risks or is relatively more harsh in its treatment of particular issues.

3.4 We discuss the GB model of economic regulation in Section 4 below and Ofgem's processes and procedures in Section 5.

4. REGULATORY BEST PRACTICE – ECONOMIC MODEL

4.1 Ofgem's primary approach to delivering value for customers is to depend on financial incentives. This has been the case for a number of price control periods.

4.2 As we noted in our response to the Utility Regulator's consultation on alternative financing models, Ofgem's investor equity / strong incentives model has a proven track record of delivering good outcomes for customers, in terms of quality and continuity of service and efficiency. Indeed this model has now been adopted in numerous other countries and across many other sectors. NIE remains of the view that a regulatory model based around the exposure of returns on equity to operational performance through incentive mechanisms will be equally effective in securing benefits for NI customers.

4.3 Incentive-based regulation rests on two clear principles:

- First, the application of clear rules for the valuation and recovery of the expenditures incurred to run the network. These rules must be set in advance and subject to retrospective review only to enforce proper compliance. Clarity of rules provides comfort to investors and operators that investments will not be unreasonably stranded, enabling operators to raise finance efficiently, and encouraging them to seek operational efficiency improvements.
- Second, the application of specific incentive mechanisms to further encourage operators to seek innovative and effective operating and capital expenditure efficiency improvements.

4.4 These two effects have led to significant and lasting benefits for customers. There is a wide consensus that a stable, incentive-based regulatory framework in combination with private ownership, has led to productivity gains that would not have arisen without these ingredients being in place³. These productivity benefits have then benefitted customers in the form of lower prices than would otherwise be the case.

4.5 However, this regulatory model is not just a set of building blocks on which a price control is set. It is also a very clear philosophy which emphasises the separation of roles and responsibilities between:

- the policymaker, who sets the legal and regulatory framework within which the other stakeholders operate;

³ See for example Ofgem's high level assessment of the success of 20 years of RPI-X regulation as presented in its paper "RIIO: A new way to regulate energy network", October 2010, where it said "*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.*"

- the regulator, who sets regulatory rules for prices and outputs consistent with the legislative framework and then resets those rules at infrequent intervals and on a forward-looking basis;
- the owner, who puts in place the right management and set of management incentives to deliver shareholder returns within the regulatory framework; and
- the management, to whom operational control is devolved, and who must take responsibility for the investment and operating decisions of the business within this regulatory and commercial environment.

4.6 This model promotes both efficiency and accountability:

- It promotes efficiency because management is left to manage the business to deliver shareholder returns within a clear set of regulatory rules. This search for profit reveals efficiency improvements that would not otherwise be revealed. That information can then be used to set future price controls.
- It promotes accountability because the responsibilities of each stakeholder are clear and the tension between the objectives of the shareholder, manager and regulator encourages a mutually reinforcing, disciplining behaviour on all three.

4.7 As we consider below, departure from these roles, with the regulator increasingly involving itself in the management of the business, risks compromising this healthy and competing balance of interests, to the long-term detriment of customers.

4.8 Not only has Ofgem's economic model worked well in the past, its recent performance has been satisfactory, and its introduction of the RIIO framework reasserts the importance of incentives as the primary mechanism to achieve benefits for customers.

4.9 As a consequence of this reasoning, we consider that Ofgem's approach in general and often in the specific should be regarded as generally sound and suitable for application in the regulation of NIE. Naturally, there remains the need to examine the reasonableness of the approach for application in NI in any particular instance but our view is that reasonably close adherence to Ofgem precedent is likely to result in a set of regulatory arrangements that will serve NIE and its customers well.

4.10 Given the depth of understanding of Ofgem's approaches in the wider investor community, there is a significant benefit in regulatory arrangements for NIE mirroring those in place for GB. The Utility Regulator would then be able to take advantage of the credibility established by Ofgem and we believe this would place NIE on a more comparable footing to GB DNOs in its ability to access capital

markets. The more the Utility Regulator departs from Ofgem's approach the less transparency there will be for investors and the more likelihood that NIE will be perceived to be ostensibly similar to the GB DNOs, but subject to hard to quantify and understand differences in regulatory arrangements. This will give rise to the risk that NIE could struggle to raise finance as it competes with the better funded and better understood GB DNOs.

Concerns with Utility Regulator's approach

- 4.11 The Utility Regulator's proposals are inconsistent with these principles of incentive-based regulation in a number of important respects:

Regulatory asset valuation

- The revisiting, and potential reduction of, the asset value of the business that has been built up in a way that is in compliance with price controls applicable for RP3 and RP4.

Pensions

- The revisiting of pensions through making retrospective adjustments to the recoverable deficit in respect of actions taken by NIE during RP2 and RP3, on which information will have been accessible by the Utility Regulator for review at previous price controls (see Chapter 7 (Pensions)).

Capex regulation and the introduction of a Reporter

- The introduction of a set of arrangements for capex that involve either a high level of *ex post* scrutiny of any departure from a detailed database of specified investments or the risk of significant delay in the event regulatory approval is requested *ex ante*.
- The Utility Regulator also wishes to introduce a Reporter to provide assistance in validating and assessing the data to be reported annually. As explained in Chapter 11 (Annual Reporting) of this Response, NIE is concerned that this 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.

The proposal to abolish Powerteam

- The proposal that the current arrangements for NIE Powerteam should be brought to an end, and that NIE Powerteam's activities should be subject to competitive procurement, would not be in customers' best interests.
- There is no need for the Utility Regulator to specify how NIE management should meet its overall efficiency targets. This should be the responsibility of NIE management. As noted in Chapter 3 (RP4 Overview), the use of the

NIE Powerteam model has assisted NIE to drive efficiency and introduce modern work practices. NIE Powerteam has brought a commercially focussed culture where managers understand the importance of cost control and cost reduction, and their remuneration is partly dependent on delivery. The current model has no adverse consequences for customers of NIE as only NIE's efficiently-incurred costs (including costs efficiently incurred in the activities undertaken by NIE Powerteam) are passed on to customers. The Utility Regulator's role should go no further than identifying efficiency targets and incentive mechanisms: this proposal draws the Utility Regulator directly into the management of NIE.

Weak incentives

- The Utility Regulator's proposed package of incentives which are weak and limited in scope coupled with the proposed unrealistically low return on equity is suggestive of a regulatory model that is concerned only with the remuneration of debt, with a limited role for equity holders to provide the spur to management to improve performance. Ofgem has explicitly rejected this approach at GD-1⁴:

"... we do not think it would be in the interests of consumers to de-risk companies to the extent necessary to justify a cost of equity towards the bottom of the consultation range. The RIIO framework is about providing incentives to encourage companies to deliver their outputs at minimum cost. This requires a level of opportunity and risk that does not align with a low cost of equity."

- Ofgem's regulatory approach appears to contrast with the model that the Utility Regulator is moving towards, which focuses on low returns to equity and a focus on debt, weak incentives, and increased micro-management through onerous reporting of capex undertaken and the imposition of a Reporter.

4.12 The potential consequence of these actions is that NIE will have little incentive to invest to reduce costs in the expectation of receiving a benefit under a regulatory settlement, since that benefit may be clawed back in future. Investors will therefore require even greater reassurance that value will not be clawed back *ex post* before they would be willing to undertake particular investments or activities. For the Utility Regulator to provide that extra degree of reassurance, it will increasingly be drawn into evaluating and signing off on the particular investment plans or innovative actions.

⁴ RIIO T1 and GD1 Financial Issues paper, Ofgem, March 2011, paragraph 3.65.

5. REGULATORY BEST PRACTICE – PROCESSES AND PROCEDURES

- 5.1 We consider that processes and procedures adopted by Ofgem in reaching its policy decisions conform closely to best practice. As described below, Ofgem is well resourced, runs comprehensive, open and transparent consultations and understands that its decisions will be subject to a high level of scrutiny. Taken together, these factors provide a further reason for believing that Ofgem's approach to regulation will be generally well founded and well tested.

Ofgem's approach

Access to resources

- 5.2 According to its most recently published Annual Report, Ofgem employs 545 permanent staff and 48 persons on other terms⁵. Ofgem also has access to further resources through budgets to appoint consultants. Its most recent Annual Report reveals that Ofgem spent £9.5 million⁶ on contractors across all areas of its work.
- 5.3 Compared to many other regulatory offices, including smaller regional offices such as the Utility Regulator, Ofgem is relatively well resourced. It therefore has the capacity to consider many questions in detail. As a consequence it is rare for Ofgem to have failed to have considered carefully any issue that could have a material impact on the companies it regulates. Similarly it has the resources available to consult on new issues as they arise, such that there is rarely a backlog of important issues awaiting attention.

Open and ordered approach to consultation

- 5.4 Ofgem has stated its intention to be open and transparent in its approach to regulation in order to decrease the perception and reality of regulatory risk. Beyond this statement of intention, our view is that Ofgem has a proven track record of adherence to best practice principles of regulatory process, as demonstrated by its approach at recent reviews. In particular it has demonstrated the ability to run lengthy and open consultations that provide all stakeholders with numerous opportunities to make their views known.
- 5.5 Ofgem goes to significant lengths to set out clearly and transparently its developing positions and the evidence it is drawing on to guide its thinking at the earliest possible stage. For example, at DPCR5 it published a detailed methodology paper in advance of its Initial Proposals, allowing it to provide an early insight into exactly how it would be proposing to make its assessment in all material aspects of the price control. This approach was coupled with direct engagement with the companies through bilateral meetings and industry working

⁵ Ofgem Annual Report and Accounts 2011-12, page 71.

⁶ Ibid, page 72.

groups, which continued throughout the review process, ensuring a high level of transparency. Similarly, it is customary for Ofgem to publish (or make available to the companies at least) any final reports it has commissioned from consultants as soon as is possible.

- 5.6 In contrast there has been little meaningful two way engagement in the run up to the Draft Determination. Many of the misunderstandings that appear to have arisen regarding the contents of NIE's business plan might have been avoided had an open approach been adopted and certain errors made in the analysis undertaken by the Utility Regulator eliminated.

Scrutiny of Ofgem decisions by regulated companies

- 5.7 While Ofgem's approach to regulation provides a foundation for sound policy formation, this is aided by a large and active group of regulated companies. Any decision taken by Ofgem at DPCR5 will have been subjected to detailed scrutiny by seven different management groups (six going forward). Again this provides some comfort that any poorly founded proposals will have been vigorously challenged and improved.

Scrutiny of Ofgem decisions by the investment community

- 5.8 Similarly, Ofgem's decisions are subject to a high level of scrutiny by the wider investment community, including ratings agencies and debt investors. As a consequence, Ofgem is forced to be mindful that it is required to balance the interests of investors and customers. Ofgem holds numerous briefing sessions for investors and did so at key stages throughout DPCR5, allowing its position to be explained and allowing investors to contribute their views.

Scrutiny of Ofgem decisions by the media

- 5.9 Finally, Ofgem's decisions typically attract coverage in the media. Again, this increases the level of scrutiny to which Ofgem's decisions are subjected. While recent decisions on network revenues have proven relatively uncontroversial in the generalist media, past experience suggests that the press can be expected to be very active should evidence of inflated allowances emerge (e.g. through excess pay or profits).

Conclusion on processes and procedures

- 5.10 We consider that the Utility Regulator should attach significant weight to Ofgem's decisions since Ofgem has the resources and expertise to deliver well-reasoned and well-evidenced decisions on many of the issues which the Utility Regulator is called upon to address in respect of NIE. The Utility Regulator can usefully supplement the insight available from its own work by looking to Ofgem's decisions as precedent.

CHAPTER 3

RP4 OVERVIEW

SUMMARY

NIE has demonstrated a strong performance during RP4 by maintaining tight control of its very efficient cost base and prudently managing capital expenditure within the regulatory budget. Outperformance on operating expenditure has been driven by cost saving initiatives.

RP5 efficiency discounts

The Utility Regulator's proposals to apply a 9% efficiency discount on controllable opex and a 5% efficiency discount on capex are not founded on reliable benchmarking evidence. The benchmarking analysis on which the Utility Regulator relies is based on flawed assumptions (e.g. in respect of market opening costs and regional variance) and inappropriate use of GB data without suitable adjustment. By contrast, NIE has presented robust evidence which confirms that NIE is a leading performer among the UK DNOs. There is therefore no justification for any form of efficiency discount.

RP4 capex

During RP4 NIE has managed its capital expenditure to within the agreed regulatory budget whilst remaining compliant with statutory and licence obligations to manage network risks. NIE has substantially delivered against its outputs for the period despite upward pressures on costs, such as increases in the cost of materials and storm costs.

The Utility Regulator has used the Draft Determination to suggest that NIE may have benefited improperly from changes to its capitalisation practice. NIE awaits the outcome of the Utility Regulator's investigation at which point it will comment more fully on the matter.

RP4 opex

Outperformance of the RP4 opex allowance has been driven by a range of cost saving initiatives which resulted in reductions in the cost of salaries, corporate, R&M, IT & telecoms, managed services, insurance and other costs.

NIE Powerteam

NIE Powerteam is an integral part of the NIE organisation and its only function is to undertake activities forming part of NIE's T&D Business. The NIE Powerteam model has facilitated the driving of efficiencies and introduction of modern work practices and there is no justification for the Utility Regulator's proposal to bring the current arrangements to an

end. The Utility Regulator should confine itself to identifying efficiency targets and mechanisms, leaving NIE management to determine how best to deliver those outputs.

Shortfall in RP4 allowed revenue

The Utility Regulator's unilateral decision to extend the RP4 price control for six months without consultation and without modification to NIE's licence creates a shortfall in NIE's cost recovery. Further shortfalls in allowed revenue for RP4 have arisen because the Utility Regulator is unreasonably withholding revenues relating to the capex efficiency incentive mechanism and tax. These shortfalls should be addressed in the final determination of the RP5 price control.

1. INTRODUCTION

1.1 This Chapter is concerned with NIE's performance during the RP4 price control period. This is an important area because the Utility Regulator proposes:

- to set RP5 efficiency discounts (for both capex and opex) by reference to its assessment of NIE's efficiency at the end of RP4;
- to seek to "claw back" certain amounts from the RP4 price control; and
- to unwind existing arrangements with NIE Powerteam Limited (**NIE Powerteam**) whose only function is to undertake activities forming part of NIE's T&D Business.

1.2 For the reasons detailed below, NIE strongly disagrees with each of these proposals.

1.3 Separately, there are three outstanding issues with respect to the RP4 price control which must be fairly and definitively resolved as part of the RP5 price control process.

1.4 This Chapter is structured as follows:

- Section 2 describes the Utility Regulator's proposals for an RP5 efficiency discount for each of capex and opex. It explains why these discounts cannot be justified in the light of evidence demonstrating that NIE is a leading performer in its peer group.
- Section 3 responds to the Utility Regulator's commentary on NIE's performance with respect to capex spend in RP4.
- Section 4 responds to the Utility Regulator's commentary on NIE's performance with respect to opex spend in RP4.

- Section 5 is concerned with the Utility Regulator's proposal to unwind existing arrangements with respect to NIE Powerteam. It explains why the continuation of the NIE Powerteam arrangements is in the interests of customers.
- Section 6 sets out three outstanding issues with respect to the RP4 price control which should be fairly and definitively resolved as part of the RP5 price control process, namely:
 - The shortfall in NIE's cost recovery arising from the Utility Regulator's unilateral decision to extend for six months the RP4 price control without consultation or licence modification;
 - The need for the Utility Regulator to approve without further delay NIE's capital efficiency incentive payments under the RP4 price control for the years 2009/10 and 2010/11; and
 - The dispute between NIE and the Utility Regulator regarding the interpretation of the capital allowances (CA) term in the RP4 price control formula contained in NIE's licence.

2. RP5 EFFICIENCY DISCOUNTS

Introduction

- 2.1 In its Draft Determination, the Utility Regulator has proposed an RP5 efficiency discount for each of capex and opex. In particular, it intends to apply:
- a 5% capex efficiency discount, to take the form of a 1% year-on-year reduction in annual capital allowances; and
 - an initial 9% efficiency discount for controllable⁷ opex, to take the form of a reduction in the controllable opex adjusted baseline to be applied over the first two years of RP5.
- 2.2 The Utility Regulator's proposals for the capex efficiency discount are contained in Section 9 (RP5 Capex) of the Draft Determination: see in particular paragraphs 9.42 and 9.112. Its proposals with respect to the initial efficiency discount for controllable opex are set out in Section 10 (RP5 Opex): see in particular paragraphs 10.16 to 10.25.

⁷ Controllable opex relates to matters such as payroll, repairs and maintenance, IT and telecoms, corporate costs, insurance, property costs, professional services and meter reading. It can be distinguished from uncontrollable opex, which is opex which NIE can do little or nothing to control (e.g. rates, wayleaves and licence fees).

- 2.3 The justification advanced by the Utility Regulator for both discounts is that, on the basis of benchmarking analysis, NIE is not as efficient as its peers – i.e. the 14 Great Britain distribution network operators (**GB DNOs**). For the reasons detailed below, NIE disputes this benchmarking analysis and strongly disagrees with any proposal to apply an efficiency discount. We believe the evidence relied on by the Utility Regulator is not reliable since it is based on a number of flawed assumptions and inappropriate use of GB data without suitable adjustment. By contrast, NIE has presented robust evidence which confirms that NIE is a leading performer when compared with the GB DNOs.
- 2.4 Because similar benchmarking analysis issues are raised with respect to both efficiency discount proposals, they are dealt with together in this Chapter 3, rather than separately in the chapters dealing with RP5 Capex (Chapter 4 and 5) and the chapter dealing with RP5 Opex (Chapter 6).
- 2.5 In addition to the initial 9% efficiency discount for controllable opex, the Utility Regulator proposes to apply a 1% year-on-year reduction in controllable opex. This is on the basis of assumptions as to lower salary costs and synergies emerging from ESB's acquisition of NIE, rather than a benchmarking analysis. We strongly disagree with the proposal to apply this further efficiency factor. Our reasons for doing so are set out in the chapter dealing with RP5 Opex (Chapter 6) rather than in this Chapter 3.

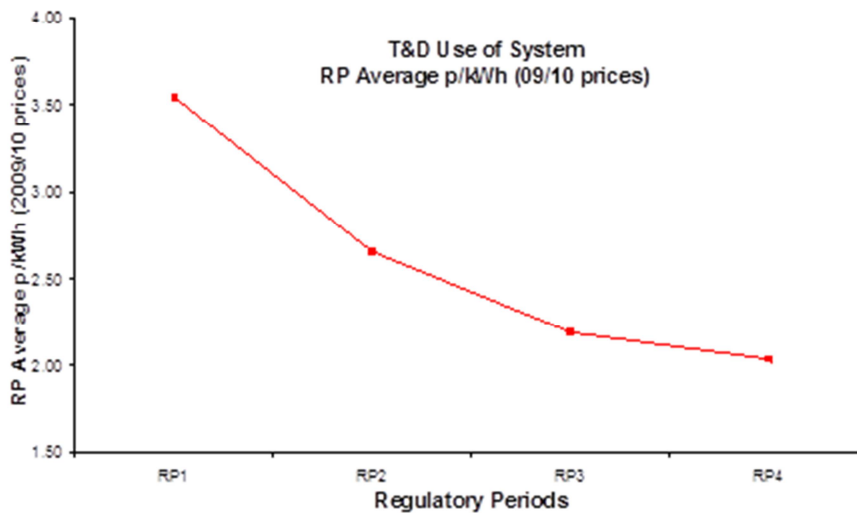
NIE's efficiency analysis

- 2.6 In preparation for its Business Plan submission, NIE appointed consultants Frontier Economics (**Frontier**) and Parsons Brinkerhoff (**PB**) to carry out comprehensive efficiency benchmarking analysis. This analysis was presented to the Utility Regulator as part of NIE's Business Plan submission. It demonstrates that NIE is a leading performer amongst its peer group. In particular:
- Frontier's assessment of NIE's indirect costs and R&M (repair and maintenance) costs found NIE to be one of the leading DNOs in terms of indirect opex efficiency. NIE was ranked 4th out of 15 overall, and 1st among the smaller group of four similar DNOs in the indirect benchmark. NIE was also found to be 1st out of 15 in the R&M benchmark. The original Frontier report comprised BPQ Support Paper BPQ06 and an update was provided to the Utility Regulator in June 2011.
 - Frontier's assessment of allowed revenue relative to GB DNOs ranked NIE in 2nd place out of 15. This report comprised BPQ Support Paper BPQ07. An update on this analysis which confirms Frontier's earlier assessment is provided below.

- PB's review of capex unit costs found NIE to be lower than the GB DNO benchmark on 83% of the categories benchmarked. PB also found NIE to be 3rd out of the 15 DNOs in a benchmark of tree cutting costs. This report comprised BPQ Support Paper BPQ08.

2.7 We believe that the analysis undertaken by NIE's consultants is robust and forms a more reliable basis on which to assess NIE's efficiency than the benchmarking analysis relied on by the Utility Regulator, which is subject to the very significant shortcomings identified below. Our position remains unchanged from that set out in our Business Plan submission: NIE is a leading performer relative to its peers, the 14 GB DNOs.

2.8 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 the diagram below.



Allowed revenue benchmarking – an update

2.9 As noted above, NIE commissioned Frontier to undertake a benchmarking analysis of NIE's allowed revenue against the GB DNOs and submitted the report to the Utility Regulator.

2.10 Comparing allowed revenue is a "top-down" assessment, which provides a broad indication of the value for money received by our customers for the services and outputs we deliver. If NIE were inefficient, Frontier would generally expect this to be revealed by a benchmark of this kind since cost inefficiency will inevitably be reflected in the revenues NIE seeks to recover from its customers.

- 2.11 Frontier's assessment of our allowed revenue relative to the GB DNOs ranks NIE in 2nd place out of 15. This is strong evidence of a high level of efficiency in NIE's business as a whole.
- 2.12 Frontier undertook its analysis in February 2011. It is appropriate to consider the impact on that analysis of two developments since then, namely:
- the increases in GB DNO allowed revenues that were adopted by Ofgem in DPCR5; and
 - the identification of a further important difference in the activities undertaken by NIE and the GB DNOs that was not reflected in Frontier's original analysis.
- 2.13 The increases in allowed revenue that were adopted by Ofgem at DPCR5 (on average 5.6% per year throughout the 5 year period) were not factored into Frontier's analysis which considered 2009/10, the last year of DPCR4. Once these increases are factored into its analysis, we anticipate that NIE's efficiency relative to the GB peer group would be at least as good as presented in the original report, if not better. This view has been confirmed by Frontier.
- 2.14 Since undertaking its analysis in February 2011, Frontier has identified a further important difference in the activities undertaken by NIE and the GB DNOs, namely the treatment of connections. The cost of connections is presently recovered via NIE's core regulatory revenue entitlement, whereas the GB data Frontier used to benchmark allowed revenue excluded connections costs and revenues. Again, were we to correct for this difference it would further improve NIE's position relative to the GB peer group.
- 2.15 Given the February 2011 results and the factors identified above, there is no reason to suppose that NIE is inefficient. Despite this, the Utility Regulator appears to have taken no account of this evidence in its assessment – at least we can find no explicit reference to it in the Draft Determination. This represents a significant omission in the Utility Regulator's efficiency assessment.
- 2.16 The following sections address the shortcomings we have identified in the benchmarking analysis which the Utility Regulator has relied upon to justify the application of opex and capex efficiency discounts. We also address specific issues relating to employment costs, including pensions.

Opex Efficiency

- 2.17 The Utility Regulator engaged consultants CEPA to undertake a benchmarking analysis comparing NIE's controllable opex with that of the GB DNOs. CEPA's benchmarking analysis was carried out for NIE's indirect opex⁸ and its total opex.
- 2.18 CEPA ranked NIE's indirect costs as 9th most efficient out of 15. On the basis of CEPA's analysis, the Utility Regulator proposes to apply an initial 9% efficiency discount for controllable opex, to be applied over the first two years of RP5.
- 2.19 The output of CEPA's benchmarking analysis contrasts starkly with the output of the equivalent analysis commissioned by NIE. As referenced above, work undertaken by Frontier found NIE to be one of the leading DNOs in terms of indirect operating expenditure efficiency (4th most efficient out of 15, and 1st amongst the smaller group of four similar DNOs). On the basis of Frontier's analysis there is no justification for any form of efficiency discount.
- 2.20 We asked Frontier to assess and critique the CEPA efficiency analysis and the way in which these results have been used by the Utility Regulator. Frontier's detailed review is provided at Appendix 3A1 and the main points of which are summarised here:
- Frontier's review suggests that the CEPA analysis significantly understates NIE's efficiency. The most significant drivers of this are certain unjustified additions to NIE's cost base and the application of only one regional adjustment (related to wages).
 - While CEPA has generally endorsed the cost mapping exercise undertaken by Frontier to put NIE's costs on a GB comparable basis, CEPA has made a number of unjustified additions to NIE's benchmarked costs. These include market opening costs (£2.5 million in 2009/10) and NIE Powerteam profit (£1 million):
 - It is not appropriate to include all market opening costs within NIE's benchmarked cost base. While GB DNOs do facilitate the competitive market, their role is to maintain a database of metering points (the Metering Point Administration Service). In contrast, NIE's market support role is far wider, mostly made up of activities undertaken by parties other than the DNOs in GB. Consequently, CEPA's analysis includes approximately £2.3 million of costs that

⁸ Indirect costs are costs associated with those activities that do not involve physical contact with system assets. They include costs associated with network design, project management, system mapping, engineering management and clerical support, the control centre, the customer call centre, stores, health & safety, network policy, HR and non-operational training, finance and regulation, the CEO's office and IT & property.

are not comparable with the GB DNOs. CEPA does not appear to have considered these important differences in role in its analysis.

- Frontier does not believe that it is reasonable for CEPA to have included NIE Powerteam profit within its benchmarked costs. The Utility Regulator has stated its intention to discontinue allowing the addition of a profit term to NIE Powerteam's cost base⁹. This sum has therefore not been included within the baseline controllable opex to which the efficiency factor of 9% is applied. CEPA's analysis should be re-run without this additional NIE Powerteam profit term, in order to derive an efficiency score that is consistent with the cost base to which it will subsequently be applied.
- The Utility Regulator has similarly disallowed a number of costs that formed part of NIE's cost base in 2009/10 (i.e. has chosen not to reflect those cost items within its baseline opex). Given that these costs are excluded from the baseline, they should similarly be excluded from the benchmarked cost base. We note that it is not clear whether this will affect CEPA's analysis, since they choose to benchmark 2008/9, but it will affect Frontier's assessment of efficiency resulting in a further improvement to NIE's efficiency score.
- In its benchmarking analysis CEPA has adjusted NIE's benchmarked costs to take account of differences in regional wages. This approach is not reasonable for two reasons.
 - First, as a matter of principle it is not reasonable to take account of only one potential regional difference. In particular in the case of NIE, its sparsely populated service region will give rise to increased costs. Analysis previously commissioned by NIE, together with the evidence in the public domain from other regulatory reviews (e.g. Northern Ireland Water and the GB gas distribution networks), suggests that sparsity alone could more than offset the regional wage adjustment applied by CEPA. Should the Utility Regulator wish to model explicitly regional differences in its benchmarking, it should account for all potentially relevant regional differences in its analysis, not one single area in which it believes NIE receives a benefit. CEPA does not appear to have considered in its analysis whether there are other potentially important regional differences.

⁹ Moreover, to the extent that the charges levied by NIE Powerteam include a profit element, that is simply a function of the transfer pricing arrangements between NIE and NIE Powerteam as described in Section 5 below. Any profit generated by NIE Powerteam is part of the incentive arrangements which govern NIE's overall rate of return – i.e. profit extracted by NIE Powerteam is profit that would otherwise have been available for distribution by NIE. NIE Powerteam's profit is not a cost to which the Utility Regulator has regard when setting the price control and should not therefore form part of its costs for benchmarking purposes.

- Second, Frontier does not accept that there is a reasonable basis for a regional wage adjustment of the scale applied by CEPA. CEPA's report suggests that there is a gap of approximately 10% between NI wages and UK wages. However, this estimate is based on high level data for 'professional occupations' and 'skilled trade occupations', Standard Occupational Codes that do not accurately reflect the actual composition of NIE's workforce. When more relevant data from the same source is used a much smaller difference between NI and UK emerges and the effect of the regional wage adjustment on estimated efficiency is greatly reduced.
- Finally, neither CEPA nor the Utility Regulator has placed any weight on Frontier's benchmarking of R&M costs, nor on CEPA's benchmarking of total opex (which includes R&M). Frontier recognises that benchmarking direct opex is not straightforward and that the high level cost driver variables (either the composite scale variable (CSV) or modern equivalent asset value (MEAV)) Frontier and CEPA have used do not perfectly capture all the relevant cost drivers. However, while the results of such benchmarking should be regarded as less reliable they are still potentially informative of underlying performance. The extent of NIE's outperformance in this area – particularly in the context of its sparsely populated region – should be regarded as part of a holistic assessment of NIE's performance.

2.21 In conclusion, on the basis of Frontier's assessment of CEPA's analysis and Frontier's original and updated analysis, we believe that there is no objective basis for the Utility Regulator to apply an efficiency factor to controllable opex.

Capex Efficiency

2.22 The Utility Regulator engaged consultants SKM to undertake a benchmarking analysis comparing NIE's capex unit costs with those of the GB DNOs. SKM reviewed the work on unit costs that was undertaken by NIE's consultants PB and submitted as BPQ Support Paper BPQ08. It also conducted an assessment of NIE's indirect costs.

2.23 In its Draft Determination, the Utility Regulator highlighted the following aspects of SKM's analysis:

- No allowance for regional price adjustments had been made in PB's unit price assessment;
- SKM agreed with PB's conclusions that NIE's direct costs are generally lower than the GB averages;

- When 'indirect cost projects' are included, NIE's total unit costs of investments (including indirect costs) for the assessed projects are 5% higher than GB average benchmarks;
- When SKM assessed NIE's capital indirect costs by comparing the direct costs with NIE's total cost and PB's benchmark total unit costs, the indirect costs were found to be 32% of the direct costs compared with PB's estimate of 17% for the GB DNOs. However, due to the lower direct costs NIE's total costs were still less than the benchmark total costs. NIE's RP5 programme includes a number of projects that would be covered under the tasks identified as indirect costs in the benchmarking exercise. This changes the assessment significantly, with NIE's total cost exceeding the benchmark by 5%; and
- On the basis of estimates of direct cost outperformance, SKM determined the NIE's indirect costs associated with the capex programme would need to fall between 27% and 54% to meet the benchmark values.

2.24 On the basis of this assessment, the Utility Regulator is minded to apply a 5% capex efficiency discount, to take the form of a 1% year-on-year reduction in annual capital allowances.

2.25 The SKM analysis that underpins the Utility Regulator's assessment of capex efficiency is identical to that presented to NIE at a meeting on 20 October 2011. It forms one of the five methods used in the Utility Regulator's initial assessment of NIE's capex plan.

2.26 On 18 November 2011, NIE submitted a detailed response to this SKM analysis (together with the other four methods used in the Utility Regulator's assessment of NIE's capex plan). A summary of that response is provided in Section 5 of Chapter 4 (Capex – Quantum). Since the Utility Regulator continues to rely on the same analysis, our position remains as set out in our November paper. In respect of the specific points raised by the Utility Regulator in the light of SKM's analysis, we offer the following response.

- We do not accept that it is reasonable to adjust NIE's capex unit costs to account only for potential differences in regional wages. Should the Utility Regulator wish to take account of regional differences, it should consider all such differences. In any event, as described above in our review of opex efficiency, there is no reasonable evidence to support a regional wage adjustment of the scale identified by the Utility Regulator's consultants.

- We welcome SKM's confirmation that NIE's unit costs on a direct basis are – unambiguously – efficient relative to GB best practice. However, we do not accept SKM's assessment of NIE's indirect costs.
- SKM's conclusion that NIE's unit costs including indirect costs are 5% above prevailing GB levels is flawed, since it is based on a misunderstanding of the available evidence and a highly partial sample of NIE's proposed capex plan:
 - The 17% direct cost uplift quoted in PB's report, and used by SKM in their analysis, is based on only a subset of indirect costs commonly known in GB as engineering indirects. In contrast NIE's unit costs will include the full range of indirect activities.
 - Similarly, NIE's costs will also include costs that would be classified as Business Support Costs in GB. No adjustment has been made by SKM to take account of this.
 - Our analysis suggests that the comparable uplift to direct costs for GB DNOs was at least 24% at DPCR5 based only on the full set of indirect activities and without taking account of the inclusion of certain business support costs in NIE's unit cost estimates.
 - SKM's analysis is based on a sample of only 22% of NIE's total proposed plan. The elements of the plan analysed by SKM have a highly disproportionate share of indirects associated with them as a result of the nature of the work. An analysis of NIE's entire capex plan would reveal a much smaller uplift.
- When SKM's analysis is repeated solely to correct for their incorrect use of the reported 17% uplift (but for no other factors) NIE's unit costs including indirects are found to be 2.3% below GB levels.
- Consequently we do not accept SKM's conclusion that NIE's capital costs are 5% higher than prevailing GB levels.

2.27 In summary, the SKM analysis misinterprets the nature of the elements of the PB report that deal with total unit costs and makes inappropriate use of the figures presented therein. Furthermore, the SKM approach is high level and makes no attempt to adjust for significant differences between NIE and the GB DNOs as regards business structure, operating environment and accounting/reporting definitions. Given the very significant differences in data reporting between GB DNOs and NIE, it is necessary to undertake a significant cost mapping exercise in order to ensure as far as possible a like-for-like and equitable comparison. SKM

has made no such adjustments and consequently the comparison SKM seeks to make is confounded by a lack of comparability.

- 2.28 We do not accept SKM's limited analysis of indirects and continue to believe Frontier's far more comprehensive work is manifestly more robust. Given this, we see no reasonable basis for the Utility Regulator to apply a 5% discount (1% year-on-year) to our capital costs.

Employment costs

- 2.29 Employment costs, comprised mainly of salary and pension costs, are a key component of both operating and capital costs. While these costs have been assessed as part of the opex and capex studies outlined above, it is helpful to consider the efficiency of these costs separately.
- 2.30 The Utility Regulator states in its Draft Determination that NIE's salaries are higher than the NI average.
- 2.31 NIE strongly disagrees with this assertion. There are errors in the Utility Regulator's analysis and NIE has provided evidence which shows that within NIE's specialist job categories, the salaries for electrical engineers, technicians, and lines repairers and jointers who make up 52% of our workforce are a minimum of approximately 12%, 23% and 16% less than the NI average for each category respectively. Specialist labour also includes managers and specialist professional administration staff and represents 83% of NIE staff in total. Further details are provided in the separate paper entitled "NIE Labour Costs – Real Price Effects in RP5" that has been submitted to the Utility Regulator.
- 2.32 As regards pension costs, given the limits imposed by the relevant legislation, including the Protected Persons status of most members of our defined benefit pension scheme, NIE has taken all reasonable steps available to it to control its pension liabilities.
- 2.33 NIE closed the final salary section of the pension scheme to new entrants in March 1998 and was one of the first privatised electricity companies to do so. The Government Actuaries Department report to Ofgem regarding England, Wales and Scotland electricity and gas distribution businesses dated 30 July 2009 suggests that only three of the 14 companies covered closed final salary membership before 1998.
- 2.34 Since 1998, new employees have been offered membership of a new, cheaper defined contribution scheme. This has resulted in significant savings for customers. The cost to NIE of the final salary members' benefits is 26.9% of pay, whereas the cost of defined contribution members' benefits is 8.3% of pay. Based on the current defined contribution member payroll of approximately £15 million,

the closure of the final salary section will deliver cost savings of £2.8 million per annum during RP5.

Conclusion on efficiency discounts

- 2.35 Neither of the efficiency discounts that the Utility Regulator is minded to apply to opex and capex are founded on reliable benchmarking evidence. The benchmarking analysis advanced by the Utility Regulator is based on flawed assumptions and inappropriate use of GB data without suitable adjustment. By contrast, NIE has presented robust evidence from Frontier and PB 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 efficiency discount.

3. RP4 CAPEX

- 3.1 The Utility Regulator reviews NIE's performance in respect of RP4 capex in Section 5 of the Draft Determination. In that section, the Utility Regulator:

- explains that the approach to RP4 capex was unique in that it allowed actual spend to be added to the RAB (albeit that actual spend was subject to a budget cap set by the Utility Regulator) with an efficiency incentive through a separate mechanism;
- reviews NIE's capex spend in RP4. It notes that it is not possible to correlate exactly between the scope of NIE's original plan for RP4 and actual volumes of work delivered. It states that one issue with the RP4 capex mechanism is that the outputs to be delivered were not fully defined from the outset;
- acknowledges that there have been significant increases in global raw material prices since 2005 (when NIE initially assessed RP4 capex requirements) and agrees with NIE's assessment of the magnitude of the impact on NIE of those real price effects (**RPEs**);
- notes that it has approved capex incentive payments for the first two years of RP4 but says that it is reviewing the appropriateness of the list of capex outputs used as a benchmark to assess productivity. Pending the outcome of that review, the Utility Regulator is withholding its approval to further capex incentive payments; and
- reports on the outcome of a detailed external review of RP4 capex conducted to assess NIE's delivery of the capex element of the RP4 determination. Key issues identified by the review include:

- NIE appears to be treating the agreed investment plan as an allowance;
- NIE's unit costs for capex exceed the GB DNO benchmark by 5%. (This issue is addressed in Section 2 above.);
- changes to NIE's capitalisation practices have resulted in items being charged to capex that have already been funded through NIE's opex allowance. This issue is also addressed in Section 6 of the Draft Determination and is subject to further investigation;
- engineering judgement rather than a risk prioritisation process forms the primary driver to selecting assets for replacement;
- the delay to two projects (Belcoo and Statcom) may have led to NIE not being fully compliant with its licence and legislation; and
- NIE has not met its own efficiency targets.

3.2 We provide our comments on the Utility Regulator's review of RP4 capex in the sub-sections that follow. In order to maintain our focus on matters directly related to the quantum and structure of the RP5 price control, we do not address every point raised by the Utility Regulator. It should not be inferred that NIE agrees with those points which we do not address.

RP4 capex review erroneous

3.3 As more fully described in Chapter 2 (Regulatory Principles to Underpin RP5), it is an essential feature of RPI-X incentive-based regulation that the regulated company should not generally face the risk of a subsequent re-opening of the price control for any given price control period: if the company outperforms the price control targets, then it should be allowed to retain the benefit of doing so during the relevant price control period, and its success should be taken into account only in setting the next price control, by setting more demanding targets.

3.4 The only good reason for an *ex post* review of the company's performance in a past price control period is to:

- assess what past performance reveals about the level at which the next price control should be set; and
- check 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).

- 3.5 A review for these purposes should not be regarded as an occasion for the Utility Regulator to conduct a discretionary re-assessment of the rules applicable to RP4 capex. It is regrettable that high-level outputs for RP4 (defined in terms of service quality) were not clearly established by the Utility Regulator at reasonable levels at the time of setting the RP4 price control. In this regard it is to be noted that:
- It was the Utility Regulator's stated intention in setting the RP4 price control not to conduct a resource intensive price control review. This approach resulted in a 7-page final determination for RP4; and
 - The position with respect to outputs is acknowledged in paragraph 5.26 of the Draft Determination where the Utility Regulator observes that: "*One issue with the RP4 capex mechanism is that the outputs to be delivered were not fully defined from the outset*".
- 3.6 Had the outputs for RP4 been fully defined, NIE would have been able to demonstrate conclusively that it had substantively delivered on those outputs. In any event, the Utility Regulator is bound by its RP4 price control and any failure on its part to specify outputs at the time of the RP4 price control review does not now entitle it to conduct an *ex post* assessment of NIE's capex. NIE has delivered its overall RP4 capex quantum, as agreed with the Utility Regulator at the outset of RP4.
- 3.7 In this context, it is of concern that the Utility Regulator has considered it appropriate to conduct a detailed review of NIE's capex in RP4 and to assess it against NIE's RP4 capex plan. The nature and extent of that review goes well beyond what is necessary to assess the level at which the next price control should be set or to check that NIE has complied with its past obligations. Such a review is inconsistent with the principles of RPI-X incentive-based regulation and is erroneous.
- 3.8 It is important to recognise that NIE's RP4 capex plan was part of the evidence on the basis of which the Utility Regulator set the RP4 price control. As is normal practice in price control setting, it was not intended that the capex plan would be an unalterable blueprint for what NIE would do in terms of specific capex projects.
- 3.9 The primary objective of the RP4 capex plan was to manage a defined set of network risks:
- Network performance
 - Safety
 - Compliance with legislation
 - Environment

- 3.10 All utilities face significant uncertainty in forecasting requirements for incoming regulatory periods. Typically, price review capex forecasts are prepared in year 3 of the current period. The plan therefore contains a 7-year forecast (2 years covering the remainder of the current review period and 5 years of the incoming price control period). Capex plans are therefore unavoidably dependent on assumptions for such factors as asset deterioration, demand growth and unit costs. Asset deterioration can be affected by unforeseen mechanisms or significant events such as ice storms. Demand growth and unit costs are linked to local and wider economic factors.
- 3.11 In addition, detailed design and planning for the majority of the proposed major projects would not (and could not) have been carried out at the time of submission. Premature detailed design carried out against a number of assumptions would result in nugatory work.
- 3.12 Changes to the plan are natural, inevitable and unavoidable and are managed through being able to flexibly re-optimize the plan within agreed parameters. This required flexibility is a widely accepted premise of utility capex regulation, and has been fully embraced by Ofgem for the GB DNOs.
- 3.13 In its annual report, Electricity Distribution Cost Review 2006-2007, Ofgem notes in paragraph 2.64, page 18:

"For the majority of DNOs there is a material degree of scheme churn (i.e. different schemes being undertaken from those set out in forecasts prepared during the last price review), particularly for load-related expenditure, even at this early stage in the regulatory period. In some cases system reinforcement and asset replacement schemes have been deferred until after the end of DPCR5 whilst new schemes for the current period have been introduced. In addition scheme phasing, the scope of work and forecast costs have also varied from earlier predictions."

- 3.14 In its DPCR5 final proposals, Ofgem further explains that:

"We will apply a number of high-level principles in assessing the efficiency and efficacy of a DNO's asset management decisions, including:

- efficient reprioritisation of activities is expected and encouraged – DNOs must retain the flexibility to respond quickly to new information and will not be penalised for doing the right thing in the interests of the network ..."*

- 3.15 Price review settlements should allow the company to fulfil its obligations through both the quantum of capex allowance and the ability to flex plans to manage changing circumstances and risks.

3.16 In its submission for RP4 NIE emphasised the need for flexibility in capex plans:

"the submission should not however be interpreted as a firm requirement for, or commitment to, the delivery of the physical outputs specified therein... Despite the uncertainties surrounding the detailed risks that will need to be addressed and the detailed solutions, every attempt has been made to predict a realistic level of investment requirement for RP4".

3.17 NIE has regularly reviewed its investment plan to take account of the latest assessment of investment priorities. Overall NIE has managed total capex expenditure within the agreed regulatory budget whilst remaining compliant with statutory and licence obligations to manage network risks. This is despite pressures on capex from outside factors such as storms and RPEs. NIE has also kept the Utility Regulator fully informed of capex delivery and changing priorities over the duration of RP4, through the annual regulatory reporting process.

3.18 Two examples of deviations from the initial plan are worth high-lighting by way of case studies. They are relevant also to comments made elsewhere in this chapter.

Cost of storms

3.19 NIE's network refurbishment programmes are critical to maintaining performance and building resilience to adverse weather conditions. This is particularly true for the overhead line network, which comprises approximately 70% of the distribution network.

3.20 Adverse weather events are generally uncertain in nature, timing and severity but it is inevitable that they will occur during any given year.

3.21 During RP4, NIE experienced 38 storm escalations – that is, severe weather events which required NIE to open its Incident Centre and mobilise emergency teams to restore supplies. The total cost of storms in RP4 was £8.7 million. This includes £4.0 million for the exceptional cost of the March 2010 ice storm.

3.22 The £8.7 million total cost of storms in RP4 compares to a total cost of £4.3 million for 18 storms over RP3. The key difference in RP4 was the increased number and severity of storms. NIE experienced three 'exceptional' weather events during RP4:

- the January 2009 wind storm;
- the March 2010 ice storm noted above; and
- ice accretion in December 2011.

3.23 The Utility Regulator uses the Draft Determination to suggest that NIE has changed its approach to capitalising storm costs. Throughout RP3 and RP4, NIE has applied a consistent approach to how storm costs are classified:

- Equipment replacement costs, such as replacement of broken poles, are classified as capex; and
- Work not resulting in replaced equipment (for example, fuse replacements, reconnecting conductors, tree trimming, etc.) is classified as opex.

3.24 A variation to this treatment was required for the three exceptional events identified above. Due to the extreme nature of these events, the normal storm replacement treatment of capital costs was not appropriate and costs were thus derived from an assessment of damage to the network.

3.25 Table 3.1 below summarises the cost per storm event in RP3 and RP4 and demonstrates that NIE has managed the total cost per storm event down by 46% between periods.

Table 3.1: Cost per storm event in RP3 and RP4

Period	RP3		RP4		
Total Storms	18		37 ¹⁰		
09/10 prices	Cost	Cost per storm	Cost	Cost per storm	RP3 to RP4 reduction
Opex Cost	£1.6m	£89k	£2.0m	£54k	-39%
Capex Cost	£2.7m	£150k	£2.7m	£73k	-51%
Total Cost	£4.3m	£239k	£4.7m	£127k	-46%

Real price effects

3.26 In its RP5 submission, NIE highlighted the impact of RPEs during RP4. This showed the impact of significant increases in global raw material prices since 2005 when NIE assessed and submitted its original RP4 capex plans. In particular there were sharp rises in the prices of copper and steel.

3.27 The Utility Regulator accepts the argument that there was an issue with the cost of RPEs during RP4 and has agreed with NIE that capex costs will increase due to RPEs.

¹⁰ Excludes March 2010 Ice storm – Exceptional Weather event.

“We have reviewed this claim. We agree with the facts behind the increase in prices and the magnitude of the impact on NIE T&D” (paragraph 5.31 of the Draft Determination).

- 3.28 However, having accepted the reality of RPEs, the Utility Regulator has not made any specific allowance for RPEs in RP5 thereby exacerbating the extent of underfunding of RP5 capex. The GB DNOs received RPE allowances from Ofgem.

NIE spending up to the limit of the capex allowance

- 3.29 The Utility Regulator states that one of the main issues with the RP4 investment plan outturn is that NIE appears to be treating the agreed investment plan as an allowance.
- 3.30 We are surprised that this has been raised as a concern by the Utility Regulator since that is precisely how the capex regime was expected to operate.
- 3.31 At the RP4 price control review, the Utility Regulator set a budget that was determined by reference to NIE's investment plan for RP4. This is acknowledged by the Draft Determination. Provided that actual capex was within this budget, actual spend would be added to the RAB and NIE was expected to meet capex requirements within this budget: more work (e.g. for aged asset replacement) would clearly have been desirable, but the budget set the limit for what the Utility Regulator was willing to allow for the RP4 period.
- 3.32 As explained above, NIE's RP4 capex plan was part of the evidence on the basis of which the Utility Regulator set the RP4 price control. It was not intended to be a blueprint for what NIE would do in terms of capex projects. Changes to the plan were inevitable but the budget remained as a constraint on allowed capex. The Utility Regulator was kept informed of the changing priorities through the annual regulatory reporting process.
- 3.33 All departures from the RP4 capex plan were necessary and justified by reference to the need for NIE to maintain a safe and reliable network. In these circumstances, investing to the budget set by the Utility Regulator should not be a reason for criticism. It has not led to an increase in the RAB beyond that envisaged at the start of RP4. It reflects the effective operation of the RP4 capex regime rather than any misuse of it.

Outputs delivered efficiently

- 3.34 NIE strongly refutes the Utility Regulator's assertion (at paragraph 5.72 of the Draft Determination) that NIE has not met its own efficiency targets for RP4.
- 3.35 The RP4 capex budget set a challenging target based on the assumption that NIE would achieve significant efficiencies over RP4, enabling reductions in outturn

expenditure compared to a base case agreed at the start of RP4. The budget assumed that actual expenditure would be 10% less than the initial base case estimate.

- 3.36 Importantly, the RP4 capex budget contained little in the way of contingency for unanticipated events that would require an increase in capex. There was, for example, no allowance for major storms.
- 3.37 NIE's expectation at the start of RP4 was that the occurrence of such contingent events would result in the Utility Regulator reviewing and, where appropriate, increasing the capex budget to reflect increased investment requirements. That was the basis on which the capex arrangements were acceptable to NIE. Unfortunately, that is not how the RP4 capex arrangements were operated in practice. Despite the substantial increase in material costs (the validity of which is now recognised by the Utility Regulator) and the major storm in March 2010, the Utility Regulator did not agree to the necessary increase in the regulatory budget requested by NIE.
- 3.38 NIE accepted that achieving a 10% reduction in order to limit expenditure to the capex budget would present a challenge. However, the reluctance of the Utility Regulator to adjust the budget to reflect the increase in material costs and the cost of the March 2010 storm has meant that NIE has had to absorb these additional costs within the overall programme to remain within the budget. Furthermore, it has been necessary to accommodate additional 11kV overhead line costs which NIE had not taken account of in its RP4 submission.
- 3.39 Taken together, these factors have doubled the initial efficiency challenge for RP4. Once these factors are taken into account, NIE has more than met its own efficiency target.

Cost allocation

- 3.40 The Draft Determination suggests that changes to NIE's capitalisation practices have resulted in items being charged to capex that have already been funded within NIE's opex allowance.
- 3.41 The Utility Regulator's starting point is that the RP4 capex mechanism relies on consistency of allocation between capex and opex. We accept that if the Utility Regulator had prescribed an allocation methodology for capex and opex it would have been incumbent on NIE to ensure that its capitalisation practices were in accordance with that methodology. In fact, no such allocation methodology was prescribed.
- 3.42 In these circumstances, it is reasonable for NIE to allocate capex and opex on the basis of normal accounting standards. That is the approach which NIE has taken.

NIE's accounts have been approved by the auditors and submitted to the Utility Regulator without challenge. NIE has reported regularly to the Utility Regulator.

- 3.43 It is open to the Utility Regulator to prescribe an allocation methodology that will apply to NIE going forward. Indeed, NIE would welcome such a methodology as a means of reducing the risk of *ex post* assessment of its capex. But it would be wrong for the Utility Regulator to introduce at this stage an allocation methodology that is to apply retrospectively to RP4. Such a step would have effect to re-open elements of the RP4 price control and lead to the Utility Regulator disallowing NIE's entitlement to recover a return on amounts added to its RAB during RP4. That would be contrary to the essential principles of RPI-X regulation.
- 3.44 The Utility Regulator has commenced an investigation into NIE's capitalisation practices. As yet, the Utility Regulator has not explained what might be objectionable about NIE's capitalisation practices with sufficient clarity to enable NIE to respond in detail in respect of these matters. NIE awaits the Utility Regulator's report on NIE's capitalisation policies, at which point it will consider the Utility Regulator's position and comment more fully.

Belcoo and Statcom

- 3.45 In paragraphs 5.68 and 5.69 of its Draft Determination, the Utility Regulator questions whether NIE is fully compliant with its licence and legislation as a result of delay to two projects, referred to as Belcoo and Statcom.
- 3.46 NIE wrote to the Utility Regulator with respect to these issues in September. In respect of security of supply to Belcoo in County Fermanagh, NIE noted that:

"Whilst it has been assessed that under certain demand conditions the 11kV resupply to Beleek may not be capable of supplying the full demand of the substation, within the permissible loadshed it is not considered that the high cost of addressing this risk (a new 33/11kV substation) relative to the potential benefit is justified. This is explicitly permissible under the planning standard."

- 3.47 With respect to the provision of a 'Statcom' to provide voltage support, NIE noted that:

"In the case of the Statcom project, the requirement for voltage support needed to be re-assessed in the context of a planned new generation connection at Kilroot and revised investment priorities. The requirement for voltage support in the east of the province was kept under review during RP4 and it was considered prudent not to proceed with the Statcom project until there was clarity over the implications for transmission system powerflows in the event of the proposed Kilroot project proceeding ..."

- 3.48 It was these considerations, particularly the potential for Kilroot to moderate powerflows from Ballylumford to Belfast that allowed us in RP4 to manage the risk of voltage collapse without investment in a statcom.
- 3.49 Under the circumstances it would not have been appropriate for NIE to invest in these projects at the time and both are clear examples of the need to reprioritise investments taking into consideration all relevant factors at the time. In these two instances due consideration was given to licence standards and statutory requirements.

Risk management

- 3.50 The Utility Regulator expresses its concern (at paragraph 5.67 of the Draft Determination) that engineering judgement rather than a risk prioritisation process forms the primary driver to selecting assets for replacement.
- 3.51 We disagree with the Utility Regulator on this issue since risk assessments based on the probability and consequences of failure are used to prioritise asset replacement and NIE's directors specifically set out the RP5 investment objectives. Furthermore, NIE's directors reviewed the investment plan in an iterative manner until they were satisfied that the proposed expenditure was minimised consistent with the maximum level of risk NIE could prudently be expected to manage. We expand on this in Chapter 4 (RP5 Capex – Quantum).

4. RP4 OPEX

- 4.1 The Utility Regulatory reviews NIE's performance in respect of RP4 opex in Section 7 of the Draft Determination.
- 4.2 NIE's allowance for operating costs in RP4 (£202 million) was based on the actual level of costs incurred in the previous regulatory period. NIE's actual costs for RP4 were £140 million representing an outperformance of £62 million. This outperformance has been achieved through cost reductions as shown in the table below.

Table 3.2: Opex outperformance

Reduction	£m
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

Salaries

4.3 Savings of £9.6 million were achieved mainly through the introduction of the “customer aligned” business model during the course of 2004/05. This was designed to seek greater clarity and absolute simplicity of approach by removing any process duplication and unnecessary organisation levels and identifying individual accountability in all business areas. The core elements of this approach included:

- The establishment of a rationalised, de-layered organisational structure to support a customer aligned approach to customer interaction and work delivery. This included the introduction of a three depot structure for managing customer work and a central service centre to co-ordinate customer interactions (a reduction from 13 Customer Service Centres and 3 Control Centres); and
- Productivity and process initiatives were also implemented including maximising the working day through direct to site working, reducing non-productive time through multi-skilling, increasing the output rate by more on-site management as well as simplification of internal transactions and management arrangements.

4.4 Implementation of the customer aligned approach led to significant manpower surpluses. The surplus staff were trained up and deployed to replace, where possible, external resources previously engaged in providing services to NIE. The

gains were measured in terms of total manpower reductions achieved through insourcing together with more effective customer management whilst maintaining network performance targets.

Corporate costs

- 4.5 Savings of £8.5 million were achieved in respect of corporate costs reflecting both a reduction in the total level of corporate costs and a lower percentage allocation to NIE.

R&M (repair & maintenance)

- 4.6 Savings of £15.6 million reflect cost reductions in fault & emergency, defect management, cyclic based maintenance, vegetation management, miscellaneous distribution costs, non-recoverable alterations and ancillaries maintenance & testing.

IT & Telecoms

- 4.7 Savings of £11.3 million were achieved by insourcing the call handling service from Northgate in 2005/06 which resulted in a significant reduction in general application costs. Savings in IT are also due to the renegotiation of the managed service contract with Northgate and the on-going rationalisation of Infrastructure Support costs through the introduction of Citrix and hot-desking as well as tight control during the budget setting process and general scrutiny of IT expenditure. The reduction in Telecoms costs has been achieved through the extension of the Cable & Wireless contract and the rationalisation of locations as well as tight control during the budget setting process and scrutiny of costs.

Managed Service

- 4.8 Savings of £8.4 million are mainly due to savings in supply chain costs and the rationalisation of the services supplied by NIE Powerteam. The reduction in supply chain costs was due to the closure of the central stores unit at Culcavy as well as general operating efficiencies. The closure of Culcavy and the transfer from a centralised function to a distribution function was intended to remove double handling of materials issued from the Ballymena and Craigavon stores. The move resulted in savings in rent, facilities management and security costs as the exit strategy entailed the relocation to existing sites. Insourcing the TNT logistics contract generated further savings.

Insurance costs

- 4.9 There were a number of factors which contributed to the £4.2 million reduction in insurance costs over RP3. The insurance market entered a “soft” rating cycle which created competition between insurers and ultimately had a positive effect on premiums. A number of incentives were developed with insurers on the main employer and public liability and material damage insurances. These incentives

rewarded our loyalty to insurers over a three year period and coupled with positive claims statistics, produced premium rebates. Claims performance has had a positive effect on premiums with the number of employer's liability, public liability and motor insurance claims steadily reducing from the end of RP1.

Other reductions

- 4.10 In addition to the initiatives highlighted above, a range of other efficiency measures contributed to further savings of £4.6 million.

5. NIE POWERTEAM

- 5.1 NIE Powerteam is an integral part of the NIE organisation and its only function is to undertake activities forming part of NIE's T&D Business. It was established by NIE in 1999 as a vehicle for driving down costs for the benefit of NI customers.

- 5.2 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;
- Plant & Technical; and
- Metering.

- 5.3 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 of generators, and restoring supplies to customers when work is complete. All employees have a designated escalation role for major events.

- 5.4 The Utility Regulator's review of the arrangements between NIE and NIE Powerteam is set out in Section 8 of the Draft Determination. The Utility Regulator provisionally concludes that NIE Powerteam is, in essence, an external service provider that is not subject to competition or regulation and that the current arrangements between NIE and NIE Powerteam should be brought to an end. Moreover, the Utility Regulator indicates that it will require NIE to subject the services currently provided by NIE Powerteam to competitive procurement.

- 5.5 NIE believes that the Utility Regulator's assessment of NIE Powerteam, and its treatment throughout the Draft Determination of costs incurred by NIE Powerteam, is fundamentally wrong. In this Section 5:

- We explain that NIE is incentivised to manage NIE Powerteam's costs efficiently as part of NIE's own overall costs. Consequently, there is no need to unwind the arrangements between NIE and NIE Powerteam in order to enable the Utility Regulator to ensure that only efficiently-incurred costs of NIE Powerteam are passed on to customers.
- We describe how NIE Powerteam was established as a vehicle to drive efficiency savings and demonstrate that it has been very successful in this regard.
- We explain why requiring NIE to subject the services currently provided by NIE Powerteam to competitive procurement would not be in the interests of customers.

NIE Powerteam is subject to effective regulation

- 5.6 NIE Powerteam was established as a separate legal entity in order to drive efficiency savings. It has been an extremely successful vehicle for driving down costs to the benefit of customers. However, it remains an essential part of the NIE regulated business and its costs are subject to review by the Utility Regulator for price control purposes in precisely the same way that NIE's directly incurred costs are subject to review.
- 5.7 This special role played by NIE Powerteam 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.
- 5.8 It is wrong for the Utility Regulator to suggest, as it does, that NIE Powerteam is unregulated. That implies that the Utility Regulator has no control over the level of costs incurred by NIE Powerteam and that the Utility Regulator is obliged to fund NIE to cover charges levied by NIE Powerteam, whatever the level of those charges or how efficiently NIE Powerteam has incurred its costs. That is not correct.
- 5.9 The charging arrangements between NIE and NIE Powerteam are not relevant for price control purposes. They represent internal arrangements which (with one previously agreed exception) have no impact on the charges paid by NI customers. Whatever the charge levied by NIE Powerteam for the services it provides to NIE, the Utility Regulator will only allow NIE sufficient revenue to cover NIE Powerteam's efficiently incurred costs. Customers are entirely insulated from the charging arrangements in place between NIE and NIE Powerteam. For price

control purposes, therefore, NIE Powerteam should be treated as a department of NIE.

- 5.10 The exception referred to above concerns the arrangement, introduced in RP4, under which 50% of NIE Powerteam's profits were credited to customers via lower allowed revenue. Although providing a benefit to customers, this arrangement established an artificial link between customer bills and the transfer pricing arrangements between NIE and NIE Powerteam.
- 5.11 Given that the Utility Regulator is able effectively to regulate the costs incurred by NIE Powerteam there is no justification for its proposal to bring the current arrangements between NIE and NIE Powerteam to an end. The Utility Regulator should confine itself to setting the price control at a level that enables NIE to recover its efficiently incurred costs and to drive further efficiencies. It should leave to NIE management the task of how best to structure NIE's business so as to deliver on the revenue and output targets set by the Utility Regulator. The Utility Regulator's proposal to unwind the arrangements with NIE Powerteam is a further illustration of the Utility Regulator's unhealthy desire to micro-manage NIE's business. For the reasons explained in Chapter 2 (Regulatory Principles to Underpin RP5) that is inconsistent with the principles of incentive-based regulation and contrary to the best interests of customers.
- 5.12 The Utility Regulator's failure to recognise that NIE Powerteam's efficiently incurred costs form an essential part of NIE's funding requirement has resulted in a number of confused and inconsistent proposals for cost allowances throughout the Draft Determination. The following aspects of the price control proposals are affected:
- Non-network IT capex – we address this in Chapter 4 (RP5 Capex – Quantum);
 - Workforce renewal costs – we address this in Chapter 6 (RP5 Opex); and
 - Pension costs – we address this in Chapter 7 (Pensions).
- 5.13 These are all necessary business costs. Whether the cost is incurred by NIE or NIE Powerteam is irrelevant as NIE Powerteam is an integral part of the NIE organisation and works exclusively as part of NIE.

Rationale for the establishment of NIE Powerteam

- 5.14 NIE Powerteam was established in 1999 to provide a vehicle that facilitated the alignment of the terms and conditions of our operational staff with contractors operating on behalf of NIE on the network.

- 5.15 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 third party contractors.
- 5.16 These include:
- salaries which are lower than those of similar employees in NIE;
 - 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; and
 - defined contribution pension arrangements.
- 5.17 These contracting terms and conditions were not acceptable to the Unions within NIE. However within the new NIE Powerteam company they were acceptable to the Unions as long as they matched those of third party contractors.
- 5.18 Every new operational employee since 1999 has been recruited into NIE Powerteam. In addition, in 2000, approximately 750 NIE operational staff were TUPE'd from NIE into NIE Powerteam on their existing terms and conditions. This gave us the opportunity to introduce productivity schemes in a number of key areas to drive efficiencies which would not otherwise have been easily achieved.
- 5.19 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 the 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, undereaves, LV cables and overhead lines teams. These again were based on increasing productivity by measuring performance against contractor rates.
- 5.20 Today the total operational workforce within NIE Powerteam on 'contracting' terms and conditions is approximately 58%. The remaining 42% are on the original NIE 1995 terms and conditions.
- 5.21 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 among the GB DNOs, as described in Section 2 above.

Competitive tendering not in customers' interest

5.22 The Utility Regulator proposes both to bring the current arrangements between NIE and NIE Powerteam to an end and to require NIE to subject the services currently provided by NIE Powerteam to competitive procurement.

5.23 NIE cannot accept that these proposals are in the interests of customers for the reasons set out below:

- The NIE business as a whole is efficient, and NIE Powerteam is an integral part of this efficient model.
- The model enables the maintenance and development of a skilled workforce within NIE's organisation including the apprentice training programme. If NIE were required to contract out its requirement, third party contractors would have little incentive in the short to medium term to invest in the future workforce. Apprentice training programmes would be cut. 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.
- There would be a risk that current NIE Powerteam staff could be TUPE'd into a winning bidder, resulting in that carefully built up resource base being lost to NIE permanently.
- The existing model allows for the most effective and cost efficient response to emergency situations, including major storms.
- There is a very valuable loyalty to NIE and the customer from core staff that is not achievable from external contractors. This is particularly evident during storm and emergency situations, where staff "do what needs done" to restore supplies.
- The model gives flexibilities in delivery that are difficult to achieve from contractors. For example, NIE Powerteam employs:
 - transmission overhead linesmen who work on the transmission system during summer outages, work on the distribution system in the winter and also provide cover for emergency situations on a 24/7 basis;

- jointers who can work on cables from LV through to 33kV – this allows NIE to respond to the challenges of a flexible capex programme, including customer connections, and also allows cost effective emergency cover; and
 - engineers who 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 time. This is very difficult to replicate in a contracting model.
- Commercial risk would be priced into the model by external contractors, resulting in greater costs to customers. There would be increased costs in NIE for procurement and contractor monitoring.

Conclusion on NIE Powerteam

- 5.24 The NIE Powerteam model has no adverse consequences for customers. Contrary to the impression created by the Utility Regulator, NIE Powerteam's activities are subject to effective price control regulation as part of NIE's activities. There is therefore no justification for its proposal to bring the current arrangements between NIE and NIE Powerteam to an end. The Utility Regulator's reluctance to recognise that NIE Powerteam's efficiently incurred costs form an essential part of NIE's funding requirement has resulted in a number of confused and inconsistent proposals for cost allowances throughout the Draft Determination.
- 5.25 The adoption of the NIE Powerteam model has facilitated NIE to drive efficiency and introduce modern work practices. NIE Powerteam has brought a commercially focussed culture where managers understand the importance of cost control and cost reduction. There is no need for the Utility Regulator to specify how NIE management should meet its overall efficiency targets. This should be the responsibility of NIE management.

6. CARRY-OVER INTO RP5

- 6.1 This Section summarises three outstanding issues with respect to the RP4 price control which NIE is concerned to ensure are fairly and definitively resolved as part of the RP5 price control process.

RP4 Extension

- 6.2 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.

- 6.3 The delay does not signal a well-managed regulatory environment in NI.
- 6.4 The Utility Regulator has attributed the reason for the delay to NIE's late submission of information required under the Business Plan Questionnaire (BPQ). We refute the Utility Regulator's positioning in this regard on the grounds set out more fully in our letter dated 1 July 2011. These include the fact that, within two weeks of the target date we 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 of the Draft Determination. In any event, according to the original timetable (tabled at a meeting on 2 February 2010), the Utility Regulator was five months late in issuing the BPQ.
- 6.5 The RP4 price control to which NIE agreed was set to apply for the 5-year period from 1 April 2007 to 31 March 2012. This is reflected in the drafting of the price control formula contained in NIE's licence and in the associated Direction. Neither caters for an extension and licence modifications are required to formalise the RP4 extension including, for example, in relation to the allowed cost of capital which is only defined up to 31 March 2012.
- 6.6 In relation to the allowed rate of return, a rollover of the RP4 price control has effect to prolong the application of the current vanilla rate of return of 4.7% which disadvantages NIE because it is considerably less than NIE's cost of capital. Applying the Ofgem DNO precedent after adjusting for NIE's gearing covenant would give NIE an expected rate of return of 5.3%. The disadvantage to NIE of applying the lower rate of return for six months is approximately £3.6 million (i.e. $0.6\% \times \text{£}1.2\text{bn RAB} / 2$).
- 6.7 An extension of the RP4 price control also has effect to delay the recovery of pensions costs under-recovered in RP4 and the total amount of the under-recovery will increase further during the extension period. Unless an adjustment is made, the rollover will increase the amount of pension costs unrecovered at the start of RP5 by approximately £2.3 million.
- 6.8 A rollover of the RP4 price control must also ensure there is certainty in relation to the opex allowance. This requires specific allowances to be agreed for certain projects, for example, in relation to the Enduring Solution on-going costs.
- 6.9 NIE considers that licence modifications are required to formalise the RP4 extension and such licence modifications should be consulted upon and agreed with NIE in accordance with the requirements of Article 14 of the Electricity

(Northern Ireland) Order 1992. NIE's view is supported by advice from external counsel which has been provided to Utility Regulator. The Utility Regulator has nevertheless indicated that it does not agree that NIE's licence needs to be modified to implement the extension of the RP4 price control.

- 6.10 Apart from the legal position, the Utility Regulator's approach to the RP4 rollover contrasts unfavourably with that of 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.
- 6.11 To the extent that the RP4 extension results in allowed revenue that is insufficient to cover NIE's costs over the period of the extension, NIE expects the Utility Regulator to address this shortfall in its final determination for the RP5 price control.

RP4 capex efficiency incentive payments

- 6.12 The RP4 price control allowed NIE to claim capex incentive payments related to improvements in productivity and procurement. The incentive to improve labour productivity uses "*key capex outputs to normalise the level of manpower employed in delivering the capex programme*". NIE proposed that this be assessed by reference to cable works (cable jointing), overhead line construction, 11kV line refurbishment, undereaves replacement and plant replacement.
- 6.13 We are concerned that the Utility Regulator has not approved NIE's capex incentive payments for 2009/10 and 2010/11 which were submitted for approval in July 2010 and July 2011 respectively. The Utility Regulator has already approved the efficiency amounts assessed by NIE for 2007/08 and 2008/09 but is now questioning the appropriateness of the selected activities to assess labour productivity.
- 6.14 The Utility Regulator suggests at paragraph 5.35 of the Draft Determination that the list of activities should provide "*a benchmark for the total Powerteam productivity*". While this would be ideal, the RP4 incentive mechanism recognised that a more pragmatic approach was required to design a methodology that captured at least some efficiency gains in order to provide an incentive mechanism that could be made to work in practice. For example, savings attributable to engineering decisions (asset management efficiency) are not included because of the practical difficulty in measuring such savings. In respect of labour productivity savings, it was recognised that these could not all be measured; the objective of the methodology is to assess efficiencies in the delivery of the subset of activities that can be readily assessed.

- 6.15 While it was not the objective of the methodology to measure efficiency across all activities, efficiencies demonstrated for a significant proportion of activities is indicative of efficiencies achieved in other areas. In this regard, NIE has consistently demonstrated labour efficiencies in the delivery of around 50% of the annual capex programme throughout RP4. As the processes adopted in the management of the remainder of the programme are not dissimilar to those that have delivered the efficiencies demonstrated by this assessment, it is entirely reasonable to assume that efficiencies have also been achieved in the delivery of the overall capex programme.
- 6.16 These efficiencies should be rewarded on the same basis as that agreed in respect of 2007/08 and 2008/09, the first two years of RP4. It would be poor regulatory practice and inconsistent with principles of incentive-based regulation if the Utility Regulator was to change the incentive mechanism retrospectively.
- 6.17 The Utility Regulator states in paragraph 5.35 of the Draft Determination that "*the hourly cost of Powerteam to NIE T&D is approximately one-third direct labour and two-thirds back office staff*". This is incorrect. Approximately 90% of NIE Powerteam's costs are directly or closely associated with the delivery of the NIE work programme. The remainder is business support costs.

Capital Allowances

- 6.18 The Draft Determination makes no reference to the dispute with NIE regarding the interpretation of the capital allowances (CA) term in the charge restriction conditions of NIE's licence. This CA term is used within the RP4 price control formula in the calculation of the allowance for tax.
- 6.19 The issue relates to the effect which the disclaiming of capital allowances has on allowed revenue. NIE has disclaimed capital allowances on two occasions (in 2006/07 and 2008/09) resulting in a net benefit to customers in RP4 of £2.3 million. However, the Utility Regulator has chosen to treat the two disclaims differently. This inconsistent treatment has an adverse impact on NIE's RP4 allowed revenue of £1.2 million.
- 6.20 NIE's view is that the Utility Regulator's approach is also inconsistent with the licence drafting. The Utility Regulator has not explained why it considers that the CA term should not be interpreted in accordance with the ordinary and natural meaning of the words used in the licence.
- 6.21 NIE's interpretation is supported by advice from external counsel which has been provided to the Utility Regulator.
- 6.22 NIE regards this as an unresolved issue. NIE's allowed revenue for RP4 should be calculated in accordance with the provisions in the licence and factored into the

closing K factor calculation for RP4 which will form part of the licence modifications for RP5.

CHAPTER 4

RP5 CAPEX – QUANTUM

SUMMARY

The Utility Regulator has proposed an allowance of £293.3 million for 'business as usual' (BAU) capex – that is, the capital investment needed to sustain and develop NIE's T&D network so that it continues to provide a reliable supply of electricity to customers. The proposal is approximately half the £606.7 million identified by NIE as the minimum necessary to manage network risks.

There is good reason why NIE has proposed a substantial increase in BAU capex for RP5. Investment in the network peaked in the late 1960s and the assets installed during this period are now entering the replacement phase of their lifecycle. Almost one third of network assets are now between 45 and 80 years old and additional capex is required in RP5 not only to commence the replacement of those assets added in the late 1960s but also to address the ever increasing asset replacement needs of the older assets.

If the Utility Regulator's proposals for capital investment in RP5 were to determine NIE's actual capex in that period, the consequences would include:

- *Network reliability* – the performance of the 11kV network in particular would deteriorate and fall behind that of GB networks; customers would experience longer and more frequent supply interruptions; and voltage and other aspects of supply quality would deteriorate. Rural customers would be particularly affected.
- *Safety* – many age-expired assets would remain in service for a further period of 5 years or more with higher risk of catastrophic failure; for customers and the public this would mean greater risk of injury, for example, from meter board fires, conductor drops and electric shock or electrocution due to corroded equipment in public places; for staff there would be more hazardous working conditions including the need to impose operational restrictions on plant.
- *Storm resilience* – reductions in overhead line refurbishment would mean greater damage in storm conditions, and longer and more frequent loss of supplies. Restoration periods could in some cases be several weeks for large numbers of customers.
- *Economic impact* – lack of investment in the distribution network could curtail economic development in many areas.
- *Creating greater issues for future customers* – the modest “savings” created for today's customers through deferring essential capex not only comes with the

risks outlined above, but also creates an unsustainable “bow wave” of capex for the next regulatory period.

None of these consequences would be tolerable and, irrespective of the RP5 capex allowance, NIE would have to invest sufficient capex to prevent them. The Utility Regulator's proposals would therefore leave NIE seriously underfunded.

In addition to BAU capex, NIE proposed expenditure of £127 million in RP5 to begin upgrading the 11kV overhead line network to mitigate the risk to rural customers' supplies arising from severe weather events involving ice accretion. The Utility Regulator's proposed response would not provide sufficient funding even for a suitable pilot scheme.

The Utility Regulator's processes and methodologies leading to the Draft Determination were neither robust nor sufficiently focused on the public safety and security and quality of supply risks associated with electricity networks. The outcome is that the proposals are unrealistic. For example, the proposed allowance for 11kV network refurbishment implies a refurbishment cycle in excess of 175 years. GB DNOs operate a 10 to 15 year cycle for such network refurbishment.

1. INTRODUCTION

1.1 The Utility Regulator's proposals with respect to NIE's capex allowance for RP5 are set out in Section 9 of the Draft Determination.

1.2 This Chapter 4 comprises NIE's response on the quantum of that proposed capex allowance. It makes the case for adequate investment in network infrastructure.

1.3 Other aspects of the Utility Regulator's proposals for RP5 capex are dealt with elsewhere in this Response:

- NIE's views on the proposed 5% capex efficiency discount (in the form of a 1% year-on-year reduction in annual capital allowances) are dealt with in Section 2 of Chapter 3 (RP4 Overview).
- NIE's response on the structure of the proposed capex arrangements, including the proposal for three funds, is dealt with in Chapter 5 (RP5 Capex – Structure).

1.4 This Chapter is structured as follows:

- Section 2 contains a summary of the Utility Regulator's proposals for the quantum of RP5 capex and contrasts these proposals with NIE's forecast costs.

- Section 3 explains why we need a substantial increase in 'business as usual' capex.
- Section 4 describes the consequences if the Utility Regulator's proposals on the quantum of RP5 capex were implemented.
- Section 5 sets out NIE's approach to determining its capex requirement and contrasts this with the approach adopted by the Utility Regulator in assessing that requirement.
- Section 6 sets out NIE's views on the Utility Regulator's proposed allowance for non-core capex items, including renewables and interconnection, mitigating the risk of ice accretion on the 11kV network, metering and non-network capex.
- Section 7 is concerned with the need for an allowance in respect of Real Price Effects – that is, the impact of labour and materials price variations outside the range of the Retail Price Index.

2. THE UTILITY REGULATOR'S PROPOSALS

- 2.1 In describing the Utility Regulator's proposals for NIE's capex allowance, it is necessary to distinguish between:
- 'business as usual' (**BAU**) capex – that is, capex that is needed to sustain and develop NIE's T&D network so that it continues to provide a reliable supply of electricity to customers (although the term is not intended to imply steady state volumes of work); and
 - expenditure on two major capital project categories, namely Renewables Integration and Interconnection.
- 2.2 The Utility Regulator has proposed that capex for Renewables Integration and Interconnection be approved on a project-by-project basis rather than be included within the RP5 capex allowance. NIE is broadly content with this proposal, subject to the observations made in Chapter 5 (Capex – Structure).
- 2.3 With respect to BAU capex, NIE and the Utility Regulator differ very significantly in their assessment of network needs. The Utility Regulator has proposed an allowance of £293.3 million for BAU capex on the network together with a further £21.4 million for non-network capex and keypad meters, bringing the total to £314.7 million. The proposed allowance is approximately half of the £606.7 million expenditure identified by NIE as necessary for BAU.

2.4 The Utility Regulator has reviewed both the unit costs and the volume of work that NIE proposes to undertake in RP5:

- With respect to unit costs, the Utility Regulator intends to apply a 5% efficiency discount, to take the form of a 1% year-on-year reduction in annual capital allowances. NIE's views on this proposal, which is derived from a flawed efficiency benchmarking analysis, are set out in Section 2 of Chapter 3 (RP4 Overview).
- The majority of the proposed cuts in NIE's planned investment are based on a reduction in the volume of work. In particular, the Utility Regulator proposes a very significant reduction in NIE's plans to replace or refurbish age-expired assets, and in the amount of reinforcement which is necessary to relieve overloaded parts of the network and to cater for future growth.

2.5 In the earlier stages of its review, the Utility Regulator's approach was informed by five methods of assessment in response to which NIE provided a critique challenging the robustness of each method. However, we understand that the proposed allowance is in fact based on a further method in the form of a bottom up assessment of NIE's submitted plan (together with further information provided by NIE). We are concerned that the earlier assessment may have biased the bottom up assessment.

2.6 The Utility Regulator intends to regulate capex by establishing three separate funds with different incentivisation arrangements. NIE's views on this arrangement are set out in Chapter 5 (Capex – Structure).

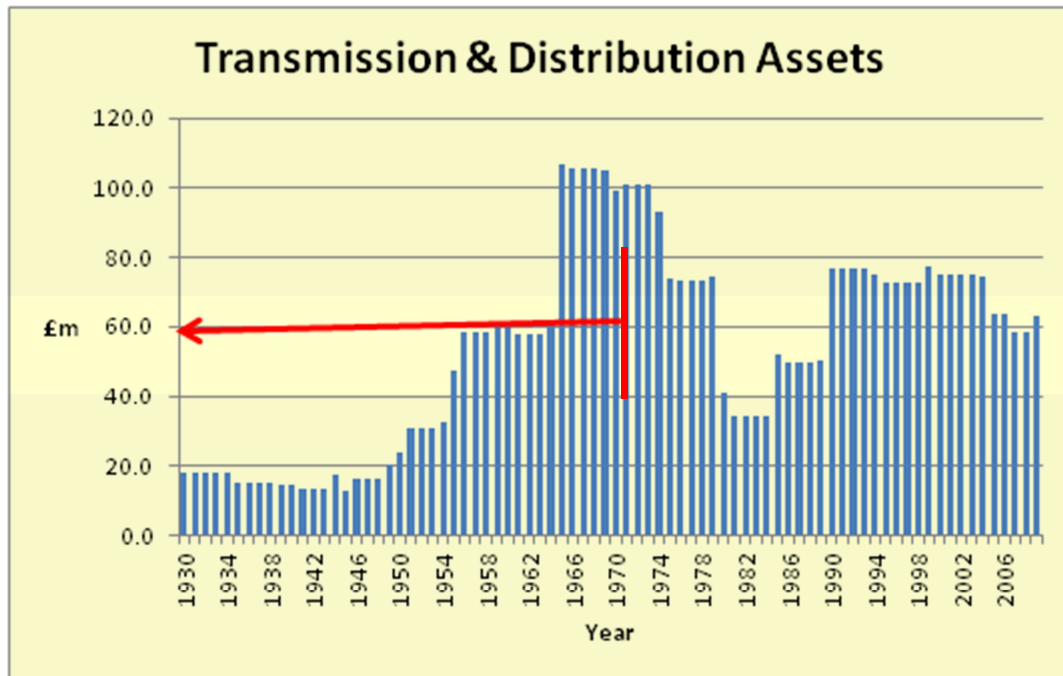
3. WHY WE NEED A SUBSTANTIAL INCREASE IN BAU CAPEX

3.1 NIE has proposed a substantial increase in BAU capex for RP5 compared to RP4: £606.7 million of core investment in comparison with £350.9 million in RP4. In addition to this core investment, we have proposed additional capex streams totalling £171.2 million in respect of network resilience (to ice accretion) and non-network capex.

3.2 There is good reason why NIE has proposed a substantial increase in BAU capex for RP5. Investment in the network peaked in the late 1960s and the assets installed during this period are now entering the replacement phase of their lifecycle. Almost one third of NIE's assets are already between 45 and 80 years old and additional capex is required in RP5 not only to commence the replacement of those assets added in the late 1960s but to address the ever increasing replacement needs of the older assets.

3.3 This original investment was required to meet the very high growth rates of the period. This point is illustrated by the diagram below which shows the present day

value of the network assets against the year of installation (between 1930 and 2009) and the assets that are now over 40 years old (as indicated by the red arrow).



3.4 In addition to the need for increased asset replacement in RP5, there are a number of new expenditure streams which exacerbate the difference in investment levels compared with RP4. These new expenditure streams include:

- a significant number of single high value (larger than £10 million) transmission projects targeted at addressing specific issues which have been assessed by the Utility Regulator as being justified (e.g. restringing of a long 275kV double circuit overhead line);
- replacement of assets within categories not previously addressed in earlier price review periods which must be addressed now due to the onset of unacceptable risks (e.g. proactive cable replacement programmes);
- expenditure driven by compliance with new legislation (e.g. the Electricity Safety Quality and Continuity Regulations and Roads and Street Works legislation); and
- expenditure driven by stakeholders and/or largely outside the control of NIE (e.g. substation flooding prevention, public realm works where pedestrian areas are being upgraded with high quality pavements).

3.5 Table 4.1 below contrasts NIE's business plan expenditure for BAU for RP5 with the corresponding RP4 expenditure levels and notes areas of additional work content and the value thereof.

Table 4.1: Comparison of RP5 BAU expenditure with RP4

Investment Category	RP4 £m	RP5 £m	RP5 new programmes of work c.f. RP4
Transmission Asset Replacement	43.5	107.4	£36.21m of Major Projects and New Work Streams
Distribution Asset Replacement	156.2	254.2	£11.55m of Major Projects and New Work Streams
Transmission Load Related	21.6	65.4	£28.7m net additional Major Projects
Distribution Load Related	27.3	24.6	
IT & Comms Systems	1.6	6.8	£3.98m additional work
Metering	10.0	10.5	
Legislation	0.0	29.4	£29.4m additional
Overheads	27.4	27.2	
Connections	60.5	59.3 ¹¹	£1.7m additional streetworks costs
Gov & Cust Priorities	2.8	21.9	£12.04m new work streams
Total	350.9	606.7	£123.6
Comparison excluding RP5 new programmes of work	350.9	483.1	
Increase in RP5 over RP4		+132.2	

3.6 This table shows that the more comparable figure for BAU expenditure in RP5 is £483.1 million, an increase of £132.2 million or 37% over RP4 expenditure. While NIE acknowledges that this is a sizeable increase, it is predominantly due to the ever increasing level of asset replacement associated with the ageing asset base. The expenditure on asset replacement will continue to increase in the future as the

¹¹ The submission figure for Connections expenditure was based on the charging policy in force at the time which required the customer to pay a 40% contribution only. Following a decision by the Utility Regulator this policy has now been superseded with one that requires the customer to make a 100% payment.

longer life and more expensive assets such as underground cables, overhead line conductors and towers become due for replacement.

- 3.7 The additional capex streams amounting to £171.2 million in respect of network resilience and non-network capex referred to above are shown in Table 4.2 below (which also shows adjustments to the NIE BPQ submission reflecting the most up-to-date information):

Table 4.2: Network resilience and non-network capex

£m	NIE Submission	NIE Adjusted BPQ
11kV Network Resilience	127.0	127.0
Non Network IT capex	15.3	17.8 ¹²
Keypad Meters	10.0	10.0
Meter Recertification	18.9	16.9 ¹³
Total	171.2	171.7

- 3.8 The largest single item of additional expenditure of £127 million¹⁴ on network resilience is intended to address an emerging risk on the 11kV network relating to ice accretion. Following discussions with the Utility Regulator during 2011, NIE had expected that the Utility Regulator would consult stakeholders on this issue but this has not yet happened. This issue is discussed further in Section 6 below.

4. CONSEQUENCES OF UTILITY REGULATOR'S PROPOSALS

- 4.1 The Utility Regulator proposes to disallow around half of the core investment set out in the investment plan submitted by NIE in January 2011. This is shown in Table 4.3 below (which also shows adjustments to the NIE BPQ submission reflecting the most up-to-date information).

¹² Adjustments: £0.1 million removed from Renewables, additional Troubleman £2.6 million (at Utility Regulator's request).

¹³ Adjustment removed £1.9 million moved to BAU metering.

¹⁴ This is additional expenditure requirement over the conventional 11kV refurbishment submitted.

Table 4.3: NIE's submission for BAU versus the Utility Regulator's proposed allowances

£m	NIE's BPQ Submission	NIE Adjusted BPQ Submission	Utility Regulator's Draft Determination	Utility Regulator's Draft Determination disallowance as % of BPQ Submission
Asset Replacement - Transmission	102.1	102.1	52.2	49%
Asset Replacement - Distribution	229.5	229.5	109.1	52%
Load Related - Transmission	65.4	65.4	48.4	26%
Load Related - Distribution	24.6	24.6	11.4	54%
IT & Comms	6.8	3.7 ¹⁵	1.3 ¹⁶	81%
Metering	10.4 ¹⁷	10.5 ¹⁸	8.6	0% (see footnotes 17 and 18)
Legislation	29.4	29.4	13.6	54%
Connections	59.3	37.4 ¹⁹	26.9	55%
Govt & Customer	21.9	21.9	1.8	92%
Overheads	57.3	57.3	20.1	65%
Totals	606.7	581.8	293.3²⁰	52%

4.2 The Utility Regulator proposes to allow only £293.3 million of NIE's planned investment of £606.7 million – a disallowance of some 52%.

4.3 We describe below the serious consequences for the T&D network and customers if the Utility Regulator's proposals for capital investment in RP5 determined NIE's actual capex in that period.

¹⁵ Adjustment of £3.1 million for Troubleman System.

¹⁶ £3.8 million for Network Management System and Optel network allowed for in non-network category by Utility Regulator.

¹⁷ On review this figure was subsequently reduced to £8.6 million in January 2012, hence the table shows no disallowance against metering.

¹⁸ Reduction of £1.83 million (January 2012) and subsequent addition of £1.93 million for meter recertification post Draft Determination (see paragraph 6.17 below).

¹⁹ Adjustment for 100% chargeability.

²⁰ Some rounding errors may affect the first decimal place of numbers quoted.

Overview

- 4.4 NIE has a statutory obligation to maintain a safe and reliable network. It is also subject to obligations under its licence which regulate in detail how NIE should conduct its T&D business. These obligations supplement the general law, which lays down minimum standards of safety and environmental protection which NIE is required to observe.
- 4.5 NIE's plan for BAU capex is therefore based on a bottom up assessment of network requirements taking account of the need to:
- Maintain a resilient network providing a reliable supply of electricity to customers;
 - Comply with legislation covering safety obligations and environmental standards;
 - Properly manage the level of age expired equipment on the network;
 - Develop the network to allow new customers to be connected and to accommodate growth in the demand for electricity; and
 - Control operating and maintenance costs as the network grows.
- 4.6 A reduction in asset replacement volumes and network reinforcement schemes to the extent implied by the Utility Regulator's proposals would have the following consequences:
- An increase in risk arising from deteriorating asset condition. Such risk relates principally to safety and network reliability.
 - An increase in network loading risk. Such risk takes the form of poor quality of supply and insufficient spare network capacity to accommodate increasing demand and economic development.
- 4.7 We believe that this level of network risk would be unacceptable and that NIE would be unable to meet its statutory and licence obligations. Irrespective of the RP5 capex allowance, NIE would have to invest sufficient capex to mitigate these network risks. The Utility Regulator's proposals would therefore leave NIE seriously underfunded.
- 4.8 The Draft Determination provides no evidence that the Utility Regulator has given full and careful consideration to the increased network risks that would arise from its proposals or the degree of underfunding that they would cause. Moreover, following publication of the Draft Determination, the Utility Regulator provided NIE with details of its bottom up assessment of allowances for transmission and distribution projects. It is clear from that assessment that the Utility Regulator has

disallowed specific capex projects and has reduced the allowances for others apparently without consideration of the resulting risks.

4.9 We address in turn below:

- the consequences of the Utility Regulator's proposed reduction in asset replacement expenditure;
- the consequences of the proposed reduction in network reinforcement schemes ; and
- the particular implications for rural customers.

Reduction in asset replacement expenditure

4.10 If the Utility Regulator's proposed capex allowance determined the level of asset replacement performed by NIE in RP5, it would be likely to have the following serious consequences:

- Deterioration in network performance, in terms of the number of customer interruptions (CIs) and customer minutes lost (CMLs). Conversely, customers in GB continue to see better network performance as the GB DNOs are incentivised to make improvements.
- Widespread, prolonged and more frequent loss of supplies due to storms. The reduction in overhead line refurbishment activity would give rise to more decayed poles, which combined with reduced tree cutting, would weaken the network's resilience to severe weather events giving rise to more extensive damage during wind storms. Example: the Utility Regulator's proposed allowance for refurbishment of the 11kV network (net of mandatory tree cutting expenditure) implies a refurbishment cycle in excess of 175 years. This contrasts with the 15-year cycle that NIE has operated since privatisation. GB DNO cycle times range from 10 to 15 years.
- An increasing number of main plant failures with serious consequences such as explosion, fire and live conductors dropping to the ground in public places. When the condition of electrical equipment indicates that it has reached, or is close to, the end of its serviceable life, safety factors require that it be replaced as soon as practicable. However, with the proposed reduction in the level of asset replacement implied by the Draft Determination, plant and equipment that NIE has identified as being at the end of its life will have to remain in service for a minimum of a further 5 years, bringing with it the attendant risks.

- A 65% reduction in refurbishment work on 33kV tower lines. *Example:* the Utility Regulator appears not to recognise that 60% wear on shackles is a problem (shackles are the components connecting the conductor to the towers). Deterioration to such an extent usually results in component failure within a 5-year period. The consequence of failure is that a live conductor can drop to the ground, potentially over populated areas or roads, presenting serious dangers to the public.
- A 50% reduction in the number of major transmission transformers replaced. This would mean four degraded units having to remain on the system which would create a significant risk of catastrophic failure with the resulting collateral damage from fire, shrapnel and debris. Three of these locations are adjacent to domestic properties.
- A one-third reduction in the distribution primary transformer replacement programme. Ten transformers which are high risk in terms of condition and impact of failure would have to remain in service. During RP4 there were six failures of such assets, two of which were catastrophic. In these cases, bushings failed causing extensive damage to windings and cores of the transformers. Consequences of failure experienced can also include explosion, expulsion of burning oil, fire and risk to life and property from shrapnel. Again, the substations at risk are close to customer concentrations.
- An increasing risk of electric shock and electrocution from age expired and corroded equipment located on streets and vulnerable to interference by children or youths. Such equipment includes mini pillars, section pillars and package 11kV / 400V substations which suffer from corrosion. *Example:* this equipment is often located in built up areas where children play and they may climb or sit on the equipment or interfere with it by pushing an object through an aperture created by corrosion. If equipment housings are corroded there is an unacceptable risk of contact with live equipment. The Utility Regulator has proposed an allowance of only 41% of NIE's estimate of the required sum for this category of equipment in general and only 30% of the cost of replacing LV mini pillars and section pillars in particular. *Example:* under these proposals, two out of every three pillars that NIE considers are no longer fit for service would have to remain in service for at least a further five years. Those pillars, numbering over 1000, are located in public areas right across the province. In RP4 there were thirteen reported incidents where members of the public came into contact with live equipment through interference and unless these older assets are addressed, such incidents are likely to increase in RP5.

- An increased risk of fire from the need to maintain in service aged meter board cut-outs in customers' premises. The Utility Regulator proposes to disallow 26% of planned expenditure on this item which would result in approximately 2,000 age expired cut-outs not being replaced.
- A build-up of age expired equipment on the network resulting in high volumes of replacement work in the future. Resourcing the work in a peak of activity rather than in a more manageable way over two regulatory periods would make the work less efficient, and the concentration of network outages required to carry out the work in RP6 would be difficult to achieve.
- An unacceptable burden of risk being carried into RP5 and future regulatory periods which would be characterised by increasingly reactive, rather than proactive, programmes of work.
- An increase in maintenance and fault and repair costs in order to endeavour to keep sub-standard plant and equipment in service and to repair equipment under emergency conditions when it fails.

4.11 None of these consequences would be tolerable and, irrespective of the RP5 capex allowance, NIE would have to invest sufficient capex to prevent them. The Utility Regulator's proposals would therefore leave NIE seriously underfunded.

Reduction in network reinforcement schemes

4.12 The reduction in load-related expenditure implied by the Utility Regulator's proposed capex allowance is likely to have the following serious consequences:

- NIE could be forced to take the unprecedented step of applying to the Utility Regulator for derogations from compliance with licence standards. This would mean that sections of the network would be sub-standard.
- Parts of the network supplying towns such as Cookstown, Limavady, Armagh and Castleterry which have existing unacceptably high²¹ loading conditions would not be reinforced. The Utility Regulator has proposed to disallow expenditure on these projects despite NIE providing details of the high loading conditions.
- There could be significant delays in making sizeable new demand and generation connections due to insufficient spare capacity pending reinforcement of the network. Network reinforcement schemes can take two years or more to implement depending on planning considerations and

²¹ Consideration must be given to network reinforcement when loading is higher than that which can be resupplied without manual intervention following a single fault outage on the network.

this could impact on economic development of those areas lacking spare capacity. In its recently published Economic Strategy (March 2012), the NI Assembly identifies encouragement of business growth in rural economies as a key theme in the overall rebalancing of the NI economy. On a similar theme, Invest NI has a key target to locate 70% of new foreign direct investment projects secured within 10 miles of an area of economic disadvantage²². Invest NI has recently reinforced its organisation in the North West and West regions reflecting particular developmental needs in those areas.

- An increasing number of customers would see their power quality deteriorate through reduced voltage levels and voltage fluctuations. For domestic customers this could mean appliance damage and flickering lights. For industrial and commercial customers this could mean financial losses due to disturbances to manufacturing and business processes.
- Additional constraints would be imposed on generation despatch resulting in higher costs to the customer. For instance, the cost of the upgrade of the Ballylumford – Eden - Carnmoney 110kV circuits included in the RP5 plan has been disallowed and the transmission system operator (SONI) would have to take the limited conductor rating into consideration when scheduling generation despatch.

4.13 Again the Utility Regulator’s proposals would leave NIE underfunded to invest in the network to provide adequate capacity for customers and to remove generation constraints.

Particular consequences for rural customers

4.14 Rural customers would be particularly disadvantaged in two further respects:

- quality of service; and
- risk from severe weather events involving ice accretion.

4.15 These two points are addressed below.

Quality of service

4.16 NIE recognises that the quality of service for rural customers can be significantly worse than that of the average NI customer and has proposed a relatively modest programme of investment for RP5, totalling £9 million, which is targeted largely at improving quality of service for rural customers. The Utility Regulator has proposed that no provision should be made for network performance

²² http://www.investni.com/index/about/what_we_do/corporate_plan_2008-2011 page 7.

improvements based on its conclusion that the general body of customers are satisfied with service standards.

- 4.17 During RP4, NIE commenced a programme to install remote control facilities on the 11kV overhead network with the objective of improving customer service for targeted groups of rural customers. 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.
- 4.18 Such customers experience a much poorer quality of service than the ‘average’ customer in NI. 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 part²³ of RP4 has reduced average outages by 30 minutes per annum for these customers.
- 4.19 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 performance (i.e. twice the duration of unplanned outages than the average NI customer). NIE estimates that by applying remote control to these circuits, we can reduce outages for these customers by 20 minutes per annum.
- 4.20 The need for NIE’s proposed investment is further borne out by the conclusions of consumer research²⁴ that the Utility Regulator undertook in 2010. The research showed that utility consumers in NI (both domestic & business consumers) consider the time taken to restore supply and the notice given for planned interruptions as 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. NIE’s proposals target a reduction in outage durations for rural customers.

²³ For circuits addressed in later years, at this stage, an insufficient period has elapsed since the investment to demonstrate their improvement.

²⁴ 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.

- 4.21 The Utility Regulator is obliged by the Energy (Northern Ireland) Order 2003²⁵ to have regard to the interests of individuals residing in rural areas. The Utility Regulator should therefore consider the specific needs of rural customers and the factors that differentiate them from the general body of customer opinion. 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.
- 4.22 NIE's submitted investment plan aims to maintain network performance levels at today's standard. Presently, network performance levels are 50% better than they were during RP3. The Utility Regulator's proposals for a significant reduction in allowed capital investment, particularly on the distribution network, have a considerable risk of unwinding the significant improvements customers are experiencing today.

Ice accretion risk

- 4.23 In addition to the deterioration in the resilience of the network to storms (as identified above) supplies to rural customers would continue to be at risk from severe weather events involving ice accretion.
- 4.24 As explained further in Section 6 of this chapter, NIE has proposed an additional capex stream of £127 million to start upgrading the 11kV network during RP5 to mitigate ice accretion risk²⁶. At this stage, the Utility Regulator has proposed that no such specific provision should be made. As a consequence, when ice accretion occurs, more extensive damage over wider areas would mean significant numbers of rural customers could be off supply for 2 to 3 weeks or more. For example, an ice storm over a slightly larger and more populated area than the Cloghmills area which was affected by the March 2010 ice storm and which left customers off supply for six days would lead to unacceptable restoration periods.
- 4.25 There would increasingly be an urban / rural divide, whereby rural customers suffer ever worsening quality of supply and more frequent and longer outages than those in urban areas.

²⁵ By virtue of article 12(3) of the Energy (Northern Ireland) Order 2003, 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.

²⁶ A similar level of expenditure would be envisaged for RP6.

5. NIE'S APPROACH AND THE UTILITY REGULATOR'S PROCESS

NIE's approach

- 5.1 NIE's submission on capex was based on a robust bottom up assessment of the investment required to achieve the defined investment objectives. It was carried out by NIE's professional, qualified and experienced engineers who have detailed historical knowledge of NIE's networks, using condition assessment techniques widely used within the electricity supply industry.
- 5.2 NIE's approach to determining its requirement for capex had the following features:
- The process was carried out using the same approaches used by the GB DNOs;
 - Where possible, load-related and asset replacement expenditures were considered together to optimise site specific investments;
 - Expenditure was deferred where the resultant risk was considered manageable;
 - Direction was given by NIE senior management to the investment engineers to challenge the plan to ensure that expenditure was minimised consistent with the maximum level of risk NIE could prudently be expected to manage. Corporate governance and direction are considered further below in our commentary on the Utility Regulator's review of our policies and practices;
 - The plan was reviewed and endorsed by NIE's consultants Parsons Brinckerhoff (**PB**) who had previously been engaged as lead technical consultant by Ofgem to provide assistance with the assessment of the GB DNO capex submissions for DPCR5. PB confirmed (a) that NIE's proposed asset replacement volumes were comparable to those allowed to the DNOs for DPCR5 and (b) that the existing and forecast network loading conditions will lead to a breach of licence standards unless reinforcement is provided within the period;
 - The submission to the Utility Regulator included 43 strategy papers describing in detail the analysis of risks and investment need that each item of expenditure addressed, together with investment options and the impact of deferrals into RP6;

- NIE provided comprehensive responses on the many additional detailed questions²⁷ on volumes, need and costs; and
- A detailed overview of the NIE submission was placed in the public domain and may be found on the NIE website²⁸.

The Utility Regulator's process

- 5.3 Prior to publication of the Draft Determination, the Utility Regulator's process for assessing NIE's capex submission was characterised by a lack of transparency and meaningful two-way engagement²⁹. The only exception was when NIE was given some limited insight into the methods the Utility Regulator used in its initial assessment.
- 5.4 Indeed, we understand that the reason why the Utility Regulator was reluctant to allow two way engagement before the Draft Determination was published was because this could be seen as 'negotiation' or 'pre-consultation'. Such lack of engagement runs contrary to best regulatory practice. For example, in Ofgem's DPCR5 review there were ample opportunities for the DNOs and the regulator to interact directly at each step of the process.
- 5.5 Furthermore, to date the Utility Regulator has not accepted any of NIE's offers to arrange visits so that the Utility Regulator and its consultants could see the condition of network assets first hand.
- 5.6 Even at this late stage in the process, the Utility Regulator appears to be far from fully conversant with the content of NIE's 43 strategy papers.
- 5.7 Had there been a better process from the outset, many of what appear to be misunderstandings on the part of the Utility Regulator could have been addressed before they impacted on the proposed capex allowance. Communication issues arising from misunderstanding of definitions and particular network risks might have been better managed. For example:
- The Utility Regulator asked why major high voltage³⁰ (HV) equipment "*could not just be run to failure*". Although this may be accepted practice in other utilities (e.g. water) a competent transmission or distribution electricity network operator goes to great lengths to avoid in-service failures because of the unacceptable safety consequences and serious customer issues that would arise; such failures could result in an operator being prosecuted for

²⁷ In January 2012 alone, NIE responded to more than 300 requests for additional information from the Utility Regulator.

²⁸ <http://www.nie.co.uk/documents/Policy-Statements/P-110404-Final-Capital-InvestmentRequirements-Publ.aspx>

²⁹ Engagement between NIE and the Utility Regulator largely took the form of NIE responding to requests from the Utility Regulator for additional information.

³⁰ HV in this context is taken to mean 11kv and higher voltages.

failure to maintain equipment. This showed a lack of understanding of the potentially catastrophic nature and impact of failures of plant and additionally the long lead times in obtaining replacements;

- With respect to transmission overhead lines, the Utility Regulator suggested to us that there should not be catastrophic consequences if one component fails since the network was designed (configured) to have redundancy. This showed a lack of understanding of both network planning standards and plant and equipment design and construction standards. If an overhead line component fails and allows a conductor to fall to the ground, that would be regarded as a catastrophic failure. Catastrophic consequences could also arise from the impact of collateral damage on, or the need to isolate, the adjacent healthy equipment following a disruptive failure; and
- The Utility Regulator has misunderstood the definition of 'on line condition monitoring' in the electricity supply industry where the term is taken to mean 'real time' reporting of asset condition data rather than off line condition assessment techniques.

5.8 Such misunderstandings have potentially influenced the Utility Regulator's opinion of how NIE assesses the condition of its assets and consequently may have adversely influenced the disallowances in asset replacement capex.

5.9 Despite a number of meetings between NIE and the Utility Regulator following publication of the Draft Determination and the receipt of some of the supplementary information which we requested, NIE remains unclear as to how the Utility Regulator has arrived at many elements of the proposed capex allowance. From the information that has been made available to us we have found errors and subjective judgements that call into question the accuracy of the underlying analysis and we have seen no evidence that the proposed disallowances have been subjected to a risk assessment.

5.10 The following sections comment on the shortcomings ranging from misunderstandings, errors and poor asset management judgements that we have found within the Utility Regulator's capex proposals.

The Utility Regulator's apparent starting position and methods of assessment

5.11 The Utility Regulator's starting position for its assessment of capex appears to be based on two key premises:

- firstly, that network performance is satisfactory and therefore no major increase in capex is required; and

- secondly, that NIE's submission is based on redressing a funding gap relative to GB DNOs.

5.12 Both are unfounded, for the reasons set out below:

Network performance

- 5.13 The Utility Regulator notes that NIE's network "*has met the required performance standards*" and goes on to say in effect that any increase in the asset replacement expenditure for RP5 above the RP4 level "*would require extremely robust justification*"³¹. The Utility Regulator's position assumes, incorrectly, that the 'satisfactory' performance of the network up to the end of RP4 in some way guarantees continuing performance in RP5 at the RP4 rate of investment.
- 5.14 Network performance (as measured by CIs and CMLs) is largely dependent on the condition of the 11kV overhead line network. However, in addition to managing the risk of a deterioration in the performance of the 11 kV network, NIE needs to manage all other risks at all voltages including the risk of catastrophic failure of higher voltage assets (which have safety and environmental consequences) and the risk of fire, electric shock or electrocution resulting from LV assets in poor condition. During RP4, less than one third of asset replacement expenditure was aimed at maintaining the level of network performance (as expressed by CMLs and CIs) the remainder being required to address other liabilities.
- 5.15 The Utility Regulator's assumption ignores the liabilities associated with NIE's ageing asset base much of which was installed in the 1960s and 1970s, which will increasingly create issues from RP5 onwards. The simple analogy is that of the family car that gives sterling service for a number of years, but when faults start to happen, they come in rapid succession to the point where it needs replacement on safety and performance grounds.
- 5.16 As noted in Section 3 above, in the 1960s, there was a step increase in investment due to the development of the transmission and distribution networks to serve the very high growth rates of the period. It is these assets that are now entering the natural replacement phase of their life cycle and which must be addressed during RP5 in addition to assets that are already considerably older.
- 5.17 The historical development of the system in NI has direct parallels in GB, where DNOs are facing similar challenges around network ageing. Ofgem has acknowledged that an increasing level of asset replacement was required in the past two DNO price controls (DPCR4 and DPCR5) because of the age profile of the assets.

³¹ Draft Determination paragraphs 9.91 and 9.92.

- 5.18 For the most recent price control, DPCR5, the DNOs requested a significant increase in asset replacement expenditure. Ofgem commented in its final determination:

“Having conducted our own investment modelling and a thorough review of each company’s asset condition data, we accept the need for the majority of the forecast volumes of work although there are some specific areas where we have cut back some DNO forecasts. We are persuaded that without this volume of replacement there would be unacceptable deterioration in network health over the DPCR5 period”

- 5.19 In addition to allowing finance to prevent network deterioration, Ofgem went further to incentivise the DNOs to improve network performance, which for the majority of companies, is already better than that of NIE’s network. NIE is disappointed that the Utility Regulator’s approach does not mirror that of Ofgem to secure the health of the assets from a safety and reliability viewpoint and to enhance the performance of the network as measured by CIs and CMLs, and, as discussed in Section 4 above, particularly for the worst served customers.

Funding gap relative to GB DNOs

- 5.20 The Utility Regulator also states in paragraph 5.65 of the Draft Determination that NIE’s submission is based on redressing a funding gap relative to GB DNOs. This is incorrect and misrepresents NIE’s position. NIE’s approach is summarised at the beginning of this Section 5 and was stated clearly in its submission to the Utility Regulator:

“The RP5 BAU plan has been developed from a bottom up assessment of investment requirements. It has been subjected to stringent internal scrutiny and robust challenge to arrive at the lowest cost plan consistent with keeping network risk at manageable levels. The plan is presented as the minimal plan required to meet NIE’s statutory and licence obligations alongside stakeholder and customer expectations with regard to network safety, security and performance.”

The Utility Regulator’s Five Methods of Assessment

- 5.21 Initially, the Utility Regulator used five separate methods to assess NIE’s expenditure projections with assistance from its consultants, SKM. The methods are described in paragraphs 9.23 to 9.76 of the Draft Determination. These were:
1. High level benchmarking of the total amount of Opex and Capex (Totex) requested against that awarded to the GB DNOs in DPCR5;
 2. Benchmarking of the unit costs that NIE T&D has used to calculate the cost of undertaking the work it intends to do;

3. A review of the policies and practices applied by NIE when determining the scope and cost of the proposed programme;
 4. A “structured assessment” of the information NIE provided for each project/programme;
 5. A detailed review of a sample of projects to further test the conclusions drawn under assessment.
- 5.22 Although it is not apparent from the Draft Determination, the Utility Regulator has confirmed to us that the detail of the proposed capex allowance has in fact been derived from a further method: a bottom-up, line-by-line assessment of our capex submission. However, we are concerned that the conclusions which the Utility Regulator has drawn from the initial five methods of assessment may have inappropriately influenced the bottom-up assessment. Therefore we first set out below our critique of the five methods before continuing with our critique of the bottom-up assessment.
- 5.23 An overview of the five methods of assessment and their findings was provided to NIE in October 2011. NIE has scrutinised the methods based on the limited information provided by the Utility Regulator. NIE considers that the conclusions drawn from all five methods are flawed for the reasons set out in its November 2011 response to the Utility Regulator. Those reasons are summarised below. (We also comment on the second method (unit costs benchmarking) in Section 2 of Chapter 3 (RP4 Overview)).

1. Totex Benchmarking

- 5.23.1 We consider that the totex benchmarking undertaken by the Utility Regulator is insufficiently robust to be used for regulatory purposes. The Utility Regulator has not made the necessary adjustments to the GB DNO cost base to allow a fair comparison. In particular, it is not clear to us that the Utility Regulator has taken appropriate account of the fact that NIE’s cost base includes costs associated with connections; metering; transmission at the 275 kV level and pensions.
- 5.23.2 When adjustments are made to address these matters, NIE’s totex plan appears broadly in line with typical GB levels.
- 5.23.3 Notwithstanding the above, we do not accept that it is reasonable to use the composite scale variable (CSV) to assess capex, and consequently we reject its use for assessing totex. Capex flows (the largest element of totex) tend to be lumpy in nature, driven by specific underlying circumstances strongly related to the detailed nature and condition of the installed stock of assets and, importantly, related to future needs on the

network that are likely to be poorly explained by use of simple, historic scale variables such as customer numbers, units distributed and network length.

- 5.23.4 The results of any totex benchmarking should be treated with great caution and more detailed and specific analysis should be relied upon instead. NIE has provided detailed analysis in the form of a suite of some 43 supporting papers.

2. Unit Cost Benchmarking

- 5.23.5 While we welcome SKM's confirmation that NIE's unit costs on a direct basis are – unambiguously – efficient relative to GB best practice, we do not accept their assessment of NIE's indirect costs.

- 5.23.6 SKM draws heavily on analysis presented by PB in its report on unit costs but appears not to understand the context or scope of that analysis. The Utility Regulator has sought no meeting with us to discuss these matters in detail despite NIE raising concerns.

- 5.23.7 The SKM analysis misinterprets the nature of the elements of the PB report that deal with total unit costs and makes inappropriate use of the figures presented therein. Furthermore, the SKM approach is high level, considers only a subset of indirect costs, which relates to a subset of capex, and makes no attempt to adjust for significant differences between NIE and the GB DNOs as regards business structure, operating environment and accounting/reporting definitions. Given the very significant differences in data reporting between GB DNOs and NIE, it is necessary to undertake a significant cost mapping exercise in order to ensure as far as possible a like-for-like and equitable comparison. SKM has made no such adjustments and consequently the comparison SKM seeks to make is confounded by a lack of comparability.

- 5.23.8 In contrast, the work by Frontier Economics on NIE's indirect costs (BPQ support paper BPQ06) – which is based on a detailed cost mapping exercise – shows NIE to be an upper quartile performer when compared with the 14 GB DNOs, ranking 1st against the comparator DNOs. The methodology contained in that document is far more robust than that adopted by SKM and represents the only reliable evidence on which to draw conclusions over the efficiency or otherwise of our indirect activities.

3. Review of Sample Projects / Asset Replacement Modelling

- 5.23.9 We do not believe SKM have populated the asset replacement model with accurate forecast replacement volumes for NIE's assets and their use of

nominal standard deviations (SDs), rather than the Poisson distribution used by Ofgem has, in some instances, led to SKM incorrectly deriving NIE mean asset lives that are shorter than GB lives.

- 5.23.10 Our analysis shows that when the model is run with accurate NIE volumes and a Poisson distribution, the derived mean asset lives of NIE assets not only lie comfortably within the range of DNO lives but in almost half of the asset categories reviewed, NIE mean asset lives are longer than DNO lives; in some cases by a very significant amount.
- 5.23.11 Our review shows that the primary reason for the difference in the financial comparison in Table 6 of SKM's report is because SKM has omitted certain asset investment categories from its calculation and in some instances work such as civil works and cabling has not been included in their unit costs.
- 5.23.12 We have real concerns that even a small reduction in replacement volumes during RP5 would mean that NIE would have to extend asset lives in many asset categories beyond the mean of the DNOs. This would force NIE to assume higher condition-based asset risk than the DNOs with consequences not only for network performance but, more importantly, public and staff safety.
- 5.23.13 Our concerns are mainly based on our detailed knowledge of asset condition and the known risks associated with assets remaining in service which has been described in our strategy papers. However the results from the asset replacement modelling, when adjusted for accurate forecast replacement volumes and a Poisson normal distribution curve, reinforce NIE's view that its RP5 submission has pushed asset risk as far as is prudent and safe.

4. Structured Assessment

- 5.23.14 There is no precedent in GB electricity regulation for the adoption of the 'structured assessment' technique for price review purposes. It is not appropriate for assessing future expenditure requirements up to seven years ahead in the context of a price review.
- 5.23.15 Normal regulatory practice is that some 70% of secondary network expenditure forecast for price review purposes (i.e. all but the first two years of the seven year forecast) would be established using trend analysis typically linked to expenditure drivers such as demand growth, customer connection forecasts or equipment fault rates.

- 5.23.16 Structured assessment would inappropriately assign such forecasts with low scores. However, there is a prima facie case for the need for such investment if the status quo (e.g. in terms of network risk, performance, safety etc) is to be maintained.
- 5.23.17 No explanation has been provided and it is not apparent how scores have been allocated to the matrix criteria when it was designed. In some instances, including generic programmes of work in particular, the scoring appears to be quite subjective, possibly due to a lack of understanding of some very powerful investment drivers.
- 5.23.18 This subjectivity appears to be threefold in (i) considering that a lower score reflects reduced need, (ii) the technique seems to be biased towards the assessment of asset replacement expenditure, yet the results show that the entire BAU programme has been assessed, and (iii) some of the criteria (scoping/cost accuracy score 3) cannot be applied to load related expenditure at all since this score relates to asset replacement projects only and some other criteria, not documented, explained or justified must have been used.
- 5.23.19 The assessment relies on data supplied by NIE to the Utility Regulator for its Access Database. However, this is a very condensed and limited version of the very detailed and extensive discussion of options, risk and costing we have provided within our 43 strategy papers. Reliance on the database inevitably results in low scores.
- 5.23.20 It appears that the structured assessment has also been biased by the conclusions from the Utility Regulator's review of policies and practices which we have demonstrated have been wrongly drawn.

5. Review of Policies and Practices

- 5.23.21 NIE refutes the criticism that its risk assessments are translated into an investment plan using engineering judgement with no explicit threshold criteria or corporate strategy to guide the process. On the contrary, corporate strategy and direction were explicitly brought to bear on the investment planning process and a very definite framework was established within which investment decisions for the RP5 plan were taken.
- 5.23.22 NIE's risk assessment and investment planning processes are very similar to those of the GB DNOs. In cases where specific criteria or processes such as Health Indices or Criticality Based Risk Management may be used by others, these techniques also require a level of engineering judgement. Furthermore, they employ a level of subjectivity in establishing

the algorithms applied to the extent that the techniques are not yet considered mature. NIE has kept abreast of developments in this area in order to continue to ensure good stewardship of the assets and we will continue to do so into the future.

- 5.23.23 No evidence has been brought to validate the Utility Regulator /SKM observation that the current approach is too conservative. This observation may have been prejudiced by analysis that, when corrected, proves the converse is true.
- 5.23.24 It is more important to judge the policies and practices on their outcomes. We have demonstrated that NIE mean asset lives are well within the range of the GB DNOs and in several asset categories they are longer. It is against this benchmark that we consider that the efficacy of our process is established and that NIE compares well against the DNOs.
- 5.24 Although the Utility Regulator has not discussed our November paper with us, we understand that it has accepted that the “structured assessment” approach should not be used to determine allowances³² but has nevertheless presented the approach in detail in its draft determination. Although the structured assessment indicated that some £175 million worth of projects were considered to be adequately scoped and justified (see paragraph 9.67 of the Draft Determination), the Utility Regulator now proposes to allow the inadequate sum of only £76 million for these projects.
- 5.25 NIE is firmly of the view that the claim made by the Utility Regulator in its Draft Determination that *“these five assessments produced consistent results”* cannot be sustained. The methods have been demonstrated by NIE to be flawed, which the Utility Regulator itself now appears to accept, at least partially since it has abandoned the use of the structured assessment (method 4) as a means of establishing allowances and has confirmed that the age related modelling carried out was not robust.
- 5.26 NIE is concerned that the conclusions the Utility Regulator has drawn from the inappropriate Totex benchmarking, its misunderstanding of NIE’s policies and practices, its erroneous views on the inefficiency of NIE’s indirect unit costs, its age related modelling and the attempt at a structured assessment are likely to have prejudiced its approach to setting allowances on the “bottom up” basis – to which we now turn.

³² In response to a question raised following the issue of the Draft Determination, NIE was advised that the Structured Assessment had not been used to determine allowances and details of the bottom up assessment were provided.

The Utility Regulator's bottom up analysis

- 5.27 Having abandoned the structured assessment as a means of determining allowances (apparently very late in the day), the Utility Regulator then adopted a bottom up approach of allowing (or disallowing) capex on a project by project basis. This approach is not explained in the Draft Determination but it was subsequently notified separately to NIE.
- 5.28 The adoption of a bottom up basis to determine an appropriate level of expenditure is an unprecedented approach to electricity distribution price reviews in the UK. The approach is problematic for a regulator who, unlike the company, does not have detailed knowledge of the assets and is not in a position to take responsibility for the consequences of its project-specific judgements. Unlike the modelling methodologies used in previous price control reviews by Ofgem and the Utility Regulator, the bottom up assessment involves a very high degree of subjectivity and arbitrary judgement on the part of the Utility Regulator.
- 5.29 In its bottom up approach, the Utility Regulator has indicated against some projects that the provision of further information during the consultation period could result in an increase in allowance. However, sections 9.91 and 9.21 of the Draft Determination suggest that the total potential increase would be limited to approximately £10 million, which would be insufficient even to address the shortfall in any one of several categories. For instance, the shortfall in the proposed allowance for the 11kV network refurbishment category alone amounts to £43 million. Nevertheless NIE has engaged appropriately with the Utility Regulator during the consultation period when given the opportunity to do so.
- 5.30 NIE's review of the Utility Regulator's bottom up analysis has shown that:
- The Utility Regulator has speculated on cost savings being realised from the adoption of a deterministic network planning licence standard, a change that had not been previously suggested by the Utility Regulator and has not been applied for by NIE; to the best of our knowledge, no other UK company has adopted such a licence standard;
 - Errors have been made due to apparent misunderstanding of information that has been provided – for example the Utility Regulator has acknowledged a misunderstanding of the extent to which 'on line condition monitoring' is applied;
 - In some instances, poor asset management decision making has been exhibited – for instance in applying a transformer replacement criterion that would require an increase in the number of transformers to be replaced rather than a reduction;

- In other cases, disallowances appear to be arbitrary and in several cases no reason has been given for reductions;
- There are inconsistent judgements whereby NIE has proposed that assets are in need of replacement; the Utility Regulator has agreed that this is the case, but no capex allowances have been granted to carry out the essential work required;
- There would be unintended network consequences due to increased generation constraint costs arising from the impact of the proposals;
- The Utility Regulator has not understood the basis of how overhead costs should be applied; and
- Storm costs have been disallowed.

5.31 These points are developed further in Appendix 4A1. That Appendix also provides a project-by-project commentary on the Utility Regulator's proposed reduction in expenditure.

6. UTILITY REGULATOR'S ASSESSMENT OF OTHER CAPEX ITEMS

Renewables Integration and Interconnection

6.1 The Utility Regulator proposes that capital investment on the large scale Renewables Integration and Interconnection projects will be subject to approval on a "project by project" basis, as part of Fund 3.

6.2 NIE agrees that Renewables Integration and Interconnection projects should be subject to a separate revenue allowance to be agreed with the Utility Regulator in respect of individual projects as required. We are, however, concerned that there may be delays and difficulties in securing timely regulatory approvals and set out in Section 3 of Chapter 5 (RP5 Capex – Structure) our proposals for the process that should generally govern the approval of Fund 3 projects.

Resilience of the 11kV rural network to ice accretion

6.3 As mentioned briefly in paragraph 3.8, NIE has proposed additional capex of £127 million to begin to upgrade the 11kV overhead line network to mitigate the risk of ice accretion. This is additional expenditure to the £68 million submitted for RP5 for conventional 11kV overhead refurbishment programmes. The following paragraphs provide further detail.

6.4 In January 2011 NIE submitted a paper to the Utility Regulator which was prompted by an increasing concern arising out of recent experience 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.

- 6.5 NIE carried out further investigations into the likelihood of such events recurring, measures to mitigate the impact and the costs of remedial action. The Utility Regulator also requested that NIE investigate further the possibility of strengthening the network by shortening spans as an alternative to rebuilding the network with larger conductors. The updated report was submitted to the Utility Regulator on 2 December 2011 as a paper for consideration by the Utility Regulator to be used to consult with stakeholders on the issues. The covering letter and executive summary of the report are provided in Appendix 4A2.
- 6.6 The Utility Regulator has not yet agreed to consult on this matter.
- 6.7 NIE tabled the additional costs involved assuming that the programme would commence at the start of RP5, and suggested that a pilot scheme of re-building should be carried out. The aim of the pilot is to establish confidence in unit costs, to allow logistics to be developed and to assess the impact on network performance in terms of pre-arranged CMLs arising from the planned outages that would be needed to carry out the work.
- 6.8 Under the category of 11kV network refurbishment expenditure, the Utility Regulator states that it has allowed £25 million to include sample rebuild for 11kV resilience; however once the tree cutting element of the programme of work has been funded³³ there would be little funding remaining to carry out even a minimal amount of conventional network refurbishment.
- 6.9 The sum proposed by the Utility Regulator to finance 11kV network refurbishment and a rebuilding pilot is thus inadequate to cover either network refurbishment or a small scale pilot, never mind a large scale programme to mitigate the ice accretion risks to supplies to customers, particularly those living in rural areas.
- 6.10 In view of the significance of this project, the prima facie case for its need, its relatively discrete nature and the consultation exercise still to be undertaken, it would be appropriate to set a ring-fenced *ex ante* sum of £50 million to finance a pilot subject to discussion and agreement between the Utility Regulator and NIE on the scope of the pilot.

Metering capex

- 6.11 The Utility Regulator proposes that all metering capex costs (including certification, keypads and smart meters) will be ring-fenced and included under its Fund 2 proposal. The Utility Regulator proposes (at paragraph 9.97 of the Draft

³³ Tree cutting is mandatory under current legislation and expenditure in this area cannot be reduced.

Determination) that metering and certain other capex items "*are ring-fenced and capped*"; however NIE has subsequently been advised by the Utility Regulator that these ring-fenced allowances will not be 'capped' but will flex according to requirements. NIE requires formal confirmation from the Utility Regulator that the proposed capex mechanism for metering will permit the allowance for the period to flex to take account of outturn costs driven by market demand on a pro rata basis.

- 6.12 The Utility Regulator's current proposals make no provision for meter certification or Smart³⁴ metering: the Utility Regulator has yet to consider the costs of meter certification submitted by NIE (£18.9 million); while the Utility Regulator makes no allowance for smart metering costs but proposes that provision "*for metering will be reviewed to account for any new policy development for smart metering during RP5*" (paragraph 9.100 of the Draft Determination).
- 6.13 In 2005 the Utility Regulator agreed that the programme of certifying meters (to ensure their accuracy) should be scaled back (but not stopped) pending a decision on the introduction of a Smart metering programme. This decision on Smart metering is currently under consideration by the Utility Regulator and NIE accepts that the recommencement of a meter certification program in advance of the decision may result in nugatory expenditure. However, limited certification activity will continue to be necessary in line with current practice. The figure for meter certification capex which NIE submitted was for reference purposes only (as requested by the Utility Regulator).
- 6.14 If the Utility Regulator's decision is not to proceed with the rollout of Smart metering, then financial provision will be required to recommence the meter certification programme.
- 6.15 In Table 9.10 of the Draft Determination, the Utility Regulator proposes an allowance of £18.6 million for metering capex. NIE understands this represents an allowance of £10 million for keypad meters and £8.6 million for other 'business as usual' (BAU) capex.
- 6.16 The metering BAU figure of £8.6 million is based on historical levels of metering activity but excludes meter certification activity.
- 6.17 It will be necessary to increase the proposed allowance by £1.9 million³⁵ to make provision for the continuation during RP5 of a limited volume of meter certification. As a result, NIE proposes that the allowance for BAU metering should be

³⁴ A smart electricity meter is a device which records customer consumption and has the capability to store and communicate this data to suppliers and utilities. The meter also transmits this information to a more conveniently located display unit providing the customer with the ability to monitor and regulate their electricity usage.

³⁵ This includes £0.7 million for certification of domestic meters and £1.2 million for commercial meters. While these amounts (£1.9 million) are currently accounted for under NIE's certification submission (£18.9 million) they should be treated as 'business as usual' activities pending a decision on Smart metering.

increased from £8.6 million to £10.5 million. NIE assumes that the need for other certification requirements during RP5 will be confirmed with the Utility Regulator before the commencement of RP5.

- 6.18 In respect of an allowance for Smart metering costs that fall in RP5, NIE has not proposed that this should form part of the initial price control allowance on the assumption that such expenditure will be approved on an individual basis once there is greater clarity on the requirements.

Non Network Capex

- 6.19 The Utility Regulator is proposing to allow only 50% of the submission for Non Network Capex on the basis that "*the provision of IT services to NIE Powerteam via the RAB is a cross subsidy*". It is proposed that only £7.6 million of the £15.3 million submission will be allowed.
- 6.20 £15.1 million of the submission relates specifically to IT capex, and £0.2 million is associated with other non-network expenditure, including Renewables.
- 6.21 As set out in NIE's BPQ Support Paper (BPQ13 "Non Network Capex IT and Telecoms" 11 February 2011) submitted to the Utility Regulator, the proposed non-network capex relates to investment required to upgrade or replace NIE IT and Telecoms assets. These are assets which may be utilised by employees in NIE Powerteam in performing the services they provide exclusively to NIE.
- 6.22 As an example, the RP5 submission includes £0.7 million investment in the Maximo Asset Management application. This system is used to manage maintenance activities and update transformer records. However, it would not be appropriate to suggest that this constitutes the provision of an IT service to NIE Powerteam.
- 6.23 The non-network capex investment included in the NIE submission does not therefore represent the provision of IT services to NIE Powerteam. The full £15.1 million of IT non-network capex should therefore be considered as NIE expenditure and allowed.

Smart Grid

- 6.24 The Utility Regulator states at paragraph 14.31 of the Draft Determination that:

"Opportunities for innovative solutions should therefore be sought out as part of the wider development of the distribution system. For NIE T&D to do so we consider that NIE T&D should take into account any advancement in technology without having to be specifically rewarded for it."

6.25 NIE has taken the application of Smart technology into consideration in the preparation of its submission:

- Some £8 million of transformer replacement is being deferred until RP6 by the adoption of on-line monitoring techniques at a cost of £3 million to manage the risks associated with these deferred replacements.
- The installation of on-line partial discharge monitoring equipment at a cost of £350k will allow deferral of approximately £1 million investment otherwise required to replace 3 circuits.

6.26 It is unreasonable that funding has been denied both for the deployment of Smart technology to offset asset replacement in RP5 and also to develop the techniques for future deployment.

Connections

6.27 NIE disagrees with the Utility Regulator's assessment of capex (net of customers' contributions) required for connections and alterations to the network. A change of connection charging policy is to be implemented and this raises several questions relating to the financial liabilities associated with current connection contracts.

6.28 This issue is considered further in Chapter 8 (Connections).

Storm Costs

6.29 Under storm conditions when the network is required to operate outside design conditions, there will be collateral damage to the network, for example broken poles, fallen conductors and blown fuses. NIE presented the Utility Regulator with an analysis of RP3 and RP4³⁶ run-rate expenditure for storms for both capex and opex costs. This relates to the 38 major storm events which occurred during this period.

6.30 NIE proposed an *ex ante* allowance of £2.6 million to cover individual storms costing up to £1 million. For storms costing £1 million or greater, NIE proposed they be classified as 'exceptional weather events' and the costs would be recoverable outside the general RP5 settlement. Given the unpredictability of major weather events, making provision through an *ex ante* allowance is impractical. Furthermore, it is not appropriate to accommodate these costs within planned programmes. Any pole replaced under storm conditions is subsequently taken into account in line patrolling for the overhead line refurbishment programme. In general, assets replaced under storm conditions do not form part of any on-going asset replacement programme.

³⁶ 2003 to 2009 (year of submission).

- 6.31 The Utility Regulator appears to recognise the requirement for such costs but has disallowed the proposed expenditure in capex on the basis that it expects them to be managed with the 'Reactive' and 'Fault & Emergency (F&E)' allowance. This is unreasonable as the Reactive and F&E allowance is again based on historic run-rate expenditure to cover reactive asset replacement and normal day to day fault and emergency activity.
- 6.32 The Utility Regulator has made an allowance within Repair & Maintenance (R&M) expenditure for only approximately 60% of what was requested based on run rate.
- 6.33 The Utility Regulator appears to recognise neither the significant costs associated with NIE's storm response nor the potential impact of 'exceptional weather events' resulting in a significant burden of risk and costs which NIE must then manage within a proposed capped and pre allocated allowance.

Indirect costs (overheads)

- 6.34 The delivery of capital works involves the necessarily incurred overhead costs of design and planning, often referred to as indirect costs (i.e. they do not involve physical contact with the network). For NIE's RP5 submission, the Utility Regulator agreed that these costs would be submitted as separate items. Indirect categories relate to:
- conceptual and detailed project design and project management for substation projects;
 - patrol, survey and wayleaving for overhead line programmes; and
 - outage management, safety management, supply chain, investment planning and IT.
- 6.35 NIE identified indirect costs totalling £57 million over RP5. This was based on RP4 outturn costs and reflecting the submitted capital investment plan. The Utility Regulator proposes to scale back these indirect costs on a broadly linear basis to its proposed level of allowed capex, resulting in an allowance of 35% of that requested. However, the Utility Regulator has omitted to include one of the classes of indirect costs, namely costs associated with distribution design and project management.
- 6.36 Additionally, given that indirect costs can be fixed, variable and step in nature, it is not appropriate to apply a linear scaling back based on the level of capital investment. Based on the level of capex proposed by the Utility Regulator, the level of indirect costs in these categories should be more than double what has been proposed. It is not possible for NIE to plan, design and deliver the programme of work proposed by the Utility Regulator with the allowance for indirect costs proposed.

6.37 The indirect costs as submitted can be classified into the three separate categories (as defined in Ofgem's RIGs³⁷).

- Closely Associated – Engineering
- Closely Associated – Other
- Business Support Costs

These categories are further considered below.

6.38 *Closely Associated – Engineering:* This category includes costs associated with network design and engineering, project management, engineering management and clerical support. Theoretically, these costs can be regarded as broadly linear with the quantum of work on the network. In reality these costs are not driven linearly by the value of capex but by the number and complexity of the projects and programmes of work. For example, an increase in the number of projects that are to be delivered will result in the requirement for more project managers and designers.

6.39 *Closely Associated – Other:* These include system mapping and geographic records, procurement and stores. These costs are generally non-linear. Some costs would be generally fixed costs and others subject to step change depending on the size and scope of the work programme. For example, provision of geographic services will not ramp up directly with the level of capex or indeed number of projects. However, if there was a significant increase in the quantity of work being delivered then, at some point, a step up in the resource would be required. Similarly, procurement and stores costs tend to be fixed and related to the size of the network but also subject to step changes rather than linear changes.

6.40 *Business Support Costs:* These costs are not directly or indirectly proportional to the level of investment or quantum of work on the network but they support the networks business. They include network policy, IT and Communications. They are generally fixed in nature and are driven more by the overall asset base rather than investment levels.

6.41 NIE believes that the Utility Regulator has fundamentally not grasped the nature of the direct and indirect cost base within NIE and indeed in the Ofgem and DNO costs used by the Utility Regulator for benchmarking. Cost allocation within NIE is complex: for instance, there are indirect elements within the capex unit costs and project costs within the submitted plan. For this reason, NIE presented the Utility Regulator with an overall assessment of its indirect cost base and benchmarked it against the GB DNOs. This concluded that NIE's indirect costs were in the upper

³⁷ Ofgem: Electricity Distribution (DPCR5): Glossary of Terms - Regulatory Instructions and Guidance: Version 2 Ref: 75d/11.

quartile against all DNOs and NIE is the most efficient network operator for indirect costs against the most relevant comparator group.³⁸ Further details may be found in Section 2 of Chapter 3 (RP4 Overview).

7. REAL PRICE EFFECTS

7.1 In the BPQ support paper 'Real Price Effects' (Ref BPQ09), NIE anticipated that it would face significant upward cost pressures on the inputs to its business. NIE argued that such an increase would be over and above any effect already captured by the RPI, and that it would be outside of NIE's control. Consequently an explicit additional allowance would be needed.

7.2 NIE found these real price effects to affect:

- The wages that it pays to its workforce;
- The rates charged by its contractors; and
- The cost of raw materials.

7.3 In its submission NIE calculated the capex RPE allowance that it believed would account for the expected real input price increases over the period covered by RP5.

7.4 In the Draft Determination, the Utility Regulator decided not to provide any allowance for RPEs.

7.5 It is difficult to see how the Utility Regulator's position on RPEs for RP5 is consistent with its views of RPEs during RP4. In paragraph 5.31 of the Draft Determination, the Utility Regulator agreed with NIE that significant increases in global raw material prices since 2005 would increase the cost of delivering the RP4 network investment programme by almost £8 million. It said

"We have reviewed this claim. We agree with the facts behind the increase in prices and the magnitude of the impact on NIE T&D."

7.6 NIE strongly disagrees with Utility Regulator's decision not to provide an allowance for RPEs and continues to believe that it will face significant real input price pressures. These should be recognised in the RP5 final determination.

7.7 To ensure these effects are accurately accounted for, RPE allowances need to reflect the latest RPI, earnings and raw materials cost forecasts. Therefore, NIE has used this information to calculate updated RPEs forecasts.

³⁸ 'Econometric efficiency analysis of NIE's indirect costs and R&M costs - June 2011'.

7.8 As set out in more detail in Appendix 4A3 - Real Price Effects, NIE has estimated the capex RPE allowance to be £58.1 million for the period covered by RP5.

CHAPTER 5

RP5 CAPEX - STRUCTURE

SUMMARY

The Utility Regulator has proposed a “three fund” structure for the capex element of the RP5 price control. The proposal represents a unique capex framework which appears to be designed:

- to allow delivery of prescribed investments to be monitored by the Utility Regulator and subject to penalties and rewards; and
- where investments cannot be prescribed, to enable them to be assessed by the Utility Regulator on an *ex post* basis through logging up / logging down or to be subject to *ex ante* regulatory approval.

The Utility Regulator's proposals depart substantially from the “three pot” structure proposed by NIE.

If implemented, the Utility Regulator's proposals would:

- substantially limit NIE's freedom to manage its business efficiently and diminish its incentives to do so;
- lead to delays in the implementation of such projects; and
- increase the overall regulatory burden on the Utility Regulator and on NIE, and impose significant new regulatory risks on NIE.

NIE therefore invites the Utility Regulator to reconsider its proposed three fund approach to the capex element of the RP5 price control, and to give further consideration to the three pot approach advocated in NIE's initial submissions. Such an approach would enable the Utility Regulator to deal appropriately with programmes whose cost is more predictable, and with large and uncertain projects, while continuing, for the substantial part of NIE's business, to give effect to normal principles of RPI-X regulation. NIE's three pot structure also embodies superior incentive properties.

1. INTRODUCTION

- 1.1 The Utility Regulator's proposals with respect to NIE's capex allowance for RP5 are set out in Section 9 of the Draft Determination.

- 1.2 This Chapter 5 comprises NIE's response to the Utility Regulator's initial proposals for the structure of the proposed capex arrangements.
- 1.3 Other aspects of the Utility Regulator's proposals for RP5 capex are dealt with elsewhere in this Response:
- NIE's views on the proposed 5% capex efficiency discount (in the form of a 1% year-on-year reduction in annual capital allowances) are dealt with in Section 2 of Chapter 3 (RP4 Overview).
 - NIE's response on the quantum of the proposed capex allowance is set out in Chapter 4 (RP5 Capex – Quantum).
- 1.4 NIE had proposed that capex be notionally divided into three "pots", reflecting the different characteristics of the projects to be undertaken, and that incentive mechanisms be adopted to incentivise NIE appropriately to manage each of the three kinds of project efficiently. NIE proposed different incentive mechanisms according to the extent to which the cost and specification of projects was 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.
- 1.5 The Utility Regulator now proposes a superficially similar arrangement, whereby the projects envisaged by NIE's capex plan are notionally divided among three "funds", with each fund (and the projects which it covers) being subject to a different treatment under the price control. However, the Utility Regulator's proposals are significantly different, and NIE considers that they raise serious concerns:
- The proposed arrangements would be costly and inefficient to administer and could lead to substantial delays in the implementation of important projects;
 - The proposed arrangements entail a large degree of regulatory micro-management of decisions which should properly be left to NIE's management;
 - The proposed arrangements entail substantial regulatory risk to NIE, with little prospect of NIE being able to benefit from its own efficiency;
 - The proposed arrangements do not allow or incentivise NIE to innovate and respond efficiently to changing network conditions; and
 - The Utility Regulator has not adopted sensible proposals put forward by NIE for superior arrangements to incentivise NIE to manage its capex investment efficiently.

- 1.6 The proposed arrangements are therefore unlikely to work in a way that promotes customers' interests.

2. THE UTILITY REGULATOR'S PROPOSALS

- 2.1 At paragraphs 9.82 to 9.110 of the Draft Determination, the Utility Regulator proposes that the three funds should cover:

- **Fund 1:** all asset replacement. The Utility Regulator proposes that the total units to be delivered and the unit costs be agreed before the final determination, and that a Reporter should verify delivery and substitution between asset types. NIE should be entitled to retain 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 should bear the consequences of exceeding the unit cost agreed with the Utility Regulator (through a reconciliation at the end of RP5);
- **Fund 2:** load growth, incremental costs of change of law, metering, IT & communications. 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 (referred to as logging up / down). NIE's performance against the price control would be verified by the Reporter, and there should be separate ring-fenced revenue allowances for metering, connections and non-recoverable network alterations; and
- **Fund 3:** large projects for renewable generation or interconnection. The Utility Regulator proposes that, owing to their unpredictability and "lumpiness", projects falling within this fund should be undertaken only with the prior approval (including as to the revenue allowance) of the Utility Regulator. Any agreed revenue allowances will then be factored into allowed revenue in the next price control year.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

- 3.1 In elaborating on the first three points identified in paragraph 1.5 above, we deal first with Fund 3 before turning to Funds 1 and 2.

Fund 3

- 3.2 The principles governing Fund 3 projects are a departure from those underlying normal RPI-X incentive-based regulation, since they do not leave it to NIE, within a

pre-determined revenue allowance, to decide how best to discharge its statutory and licence obligations to provide a safe and efficient network, capable of meeting all reasonable demands for electricity. Instead, they allow the Utility Regulator to scrutinise and approve individual projects on an *ex ante* basis, and to grant a specific revenue allowance in respect of them. This limits the scope for NIE to benefit from any exceptional efficiency on its part and therefore limits the potential returns which NIE may earn. It also precludes NIE from applying a "swings and roundabouts" approach, under which efficiencies achieved on one project may offset additional costs incurred on another. In view of these characteristics of the rules governing Fund 3, NIE submits that the Utility Regulator's proposals for Fund 3 projects should be applied only sparingly, where this form of regulatory treatment is strictly necessary.

- 3.3 On that basis, NIE agrees with the Utility Regulator that projects relating to the reinforcement of the T&D network to accommodate new renewable generation (Renewables Integration), and projects relating to interconnection with RoI networks (Interconnection), should be subject to a separate revenue allowance, to be agreed with the Utility Regulator in respect of individual projects as required. This reflects the fact that the need for such projects and their timing are unpredictable, and the projects are small in number and individually "lumpy", so that it is not feasible to set a single overall revenue allowance in the Utility Regulator's final determination which will be appropriate to cover their cost, but will also remain appropriate if not all such projects proceed.
- 3.4 However, NIE is concerned that there may well be delays and difficulties in securing a timely regulatory approval for individual projects, with the result that the introduction of additional renewable energy, and the development of a wider energy market through the use of enhanced interconnection with other systems, may be delayed to such an extent as to lead to inefficiency and consequential detriments to customers. NIE therefore invites the Utility Regulator to consider ways in which such inefficiencies might be mitigated, including the following:
- The grant of an up-front approval for NIE to undertake projects within Fund 3 up to a given expenditure limit (potentially linked to NIE's existing, well-developed plans for the reinforcement of parts of its core transmission network for the purposes of Renewables Integration); and
 - A firm agreement as to the documentation to be provided by NIE to enable the Utility Regulator to deal definitively with any application for approval for further projects, and a timetable for the grant of such approvals. We outline below what NIE considers to be an appropriate process.
- 3.5 We now turn to consider the process which NIE submits should generally govern the approval of Fund 3 projects.

- 3.6 NIE submits that, for each proposed project, NIE should:
- (a) Present the proposed project to the Utility Regulator for specific approval of both the “case of need” and a detailed “pre-construction” capex budget setting out all of the estimated internal and external costs needed to develop the project to the point of construction approval (including design, wayleaves, planning consent, and firm prices for construction). The cost of the presentation of this application will be covered by the standard RP5 price control revenues (being an assumed opex item – see the sub-section on renewables baseline in Section 4 of Chapter 6); and
 - (b) On receipt of the Utility Regulator's approval (including for any adjustments in pre-construction allowances arising from unforeseen circumstances beyond NIE's control and which have been approved by the Utility Regulator) present a robust “construction” budget proposal for capital investment in the proposed infrastructure assets.
- 3.7 On receipt of such documentation, the Utility Regulator should provide a formal response within an agreed standard period, either approving the project, or providing detailed and specific guidance as to what further steps NIE will need to take to secure approval (and the timetable for deciding NIE's further application), or detailed reasons as to why the Utility Regulator does not intend to grant approval. Alternatively, if the Utility Regulator considers that some form of public consultation is necessary to inform its decision in respect of the project, the Utility Regulator should use NIE's application as a basis for consultation, and should set a strict timetable for the conclusion of such consultation and for the making of its final decision. The Utility Regulator should provide sufficient reasons for any decision which it makes to enable NIE to satisfy itself as to whether such decision is well-founded.
- 3.8 NIE agrees that the capital investment proposal described at (b) above should include a firm quotation for the internal and external costs associated with construction and commissioning of the proposed asset, and should define the functionality and deliverables proposed, together with a proposed mechanism for cost adjustments / risk sharing in the event of circumstances beyond the reasonable control of NIE.
- 3.9 NIE's internal capital costs presented to and approved by the Utility Regulator under items (a) and (b) above should include capitalised costs arising from NIE resources required for delivery of each project. NIE's external capital costs should include the costs of all relevant materials and bought in services, and also (where relevant) the costs of any NIE Powerteam resources that commit time to the project.

- 3.10 It should be noted at this stage that NIE does not agree with the Utility Regulator's assessment that renewables-driven investment is lower risk and that this justifies a lower WACC for Fund 3 investments. These points are considered more fully in Chapter 12 (Weighted Average Cost of Capital).
- 3.11 NIE understands that (subject to the foregoing) approved "pre-construction" capex allowances will be passed through to the customer in full, but that capital costs may only be added to the RAB if the relevant assets are actually constructed. Otherwise, the relevant and approved pre-construction costs will be re-allocated to opex and treated as a permitted pass through for the year in which they were incurred.

Funds 1 and 2

- 3.12 NIE fundamentally disagrees with the Utility Regulator's proposals in respect of Funds 1 and 2.

Fund 1

- 3.13 The Utility Regulator's proposal for Fund 1 entails a very substantial extension of NIE's proposed Pot 1. NIE had proposed that, in cases where:
- NIE can predict, as of now, the need to replace set volumes of certain types of assets on its network; and
 - the likely efficient cost per unit is predictable,

then the RP5 price control should allow NIE sufficient revenue to replace a specific volume of such assets. NIE had further proposed that it should be subject to an incentive mechanism to effect such replacement, in the form of:

- an entitlement to retain the benefit arising from any outperformance (in terms of the outturn unit cost), or alternatively to bear the cost of any underperformance; and
 - a discount on allowed revenues (at the rate of the agreed unit price per non-replaced asset) in respect of any failure to replace the agreed volumes of assets.
- 3.14 NIE's Pot 1 mechanism is somewhat prescriptive, and is only suitable to be applied to a small number of asset types which meet all the requirements of predictability outlined above.
- 3.15 The Utility Regulator now proposes that this prescriptive mechanism be extended significantly to cover all network asset replacement activity. Such a proposal is unworkable and inappropriate because:

- Neither NIE nor the Utility Regulator can predict with sufficient confidence as of now, 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 risk of the residual uncertainty of this prediction and the ability of the Utility Regulator to assess subsequently the reasons for the inevitable variations that will occur.
- It is, in any event, 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 use of an improved design, or other more efficient means of achieving similar or greater outputs).
- The Fund 1 mechanism does not allow NIE to replace more asset units during RP5 (even if it can do so within the proposed revenue allowances for Fund 1 and Fund 2 in aggregate). Thus, NIE is constrained from accelerating the pace of replacement of its aged network assets, even though that would be beneficial to customers or otherwise necessary to discharge its statutory or licence obligations. On the Utility Regulator's proposals, customers will face the prospect of it taking many years to replace aged assets, which ought, if it is necessary and affordable, to be replaced earlier.

Fund 2

- 3.16 The Utility Regulator proposes that all load-related capex, the incremental capex associated with compliance with new legislation, and capex associated with IT and communications (and trials of new technology) 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. The Utility Regulator also proposes ring-fenced allowances for the costs of connections, non-recoverable network alterations and for metering.
- 3.17 Given the uncertainty associated with these activities, it is right that the prescriptive rules applied to Fund 1, should not be applied to Fund 2. However, the approach the Utility Regulator has taken to dealing with these uncertainties is deeply flawed.
- 3.18 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.
- 3.19 This approach will substantially diminish NIE's incentives to innovate and to achieve new sources of efficiency, to the ultimate detriment of customers. This approach 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.
- 3.20 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 efficiency properties).
- 3.21 Furthermore, the Utility Regulator's assessment of 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 3.15 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 as of now, the scope, design and cost of individual Fund 2 investments that will be required over the RP5 period. As a result, NIE will bear the risk of the residual uncertainty of this prediction and the ability of the Utility Regulator to assess subsequently the reasons for the inevitable variations that will occur.
- 3.22 As a consequence of these uncertainties, NIE had proposed that a conventional RPI-X approach be applied for "Pot 2". Having carved out "Pot 1" and "Pot 3" to cater for specifically identified investments, NIE proposed that an *ex ante* allowance be set for "Pot 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 proportion of under spend or over spend relative to the *ex ante* allowance.

Combined effects of the proposed three fund model

- 3.23 In combination, Funds 1, 2 and 3 effectively cover all of NIE's capex and leave limited scope for the operation of normal RPI-X incentive mechanisms. This is in contrast to the proposal made by NIE, and can be expected to have serious detrimental effects for customers:
- As already discussed, this system of micro-management severely weakens incentives to innovate and improve efficiency;

- This system draws the Utility Regulator ever closer into the management of the business, which weakens accountability;
- The Utility Regulator will need substantial expertise and resources to operate the system effectively, and to produce appropriately-reasoned decisions to allow NIE to be satisfied that they are soundly based (and to challenge them if they are not);
- The boundaries between the different funds are unclear, and considerable resources will have to be devoted to clarifying the boundaries in order to avoid disputes as to the rules which govern particular projects or expenditure, and to ensure that the RAB is marked up appropriately over time. There is ample scope for disputes as to the boundaries between Funds 1 and 2 (where NIE may wish to build new assets to meet additional demand, and thereby address, and obviate, the need for asset replacement contemplated by Fund 1); and
- The distinction between Funds 1 and 2 precludes NIE from accelerating the rate of asset replacement activity of the kind covered by Fund 1 if load growth falls short of the levels predicted for the purposes of Fund 2.

3.24 For all these reasons, NIE invites the Utility Regulator to reconsider its proposed three fund approach and to give further consideration to the three pot approach advocated in NIE's initial submissions: such an approach would enable the Utility Regulator 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 business, to give effect to normal principles of RPI-X regulation.

CHAPTER 6

RP5 OPEX

SUMMARY

The Utility Regulator has proposed an allowance for operating costs (opex) in RP5 of £257 million. This falls £75.4 million short of the £332.4 million needed for NIE to operate its regulated business over RP5 and as such is inadequate.

Key areas of concern include:

- In arriving at its proposal for allowed opex for RP5, the Utility Regulator has made a significant error in its calculation of meter reading base year costs and failed to recognise very material costs which need to be added to the base year in respect of additional demands on NIE for RP5 (including in relation to market opening, real price effects, workforce renewal and new legislation);
- The Utility Regulator has relied on a flawed efficiency benchmarking assessment to justify an initial 9% reduction in baseline opex. In doing so, the Utility Regulator has ignored compelling evidence from NIE's consultants Frontier Economics that NIE is one of the leading UK distribution network operators in terms of opex efficiency;
- The Utility Regulator is minded to impose a 1% year-on-year reduction in controllable opex for which there is no reasonable justification; and
- Rates and wayleaves have been treated as "semi-controllable" costs for which NIE is to bear risk, notwithstanding that NIE has no ability in practice to reduce these costs.

1. INTRODUCTION

1.1 The Utility Regulator's proposals with respect to NIE's opex allowance for RP5 are set out in Section 10 of the Draft Determination. This chapter comprises NIE's response to those proposals.

1.2 This Chapter is structured as follows:

- Section 2 contains a summary of the Utility Regulator's proposals for RP5 opex and contrasts these proposals with NIE's adjusted forecast costs.

- Section 3 sets out NIE's case on the base year starting point adopted by the Utility Regulator for its assessment of opex and adjustments for costs associated with meter reading, keypad meters and Rathlin Island.
- Section 4 sets out NIE's case on new costs (i.e. costs that were not incurred in the base year) arising from additional demands for RP5 that ought to be included in the opex allowance. These include costs associated with the Enduring Solution market opening project, support for the Renewables programme, Real Price Effects and workforce renewal.
- Section 5 responds to the Utility Regulator's proposal for a 1% year-on-year reduction in controllable opex. (NIE's case on the proposed initial efficiency factor of 9% for controllable opex is set out in Chapter 3 (RP4 Overview)).
- Section 6 concerns the Utility Regulator's proposals for uncontrollable costs.

2. THE UTILITY REGULATOR'S PROPOSALS

- 2.1 The Utility Regulator's proposed opex allowance falls short of NIE's forecast costs by £75.4 million over the RP5 period.
- 2.2 Table 6.1 below sets out NIE's submitted BPQ figures with adjustments post submission and the shortfall against the Utility Regulator's proposed allowance.

Table 6.1: Summary of NIE adjusted BPQ versus the Utility Regulator’s proposed allowance for total opex.

£m	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
Controllable opex:					
Baseline Opex	167.1	0.9	168.0	158.3	9.7
Costs to be Added to Baseline:					
Enduring Solution	22.5	6.9	29.4	16.4	13.0
Renewables Baseline	19.3	(6.7)	12.6	10.5	2.1
Other	<u>28.6</u>	<u>(1.5)</u>	<u>27.1</u>	<u>1.5</u>	<u>25.6</u>
Total Costs to be Added to Baseline	<u>70.4</u>	<u>(1.3)</u>	<u>69.1</u>	<u>28.4</u>	<u>40.7</u>
Efficiency Factors Applied	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>(18.5)</u>	<u>18.5</u>
Total Controllable Opex	237.5	(0.4)	237.1	168.2	68.9
Uncontrollable Opex	<u>107.3</u>	<u>(12.0)</u>	<u>95.3</u>	<u>88.8</u>	<u>6.5</u>
Total Opex	344.8	(12.4)	332.4	257.0	75.4

2.3 NIE has made a number of adjustments to the submitted BPQ to reflect the availability of new information and also to reflect different assumptions contained within the Utility Regulator’s proposals. These adjustments are detailed in the table below.

Table 6.2: Summary of adjustments to submitted BPQ

Adjustments £m	Base line Opex	Costs to be Added to Baseline	Uncontrollable Opex	Total	Comment
<u>Cost Increases:</u>					
Enduring Solution	-	6.9	-	6.9	Latest Best Estimate of Costs
Reporter	-	-	1.5	1.5	Adjustment based on UR proposals
Guaranteed Standards	-	1.3	-	1.3	Adjustment based on UR proposals
Meter Reading	1.3	-	-	1.3	Impact of Agency Workers Directive
Other	(0.4)	0.7	-	0.3	Latest Best Estimate of Costs
<u>Cost Decreases:</u>					
Injurious Affection	-	(0.9)	(11.4)	(12.3)	Adjustment based on UR proposals
Renewables Baseline	-	(6.7)	-	(6.7)	Adjustment based on UR proposals
Real Price Effects	-	(0.1)	-	(0.1)	Latest Best Estimate of Costs
Workforce Renewal	-	(2.5)	-	(2.5)	Reflects incremental costs in RP5
Licence Fees	-	-	(2.1)	(2.1)	Adjustment based on UR proposals
Net Adjustment	0.9	(1.3)	(12.0)	(12.4)	

2.4 In describing the proposed allowance, it is necessary to distinguish between controllable opex and uncontrollable opex. The £75.4 million shortfall in the Utility Regulator’s proposed allowance comprises £68.9 million in respect of controllable opex and £6.5 million in respect of uncontrollable opex.

Controllable opex

2.5 Controllable opex includes matters such as payroll, repairs and maintenance, IT & telecoms, corporate costs, insurance, property costs, professional services and meter reading. The £68.9 million shortfall in the proposed allowance for controllable opex is detailed below:

Table 6.3: Summary of NIE adjusted BPQ versus the proposed allowance for controllable opex.

£m	NIE Adjusted BPQ	Proposed Allowance	Variance
Controllable opex:-			
Baseline Opex	168.0	158.3	9.7
Costs to be Added to Baseline:			
Enduring Solution	29.4	16.4	13.0
Renewables Baseline	12.6	10.5	2.1
Other	<u>27.1</u>	<u>1.5</u>	<u>25.6</u>
Total Costs to be Added to Baseline	69.1	<u>28.4</u>	<u>40.7</u>
Efficiency factors applied	<u>0.0</u>	<u>(18.5)</u>	<u>18.5</u>
Total	237.1	168.2	68.9

2.6 In its Draft 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; and
- New costs arising from additional demands identified by NIE for RP5 were then assessed on a line-by-line basis.

2.7 Key elements of the Utility Regulator's proposals in relation to controllable opex include:

- Reducing baseline meter reading costs to £1.5 million a year. This compares with a current annual allowance of £3.1 million plus an additional agreed allowance of £0.4 million for reading keypad meters.
- Limiting allowable new costs to £28.4 million. NIE's adjusted BPQ identifies new costs of £69.1 million of which £29.4 million relates to the Enduring Solution and £12.6 million to the Renewables Baseline. These new costs are mainly driven by government policy on competition and renewables. The Utility Regulator proposes limiting new costs to £28.4 million implying a disallowance of £40.7 million. Key elements of this disallowance include:
 - £13.0 million of the £29.4 million forecast for market opening and the 'Enduring Solution' (an IT-driven project which aims to facilitate the competitive supply market and customer switching);

- £8.7 million forecast for real price effects (i.e. price inflation in excess of RPI across key inputs including wages and rates charged by contractors);
- £4.9 million relating to the cost of recruiting and training new employees (workforce renewal);
- £3.3 million of the £3.8 million required for legislative and regulatory requirements;
- £2.5 million of costs relating to Research & Development associated with the application of Smart Technologies;
- £2.1 million of costs relating to the renewables baseline; and
- £2.0 million forecast costs for the RP6 price review.

2.8 In a parallel exercise, the Utility Regulator commissioned an econometric benchmarking analysis of NIE's costs compared with those of the GB DNOs. This analysis ranked NIE's indirect costs as the ninth most efficient (out of 15) and identified an efficiency gap of 9%. On this basis, the Utility Regulator proposes to apply an initial efficiency factor of 9% to the adjusted baseline for controllable opex costs, to be applied over the first two years of RP5, thereby reducing NIE's allowance by £13.5 million. NIE's response to the proposal for such an efficiency discount is set out in Chapter 3 (RP4 Overview) of this Response. That chapter explains that NIE has presented robust evidence from consultants Frontier Economics that confirms that NIE is a leading performer among the GB DNOs.

2.9 On top of this initial efficiency factor, the Utility Regulator proposes to apply a 1% year-on-year reduction in controllable opex resulting in a further £5.0 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.

Uncontrollable opex

2.10 Uncontrollable opex refers to opex on which NIE is deemed to have little or no influence. This category has historically included rates, wayleaves and licence fees. The proposed allowance falls short of that required by NIE by £6.5 million.

Table 6.4: Summary of NIE adjusted BPQ versus the proposed allowance for uncontrollable opex.

£m	NIE Adjusted BPQ	Proposed Allowance	Variance
Uncontrollable Opex	95.3	88.8	6.5

- 2.11 The Utility Regulator has proposed that rates and wayleaves should be treated as "semi-controllable" on the basis that there is an element of negotiation that NIE can apply. It intends to set the allowance for such costs at the RP4 average, which equates to an RP5 allowance of £66 million for rates and £18 million for wayleaves. To the extent that actual costs exceed this baseline, NIE will need to fund 20% of that excess from its own resources. Similarly, NIE will retain 20% of any outperformance.
- 2.12 The Utility Regulator intends to await developments in the case law on injurious affection before considering how to treat those costs.

3. BASELINE OPEX

- 3.1 The Utility Regulator has used 2009/10 as the base year for setting the baseline opex allowance of the Draft Determination and has proposed a number of base year adjustments for one-off and non-recurring costs.
- 3.2 Table 6.5 below provides a comparison of NIE's adjusted BPQ costs to the Utility Regulator's proposed allowance.

Table 6.5: Summary of NIE’s adjusted BPQ versus the proposed allowance for Baseline opex

	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed allowance	Variance
	£m	£m	£m	£m	£m
Base Year Costs	148.2	0.0	148.2	150.0	(1.8)
Meter Reading, Keypads & Rathlin	18.9	0.9*	19.8	8.3	11.5
Total Baseline Opex	167.1	0.9	168.0	158.3	9.7

* £0.9 million of additional costs principally associated with the introduction of the agency workers directive (£1.3m) offset by lower projected costs in respect of keypads and Rathlin (£0.4m).

3.3 The Utility Regulator’s proposed baseline allowance of £158.3 million is equivalent to £31.7 million per annum comprised of:

- Base year costs of £30.0 million per annum; and
- Meter reading, keypad meters and Rathlin Island costs of £1.7 million per annum.

3.4 NIE’s response to the Utility Regulator’s proposed allowances for these items is set out below.

Base year costs

3.5 The Utility Regulator has incorrectly included the IAS19 current service pension charge of £1.1 million in its baseline opex figure. Pensions costs should not be included in the opex allowance as there is a separate allowance for pensions costs.

3.6 Correcting for this error would reduce the base year costs from £30.0 million to £28.9 million as shown in the table below.

Table 6.6: Adjusted base year costs

	£m
Base year (2009/10) actual costs	31.4
Utility Regulator adjustments	<u>(1.4)</u>
	30.0
NIE additional adjustments:-	
Pensions charge	<u>(1.1)</u>
Adjusted base year cost	28.9

3.7 Adjusting for the pension charge reduces the Utility Regulator's proposed allowance of £150.0 million (£30.0 million per annum over RP5) to £144.5 million (£28.9 million per annum). This allowance is £3.7 million less than NIE's projected RP5 costs of £148.2 million (average cost of £29.6 million per annum).

Meter reading, keypad meters and Rathlin Island costs

3.8 Table 6.7 below provides a comparison of NIE's forecast costs for meter reading, keypad meters and Rathlin Island with the Utility Regulator's proposed allowance and shows a shortfall of £11.5 million over RP5, the bulk of which relates to meter reading.

Table 6.7: Shortfall in the opex allowance for meter reading, keypads and Rathlin

	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Meter Reading	17.2	1.3*	18.5	7.5	11.0
Keypad Meter Opex	1.3	(0.2)**	1.1	0.8	0.3
Rathlin Opex	<u>0.4</u>	<u>(0.2)**</u>	<u>0.2</u>	<u>0.0</u>	<u>0.2</u>
	18.9	0.9	19.8	8.3	11.5

*Projected meter reading costs are £1.3 million higher than the figures presented in the BPQ as a result of higher agency staff costs following the introduction of the agency workers directive. There is no profit element in the forecasts.

**Adjustments reflect latest best estimate of costs.

Meter Reading

3.9 The table below shows a comparison of NIE's RP5 projected meter reading costs compared to the Utility Regulator's proposal.

Table 6.8: Summary of meter reading costs versus proposed allowance

	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m
Salary costs	15.6	6.8	8.8
Overheads	<u>2.9</u>	<u>0.7</u>	<u>2.2</u>
	18.5	7.5	11.0

3.10 The current RP4 allowance for meter reading costs is £3.5 million per annum. NIE's projected costs during RP5 are £3.7 million per annum which is significantly higher than the Utility Regulator's proposed RP5 allowance of £1.5 million per annum.

3.11 The Utility Regulator's proposed allowance for RP5 is based on the RP4 allowance for reading keypad meters. This allowance does not reflect the current cost of agency staff, excludes management costs and makes inadequate provision for overheads.

3.12 The proposed allowance is based on an average agency salary cost of £16,750 per annum. NIE currently has 95 meter readers of which 53 are employed as agency staff. The average cost of the agency staff is £29,000 per annum. Agency costs have increased significantly due to the new European Union agency workers directive (**AWD**). 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.

3.13 The proposed allowance excludes meter reading management costs comprising:

- a meter reading co-ordinator whose role includes management of the meter reading function and implementation of meter reading and company policies;
- three meter reading team leaders whose role is to provide effective meter reading programme management;
- three meter reading performance leaders who ensure meter readers are performing to the required targets; and

- five field service representatives who deal with usage and meter accuracy enquires from customers.

- 3.14 The average salary cost for these staff is £34,000.
- 3.15 The proposed allowance includes a meter reading overhead allowance of 10% (£0.1 million per annum). The Utility Regulator has not provided any rationale for this level of allowance. NIE's actual overhead costs are approximately £0.6 million per annum. These costs comprise: fleet, fuel, phones, IT, rent, and central support costs.
- 3.16 For the reasons stated above, the Utility Regulator's proposed allowance in respect of meter reading costs is insufficient to cover NIE's projected costs. NIE's projected costs do not include any element of profit.

Keypad meters

- 3.17 NIE took over the management of keypad meters when it became common service provider in 2007/08. There are now approximately 270,000 installed keypads.
- 3.18 NIE's projected costs in respect of keypads are £226,000 per annum over RP5, which gives a total cost of £1.1 million over the RP5 period. This is based on the existing number of suppliers operating in the keypad market and on the assumption that annual maintenance charges continue to be borne by suppliers.
- 3.19 This requirement compares with the Utility Regulator's proposed allowance of £0.8 million over RP5.
- 3.20 Keypad costs comprise: staff costs, NIE maintenance charge, an annual charge for hardware modifications, a maintenance fee for the secure meter encryption system, licence fees, access and support costs and keypad plastic card costs. As the majority of these services are provided by specialist suppliers with limited competition, NIE has limited influence in reducing costs in this area.
- 3.21 As each new supplier requires plastic cards with their own supplier logo, these costs would increase as more suppliers enter the market.
- 3.22 The Utility Regulator's proposed allowance will not adequately cover these costs.

Rathlin Island

- 3.23 The Utility Regulator has excluded £0.2 million of costs associated with the arrangements for the electricity supply to Rathlin Island (via undersea cable from the mainland) because it considers that this is not a continuing cost.

- 3.24 Rathlin operating costs 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. Projected costs are approximately £32,000 per annum and should be allowed for.
- 3.25 This annual cost excludes any costs associated with the possible need for periodic inspections of the cable and the significant costs that could be associated with a cable repair. Separate provision should be made for the recovery of such costs if the need arises.

4. COSTS TO BE ADDED TO BASELINE

- 4.1 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 base year.
- 4.2 These 'new' costs include:
- IT and staffing support for the Enduring Solution market opening project;
 - the resources to support the Renewables programme;
 - the need to pay above the cost of living pay rises to retain specialist labour;
 - the need to renew the workforce;
 - the introduction of new legislation and increased regulatory reporting;
 - storm costs; and
 - other costs.
- 4.3 Other 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.
- 4.4 The Utility Regulator assessed these 'new' costs on a line-by-line basis. Any costs warranted as efficient and appropriate were added to the adjusted baseline. As shown in Table 6.9 below the Utility Regulator's proposed allowance for new costs not included in the baseline falls short of NIE's forecast costs by £40.7 million over the RP5 period.

Table 6.9: Shortfall in the allowance for costs to be added to baseline

£m	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
Enduring Solution	22.5	6.9	29.4	16.4	13.0
Renewables Baseline	19.3	(6.7)	12.6	10.5	2.1
Real Price Effects	8.8	(0.1)	8.7	0.0	8.7
Workforce Renewal	7.4	(2.5)	4.9	0.0	4.9
Legislative and Regulatory	3.8	0.0	3.8	0.5	3.3
Storm Costs	1.6	0.0	1.6	1.0	0.6
R&D (Application of Smart Technologies)	2.1	0.4	2.5	0.0	2.5
Smart Metering	1.4	(1.4)	0.0	0.0	0.0
Price Review	1.2	0.8	2.0	0.0	2.0
Other	1.4	2.2	3.6	0.0	3.6
Injurious Affection	0.9	(0.9)	0.0	0.0	0.0
Total Costs to be Added to Baseline	70.4³⁹	(1.3)	69.1	28.4	40.7

*Adjustments to BPQ figures reflect changes post submission due to availability of new information and different assumptions contained within the Utility Regulator's proposals.

4.5 This funding gap will need to be addressed in the final determination. Each of these cost categories is considered below.

Enduring Solution

4.6 The proposed allowance of £16.4 million is £13.0 million short of the forecast costs within the NIE adjusted BPQ, as shown in Table 6.10 below.

Table 6.10: Enduring Solution

£m	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
Enduring Solution	22.5	6.9	29.4	16.4	13.0

NIE's BPQ submission and the Utility Regulator's proposed allowance

4.7 In May 2012, NIE successfully implemented the Enduring Solution (**ES**) project. This major project, delivered within a 24 month timeline, involved replacement of core legacy billing systems with new applications with increased functionality to

³⁹This total includes the £63.3 million of costs referred to as 'New Opex' in Table 10.7 of the Draft Determination. £7.1 million of costs submitted in the BPQ were not directly referenced in Section 10 of the Utility Regulator's Draft Determination.

meet the requirements of a fully competitive retail market. The project was required to enable NIE, in line with regulatory requirements, to meet its obligations as market operator and to effect full business separation from Power NI. The project was considered highly complex given the number of system applications involved and the inter-linkages between NIE, Power NI and other stakeholders, along with a large data migration element.

- 4.8 Implementation of the project to meet market needs has resulted in a robust solution with much greater functionality and capacity, requiring significant increases in IT support resources. The requirement for strong market governance arrangements and the increases in operational data volumes have also driven a significant increase in NIE business support resources.
- 4.9 During the course of the project NIE has engaged with the Utility Regulator to arrive at appropriate allowances for the post Go Live IT and business operational support arrangements. NIE has now identified total ES operating costs of £29.4 million during RP5. Due to the complexity of the new arrangements and the relatively limited experience of this suite of applications in the production environment, NIE plans to adopt an iterative approach in determining the most cost effective on-going resource needs through the use of an agreed 'activity based' model. An initial review of activity in September 2012 will be followed by a further checkpoint after 12 months of live operation. This exercise may identify changes to the operating costs presented here.
- 4.10 Within the Draft Determination, the Utility Regulator is proposing to allow £16.4 million for the period, a shortfall of £13.0 million.
- 4.11 The allowance proposed falls well short of the funding required to operate the new solution effectively. NIE has provided detailed analysis of the projected costs; however, neither the detailed rationale used by the Utility Regulator to identify potential reductions nor the benchmarking information underpinning the proposals has been shared with NIE.

Table 6.11: RP5 ES forecast costs and proposed UR Allowances

£m	BPQ Submission	NIE Nov-11 Forecast	NIE July-12 Forecast	Proposed Allowance	Variance
ES IT Support Costs	18.6	20.6	24.3	14.4	9.9
ES IT Transitional Costs	0.0	1.6	0.2	0.0	0.2
ES Manpower	<u>3.9</u>	<u>7.3</u>	<u>4.9</u>	<u>2.0</u>	<u>2.9</u>
Total	22.5	29.5	29.4	16.4	13.0

- 4.12 Given the complexity of the ES project and the timing of the regulatory 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 advised to the Utility Regulator when the initial estimate of £22.5 million for support costs for the RP5 period was provided when the BPQ was submitted. It was highlighted at that stage that the submission would be updated when the project reached a more advanced stage.
- 4.13 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. The July submission identified costs of £29.4 million, an increase of £6.9 million from the original BPQ projections. 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.
- 4.14 The forecast view of ES support requirements in November 2011 was largely informed by visibility of the earlier stages of system testing and the associated assumptions around 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.
- 4.15 The total number of test cases is an important metric for the range of functionality being delivered. A total of 7,380 test cases were planned to be executed during the early stages of testing to achieve full coverage of the solution. However, the later user acceptance testing saw this increased to 11,030 test cases (an increase of 49%) to achieve full coverage of the new market and business processes, and associated functionality. Also, the need for additional support resources in specific technical areas which had not been factored into the November 2011 submission was identified during the subsequent user acceptance testing process.
- 4.16 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.

Rationale for proposed ES operating costs

- 4.17 The introduction of the new ES market processes and associated IT solutions has created a step-change in NIE's operating costs. The Enduring Solution is replacing a legacy billing system which provided limited functionality (and thereby requiring

minimal support) with a system capable of providing extensive functionality required to meet the needs of the competitive retail market and which requires significantly more support effort.

- 4.18 This increase in functionality relates directly to NIE's obligation to perform the market operator role and also, because of business separation requirements, to separately implement functionality previously shared with Power NI. During the course of the project, more than 318 pieces of custom functionality were developed specifically to meet the requirements of the new market and business processes. Approximately 100 new interface programmes were created, more than 30 of these being real-time communications between applications. A total of 49 new workflow processes have been generated, each with multiple break-out points where exceptions may arise and 80 new business reports have been generated.
- 4.19 In addition, the volume of information moving within the retail market is expected to increase significantly in the new competitive market. This increase in data volume and related data management requirements is driven by the needs of a competitive market and harmonisation of messaging arrangements between NI and the Republic of Ireland, as requested by both regulators. As a result, the previous 15,000 messages per day will increase potentially up to a peak of 115,000 messages per day, depending upon market activity. In the first few weeks of ES operation, with lower than normal market activity, peak message volumes doubled from the pre-ES position and this is expected to rise as suppliers begin to engage more fully with the new processes. In addition to the increases in volumes, the 36 pre-ES message types have been replaced by 84 message types (in line with the harmonisation of message arrangements in NI and RoI as requested by the regulators), all driving additional system functionality and potential levels of exceptions.
- 4.20 All of these changes drive the 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.
- 4.21 NIE is confident that the proposed ES operating costs are appropriate for the following reasons:
- The costs have been developed through detailed, bottom-up analysis of the software, hardware and resources required to operate the solution. Hardware and software costs are driven by the solution as implemented and the support resource model has been prepared by considering each individual functional and technical component in the solution.

- Given the complexity of the ES solutions, the use of benchmarking information to validate support costs is of limited value as each implementation is very different. High-level reviews of other implementations of the same technology (SAP IS-U) have identified a wide variance in support resources. However, NIE's outsourced service provider has engaged an independent 3rd party to scope a support organisation specifically for the NIE solution and this exercise has validated the proposed resource model. The daily rates for the support resources were tendered as part of the managed service re-procurement in 2009 and are very competitive. The proposed application support resources are being provided at an average daily rate of £388 in 2012/13 prices (£340 in 2009/10 prices) which is extremely competitive, even for a blended onshore / offshore resource model.
- Best practice information in the IT industry suggests that it is difficult to accurately predict software lifecycle costs using initial implementation costs, as implementations will vary significantly. However, various sources of information are available which indicate the costs which should be used for budgetary purposes. These include: maintenance costs for large enterprise systems average approximately 25% per annum of the initial investment⁴⁰; 80% of all software lifecycle costs occur during the maintenance phase⁴¹; and organisations should budget approximately 30% of initial development costs per annum to keep the application operational⁴².
- The relevant ES project implementation costs were £36.5 million (2012/13 prices) and the relevant revised annual IT support costs are approximately £4.6 million (2012/13 prices), representing 13% of implementation costs⁴³. The ES project is considered to be a cost effective implementation. It was undertaken following an intense procurement phase which resulted in a Systems Integrator being appointed at a cost of some £17 million less than the nearest competitor. These calculations reinforce our view that the forecast support costs are appropriate.

4.22 The Utility Regulator's proposed allowance of £16.4 million does not represent a level of funding which would enable the ES solution to be operated and supported effectively.

⁴⁰ Glass RL, Vessey I. Enterprise resource planning systems: Can they handle the enhancement changes most enterprises require? *The Software Practitioner* 1999; 9(5):1–12.

⁴¹ Robert S. Pressman. *Software Engineering: A Practitioner's Approach*, 5th edition. McGraw-Hill, NY (2001)

⁴² Duggan J, Solon RF, Hotle, M: *How to Start Estimating Software Lifecycle Costs*. Gartner Research Note G00127751 (2005).

⁴³ £36.5 million represents the full ES implementation cost of £37.9 million, with various market related costs such as market engagement, market testing and legal fees removed. £4.6 million represents the Year 2 operating cost of £5.95 million with various non-IT support costs removed such as business process staff, Half Hour Meter reading and other market opening costs.

- 4.23 In the remainder of this sub-section we summarise the history of the various ES submissions. The Utility Regulator's proposed allowances are discussed, highlighting the areas where significant reductions have been proposed. We describe in more detail why the ES implementation has significantly increased NIE's operating costs and why the projected costs have increased since the November 2011 forecast. We also explain why we are procuring IT support services through the existing managed service contract. Finally, we provide details of the projected increase in ES-related manpower costs.

Development of NIE's opex forecasts

- 4.24 As part of the BPQ submission in February 2011, NIE identified ES operating costs of £22.5 million during the RP5 period. As the submission was prepared at a very early stage of the project (Requirements Definition) it was highlighted that further information would be required before the actual operating costs could be identified. The BPQ submission contained the following caveat:

"There is a significant degree of uncertainty involved in planning opex costs well in advance of completion of the ES design. While the submission includes known additional costs (SAP licences, hardware maintenance) and known savings (mainframe costs, Oracle licences) there are a number of areas where final information will not be available for some time."

- 4.25 The area of IT support resources was considered to be particularly uncertain and the following comment was made in relation to the projected costs in this area:

"These projections have been based upon very early discussions with Northgate and Wipro. The change to the managed service costs resulting from ES will not be fully understood until much later in the project and therefore, the degree of confidence in these figures is low."

- 4.26 In November 2011, NIE provided supplementary information to the Utility Regulator in relation to the ES operating costs. At this point, the market processes and system requirements had been finalised and the project was in the early stages of testing, therefore more information was available to inform the operating cost projections. At that point, NIE projected RP5 costs of £29.5 million, an increase of £7.0 million from the February estimate. Once again, the information was heavily caveated:

"The figures in this paper represent NIE's present best view of the minimum level of ICT and Business Process Outsourcing (BPO) support services required in the light of the information currently available to us. The figures are based on certain assumptions and will require further review if circumstances outturn differently post Go Live. The current position has been developed in advance of any user testing of the new applications."

NIE expects that further information may emerge during the later stages of testing which may impact the proposed resourcing – either to increase or decrease the requirement.”

- 4.27 The user acceptance testing phase of the ES project commenced in December 2011. This was NIE’s first opportunity to observe the new market and business processes and associated IT solutions in detail and the testing process further informed decisions about the future support arrangements.
- 4.28 Since December 2011, NIE has actively engaged with the Managed Service Provider (Northgate) and the ES Systems Integrator (Wipro) to determine and implement the most robust and cost effective arrangements for on-going support of the applications enabling NIE to commit to meeting the service expectations of both the retail market and the Single Electricity Market (SEM). In addition, NIE has continued to review the resource levels required to support the new processes in light of the information emerging from the acceptance testing phases of the project.

Proposed ES allowance

- 4.29 Table 6.12 below shows the most recent view of the ES operating costs during the RP4 extension and RP5 and compares these with the interim allowances currently in place and those proposed by the Utility Regulator for the RP5 period.

Table 6.12: Shortfall in the allowance for Enduring Solution Costs

£m	RP4	RP5					Total
	Extension	2012/13	2013/14	2014/15	2015/16	2016/17	
NIE FORECAST COSTS							
IT Costs							
Pre ES market operations costs	0.5						
Support Resource Costs:							
<i>Applications support</i>	1.1	2.9	2.7	2.4	2.2	2.2	12.4
<i>Infrastructure support</i>	0.2	0.4	0.4	0.4	0.3	0.3	1.8
<i>Network support</i>	0.0	0.1	0.1	0.1	0.1	0.1	0.5
<i>Market driven developments</i>	0.0	0.2	0.2	0.2	0.2	0.2	1.0
Total resource costs	1.3	3.6	3.4	3.1	2.8	2.8	15.7
Infrastructure costs	0.3	0.7	0.7	0.8	0.8	0.9	3.9
Software costs	0.2	0.5	0.5	0.5	0.6	0.6	2.7
Market entry costs	0.0	0.1	0.1	0.1	0.1	0.1	0.5
Business process outsourcing	0.2	0.5	0.6	0.6	0.6	0.6	2.9
Transitional Support Costs	0.8	0.2					0.2
Legacy Support Cost Reductions	(0.1)	(0.3)	(0.2)	(0.3)	(0.3)	(0.3)	(1.4)
Total IT Costs	3.2	5.3	5.1	4.8	4.6	4.7	24.5
Manpower							
Existing Market Support staff	0.3	0.4	0.4	0.5	0.5	0.5	2.3
New Permanent resources	0.2	0.5	0.5	0.5	0.5	0.5	2.5
New Transitional resources	0.2	0.1					0.1
Total Manpower	0.7	1.0	0.9	1.0	1.0	1.0	4.9
Total Operating Costs	3.9	6.3	6.0	5.8	5.6	5.7	29.4
UTILITY REGULATOR ALLOWANCES							
Dt approvals - IT	0.3						
Dt approvals - Manpower	0.1						
Interim ES Approval - IT	1.4						
Interim ES Approval - Manpower	0.5						
DD RP5 IT		3.5	2.9	2.7	2.7	2.6	14.4
DD RP5 Manpower		0.4	0.4	0.4	0.4	0.4	2.0
Total Allowances	2.3	3.9	3.3	3.1	3.1	3.0	16.4
Shortfall	1.6	2.4	2.7	2.7	2.5	2.7	13.0

- 4.30 The IT costs shown above include the resource costs for the managed service IT support staff and the managed service business process outsourcing staff (who carry out process activities on NIE's behalf). They also include hardware, communications and software costs and various other costs relating to market entry activities. Some transitional costs to cover higher levels of activity during the first 6 months of operation are shown separately. The new ES IT costs are offset by some reductions in other NIE legacy IT costs.
- 4.31 The manpower costs shown include staff who were employed to support various market related activities following earlier market opening projects as well as new resources required to support ES activities from May 2012 onwards.
- 4.32 NIE is currently engaged with the Utility Regulator with the objective of agreeing revised allowances for Enduring Solution costs both for the RP4 extension period and for RP5.

IT costs

- 4.33 The most recent RP5 IT cost projections of £24.5 million compare to a total proposed allowance of £14.4 million – a shortfall of £10.1 million. (The proposed allowances contained in the Draft Determination were developed following review of NIE's submission in November 2011.) Areas where significant shortfalls occur include:
- Applications support, where the Utility Regulator has proposed an allowance of £6.1 million compared to the current NIE projection of £12.4 million;
 - Business process resource costs, where an allowance of £2.3 million is proposed compared to the current NIE projection of £2.9 million; and
 - Hardware and software costs, where an allowance of £5.8 million is proposed compared to the current NIE projection of £6.6 million.
- 4.34 The benchmarking information used by the Utility Regulator to arrive at these proposed reductions has not been provided to NIE.
- 4.35 The Draft Determination does not consider the allowance for IT transitional costs pending further information (£0.2 million).

Drivers for increased IT support costs

- 4.36 In paragraph 10.75 of the Draft Determination, the Utility Regulator observes that:
- "...NIE T&D's implied increase in managed services contract costs needs to be considered in the light of the modern (more efficient) technology now*

being employed, along with economies of scale driven from the adoption of harmonised systems and processes with the new sister company, ESB."

4.37 The meaning behind this observation is not entirely clear to NIE. As highlighted above, the Enduring Solution is replacing a legacy billing system which provided minimal functionality (and thereby requiring minimal support) with a modern, functionally rich product which meets the needs of the retail market but which requires significantly more support effort. The new solution is significantly more complex by way of structure and inter-application functionality. This complexity being caused by:

- The change from a single-structure legacy mainframe system build which aligned to a vertically integrated business to one which has numerous disparate components and numerous interfaces required to support a competitive de-regulated market and which require complex management of inter-application data flow. Information for 870,000 sites is now being managed within this architecture and approximately 100 new interfaces have been generated;
- The implementation of significant new custom functionality and configuration to increase automation and efficiencies for the system end-users and deliver enhanced data validation required by the new market. As highlighted above, 318 new pieces of custom functionality were developed to meet the requirements of the new market and business processes and 80 new reports developed to support the businesses;
- The implementation of new custom functionality and configuration to support harmonisation. Message types have increased from 36 to 84;
- The implementation of new functionality to manage an increased range and unconstrained volume of activity from market participants. A total of 49 new workflows have been generated to support the new market and business arrangements, including the automated processing of market messages;
- The structure of the application set itself which must be flexible and capable of facilitating future change as dictated by market requirements – for example in the area of smart metering; and
- Increasing levels of complexity in an integrated solution drive increased effort, particularly in the area of testing where changes to one functional component generally requires testing across the wider solution landscape.

Economies of Scale

- 4.38 The extract from paragraph 10.75 of the Draft Determination cited above also infers that NIE can benefit from potential savings arising from economies of scale within the wider ESB Group. The NIE ring-fencing arrangements required by the Utility Regulator constrain the ability to achieve savings and currently preclude the exploration of any initiatives which might result in joint synergies.
- 4.39 The Enduring Solution systems being implemented by NIE to support the NI market are completely standalone, save for one application referred to below, from the IT systems used by other members of the ESB group. The support contracts are entirely separate, in line with the ring-fencing requirements, and there are no imminent opportunities for economies of scale and thereby cost reductions.
- 4.40 The only current exception to this is the potential for shared use of the NIE market message hub (TIBCO) by ESB Networks. The guiding principles which will underpin this shared use are still being debated by the Regulatory Authorities and the network operators north and south. Although documented principles have not been shared with NIE, it appears that the Utility Regulator is minded to having a single contract between NIE and the managed service provider (to include service provision to ESB) and will require NIE to take on the risk and management overhead of providing the market messaging service to RoI, as well as NI. NIE does not believe that the provision of services outside of its jurisdiction is a reasonable expectation. This approach would introduce additional costs to the market, which are not included in NIE's Adjusted BPQ costs.
- 4.41 Savings should accrue to NIE from the shared TIBCO arrangement, however the delivery of these savings is dependent upon satisfactory arrangements being agreed between the Regulatory Authorities and both network operators. In any event, these savings will be small in relation to the overall increases being driven by the new market requirements. In the future, we will be exploring opportunities to co-ordinate upgrades / enhancements between north and south which will minimise disruption for suppliers and enable more stable market operations. This will serve to reduce capital project costs in both jurisdictions, rather than significantly impact opex.

Tendering for services

- 4.42 NIE outsources all its IT support services and the existing managed service contract was competitively tendered in 2009, to run for a minimum 5-year term.
- 4.43 The requirement for ES support services mid-way through the managed services contract term was noted during the tendering process and all the managed service bidders understood that a change control would be required. During the ES tendering process, this approach to future managed service provision was

confirmed in the ES Procurement Strategy document and signed off by the Project Board (which included the Utility Regulator's representative). To ensure a level playing field for SI bidders, the managed service provider was asked not to tender for the role and to provide services to all the bidders on an equal commercial basis. All of the SI bidding organisations were required to factor skills transfer and solution handover to the managed service provider as part of their project costs.

- 4.44 It is envisaged that all of the NIE IT services, including those related to ES, will be re-tendered at the end of the current managed service agreement, with a new contract commencing potentially in October 2014. Inclusion of the ES services within a bigger NIE contract will potentially deliver lower cost services for the market, compared to having two separate contracts.
- 4.45 Notwithstanding the above, the Utility Regulator has raised the issue of tendering of the ES support services in the Draft Determination. The Utility Regulator states at paragraph 10.75 that in July 2011 it indicated to NIE that it was required to tender the Enduring Solution managed service contract. NIE wrote to the Utility Regulator in August 2011, explaining that this would be a fundamental change to a strategy which had underpinned the project since its initiation. Due to the need to deliver the ES solutions by May 2012, it was believed, even at a very early stage of the project, that the diversion of key project resources to run an OJEU procurement for managed services in parallel would put the ES project delivery at risk.
- 4.46 Furthermore, NIE explained that the approach being adopted (i.e. a change control to the existing managed service provider 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.
- 4.47 Due to the integrated nature of the ES and NIE legacy applications it is considered manifestly 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 IT outsourced providers.
- 4.48 Equally, the need for interfacing suggests that the most appropriate hosting arrangements would be alongside the existing NIE estate rather than the establishment of a new and separate data centre location, leading to additional costs. In line with this approach, all of the ES hardware has been installed in the existing Northgate and NIE data centres.

4.49 To date, we have received no formal correspondence from the Utility Regulator in response to our communication in August 2011.

Manpower Costs

4.50 In relation to salary costs, the Utility Regulator's draft proposals for RP5 include an allowance of £2.0 million. This compares with the most recent NIE projection of £4.9 million over the period.

4.51 The proposals make no allowance for existing market-opening related staff whose costs are currently covered within separate allowances which cease at ES go-live. Also, there is no allowance for transitional resources which may be required to support the new processes going forward past the end of September 2012.

4.52 The introduction of the ES has provided a robust, highly automated set of applications to support the competitive wholesale and retail electricity markets on the island. However, there is a requirement to increase the number of resources to support the ES market processes and systems.

4.53 The following items are drivers for increasing manpower:

- *Market governance to support more complex market arrangements:* the success of the competitive wholesale and retail electricity markets is highly dependent upon the integrity of market data and adherence to complex market processes. The implementation of the ES requires NIE core business to introduce additional roles to manage the operation, maintenance and development of the procedures, standards and systems which support the electricity markets. These business as usual roles were previously undertaken by project resources.
- *Market data volumes:* a total of 870,000 (compared to 170,000 pre-ES implementation) sites have been allocated MPRNs and migrated to the new market systems in order to facilitate the fully competitive retail market, global settlement of the wholesale market and MPRN level DUoS billing. This has resulted in a huge increase in the volumes of data exchanged and transactions completed between NIE and market participants. Market message types have increased from 36 to 81 and daily volumes have already doubled in the first few weeks of operation. Furthermore, since ES implementation NIE has to clear any process exceptions that arise, work previously undertaken by PowerNI on the shared legacy systems for these additional 700,000 sites.
- *Market participants:* increased volume of interactions. Process changes and data volumes implemented to support the fully competitive market have increased the volumes of interactions with suppliers to resolve

operational issues such as appointment booking, data conflicts, requirements for energisation of new sites, billing and meter reading queries.

Rationale for additional resources

- 4.54 In October 2011, NIE sought regulatory approval for cost recovery of additional resources required to support the ES market processes and systems. This analysis was based on NIE's best view at that time and was supported by a detailed analytical model developed using an updated version of a staffing model which had been used successfully in previous market opening projects. Senior business managers were engaged to challenge the outcomes and working assumptions. As a result of this approach, NIE sought recovery for 14 permanent and 17 transitional resources.
- 4.55 These additional resources were costed on the basis of average market rates, with a standard uplift applied to recognise National Insurance and Pension Contributions. IT costs were also factored in for the new resources. This approach resulted in projected manpower costs of £7.3 million over the RP5 period.

Changes in manpower costs since October 2011

- 4.56 In light of the experience gained from the later stages of user testing and the early days of live operation, NIE has reviewed the additional business roles required to support the market following the implementation of ES. This review has identified the need for twelve new permanent resources instead of 14 i.e. a reduction of 2 from that anticipated in October 2011.
- 4.57 The information now available to us demonstrates that a higher level of problem solving and analytical skills is required for some roles. Therefore, the cost reduction delivered by the change from 14 to 12 permanent resources is offset somewhat by higher average salary costs for these individuals.
- 4.58 Following the successful ES implementation, fewer workarounds and fixes are being experienced in the early phase post go-live than might have been expected. Therefore, the transitional resources required to support additional activity levels in the period immediately post go-live will only be required for a six month period, i.e. until the end of November 2012.
- 4.59 A review of existing market-opening related staff has also been undertaken following go-live. The requirement for 16 resources to be retained was assumed in the October 2011 submission and this has now been adjusted to 13.
- 4.60 These adjustments have resulted in a projected manpower cost of £4.9 million over the RP5 period.

Operating costs during the RP4 Extension Period

- 4.61 The ES implementation was completed on 21 May 2012 and NIE will be incurring increased operating costs during the RP4 extension period.
- 4.62 Based upon the most recent information, the total market opening costs during the period from 1 April to 30 September 2012 will be £3.9 million. The Utility Regulator has proposed interim allowances of £2.3 million for the RP4 extension period (including £0.4 million of pre ES go-live allowances for the period from 1 April to 20 May 2012 and £1.9 million of interim ES allowances for the period from 21 May to 30 September 2012). This results in a potential recovery shortfall of £1.6 million during the 6 months of the RP4 extension period.

Renewables baseline

- 4.63 The Utility Regulator's proposed allowance for the renewables baseline is £2.1 million lower than forecast costs as summarised below.

Table 6.13: Renewables baseline

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Renewables Baseline	19.3	(6.7)	12.6	10.5	2.1

* Adjustment reflects NIE's forecast costs associated with 21 FTE's in line with the Utility Regulator's proposals.

- 4.64 NIE's BPQ submission in respect of operating costs associated with renewables integration and interconnection comprised a baseline allowance for 41 staff, including associated overheads and an allocation of managed service and supply chain costs (Element A), and further allowances for defined external costs (Elements B & C).
- 4.65 The resource level of 41 would cover the management and direction of all associated transmission planning, pre-construction development, and construction delivery activity and would be supplemented by additional resources as and when required for individual capex projects.
- 4.66 The Utility Regulator has proposed that, in view of the uncertainty around the timing and extent of renewables projects, the baseline should be set up to cover the level of resource required for 'preliminary development' activity – and that further resources as required for approved capex projects (either as 'pre-construction' or 'construction' stage projects) should be sought and approved on a project-by-project basis.

- 4.67 Accordingly, the Utility Regulator has proposed a reduction in the full time equivalent (FTE) staff resources from 41 to 21 to cover staffing required for the purposes of 'preliminary development' only. The allowance proposed for all internal costs is pro rata to the reduction in staff numbers and an adjustment has been applied to average salaries.
- 4.68 NIE agrees with the proposal to reduce the resource level to 21 on the basis that the costs of any additional NIE internal resources required for the pre-construction or construction delivery of any particular capital project are to be included in the capital cost.
- 4.69 The Utility Regulator's proposals and NIE's forecast costs (based on 21 FTEs) are set out in the table below.

Table 6.14: Shortfall in renewables baseline

Element		NIE Adjusted BPQ	Proposed Allowance	Variance
		£m	£m	£m
A	Internal Costs:-			
	Salaries	6.9	5.9	1.0
	General Overheads	1.0	1.0	0.0
	Allocation of Managed Service Charge & Supply Chain	3.8	1.9	1.9
B	External Costs (MTP)	0.2	0.2	0.0
C	External Costs (RIDP)	0.7	0.7	0.0
	External Costs (NSIC)	0.0	0.8	(0.8)
	Total	12.6	10.5	2.1

Element A

- 4.70 NIE does not accept the allowance of £5.9 million for salary costs; it does not reflect NIE's projected costs of £6.9 million for the resource level of 21 FTEs. The Utility Regulator's allowance does not reflect the experience of the staff required to manage these projects or the current cost of the staff actually working on these projects.
- 4.71 In relation to staff-related overheads, NIE agrees with the Utility Regulator's proposal to fix the regulatory allowance at £1.0 million which is pro rata to the reduction in staff numbers. However, NIE does not agree with the Utility Regulator's proposed reduction in the allowance for managed service and supply

chain costs. These costs represent an allocation of core business fixed costs and it is wrong to pro rate these costs downwards based on staff numbers.

Elements B & C

4.72 The Utility Regulator’s draft proposals include the following allowances:

- £0.2 million for external costs associated with the Medium Term Plan (**MTP**);
- £0.7 million for the Renewables Integration Development Plan (**RIDP**); and
- £0.8 million for the North South interconnector (**NSIC**).

4.73 NIE agrees with the proposed allowances in respect of the MTP and RIDP. However, NIE proposes that it is more appropriate to deal with the external costs associated with the NSIC through specific regulatory approvals given the uncertainties in relation to this project which is the subject of a Public Inquiry. NIE has removed the forecast for NSIC external costs on the basis that these costs will be subject to specific approval.

Real price effects

4.74 As shown in the table below, the Utility Regulator has proposed to make no allowance for Real Price Effects (**RPEs**) – that is, the impact of labour and materials prices variations outside the range of the Retail Price Index (RPI).

Table 6.15: Real Price Effects

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Real Price Effects	8.8	(0.1)	8.7	0.0	8.7

** Adjustment post submission to reflect updates to RPE indices and allowances for labour and raw materials based on latest available official forecasts and evidence.*

4.75 NIE strongly disagrees with the absence of an allowance for RPEs. We set out in full our arguments on RPEs in Chapter 4 (RP5 Capex – Quantum) and in a separate paper submitted to the Utility Regulator that deals with NIE Labour Costs and therefore do not repeat them here. The estimated opex impact of RPEs is £8.7 million.

Workforce Renewal

4.76 As shown in the table below, the Utility Regulator has proposed to make no allowance for additional workforce renewal costs that will be incurred in RP5.

Table 6.16: Workforce Renewal

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Workforce Renewal	7.4	(2.5)	4.9	0.0	4.9

* Adjustment to reflect the incremental cost over the workforce renewal costs included in base year.

4.77 Workforce renewal costs relate to the cost of recruiting and training new employees. 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.

4.78 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.

4.79 NIE does not accept the Utility Regulator's proposal not to allow for these additional workforce renewal costs. They are a necessary business cost for a specialist business such as NIE.

4.80 The Utility Regulator has advanced a number of reasons for its proposed disallowance of workforce renewal costs, namely:

- A significant proportion of such costs will be incurred by NIE Powerteam, rather than by NIE directly: NIE Powerteam is not regulated and is not subject to NIE's price control allowance; and
- 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.

4.81 NIE disagrees strongly with these points:

- For the reasons set out in Section 5 of Chapter 3 (RP4 Overview), 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;
- As demonstrated in the separate paper entitled "NIE Labour Costs – Real Price Effects in RP5" submitted to the Utility Regulator, 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. In certain situations we offer an increased salary to retain the individual and sometimes we let the person leave but ultimately all of this activity drives up market rates and salaries. The key problem is not related to the economic downturn: it is driven by poor sector attractiveness and not enough young people being interested in engineering combined with the age profile of the current workforce across the sector and commercial demands.

4.82 Ofgem made an explicit allowance for workforce renewal at DPCR5.

Projected costs

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

Table 6.17: Numbers and Costs

	Number	Average cost of recruitment and training £k/person	Total cost – RP5 £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).

4.84 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

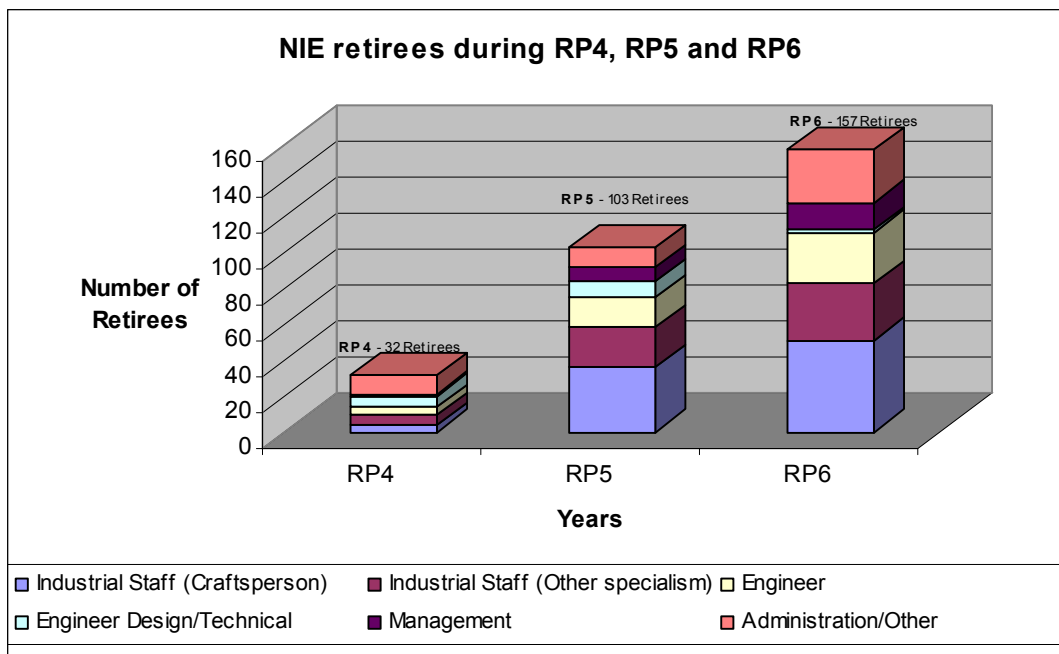
4.85 The need to recruit and train staff arises because of staff retiring, leavers and the need to deliver the RP5 capital plan. The assumptions underlying the number of leavers are as follows:

Retirees

4.86 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.

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

Table 6.18: Profile of Retirees



Other Leavers

4.88 In addition to employees leaving due to normal retirement, there are staff who 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

- 4.89 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 full-time equivalent (FTE) employees required to deliver the RP4 individual work programmes flexed to meet RP5 volumes.

Table 6.19: 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

- 4.90 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

- 4.91 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 6.20: 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

4.92 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.

4.93 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

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

Table 6.21: 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

4.95 *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 6.22: 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 DEL funding per Apprentice

- 4.96 NIE's submission assumed that Department of Employment and Learning (DEL) funding support for apprentices would continue at current levels. However, recent information indicates a reduced level of financial support. There will be no future funding in respect of approximately 12.5% of future apprentices and a 50% reduction in funding in respect of another approximately 20% of apprentice recruits. NIE assumes other funding will become available to replace DEL financial support. If this is not the case, NIE's RP5 net cost in respect of apprentice training will increase from £5 million by a further £0.5 million to £5.5 million.
- 4.97 *Graduate Trainee Engineers*: Training costs are based on 2 year training programmes incorporating formal in house and external training courses.
- 4.98 *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.
- 4.99 *Industrial staff (other specialism)*: Industrial staff other specialism training costs are based on approximately 5 days training at approximately £100 per training day.
- 4.100 *Engineers*: Engineer recruits training costs are based on approximately 10 days training at approximately £100 per training day.
- 4.101 *Administration/Other*: Training costs are based on approximately 5 days training at approximately £100 per training day.

Up-skilling

- 4.102 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.

- 4.103 Internal training courses are delivered at NIE Training Centres by NIE employee Training Instructors with external training courses delivered by specialist external training providers.
- 4.104 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.
- 4.105 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.
- 4.106 NIE employees will receive, on average, three days of up-skilling training per year during RP5 at an estimated cost of £1.2 million.
- 4.107 The total costs of up-skilling are estimated as follows:

Table 6.23: Up-skilling Costs

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

Ofgem precedent

- 4.108 A similar general trend for workforce renewal was acknowledged by Ofgem and allowances ranging between £5 million and £20 million were given to individual GB DNOs for DPCR5. Ofgem has released out-turn expenditure for 2010/11, the first year of DPCR5, and it is noted that GB DNO companies have overspent their allowance by 15% in aggregate.

Legislative and Regulatory

- 4.109 Table 6.24 below compares NIE's forecast costs for Legislative and Regulatory requirements with the Utility Regulator's proposed allowance. It shows a shortfall of £3.3 million over RP5.

Table 6.24: Legislative and Regulatory Costs

£m	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
Road and Street Works Legislation (RASW)	2.1	0.0	2.1	0.0	2.1
Regulatory Reporting Requirements	1.3	0.2*	1.5	0.0	1.5
ESQCR ⁴⁴ Legislation	0.4	(0.2)**	0.2	0.0	0.2
Additional Resource	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.5</u>	<u>(0.5)</u>
Total	3.8	0.0	3.8	0.5	3.3

* Adjustment of £0.2 million reflects the Utility Regulator's proposal to introduce a Reporter.

** Reflects latest best estimate of costs.

4.110 The Utility Regulator proposes an opex allowance of £0.5 million for one additional resource for administrative purposes for new legislation and one additional resource for regulatory requirements such as enhanced annual reporting. No further allowance is proposed for additional costs associated with new legislation or regulatory requirements.

4.111 Further details with respect to NIE's forecast costs for Legislative and Regulatory requirements are provided below.

Road and Street Works Legislation

4.112 NIE will incur additional costs associated with new road and streetworks (**RASW**) legislation once the Street Works (Amendment) (Northern Ireland) Order 2007 has been brought into force. The additional costs include fixed penalty notices, overrun charges, costs relating to permit schemes, additional labour costs and out of hours/contract rates and will impact upon both capex and opex.

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

⁴⁴ Electricity Safety Quality and Continuity Regulations.

Table 6.25: Shortfall in proposed allowance for costs associated with RASW

£m	NIE BPQ	Proposed Allowance	Variance
<u>Capex</u>			
D44 RSWA Core	4.4	4.4	0.0
D47 RSWA Connections	<u>1.7</u>	<u>0.7</u>	<u>1.0</u>
Total Capex	6.1	5.1	1.0
<u>Opex</u>			
Repairs & Maintenance	1.6	0.0	1.6
IT costs	<u>0.5</u>	<u>0.0</u>	<u>0.5</u>
Total Opex	2.1	0.0	2.1

4.114 The Utility Regulator has proposed to make no opex allowance for the costs associated with RASW legislation. NIE strongly disagrees with this proposal. We note it is inconsistent with the Utility Regulator's proposal to allow £5.1 million for capex arising from RASW legislation. The sum allocated to opex is the expenditure associated with fault and maintenance works and is derived in the same manner as capex. The justification for the capex costs has been accepted by the Utility Regulator in the Draft Determination and on that basis, the proposed opex amount should be allowed.

Regulatory Reporting Requirements

4.115 The Utility Regulator's estimate of the cost of the Reporter of £1.5 million over RP5 does not represent the full cost of that proposal. We would expect NIE to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc.

4.116 We also address this point in Chapter 11 on Annual Reporting.

Electricity Safety Quality and Continuity Regulations

4.117 The Utility Regulator proposes to make no allowance for costs associated with the Electricity Safety Quality and Continuity Regulations (**ESQCR**).

4.118 The regulations currently apply to public and private operators in England, Scotland and Wales, and are anticipated to be introduced in NI in the early part of RP5. 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 and salary costs associated with a part-time administrator.

Storm costs

4.119 As shown in the table below, the shortfall in the Utility Regulator's proposed allowance for storm costs over RP5 is £0.6 million.

Table 6.26: Storm costs

	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Storm Costs	1.6	0.0	1.6	1.0	0.6

4.120 The Utility Regulator recognises the likelihood of the occurrence of storms and proposes an allowance of £0.2 million per annum, £1.0 million for the RP5 period. This allowance is based on the average costs incurred over the period 2003/04 to 2009/10.

4.121 Within NIE's submission, we 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.

4.122 NIE proposed an opex allowance for storm costs of £0.3 million per annum in line with the experience over the period 2003/04 to 2009/10. It is possible that the cost will be higher based on the severity of more recent storms; NIE has experienced major storms in January 2009, the ice storm in March 2010 and a further ice accretion event in December 2011. The average opex cost of storms over the last three years was £0.7 million per annum.

4.123 NIE strongly disagrees with the Utility Regulator's proposal to reduce the opex allowance for storm costs to £0.2 million. There is no justification for this based on RP3 / RP4 experience and the adverse storm events over the last few years. The Utility Regulator has made an arbitrary judgement that the cost of storms will reduce in RP5 due to network renewal and has provided no evidence to support its judgement. On the contrary, the level of network capital refurbishment implied by the Utility Regulator's Draft Determination would make the network more susceptible to the impact of storms.

R&D associated with the application of smart technologies

4.124 As shown in the following table, the Utility Regulator has proposed to make no allowance for research and development costs associated with the application of smart technologies.

Table 6.27: R&D (Application of smart technologies)

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
R&D (Application of Smart Technologies)	2.1	0.4	2.5	0.0	2.5

* Correction to BPQ

4.125 This expenditure is necessary to address the challenges in meeting Government targets⁴⁵ 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. NIE has made good progress in delivering this type of programme during RP4. 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. This is addressed further in Chapter 9 (Incentives and Innovation) of this Response.

4.126 The costs forecast for RP5 are focused upon external collaboration to leverage NIE's learning and the funding for research projects focusing upon the needs of NIE's network.

Smart metering

4.127 The Utility Regulator has proposed to make no allowance for Smart Metering, as shown in the table below.

Table 6.28: Smart metering

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Smart Metering	1.4	(1.4)	0.0	0.0	0.0

* Costs of £1.4 million have been removed to reflect NIE's proposal to seek approval for associated expenditure on a separate basis.

4.128 The costs relate to the annual operation and maintenance of smart meters. They are uncertain pending a regulatory decision on the introduction of a smart metering programme in NI confirming the scope, timing and operating model to be adopted.

⁴⁵In the Department of Enterprise Trade and Investment'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.

NIE's response on capital expenditure associated with Smart Metering is detailed in Chapter 4 (RP5 Capex – Quantum). In line with the response provided in that chapter, we now propose that such expenditure be approved on an individual basis once there is greater clarity on RP5 costs and will not form part of the overall RP5 allowance.

Price review costs

4.129 The Utility Regulator has proposed to make no allowance in respect of RP6 price review costs, as shown in the table below.

Table 6.29: RP6 Price review costs

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Price Review	1.2	0.8	2.0	0.0	2.0

* Adjustment of £0.8 million to reflect revised forecasts for RP6 review in line with expected expenditure associated with RP5.

4.130 NIE has incurred and continues to incur costs associated with the RP5 price review relating to specialist support across a range of disciplines including economic, regulatory, technical and legal advice where NIE does not have the necessary resource in-house. This consultancy support extends across all the main building blocks – capex, opex, pensions, WACC, and incentives and it has informed NIE's responses to the Utility Regulator's Strategy Paper, the BPQ, the follow-up information requests and the Draft Determination.

4.131 Given the timing of the Utility Regulator's RP5 review process, the bulk of these costs have been incurred in 2010/11 and 2011/12 and are forecast for 2012/13. The following table shows actual and forecast costs (assuming the process does not extend beyond the Utility Regulator's final determination in 2012/13).

Table 6.30: RP5 price review costs

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

4.132 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 proposed opex allowance makes no provision for the £2.0 million of costs forecast to be incurred during RP5. This should be corrected.

Other costs

- 4.133 There have been a number of changes in recent years to the business environment within which NIE operates. For example, the proliferation of renewables is impacting on the resourcing of the Distribution Service Centre.
- 4.134 Other developments have led to additional activities forecast to be undertaken in RP5 which require specialist support. These are one off activities such as the publication of the Network 25 document and the associated Strategic Environmental Assessment and the accreditation for PAS 55. NIE had not carried out an assessment of these costs at the time of the BPQ submission.
- 4.135 Also, within RP4 there were a number of costs for which provision was made under the Dt term of the RP4 price control and, as such, those costs do not form part of the 2009/10 base year costs. These include costs associated with aggregated generation units, credit rating, the Distribution Code and generator connections policy.
- 4.136 The Utility Regulator's draft determination includes a proposal to change Guaranteed Standards for RP5. Such changes imply additional operating costs during RP5.
- 4.137 These costs have been omitted from the Utility Regulator's proposed opex allowance, but they should be included. Forecasts of these costs are set out in the following table and detailed below.

Table 6.31: Analysis of Other Costs

	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
Distribution Service Centre	0.8	0.0	0.8	0.0	0.8
Network 25 and SEA	0.0	0.4*	0.4	0.0	0.4
PAS 55 Accreditation	0.0	0.1*	0.1	0.0	0.1
Aggregated Generator Units	0.3	0.0	0.3	0.0	0.3
Credit Rating	0.3	0.3**	0.6	0.0	0.6
Distribution Code and Generator Connections Policy	0.0	0.1*	0.1	0.0	0.1
Guaranteed Standards	<u>0.0</u>	<u>1.3***</u>	<u>1.3</u>	<u>0.0</u>	<u>1.3</u>
Total	1.4	2.2	3.6	0.0	3.6

* Adjustments reflect additional activities forecast to be undertaken in RP5. They were not included in the BPQ submission.

** Adjustment to reflect cost associated with bond issue in RP5.

*** Adjustment to reflect proposal by the Utility Regulator to change Guaranteed Standards in RP5.

Distribution Service Centre

- 4.138 The Utility Regulator has proposed to make no allowance for additional costs associated with the Distribution Service Centre (DSC) relating to the proliferation of renewable generation connecting to the system which will continue to increase over RP5. NIE strongly disagrees with this proposal.
- 4.139 There is a need to recruit a total of four additional resources, three within the SCADA section and one control engineer.
- 4.140 The three resources within the SCADA section are required to manage additional workload as set out below:
- The development of automation and Smart Grid will require additional SCADA engineering resources. There will be a large number of network devices and generators to be added to the SCADA database. The devices being erected on the HV system will all need to be SCADA tested before being shipped to site. The resources within the SCADA team will be an integral part of the commissioning process for all these devices.
 - The connection of Wind Farm Power Stations to the 33kV network creates a further load on the SCADA engineering resource. The workload associated with these large wind farms is increasing as there are extra database building, testing and commissioning processes associated with the Inter Control Centre Protocol (ICCP) link between NIE and SONI.
 - Increased workload associated with the replacement and / or maintenance of 240 substation Remote Terminal Units (RTU) which have been in service for more than 11 years.
- 4.141 The additional control engineer is required to meet any increase in the capital programme which will affect day time operations within the Distribution Service Centre, with increased number of planned outages needing to be controlled in a safe and efficient manner.
- 4.142 The total forecast costs for DSC requirements in RP5 are £0.8 million associated with an additional resource of four.

Network 25 and Strategic Environmental Assessment

- 4.143 NIE has agreed with DETI and the Utility Regulator to prepare and publish a Network 25 report. This will set out NIE's plans for the development of the transmission system to accommodate renewable generation. External support is required for the preparation and publishing of this report.

- 4.144 NIE's plans for the development of the transmission system need to be subjected to a Strategic Environmental Assessment (SEA). An SEA is a system of incorporating environmental considerations into certain plans and programmes such as Network 25. Failure to carry this out will signal non-compliance with the European SEA Directive (2001/42/EC) ratified in NI within The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 legislation and compromise future planning applications for individual developments within the plan.
- 4.145 Forecast costs for the Network 25 document and associated Strategic Environmental Assessment total £0.4 million.

PAS 55 Accreditation

- 4.146 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 the GB DNOs and ESB have PAS 55 accreditation and there is no other specification available worldwide that is formally recognised as a demonstration of good asset management practice.
- 4.147 NIE aims to attain PAS 55 accreditation during RP5.
- 4.148 Forecast costs to attain the PAS 55 accreditation total £0.1 million.

Aggregated Generated Units

- 4.149 Aggregated generated units (AGUs) are a feature of the SEM. To facilitate AGUs, changes were made to NIE's meter data collection and registration processes giving rise to additional costs for NIE. During RP4 these costs have been recovered via the Dt term. As AGUs are a permanent feature of the market the on-going support costs should be included within the RP5 opex allowance.
- 4.150 Forecast costs associated with Aggregated Generated Units in RP5 are £0.3 million.

Credit Rating

- 4.151 NIE is required by its licence to maintain an investment grade credit rating. During RP4 credit rating costs were recovered via the Dt term.
- 4.152 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 costs associated

with obtaining these ratings, including assignment of a rating to the proposed bond issue, were £0.3 million.

4.153 During RP5 the forecast for 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, NIE will require further funding from the capital markets, with 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).

4.154 Total forecast costs for RP5 associated with the credit rating are £0.6 million.

Distribution Code and Generation Connections Policy

4.155 During RP4 costs associated with the Distribution Code and the Generation Connections Policy were recovered via the Dt term. NIE is currently facing significant challenges in accommodating the very high number of applications associated with the connection of generation in the range 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.

4.156 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 the Distribution Code 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 and substation earthing, all of which require policy development and Distribution Code revisions.

4.157 Total forecast costs over RP5 are £0.1 million.

Guaranteed Standards

4.158 The Utility Regulator proposes 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. NIE's response to these proposals is detailed in Chapter 9 (Incentives and Innovation).

4.159 In general, NIE considers it unreasonable to introduce new or tighter standards without also providing for the recovery of the costs incurred in meeting those standards. We set out below an assessment of the additional costs that will result from the introduction of these new or tighter standards.

- *Restoration of supply in 18 hours (Tighter Standard)*: NIE estimates that this will incur additional costs of approximately £231,000 per annum.

These costs relate to additional overtime and the provision of LV generators required in order to meet the 18 hour standard.

- *Responding to general complaints (New Standard)*: NIE estimates that this will incur additional costs of approximately £9,000 per annum. These costs relate to the administration, monitoring and recording of customer contacts.
- *Providing a cost estimate for a generator connection (New Standard)*: NIE estimates that this will incur additional costs of approximately £9,000 per annum. These costs relate to the administration and monitoring operations against the new standard.
- *Network performance for ‘worst served customer’ (New Standard)*: NIE estimates that this will incur additional costs of approximately £9,000 per annum, assuming any new standard would be based on HV faults only⁴⁶.

4.160 In total NIE estimates that such changes will add £1.3 million of operating costs during RP5.

Injurious affection

4.161 The Utility Regulator is minded to treat injurious affection as an uncertain cost and has stated that it will await the results of Lands Tribunal cases before considering how to treat associated costs.

4.162 The £0.9 million submitted within controllable opex in the BPQ was in respect of salary costs associated with personnel required to deal with injurious affection claims and related consultancy costs. In accordance with our proposal in Section 6 below with respect to the costs and expenses of the Lands Tribunal process, NIE proposes that these costs also be treated as fully recoverable on a pass-through basis.

Table 6.32: Injurious Affection

	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
	£m	£m	£m	£m	£m
Injurious Affection	0.9	0.9	0.0	0.0	0.0

* Adjustment to exclude costs on basis that such costs if incurred will be treated on a pass through basis.

⁴⁶ NIE does not have the functionality to map LV connectivity therefore a ‘worst served customers’ standard that takes account of LV faults cannot be implemented during RP5. If such functionality was required by the Utility Regulator for RP6, an implementation project would be required in RP5 which NIE estimate would incur capital costs of approximately £2.4 million and operating costs of £51,000 during RP5. These costs are discussed further in appendix 9A1, Incentives and Innovation. For the avoidance of doubt, these costs have not been assumed in either NIE’s capex or opex plans for RP5.

5. PROPOSED OPEX DISCOUNT FACTORS

5.1 The Utility Regulator proposes to apply both:

- an initial 9% efficiency 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 £13.5 million; and
- a 1% year-on-year reduction in controllable opex resulting in a further £5.0 million reduction in the opex allowance.

5.2 NIE's position on the proposal for a 9% initial efficiency discount is set out in Chapter 3 (RP4 Overview) of this Response. In summary, the Utility Regulator's proposal for an efficiency 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 efficiency discount.

5.3 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. As we explained in Chapter 4 (RP5 Capex – Quantum), 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 4 (RP5 Capex – Quantum) and in a separate paper entitled "NIE Labour Costs – RPEs in RP5", 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. NIE's analysis does not suggest that savings will result.
- 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.

5.4 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.

5.5 The Utility Regulator has stated that an "X" of 1 in the RPI-X price control formula will "*assert the requirement for further efficiencies*". NIE's view is that such a challenge is inherent in the indexing of NIE's price control to RPI in any event, which has the effect of challenging NIE to match the on-going efficiency improvement achieved in the wider economy in any event. This view is also held by, for example, CEPA, as set out in its published papers⁴⁷. In that report CEPA states that:

"For the purposes of price controls, the productivity estimate for the UK economy needs to be deducted from the industry specific estimates. This is because the price controls are indexed to RPI, which in a competitive economy reflects the combination of the change in input prices and changes to Total Factor Productivity. The X factor in an RPI-X price control should therefore only reflect expected productivity growth over and above that expected for the economy as a whole."

5.6 In order to justify an "X" above zero, it would therefore be necessary to demonstrate that NIE can outperform the efficiency improvements that will be delivered by the economy in general over the course of RP5. The Utility Regulator has offered no evidence to suggest why this should be the case.

5.7 Consequently, NIE does not believe that there is any evidence to demonstrate 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 we do not believe there is reasonable evidence to suggest that this will be the case.

⁴⁷ See for example "Productivity Improvements in distribution network operators", CEPA November 2003.

Similarly, there is no evidence to suggest that NIE will be able to improve its efficiency at a faster rate than the wider economy.

6. UNCONTROLLABLE COSTS

6.1 Uncontrollable opex refers to opex on which NIE is deemed to have little or no impact. This category has historically included rates, wayleaves and licence fees.

6.2 As shown by the table below, the Utility Regulator's proposed allowance for uncontrollable costs falls short of that required by NIE by £6.5 million.

Table 6.33: Shortfall in Allowance for Uncontrollable Costs

£m	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
Rates	69.0	0.0	69.0	65.6	3.4
Wayleaves	21.2	0.0	21.2	18.1	3.1
Licence Fees	5.7	(2.1)	3.6	3.6	0.0
Injurious Affection	11.4	(11.4)	0.0	0.0	0.0
Reporter	0.0	1.5	1.5	1.5	0.0
	107.3	(12.0)	95.3	88.8	6.5

6.3 Each of the main components of uncontrollable opex are considered below.

Rates

6.4 The table below compares NIE's forecast cost of rates with the allowance proposed by the Utility Regulator.

Table 6.34: Rates

£m	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
Rates	69.0	0.0	69.0	65.6	3.4

6.5 The Utility Regulator has proposed that rates are “semi-controllable”, stating that an element of negotiation can be applied by NIE to agree their amount, and has proposed a risk sharing allocation of 80:20 between customers and NIE. NIE disagrees with this treatment of rates, for the reasons set out below.

6.6 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.

- 6.7 The Utility Regulator has suggested that rates are semi-controllable because NIE has a choice over the location of its buildings/offices. However this reasoning is wrong. NIE's rates are based on the formula set out in the 2003 Order. Land and Property Services calculate the NAV based on circuit length and transformer capacity. This NAV is then apportioned over various district councils in NI and regional and district rates are then applied to determine the overall rating liability.
- 6.8 The NI Finance Minister has announced that a NI ratings revaluation will take place in April 2015. This timing would align with the next revaluation of non-domestic properties in the rest of the UK. The effect which this revaluation will have on NIE is unknown.
- 6.9 NIE should make no gain or loss in respect of rates which are fixed by formula over which NIE has no control. The appropriate regulatory treatment is pass-through. This would be consistent with the regulatory treatment adopted by Ofgem.

Wayleaves

- 6.10 The table below compares NIE's forecast cost of wayleaves with the allowance proposed by the Utility Regulator.

Table 6.35: Wayleaves

£m	NIE BPQ	NIE Adjustments	NIE Adjusted BPQ	Proposed Allowance	Variance
Wayleaves	21.2	0.0	21.2	18.1	3.1

- 6.11 The Utility Regulator has proposed that wayleaves are also "semi-controllable" stating that an element of negotiation can be applied by NIE to agree their amount and has proposed the same risk sharing allocation of 80:20 between customers and NIE. NIE also disagrees with this treatment of wayleaves, for the reasons set out below.
- 6.12 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. If a landowner withholds consent NIE is able to apply to DETI for a 'necessary wayleave', but this is a lengthy process which adds cost.

- 6.13 NIE does not negotiate wayleave payments on a case-by-case basis with individual landowners. Rather, NIE's rates are based on Scottish Power's wayleave rates 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.
- 6.14 This approach has significant benefits in ensuring that landowners and their representatives are satisfied that the payment being made by NIE is fair and non-discriminatory and that any challenge to those rates is unlikely to be successful. This in turn enables NIE to process a high volume of agreements with individual landowners on a consistent basis and reduces the need to apply for necessary wayleaves thus avoiding the associated costs. Any disparity between NIE rates and Scottish Power and similarly ENA/ADAS rates could result in landowners seeking to challenge the payment offered by NIE in the Lands Tribunal of Northern Ireland. If such challenges were successful it could be expected that NIE would be required to negotiate specific rates for individual landowners on a case by case basis. The additional administration and resource burden that this would place on NIE would be significant. For these reasons it is considered that NIE wayleaves payments must be in line with those set by Scottish Power and ENA/ADAS and should not be the subject of individual negotiation with landowners.
- 6.15 The Utility Regulator has proposed that wayleaves are a 'semi-controllable' cost on the assumption that NIE can apply an element of negotiation. The Draft Determination proposes a risk allocation approach to the recovery of the cost.
- 6.16 NIE strongly disagrees with the Utility Regulator's proposal. The current processes for paying wayleaves are efficient. The Utility Regulator's proposal that NIE might negotiate lower wayleave rates in NI would significantly increase the cost of administration and it is extremely unlikely that lower rates could be agreed. The Utility Regulator's proposal also ignores the fact that the cost of wayleaves will increase as a result of growth in the network.
- 6.17 NIE should make no gain or loss in respect of wayleaves which, for the reasons set out above, NIE regards as not being amenable to negotiation. Wayleaves are therefore an uncontrollable cost and should be treated as a pass-through cost.

Licence fees

- 6.18 The table below compares NIE's forecast cost of licence fees with the allowance proposed by the Utility Regulator.

Table 6.36: Licence fees

£m	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
Licence Fees	5.7	(2.1)	3.6	3.6	0.0

* Adjustment of £2.1 million to reflect the Licence Fees cost within the Utility Regulator's proposals.

6.19 The Utility Regulator has included an allowance of £3.6 million for licence fees over the RP5 period.

6.20 NIE has a licence obligation to pay licence fees which are determined by the Utility Regulator. In response to a request for clarification the Utility Regulator has confirmed that licence fees will be treated as a pass-through cost during RP5. NIE agrees with this treatment.

Injurious affection

6.21 The table below compares NIE's forecast cost of injurious affection with the allowance proposed by the Utility Regulator.

Table 6.37: Injurious affection

£m	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
Injurious Affection	11.4	(11.4)	0.0	0.0	0.0

* Adjustment to exclude costs on basis that such costs if incurred will be treated on a pass through basis.

6.22 The Utility Regulator is minded to treat injurious affection as an uncertain cost and has stated that it will await the results of Lands Tribunal cases before considering how to treat these costs.

6.23 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 NI.

6.24 NIE proposes that its costs and expenses associated with the Lands Tribunal process should be fully recoverable on a pass-through basis. In the event that the Lands Tribunal issues guidelines on the legal and valuation issues in favour of claimants, then NIE should be entitled to treat any compensation payable to claimants based on those guidelines as fully recoverable on a pass-through basis.

6.25 The licence modifications for the RP5 price control should make specific provision for the recovery of such costs on this basis.

Reporter

6.26 The table below compares NIE's forecast cost of a reporter with the allowance proposed by the Utility Regulator.

Table 6.38: Reporter

£m	NIE BPQ	NIE Adjustments*	NIE Adjusted BPQ	Proposed Allowance	Variance
Reporter	0.0	1.5	1.5	1.5	0.0

* Adjustment to reflect proposal by Utility Regulator to introduce a reporter.

6.27 The Utility Regulator has proposed to introduce a Reporter for RP5 and an indicative value of £1.5 million for the RP5 period is proposed within the allowance for uncontrollable opex.

6.28 As noted in Section 4 above, the Utility Regulator's estimate of the cost of the Reporter of £1.5 million over RP5 does not represent the full cost of that proposal. We would expect to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc. Such allowance will form part of our controllable opex.

CHAPTER 7

PENSIONS

SUMMARY

The Utility Regulator has proposed to disallow a significant proportion of NIE's pension deficit repair costs on the basis that:

- it should ignore the impact of adverse financial markets since the last actuarial valuation;
- a proportion of the costs relate to NIE Powerteam; and
- a proportion of the costs were legally avoidable.

NIE disagrees with the Utility Regulator's proposal in all of these respects. In NIE's view all of the current pension deficit is attributable to NIE's regulated business, and has arisen purely as a result of adverse investment conditions and increases in life expectancies in the last 5 years (i.e. the period covered by RP4).

The Utility Regulator has entirely ignored the deficit repair plan agreed between NIE and the pension scheme trustees. It has instead adopted a hypothetical approach which involves making retrospective adjustments in respect of decisions taken in earlier regulatory periods dating back to the 1990s. This is inconsistent with the approach adopted by the Utility Regulator for RP4 and with Ofgem's approach in its recent price control reviews for the GB DNOs.

1. INTRODUCTION

1.1 The Utility Regulator's proposals with respect to NIE's pension costs for RP5 are set out in Section 11 of the Draft Determination. This chapter comprises NIE's response to those proposals.

1.2 This Chapter is structured as follows:

- Section 2 contains a summary of the Utility Regulator's proposed allowance for pension costs during RP5.
- Section 3 is concerned with the Utility Regulator's proposal not to use the most up-to-date data as its starting point for determining the size of the pension deficit or to take account of the deficit repair plan agreed between NIE and the pension scheme trustees.

- Section 4 sets out NIE's views on the Utility Regulator's proposal to disallow a proportion of the deficit on the basis that a proportion of these costs relate to NIE Powerteam (whose only function is to undertake activities forming part of NIE's T&D Business) and are legally avoidable.
- Section 5 concerns the Utility Regulator's proposal that the allowed deficit should be increased in respect of the under-recovery of pensions costs in prior regulatory periods.
- Section 6 concerns the treatment of benefit improvements funded out of surpluses between 1993 and 2000.
- Section 7 concerns the proportion of early retirement costs which should be borne by the shareholder.
- Section 8 concerns the treatment of special contributions funded by the shareholder.
- Section 9 concerns the Utility Regulator's proposed deficit repair period.

2. THE UTILITY REGULATOR'S PROPOSALS

- 2.1 The Utility Regulator has proposed an allowance for pension costs in RP5 of £22.0 million. This is £77.6 million less than NIE's projected costs of £99.6 million.
- 2.2 NIE's projected costs have increased by £2.3 million since the BPQ was submitted reflecting a £2.3 million increase in the RP4 under-recovery as a result of the six month extension to 30 September 2012, an increase in on-going costs of £0.9 million following the March 2011 valuation offset by a £0.9 million reduction in the 2009/10 value of the deficit repair contributions due to higher inflation.
- 2.3 NIE's submitted BPQ costs and the adjusted figures are shown in the table below.

Table 7.1: BPQ costs and adjustments

	NIE BPQ	NIE adjustments	NIE adjusted BPQ
	£m	£m	£m
RP4 under-recovery	20.4	2.3	22.7
On-going costs	10.2	0.9	11.1
Deficit repair	66.7	-0.9	65.8
Total	97.3	2.3	99.6

2.4 In its Draft Determination, the Utility Regulator adopted the following approach to determining the pension allowance:

- NIE should be allowed to recover the efficient on-going pension costs for employees;
- NIE should be allowed to recover any deficit repair costs which it cannot legally avoid;
- Customers, rather than NIE, carry the risk of any pension deficit that was legally unavoidable;
- Customers should not pay twice in respect of pension deficits which may have been influenced by unavoidable or inefficient actions taken in previous price control periods; and
- The pension deficit should be based on the most recent formal actuarial valuation.

2.5 The Utility Regulator's proposed allowance is based on a pension deficit of £20.3 million. This contrasts with a deficit of £150 million agreed in the recovery plan between NIE and the pension scheme trustees.

2.6 Key elements of the Utility Regulator's proposals include:-

- Ignoring the movements in the funding position of the pension scheme since 31 March 2011;
- Allocating part of the deficit to NIE Powerteam on the basis that this is an avoidable legal liability of NIE;
- Adjusting the deficit in respect of the under-recovery of pensions costs in prior regulatory periods;
- 50/50 sharing between NIE and customers in respect of early retirement costs;
- Recognising the special pension contributions funded by the shareholder; and
- Adjusting the deficit in respect of benefit improvements funded out of the pension scheme surplus during RP2 and RP3.

2.7 The Utility Regulator's calculation of the allowable deficit is shown in the table below.

Table 7.2: The Utility Regulator's proposed allowable deficit

	£m
Deficit agreed with trustees following 2011 valuation	150
Adjustments:	
Exclusion of post-valuation experience	(62.4)
Assumed reduction in the deficit as at 30 September 2012 (based on regulatory allowances)	(15.5)
Deficit attributable to NIE Powerteam	(18.4)
Under-recovery of pensions costs in prior regulatory periods	26.1
Early retirement costs	(52.3)
Special contributions	65.5
Benefit improvements	(72.7)
Allowable deficit for price control purposes	20.3

- 2.8 The Utility Regulator has proposed that the allowable deficit should be recoverable over 15 years from 31 March 2011 (i.e. concluding on 31 March 2026). This compares with the 13-year deficit repair period agreed between NIE and the pension scheme trustees following the 31 March 2009 valuation (which concludes on 31 March 2022).

3. SIZE OF DEFICIT

- 3.1 The Utility Regulator has proposed that the starting point for the price control allowance should be the deficit of £87.6 million as at 31 March 2011. The Utility Regulator also assumes that the deficit in respect of NIE's regulated activities would have reduced by £15.5 million in the period from 31 March 2011 to 30 September 2012 due to the remaining pension allowances under RP4.

- 3.2 The actual deficit as at 31 March 2009 was £251.1 million. However, taking into consideration post-valuation improvements, NIE and the pension scheme trustees agreed that £159.3 million was an appropriate figure to use for calculating the deficit repair payments (excluding the £15.7 million share of the deficit assumed by Viridian). The contributions due under the deficit repair plan were £11.8 million in 2010/11, £12.7 million in 2011/12 and £15.4 million (indexed to RPI) for the next ten years to 31 March 2022.
- 3.3 The most recent actuarial valuation was carried out as at 31 March 2011. The normal three yearly valuation was brought forward a year to meet the Utility Regulator's request for an update on the scheme's funding position in order to recognise the change in inflation measure from RPI to CPI to be used going forward to determine pension increases. This showed a deficit of £87.6 million which was lower than the 2009 deficit repair figure of £159.3 million. However, since 31 March 2011, and before the valuation was completed, the deficit had increased significantly as a result of adverse investment conditions that developed in the second half of 2011 due to concerns regarding global economic growth and sovereign debt within the Eurozone. These concerns are still affecting financial markets. By the fourth quarter of 2011, the funding deficit was assessed by the Scheme's actuary to be in the range of £150 million to £175 million, and today stands at over £200 million.
- 3.4 Following completion of the 31 March 2011 valuation, NIE and the pension scheme trustees considered whether it was appropriate to revise the deficit repair contributions agreed following the 31 March 2009 valuation. Taking into consideration the materially adverse post-valuation experience, the pension scheme trustees might have sought an increase or acceleration of the deficit repair contributions. The value of these contributions based on the valuation discount rate is around £140 million. However, NIE was able to agree with the pension scheme trustees that the post 31 March 2009 valuation deficit repair arrangements be retained.
- 3.5 In considering an updated recovery plan for the Scheme's 2011 valuation, NIE and the pension scheme trustees took account of the following factors:
- There was a fundamental and material change to financial markets in the second half of 2011 which has had a significant adverse impact on the Scheme's funding position, reversing the gains from investment performance achieved in 2009/10.
 - The funding valuation had been brought forward a year at NIE's request to meet the Utility Regulator's request for recognition of the change in inflation measure for pension increases, and as a result the next valuation is not due until 31 March 2014. Had the valuation not been brought forward a year, the valuation would have had an effective date of 31 March 2012, in

which case the full impact of the adverse market movements would have been captured in the measurement of the underlying deficit.

- The 2009 valuation had recognised positive post-valuation experience and the Statement of Funding Principles agreed between NIE and the trustees requires symmetry in this respect for dealing with both favourable and adverse investment experience where material.
- The existing recovery plan and schedule of contributions are contractual commitments which can only be varied by agreement of both parties.
- Paragraphs 106 to 108 of the Pension Regulator's Code of Practice 03 (Funding defined benefits) cover revision of an existing recovery plan. In particular, paragraph 108 considers the actions that could be taken if the valuation shortfall is below the outstanding value of future deficit repair payments – e.g. either the recovery period could be shortened or the level of contributions could be reduced, or both. From the trustees' viewpoint however, the post-valuation date adverse market conditions meant that the funding position of the scheme had not improved in practice and a reduction in deficit contributions or shortening of the recovery plan was inappropriate to the circumstances.
- Paragraph 134 of the Code of Practice 03 envisages that trustees should call an early valuation, after taking actuarial advice, if it is unsafe to rely on the results of the previous valuation. If the trustees had agreed to a reduction in the recovery plan payments, Keith Lelliott of Aon Hewitt, the Scheme Actuary, would have advised them to consider calling a further valuation as at 31 March 2012 to recognise the deterioration in funding and re-establish the valuation that would otherwise have occurred had the valuation not been brought forward.

3.6 In these circumstances, the advice to the trustees from consultants Aon Hewitt was that the post-valuation impact of adverse financial markets was an integral part of the 2011 valuation and needed to be recognised in the outcome of the valuation.

3.7 Aon Hewitt were firmly of the view that any reduction in the repair plan would not have been acceptable to the Pensions Regulator and would have been challenged. The most likely outcome would have been for the Pensions Regulator to ask the trustees to carry out a new valuation as at 31 March 2012.

3.8 The Pensions Regulator's statement issued on 27 April 2012 provides commentary and guidance on how pension scheme funding valuations should be approached in response to the current challenging economic environment. This statement endorses the approach taken by the pension scheme trustees in their negotiations

with NIE in relation to the 2011 valuation. In particular, the Pensions Regulator acknowledges that these conditions result in increased deficits which are likely to persist for some time and in these circumstances pension costs should be expected to increase and/or be payable for a longer period.

- 3.9 NIE therefore strongly disagrees that a deficit of £87.6 million should be the starting point for setting the allowance for pension costs. The RP5 allowance for pension costs should instead be based on the schedule of contributions agreed with the trustees with truing-up if there are any changes at the next valuation date (currently expected 31 March 2014).
- 3.10 NIE is willing to carry out valuations at more frequent than three year intervals if the Utility Regulator thought this would be useful. However NIE considers that the cost of doing so is likely to outweigh the benefits. For example, if NIE carried out a formal valuation as at 31 March 2012, this would simply confirm the post-valuation experience since the March 2011 valuation.
- 3.11 NIE also disagrees with the Utility Regulator's suggestion that NIE should have sought the Utility Regulator's approval in relation to the funding plan. To have done so would have been contrary to the principle that formal actuarial valuations are subject to their own regulatory regime. The approach adopted by NIE was consistent with good actuarial practice and the Pensions Regulator's code of practice. NIE took separate actuarial advice from that of the pension scheme trustees throughout the process. The post-valuation date valuation experience was an integral part of the 2011 valuation and the same approach was applied to the 2009 valuation when post-valuation date experience was favourable.

Ofgem precedent

- 3.12 NIE notes that Ofgem has established a set of pension principles that they apply to regulated energy utilities in Great Britain.
- 3.13 At the last electricity distribution price control review (DPCR5), Ofgem used the latest available actuarial valuation to ensure that it would set the DNOs' allowances based on the latest available valuation (September 2009) at the time of the final determinations. In the DPCR5 Final Proposal document Ofgem states:

“[most] respondents accepted that using the latest updated valuations was appropriate. There was some support for an exception to this approach, if a full valuation had taken place within a year of the price control commencing. Three schemes are in this position. Whilst we understand the arguments for adopting this approach, we think that the significant

movement in scheme deficit valuations since March 2009 requires us to use the latest updated valuation.”⁴⁸

- 3.14 But Ofgem also acknowledged the importance of recognising recent significant movements in the deficit. It plans to do that by adjusting the allowance at the following price control review⁴⁹ to take into account any changes occurring between the valuation and the start of the price control. Ofgem states that:

“[in] our Final Proposals we have used the valuations in September 2009 from all DNOs as a proxy for the March 2010 deficit and estimated appropriate funding for deficit repair payments from these values. As we have stated that we will fund deficits on service accrued until the end of the current price control, we will adjust in DPCR6 for any differences, providing they are efficient and economical, between the September deficits we have used and those that are actually reported in March 2010.”⁵⁰

- 3.15 Since DPCR5, Ofgem has formalised its approach to regulating pensions. Following a period of consultation, in June 2010 it published a decision document setting out the regulatory principles for network operators. In this paper, Ofgem confirms that the approach set out in DPCR5 will be applicable to other price control reviews. It states:

“[we] will set allowances on the basis of up to date actuarial valuations of the assets and liabilities attributable to the established deficit. The method of attribution of deficit between established and incremental will be clarified in each price control.”⁵¹

- 3.16 Ofgem also confirms its willingness to update the pension allowance to ensure that significant changes in the value of the deficit are appropriately taken into account by the regulatory allowance. It states:

“[we] will require updated valuations for years between triennial valuations as part of each NWO’s annual regulatory reporting. We might additionally need interim valuations to inform price control allowance setting (which may be subject to subsequent adjustment to align them with the end of the current price control period).”⁵²

- 3.17 NIE believes that the principles and practice that Ofgem has set out establish a clear and considered framework for determining pension costs. NIE would be

⁴⁸ Ofgem, 2009, DPCR5 Final Proposals, page 47, paragraph 3.73.

⁴⁹ At the time of writing (2009), such price control review was called DPCR6. Following the introduction of RIIO, it has now been relabeled RIIO-ED1.

⁵⁰ Ofgem, 2009, DPCR5 Final Proposals, page 47, paragraph 3.74.

⁵¹ Ofgem, 2010, Price Control Treatment of Network Operator Pension Costs Under Regulatory Principles, page 13, paragraph 3.30.

⁵² Ofgem, 2010, Price Control Treatment of Network Operator Pension Costs Under Regulatory Principles, page 13, paragraph 3.31.

content if such an approach were adopted by the Utility Regulator for RP5 and future price control reviews.

Competition Commission precedent

- 3.18 Recent Competition Commission practice also supports the principle of using the most up-to-date data for the purposes of determining the size of a pension deficit.
- 3.19 In its August 2010 report on Bristol Water's price control, the Competition Commission took as its starting point for its assessment of deficit recovery payments the size of the deficit as at the most recent update date (in that case, 31 December 2009 – which was only 6 weeks prior to the date on which the matter was referred to the Competition Commission). This was despite the fact that the most recent triennial valuation at 31 March 2008 represented a more detailed calculation of the deficit. The Competition Commission noted that both asset returns and economic conditions had underperformed the assumptions since the last triennial valuation. The updated valuations relied on rolling forward most of the triennial data and only revisiting key assumptions (e.g. inflation) and adjusting for asset performance. The Competition Commission concluded that the updated valuations appeared to be the most recent data available to them, and so they considered it appropriate to rely on them.
- 3.20 The Competition Commission did not accept Ofwat's arguments that using such updated (if less rigorous) valuation meant that Bristol Water's shareholders enjoyed reduced risk so that the Competition Commission should make a counterbalancing adjustment elsewhere.

4. DEFICIT ATTRIBUTABLE TO NIE POWERTEAM

- 4.1 The Utility Regulator proposes to disallow a proportion of the deficit on the basis that part of the cost is legally avoidable and relates to NIE Powerteam. NIE strongly disagrees with this proposal.
- 4.2 The Utility Regulator's proposal ignores the substance of the internal arrangement with NIE Powerteam. As explained in Section 5 of Chapter 3 (RP4 Overview) of this Response, NIE Powerteam is an integral part of the NIE business organisation and all its activities form part of NIE's regulated activities. NIE Powerteam was established as a separate legal entity in order to drive efficiency savings. But it remains an integral part of the NIE organisation and its activities are subject to effective price control regulation as part of NIE. Whether costs are legally attributable to NIE or NIE Powerteam should not be relevant for price control purposes. In establishing the NIE Powerteam model, there was never any intention that NIE Powerteam would be used as a vehicle for avoiding deficit-related pension costs. The internal transfer pricing arrangements between NIE

and NIE Powerteam in no way take account of such costs; neither are they intended to. The Utility Regulator's proposals would mean that pension costs are stranded whenever an NIE employee moves to NIE Powerteam. This clearly was not the intention behind the establishment of NIE Powerteam which has been the driver of significant efficiencies over the last ten years.

- 4.3 The same argument applies to Capital Pensions Management (**CPM**), albeit with many fewer employees. CPM is effectively an in house team managing NIE's pension arrangements which in the main relates to current and former employees covered by the Protected Persons Regulations. Were NIE to use a third party administrator for such services (probably at a higher overall cost) then the costs would need to be added to NIE's budget forecasts for expenditure.
- 4.4 The GB DNOs and other regulated network businesses in Great Britain have various corporate structures. In some cases the company holding the licence has no direct employees due to the use of service companies. NIE understands that Ofgem addresses this by recognising all employees that are engaged on regulated activities to determine what proportion of pension costs are recoverable through price regulated charges, irrespective of whether they are directly employed by the licensee or in a related party within the employer group.
- 4.5 NIE accepts that the Scheme's other participating employer, Powerteam Electrical Services Limited (**PES**), falls outside NIE's regulated activities.
- 4.6 Finally, we note that the Utility Regulator has had the opportunity to review the current arrangements with NIE Powerteam in previous price control reviews but has never considered it appropriate to do so. The Utility Regulator's proposal to review these arrangements for the purposes of the RP5 price control is retrospective in nature and contrary to essential principles of incentive-based regulation.

Legal liability

- 4.7 As explained above, NIE Powerteam is an integral part of the NIE organisation and the legal attribution of the pension deficit between NIE and NIE Powerteam should not be relevant for price control purposes. But even if it were appropriate to attribute a proportion of the deficit to NIE Powerteam, NIE cannot accept the Utility Regulator's proposal that "last employer" would be an appropriate basis for doing so.
- 4.8 NIE has ultimate liability for all protected persons at privatisation under the Protected Persons Regulations. Specifically, almost all of the pension deficit in respect of members currently employed by NIE Powerteam, or employed by it when they retired, would be covered by the Protected Persons Regulations (approximately 97.5% of all scheme members are protected by these Regulations).

As the 'Protected Persons' legislation was introduced in NI in early 1992, it pre-dates the creation of NIE Powerteam. Therefore, NIE, as the original post-privatisation employer, was responsible for the deficit corresponding to the pension benefits accrued when it directly employed any protected person who later transferred to NIE Powerteam.

4.9 The Protected Persons Regulations expressly address the issue of change of employer to prevent employers of protected persons avoiding their pension rights by transferring them to a new company. Specifically, Regulation 11 provides that any protected employee who changes his employer but remains within the same company group should retain the pension benefits accrued up to that point. The new employer is required to join the same pension scheme and guarantee future benefits, which shall be the same as the future benefits that the protected employee would have received in the absence of a change of employer. This is the basis on which NIE Powerteam, as part of the overall T&D business, commenced participation in NIEPS.

4.10 As a result:

- a significant proportion of the pension deficit for staff that were transferred to NIE Powerteam was not legally avoidable; and
- the 'length of service' basis is the appropriate measure to determine the share of pension deficit that should be allocated to NIE in respect of these individuals.

5. UNDER-RECOVERY OF PENSION COSTS IN PRIOR REGULATORY PERIODS

5.1 The Utility Regulator has proposed that the allowable deficit should be increased in respect of the under-recovery of pension costs in RP2, RP3 and RP4.

5.2 NIE believes that the under-recoveries in RP2 and RP3 should be treated differently from the under-recovery in RP4:

- NIE regards the proposed adjustments in respect of RP2 and RP3 of a retrospective nature. No such adjustments were made in the RP4 price control and there was no expectation that adjustments would be made in RP5.
- In contrast, the RP4 allowance for pension costs was based on a rolling mechanism and, following Ofgem precedent for DPCR5, NIE expected that there would be a truing-up of any RP4 under- or over-recovery of pensions costs in RP5.

5.3 The issues are considered further as follows:

RP2 and RP3

- 5.4 Although there was no specific allowance for pensions costs in RP2 and RP3, the Utility Regulator proposes to increase the amount of the RP5 recoverable deficit by £11.7 million.
- 5.5 NIE does not believe the adjustment is necessary or appropriate on the basis that the proposed adjustment is hypothetical, retrospective in nature and inconsistent with the approach adopted to pensions in RP4. Investors would have had no expectation that this amount would be recoverable.
- 5.6 The Competition Commission considered the issue of re-opening past price control determinations on a number of occasions. In all instances, it indicated its aversion towards altering previous regulatory determinations.
- 5.7 The Competition Commission and its predecessor, the Monopolies and Mergers Commission (**MMC**), have made their views clear in a number of cases, including:
- In the British Gas (1997) case, the MMC noted that *“it is normally undesirable for previous regulatory price controls to be reopened”*;
 - In the BAA (2007) case, the Competition Commission did not think it was appropriate to look at the treatment of depreciation in the previous period, even though it considered whether this should be changed going forward; and
 - in the Scottish Hydro-Electric (1995) case, the MMC argued against revisiting the choice of the allowed rate of return that had been made at the time of the first price control determination. In particular, it noted that, given the uncertainty surrounding the initial decision, and the impossibility to re-construct the historic truth to a satisfactory level, *“[it was] not persuaded that [it] should now write down the initial value of the distribution assets.”*

RP4

- 5.8 The Utility Regulator has proposed that the RP5 pensions allowance should be increased in respect of the under-recovery of costs in RP4, on the basis of the RP4 pensions cost allowance.
- 5.9 NIE agrees with this principle provided this is done through a truing-up mechanism, allowing for a rate of return to be earned on the under-recovery. This approach is supported by regulatory precedent from Ofgem:

“As proposed at DPCR4, we have made a calculation to restore companies to the position they would have achieved if their actual pension payments

had been forecast perfectly in the last price review. A revenue adjustment is made in DPCR5 for this true up”⁵³

- 5.10 The £17 million figure which the Utility Regulator has calculated in respect of the RP4 under-recovery relates to the first four years of RP4 only and excludes the under-recovery in 2011/12 and the six month rollover period.
- 5.11 The correct figure for the total RP4 under-recovery should be £22.7 million including the RP4 rate of return to reflect differences in the timing of payment and subsequent recovery. This is the amount which should be recoverable in RP5.

6. EARLY RETIREMENT COSTS

- 6.1 The Utility Regulator has proposed that the amount of the deficit should be reduced by £52.3 million in respect of early retirement deficiency costs.
- 6.2 The Utility Regulator’s proposal is based on the assumption that 50% of the cost of early retirement deficiency costs should be borne by the shareholder. This is inconsistent with the Utility Regulator’s assumption for RP4 which assumed that 30% of early retirement deficiency costs should be borne by the shareholder.
- 6.3 The Utility Regulator’s assumption for RP4 followed Ofgem precedent. Specifically, Ofgem addressed the issues of early retirement deficiency contributions in the context of DPCR4. At the time, it stated that:

“...the 70:30 split is an appropriate basis for sharing these costs between customers and shareholders in order to reinforce the low risk position of DNOs.”⁵⁴

- 6.4 This approach has also been confirmed in Ofgem’s decision on pension regulatory principles.
- 6.5 To be consistent, the 70:30 split should be applied in RP5. This would result in a smaller reduction in the deficit from £52.3 million to £31.4 million in respect of early retirement costs to be borne by the shareholder.

7. SPECIAL CONTRIBUTIONS

- 7.1 The Utility Regulator has proposed that the allowable deficit is increased by £65.5 million in respect of special contributions funded by the shareholder which have reduced the deficit.

⁵³ Ofgem, 2009, DPCR5 Final Proposals, Financial Methodologies, page 39, para 10.2.

⁵⁴ Ofgem, 2004, DPCR4 Final Proposals, page 98, paragraph 8.20.

7.2 The method adopted by the Utility Regulator to calculate the value of the special contributions is different from NIE's calculations. The figure NIE submitted was £51.3 million although, in line with its principled approach to pensions costs and NIE's submission as to the inappropriateness of retrospective adjustments, NIE did not seek to recover the value of the special contributions in excess of the early retirement costs borne by the shareholder.

8. BENEFIT IMPROVEMENTS FUNDED OUT OF SURPLUS

8.1 The Utility Regulator's proposals include a £72.7 million reduction in respect of benefit improvements funded out of the pension scheme surplus revealed in actuarial valuations between 1993 and 2000.

8.2 NIE strongly disagrees with the proposed adjustment for the reasons set out below:

- First, the Utility Regulator excludes an adjustment for the RP1 regulatory period on the basis that the actions taken to deal with surplus were a consequence of the Inland Revenue Surplus Regulations. However the same legislation was in place in RP2 and RP3. Indeed, the valuation reports for both the 1991 and 1997 valuations reported a surplus in excess of the Inland Revenue Surplus test. So the point accepted by the Utility Regulator in relation to RP1 that actions taken to address surplus were legally unavoidable applies equally to benefit improvements (and contribution reductions) in RP2 and RP3.

The distribution of NIE's surplus between 1991 and 2003 was broadly in a ratio 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 as explained in the note from Aon Hewitt attached at Appendix 7A1.

- Second, the Utility Regulator's proposed adjustment is retrospective in nature and therefore contrary to essential principles of incentive-based regulation. It is also inconsistent with both:
 - Ofgem precedent for DPCR4 and DPCR5; and
 - the approach adopted by the Utility Regulator in RP4.

The Utility Regulator has conducted three previous price reviews since these benefits improvements were introduced and has not thought it appropriate to comment previously.

- 8.3 In NIE's view, none of the current deficit is attributable to the benefit improvements. The pension scheme was in surplus in 2007 and the deficit which has emerged since then is largely attributable to lower than anticipated investment returns and members living longer. The adverse impact of lower returns and members living longer has been partially offset by the change in pension benefits from RPI to CPI which came into effect on 1 April 2011 mirroring the change in public sector pension reforms.
- 8.4 NIE understands that Ofgem has accepted that benefit improvements granted in the 1990s when pension schemes generally had surpluses, are efficiently incurred costs and has not sought to revisit this. Indeed under its pensions principles, the "established deficit" as at 31 March 2010 for distribution companies and 31 March 2012 for transmission companies includes liabilities for all past benefit improvements.

Competition Commission precedent

- 8.5 The Utility Regulator's proposed adjustments to NIE's pension deficit in respect of RP2 and RP3 do not accord with the recent practice of the Competition Commission.
- 8.6 In its August 2010 report on Bristol Water's price control, the Competition Commission was required to determine the proportion of Bristol Water's pension deficit which should be allowed. In that context, no consideration was given to adjusting the allowed deficit by reference to whether decisions taken by Bristol Water with respect to its pension scheme in earlier price control periods were efficient. The issue simply did not arise.
- 8.7 The Competition Commission was called upon to evaluate whether it was appropriate to allow 100% of the deficit. This was on the basis that Bristol Water had some options to control its pension liabilities going forward, such as increasing employee contribution rates or even closing the scheme to future renewal. Ofwat argued that allowing 100% of the deficit "*removes all incentives on the company to take appropriate action to manage its pension liability*". The Competition Commission agreed with Ofwat's point on incentives and noted the significant steps which Bristol Water had taken to control its pension liabilities (including closing the scheme to new members and making additional contributions), the residual level of control it had and the further steps it might take. Balancing those considerations, the Competition Commission decided that 90% of the pension deficit recovery costs should be allowed.
- 8.8 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. For that reason, the argument that NIE

should be incentivised to take appropriate action to manage its pension liability does not arise. Applying the approach adopted by the Competition Commission in the Bristol Water report, NIE should be allowed 100% of its pension deficit recovery costs.

9. DEFICIT REPAIR PERIOD

- 9.1 In its response to the Utility Regulator's RP5 Strategy Paper (1 October 2010), NIE proposed that RP5 pensions costs should be allowed over the same period as agreed with the trustees (i.e. over 13 years to 2021/22).
- 9.2 The Utility Regulator has proposed that the deficit repair period should be 15 years to 2025/26 which is consistent with the deficit repair period allowed by Ofgem.
- 9.3 NIE could agree to the slightly longer repair period provided that any timing differences in regulatory allowances compared to actual payments attracted the regulatory rate of return. This would be consistent with the Ofgem approach:

*"If DNOs agree faster repair payments with their trustees than the 15 years we use, we will adjust allowed revenues over the remaining portion of the 15 years to keep the companies whole on a Net Present Value (NPV) neutral basis."*⁵⁵

- 9.4 In addition, NIE looks for a clear statement from the Utility Regulator, as provided by Ofgem, that the 15 years can be regarded as a fixed timeframe for getting the scheme to full funding, and that each price control period would not see pension deficits re-spread over a new 15 year period.

⁵⁵ Ofgem, 2009, DPCR5, Final Proposals, page 47, paragraph 3.71.

CHAPTER 8

CONNECTIONS

SUMMARY

The Utility Regulator has proposed an allowance for connections in RP5 of £26.9 million. This is £10.5 million less than NIE's forecast of £37.4 million (including overheads).

The proposed allowance is based on the assumption that a two year period will be adequate to make the transition to the new connection charge policy (which removes the subsidy from connection charges), whereas NIE's forecast is based on a five year transition period. Also, the proposed allowance makes insufficient provision for costs relating to the Road and Street Works legislation associated with these connection works.

1. INTRODUCTION

- 1.1 The Utility Regulator's proposals with respect to connections are set out in Section 12 of the Draft Determination. This Chapter 8 comprises NIE's response to those proposals.
- 1.2 The Draft Determination also comments on other elements of NIE's practices in respect of the offering and execution of new connections, and on competition in connections. But they do not affect the proposed revenue allowance for RP5, and so we do not respond to them in this Response.

2. THE UTILITY REGULATOR'S PROPOSALS

- 2.1 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 new connection. This will replace the present system whereby the party seeking connection pays approximately 60% of the connection costs, with the rest being recoverable via the T&D price control.
- 2.2 The Utility Regulator recognises, in the context of the RP5 price control review, that there will be a transitional period during which NIE will continue to effect and charge for connections on the old basis, and that the RP5 price control should include an allowance for the connections costs which will not be recovered directly by way of connections charges levied on the connecting party. During that

transitional period, the connections assets funded out of general T&D charges will be added to the RAB, and their costs treated accordingly.

- 2.3 The Utility Regulator has provisionally concluded that the RP5 price control should allow NIE to add £26.9 million to the RAB in respect of connection costs funded out of the T&D charges, on the basis that NIE will have implemented the new charging system for connections in full by 1 October 2012. The Utility Regulator proposes that this sum form a ring-fenced element of Fund 2, so that it can be adjusted, *ex post*, by reference to the amounts efficiently expended by NIE during RP5.
- 2.4 The allowance proposed by the Utility Regulator falls £10.5 million short of the £37.4 million which NIE considers to be necessary to cover the transitional period. The shortfall arises from the fact that the Utility Regulator has based its proposal on a two-year transitional period whereas NIE expects that connection offers made and accepted under the old charging policy will continue to be delivered throughout RP5 and that a five-year transitional period is therefore required.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

- 3.1 NIE forecasts that, during the run off period of the old connection charging system, the amounts shown in Table 8.1 below will be added to the RAB:

Table 8.1: Forecast net connections additions to the RAB for RP5

£k	2012/13	2013/14	2014/15	2015/16	2016/17	RP5 Total
NIE's net connections costs⁵⁶	7,444	3,739	2,255	1,508	760	15,706
RASW costs (net connections)	761	380	228	152	76	1598
Total non-recoverable alterations	3,975	4,006	4,002	3,988	4,012	19,983
RASW costs (non-recoverable alterations)	20.4	20.4	20.4	20.4	20.4	102
Total net connections Capex	12,200	8,146	6,506	5,669	4,868	37,389

- 3.2 NIE's £15.7 million for 'RP5 total net connections costs' is based on a five year transition period. We estimated that during year 1 of RP5, 100% (£7.4m) of net connection costs relating to quotations accepted under the old charging policy

⁵⁶ Connections costs not recoverable from the party seeking connection in the period following the introduction of 100% chargeability.

would transfer to the RAB. This value would decrease to 50% (£3.7 million) by year 2 and progressively decrease thereafter as the number of connections completed under the old chargeability policy reduces. Connection offers that have been accepted by connectees are not time-limited and 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.

- 3.3 The Utility Regulator proposes to allow only 40% of the £15.7m based on a two year transition period. Such an allowance is inadequate because it does not match the forecast profile of the acceptance of connection offers made under the current chargeability policy. It would mean that in the final three years of RP5, NIE will be left with costs that under the terms of its connection offer it will be unable to recover from the party seeking connection.
- 3.4 NIE's forecast includes £1.6 million of additional costs associated with RASW legislation which applies to all construction work. The Utility Regulator is proposing to allow the additional costs incurred for two years only. However the quantum of the allowance should be proportional to the connections expenditure incurred, whether within the first two years of the transition period or over a longer period if necessary.
- 3.5 The Utility Regulator proposes to allow NIE's forecast of £20m for total non-recoverable alterations. However, a further RASW allowance (not presently included and estimated at £0.1 million for the period) is required to cover RASW expenditure associated with non-recoverable alterations.
- 3.6 There is a range of practical issues associated with the implementation of the new charging policy which are being addressed under a separate workstream with the Utility Regulator. These include the practicalities of what we understand to be the Utility Regulator's preference to maintain standard charging for larger housing developments. This needs further work, and adjustments to the forecast allowance in Table 8.1 may be required.
- 3.7 To address these legacy agreements and the RASW liability issues, NIE requests that the ring-fenced allowance to be included in Fund 2 should be based on NIE's higher estimate and, following the agreement reached in relation to the charging of larger housing developments, 'trued up' to the outturn costs in due course.

CHAPTER 9

INCENTIVES AND INNOVATION

SUMMARY

The Utility Regulator has proposed limited incentive arrangements as part of its RP5 proposals.

We consider that the Utility Regulator's proposals are deficient because:

- they do not encourage innovation and they create weak incentives for cost efficiency;
- they do not provide NIE with sufficient flexibility to meet its obligations in the face of increasing uncertainty;
- they offer no incentives to improve customer service, network performance or connection of renewables;
- the design of some incentives is ill-defined, others are asymmetric (in that they penalise under-performance without rewarding out-performance) and in combination with the inadequate capex and opex allowances, this has the effect of increasing NIE's exposure to downside risk; and
- they are inconsistent with recent GB regulatory trends (DPRC5 and RIIO-T1).

Furthermore, the Utility Regulator has proposed no provision for funding innovation through smart technology in RP5. Without this funding NIE will be unable to assess emerging technologies and participate in collaborative research to factor this into future planning of the network.

1. INTRODUCTION

- 1.1 The Utility Regulator's proposals to structure the RP5 price control so as to provide incentives for NIE to act in pursuit of particular regulatory and public interest objectives are set out in Section 13 of the Draft Determination. The Utility Regulator sets out its position on innovation in Section 14.
- 1.2 This Chapter 9 comprises NIE's response to the Utility Regulator's proposed incentive mechanisms. It also responds to the Utility Regulator's position on innovation.

2. THE UTILITY REGULATOR'S PROPOSALS

2.1 In Section 13 of the Draft Determination, the Utility Regulator sets out its proposals for incentive mechanisms to be applied via the RP5 price control. The Utility Regulator explains that its incentives are designed to meet the following objectives:

- *Sufficient funding*: NIE should be allowed to earn sufficient revenue to deliver the required standard of service and outputs;
- *Optimum capital investment strategy*: NIE should be incentivised to undertake optimal capital investment (to replace assets before the risk of failure becomes unacceptable; and to maintain asset condition at or above the minimum acceptable level);
- *Continuous improvement*: NIE should be incentivised continuously to achieve efficiency improvements, while ensuring that customers benefit from an appropriate share of efficiency savings. NIE should be rewarded for achieving efficiency, but its reward should be appropriately time-limited;
- *Flexibility*: any incentive mechanisms should be flexible to cater for changing situations for example, where load-related investment turns out not to be needed, or where new legislation necessitates new expenditure (e.g. by funding such expenditure only from the long-stop date for compliance);
- *Accurate submissions*: incentive mechanisms should incentivise NIE to provide accurate information to the Utility Regulator; and
- *Equalisation of incentives*: incentive mechanisms should not provide an incentive to transfer expenditure inappropriately between opex and capex during the price control period.

2.2 The Utility Regulator proposes⁵⁷ that NIE should be incentivised to plan and manage its capex efficiently, in pursuit of such objectives, via the three fund structure considered in Chapter 5 (RP5 Capex – Structure) of this Response.

2.3 So far as relates to opex, the Utility Regulator proposes⁵⁸ to adopt a specific revenue allowance for NIE's opex in RP5 and to minimise the opportunities to transfer expenditure inappropriately between capex and opex.

⁵⁷ At paragraphs 13.23 to 13.25.

⁵⁸ At paragraphs 13.26 to 13.30.

- 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). However, the Utility Regulator proposes⁵⁹, if possible, to adopt a symmetrical cap and collar incentive for years 4 and 5 of RP5, through an overall fund to reduce losses limited to £1 million over the two years in aggregate.
- 2.5 So far as relates to revenue protection, the Utility Regulator proposes⁶⁰ to maintain a revenue protection incentive in place, but to make no additional allowance for additional expenditure on revenue protection, on the basis that NIE did not make the case for such expenditure.
- 2.6 So far as relates to network performance, the Utility Regulator proposes⁶¹ to apply a target CML/CI based on a historical average of 72 unplanned CML/CC. The incentive should operate as a penalty only incentive, at a rate of £180,000 for each minute by which CML increases and £30,000 for CI, relative to a starting point of 79 CML/CC. However, these figures will be reviewed in the light of an audit of NIE's historical data.
- 2.7 So far as relates to customer services incentives, the Utility Regulator proposes only to review the existing Guaranteed Standards Scheme (GSS) as described in Table 13.3 of the Draft Determination.
- 2.8 The Utility Regulator also proposes⁶² that it should work with NIE to develop health and load indices for NIE's network to understand the benefit and/or detriment of particular capex expenditure / under-expenditure on the health and performance of the network, with a view to potentially introducing incentives into the RP6 price control.
- 2.9 In Section 14 of the Draft Determination, the Utility Regulator sets out its position on innovation. It notes that NIE is seeking £14.93 million within RP5 to fund smart technology. 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 opportunities for innovative solutions should be sought out as part of the wider development of the distribution system.

⁵⁹ At paragraphs 13.36 to 13.40.

⁶⁰ At paragraphs 13.43 and 13.44.

⁶¹ At paragraphs 13.46 to 13.53.

⁶² At paragraphs 13.61 to 13.63.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

General principles

3.1 In substance, NIE agrees with the Utility Regulator's proposals as to the appropriate objectives of any incentive mechanisms to be adopted into the RP5 price control. By way of exception / clarification, we would make the following points:

- *Optimum capital investment strategy*: on some occasions, it may be efficient and more practical for NIE to take action to comply with new legislation before the long stop date for compliance (e.g. if such action requires to be undertaken in a phased manner to best manage resource or network constraints, or forms part of a wider project which needs to be undertaken before such long stop date). Early introduction of such measures may also enable customers to enjoy the benefits at which such legislation is directed earlier than would otherwise be the case, and the Utility Regulator should therefore be willing, on occasion, to allow the earlier funding of the costs of such measures than its proposals presently envisage;
- *Continuous improvement*: consideration should be given to extending incentives for continuous improvement beyond those aimed at cost efficiency in order to provide an appropriate balance between cost and improvements in quality of service and other performance outputs delivered to customers. Incentive mechanisms for performance improvements should be symmetrical and calibrated appropriately with competing incentives for cost efficiency to provide the company with the ability to make informed choices that balance cost with the delivery of outputs. Otherwise, the company is incentivised to forego the cost of comparatively low cost improvements, with perverse outcomes for customers;
- *Flexibility*: the incentive mechanism should not restrict NIE's ability to manage its statutory and licence obligations flexibly. It is not the purpose of a price review to prescribe an investment plan. Incentive-based regulation requires that the regulator sets an allowance for capex for the regulatory period; and that the company has the flexibility to spend that allowance as it considers best in managing a range of risks and obligations that arise as the period unfolds. This is the conventional approach to a price review, as followed by the Utility Regulator in RP4 and by Ofgem in DPCR5;
- *Accurate submissions*: there are already ample incentives for NIE to provide full and accurate information to the Utility Regulator, since the governing legislation, taken together with the conditions of NIE's licence,

means that NIE is potentially subject to financial penalties if it fails to provide accurate information. Moreover, 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). This would provide a structured and consistent basis for providing the Utility Regulator with meaningful information in a manner that preserves the principles of RPI-X regulation, while avoiding a system of micro-management of NIE's activities as well as the additional costs that a Reporter would impose on customers;

- *Equalisation of incentives*: so far as relates to the so-called "gaming" of incentives by transferring expenditure between capex and opex, it is necessary to distinguish two issues:
 - First, any concern as to how particular expenditure should be treated for accounting purposes can be adequately managed by laying down clear rules and guidance (e.g. by requiring NIE to draw up its regulatory accounts in accordance with prescribed accounting policies and principles, and to have such accounts audited by external auditors, as is the case currently);
 - Second, any decision by NIE to incur capex rather than opex (or vice versa) to achieve a particular output (e.g. by replacing an asset, instead of repairing or maintaining it for longer) should be subject to the usual incentive properties of the RPI-X regime. In this regard, strengthening capex incentives for RP5 in the manner proposed by NIE would ensure a better balance with opex incentives. But there should be no objection in principle to leaving it to NIE's management to decide whether an opex or capex solution is appropriate in any particular case.

3.2 We are concerned that the incentive mechanisms proposed by the Utility Regulator do not satisfy the objectives of incentive-based regulation that the Utility Regulator has itself identified. A well-constructed system of incentive-based regulation can provide many benefits for customers, as has been demonstrated in many jurisdictions. But the incentive mechanisms proposed in the Draft Determination are unlikely to do so.

Capex incentives

3.3 So far as relates to specific elements of the Utility Regulator's incentive proposals, NIE has addressed the Utility Regulator's proposals for the treatment of NIE's capex works during RP5: see Chapter 5 (RP5 capex – Structure). It is to be noted that, 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, and substantially diminishes NIE's incentive to introduce innovative solutions, in place of conventional investment in new or replacement assets, and to substitute as among different funds in an optimal manner; and
- 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 inaccurate, and 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.

Asymmetric character of other incentives

- 3.4 So far as relates to the Utility Regulator's proposals for incentives in respect of network performance and GSS, we note that these proposed incentives would operate only in one direction: NIE would be penalised for under-performance, but would have no prospect of earning additional revenues for enhanced performance. The Utility Regulator seeks to address this point by arguing that customers do not exhibit any demand for superior performance.
- 3.5 We challenge the Utility Regulator's view that customers in NI do not value improvements in reliability of supply. Measuring network performance using high-level metrics (CI and CML) reflects the standard of service for the "average NI customer". However, in practice, a range of service levels are experienced across the customer base which is likely to give rise to a similar range of opinion on the merits of seeking service improvements.
- 3.6 Loss of supply is indeed a rare occurrence for the majority of customers, which is recognised in the general satisfaction of customers with service levels they are currently experiencing as expressed in the survey referred to by the Utility Regulator in paragraph 13.48 of the Draft Determination⁶³. However this is quite different from suggesting that nothing more is required to improve reliability of supply for the smaller proportion of mainly rural customers who currently experience supply outages or are more likely to do so. In common with other customers, it can be assumed that these customers similarly regard supply reliability and quick reconnection as key priorities. All else being equal, improving

⁶³ PIMR survey, May 2010.

supply reliability for these customers will also have the effect of improving average network performance (CML and CI). However, the Utility Regulator's proposal suggests that no improvements in service levels for these customers should be encouraged by providing NIE with appropriately designed incentives. NIE does not agree and proposes a symmetrical incentive arrangement that would positively encourage improvements in service standards.

- 3.7 An asymmetric incentive for network performance would have particular consequences for regulatory risk. 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. Without a symmetrical incentive mechanism, NIE would bear the risk of being penalised for uncontrollable negative outcomes on the one hand but not rewarded for positive ones. This presents an asymmetry of risk that is unacceptable to NIE.
- 3.8 Similarly, the proposed opex allowance incorporates two efficiency discount factors (discussed separately in Section 2 of Chapter 3 (RP4 Overview) and Section 5 of Chapter 6 (RP5 Opex)), the basis for which NIE refutes, but even if implemented would be difficult for NIE to meet - and so the outcome would be biased from the outset towards underperformance.

Incentive mechanisms exacerbate effect of unduly harsh capex, opex and WACC allowances

- 3.9 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 observed to date), and the very low rate of return proposed to be allowed, 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 measures which might enable it to provide a better quality of service to customers and other users of the network.

Comments on specific proposed incentive measures

Network Performance Incentives

- 3.10 The Utility Regulator proposes the introduction of an asymmetric incentive arrangement (penalty only) for CI and CML. This is inconsistent with GB precedent. In contrast, a properly balanced incentive would enable quality of service for customers in NI to keep pace with comparable regions of GB. This was the basis of NIE's proposal.

- 3.11 The Utility Regulator has proposed significant reductions in the capital investment programme proposed by NIE for RP5, which if confirmed, will 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.
- 3.12 We have proposed that the network performance incentive scheme for RP5 should be primarily confined to unplanned outages on the distribution network. This is mainly because of the difficulty in accurately setting targets for planned outages and unplanned outages associated with faults⁶⁴ on the transmission network and generating plant, which would add significantly to the potential for uncontrollable losses in revenue due simply to unavoidable forecasting error. The Utility Regulator's proposal in this regard is unclear, and NIE requests clarification.
- 3.13 Similarly, it is unclear whether the Utility Regulator is proposing to limit the annual revenue that it is possible for NIE to lose under this proposed mechanism. NIE requests confirmation⁶⁵ that the Utility Regulator proposes the inclusion of a "collar" to limit revenue losses.
- 3.14 Due to the asymmetry of the Utility Regulator's incentive proposal, NIE would not be able to balance risk by netting off gains and losses due to variations in performance from one year to the next. Furthermore, NIE would bear the risk of systemic losses due to forecasting error or other weaknesses in the incentive design, but would not have the potential to benefit from any gains in circumstances were such errors to be favourable. This risk is heightened further by the lack of experience of applying such an incentive scheme in NI and potential unexpected outcomes.
- 3.15 In short, the Utility Regulator's current proposals would mean that NIE's exposure to revenue loss is both asymmetrical and increased by uncertainties in incentive design. This proposal is therefore unacceptable to NIE.

Other Output Incentives

- 3.16 The Utility Regulator proposes no incentives for improving customer service. As with network performance, this is based on its judgment that customers are generally satisfied with existing service levels. In contrast, a properly balanced incentive framework would enable service levels for customers in NI to keep pace with comparable regions of GB. This was the basis of NIE's proposal.

⁶⁴ As well as forecasting difficulties, such faults are also driven by performance of third parties (e.g. SONI and power stations).

⁶⁵ As part of the consultation process, the Utility Regulator has informally advised NIE that a "collar" will be applied.

- 3.17 We have proposed incentives for connection of renewable generation to the distribution network in response to government's 2020 targets. The Utility Regulator makes no reference to our proposal in its Draft Determination, nor does it make any reference to providing incentives for NIE to contribute to the delivery of government's strategic energy framework. The reason for this omission is unclear.
- 3.18 The Utility Regulator recognises the need to obtain historical data ahead of establishing a distribution losses incentive. We are supportive of this approach and would welcome the opportunity to work with the Utility Regulator during RP5 to establish a viable distribution losses incentive mechanism. We would however 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.
- 3.19 NIE has also proposed to strengthen the existing (RP4) incentives to reduce electricity theft (revenue protection), which represents a significant and controllable aspect of the cost of network losses borne by customers. The Utility Regulator does not address the substance of our proposal in its Draft Determination. Rather, our proposal is wrongly characterised in the Draft Determination by means of it being linked with a separate and unrelated proposal for additional revenue protection electricians associated with keypad meter reading activity⁶⁶. As a result, customers and suppliers have not been made aware of the options proposed by NIE and their potential benefits, and therefore cannot be expected to comment sensibly on the Utility Regulator's proposals in this regard.

Guaranteed Standards

- 3.20 The Utility Regulator proposes 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.
- 3.21 In NI, Guaranteed Standards currently apply only in the electricity sector, with no similar standards for gas and water utilities. Considering the findings of the recent customer survey⁶⁷ carried out on behalf of the Utility Regulator, NIE considers that standardisation of standards across the utility sector in NI ought to be the first priority, followed later by any enhancements considered appropriate, subject to agreement on costs. It would be unreasonable to introduce new or tighter

⁶⁶ For clarity, NIE proposals for revenue protection incentives in RP5 are based on it funding any increase in staff or other additional costs it deems necessary to target improved performance. It should be noted however that if the Utility Regulator remains minded to make no change to the RP4 revenue protection incentive arrangements, then additional provision should be made by the Utility Regulator within the RP5 opex allowance to allow recovery of the costs of £769,000 during RP5 to provide additional revenue protection electricians to meet the needs of keypad meter reading activity. For the avoidance of doubt, these costs are not presently included in NIE's opex submission consistent with the basis of NIE's incentive proposal for RP5.

⁶⁷ PIMR survey, May 2010.

standards without also providing for the recovery of the associated costs of meeting these standards.

- 3.22 The Utility Regulator presents no evidence of customer demand for the introduction of additional standards or whether any assessment has been carried out by the Utility Regulator of the cost or practicalities of introducing these standards in NI for RP5. Nor has the Utility Regulator discussed these matters with NIE to inform a robust assessment of what may be possible and what it would cost. NIE has provided a detailed response to the Utility Regulator's proposed changes to guaranteed standards in Appendix 9A1. We estimate that these proposals will add approximately £1.3 million to NIE's operating costs during RP5, and depending on their design, may also require additional capital investment of £2.4 million in RP5.
- 3.23 We submit that the Utility Regulator should follow the practice adopted in GB, by first establishing what additional resources and changes to IT systems would be required, before finalising any changes in standards and/or incentive arrangements. Otherwise, NIE will carry the risk that new requirements are put in place at the start of RP5 that are ill-defined and without the systems established to robustly measure performance.

Funding Innovation

- 3.24 The Utility Regulator has separately approved the upgrade to the distribution network management system outside the RP5 price control process. Otherwise, the Utility Regulator has made no provision within its Draft Determination for funding innovation through smart technology.
- 3.25 In RP4, NIE has been proactive in research and development of innovative approaches to improve utilisation of network assets. For RP5, NIE intends to build upon this experience and increase its efforts to take on more challenging innovation projects. This will include smart technology initiatives that can be 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.
- 3.26 We have sought £14.9 million within RP5 to fund smart technology including research and development; trialling smart technology projects; applying advanced condition monitoring to network assets; and upgrading our distribution network management system to facilitate smart grids.
- 3.27 NIE's objective is not to be a research leader or be at the leading edge in the area of smart technology but to adopt the "fast follower" approach where possible. However, it will not always be possible to incorporate smart technology design that

worked elsewhere without considering the feasibility of its deployment on the NIE network.

3.28 Without this funding for R&D and trials, 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 funding⁶⁸ to support development of smart technology recognising its importance in stimulating its application.

3.29 The Utility Regulator’s proposals are considered in more detail in Appendix 9A1.

4. NIE'S INCENTIVE PROPOSALS

4.1 We consider that the Utility Regulator's incentive proposals are too limited to incentivise NIE to achieve efficiency and innovation. By virtue of their asymmetric character, they are liable to penalise NIE for underperformance, whilst allowing no reward for adequate or superior performance. NIE has itself advanced a better package of proposed incentives, which are summarised in the table below.

Table 9.1: Proposed exposure of NIE’s revenues to incentive schemes at RP5

Area of incentive	Cap (% revenue)	Collar (% revenue)
“Business as usual” capex	+1.5%	-1.5%
Transmission renewables capex	Project by project	Project by project
Opex	None	None
Customer facing network performance	+1.5%	-1.5%
Losses – network	+ 0.05%	-0.05%
Losses – theft	None	N/A
Customer service	+1.0%	-1.0%
Connection of renewable	None	N/A

4.2 The table shows the range of areas where we have proposed incentive schemes for RP5. It also shows our proposals for the potential revenue exposure

⁶⁸ For example the Low Carbon Networks Fund (LCNF) and Innovation Funding Incentive (IFI).

associated with each incentive, taking into account the central targets we have developed (not shown in the table). These central targets are balanced and set at levels which embody significant challenge and will require a good performance to outperform. In light of this, we have established symmetric caps and collars to most schemes which would apply to cumulative gains or losses over the course of RP5.

- 4.3 NIE invites the Utility Regulator to reconsider its proposals. We have set out in Appendix 9A1 to this Response a more detailed critique of the Utility Regulator's proposals, and a comparison with our proposals. We commend our proposals to the Utility Regulator as being more apt to stimulate NIE to 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.

CHAPTER 10

SAFETY AND THE ENVIRONMENT

SUMMARY

The Draft Determination reviews NIE's approach to safety and environmental matters. The Utility Regulator is satisfied with NIE's substantive approach to these matters, but proposes to introduce new requirements for NIE to report on its activities in respect of safety and environmental matters during RP5.

NIE considers it important that the new reporting requirements be specified and agreed at the beginning of RP5, and that the additional costs to NIE of complying with such requirements be fairly reflected in the RP5 revenue allowance.

NIE has addressed elsewhere in the Response its grave concerns that the Utility Regulator's overall proposals will not adequately fund the investment that is needed to enable NIE to maintain a safe and effective network.

1. INTRODUCTION

1.1 The Utility Regulator's review of environmental and safety matters is set out in Section 15 of the Draft Determination. This Chapter 10 comprises NIE's response to that review.

2. THE UTILITY REGULATOR'S PROPOSALS

2.1 The Utility Regulator has reviewed NIE's approach to safety and environmental matters and has expressed itself to be substantially satisfied with NIE's performance.

2.2 The Utility Regulator proposes, however, to introduce new requirements for NIE to report to it on its activities in respect of safety and environmental matters during RP5.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

General

3.1 NIE has no objection to the provision of additional reports to the Utility Regulator in respect of safety and environmental matters. However, it is important that the

substantive reporting requirements (including the extent of any environmental benchmarking to be undertaken) and the form in which reports are to be delivered should be specified and agreed as soon as practicable (including the development of appropriate templates for reporting). It is also important that the additional costs to NIE of complying with such requirements be fairly reflected in the RP5 revenue allowance.

- 3.2 Although there are no other points arising directly from the Utility Regulator's review of safety and environmental matters, NIE outlines below its overall approach to such matters and, for completeness, points out how the Utility Regulator's overall proposals will seriously underfund the investment required to maintain the high standards of safety and environmental protection observed to date.

Safety

- 3.3 Ensuring the safety of employees, contractors and the general public is a key priority for NIE. This is achieved through the promotion of a positive health and safety culture and adherence to legislation and recognised safety standards. NIE's health and safety management system is based on best practice guidance from the Health and Safety Executive for Northern Ireland (HSENI).
- 3.4 NIE is seriously concerned that if it spent only the capex which the Utility Regulator proposes for RP5 then this would result in an increase in the number of safety-related incidents. As explained in Chapter 4 (RP5 Capex – Quantum) many age-expired assets would remain in service for a further period of five years or more with the higher risk of catastrophic failure. For customers and the public generally this would mean greater risk of injury, for example from meter board fires, conductor drops and electrocution due to corroded equipment in public places. For staff and contractors there would be more hazardous working conditions including the need to impose operational restrictions on equipment. Since NIE would need to continue to invest to avoid these outcomes, the Utility Regulator's proposals amount to underfunding the investment required to maintain a safe system.

Environmental

- 3.5 NIE's environmental policy commits to protecting the environment and is designed to ensure compliance with all relevant legislative and regulatory requirements. Where practical and economically viable, NIE seeks to develop standards in excess of such requirements. Areas of particular focus include the responsible management of waste and recycling, measures to protect against oil pollution and the promotion of energy efficiency. NIE has a full-time environmental compliance officer and designated auditors in its relevant operations.

- 3.6 NIE is concerned that the Utility Regulator proposes to disallow two thirds of NIE's planned expenditure on transmission and distribution cables. Since this expenditure was prioritised to address specific risks including those where environmental risk is considered one of the primary drivers, if NIE were to spend only the amount allowed by the Utility Regulator the environmental risk profile associated with leakages from oil-filled cables would be significantly higher than NIE considers prudent. Since NIE will need to invest to ensure that it continues to meet its environmental obligations, the Utility Regulator's proposals amount to underfunding the investment required to do so.

CHAPTER 11

ANNUAL REPORTING

SUMMARY

The Utility Regulator wishes to increase the scope and the level of detail of the information to be reported on regularly by NIE. Moreover, it wishes to introduce a Reporter to provide assistance in validating and assessing the data submitted by NIE.

The Utility Regulator has estimated the cost of the Reporter to be £1.5 million over RP5. But this is not the full cost. We would expect to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc.

NIE has other concerns over the proposal to introduce a Reporter. Ofwat has recently decided to dispense with Reporters and Ofgem does not use Reporters. We do not agree there is a need for a Reporter here. Its introduction 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.

1. INTRODUCTION

1.1 The Utility Regulator's proposals for regulatory reporting during RP5 are set out in Section 21 of the Draft Determination. This Chapter 11 comprises NIE's response to those proposals.

2. THE UTILITY REGULATOR'S PROPOSALS

2.1 The Utility Regulator wishes to increase the scope and the level of detail of the information to be reported on regularly by NIE. The Draft Determination identifies a range of areas in which there will be an increase in reporting requirements including:

- capex;
- financial;
- pensions;
- connections;
- customer interface; and

- environmental and health & safety.

Most of the detail has yet to be defined.

- 2.2 The Utility Regulator wishes to introduce a Reporter to provide assistance in validating and assessing the data submitted by NIE.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

- 3.1 The Utility Regulator's reporting requirements should be specified at the outset of RP5.

- 3.2 We will work with the Utility Regulator to agree an appropriate template having regard to the arrangements in place for the DNOs and we will identify what is within the capability of our existing reporting arrangements. Provision should be made for the recovery of any additional costs associated with staff and systems.

Reporter

- 3.3 The Utility Regulator wishes to introduce a Reporter to provide assistance in validating and assessing the data submitted by NIE. The Utility Regulator has estimated the cost of the Reporter to be £1.5 million over RP5. But this is not the full cost. As indicated in Chapter 6 (RP5 Opex) of this Response, we would expect NIE to incur at least a similar level of cost in servicing the needs of the Reporter, providing analysis, responding to queries etc.

- 3.4 NIE has other concerns over the proposal to introduce a Reporter. Ofwat has recently decided to dispense with Reporters and Ofgem does not use Reporters. We do not agree there is a need for a Reporter here. Its introduction would be a further step towards a regulatory model in NI that tends towards micro-management. As noted in Chapter 5 (RP5 Capex - Structure) of this Response, 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 us little confidence that the Utility Regulator is embracing the principles of incentive-based regulation.

CHAPTER 12

WEIGHTED AVERAGE COST OF CAPITAL

SUMMARY

The allowed returns to NIE proposed by the Utility Regulator are significantly lower than the returns awarded to the GB DNOs in DPCR5. Under the Utility Regulator's "minded to" position on WACC and taking account of the inadequate provision for pensions, opex and incentives, NIE's return on equity during RP5 would be less than 2%⁶⁹. This compares with the average expected return for GB DNOs during DPCR5 of 7.7%

Further, by taking an embedded debt cost approach, and ignoring NI-specific factors that influence the borrowing costs of NI utilities, the Utility Regulator has significantly underestimated the appropriate cost of debt.

In addition, the Utility Regulator has proposed an asymmetric incentive mechanism on quality standards: if standards are met, NIE would receive no reward; if standards are breached, NIE would be penalised.

The conflation of all these elements amounts to an overall funding package which is unreasonable and unacceptable to NIE. The Utility Regulator is expecting NIE's investors to bear at least as much risk as investors in the GB DNOs, but for a considerably lower expected return.

1. INTRODUCTION

- 1.1 The Utility Regulator's proposals in respect of the weighted average cost of capital (**WACC**) are set out in Section 16 of the Draft Determination.
- 1.2 This Chapter 12 comprises NIE's response to the Utility Regulator's proposals on the WACC.

2. UTILITY REGULATOR'S PROPOSALS

- 2.1 The Utility Regulator proposes to draw a distinction between:
 - the WACC that will apply to NIE's T&D capital investment generally; and

⁶⁹ NIE's effective return would be lowered further taking into consideration the Utility Regulator's proposed underfunding in respect of capex.

- the WACC that will apply to renewables-driven capital investment falling within Fund 3 of the three-fund capex structure proposed by the Utility Regulator in Section 9 of the Draft Determination.

2.2 The Utility Regulator’s proposals in respect of the WACC are summarised in the table below. The table also shows NIE's BPQ proposals for cost of capital and the WACC awarded to GB DNOs by Ofgem at the last distribution price control review (DPCR5).

Table 12.1: WACC

	GB DNOs	NIE BPQ	UR proposals: general T&D	UR proposals: Fund 3 renewables
Gearing	65.0%	57.5%	60%	60%
Pre tax cost of debt %	3.6	3.6	3.2	3.2
Post tax cost of equity %	6.7	7.7	6.32	5.2
Vanilla WACC - % real	4.7	5.3	4.45	4.0

2.3 The Utility Regulator argues that Fund 3 renewables investment is lower risk since capex allowances will be set throughout RP5 once the full scope and timing of the work is known. This reduces NIE's exposure to systematic risk and, in the Utility Regulator's view, justifies a lower asset beta and therefore a lower cost of equity.

2.4 Other key elements of the Utility Regulator’s proposals include:

- a gearing assumption of 60%;
- a cost of debt based on NIE’s existing cost of debt adjusted for forecast inflation; and
- lower returns on equity compared to that awarded to the GB DNOs by Ofgem.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

Overview

3.1 The allowed cost of capital is a key component of the Draft Determination. It is essential that the Utility Regulator sets a cost of capital that is sufficient to allow NIE to finance its regulated activities. As set out in Chapter 2 (Regulatory Principles to Underpin RP5), if the Utility Regulator were to do otherwise, it would fail to discharge its statutory duties.

3.2 The Draft Determination proposes a headline allowed cost of capital that is significantly lower than the level presently allowed for NIE and far below the level allowed by Ofgem for the DNOs at DPCR5. The proposed cost of debt and the proposed allowed return on equity are both inadequate. When account is taken of the Utility Regulator's "minded to" position in other respects, in particular inadequate allowances for opex and pensions:

- the expected return on equity over RP5 falls below 2%; and
- as we set out in Chapter 16 (Financeability), key financeability metrics fall below the level required for NIE to maintain an investment grade credit rating, as required by its T&D licence.

Consequently, the cost of capital proposed by the Utility Regulator could not be accepted by NIE.

3.3 NIE's considered position is that the Utility Regulator should set allowed returns based on the cost of capital approach adopted by Ofgem at DPCR5, in its intent and effect. The Utility Regulator should depart from this approach only where there is compelling evidence to suggest this is necessary.

3.4 NIE has commissioned an updated assessment of the appropriate cost of capital for NIE from Frontier Economics. Their paper is attached to our response as Appendix 12A1.

3.5 Frontier Economics continues to consider that return on equity should be set at 7.7% (post-tax, real). They now support a cost of debt of 4.3% (pre-tax, real), rather than 3.6% recommended in their earlier May 2011 report. Frontier's updated opinion takes account of the clearly observable evidence of a significant difference between the yields on NI utility debt (i.e. NIE and Phoenix Natural Gas) and equivalent GB utility debt.

3.6 We set out below the key elements of our response to the Utility Regulator's proposals with respect to the cost of capital, drawing on the expert opinion of Frontier Economics.

Cost of Debt

3.7 NIE believes that the Utility Regulator's approach to calculating the cost of debt is not consistent with GB precedent. Ofgem's approach, which uses a trailing average of debt cost, is preferable to the embedded debt cost approach used by the Utility Regulator. This is because Ofgem's trailing average approach:

- provides for a smoother profile of financing cost allowances over time. This is important for companies such as NIE, which needs to raise capital for essential investments even in periods of financial turmoil; and

- puts NIE on an even footing with GB DNOs, who will be seeking debt finance over the coming years.
- 3.8 In DPCR5, Ofgem made it clear that focussing on short-term trends would be inappropriate, even during periods of extreme market turbulence. It also added a spread of about 30 bps over the 10-year trailing average to account for the risk associated with fixing the cost of debt for a 5 year period. The Utility Regulator should maintain consistency with Ofgem’s methodology.
- 3.9 Moreover, there is evidence that NIE’s debt financing costs are higher than those of the GB DNOs. This has also been acknowledged by the Utility Regulator’s advisers, First Economics. The Utility Regulator should take this into account when determining an appropriate debt allowance. The bond market evidence suggests a perceived higher NI-specific risk. Since its issuance in 2011, the redemption yield on NIE’s bond has on average been approximately 123 bps greater than the average redemption yield on comparable bonds issued by GB DNOs. This evidence supports an adjustment of at least 100 bps over the 3.3% cost of debt implied by Ofgem’s methodology.
- 3.10 Consequently the cost of debt should be set at 4.3% (pre-tax, real).

Baseline Return on Equity

- 3.11 NIE agrees with the Utility Regulator’s proposals in relation to the risk-free rate and the asset beta for transmission and distribution assets.
- 3.12 However, the Utility Regulator’s estimate of the equity risk premium (**ERP**) is unreasonably low. It ignores important sources of market evidence that suggest that a more appropriate estimate is consistent with the value determined by Ofgem at DPCR5 (i.e. 5.25%).
- 3.13 In addition, the Utility Regulator has ignored the fact that the incentive regime to which the GB DNOs are subject provides an uplift to the baseline cost of equity simply for meeting attainable efficiency targets. It is feasible for even an underperforming GB DNO to achieve the headline returns allowed at DPCR5. At DPCR5 this uplift was approximately 100 bps for the average DNO.
- 3.14 As demonstrated in Chapter 3 (RP4 Overview), NIE is not an underperforming DNO. Indeed, NIE is a leading-performer among UK DNOs in terms of both opex and capex. If NIE were subject to GB regulation, it would receive an uplift that is greater than that received by an average-performer. A reasonable approach to the return on equity requires that NIE should receive at least the average RORE (return on regulated equity) uplift. However, the Utility Regulator’s proposals make no allowance for any uplift to NIE’s return for an efficient performance.

- 3.15 As noted above, there is compelling evidence that NIE's debt financing costs are higher than those of GB DNOs. The relevant academic literature supports the conclusion that this premium should also be reflected in expected returns to equity, net of any amount that arises as a consequence of illiquidity. On the basis of Frontier's analysis of the available evidence, a further uplift to equity returns of 62 bps to 106 bps is therefore justified.
- 3.16 As a consequence of the RORE and NI-specific uplifts identified above, Frontier conclude that reasonable equity returns for an investor in NI utility companies could be as high as 8.7%. NIE's request for equity returns to be set at 7.7% (real, post-tax) is therefore justified and reasonable, if not conservative.
- 3.17 Finally, NIE disagrees with the Utility Regulator's assessment that renewables-driven investment is less risky than existing transmission and distribution assets. If anything, renewables-driven investments are riskier than investments in the existing network. The Utility Regulator should follow GB precedent on the financing of renewables-driven investments and remunerate these investments at the same rate of return as transmission and distribution assets. The proposed reduction in asset beta, and consequent reduction in returns allowed to Fund 3 investments, is arbitrary and unjustified.

Effective Return on Equity

- 3.18 For the reasons set out above, NIE does not accept that the baseline cost of equity proposed by the Utility Regulator is reasonable. The proposed low levels of return are reduced further by the Utility Regulator's other "minded to" positions. When NIE takes account of the inadequate allowances proposed for opex and pensions, NIE's expected equity returns fall below 2%. NIE's effective return would be lowered further taking into consideration the Utility Regulator's proposed underfunding in respect of capex. This illustrates the extent to which the net effect of the Utility Regulator's proposals is to provide NIE with a level of funding that is insufficient to finance its activities. Such a level of equity return is wholly unacceptable to NIE and its investors.
- 3.19 As set out in Chapter 16, this conclusion is reinforced by our analysis of key financeability metrics.

Gearing

- 3.20 In its proposals for WACC, the Utility Regulator's has assumed a 60% gearing level. This assumption is reasonable and lower than the assumption applied to GB DNOs in DPCR5.
- 3.21 However, at paragraph 16.38 of the Draft Determination, the Utility Regulator states that it expects NIE "*to remain below a 60% gearing level*" (emphasis added).

It is in principle wrong for the Utility Regulator to set the WACC by reference to an assumed level of gearing that NIE is not permitted to achieve.

Overall WACC

3.22 In summary, Frontier Economics has estimated the key components of the cost of capital as follows:

- required return on equity – 7.7% (real, post-tax); and
- cost of debt – 4.3% (real, pre-tax)

3.23 Combining these estimates with the 60% level of gearing proposed by the Utility Regulator results in a WACC of 5.7% (vanilla, real).

CHAPTER 13

RAB & DEPRECIATION

1. INTRODUCTION

- 1.1 The Utility Regulator's proposals in respect of NIE's regulated asset base (**RAB**) and its associated depreciation policy are set out in Section 17 of the Draft Determination. This Chapter 13 comprises NIE's response to those proposals.

2. UTILITY REGULATOR'S PROPOSALS

- 2.1 The Utility Regulator's proposals with respect to the RAB and depreciation policy include:
- The formal separation of the transmission and distribution RABs;
 - No changes in RAB depreciation periods except for the acceleration of depreciation in respect of legacy IT systems associated with market opening;
 - A proposal to treat network IT and telecoms investments (except SCADA) as opex (currently treated as capex); and
 - An adjustment to NIE's RAB in respect of the £0.7 million proceeds received from the sale of redundant equipment (mainly transformers and switchboards) during RP4.

3. NIE'S RESPONSE TO THE UTILITY REGULATOR'S PROPOSALS

- 3.1 NIE is content with the Utility Regulator's proposals in respect of:
- the separation of the transmission and distribution RABs;
 - the acceleration of depreciation in respect of legacy IT systems; and
 - the proposal to treat network IT and telecoms investments (except SCADA) as opex.
- 3.2 NIE does not however agree with the proposed adjustment in respect of proceeds received from the sale of redundant equipment. The adjustment would be contrary to the December 2006 Direction from the Utility Regulator which treated the proceeds from such sales as a deduction from the RP4 rolling opex allowance.

The proceeds were included in the excluded service income line in Appendix 1 to the Direction. It would therefore be a double count if the proceeds were deducted from the RAB as well as being deducted from the RP4 opex allowance.

- 3.3 NIE would have no objections if the Utility Regulator were to treat the proceeds from these sales differently in RP5.

CHAPTER 14

ALLOWED REVENUE

1. INTRODUCTION

1.1 In Section 19 of the Draft Determination, the Utility Regulator sets out its calculation of the revenue NIE would be entitled to receive in RP5 based on:

- NIE's BPQ submission; and
- the Utility Regulator's proposals as set out in the Draft Determination.

1.2 In this Chapter 14 we set out our calculation of the revenue NIE would be entitled to receive in RP5 on the basis of its revised and updated proposals as follows:

- Actual capital expenditure up to March 2012 and forecast capital expenditure for the 6 month RP4 extension period;
- RP5 capex of £811.6m comprising the amounts set out in table 14.1 below:

Table 14.1 RP5 Capex

	£m
Network Programmes	544.4
Connections	37.4
Meter Recertification	16.9
11kV Network Resilience	127.0
RPEs	58.1
Non Network	17.8
Keypads	<u>10.0</u>
Total	811.6

- the existing RAB depreciation profile;
- controllable and uncontrollable operating costs as detailed in Chapter 6 (RP5 Opex);
- pass through of RP5 pension costs and recovery of RP4 under-recovery; and
- a vanilla WACC of 5.7%.

2. ALLOWED REVENUE

2.1 Table 14.2 below compares the revenue that NIE would be entitled to receive based on the Utility Regulator's proposals as set out in the Draft Determination and NIE's proposals as described in paragraph 1.2 above.

Table 14.2: Allowed Revenue (excluding renewables and interconnection)

	UR's Draft Determination	NIE Proposals	Difference
	£m	£m	£m
Return on RABs	234.7	349.3	114.6
RAB Depreciation	313.4	312.6	(0.8)
Tax Entitlement	38.2	32.1	(6.1)
Controllable Opex	168.2	224.0*	55.8
Uncontrollable Opex	88.8	95.3	6.5
Pension costs (on-going and deficit repair)	22.0	99.6	77.6
Non Network Capex	11.4	17.8	6.4
Known Dt Costs	<u>4.9</u>	<u>3.4</u>	<u>(1.5)</u>
Total	881.6	1,134.1	252.5

* This aligns with the figure contained in Table 6.3 of Chapter 6 (RP5 Opex) of £237.1 million excluding renewable baseline operating costs of £12.6 million and P&L non core pension costs of £0.5 million.

CHAPTER 15

IMPACT ON TARIFFS

1. INTRODUCTION

1.1 In Section 20 of the Draft Determination, the Utility Regulator sets out its analysis of the impact that its RP5 price control proposals would have on the prices paid by customers. It also analyses the impact of NIE's BPQ submission proposals on customer prices.

1.2 In this Chapter 15:

- we identify, and correct for, errors in the Utility Regulator's analysis of the impact of its own proposals; and
- we set out the impact of NIE's proposals on network charges and customers' bills.

2. IMPACT OF THE UTILITY REGULATOR'S PROPOSALS ON NETWORK CHARGES

2.1 Table 15.1 below shows the impact of the Utility Regulator's proposals on network charges for the main customer groups (excluding renewables and interconnection).

Table 15.1: Impact of Utility Regulator's proposals on network charges (excluding renewables and interconnection)* - annual cost for average use

Customer Type	Current Average Cost	12/13	13/14	14/15	15/16	16/17	Total saving over 5 years
	£	£	£	£	£	£	£
Domestic (Excl E7)	120	122	119	113	107	107	(31)
Domestic (Incl E7)	126	128	125	118	112	112	(33)
Small Business (<70kVA)	524	535	522	493	469	468	(135)
Half hourly Metered MV	7,260	7,422	7,239	6,830	6,487	6,479	(1,843)
Half hourly Metered HV	37,442	37,589	36,785	34,985	33,476	33,605	(10,769)
Half hourly Metered EHV	121,023	117,669	115,845	111,762	108,339	109,675	(41,826)

* The Utility Regulator's methodology for calculating the impact on tariffs ignores customer and demand growth.

2.2 The figures in Table 15.1 are different from the figures presented in Table 20.2 of the Draft Determination which overstated the savings to customers. There were errors in the Utility Regulator's calculation which we have corrected in relation to:

- presenting the figures on a consistent price base (the Utility Regulator's current average cost reflected the current cost whereas the Utility Regulator's forecasts were in 2009/10 prices); and
- the apportionment of costs across the customer groups.

2.3 The domestic customer group in the Draft Determination includes customers on Economy 7 tariffs. We have added an additional domestic customer category excluding Economy 7 customers.

3. IMPACT OF NIE'S PROPOSALS ON NETWORK CHARGES

3.1 Table 15.2 below shows the impact of NIE's proposals (excluding renewables and interconnection) on network charges on a p/kWh basis for the main customer groups.

Table 15.2: Impact of NIE's proposals on network charges (excluding renewables and interconnection) - p/kWh*

Customer Type	Current Average	12/13	13/14	14/15	15/16	16/17	Average annual increase
	p/kWh	p/kWh	p/kWh	p/kWh	p/kWh	p/kWh	%
Domestic (Excl E7)	2.965	3.393	3.355	3.444	3.563	3.631	4.1%
Domestic (Incl E7)	2.994	3.425	3.387	3.477	3.597	3.666	4.1%
Small Business (<70kVA)	2.412	2.761	2.730	2.802	2.899	2.954	4.1%
Half hourly Metered MV	2.157	2.473	2.445	2.509	2.596	2.644	4.1%
Half hourly Metered HV	0.890	1.006	0.998	1.025	1.060	1.085	4.0%
Half hourly Metered EHV	0.439	0.484	0.483	0.497	0.514	0.530	3.8%

* Assumes annual unit growth of 1.35% per annum equivalent to the annual average increase in demand since privatisation.

3.2 NIE's proposals (excluding renewables integration and interconnection) would result in an increase in network charges (p/kWh) of approximately 4% per annum

over RP5. This level of increase compares favourably 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 15.3 below.

Table 15.3: 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

3.3 Table 15.4 below shows the impact of NIE's proposals (excluding renewables and interconnection) on the average network charge (£ per annum) for the main customer groups. The average annual increases shown in Table 15.4 include growth in unit consumption.

Table 15.4: Impact of NIE’s proposals on network charges (excluding renewables and interconnection) - annual cost for average use*

Customer Type	Current Average	12/13	13/14	14/15	15/16	16/17	Average annual increase	
	£	£	£	£	£	£	£	%
Domestic (Excl E7)	120	138	137	142	148	151	6	4.7%
Domestic (Incl E7)	126	145	144	149	155	159	7	4.8%
Small Business (<70kVA)	524	604	601	621	646	663	28	4.8%
Half hourly Metered MV	7,260	8,375	8,331	8,604	8,958	9,182	384	4.8%
Half hourly Metered HV	37,442	42,605	42,513	43,943	45,743	47,104	1,932	4.7%
Half hourly Metered EHV	121,023	134,437	134,918	139,643	145,327	150,866	5,969	4.5%

* Assumes customer growth of 0.7% per annum

4. IMPACT OF NIE’S PROPOSALS ON CUSTOMERS’ BILLS

- 4.1 NIE’s network charges comprise approximately 20%⁷⁰ of the retail electricity tariff. As noted in paragraph 3.2 above, NIE’s core capital expenditure proposals would result in an increase in network charges (p/kWh) of approximately 4% per annum. This increase in network charges would entail annual price increases of approximately 0.8% in overall electricity bills for customers.
- 4.2 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 2% to the overall electricity bill by the end of RP5 (assuming £200 million of expenditure).
- 4.3 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. For example, the new interconnector will bring estimated savings in all-island wholesale energy costs of between £18 million and £25 million per annum. NIE agrees with the Utility Regulator’s proposal that these investments should be subject to specific regulatory approval.

⁷⁰ The Utility Regulator has acknowledged that the 24% figure referred to in its Draft Determination briefing document dated 19 April 2012 was incorrect.

CHAPTER 16

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 required by its licence to maintain an investment grade credit rating.

The Utility Regulator's assessment of NIE's financeability was conducted only by reference to a 'base case' and focuses only on the financial metrics relevant to NIE's credit rating. It concluded that NIE can finance its base case activities without the need for new debt or equity, or the need to retain dividends.

NIE rejects this assessment of its financeability which fails to take account of its wider financial obligations and ignores the adverse impact on NIE's credit rating of regulatory risk. An approach that focuses solely on financial metrics and a base case that reflects part only of NIE's business does not accord with the methodologies adopted by credit rating agencies. By failing to assess the full impact of the Draft Determination on NIE's credit rating, the Utility Regulator has failed accurately to assess NIE's ability to finance its activities.

NIE's access to, and reputation in, the bond markets is dependent on demonstrating a strong rating consistent with other UK network utilities. NIE and its financial advisors Rothschild have evaluated how the proposals in the Draft Determination would impact on NIE's ability to finance its activities if they formed the basis of the RP5 price control. Our conclusion is that the proposals would, if brought into effect:

- add to regulatory risk as perceived by ratings agencies and investors;
- result in values for the key cash coverage ratio Post Maintenance Interest Cover Ratio (PMICR) of approximately 0.8 to 1.0 throughout RP5, when calculated in the manner adopted by rating agencies. This is sub investment grade and is significantly below the target of 1.5 required for a BBB+ rating. Fitch stated after an initial review of the Draft Determination that "*The reduced PMICR in isolation indicates the lower end of investment-grade or even speculative grade ratings*";
- ultimately prevent NIE from accessing the public bond market and financing its activities efficiently; and
- create difficulties in attracting additional equity investment due to the unreasonable returns to the investor, which at 2% are significantly lower than comparable equity returns earned by GB DNOs.

Accordingly, the Utility Regulator's proposals require substantial amendment if NIE is to maintain a BBB+ credit rating, access the bond and bank markets and efficiently finance its activities.

1. INTRODUCTION

1.1 The Utility Regulator's views on financeability are set out in Section 18 of the Draft Determination.

1.2 This Chapter 16 comprises NIE's response to the Utility Regulator's assessment of financeability. This response is focussed on the consequences for NIE if the Utility Regulator's proposals in the Draft Determination were to form the basis of the RP5 price control. The effect that publication of the Draft Determination had on NIE's credit rating is informative as to those consequences.

1.3 This chapter is structured as follows:

- Section 2 outlines the Utility Regulator's views on financeability as set out in the Draft Determination.
- Section 3 describes the challenges for NIE in the financial markets.
- Section 4 describes the impact on NIE's credit rating and funding ability if the Draft Determination proposals were implemented.
- Section 5 is concerned with the impact on equity returns if the Draft Determination proposals were implemented

2. THE UTILITY REGULATOR'S VIEW ON FINANCEABILITY

2.1 The Utility Regulator commences its assessment of NIE's financeability by noting its statutory duty to have regard to the need to secure that NIE is able to finance its regulated activities⁷¹. It further 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; and

⁷¹ 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.

- good regulatory practice in making a financeability assessment is to refer to the methodologies used by credit rating agencies.

2.2 It notes that NIE faces a number of challenges, including:

- 'challenging but fair' efficiency targets; and
- the fact that NIE may need to fund a deficit in its pension scheme at a faster rate than assumed in the regulatory allowance for RP5. In addition it will be required to fund the avoidable pension deficit.

2.3 The Draft Determination notes that the interest rate for NIE's recent £400 million bond issue was higher than that required for other GB DNOs over the same period.

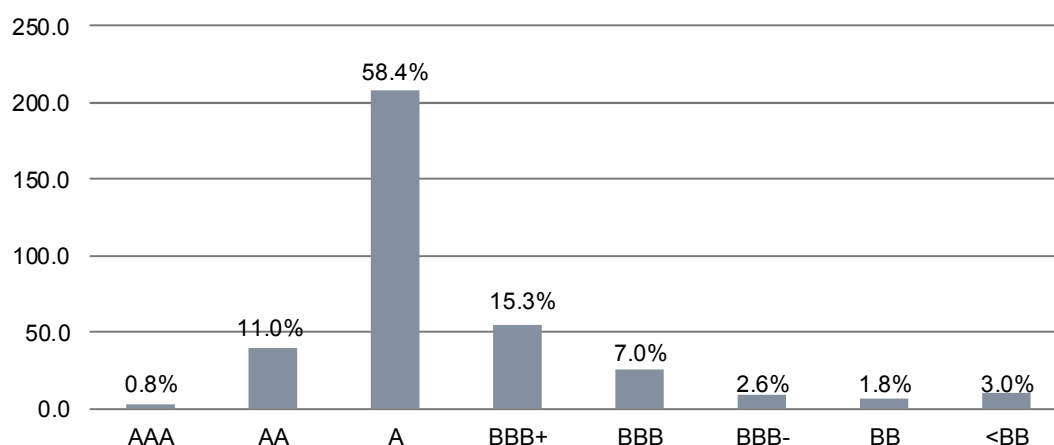
2.4 The Utility Regulator's assessment of NIE's financeability is made by reference to a 'base case' which is defined as the revenue proposed for RP5 excluding renewables capex (which is considered separately). It notes that the financial ratio Post Maintenance Interest Cover Ratio (**PMICR**) has been identified by Fitch as relevant to the rating of NIE. The Utility Regulator has calculated the PMICR for the base case as above 1.4 for "most" of the RP5 period. That is above the level at which Fitch has indicated that NIE's ratings would come under pressure. On this basis, the Utility Regulator concludes that NIE can finance its base case activities without the need for new debt or equity, or the need to retain dividends.

2.5 With regard to funding for capex to support renewables generation, the Utility Regulator acknowledges that this will be at a level for which new capital will almost certainly need to be provided. It expects to engage with NIE and will also discuss with the rating agencies regarding the impact this body of work will have on NIE's financial position.

3. CHALLENGES FOR NIE IN THE FINANCIAL MARKETS

3.1 The UK and European debt markets have been in crisis since 2008. Since 2005 over 70% of the bond market issuance from utility companies has been rated A or above, 86% has been rated BBB+ or above with only 7.4% of the market open to issuers with a BBB-. This is illustrated by Chart 16.1 below.

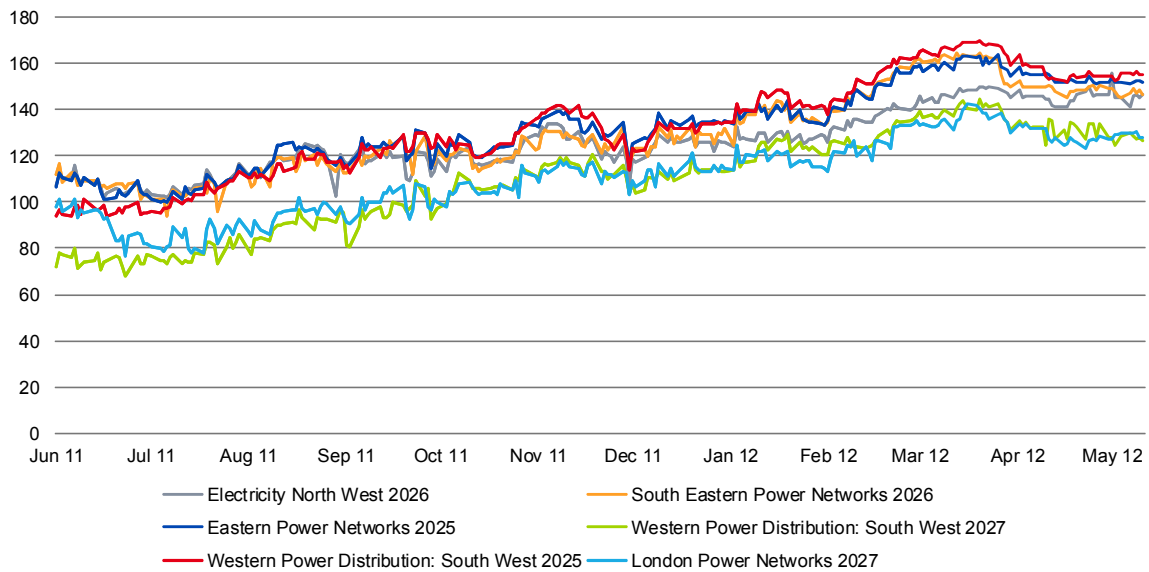
Chart 16.1: Utility bond ratings mix (volume of issuance €bn last 7 years)



Source Dealogic

- 3.2 In the current debt market environment, NIE will have to rely on selling its credit story to banks and bond investors in the UK and Continental Europe where the demand is highly dependent on ratings and the company's perceived business and regulatory risk relative to comparable companies. Further, NIE has to compete in the debt markets with 14 strongly rated GB DNOs. In order to compete for efficient funding in an increasingly competitive market, NIE must retain a strong investment credit rating at BBB+ or above.
- 3.3 This commercial imperative is reinforced by the obligation in Condition 9A of NIE's licence which requires NIE to maintain an investment grade credit rating. In its recent (August 2010) report on Bristol Water's price control, the Competition Commission accepted that it could not reach a price control determination that would cause the regulated company to breach such a licence condition.
- 3.4 We believe the Utility Regulator should take into account these considerations when determining an appropriate debt allowance.
- 3.5 There is clear evidence that NIE's debt financing costs are higher than those of the GB DNOs. This has also been acknowledged by the Utility Regulator's advisers, First Economics. The bond market evidence suggests a perceived higher NI-specific risk. Over the past year NIE's 2026 bond has traded at a spread to benchmark on average 123bps over bonds of selected UK peers that have debt of comparable maturity. This is illustrated by Chart 16.2 below.

Chart 16.2: Spread premium of NIE bond versus selected UK peers (bps)



Source Bloomberg

3.6 Given that NIE debt is already trading at a 123bp premium with NIE operating at BBB+ credit rating, there is a very real risk that a lowering of the rating would further increase this premium and correspondingly the cost of debt (and equity) for NIE.

3.7 NIE therefore faces significant challenges when competing for funds with the 14 GB DNOs and other regulated network companies. In order to enable NIE to access the bond markets and finance its business it must retain an investment rating of BBB+ or above. It is essential that the Utility Regulator fully assesses the impact of the price determination on the credit rating of NIE to avoid increased financing costs arising for the company.

4. IMPACT OF PROPOSALS ON NIE'S CREDIT RATING AND FUNDING ABILITY

4.1 NIE is currently rated BBB+ by Fitch. However, following the publication of the Draft Determination, Fitch have put NIE on negative outlook indicating that the stand alone rating is likely to be downgraded stating:

"Fitch views the financing assumptions set out by [Utility Regulator] as challenging when considered jointly with the actual funding costs of NIE ...combined with the somewhat reduced predictability of the regulatory environment, NIE's standalone credit profile may no longer be commensurate with a 'BBB+' IDR."

and that the Draft Determination:

“... provides for more challenging financial assumptions than Fitch Ratings would typically expect for a UK regulator. Together with the need for sizeable investment for renewables integration, the proposals raise concerns that the financial profile of the licence holder, Northern Electricity Limited (NIE, ‘BBB+/Negative), could deteriorate over the next five years...the reduced PMICR in isolation indicates the lower end of investment-grade or even speculative grade ratings”

4.2 The report also states that:

“Fitch is not convinced that the Draft Determination actually provides for adequate capital market access for a business in a growth phase. It appears that [Utility Regulator] may interpret its financing duty materially different to other UK regulators.”

4.3 A credit rating below BBB+ 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 and bond markets and jeopardise its ability to raise funds to finance its activities.

4.4 The analysis by Rothschild indicates that the Draft Determination would, if it formed the basis of the RP5 price control, result in a financial profile that puts NIE at very weak investment grade rating (BBB-) and potentially a speculative grade rating (BB).

4.5 The adverse impact of the proposals contained in the Draft Determination on NIE’s credit rating arises from the increased regulatory risk and the serious deterioration in financial metrics of the company as summarised below.

Regulatory Risk

4.6 While the Utility Regulator acknowledges that credit rating agency methodologies consider factors which are not directly quantifiable, including the quality of the regulatory environment, its financeability assessment is focused solely on financial metrics. Under Moody’s rating methodology, non financial factors including 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.

4.7 Investors expect regulatory frameworks to be relatively stable and predictable. Fitch’s rating methodology as outlined in "Rating EMEA Regulated Network Utilities-July 2010" indicates:

"Regulation is the main credit risk factor for a network utility”

and

"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, application of unrealistic assumptions and efficiency standards, and windfall taxes, are all considered elements detrimental to the transparency and predictability of the regulatory framework."

4.8 Moody's Rating Methodology of August 2009 agrees by stating:

"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."

4.9 In its report dated 20 May 2011 Fitch stated that it views:

"the regulatory environment in Northern Ireland is less mature and transparent than that of Britain. There is also a somewhat higher risk of onerous decisions, due to the lack of direct peers for benchmarking."

4.10 The rating agencies are concerned that the Utility Regulator is unpredictable and that the Draft Determination exhibits anomalous and worrying elements including:

- an intention to look back as far as RP2 with a view to disallowing pensions costs which NIE is obliged to meet under a deficit repair plan agreed with its pension fund trustee;
- an intention to re-open elements of the RP4 price control, with the possibility that it will disallow NIE's entitlement to recover a return on amounts added to its RAB during RP4;
- the introduction of a set of arrangements for capex that involve either a high level of *ex post* scrutiny of any departure from a detailed database of specified investments or the risk of significant delay in the event regulatory sign off is required *ex ante*; and
- a failure to follow Ofgem precedent without good reason, despite the superior methodology adopted by the GB regulator.

4.11 This suggests a lack of predictability and stability in the regulatory framework in NI compared with the more established and tested framework within which the 14 GB

DNOs operate. This puts NIE at a significant disadvantage in competing with the DNOs or other regulated utilities in attracting debt investors.

- 4.12 The financeability assessment undertaken by the Utility Regulator focused solely on financial metrics. As evidenced in the published credit rating methodologies, a stable Regulatory framework is significant in determining credit ratings. Stability cannot be assumed in the NI regulatory market given the views expressed by the rating agencies in addition to the issues listed in 4.10 above. NIE considers the Utility Regulator's financeability assessment to be incomplete and as a consequence does not have confidence in the financeability assessment undertaken.

Financial Metrics

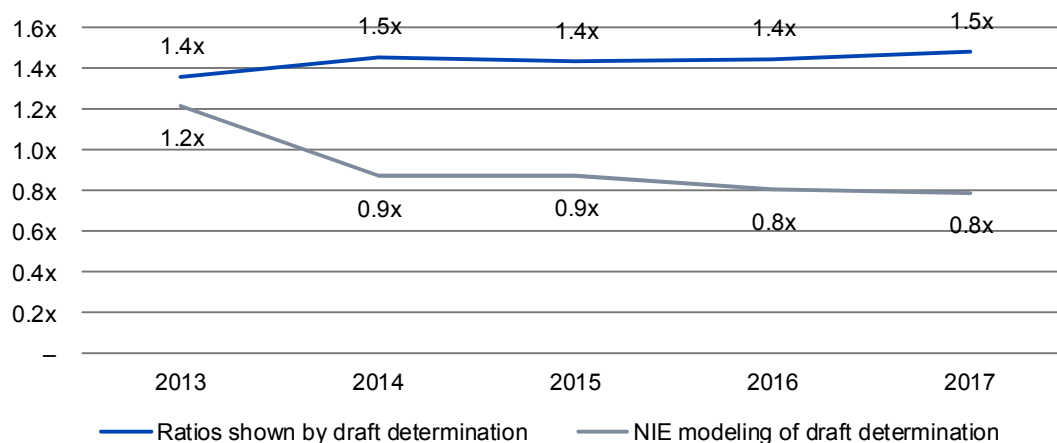
- 4.13 Fitch indicates that PMICR is one of the key financial ratios for the evaluation of credit ratings of network utilities. The Utility Regulator, in its Draft Determination, indicates that a PMICR of 1.5 would be more desirable and forecasts PMICR to be between 1.4 to 1.5 during the period from 2012-2017.

- 4.14 We believe that the Utility Regulator's assessment of RP5 on NIE's credit metrics is fundamentally flawed and its calculation of NIE's PMICR over the regulatory period is materially overstated due to the following factors:

- Pension costs: In calculating key financial metrics, particularly PMICR, the Utility Regulator has not fully considered the pension repair payments that NIE is obliged to make as contained in the deficit repair plan agreed between the company and the pension trustees. Rating agencies deduct full pension costs which NIE is legally obliged to pay because these are actual costs for the NIE group, regardless of whether they are allowed for in RP5.
- Excluded capital expenditure: The Utility Regulator has excluded the funding requirements associated with Renewables Integration and Interconnection from the base case notwithstanding that the Draft Determination indicates funding of over £300 million may be required during RP5. While it is accepted that the quantum and timing of renewables capex is difficult to determine, the financial implications of the investments are material and have to be considered in assessing NIE's ability to efficiently finance its activities.
- Start date for RP5: The base case incorrectly assumes that RP5 commenced on 1 April 2012, effectively ignoring the RP4 extension period. As a consequence, capital investments and funding implications for the RP4 extension period to 30 Sept 2012 have been ignored and as a result the RAB and related revenue entitlement for RP5 are inaccurate.

4.15 PMICR calculated in accordance with the rating agency methodology results in a forecast PMICR below 1.0 as illustrated by Chart 16.3 below.

Chart 16.3: PMICR ratios



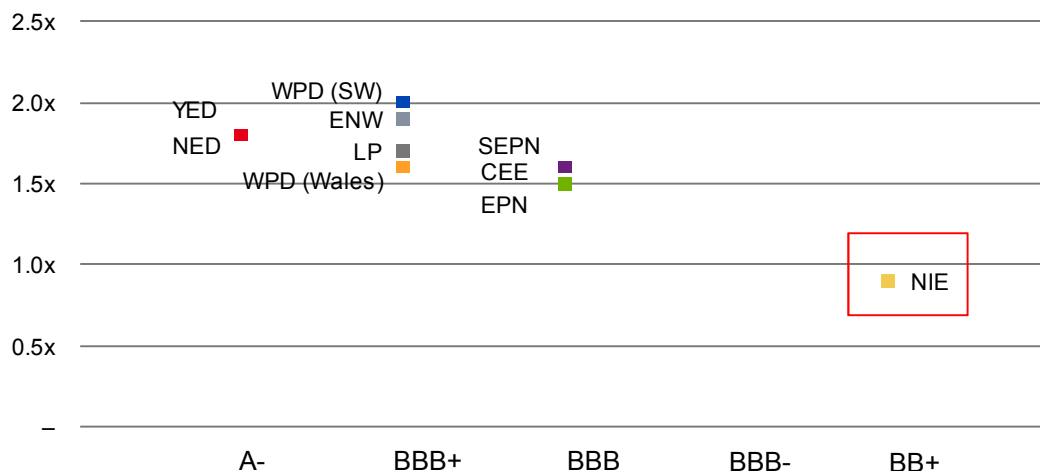
4.16 The following assumptions underpin NIE's modelling of the Draft Determination:

- Regulated entitlement in line with the Utility Regulator's Draft Determination and the RP4 extension period, other than entitlement for uncontrollable costs which are assumed to be fully recoverable;
- Operating costs in line with NIE's projections;
- Core capital expenditure in line with the Utility Regulator's Draft Determination;
- Non-core capital expenditure of £180 million for Renewables and North South Interconnector;
- Dividends reflect full entitlement (i.e. $RAB \times \text{Cost of Equity} \times RAB \text{ Value}$ financed by Equity).

4.17 Even in circumstances where the efficiency targets in relation to NIE's operating costs required by the Utility Regulator are included in the financeability assessment, PMICR would remain at an unacceptably low level of 0.8 to 1.0.

4.18 As indicated by Fitch's guidelines, a PMICR of 1.0 or below is not commensurate with an investment grade rating and is significantly weaker than NIE's rated peers who have PMICR of between 1.5 to 2.0 as shown in Chart 16.4 below.

Chart 16.4: PMICR ratio and rating for selected rated peers⁷²



Source: Fitch

4.19 Any adverse implications that could arise from the Utility Regulator’s investigation into NIE’s capitalisation practices would cause further deterioration in PMICR.

5. EQUITY RETURN

5.1 Under the Utility Regulator’s proposals for RP5, NIE’s return on equity would be less than 2%. This is due to the Utility Regulator proposing a lower baseline return on equity and lower allowances in respect of operating costs and pensions.

5.2 ESB, as an equity investor, is willing to support investment in NIE but this investment needs to be fairly remunerated. The Utility Regulator fails to recognise that ESB, like any other investor, has free choice over where it invests its funds. If there are other investment opportunities that offer a comparable level of risk, but a higher expected rate of return, the case for ESB continuing to invest in NIE becomes extremely challenging.

⁷² We have shown the ratings for 8 of the 14 UK DNOs and their holding companies. These DNOs are rated by Fitch and financed on a standalone basis so deemed to be most comparable to NIE. Of the other DNOs, North Scotland and Southern England and owned by SSE and are financed centrally by SSE. Scottish Power, which owns South Scotland and North Wales, Merseyside and Cheshire is owned by Iberdrola and although Scottish Power is rated by Fitch the rating is linked to the parent and the individual DNOs are not rated. WPD East Midlands and West Midlands are not rated by Fitch.

6. CONCLUSION

6.1 In conclusion:

- The current UK/European financing environment is extremely volatile and NIE is competing for funds with general corporates that are 'A' rated entities. It must therefore be rated at least at BBB+ in order to compete.
- The financeability assessment undertaken by Utility Regulator is flawed and fails to consider the impact of regulatory risk on NIE's credit rating which ultimately determines the cost of debt for NIE.
- The significant deterioration of key financial metrics in particular the sub investment grade PMICR, coupled with the increased regulatory risk has put downward pressure on NIE's credit rating as reflected in the decision by Fitch to put NIE's secured credit rating on negative watch.
- The draft determination significantly reduces the attractiveness of NIE as an investment opportunity for both bond and equity investors.
- The increased regulatory and financial risk will seriously prejudice NIE's ability to raise the necessary funds over RP5.
- The longer term interests of NIE's customers are not served by the proposals which, as the Utility Regulator correctly recognises, "*depends on maintaining the confidence of investors which will enable the company to finance its investments efficiently*".
- The allowed revenues proposed by the Utility Regulator would not allow NIE to be able to finance its activities efficiently.

6.2 Accordingly, the Utility Regulator's proposals require substantial amendment if NIE is to maintain a BBB+ credit rating, access the bond and bank markets and efficiently finance its activities.

6.3 An assessment by Rothschild's of the financeability and credit rating implications for NIE of the Draft Determination is included in Appendix 16A1.

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
BAU	Business as usual
BPQ	Business Plan, Investment and Efficiency Questionnaire
BW Report	Competition Commission report on Bristol Water's price control dated August 2010
Capex	Capital Expenditure
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
CPI	Consumer Price Index
CPM	Capital Pensions Management
CSV	Composite Scale Variable
DETI	Department of Enterprise, Trade and Investment
Distribution	33kV and below. The electric lines 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
Dt	An allowance for transmission and distribution costs as detailed in Annex 2 of NIE's licence
ENA	Electricity Networks Association
ERP	Equity risk premium
ES	Enduring Solution – an IT-based project directed at facilitating the

	competitive supply market and customer switching
ESB	Electricity Supply Board
ESQCR	Electricity Safety Quality and Continuity Regulations
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 distribution network operators
GSS	Guaranteed Standards Scheme
HMRC	HM Revenue & Customs
HV	High Voltage
ICT	Information and communication technology
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	Projects relating to interconnection with RoI networks
ISU	A module of the SAP accounting system used by NIE T&D
IT	Information Technology
Keypad	Pre pay/pay as you go meter
KPI	Key performance indicator
kV	kilovolt
LV	Low Voltage
MEAV	Modern Equivalent Asset Value
MMC	Monopolies and Mergers Commission – the predecessor to the Competition Commission
Moody	Credit-rating agency
MTP	Medium Term Plan
MVA	Is a unit of measure of apparent power.
MW	Megawatt
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	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 providing consultancy support to NIE
PES	Powerteam Electrical Services 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
Response	NIE's response to the Draft Determination; the document to which this Glossary forms a part
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)
RoI	Republic of Ireland
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
RP5	Regulatory Period 5 in effect from 1 October 2012 – 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	Accounting system used by NIE T&D
SCADA	Supervisory control and data acquisition

SEM	Single Electricity Market
SKM	Sinclair Knight Merz provided consultancy support for the Utility Regulator
SONI	System Operator for Northern Ireland and the 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
TSO	Transmission System Operator
Utility Regulator	Northern Ireland Authority for Utility Regulation
WACC	Weighted Average Cost of Capital
Wayleaves	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.
Wipro	An IT provider contracted to NIE to provide Systems Integrator services for the Enduring Solution project