

**Northern Ireland Electricity
Networks Ltd
Transmission & Distribution 6th
Price Control (RP6)**

**Final Overall Approach
December 2015**



About the Utility Regulator

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

We are not a policy-making department of government, but we make sure that the energy and water utility industries in Northern Ireland are regulated and developed within ministerial policy as set out in our statutory duties.

We are governed by a Board of Directors and are accountable to the Northern Ireland Assembly through financial and annual reporting obligations.

We are based at Queens House in the centre of Belfast. The Chief Executive leads a management team of directors representing each of the key functional areas in the organisation: Networks; Markets and Corporate Affairs; regulating across electricity, gas and water enterprises. The staff team includes economists, engineers, accountants, utility specialists, legal advisors and administration professionals.

Abstract

Our Mission

Value and sustainability in energy and water.

Our Vision

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

Our Values

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

Be a united team.

Be collaborative and co-operative.

Be professional.

Listen and explain.

Make a difference.

Act with integrity.

The purpose of this document is to inform stakeholders on the high level approach which we expect to take in relation to the next price control for Northern Ireland Electricity Networks Ltd (NIE Networks), having taken into account consultation responses. This price control is due to be effective from 1 October 2017.

Audience

Industry, consumers & statutory bodies.

Consumer Impact

NIE Networks has a pivotal role in terms of 'keeping the lights on'. Both the effectiveness and efficiency of NIE Networks are key to industry and consumers. The RP6 price control aims to set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need.

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

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ACRONYMS AND GLOSSARY

Capex	Capital expenditure
CAPM	Capital Asset Pricing Model. A model that describes the relationship between risk and expected return.
CCNI	Consumer Council for Northern Ireland
ceteris paribus	Other factors remaining constant
CMA	<p>Competition and Markets Authority</p> <p>The Competition and Markets Authority (CMA) is a non-ministerial government department in the United Kingdom, responsible for strengthening business competition and preventing and reducing anti-competitive activities. The CMA began operating fully on 1 April 2014, when it assumed many of the functions of the previously existing Competition Commission and Office of Fair Trading, which were abolished.</p>
CC	<p>Competition Commission</p> <p>The statutory body to deal with rejections of price controls and makes a new determination and decision after listening to the evidence from all related parties.</p> <p>(From 1 April 2014, this organisation has changed its name to the Competition and Market Authority (CMA).)</p>
DETI	<p>Department of Enterprise, Trade and Investment.</p> <p>The Northern Ireland government department with responsibility for economic development policy in the areas of enterprise, social economy, innovation, energy, telecoms, tourism and for ensuring there is a modern regulatory framework in Northern Ireland.</p>
DNO	Distribution Network Operator
e.g.	For example
ESQCR	Electricity Safety, Quality and Continuity Regulations (Northern Ireland) 2012
EU	European Union
etc.	Et cetera (and so forth)

FOIA	Freedom of Information Act
GB	Great Britain
GD14	This is the name given to the price control for PNGL and firmus. It covers the period 2014 – 2016 (calendar years).
GD17	This is the name given to the next price control for the NI Gas Distribution Networks. It is proposed to cover the period 2017 – 2022 (calendar years).
i.e.	that is
NI	Northern Ireland
NIE Networks	Northern Ireland Electricity Networks Ltd or NIE Networks from 21 st September 2015, formerly known as NIE Ltd or NIE
NIRO	Northern Ireland Renewables Order. The main support mechanism for encouraging increased renewable electricity generation in Northern Ireland.
Ofgem	Office of Gas and Electricity Markets. Regulates the electricity and gas markets in Great Britain
Opex	Operating expenditure
PC10	This is the name given to the price control for NI Water covering the period 2010-11 to 2012-13 (financial years).
PC13	This is the name given to the price control for NI Water covering the period 2013-14 to 2014-15 (financial years).
PC15	This is the name given to the price control for NI Water covering the period 2015-16 to 2020-21 (financial years).
RAB	Regulatory Asset Base
RIGS	Regulatory Instructions and Guidance
ED1	This is the first electricity distribution price control by Ofgem under the new RIIO (Revenue = Incentives + Innovation + Outputs) model. The price control is set for an eight-year period from 1 April 2015 to 31 March 2023.
RP5	This is the name given to the price control for NIE / NIE Networks, covering the period from 1 April 2012 to 30 September 2017.
RP6	This is the name given to the price control for NIE Networks, covering the period from 1 October 2017 (duration yet to be decided).
RPI	Retail Price Index
SEF	Strategic Energy Framework. Produced by DETI to outline the direction

	for energy policy in Northern Ireland.
Totex	Total expenditure, i.e. the sum of capex and opex.
WACC	weighted average cost of capital Also referred to as the 'rate of return'

1 Introduction

Purpose of the document

- 1.1 On 23 September 2015 we published a consultation document¹ on the overall approach to the next price control for Northern Ireland Electricity Networks Ltd (NIE Networks)². This sixth price control is referred to as RP6.
- 1.2 The purpose of this document is to give an update on the initial views we set out in the September consultation.
- 1.3 In this document we also set out the main areas of comment from the consultation responses. We have made some adjustments in response to consultation feedback. In particular we have included additional detail or confirmed and restated our original approach. Overall we do not consider these changes as materially altering our approach.
- 1.4 This document sets out our update on the high level approach to RP6 as follows:
 - Section 1 recaps on the background to RP6, our role and the roles of the other principal stakeholders
 - Section 2 provides context, covering: economic regulation of networks; overview of the price control process; and current energy policies and standards.
 - Section 3 provides a summary of the responses received to the approach consultation
 - Section 4 provides the update and a recap on our approach to the RP6 price control
 - Section 5 sets out the key RP6 stages, their milestones and the RP6 timeline, including how we will work with principal stakeholders to achieve a successful RP6 determination through delivering best practice regulation and engagement
 - Annex 1 contains a full list of responses received to the consultation
 - Annex 2 provides an Initial Review of NIE Networks costs and performance (1 April 2012 to 31 March 2015). A more detailed and comprehensive version will form the basis of our new Annual Performance Report of NIE Networks as we begin to report progress against RP6 outputs and costs.
- 1.5 A Stakeholder Workshop on the draft RP6 approach took place on 8 October 2015. We are grateful to all those that attended the presentation of our draft approach, the contributions workshop attendees made on the day and the various consultation

¹ http://www.uregni.gov.uk/news/consultation_on_our_approach_to_nie_networks_rp6_price_control/

² www.nienetworks.co.uk

responses we received from organisational representatives. The presentation slides from that workshop are available on the RP6 page of our website³.

Background

- 1.6 The role of the Utility Regulator is determined under legislation⁴ and its statutory principal objective in relation to electricity matters is:
- To protect the interests of electricity consumers in Northern Ireland, wherever appropriate by promoting effective competition between persons engaged in or in commercial activities connected with the generation, transmission or supply of electricity.*
- 1.7 We are a non-ministerial government department, accountable to the NI Assembly.
- 1.8 In carrying out its functions, the Utility Regulator should act in the manner best calculated to further the principal objective, having regard to:
- i. The need to secure that all reasonable demands for electricity are met; and*
 - ii. The need to secure that licence holders are able to finance the activities which are the subject of obligations imposed under NI energy law.*
- 1.9 The Authority⁵ is required to carry out its respective electricity functions in the manner which it considers is best calculated:
- I. to promote the efficient use of electricity and efficiency and economy on the part of persons authorised by licences or exemptions to supply, distribute or participate in the transmission of electricity;*
 - II. to protect the public from dangers arising from the generation, transmission, distribution or supply of electricity;*
 - III. to secure a diverse, viable and environmentally sustainable long-term energy supply;*
 - IV. to promote research into, and the development and use of, new techniques by or on behalf of persons authorised by a licence to generate, supply, distribute or participate in the transmission of electricity; and*

³ http://www.uregni.gov.uk/electricity/price_control/nie_networks_rp6_price_control/

⁴ The Energy (Northern Ireland) Order 2003; the Electricity (Northern Ireland) Order 1992; The Gas (Northern Ireland) Order 1996; and the Electricity (Single Wholesale Market) (Northern Ireland) Order 2007 and the Water and Sewerage Services (Northern Ireland) Order 2006. We also have obligations under various EU legislative packages. These obligations may be implemented directly by the particular EU legislation or via domestic legislation.

⁵ The “Northern Ireland Authority for Utility Regulation” is our legal, official name, as designated by the Energy (Northern Ireland) Order 1996. The Energy Order for ease of reference shortens this to “the Authority” and where quoted the exact legislative wording has been adopted.

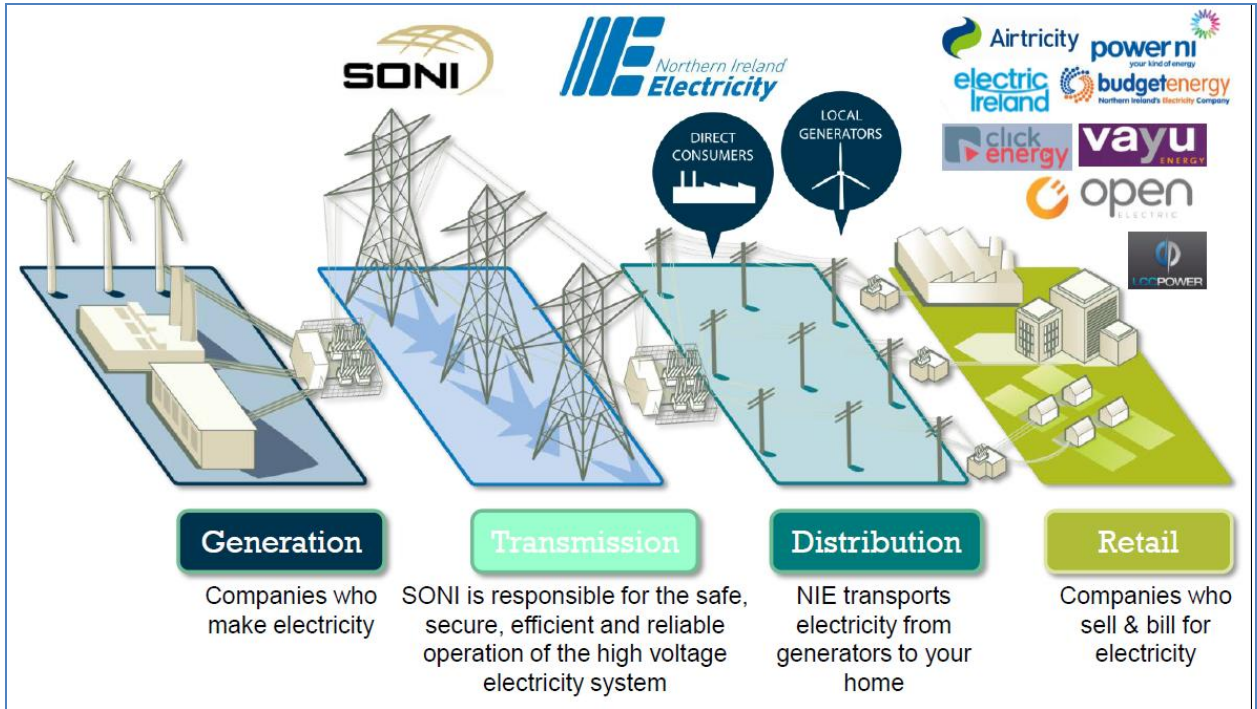
V. *to secure the establishment and maintenance of machinery for promoting the health and safety of persons employed in the generation, transmission, distribution or supply of electricity*

- 1.10 In performing the above duties, regard shall also be had to the interests of groups of vulnerable consumers in Northern Ireland, comprising the disabled and chronically sick, pensioners, low income consumers and residents of rural areas.
- 1.11 In carrying out its electricity functions, the Utility Regulator must not discriminate between persons whose activities include generating, supplying or transmitting electricity.
- 1.12 We set overall limits on how network prices can rise, or are required to fall, through a process called price controls.
- 1.13 The price control process must therefore start with a business plan (including actual data for previous years), as submitted by NIE Networks, setting out their proposals for costs going forward. The information submitted will be scrutinised by us. In doing so, we seek to ensure NIE Networks deliver best value for money for all consumers.
- 1.14 Our approach is based on best practice regulation of natural monopolies. Our task essentially consists of implementing a framework within which, in return for providing monopoly services to an acceptable quality, the company receives a reasonable assurance of a revenue stream in future years that will cover its efficient costs and ensure fairness for the consumer.
- 1.15 Due to its natural monopoly position, the amount of revenue which NIE Networks earns is subject to a price control. This is set by the Utility Regulator following consultation with stakeholders and the wider public.
- 1.16 The electricity network is made up of a transmission and a distribution component⁶. NIE Networks has responsibility for the running of its distribution system. However due to EU requirements for the independence of certain activities, NIE Networks shares the responsibilities of running its transmission network.
- 1.17 Transmission related responsibilities are split between NIE Networks and a separate body; the System Operator for Northern Ireland (SONI). NIE Networks own, finance and carry out the necessary maintenance and development of the transmission network.
- 1.18 SONI is responsible for the day to day operation of the transmission system. That is, SONI directs the flows of electricity over the transmission network from generators. In doing this they are continually matching the supply of and demand for power across

⁶ Transmission relates to electricity lines of 110,000 volts or greater (275kV, 110kV). Distribution relates to lines of less than 110,000 volts (33kV, 11kV, 6.6kV and below), all the way down to the service cable that goes to the meter in our homes and businesses.

Northern Ireland. SONI is also responsible for connections to the transmission system. More recently SONI have become responsible for transmission system planning.

- 1.19 The various activities and responsibilities within the electricity industry in Northern Ireland are illustrated below. This split in responsibilities, particularly between NIE Networks and SONI, should be kept in mind when reading this document and is highlighted below in diagrammatic representation.



2 Overall policy and strategic context

Economic regulation of networks

- 2.1 The provision of electricity transmission and electricity distribution services tends to be a natural monopoly. In the case of Northern Ireland they are delivered by SONI and NIE Networks respectively.
- 2.2 A regulatory framework has been put in place to protect the consumers who use NIE Networks' services. In our role as economic regulator, we take action if we consider NIE Networks is performing less well or operates less efficiently than its peers and we set targets for improvement.
- 2.3 To ensure that a strong regulatory framework is in place between us and NIE Networks, we also establish a clearly defined set of outputs that NIE Networks must deliver and we have sought to put in place cost and performance reporting systems that allow monitoring of actual versus determined target outputs. When selecting these outputs we aim to strike a balance between outputs that are clearly defined while allowing NIE Networks the flexibility to deliver them in the most effective way.
- 2.4 Where a monopoly exists, consumers are not able to change their network operator in order to receive better prices or service levels. In the absence of such competitive pressures, natural monopolies may act against consumer interests by:
 - becoming or remaining inefficient, passing higher costs on to consumers than would otherwise be necessary; and
 - delivering poor levels of service rather than seeking innovative or challenging ways to improve performance while reducing costs.
- 2.5 By subjecting monopoly service providers to external benchmarking and challenge, independent economic regulation helps ensure that they continue to act in the consumer interest.
- 2.6 Economic regulators also impose budgetary constraints on the regulated company or companies (while at the same time making sure that they are adequately financed). These constraints are based on direct challenge of the company's proposals, supported by external benchmarking of cost and service to establish the company's relative efficiency and performance.

Overview of the price control process

- 2.7 Within a regulatory regime, the determination of a constrained budget to deliver a defined set of outcomes over a set period is achieved through the price control process.
- 2.8 We also challenge NIE Networks to improve its efficiency and performance relative to its peers, for example, similar companies in Great Britain.

2.9 The wide-ranging price control process includes a number of distinct stages:

- NIE Networks will prepare a business plan (including actual data for previous years), that sets out an assessment of the funding necessary to deliver the targeted outcomes during the price control period.
- We will consider the business plan and benchmark efficiency and performance in order to set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need. The results of our assessment inform our draft determination.
- We then carefully consider all responses received from the draft determination for public consultation. We encourage stakeholders to provide their views by commenting on the draft proposals. We then derive our final determination of a challenging and achievable level of funding. This process ensures the final determination is fair, balanced and proportionate for NIE Networks.
- We issue a final determination and consult on any licence modifications required as a result of the final determination.
- We then assess the responses received to the consultation on licence modifications and carefully consider all responses received before publishing our licence modifications decision.

Current energy policies and standards

2.10 A number of policies at European, national, devolved and regulatory governance levels make up NIE Networks' policy context:

- **The function of NIE Networks as defined in legislation, is:**
 1. *(a) to develop and maintain an efficient, coordinated and economical system of electricity distribution....;and*
(b) to facilitate competition in the supply and generation of electricity
and
 2. *to take such steps as are reasonably practicable (within the framework of the licence):*
 - (a) to ensure the development and maintenance of an efficient, co-ordinated and economical system of electricity transmission; and*
 - (b) to facilitate competition in the supply and generation of electricity*
- **Evolution of the electricity market structure:** Northern Ireland has the privilege and challenge of participating in an innovative cross border (NI and RoI) wholesale market for electricity known as the Single Electricity Market (SEM). Such collaborative markets are what are envisaged by the EU's drive for an 'internal' market in energy between the EU member states. As such NIE Networks' wider stakeholder group include their counterparts and other energy market participants in

RoI. Additionally in N Ireland the electricity distribution company, NIE Networks, carries out functions that their GB peers don't necessarily carry out. Examples of this include central provision of electricity metering services and the maintenance of an IT infrastructure that governs and assists the process of customers switching electricity supplier.

- **Strategic Energy Framework (SEF):** the SEF is an important document produced by DETI and is one of the PfG's 'building blocks'. It sets out the strategic direction for energy policy in Northern Ireland for the 10 year period ahead. The current (2010) SEF has a focus on the key areas of electricity, natural gas and renewable energy sources. The policies and decisions that are made for energy matters impact those involved in energy production, transportation and use by varying amounts and include utility companies like NIE Networks.
- **Incentives for Renewable Generation:** incentives designed by government to encourage renewable generation have been effective in increasing the amount of renewable electricity generation in Northern Ireland. While a proportion of this new renewable capacity will be used where it is generated, the rest will be put out on to the public electricity network for other homes and businesses to use. This has led to the need for NIE Networks to carry out connections to its network. NIE Networks when operating their network also have to take account of generation on parts of the network traditionally without a large amount of generation.
- **NIE Networks Customer Charter and Codes of Practice:** NIE Networks' distribution licence requires them to have in place, adhere to and publish certain codes of practice. These codes set out how the company and its agents will deal with particular circumstances and/or customer groups. For NIE Networks these include a complaint handling code of practice and a code for the provision of services for persons who are of pensionable age or disabled.
- **Guaranteed Standards of Performance:** NIE Networks is currently subject to Standards of Performance Regulations. Their peers in the Distribution Network Owner businesses in GB are also subject to these performance standards.
- **Electricity Safety, Quality and Continuity Regulations (ESQCR):** legislation (for further information see http://www.detini.gov.uk/electricity_safety_guidance) specifies the safety standards which are aimed at protecting the general public and consumers from danger. In addition, they specify power quality and supply continuity requirements to ensure an efficient and economic electricity supply service for consumers in Northern Ireland.

Examples of specific requirements of the ESQCR include: new design safety signage on all high voltage overhead lines by 2023; safety signage on all low voltage supporting structures within 10 years of legislation commencement (2022).

- **Connections:** we will consider connections related matters in the context of the development of our connections policy and ongoing work on contestability.

3 Consultation responses

Summary of responses

- 3.1 We received 10 responses to our consultation. A list of who responded is contained in Appendix 1. The responses are published along with this document.
- 3.2 The responses to our consultation Approach Document can be generalised as follows:
- Supportive of the 6½ year duration of the Price Control
 - Concerns over extent and type of incentives, particularly as regard the development of a smarter grid and adoption of innovation technologies
 - Concerns over the impact any new investment might have for prices and the wider benefits to society of making our local economy more competitive and attractive to do business
 - Generally supportive of consumer and stakeholder engagement with a concern that more informed comment was entirely dependent upon sight of research findings
 - Concerns and some small degree of confusion over principal stakeholder roles and respective duties within the context of regulation and the regulatory framework
 - Concern over what sort of energy policy will emerge to meet the medium and longer term needs of society and wider industry
 - Support for improved transparency of reporting of NIE Networks' performance against 'regulatory contract' through annual performance reporting
- 3.3 Some further detail is given below on the broad key topics raised by respondents.

Longer duration to price control

- 3.4 In our RP6 approach consultation we proposed a longer price control period of 6½ years. Out of the 10 responses, 4 commented specifically on the price control duration. 3 were supportive of the move toward a longer duration; this was primarily to facilitate better planning over the price control. 1 respondent stated they were not opposed to the longer period.

Incentives and Innovation

- 3.5 These subjects were raised in 8 of the 10 responses. 7 respondents suggested specific areas for incentivisation. Areas suggested included: network development to accommodate renewables integration/low carbon networks; smarter grids technology and several areas that should lead to cost reduction.

- 3.6 3 respondents stated that any incentives should be driven by, or lead to, tangible results. 2 respondents qualified this further by adding incentives should reduce costs to customers over time.
- 3.7 1 respondent enquired as to the status of the current price control incentives listed at \$4.79 in our approach consultation document.

Prices and wider economics benefits

- 3.8 Views on this area were offered in 6 responses and were mixed. 4 respondents centred comments around investment in the electricity network having net benefit for the wider economy. For instance electricity infrastructure being necessary for economic development/growth or smarter investments being able to defer expensive reinforcement costs.
- 3.9 2 respondents said that costs should be minimised, 1 with specific reference to renewable development costs.
- 3.10 1 respondent went further to say costs should be reduced, as whenever there is access to competitively priced electricity the NI economy could grow.
- 3.11 1 respondent expressed concern with a cost minimisation approach on the basis that investment in electricity infrastructure was necessary for economic growth.

Consumer Engagement Advisory Panel and stakeholder engagement

- 3.12 The Consumer Engagement Advisory Panel (CEAP) was established to assist with the RP6 price control consumer and stakeholder engagement.
- 3.13 We received support for increased or more active customer engagement from 7 respondents. 3 of these respondents would like to see more engagement with NIE Networks' customers related to generation, storage or the renewables industry. 1 of the respondents also said that engagement should be ongoing rather than 'one off'. 2 respondents said the CEAP results should be published and 1 respondent sought clarification of the role of the CEAP.

Stakeholder roles and responsibilities

- 3.14 1 of the respondents sought greater distinction in the approach document between electricity transmission and distribution activities and the relevant parties' respective responsibilities for each activity.

Energy Policy

- 3.15 4 respondents said that RP6 should take a longer term view. And while accounting for current energy and related policy, RP6 should also to look to upcoming policy developments and allow the necessary flexibility to respond.

- 3.16 1 respondent said a target for competitive prices was needed and that we should address this should it be established.

Regulatory Reporting and information provision

- 3.17 4 respondents made comment on reporting with support for continued, more transparent or more detailed reporting. 1 respondent proposed both annual monitoring and updating of investment strategy and progress. 1 respondent said we should consider the use of a 'reporter' as featured in the NI Water price controls. 1 respondent expressed concern with the current detail and speed of reporting. 1 respondent said that publication of the proposed self assessment of data by NIE Networks, otherwise known as data assurance, would support transparency.

4 Main Areas of Our Approach

Introduction

- 4.1 This price control will set revenue limits. We will do so in a way that ensures that the company's operational and investment costs can be met and objectives delivered effectively and efficiently, providing best value for money to consumers.
- 4.2 All aspects of NIE Networks' business plan will be considered and the objectives to be delivered will be tailored to take account of the needs of local consumers (today's and those of tomorrow) and associated costs. While we will focus on the price control period, we will also consider the planning work necessary to support the effective and efficient delivery of service into the longer term.
- 4.3 We will also carefully consider the impact of any price control decisions on consumers.
- 4.4 We note that the provision of relevant and robust information in a timely manner by NIE Networks to us is a pre-requisite for a successful price control. We are currently working through the detail of the RP6 Business Plan information requirements internally and with NIE Networks. We will continue to liaise with NIE Networks through working level meetings and as the process moves forward into the formal query process, with defined timescales.
- 4.5 No surprises - we will adopt a 'no surprises' approach to assist all parties in developing their roles within the regulatory process.
- 4.6 Regulatory Information Guidance (RIGs) for annual cost reporting have been rolled out during 2015. As part of their roll-out, we held workshops with NIE Networks and issued a template for population along with Guidance Notes. In doing so, we established a base line of actual spends incurred, on a consistent basis, to support future benchmarking of NIE Networks with its peers. Each Guidance Note included further detailed definitions of terms where these were made relevant to NIE Networks' business and where these differed to some degree from the Glossary of Terms utilised by the Ofgem and GB DNOs.
- 4.7 In section 5 of this document we provide a timeline of the key milestones for the RP6 price control process.

A Proportionate Approach

- 4.8 In addressing these key areas, we are mindful of the need to keep the regulatory burden to a minimum while addressing the information asymmetry that exists between us and the company.
- 4.9 We will apply a number of principles to ensure that our approach is proportionate.
- 4.10 We will adopt a light touch approach if:
 - there is evidence to show that the company is comparatively efficient;

- past costs are a strong indicator of future costs; and/or
 - there is insufficient data to support a more robust approach.
- 4.11 We will adopt a more detailed approach if:
- the company is comparatively inefficient;
 - past costs are a weak indicator of future costs; and/or
 - data is available for econometrics, serviceability measures, outputs and so on.
- 4.12 We expect NIE Networks to have developed their IT and data systems as necessary to support their own robust assessment of expenditure and outputs. Where there is insufficient data it may be necessary to adopt a light approach. In this scenario we will adopt an approach to funding which is prudent but conservative until the company can develop a robust approach based on sound data.

Lessons Learnt from RP5

- 4.13 As a regulator we constantly strive to re-evaluate our processes and thinking to ensure that we deliver price controls in a focused and timely manner. We will continue with our aim to formalise a greater amount of working level engagement between teams to expedite the delivery of RP6.
- 4.14 Our development of consumer and stakeholder engagement in partnership with NIE Networks, DETI and CCNI, is an initiative we will seek to build upon across RP6 and into the next price control RP7. This will help influence both NIE Networks' Business Plan submission and our subsequent determinations, including our RP6 draft determination consultation.
- 4.15 In summary, we have taken into account lessons learned from RP5 which includes a lengthier and detailed timeline for the project, application of RIGs, use of consumer engagement and a focus on ensuring RP6 sets clear outputs and KPIs for NIE Networks.

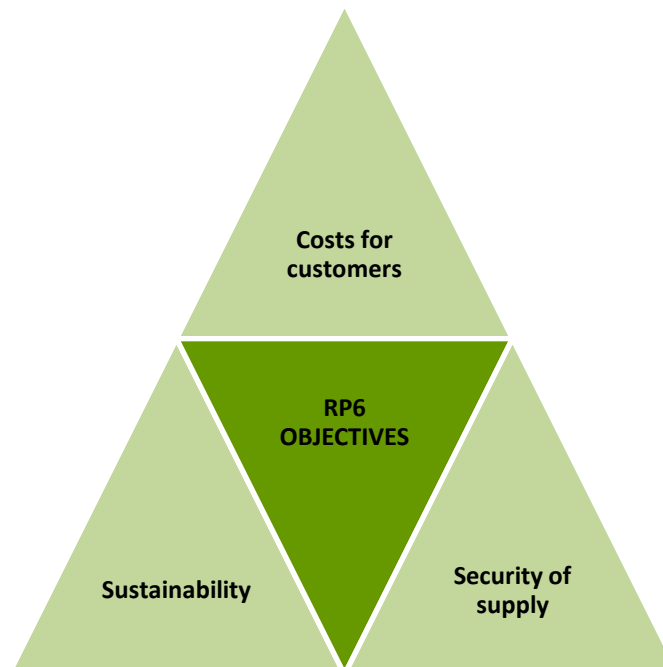
Aims and objectives for RP6

- 4.16 We have undertaken twelve months of working and senior level engagement with NIE Networks to discuss the practicalities of various possible approaches to the various RP6 elements ie approach to benchmarking, asset management, financial modelling and pensions. As indicated in our draft approach document, as well as the traditional components of a price control, we will consider the effect that new developments in regulatory, governmental and environmental areas will have for the price control.

For RP6 our principal aim is to ensure that we:

provide an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need.

- 4.17 We have a legal obligation to protect the interests of consumers. Ensuring that costs are minimised for customers is therefore one of the main aims of a price control.
- 4.18 We will continue to ensure that the network is operated and developed to meet customer needs in a cost-effective and efficient manner, and intend to continue to meet this objective, especially in the context of the current economic climate.
- 4.19 Security of supply aligns with customers' expectations and NIE Networks' licence obligations to ensure that the network is maintained and developed to ensure certain security standards. In addition, certain health & safety requirements impose minimum standards on the state of the network, such as the ESQCR legislation made by DETI⁷. RP6 will continue to ensure NIE Networks are able to efficiently finance these obligations.
- 4.20 Previous price controls, including RP5, contributed significantly to the Sustainability objective through the delivery of new infrastructure to facilitate renewable generation. This was consistent with the policy agenda set out by DETI in its SEF. RP6 will continue to take into account the network requirements in light of the SEF, including any review by DETI, any further relevant policy change and the development of renewable generation incentivisation.



- 4.21 To enable the successful achievement of the above aims, we must deliver on the following RP6 objectives:
- Set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need;

⁷ http://www.detini.gov.uk/guidance_document_12_12_12_final_version.pdf

- Ensure RP6 aligns with new connections framework including contestability;
- Introduce, evaluate and further develop consumer and stakeholder engagement so that lessons are learned and carried on into future work and price controls;
- Challenge NIE Networks to improve its efficiency and performance to at least the top quartile of GB DNOs for costs and performance;
- Incentivise network development to evolve with changes in electricity industry e.g. DSU, renewables, DS3;
- Deliver excellence in asset management compared with GB DNOs;
- Drive effective innovation such as in smart grids while not prohibiting NIE Networks' flexibility to address other technological, market, legislative or policy changes (such as DETI's SEF or changes to the NIRO); and
- Apply and build on the RIGs and benchmarking processes.

Information Requirements

- 4.22 We welcome the broad support from consultation respondents for transparency and continuance of reporting and information provision in RP6.
- 4.23 We will continue to ensure that the information we require from NIE Networks is proportionate but sufficient to:
- allow NIE Networks to communicate its business plan to us in a clear and effective manner; and
 - ensure that we can submit the plan to effective and focused scrutiny.
- 4.24 For RP6 we will:
- continue to use and build on the information requirements that we have already developed for annual/cost reporting, maintaining the key objectives of continuity and simplicity;
 - require NIE Networks to submit its RP6 Business Plan in the format as provided, with sufficient historic information included and with an explanation, that can be understood by its customers, of the impact and cost of their business plan across the RP6 period;
 - add additional information requirements where necessary, for example to support efficiency assessment and to capture information on any other current issues;
 - consider whether further amendments to the format of our price control determination or other regulatory submissions, such as regulatory accounts, are necessary to ensure clarity and reconciliation between them;
 - use appropriate methods to check and verify key information, as requested;

- use today's prices as a price basis, with actual or assumed RPI indices to enable switching to other price bases, if necessary;
- reserve the right to appoint, where appropriate, an independent expert to examine the recording or presentation of relevant information by NIE Networks; and
- reserve the right to request, where appropriate, an audit of specified information relating to the RP6 price control, including specification of the terms on which an auditor is appointed by NIE Networks for what purpose and of the nature of the audit to be carried out by that person.

4.25 In support of the drive for provision of high quality robust submissions, we expect NIE Networks to:

- demonstrate that its Board has taken responsibility for and signed-off as assurance of the data and plans submitted for the RP6 price control;
- provide reliable, consistent information with appropriate explanations of any changes in numbers or circumstances;
- provide any information as requested in the timelines as specified;
- be able to demonstrate that all costs are necessary to run an efficient well managed business; and
- demonstrate the basis of apportionment of costs shared between group and related parties.

4.26 We will issue draft RP6 Business Plan information requirements by 20 January 2016 as a set of RP6 Business Plan Templates (BPT). These will include a set of documents and spreadsheets to include the following:

- BPT Overarching Guidance, to include a brief set of instructions for the RP6 Business Plan submission which includes a requirement for a public facing Executive Summary
- BPT Guidance Notes, similar to those employed across the existing RIGs
- BPT Reporting Workbooks, where NIE Networks will populate with their historical and forecast projections and data in support of the RP6 Business Plan
- BPT Commentaries, where NIE Networks have the option to populate in free text and special considerations they might wish to draw to the attention of the Utility Regulator when using their data submission
- BPT Assurance Workbooks, where deemed necessary by the teams responsible for their individuals sections which include Network investment, Benchmarking, Pensions and Financials, for example
- BPT Glossary Appendix, which includes any additional definitions of terms in addition to those already in operation and applying to the current RIGs

- 4.27 The above will be finalised by 17 February 2016 after a further period to facilitate a query process and engagement with the company at working level. Our query process and logs will adopt a structured and systematic approach to queries between NIE Networks and ourselves. Query logs will ensure both parties can properly raise queries with each other and document them. Both parties can then work through areas of misinterpretation of any of our respective submissions (business plan and draft determination, for example) before these are documented within the query log as 'resolved'.
- 4.28 Before we issue RP6 Business Plan Information Requirements, we shall endeavour to identify at working level, and agree the detail of the spreadsheets and other data returns we shall include, so these align as closely as possible with NIE Networks' own business as usual information.
- 4.29 As we shall expect NIE Networks' Business Plan to be aligned to the longer term strategic goals of the electricity sector taking account, as necessary, of network resilience, sustainability and the needs of future customers, we will require information to demonstrate this.
- 4.30 The design of our RP6 Business Plan Information Requirements will seek to capture only that data and information necessary to inform our appraisal and assessment of NIE Networks' RP6 Business Plan and the determinations we need to make.
- 4.31 For the avoidance of doubt, where information is not received in line with the set time limits we will progress our decision making on the basis of the best available information to hand to meet the determination dates we have set down in the RP6 timetable.

Consumer engagement and stakeholder involvement

Consumer and stakeholder research

- 4.32 Consultation respondents were supportive of the increased engagement so far. However some wished to see this continue and/or go further. For instance by publishing the consumer engagement results and engaging more with further specific groups than the current programme of engagement.
- 4.33 We consider consumers and wider stakeholders' views on the type and level of service they expect, and the prioritisation of delivery of these services within reasonable funding limits, an integral component of this price control.
- 4.34 Drawing on practice in previous price controls of NI Water, a group entitled the Consumer Engagement Advisory Panel (CEAP) has been formed and includes NIE Networks, Utility Regulator, CCNI and DETI representatives.
- 4.35 The CEAP has an established Terms of Reference (including consumer and stakeholder research) and provided advice on an agreed scope of works for the procurement of expert market research advice to deliver a robust, statistically representative sample of

consumers, Willingness to Pay analyses plus a set of focus groups of domestic and Industrial and Commercial users (existing and potential future consumers).

- 4.36 Perceptive Insight Market Research (PIMR) were appointed to advise the CEAP, along with academic input from Queen's University, Belfast. The latter was felt necessary to ensure the Willingness to Pay element of the survey questionnaire would produce actionable data and research findings which can help both company and regulator to inform their respective views and decisions on what business cases to seek funding for and which to allow respectively.
- 4.37 As with all such consumer and stakeholder engagement, especially where undertaken in earnest for the first time, there will be lessons to learn from the experience of RP6. We expect NIE Networks and ourselves to build upon and take into account RP6 consumer and stakeholder engagement feedback to date. We also expect this to be carried forward into subsequent price controls.
- 4.38 There have been events held for stakeholders by PIMR/NIE Networks, at which some preliminary results were available. While these have provided a measure of useful and candid feedback on the CEAP research, we expect the final report and CEAP results to be published in tandem with the formal business case submission from NIE Networks, around May 2016.

As a reminder, the CEAP or Panel's agreed Terms of Reference follow:

RP6 Consumer Engagement Advisory Panel: Terms of Reference

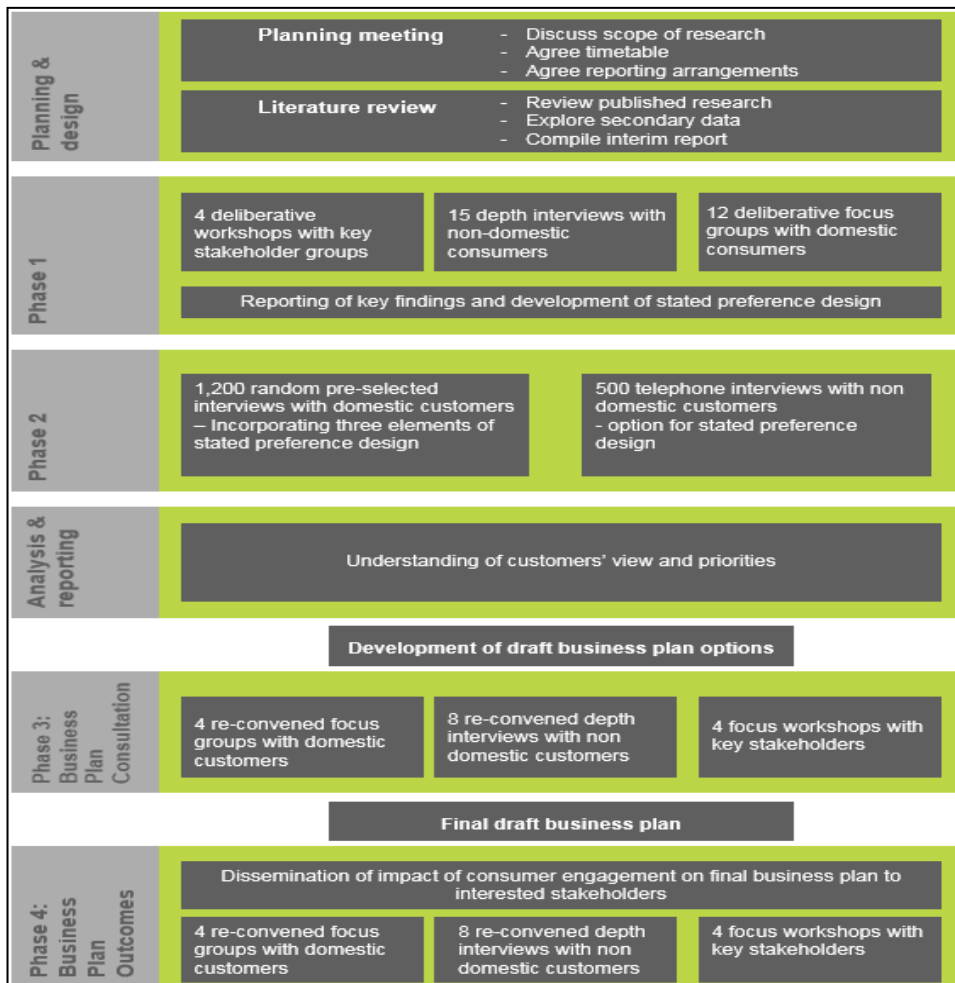
The Panel will be responsible for planning, undertaking, analysing and reporting the results of a programme of research designed to ascertain the views of NIE consumers and stakeholders. In particular:

- To assess where consumers and stakeholders are content with NIE's current level of service delivery
- To understand what aspects of customer service delivery they value most
- To understand where they think improvements are required
- To provide qualitative, quantitative and actionable data that can be used to inform and prioritise NIE's investment planning
- To understand what key metrics consumers value for measuring performance levels during RP6.
- To provide views and actionable data to inform NIE's strategic direction for Customer Services including:
 - Assessing current and future preferred contact channels, use of technology, and provision of information;
 - Assessing current and preferred customer services;
 - Establishing reasonable levels of service on the above;
 - Consumer Education
- To validate with customers that the survey findings have been reflected in the Business Plan.

RP6 consumer research has been planned to develop over a number of phases:

- Phase 1 – Exploring priorities, including focus groups of consumer and future or potential consumers (otherwise referred to as stakeholder research);
- Phase 2 – WTP and survey questionnaire research; informing,
- Phase 3 – NIE Networks’ RP6 Business Plan development; including,
- Phase 4 – Further feedback from consumers on NIE Networks’ draft RP6 Business Plan; leading to,
- Phase 5 - NIE Networks’ submission of their final RP6 Business Plan to the Utility Regulator for determination

4.39 A more detailed explanation of the various planned activities involved in progressing through the five phases with PIMR is re-stated below, for information and since this workstream remains ongoing at the present time. The activities include both aspects of consumer engagement and stakeholder involvement and how these are expected to inform NIE Networks’ business plan submission:



Benchmarking and improving efficiency targets

- 4.40 We expect NIE Networks to have carried out sufficient benchmarking to inform its decision on the scope for improving efficiency that it has included in its RP6 Business Plan. We expect to see this justification together with information for us to be able to carry out benchmarking checks against peer enterprises operating elsewhere in the UK and Europe.
- 4.41 Our approach to operational and capital efficiencies will encompass the following elements:
- We will set a challenging efficiency target for NIE Networks. In doing so, we will take account of the duration of RP6 and the scope this presents to plan for and achieve operational and capital efficiencies within the certainty of a price control
 - We will recognise NIE Networks' progress to date in improving its efficiency
 - We will seek to incorporate and adopt emergent cross-utility approaches, principles and standards of regulation, including where necessary any pre-modelling adjustment(s) or Regional Price Adjustment for regional relativities
- 4.42 We will ask the company to establish its baseline operating costs and identify foreseeable reductions or increases in costs for future years. Our approach to baselining of operating expenditure will ensure:
- adoption of our twin tests of 'newness' and 'exogeneity' to establish the need for increased operational spend before we allow increased costs to be borne by consumers as part of the RP6 regulatory contract; and
 - consumers do not pay for investments that might already have been funded under previous price controls
- 4.43 Our Benchmarking BPT will ask for a submission from NIE Networks of its atypical or exceptional costs as well as a submission of any 'special factors' which explain why the company's operational and capital spends might be higher or lower than comparative benchmarks.
- 4.44 We reserve the right to determine on the quantum of NIE Networks' submission for special factor adjustment(s) and/or introduce additional special factors (positive or negative) where material and in the interests of a fairer, more robust benchmarking of NIE Networks to comparators.
- 4.45 We have already responded to the company's early draft special factors submission of 3rd April 2015 and would welcome an improved submission at RP6 Business Plan submission, whether of their existing draft special factors or with the addition of any new, material special factors.

- 4.46 Having progressed at working level the process of agreeing the detail of the various expenditure adjustments required to ensure robust comparison with GB DNO peers, for scope of work and atypical expenditure differences, for example we shall include a set of Benchmarking BPT requirements to include out-come data, their adjustment and derivation into a subset of expenditure entitled 'modelled expenditure'. These will reflect the time taken at working level to share and discuss with NIE Networks our intentions regarding atypical expenditure, special factors and the approach to Frontier Shift guidance, also to be contained within the Benchmarking BPTs. The latter will adopt the same approach as in other recent network price controls (PC13, PC15, GD14 and GD17).
- 4.47 We remain minded to apply our preferred approach to setting efficiencies as first used when establishing NI Water's efficiency (opex and capex) gap back in 2006. 'Triangulation' marries detailed 'top-down' econometric analyses and examination of likely frontier shift to the realities of previous attempts to reduce spend rapidly within similar regulated industries, such as Network Rail or Scottish Water, alongside further 'middle-up' and 'bottom-up' examination of costs as detailed later.
- 4.48 Recent price controls within Ofwat and Ofgem have similarly triangulated, albeit by the imposition of equal or similar weights to competing methodologies and results, as well as some recent CMA determinations.
- 4.49 We remain minded to include econometric modelling of totex (capex + opex) in our 'top-down' analyses, with the sum of all costs on the left-hand side and a range of explanatory factors, possibly Composite Scale Variables (CSV), on the right-hand side. We intend examining the 'top-down' models used by Ofgem at ED1 as these were found to be sufficiently robust but we may augment this with our own models.
- 4.50 Similarly we are minded to examine models with and without the inclusion of NIE Networks data as part of our testing of the relative robustness of competing models.
- 4.51 Such modelling will require detailed analyses of any company submitted special factors and our own views on what special factors are pertinent toward a fair comparison of NIE Networks with its peers. Additional adjustments to the NIE Networks cost base will likely prove necessary and be the subject of detailed discussion with NIE Networks at working level, to ensure as like-for-like comparison as possible.
- 4.52 In addition we remain minded to examine 'middle-up' models split by activity and opex/capex but not at their most disaggregated level since these are more likely to include bias from atypical circumstance and cost. These would likely include:
- Load-related;
 - Network investment – core;

- Network investment – non-core;
 - Network opex; and
 - Indirects (opex)
- 4.53 The type of econometric models we intend to cover during RP6 include, but are not limited to, pooled Ordinary Least Squares (possibly with CSV cost drivers) alongside Generalised Least Square (Random, Fixed and/or Mixed Effects) and Stochastic Frontier Analysis models using both time invariant as well as time-varying approaches. In addition, we also reserve the right to employ non-parametric methodologies such as Data Envelopment Analysis as part of our wider triangulation of efficiencies.
- 4.54 Further detailed ‘bottom-up’ assessment of efficient spend remains necessary to examine the material elements of NIE Networks’ cost base, extractions from modelled costs deemed necessary to ensure fair and ‘like with like’ comparison to the GB DNOs. To do otherwise would be to treat such costs for Metering unfairly, for example, effectively on the basis of a simple pass through to consumers.
- 4.55 ‘Bottom-up’ benchmarking will likely use a mixture of unit cost and/or expert judgement to ascertain whether efficiently incurred. This may include process and/or metric benchmarking methodologies and approaches.

Outcomes / outputs

Delivering service to consumers

- 4.56 The purpose of the interventions and expenditure which NIE Networks will propose in its RP6 Business Plan is to maintain and improve the services which consumers receive. Consumers experience service as a series of interlinked outcomes, including:
- Whether the supply of electricity is reliable in terms of continuity and quality both during normal operation and during extreme weather conditions.
 - Whether the company responds quickly when things go wrong, is able to resolve the underlying problem satisfactorily and keeps consumers informed while doing so.
 - Whether there is adequate capacity in the network and/or processes in place to allow consumers to connect and economic growth to be sustained.
- 4.57 In practice, NIE Networks will propose outputs which aim to deliver the outcomes consumers want. In broad terms, these outputs can be categorised under the following headings:

- **Service level outputs:** which aim to provide a tangible measure of the level of service experienced by consumers. For example: the frequency and duration of supply interruptions; the time taken to make a connection; or the time to resolve a complaint. This type of output is preferred as they maximise the company's freedom to determine the best way to deliver the required level of service at minimum cost.
- **Nominated outputs:** which are specific objectives which the company must deliver. They can be expressed in either general or specific terms. For example: full ESQCR compliance by the required dates; or, a given increase in capacity at a point in the network to facilitate growth or generation. These provide clarity on specific obligations the company is required to deliver and often relate to legislative or policy drivers.
- **General activities:** such as the quantity of network replaced or refurbished or the number or capacity or connections which will be made during the period. These have a use where it is not possible to make a reasonable link between activity and service in the short term. It ensures that investment is delivered and provides experience which allows links between investment and service to be developed in the longer term.

4.58 Where possible the delivery of RP6 should be based on outcomes which maximise the company's freedom to determine the best way to deliver the level of service required by its consumers at minimum cost. This will encourage innovation and reveal cost savings that benefit consumers in the longer term.

4.59 We will require NIE Networks to set out clearly all the outcomes/outputs it proposes to deliver over RP6 together with the justification for both their inclusion and timings. This should be based on a clear understanding of what consumers need and are willing to pay for and the company's ability to assess the optimum interventions and expenditure to deliver these outcomes and outputs.

4.60 In our determination we shall aim to include a basket of outcomes and outputs which we believe will drive the right behaviours and outcomes for consumers. We will focus on outcomes and service level measures in the first instance and supplement this with nominated outputs and activity measures where this is necessary to balance risks between the company and its consumers.

Developing defined outputs, including new consumer measures

4.61 Building on a number of respondents' suggestion for the introduction of wider, new output metrics, we expect NIE Networks to define in its RP6 Business Plan the various service level and nominated outputs, metrics and KPIs which the company proposes its performance throughout the RP6 period should be measured against.

- 4.62 Where there remains scope for further development work regarding new RP6 outputs and KPIs we shall include specific KPIs for these, including timetables within our RP6 Monitoring Plan. By the means of developmental objectives we shall ensure a wider set of outputs and key metrics are introduced during the RP6 period. We will also ensure these will subsequently be incorporated into the evolution of the RIGs to provide the means of enhanced reporting of NIE Networks' performance in our Annual Performance Report. This will necessarily require trialling and eventual introduction of hard KPIs during the RP6 period.
- 4.63 To assist with cross-sector comparison of performance to GB DNOs we shall consider the development of any new RP6 measure using the existing Ofgem framework where necessary. Such areas might include the following:
- Safety
 - Reliability
 - Availability
 - Customer satisfaction
 - Connections
 - Environmental
- 4.64 Under reliability for example, the targeted improvement in NIE Networks' new connection service or reduced Customer Minutes Lost (CML), Customer Interruptions (CI) might prove good candidates for introduction during RP6. These will offer very close alignment to existing Ofgem metrics for comparison.
- 4.65 Gaining insight, without taking action, is of no real value. Of primary importance will be the requirement for 'actionable data' whereby any new metric or KPI must provide the intelligent means by which NIE Networks can establish how it might improve service to consumers and how we might report their subsequent progress over time.
- 4.66 We are also aware that NIE Networks monitor their own performance from a different calculation of the "worst served customer"⁸ to that used by Ofgem with the GB DNOs. This may be a more reliable means of establishing and improving the areas where their poorest performance is in evidence since NIE Networks' definition is arguably more

⁸ NIE Networks' own definition of "worst served customer" used to prioritise investment decisions uses, "customers who have experienced x8 or more power cuts in the last 18 months". This arguably stricter yardstick compares to Ofgem's which uses customers experiencing x5 or more higher voltage interruptions per annum, over a 3-yr period. The latter's adoption of an average per annum measure allows 'good' and 'bad' years to average out so that someone who might experience x14 power outages in 1 out of 3 years with zero outages in years 2 and 3 would not score under Ofgem's definition, but be included under NIE Networks'.

stringent and demanding than that used by Ofgem. We will consider if alignment with Ofgem is appropriate.

- 4.67 A number of considerations will be employed when introducing new outputs, metrics and subsequent KPIs across the RP6 period and beyond, not least comparability for benchmarking purposes and to develop the necessary foundation for the next price control at RP7.

Asset management

Asset investment drivers

- 4.68 Maintaining, improving and expanding the distribution network to meet consumers' needs requires continuous attention and investment. The key overarching drivers for investment are:
- **Maintenance:** of the existing asset base with the broad objective of maintaining the service provided to consumers in the medium to long term.
 - **Compliance:** with new legislation or policy requirements (for example ESQCR legislation or sustainable policy objectives).
 - **Growth:** in demand (or potential reduction in demand) due to change in consumption by existing consumers, new consumers (or consumers leaving) and demand for generation connections.
 - **Service:** improvement in existing services where this delivers clear benefits that consumers are willing to pay for (for example addressing the needs of worst served consumers).
- 4.69 Any single investment might meet one or more of these drivers to achieve overall service objectives and NIE Networks must consider them together and seek synergies between them to optimise their investment plan.

Excellence in asset management

- 4.70 We expect monopoly service providers to demonstrate effective long term stewardship of the asset base which has been and continues to be funded by consumers. We require NIE Networks to set out the steps they have taken and plan to take to achieve excellence in asset management planning.
- 4.71 The complex mix of assets in use requires a robust assessment to establish the 'right' level of asset maintenance in the medium and long term. If investment is made too early we lose the opportunity to either reduce charges or invest in other service improvements. If investment is made too late, service may deteriorate until an adequate level of investment is restored.
- 4.72 To demonstrate that robust asset management processes are in place to inform robust business decisions, we will require NIE Networks to:
- provide a self assessment of their asset management capability against a recognised asset management methodology, identifying any further work required to achieve excellence in asset management planning;
 - provide an assessment of the data they currently use to prioritise current interventions to estimate the future level of capital and operational investment in the medium to long term;

- prepare a plan to improve their asset management capability which sets out how the company will address any weaknesses in its current methodologies and data necessary to improve asset management planning, and timescale over which this will be achieved; and
- show how a range of ‘top-down’ and ‘bottom-up’ techniques have been applied during the preparation of the RP6 Business Plan to assess the optimum level of asset interventions and investment over the RP6 period.

4.73 While a range of techniques can be used in asset maintenance planning, a key outcome for the RP6 Business Plan is to estimate asset residual lives and time of replacement up to 9 years from the time the assessment is made. Different techniques are more or less appropriate for different types of assets. They are more or less valid and accurate depending on the quality of the data, systems and process applied by the company. As a result, all estimates are inherently uncertain and we expect NIE Networks to account for this uncertainty and the associated risks in its assessments.

4.74 We will employ a range of the techniques available to triangulate to a reasonable determination of asset maintenance investment for RP6. The weight we give to each technique in arriving at our determination will depend on the type and quality of information provided by the company in its RP6 Business Plan submission. Where it is necessary to use a light regulatory approach because there is insufficient data to support more robust analysis, we will adopt an approach to funding which is prudent but conservative until the company can provide robust information based on sound data and analysis.

4.75 We will develop our approach to asset management planning as we complete our information requirements for RP6.

Investing to deliver compliance with new legislation and policy objectives

4.76 The RP6 Business Plan and determination must make provision for dealing with new legislation or policy requirements which create an obligation on the company. The issue for the company then, is to assess the optimum level of intervention and investment necessary to meet new obligations, such as compliance with the Electricity Safety, Quality and Continuity Regulations (ESQCR) for example.

4.77 We expect the company to assess the range of known and potential changes in legislation and policy and engage with the Utility Regulator on this issue well in advance of the RP6 Business Plan submission. Our objective is to develop a common understanding of future legislation and policy objectives and the extent to which their impact can be assessed and included in the RP6 Business Plan and RP6 determination with reasonable confidence.

4.78 It is often the case that the industry is not able to make a comprehensive assessment of investment to meet new legislative or policy drivers and does not have experience from

past work which would allow future plans to be benchmarked against historic run-rates. In these circumstances, we would expect NIE Networks to:

- demonstrate that any sampling used to estimate future investment is representative of the need as a whole; and
- show that bottom up estimates have been challenged to ensure that the scope of works priced is minimised and that the unit rates used to estimate costs take account of efficiencies of scale and effective procurement.

Investing for growth

- 4.79 We acknowledge the mixed views of respondents to this matter. It is essential NIE Networks manage its network to cater for growth in demand (or potential reduction in demand) due to change in consumption by existing consumers, new consumers (or consumers leaving) and demand for generation connections.
- 4.80 The way which demand will change in the future may differ from the past due to changes in policy, technology and incentives. In recent years, incentives to reduce carbon emissions have resulted in demand for distributed generation connections, for example. These have changed, and sometimes reversed energy flows on the distribution network which has become a key driver for network investment. In the future, changes in incentives and technology might result in distributed energy storage and other measures to reduce peak demands. Improved technology and a general drive for energy efficiency might begin to off-set growth from new connections. Major changes in the generation market through I-SEM and the need to deliver security of supply might require changes to the transmission and distribution networks.
- 4.81 We expect NIE Networks to assess the impact that these and other changes may have on their network, refreshing its assessment of future energy flows to take account of embedded generation and demand side management options as it does so.
- 4.82 The company should assess a range of strategic scenarios and planning assumptions using latest best estimates and the Northern Ireland context. These would include: (i) assumed growth rates and (ii) strategic view on metering (to meet consumer needs and the longer term requirement of smart metering readiness), and describe how it has assessed risk and uncertainty when developing its plans for investment in RP6.
- 4.83 In parallel with this process, we will engage with NIE Networks to develop network load indices to reflect the current state of the network, provide a basis for assessing future investment and monitoring delivery.

Investing to improve service

- 4.84 Investment to improve services should deliver clear benefits that consumers are willing to pay for
- 4.85 Where it proposes improvement in service, NIE Networks should be able to quantify the improvement in service in terms of outcomes which are tangible and which consumers can understand and have supported. In making this assessment, we expect the company to explain how it has taken account of the views of those who already struggle to pay their electricity bills yet who will still be required to pay more for the improvements proposed. The company should also demonstrate that consumers are willing to pay extra for these service improvements over and above any additional investment necessary to maintain assets, achieve compliance with new objectives and facilitate growth which might also increase bills.

Making the case for investment

- 4.86 Before it sets out its plans for RP6, we expect NIE Networks to provide its current best estimate for the delivery of RP5. The company should demonstrate that any out-performance in RP5 has taken into account in the assessment of investment in RP6. Our starting point will be that the activity rates and unit costs delivered in RP5 can be sustained in RP6. The company should provide a clear explanation if it believes that activity rates or unit costs need to increase in RP6.
- 4.87 We expect NIE Networks to explain the need for investment under broad headings of projects and programmes of work using RP5 investment categories as a starting point. The RP6 Business Plan should carefully explain and justify the case for investment, setting out, as a minimum:
- The need for the investment.
 - The outputs and benefits the investment will deliver both in terms of asset improvement and service to consumers.
 - The options explored to meet the need identified, considering changes in operational practice as well as capital investment. The company should show how it has arrived at the least whole life cost to meet the need identified.
 - An assessment of the cost estimating systems used to prepare the estimates of investment. This should demonstrate that the cost estimates reflect current costs including efficiencies delivered during RP5.
 - An assessment of deliverability, including an assessment of 3rd party risks, to show that the profile of investment and completion dates are achievable.

- 4.88 For all investment to improve current performance we expect to see the appropriate cost/benefit justifications. The company should explain how and why it has included any non-financial costs and benefits in its assessment.

Uncertainty and risk allocation

- 4.89 We expect NIE Networks to have identified and considered all the material risks it faces during RP6. This assessment should be included in the RP6 Business Plan, describing the rationale for the sharing risks between the company and customers. It will help inform our assessment of the plan and our determination of the degree and form of risk sharing that strikes the right balance between NIE Networks and its customers contributing to the determination of incentive mechanisms for RP6.

Incentives (reputational and financial)

Introduction

- 4.90 We use this section to refer to ways in which we could encourage NIE Networks to perform in a more effective and efficient way for customers in RP6.
- 4.91 The title of this section is purposely broad to draw attention to the fact that we could introduce incentives which have the potential to reward and/or penalise NIE Networks. Also, incentives could be symmetrical or asymmetrical in nature and could be financial and/or non financial in nature, including penalties.
- 4.92 Incentives can be integrated into uncertainty mechanisms and the design of RP6 in terms of how the price control deals with the overall balance of risks and rewards for both NIE Networks and customers. For the purpose of this document, and in the absence of addressing specifically the uncertainty mechanisms or the price control design at this stage, we approach the topic of incentives afresh and from a high level.
- 4.93 We do not seek to opine or discuss the merits, drawbacks, potential or otherwise of particular incentives or schemes in this section or at this stage, but rather, we set out the areas we are likely to approach (and in many cases revisit) in our work on RP6. To enunciate upon our preferred approach to incentives in this RP6 Approach Document in advance of our determination stages, including in advance of our draft determination consultation stage, would be procedurally improper, especially in advance of NIE Networks own RP6 Business Plan suggestions on risk and incentives.
- 4.94 In the sections below we set out: the incentives in RP5; other potential incentives for NIE Networks (and customers) in RP6; potential issues with incentive schemes; potential benefits of incentive schemes; and concluding remarks on incentives.

The incentives in operation during RP5

- 4.95 The following incentives formed the basis of the RP5 regulatory framework:

- underspending capex and opex allowances;
- reducing electricity theft;
- avoiding inefficient spending; and
- guaranteed standards.

4.96 While we have focused on the financial incentives in the above list and while we are reviewing this closely to inform our approach to RP6, we will also reassess the non financial incentives which are also in operation during RP5.

Other potential incentives for NIE Networks (and customers) in RP6

4.97 We have identified the following (non-exhaustive) list of financial incentives which could potentially be introduced in RP6:

- the loss of electricity incentive;
- quality of supply incentive e.g. frequently measured as customer interruptions (CI) or customer minutes lost (CML);
- asset health or load indices incentive;
- customer service incentive;
- worst served customers incentive;
- reducing carbon from network operation incentive; and
- timely delivery of major projects incentive.

4.98 Reputational incentives will largely be supported by our intended publication of NIE Networks' progress against RP6 targeted outcomes / outputs and KPIs as included within the RP6 Monitoring Plan at conclusion of the RP6 determination process. Such annual reporting of NIE Networks will form part of our overarching monitoring and enforcement of regulated utilities.

Potential issues with incentive schemes

4.99 As can be seen from the above list there are many things which could be incentivised in RP6 in addition to those which are necessary in RP5. However, even a cursory inspection reveals that there are many potential problems which incentives. We have identified the following list of potential issues:

- it can be difficult to identify and/or forecast the 'base level' obligations: what outcomes/outputs are assumed to be standard? What should be more or less than the base level, deserving of an additional reward or penalty?
- it can be difficult to identify the potential for upside and downside
- if rewards are discretionary then there may be a lack of faith, or a perceived lack of faith, that they will be applied fairly, or adequately understood
- if rewards are mechanistic then the incentives may be more likely lead to unintended consequences, perverse outcomes or excessive penalties or rewards
- the ability to design or calibrate incentives appropriately may suffer due to the asymmetry of information
- there may be a lack of baseline data, or disagreements about how baseline data is interpreted or used, upon which to design incentive schemes
- opportunities for both NIE Networks (and customers) to benefit from an incentive scheme may be hampered if there is no guarantee that it is worthwhile gathering the necessary baseline data, upon which a scheme could be understood and calibrated appropriately (a 'catch-22' scenario);
- it can be difficult to decide how benefits and costs should be shared between customers and NIE Networks: some benefits are difficult to measure and dependent on other factors;
- a lack of comparators can result in targets being static rather than dynamic: avoiding the ability to compare NIE Networks to other real companies or even a notional company;
- the interplay between incentives can become complex due to the overlapping nature of many issues i.e. the introduction of any incentive needs to account for the existence of the other incentives (e.g. double counting safety obligations (legislative requirements) in an additional safety incentive);
- the cyclical and relatively short term nature of price controls can give rise to a risk that incentives are only beneficial in the short term but give rise to greater negative consequences in the long term;
- the cyclical nature of price controls can also give rise to issues around what outcomes are 'bankable' (giving a new standard of outcomes) in the following price control and which outcomes cannot be maintained;

- there may be issues around incentives resulting in perverse outcomes (e.g. deferring investment which is otherwise necessary and efficient);
- there may be a risk that, an incentive is used as an end in itself, instead of a means to an end (e.g. other regulatory tools may be less troublesome or onerous, such as licence modifications or updating existing legislation); and
- there is also a real opportunity cost risk that, given the limited time to address other RP6 issues, a disproportionate amount of time is invested by NIE Networks or us in the assessment and/or calibration of incentive schemes.

Conclusions

- 4.100 Although we identify many issues above, we are mindful of the huge benefits which could be gained through incentive schemes. NIE Networks play a huge role in the value chain and are in a powerful position to accommodate and create efficiency. We expect NIE Networks to propose incentive schemes which facilitate the effective and efficient operation of the electricity network.
- 4.101 We also note in particular our previous work on incentives during RP5, for example we stated in our final determination⁹:
 “We are keen to introduce new incentives, such as a distribution loss incentive and health and load indices. However to do so we need detailed measurements and base line information. We encourage NIE T&D to develop these areas during the RP5 period so that we are in a position to consider additional incentives later in RP5 or in RP6.”
- 4.102 The bringing forward of quality data and information, combined in a robust business case, is essential for us to be able to assess the potential of any new incentive scheme. We trust that NIE Networks will recognise this and work co-operatively with us to realise mutual benefits for both NIE Networks and customers. For example, we would welcome NIE Networks bringing forward new information and data, even where it has not been requested specifically by us, in a way in which we can readily understand it, perhaps by utilising (and developing) the guidance we have already provided them on reporting their costs and outputs.

Delivering innovation

- 4.103 We note the various responses to how we support innovation and our approach remains focused on ensuring innovation delivers benefits for the consumer. Whilst the finer details for RP6 are to be finalised, including around incentives and innovation¹⁰ where our eventual position on each will very much depend upon how well NIE Networks’ RP6

⁹ See 9.3 here: http://www.uregni.gov.uk/uploads/publications/RP5_Main_Paper_22-10-12_FINAL.pdf

¹⁰ In the context of NIE Networks we would include the promotion of research into, and the development and use of, new techniques as being encompassed by our definition of innovation.

Business Plan proposals stand, we remain committed to our Corporate Strategy 2014-19 including the KPI that:

“Our regulatory tools have helped make sure that regulated utilities drive further effective innovation, such as smart grids and meters”.

- 4.104 Our view is that successful innovation is best driven by NIE Networks operating under an appropriate incentive regime. Such a regime would allow the company to make decisions on what innovation investments to make taking into account the impact they will have on reducing costs and improving outputs. NIE Networks will then be rewarded through the price control framework from resulting outperformance and customers will benefit in the long run from improved services and lower prices.
- 4.105 UR views that this approach should remain the principal mechanism for delivering innovation as it provides maximum flexibility to NIE Networks to make innovation decisions, align incentives to customer benefits and avoid the risk of a regulator being asked to pick winners from a list of potential innovation projects.
- 4.106 The proposal to set the duration of this price control at six and a half years further strengthens this incentive and provides a considerable time to ensure that NIE Networks can make innovation investments and earn an appropriate return through the price control.
- 4.107 A significant amount of work is already in the public domain on potential innovation projects and their cost benefit tradeoffs and we expect that NIE Networks will consider this data in making its decisions on where to invest.
- 4.108 The purpose of any innovation must be to reduce costs and/or to improve outputs that benefit customers. Therefore we would normally expect that any innovation costs will be funded within the overall price control package, including incentives, and not from increased prices.
- 4.109 Where NIE Networks propose innovation is funded through increased prices for customers we would regard the bar as being set high in terms of the evidence it would need to provide in order to justify such a request.
- 4.110 Firstly we would expect NIE Networks to set out clearly in its RP6 Business Plan submission why the price control regime does not provide an appropriate incentive for innovation investments and articulate its rationale for innovation funded through higher prices for the consumer.
- 4.111 Our criteria for assessment of NIE Networks’ rationale will include, but may not be limited to, the following:
- quantified and robust costs and benefits;
 - need for, or rationale in support of additional funding;

- how NIE Networks have arrived at their chosen bid for innovation(s) and how this interacts with other innovation investments it is planning under the normal price control regime;
- how such a bid was identified/prioritised and justified in consultation with consumers and NIE Networks' wider stakeholders;
- why there exists a barrier towards innovation which requires some form of regulatory action to progress and the consequences of innovation(s) not happening;
- what deliverables may be expected from the Research or Development or Trials for local consumers;
- proposed treatment of risk and reward;
- description of how successful innovation(s) would be efficiently rolled out and NIE Networks' innovation strategy would be reviewed and updated across RP6; and
- how RP6 innovation(s) are different to anything that has occurred previously, whether within NIE Networks or within the wider energy industry¹¹.

Financing the plan

Weighted Average Cost of Capital (WACC)

4.112 In relation to WACC, we will consider:

- using a standard CAPM (Capital Asset Pricing Model) methodology for assessing a suitable WACC for NIE Networks;
- using all available similar regulatory settlements to benchmark appropriate rates;
- if component parts of the WACC can be linked to real world observations; and
- how tax should be treated.

Depreciation

4.113 Previously at RP5 we discussed the issues relating to NIE Networks' RABs and associated depreciation policies for each, considering comparable information from Ofgem and the Commission for Energy Regulation (CER).

4.114 At RP5 we considered that there should be separate RABs for transmission and distribution as well as the smaller RABs relating to IT and metering assets, for example. Aside from the necessary distinction between transmission and distribution, multiple

¹¹ NIE Networks have access to the industry's learning portal through membership of the Energy Networks Association. This portal is where the findings and industry learnings are deposited as a result of the various Ofgem inspired activities at industry level where DNOs can bid for innovation(s) funds through the RIIO-ED1 Innovation Stimulus. The latter includes the results or research or development or trials from both the GB electricity and gas industries.

RABs can add complexity to the regulatory framework. Therefore we will reassess the approach to separately depreciating multiple RABs, with a view to assessing if there is a better method, while ensuring not to affect the net present value of the total RAB.

- 4.115 The RP5 framework is prescriptive in the amount of expenditure which is allowed for on the RAB (which can be referred to as ‘Capex’ or slow money) and the amount which is not allowed for on the RAB (which can be referred to as ‘Opex’ or fast money). However, the RP5 framework is not prescriptive regarding the amount of outturn expenditure which is attributed to Capex and the amount which is attributed to Opex. This may cause an issue in RP6, in that the proportion of revenues which are assumed by the Utility Regulator to be Capex (and Opex) is very different to the proportion of outturn expenditure which is attributed to Capex (and Opex) by NIE Networks, using NIE Networks’ interpretation of accounting standards. We will assess this issue in RP6.

Financeability

- 4.116 For RP5, both the CMA and us, recognised our obligations to have regard to the ability of licence holders to finance their activities, as set out at Article 12 (2)(b) of the Energy Order (Northern Ireland) 2003.
- 4.117 An important distinction that was made by both the CMA and us was that the obligation only referred to the activities of the licensee which are deemed to be ‘imposed obligations’. Therefore we propose to approach the issue in terms of an ‘efficient licence holder’ as opposed to NIE Networks.
- 4.118 We will consider the financeability of NIE Networks, using established financial metrics, such as gearing, debt ratios and PMICR (Post-Maintenance Interest Coverage Ratio), etc, which can be used to benchmark NIE Networks with the levels of an efficient, well-managed, regulated company.
- 4.119 Sensitivity analysis will also form part of this assessment, to ensure that the business could cope under shock conditions.
- 4.120 We will continue to rely on setting an appropriate WACC and depreciation allowance while considering financeability. Additionally, we are not minded to make any additional adjustments regarding any concerns about short term financing. This is premised on the idea that rational investors will recognise that the combination of a RAB and an independent regulator provides assurance of a return on and of capital over time.

Duration

- 4.121 We received broad support for our proposals on the duration of RP6. Historically, the NIE Networks’ price controls have been set for 5 years as it was believed that this duration was the necessary duration to enable the company to fully plan ahead its expenditure profile and to provide sufficient incentive and stability for NIE Networks to

deliver improved efficiencies and meet the various obligations set out within a price control package or 'regulatory contract', ensuring consumers are satisfied today and that their longer terms needs are met in ever more effective and efficient ways. Such a duration also removes the requirement for an annual or more frequent intervention from regulators.

- 4.122 As with most other price controls we have an opportunity to consider the most appropriate duration, bearing in mind our most recent decision to adopt six years for GD17 alongside PC15's six-year duration (including mid-term review half way through). Ofgem by contrast for ED1 adopted 8-years plus a mid-term review.
- 4.123 Whilst there is considerable uncertainty as to how new technologies and the smarter grid may develop over time, its impact on an established first world distribution network such as NIE Networks is decidedly marginal in nature. We were minded to adopt at least a 6 year duration, reflecting the specific need for NIE Networks to be able to plan for a smarter network and develop new technologies.
- 4.124 We believe a 6 year duration strikes the right balance between providing sufficient certainty for NIE Networks of the strong incentive to reduce costs while not exposing the company or consumers to undue risk.
- 4.125 Furthermore, a re-alignment of regulatory and RIGs/NIE Networks' financial reporting years to run simultaneously April 20XX to 31 March 20XY is possible if we extend RP6 to 6½ years. This option removes the requirement for NIE Networks and us to pro rata between years for simple differences in accounting and price control years.
- 4.126 Our preferred option which we shall carry forward into RP6 is to adopt a once only duration of 6½ years duration for the RP6 price control period.

Pensions

- 4.127 In our Position Paper on Pension Deficit Recovery we stated the following: "[...] the Competition Commission ruled that the treatment of the pension deficit of NIE should be consistent with Ofgem's treatment of pension deficits of distribution businesses in GB during the RP5 referral. The UR has decided that it is appropriate to adopt these principles for the other NI regulated energy businesses that seek to pass through pension deficit costs through their regulated tariffs."¹² We also stated: "The UR position is that for consistency of treatment it is correct to ensure that each price control follows the same core principles."¹³
- 4.128 Following-on from this, we consider that the pension principles we apply in setting pension-related price control allowances should be consistent across all NI regulated

¹² [Utility Regulator: Pension Deficit Recovery – A Utility Regulator Position Paper, December 2014](#), p. 2.

¹³ [Utility Regulator: Pension Deficit Recovery – A Utility Regulator Position Paper, December 2014](#), p. 4.

energy businesses with defined benefit schemes as well as, in so far as reasonable and practical, also with the pension principles used by Ofgem¹⁴.

- 4.129 For RP6, we therefore propose to build on the pension principles used as part of RP5. We may consider reviewing our pension principles in the future as part of a roll-out and alignment of pension principles across all NI regulated energy businesses with defined benefit schemes.

Monitoring and enforcement

RP6 Monitoring Plan and future regulatory reporting

- 4.130 If NIE Networks accepts our determination we shall require it to work with us to produce a monitoring plan setting out its programme for delivery over the RP6 period. The RP6 Monitoring Plan will need to be fully consistent with our determination.
- 4.131 The RP6 Monitoring Plan supersedes its RP6 Business Plan and will provide customers, stakeholders and ourselves with the means of assessing progress during the control period. As noted earlier we will require NIE Networks to provide us with regular (annual) information on its progress in a set format that also facilitates benchmarking and our annual reporting of NIE Networks' progress against the RP6 regulatory contract.
- 4.132 By way of example we have included at Appendix 2 an Initial Review of NIE Networks costs and performance (1 April 2012 to 31 March 2015). We shall in future produce Annual Performance Review across NIE Networks' activities and will seek to align this publication with our Annual Cost and Performance Report on NI Water. This will include performance reporting against the RP6 Monitoring Plan, its targeted outputs and KPIs and efficiencies.
- 4.133 The Annual Performance Report shall allow us to report on how NIE Networks is delivering upon the RP6 principal aim to provide:
- an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need.***
- 4.134 As part of the consultation responses it was suggested we reconsider the introduction of a 'reporter' for RP6. The reporter is used in our NI Water price controls to, amongst other things; provide quality assurance for the information submissions made to us by the company.
- 4.135 We had proposed the introduction of a reporter for RP5. This was subsequently considered by the Competition Commission (CC) who decided against this. As an alternative remedy the CC introduced a system of information reporting and monitoring

¹⁴ For further details see e.g.: [Ofgem: Strategy decision for the RIIO-ED1 electricity distribution price control, Financial issues, 4 March 2013](#), Appendix 7.

known as the *Regulatory Instructions and Guidance* or RIGs. The RIGs are used by Ofgem for GB electricity and gas network companies.

4.136 We will carry the RIGs approach forward into RP6 and additionally as we set out above in §4.25 we:

- reserve the right to appoint, where appropriate, an independent expert to examine either the recording or presentation of relevant information by NIE Networks; and
- reserve the right to request, where appropriate, an audit of specified information relating to the RP6 price control, including specification of the terms on which an auditor is to be appointed by NIE Networks for that purpose and of the nature of the audit to be carried out by that person.

4.137 We have decided to maintain this approach to information reporting and monitoring as it represents an appropriate approach to address the needs identified.

5 Updated Timeline

RP6 Timetable

5.1 We re-state and confirm the RP6 key milestones below as unchanged from our draft Overall Approach consultation.

Table 1: Key Milestones of RP6

RP6 Key Stages		
Approach Document		
Initiate working level meetings - scoping phase		13 th Feb-15
Close off scoping		18 th Aug-15
Publish RP6 Approach Document for consultation		23 rd Sep-15
Stakeholder Workshop		8 th Oct-15
Publish Final Approach Document		22 nd Dec-15
RP6 Business Plan		
Initiate working level meetings – clarify the Approach		18 th Nov-15
Close off clarifications		16 th Dec-15
Issue Business Plan Information Requirements to NIE Networks		20 th Jan-16
Business Plan Information Requirements formal query process		Jan/Feb-16
Close queries and end query process		17 th Feb-16
Business Plan submission from NIE Networks		29 th Jun-16
Draft Determination		
Business Plan formal query process ends		26 th Aug-16
Publish Draft Determination for consultation		21 st Nov-16
Final Determination		
Draft Determination consultation closes		20 th Feb-17
Publish Final Determination		5 th May-17

Appendix 1: Responses to the Consultation Document on our Overall Approach to Price Control for Northern Ireland Networks' Transmission and Distribution RP6

A1.1 On 23 September 2015 we published our draft Overall Approach document for consultation. This set out for discussion our initial high level approach which we expect to take to the upcoming RP6 price control for NIE Networks. We invited responses to the document, to be received no later than 4 November 2015, as well as organising a stakeholder workshop on 8 October 2015.

A1.2 We received ten responses from the following organisations:

AES Corporation	http://www.uregni.gov.uk/publications/aes_rp6_approach_consultation_response
CBI	http://www.uregni.gov.uk/publications/cbi_rp6_approach_consultation_response
CCNI	http://www.uregni.gov.uk/publications/ccni_rp6_approach_consultation_response
Electricity Association of Ireland (EAI)	http://www.uregni.gov.uk/publications/eai_rp6_approach_consultation_response
Manufacturing Northern Ireland (Manufacturing NI)	http://www.uregni.gov.uk/publications/mni_rp6_approach_consultation_response
NIE Networks	http://www.uregni.gov.uk/publications/nie_networks_rp6_approach_consultation_response
N Ireland Renewables Industry Group (NIRIG)	http://www.uregni.gov.uk/publications/nirig_rp6_approach_consultation_response
Smart Grid Ireland	http://www.uregni.gov.uk/publications/sgi_rp6_approach_consultation_response
SONI	http://www.uregni.gov.uk/publications/soni_rp6_approach_consultation_response
UFU	http://www.uregni.gov.uk/publications/ufu_rp6_approach_consultation_response

Appendix 2: Initial Review of NIE Networks costs and performance

(1 April 2012 to 31 March 2015)

1 Background

- 1.1 The electricity network in Northern Ireland is owned by Northern Ireland Electricity Networks Ltd (referred to as NIE Networks)¹⁵ and is made up of a Transmission and a Distribution component¹⁶. Due to its natural monopoly position, the amount of revenue which NIE Networks earns is subject to a price control. This is set by the Utility Regulator following consultation with stakeholders.
- 1.2 NIE Networks' role in the electricity industry is shown below at *Figure 1*.

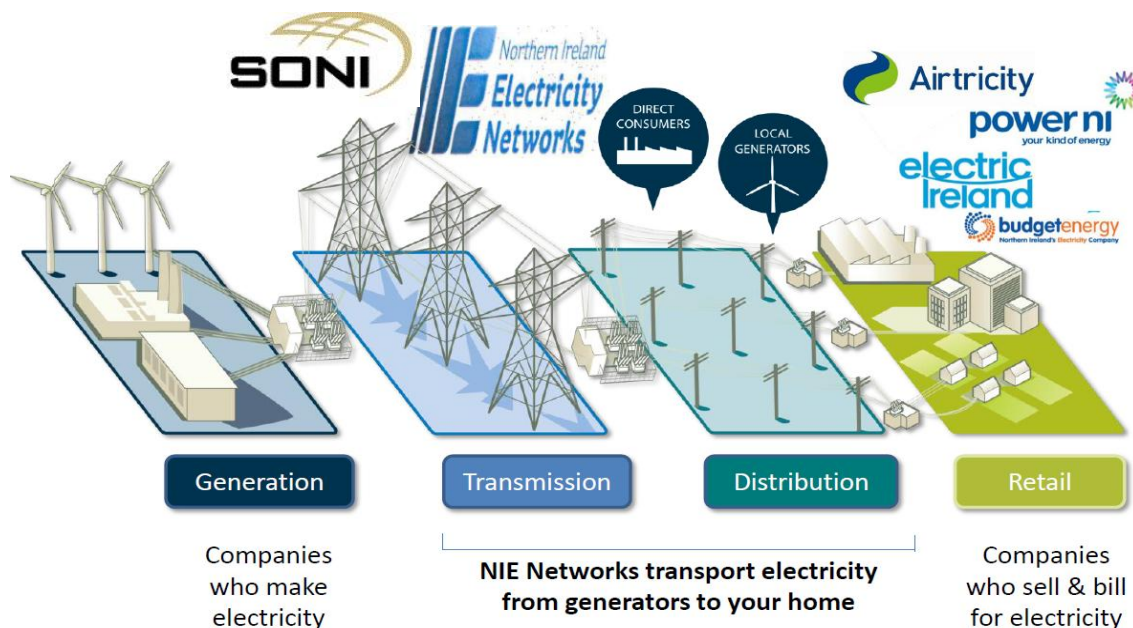


Figure 1 - Schematic of the electricity industry in Northern Ireland, and the role played by NIE and other companies

¹⁵ www.nienetworks.co.uk

¹⁶ Transmission relates to electricity lines of 110,000 volts or greater. Distribution relates to lines of less than 110,000 volts, all the way down to the service cable that goes to the meter in our homes and businesses.

2 Introduction

- 2.1 The objective of this appendix is to bring some transparency to the indicative outturn costs and performance of NIE Networks and its electricity network.
- 2.2 This appendix on NIE Networks costs and performance is the first of its kind for the Utility Regulator (UR) and therefore is a high level view, and based on the establishment of new reporting arrangements for NIE Networks.
- 2.3 The data used to produce this appendix is preliminary data from NIE Networks and is subject to change. The UR has recently created reporting templates and guidance for NIE Networks to use, and the accuracy of this appendix therefore depends on NIE Networks correct use and interpretation of the UR's templates and guidance.
- 2.4 The UR has focused on a few of the major areas of NIE Networks costs and performance, and has not identified the value of the incentive mechanisms which share cost risks between NIE Networks and customers.
- 2.5 The remainder of this appendix is broken into three sections as follows: NIE's Costs; the Electricity System Performance; and Next Steps.

3 NIE's Costs

Opex Costs

- 3.1 The term 'Opex Costs' is used to distinguish the ongoing running costs of NIE Networks electricity system. For example Opex Costs include: maintenance of poles and wires, business rates, meter reading and costs of supporting retail market opening.
- 3.2 Compared to the CC's Final Determination, NIE Networks have spent more than forecast for each of the three years ending 31st March 2013, 2014 and 2015. The main areas for the over-spending are: Inspections costs; Maintenance costs; Fault costs; and Indirect costs¹⁷.
- 3.3 For the three years ending 31st March 2015, NIE Networks have spent roughly £30m less than their original business plan.

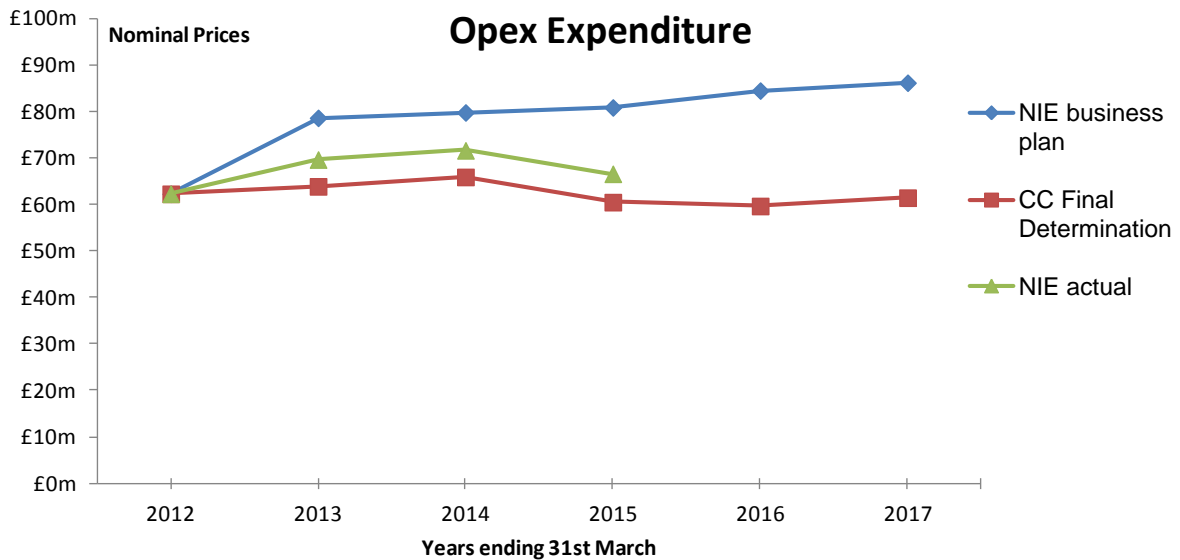


Figure 2 – NIE Networks' Opex expenditure, compared to NIE Networks' business plan and the CC's Final Determination

¹⁷ Indirect costs include: Engineering management costs; Finance & Regulation costs; and IT & Telecoms costs.

Capex Costs

- 3.4 The term 'Capex Costs' is used to refer to new assets installed on NIE Networks electricity system. For example Capex Costs include: the purchase and installation of new assets; replacing old assets; and connecting customers to the electricity network.
- 3.5 When compared to the CC's Final Determination NIE Networks have spent roughly £56m less than forecast, most of which occurred in the 2015 year.
- 3.6 The main reasons for the under-spend are; phasing of projects; and the targeting of lighter circuits pending the CC's Final Determination¹⁸.
- 3.7 For the three years ending 31st March 2015, NIE Networks have spent roughly £370m less than their original business plan.
- 3.8 The NIE Networks Business Plan, in some terms may not be comparable with the actual expenditure shown below eg the cost of the North South Interconnector is included within the NIE Networks business plan figure. We will consider this issue in further reporting for RP5.

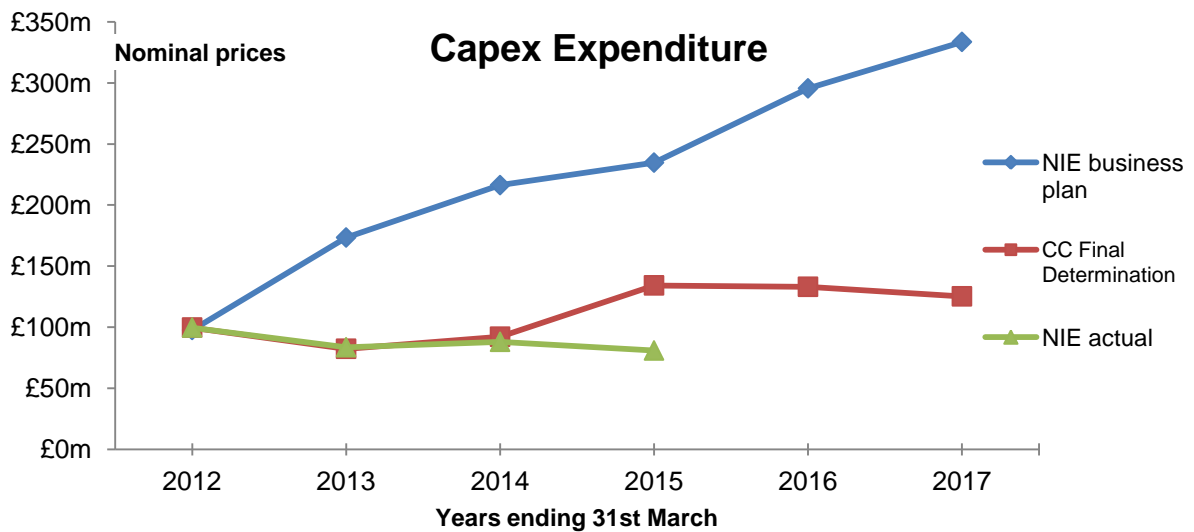


Figure 3 – NIE Networks' Capex expenditure, compared to NIE Networks' business plan and the CC's Final Determination

¹⁸ NIE Networks provided their original business plan to the UR in January 2011. The CC's FD was sent to both the UR and NIE on 26th March 2014.

4 Electricity System Performance

Introduction

- 4.1 It is important to consider how the electricity system is performing, in order to give a more meaningful picture of efficient investment.
- 4.2 One of the ways of assessing the performance of the electricity system is to monitor frequency and duration of interruptions to electricity supply. The frequency of interruptions is captured in a metric called Customer Interruptions (CI), and the duration of interruptions is captured in a metric called Customers Minutes Lost (CML).
- 4.3 Although the CC did not set targets for CI or CML, for the current price control (RP5), the UR intends to consider again these measures for the following price control (RP6).
- 4.4 For the purposes of this appendix the UR has focused on the duration of interruptions as captured in the CML metric.

Customer Minutes Lost

- 4.5 CML is the average minutes lost per customer, per year, where an interruption to electricity supply lasts for three minutes or longer.
- 4.6 The Customer (or Supply) Minutes Lost is a measure of reliability as it takes into account the amount of interruptions and the length of those interruptions. A network which is inadequately maintained will degrade and, after a time, have more frequent and lengthy faults which will be reflected in CML performance.
- 4.7 A degrading trend should not be assumed in the short term due to annual fluctuations in fault data and therefore it would not be prudent to give weight to the CML data at this time. We will, however, monitor the CML trend annually in order to identify potential links between under-investment and degrading network performance.

CML on Low Voltage System

- 4.8 The Low Voltage system feeds domestic and commercial loads. The UR will monitor the trend going forward.

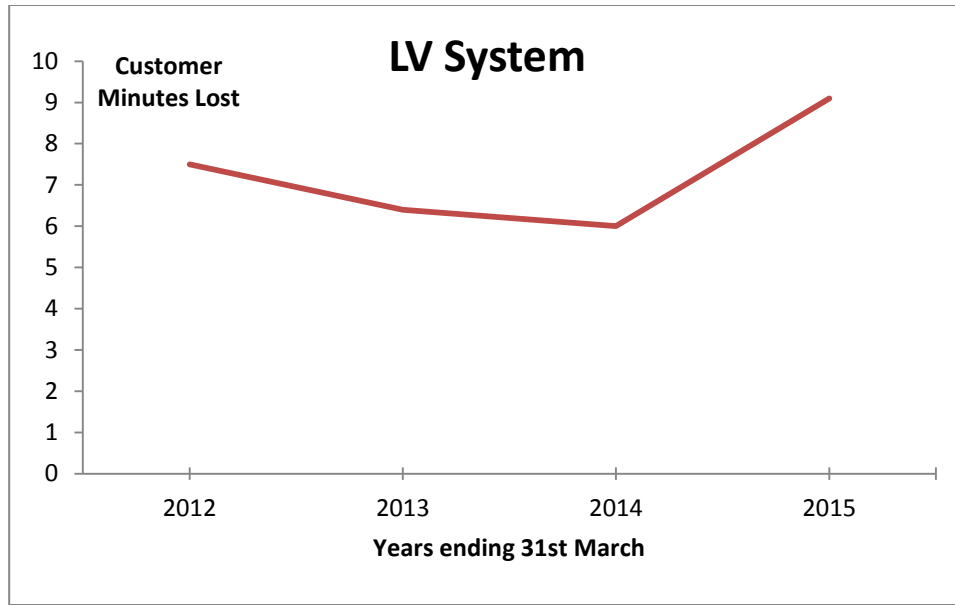


Figure 4 - The CML (on average, per customer, per year) on the Low Voltage system

CML on High Voltage System

- 4.9 The High Voltage system feeds some industrial consumers and the majority of secondary substation loads.
- 4.10 The UR will monitor the trend going forward.

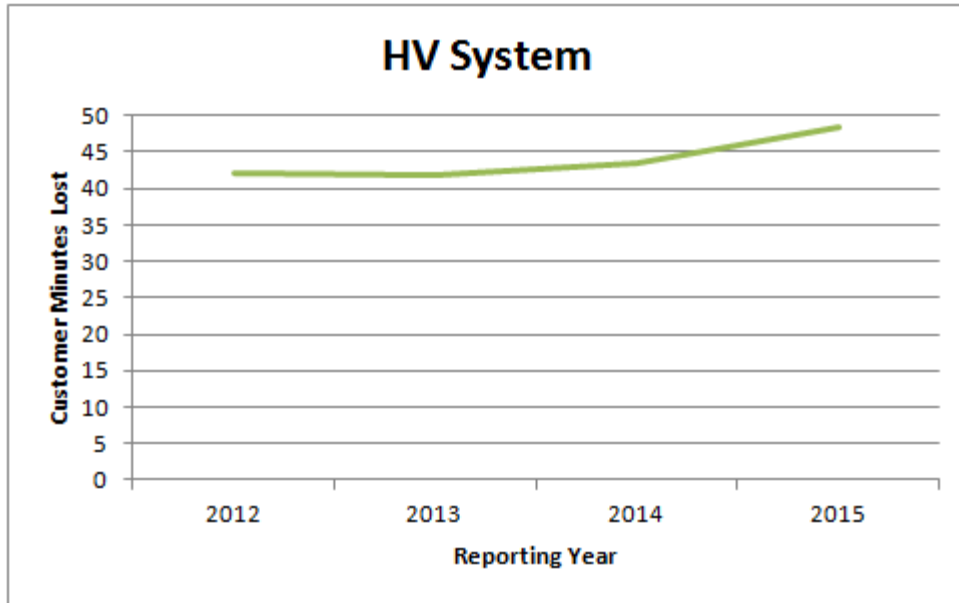


Figure 5 -

The CML (on average, per customer, per year) on the High Voltage system

5 Next Steps

- 5.1 In future years the UR intends to publish a report annually in order to give stakeholders a transparent view of how NIE Networks are performing and how actual data differs from forecasts.
- 5.2 The UR plans to build on the detail within the report and increase the level of commentary. This will occur in parallel with work on the next price control (RP6).