



NIE Networks RP7 Price Control: Our proposed approach

March 2022



About the Utility Regulator

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

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

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

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



Our mission

To protect the short- and long-term interests of consumers of electricity, gas and water.



Our vision

To ensure value and sustainability in energy and water.



Our values

- Be a best practice regulator: transparent, consistent, proportionate, accountable and targeted.
- Be professional – listening, explaining and acting with integrity.
- Be a collaborative, co-operative and learning team.
- Be motivated and empowered to make a difference.



Abstract

The purpose of this document is to consult stakeholders on the proposed high level approach to the next price control for Northern Ireland Electricity Networks (NIE Networks). NIE Networks develops, maintains and operates the transmission and distribution networks which bring electricity to our homes, places of work and social activity. This price control is due to be effective from 1 April 2024.

Audience

Industry, consumers and statutory bodies.

Consumer impact

NIE Networks has a pivotal role in society. It develops, maintains and operates the transmission and distribution networks which bring electricity to our homes, places of work and social activity. The effectiveness and efficiency of NIE Networks and the way it interacts with consumers is important to us all. The implementation of a new Energy Strategy, with the objective of delivering net zero, will result in changes in patterns of consumption and consumer expectations. It will require new ways of working and technologies to deliver in a changing and uncertain environment.

Our RP7 price control aims to enable NIE Networks to deliver the quality outputs that customers need and to set a framework for economic regulation of the sector through a period of transition at the lowest cost.



Contents

Executive Summary

1.	Introduction	6
	Purpose of this document	6
	Background	6
	The Price Control process	7
2.	Overall policy and strategic context	8
	Introduction	8
	Economic regulation of networks	8
	Overview of the price control process	9
	RP6 Price Control	10
	<i>OPEX performance in RP6</i>	10
	<i>CAPEX performance in RP6</i>	11
	<i>Weighted average cost of capital in RP6</i>	12
	Current energy policies and standards	13
	The Energy Strategy – the path to net zero	15
	European Clean Energy Package (CEP)	16
	Aims and objectives for RP7	17
3.	Our Approach to Key Areas	20
	Introduction	20
	General Overview	24
	<i>Introduction</i>	24
	General Price Control processes	24
	<i>A Proportionate Approach</i>	24
	<i>Duration of RP7</i>	25
	<i>General structure of the RP7 Price Control</i>	26
	<i>Information Requirements</i>	27
	<i>Business Plan Assessments</i>	30
	<i>Determinations and licence modifications</i>	31
	Consumer focus	31
	<i>Consumer engagement and stakeholder research</i>	31
	<i>Consumer Protection</i>	32
	<i>Developing meaningful consumer measures</i>	33
	<i>Digitalisation and data</i>	34
	Delivering the Energy Strategy - pathway to net zero	36
	<i>Introduction</i>	36



	<i>Forecast demand scenarios</i>	36
	<i>Whole system planning and solutions</i>	38
	<i>Distribution System Operator (DSO) transition</i>	40
	<i>System monitoring, control and data acquisition</i>	41
Network Resilience		42
	<i>Introduction</i>	42
	<i>Asset management excellence</i>	42
	<i>Making the case for investment</i>	43
	<i>Climate change adaptation</i>	44
	<i>Sustainability</i>	45
	<i>Cyber security</i>	45
	<i>Innovation</i>	46
Approach to key financial issues		47
	<i>Adjusting for inflation</i>	47
	<i>Weighted Average Cost of Capital (WACC)</i>	49
	<i>Financeability</i>	50
	<i>Regulatory asset base and depreciation</i>	50
	<i>Cost benchmarking</i>	51
	<i>Pensions</i>	53
Monitoring and enforcement		53
	<i>RP7 Monitoring Plan and future regulatory reporting</i>	53
Key areas falling outside the RP7 Price Control		54
	<i>Smart metering</i>	54
	<i>Connection charges policy</i>	54
	<i>Contestable Works in Connections</i>	54
	<i>TUoS revenue collection</i>	55
4. Timelines		56
	RP7 Timetable	56
5. Feedback		57
	How to provide feedback	57
	Publication of responses	57

Executive Summary

Introduction

NIE Networks develops, operates and maintains the transmission and distribution networks which allow consumers to access a secure supply of electricity. As a natural monopoly, the company is subject to economic regulation which protects consumers in Northern Ireland by ensuring that a good quality service is delivered at the lowest possible cost.

The Utility Regulator's primary role and principal objective in the electricity sector is to protect the interests of electricity consumers. One of the ways we do this is to carry out periodic price control reviews of NIE Networks' activities to determine efficient costs linked to outputs and levels of service.

A key outcome of the price control reviews is to set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need. In doing so, we challenge NIE Networks to improve its efficiency and performance. The NIE Networks price control period beginning on 1 April 2024 (RP7) will be our seventh price control for the company. In many aspects, the price control will follow regulatory practice established in RP5 and continued in RP6. We are currently proposing that it has a six-year duration, however are seeking views on this as part of this consultation.

The context for the price control

We are moving into a period where the demands and expectations placed on the electricity network are changing rapidly and this will impact the development of the RP7 Price Control. We are keen to work constructively with NIE Networks on its key assumptions while improving transparency as part of this process as both the Utility Regulator and NIE Networks meet the new challenges ahead.

In December 2021 the Northern Ireland Executive published its new Energy Strategy "*A path to net zero energy*". The overall goal of the strategy is to achieve net zero carbon and affordable energy for all. It will require increased generation of renewable electricity and higher levels of electrification of energy supplies. RP7 must facilitate this path to net zero as part of a fair, affordable and inclusive transition.

However, there are still uncertainties to be addressed as the strategy is developed. The rate of development and distribution of new renewable generation and the uptake of electric vehicles will have a major impact on demand. The use of new technologies and the choices consumers can (and are enabled to) make will impact the way electricity is distributed and consumed. The development of the electricity network will both influence and be affected by these developments. As a result, new mechanisms will be required to manage uncertainty. It will also require the

development or expansion of new approaches such as the purchase of services to defer investment and greater acquisition and visibility of data across the sector.

Overview of our approach

In this Approach document we set out our initial views on the high-level approach to our seventh price control for NIE Networks, referred to as RP7. This is based on best practice regulation of natural monopolies and covers the general price control process, consumer focus, delivering the energy strategy, network resilience and financial issues. We also identify some key issues we will deal with outside the price control process. Our proposed approach on the key issues is set out in more detail in Section 3, but we summarise the key aspects below:

Price control process – we plan to adopt a proportionate approach, based on a price control period of six years, continuing to use the general structure of the RP6 Price Control in RP7, including a revenue cap and the RP6 incentive and change mechanisms. We plan to base our information requirements on our Regulatory Information Guidelines and financial models for RP6. Additional requirements will be introduced to address the Energy Strategy. We plan to introduce a Business Plan Assessment process in RP7, similar to that used for the GD23 price control for gas distribution networks. We will publish a draft determination for consultation and then publish a final determination and on consult licence modifications which will give effect to our final determination.

Consumer focus - we expect NIE Networks to base its Business Plan on the outcome of ongoing consumer and stakeholder engagement. NIE Networks' business plan should also set out how it will deliver a reliable service to all its customers and provide extra support to those who may have additional needs or vulnerabilities, including adopting the themes and delivering the requirements of our Consumer Protection Programme and Best Practice Framework. NIE Networks should develop a set of meaningful consumer measures to show what its plan will deliver and provide a basis for future monitoring. NIE Networks should also set out its plans to make data and system service opportunities/platforms available to consumers (or its intermediaries) in conjunction with other stakeholders to inform these choices

Delivering the Energy Strategy – the Path to Net Zero energy - we expect the company to assess how the range of forecast scenarios impact on peak loads and investment up to 2030 and propose investment which is reasonably certain and necessary under a range of future scenarios. Setting out how NIE Networks will co-operate and co-ordinate with SONI and other relevant stakeholders, to consider whole system impacts and decarbonise at least cost and securely is also key. Additionally we expect NIE Networks to set out how it plans to develop as a Distribution System Operator with the capability to actively manage the network at a local level. Finally, we expect NIE Networks to set out its initial plans for investment

in system monitoring, system control and the data acquisition necessary to deliver the Energy Strategy.

Network Resilience - NIE Networks should demonstrate effective long-term stewardship of the asset base and the process to deliver asset management excellence. Setting out the need for the investment and demonstrating that it will be delivered at least cost will also need to be explained. NIE Networks should also set out how climate change might affect the performance or security of its assets and the steps it needs to take to ensure that the risk to network services is managed (including the environmental sustainability of these services). We also expect the company to ensure that cyber security is addressed. Finally we would like to see the company being innovative in its activities and demonstrate the benefit of innovation in RP6 and take account of innovation by other network operators.

Financial issues – We plan to change the general measure of inflation from RPI to Consumer Price Index with Housing Costs (CPIH) in RP7 and will continue to use the Capital Asset Pricing Model (CAPM) to determine a weighted average cost of capital. The financeability of our decisions in respect of an ‘efficient licence holder’ will be tested using established financial metrics. We propose to maintain the current structure of the Regulatory Asset Base and depreciation rates. A range of cost benchmarking will be undertaken to assess cost efficiency. We will also continue to determine ongoing pension contributions through benchmarking. Finally, we will fund pension deficit repair costs for assets and liabilities attributable to pensionable service up to 31 March 2012, subject to an early retirement deficit contribution liability factor.

Key issues falling outside the RP7 price control - given some uncertainty, we will provide for a re-opener mechanism to address changes in costs arising if smart meters are adopted. We will engage separately with NIE Networks and DfE in relation to any consideration of connection charging policy within Northern Ireland and work is underway to introduce further contestable works within electricity connections. As set out in our 2020 to 2025 SONI price control final determination, we plan to move TUoS revenue collection cash-flow timing risk from SONI to NIE Networks in time for the start of RP7.

Responding to our consultation

Our consultation closes on 4 May 2022 at 5 pm. Our preference is that responses are submitted by e-mail: [Electricity Networks Response@uregni.gov.uk](mailto:Electricity_Networks_Response@uregni.gov.uk) copied to Sean.Lyons@uregni.gov.uk

1. Introduction

Purpose of this document

- 1.1 The purpose of this document is to set out our initial views on the high-level approach to our seventh price control for NIE Networks, referred to as RP7. It has been published for consultation and views are sought on the approach and strategy the Utility Regulator plans to follow and issues we should consider.
- 1.2 Chapter 5 below provides information on how to respond to this consultation and we ask that feedback is provided by 4 May 2022.

Background

- 1.3 NIE Networks is responsible for building and maintaining electricity transmission and distribution networks which allow consumers to access a secure supply of electricity. It is a natural monopoly which operates under separate transmission and distribution licences granted under the Article 10A and 10B of the Electricity (Northern Ireland) Order 1992.
- 1.4 Its work forms part of the overall system of electricity supply which also includes:
 - a) Generators who sell electricity and other services into the Single Electricity market or direct to supply companies;
 - b) The System Operator for Northern Ireland (SONI) which is responsible for matching supply and demand for power across Northern Ireland as well as the design and operation of the transmission network; and
 - c) Supply companies which supply electricity to consumers. Supply companies' charges for electricity include the cost of networks, system services and other costs necessary to deliver electricity to consumers.
- 1.5 Because NIE Networks is a natural monopoly, it is subject to economic regulation which protects consumers by ensuring a good quality of service delivered at a reasonable cost. The amount of revenue which NIE Networks earns is determined by the Utility Regulator through periodic price reviews following scrutiny and challenge of the company's plans and consultation with stakeholders.
- 1.6 The current price control for NIE Networks (RP6) comes to an end on 31 March 2024. This document sets out our approach to the next price control (RP7) which will begin on 1 April 2024.

The Price Control process

- 1.7 Through the RP7 price control we will assess NIE Networks' plans for the development, operation and maintenance of its networks in light of consumer needs and the impact of a new Energy Strategy for Northern Ireland.
- 1.8 NIE Networks will submit a business plan for our consideration. This will set out its proposals to ensure consumers receive the appropriate level of service at an appropriate cost.
- 1.9 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.
- 1.10 This document sets out our minded to approach to RP7 in the following chapters:

Chapter 2	Overall policy and strategic context
Chapter 3	Approach to key areas
Chapter 4	Timetable and engagement
Chapter 5	How to respond

2. Overall policy and strategic context

Introduction

2.1 This chapter of our approach provides a brief overview of the policy and strategic context for the RP7 price control. In particular, it provides information on:

- the economic regulation of networks;
- an overview of the price control process;
- the RP6 price control;
- key energy policies and standards;
- the impact of Energy Strategy ('The Path to Net Zero') on the development and delivery of RP7; and,
- our aims and objectives for RP7.

Economic regulation of networks

2.2 The provision of electricity transmission and distribution services tends to be a natural monopoly which, in the case of Northern Ireland, is delivered by NIE Networks (with SONI responsible for the operation of the transmission network owned by NIE Networks) across all areas of the province.

2.3 While consumers may change their electricity supplier, they cannot change their network operator in order to receive better network 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.

2.4 A regulatory framework is 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.

- 2.5 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.
- 2.6 By subjecting monopoly service providers to external benchmarking and challenge, independent economic regulation helps ensure that they continue to act in the consumers' interest.
- 2.7 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

- 2.8 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.
- 2.9 While an objective of a price control is to ensure clarity of cost and outcome, it is not always possible to define these with sufficient certainty in a determination. Examples of uncertainty are the impact of changes in legislation or the implementation of large schemes which could not be defined at the time of the price control. To address this uncertainty, a price control can include change control mechanisms which allow further costs and outputs to be determined during the course of the price control.
- 2.10 The wide-ranging price control process includes a number of distinct stages:
- The Utility Regulator sets out its approach and timescales and develops information requirements for the business plan submission;
 - NIE Networks will prepare a business plan (including actual data from 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. In doing so, we challenge NIE Networks to improve its efficiency and performance relative to its peers, for example, similar companies in Great Britain;

- We consider the need to manage uncertainty and agility, and set out mechanisms for doing this. The results of our assessment inform our draft determination;
- We then carefully consider all responses received from the draft determination 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; and
- We then assess the responses received to the consultation on licence modifications and carefully consider all responses received before publishing our licence modifications decision.

RP6 Price Control

- 2.11 Our final determination for RP6 was published on 4 July 2017. The publication included accompanying licence modifications for NIE's transmission and distribution licences.
- 2.12 The RP6 price control covered the period from 1 October 2017 to 31 March 2024¹. The key financial allowances for the price control period were determined (in a 2015-16 financial year price base with Retail Price Index (RPI) used as a general measure of inflation) as:
- operating expenditure (OPEX) £426m;
 - capital expenditure (CAPEX) £657m;
 - pension costs £84m;
 - weighted average cost of capital 3.18%

OPEX performance in RP6

- 2.13 A small element of the operating allowances in the RP6 price control is subject to a pass through mechanism which allows NIE Networks to recover the costs incurred. But for the remainder (and majority) of OPEX, expenditure is subject to a cost risk sharing mechanism whereby the company retains 50% of any outperformance and bears 50% of any cost

¹ [RP6 Final Determination | Utility Regulator \(ureg.gov.uk\)](https://www.ureg.gov.uk/rp6-final-determination)

overrun. This cost risk sharing mechanism incentivises the company to out-performance its OPEX allowance and reveals new levels of performance which become the baseline for its RP7 Business Plan.

2.14 A comparison of RP6 OPEX allowances and expenditure to date is shown in Figure 2.1 below. The company has out-performed its cumulative OPEX allowance by 5.2% to date and will retain half of this out-performance.

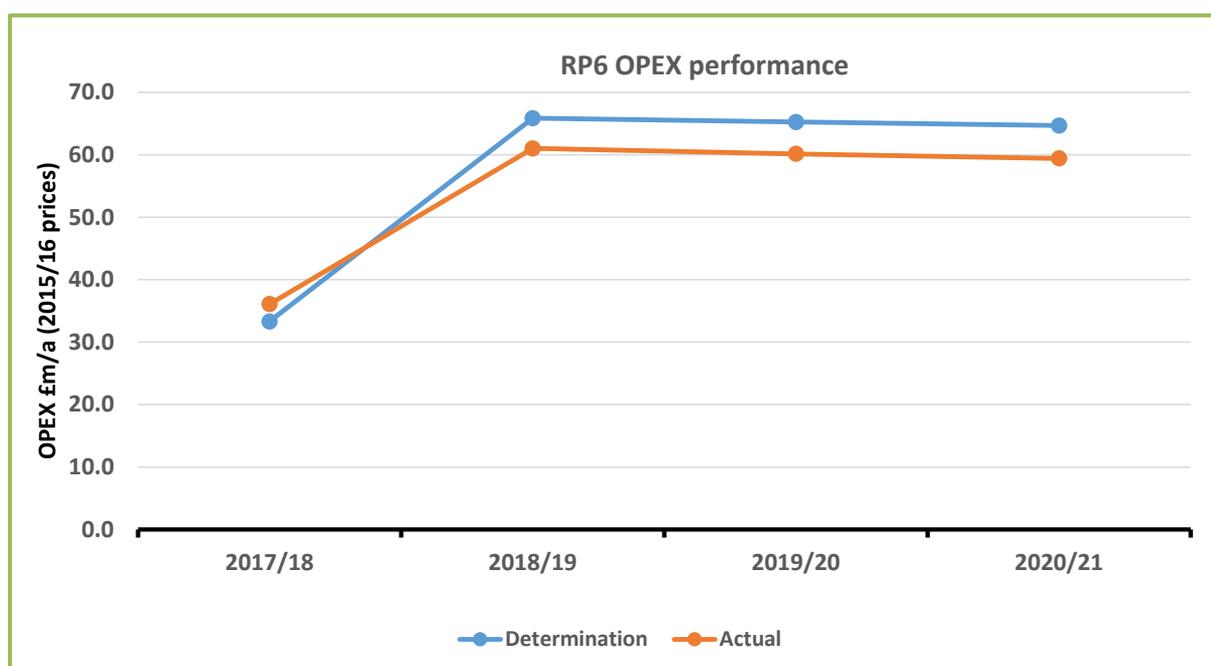


Figure 2.1 - RP6 OPEX performance

CAPEX performance in RP6

2.15 The capital expenditure allowances reported below include the allowances determined in the RP6 final determination mechanisms and further allowances determined during RP6 under the D5², Change of Law change and Low Carbon Technology (LCT³) re-opener mechanisms.

2.16 NIE Networks' capital expenditure in the first two and a half years of RP6 was in line with the determination. Expenditure in 2020/21 was lower than expected with work impacted by the Covid-19 pandemic. We expect capital investment to increase over the remaining years of RP6 as work delayed by Covid-19 is completed and as additional investment determined under the D5 and LCT mechanisms moves from development to delivery. This

² The D5 mechanisms allows investment projects to increase transmission system capacity to be determined as the scope and timing is confirmed by SONI.

³ The LCT (Low Carbon Technology) allowed the price control to be adjusted as the impact of LCT such as electrical vehicle and heat pump uptake developed.

includes work on the “Green Recovery”⁴ initiative which will begin to provide the capacity necessary to deliver the Energy Strategy.

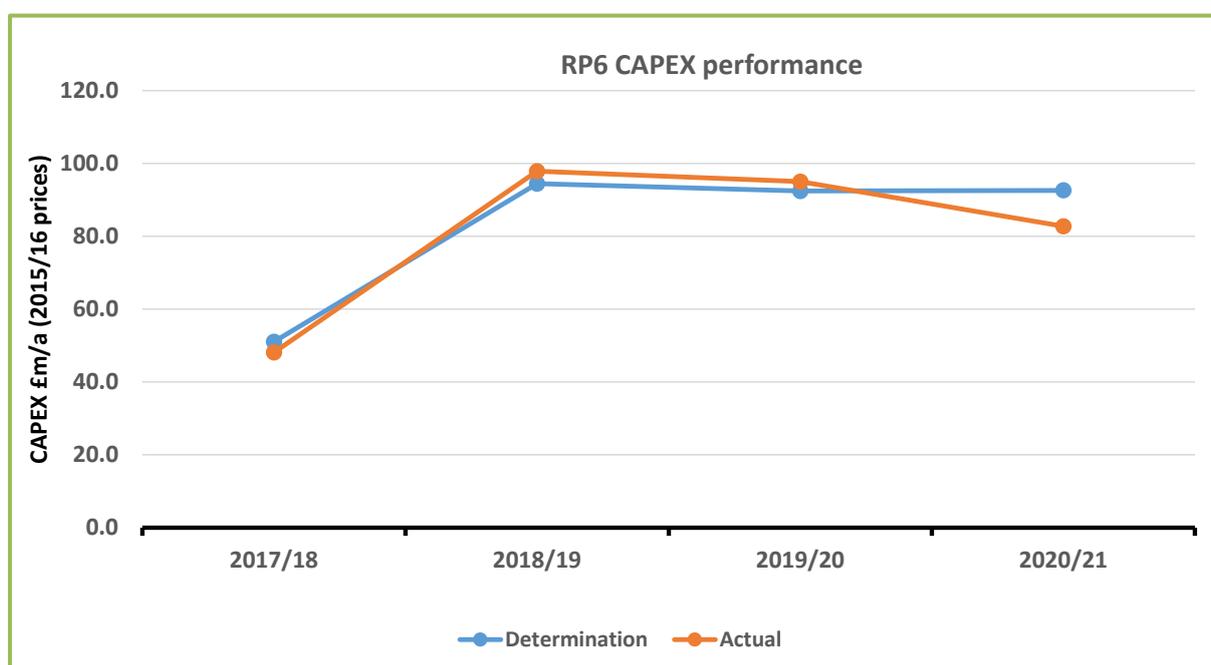


Figure 2.2 - RP6 CAPEX performance

Weighted average cost of capital in RP6

- 2.17 As part of our duty to secure that the licence holder can finance its activities, we determined a weighted average cost of capital (WACC) of 3.18% for RP6 (in real terms relative to RPI). This took account of a mix of debt and equity finance. We introduced a debt mechanism in the RP6 price control which adjusts the WACC to reflect the actual cost of debt raised by the company. Consumers share part of the benefit if the cost of debt raised is lower than estimated in the final determination, or part of the additional cost if the cost of debt raised is higher than expected. To date, interest rates on debt raised have been lower than estimated at the time of the RP6 final determination and the WACC has reduced to 3.14% in 2020/21.
- 2.18 The lower cost of debt raised continues the long-term trend of reducing financing costs which continue to be reflected in recent determinations for

⁴ https://www.nienetworks.co.uk/documents/future_plans/green-recovery-briefing-paper-to-economy-committee.aspx

regulated network companies by Ofwat⁵ in England & Wales, and Ofgem⁶ in GB.

Current energy policies and standards

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

- a) The function of NIE Networks as defined in legislation, is:
 - (i) *to take such steps as are reasonably practicable within the framework of,...[the] licence to promote the development and maintenance of an efficient, co-ordinated and economical system of electricity transmission; and*
 - (ii) *to facilitate competition in the supply and generation of electricity.”*
- b) Northern Ireland's electricity wholesale market operates on an all-island basis and is known as the Single Electricity Market (SEM). As such, NIE Networks' wider stakeholder group includes its counterparts and other energy market participants in Ireland. Additionally in Northern Ireland, the electricity distribution company, NIE Networks, carries out functions that its GB peers do not 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.
- c) The Department for the Economy (DfE) has published a new Energy Strategy for Northern Ireland Energy. This lays out the Northern Ireland Executive's vision for the road to zero decarbonisation by 2050 and the RP7 determination must take this into consideration.
- d) Transmission Interface Arrangements is the document governing how SONI (Transmission System Operator) and NIE Networks (Transmission Owner) interact with each other with respect to planning and design tasks.

⁵ <https://www.ofwat.gov.uk/regulated-companies/price-review/2019-price-review/final-determinations/>

⁶ [RIIO-2 Final Determinations for Transmission and Gas Distribution network companies and the Electricity System Operator/ Ofgem](#)

- e) 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. We expect incentives for new technologies to be implemented creating the need for more active distribution operational decision-making to allow continued connection of the new technologies.
- f) The company must design and operate its networks to comply with codes of practice established under the licence. These codes are developed by the Energy Networks Association and adopted by the company subject to approval by the Utility Regulator. For example:
 - (i) the Distribution Code: sets out what is optimal (technically) for all users and the Distribution Network Operator (DNO) itself in relation to the planning, operation and use of the distribution system; and
 - (ii) the Distribution System Security and Planning Standards: this is a suite of six separate documents defining the range of key criteria such as voltage limits, voltage unbalance and maximum harmonic distortion
- g) Electricity Safety, Quality and Continuity Regulations (ESQCR): legislation 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.
- h) 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, code of practice for theft of electricity and a code for the provision of services for persons who are of pensionable age or disabled.
- i) Guaranteed Standards of Service: NIE Networks is currently subject to Standards of Performance Regulations. Its peers in the Distribution Network Owner businesses in GB are also subject to these performance standards. This is an area currently under review by the Utility Regulator.

- j) Connections: we will consider connections-related matters in the context of the development of NIE Networks' connections policy and ongoing work on establishing further contestable works in Northern Ireland.

The Energy Strategy – the path to net zero.

- 2.20 In December 2021, the Northern Ireland Executive published its new Energy Strategy “A path to net zero energy”. The overall goal of the strategy is to achieve net zero carbon and affordable energy for all.
- 2.21 The strategy envisages renewable electricity and higher levels of electrification of energy supplies with increased demand, off-set in part by improved efficiency. RP7 must facilitate this path to net zero as part of a fair, affordable and inclusive transition. To assist in informing this draft approach for RP7 we have undertaken high level engagement with DfE, DfI and CCNI on key issues for the RP7 price control including those issues arising from the DfE new Energy Strategy “A path to net zero energy”.
- 2.22 The work that NIE Networks will do in RP7 will be critical to delivering the flexible, resilient and integrated energy system described in the strategy including:
 - a) *Growing and diversifying our renewables base to better meet systems' demands when the wind is not blowing and the sun is not shining.*
 - b) *Robust and well-planned infrastructure to maximise the use of locally-generated, low-carbon electricity, complemented by interconnection to other markets to access low carbon electricity produced elsewhere.*
 - c) *Storage solutions, for example using batteries or storing hydrogen, to enable flexible access to low-carbon energy when renewable generation is low.*
 - d) *Development of markets to encourage consumers to provide important services to minimise peaks in demand and better integrate low-carbon power, heat and transport.*
 - e) *Access to real-time consumption data through technologies which help electricity system operators to manage the system.*
- 2.23 However, there are still details to be addressed as the strategy is developed and implemented. The rate of development and distribution of new renewable generation and the uptake of electric vehicles will have a major impact on demand. The use of new technologies and the choices consumers can (and are enabled to) make will impact the way electricity is

distributed and consumed. The development of the electricity network will both influence and be affected by these developments.

2.24 The delivery of a flexible, resilient and integrated energy system will require a change in approach from RP6. The RP6 price control was based on a relatively stable environment. The key drivers were the need to maintain, operate and grow the network and historical performance and growth trends could be used to estimate future needs and costs. At the time, the uptake of low carbon technologies was low and increasing slowly and its impact on RP6 was covered by an LCT re-opener. In RP7, there is an expectation that consumer behaviour will change in line with government policy to deliver net zero. The impact of this is uncertain. In RP7, estimates of activity and costs required to operate and maintain the network can continue to be based on historical performance and benchmarking. However, estimates of future demand, how this is distributed and the impact it will have on the network will become reliant on new scenario modelling that will take into account the possible paths created by the impact of new carbon technologies. These scenarios will cover different pathways to net zero and different rates of uptake of new technologies. To address these issues we expect NIE Networks to:

- a) Develop a plan which responds to national and local policy guidelines and the clear direction of travel set out in the Energy Strategy to assess how new technologies and rate of uptake will change the level and distribution of demand over the RP7 period. This assessment should consider a range of scenarios and look beyond the RP7 period to ensure that investment proposed in RP7 takes account of the longer term;
- b) develop a plan based on investment which is both reasonably certain and required over a range of demand scenarios; and
- c) consider alternatives to investment such as consumer demand management or the purchase of other system services where this would avoid investment or delay investment to a time when there is greater clarity on future demand.

2.25 In a changing and uncertain environment, it will not be possible to account for all possible outcomes and new regulatory mechanisms will be required to manage uncertainty.

European Clean Energy Package (CEP).

2.26 The Electricity Directive of the European Clean Energy Package (CEP) specifies a number of rights and responsibilities for active customers and

system operators which will be legislated for in parallel with the implementation of Northern Ireland's new energy strategy.

- 2.27 We would expect NIE Networks to include in its business plan, any additional costs placed on the system operator on new activities to ensure compliance with the Clean Energy Package requirements.

Aims and objectives for RP7

- 2.28 Our aims and objectives for RP7 are set within the overall policy and strategic context described above.
- 2.29 The Utility Regulator has a legal obligation to protect the interests of consumers. This can only be achieved where we aim to balance the need to:
- a) ensure that RP7 reflects consumer priorities, delivers improved consumer protection, with a particular focus on consumers in vulnerable circumstances and develops the information and systems necessary to allow consumers to engage in the energy transition;
 - b) promote the development of the electricity network to deliver the overall path to net zero of the Energy Strategy in a proportionate way;
 - c) minimise the overall cost to consumers while securing the ability of NIE Networks to finance its functions; and
 - d) develop adequate mechanisms to manage the uncertainty, in particular the uncertainty over how the energy strategy will be delivered.
- 2.30 To enable the successful achievement of the above aims, we must deliver on the following RP7 objectives:
- Continue the consumer engagement underway in the RP6 period, and ensure that plans for RP7 reflect the priorities that consumers have been correctly identified.
 - Secure the delivery of enhanced services and protections for consumers, in particular consumers in vulnerable circumstances, in line with the Utility Regulator's Consumer Protection Programme.
 - Improve the collection and publication of network information through a digitalisation strategy and action plan to provide consumers and service providers with the information necessary to actively engage in the energy transition.

- Develop outputs and meaningful consumer measures which will allow the delivery of the plan in the RP7 period to be monitored and reported to consumers.
- Ensure that RP7 promotes the development of a flexible, resilient and integrated electricity network, capable of supporting the path to net zero in a proportionate way.
- Make provision for investment and activities in RP7 which are reasonably certain across a range of future demand scenarios and include uncertainty mechanisms which will allow the determination to be adjusted where connections and changes in demand are materially greater or less than anticipated.
- Ensure that the plan considers alternatives to investment such as demand management or the purchase of services to manage future change in demand.
- Ensure the plan takes account of the need to respond to climate change, including improving resilience to flooding, extreme weather conditions and controlling the emissions of greenhouse gas from the network and operational activities.
- Challenge NIE Networks to at least match the efficiency and performance to the top quartile of GB DNOs and to continue to deliver productivity and performance improvements into RP7.
- Ensure that NIE Networks captures the outcome of innovation funding in the RP6 period and the benefits of innovation work funded in GB to drive improved outcomes and lower costs for consumers in its plans for RP7.
- Set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need while ensuring that NIE Networks can continue to finance its functions.
- Ensure proportionate regulation, including maximising the advantages of one to one regulation, through the use of shared data sets used consistently.
- Ensure RP7 aligns with the evolving connections framework including contestability.
- Deliver excellence in asset management compared with GB DNOs.

2.31 We would encourage other stakeholders to consider and expand on this outline set of aims and objectives for RP7 in response to the consultation on our approach.

3. Our Approach to Key Areas

Introduction

- 3.1 We will develop our overall approach to the RP7 within the policy and strategic context and the aims and objectives described above.
- 3.2 In this section, we have expanded on key areas of our approach on:
- General price control processes;
 - Consumer issues;
 - Delivering the energy strategy and responding to climate change;
 - Ensuring efficiency delivery and financing the plan;
 - Managing uncertainty; and
 - Issues falling outside the RP7 Price Control process.
- 3.3 Before expanding on these issues in detail, we have provided a summary of our proposals in Table 3.1.

Topic	Summary
General price control processes	
A proportionate approach	We will adopt a proportionate approach in our work, working alongside NIE Networks to develop agreed assumptions and understanding. Our approach will reflect the quality of the information and clarity of explanations provided by NIE Networks.
Duration	We are currently proposing a 6 year duration for RP7 covering the period from April 2024 to March 2030.
General structure of the RP7 Price Control	We plan to continue to use the general structure of the RP6 Price Control in RP7, including a revenue cap and the RP6 incentive and change mechanisms. We would welcome proposals from NIE Networks for additional incentive mechanisms to drive improved service and agility in RP7.
Information Requirements	We plan to base our information requirements on our Regulatory Information Guidelines and financial models for RP6. This will maintain consistency of data collection from RP5 through the RP6 price control. Additional requirements will be introduced to address the Energy Strategy.
Business Plan Assessment	We plan to introduce a Business Plan Assessment process in RP7, similar to the process included in our information requirements for the GD23 price control for gas distribution networks.
Determinations and licence modifications	We will publish a draft determination for consultation and then publish a final determination. We will consult on licence modifications which will give effect to our final determination.
Consumer focus	
Consumer engagement	We expect NIE Networks to base its Business Plan on the outcome of ongoing consumer and stakeholder engagement undertaken with the input of key stakeholders through the Consumer Engagement Advisory Panel.
Consumer protection	We expect NIE Networks' business plans to set out how it will deliver a reliable service to all its customers and to provide extra support to those customers who may have additional needs or vulnerabilities, including adopting the themes and delivering the requirements of the Utility Regulator's Consumer Protection Programme and Best Practice Framework.
Meaningful consumer measures	NIE Networks should develop a set of meaningful measures which show what its plan will deliver and provide a basis for future monitoring.
Digitalisation and data	Delivery of the Energy Strategy will require consumers to make informed choices on how and when to use energy. NIE Networks should set out its plans to make data and system service opportunities/platforms available to consumers (or its intermediaries) in conjunction with other stakeholders to inform these choices.
Delivering the Energy Strategy – the path to net zero energy	

Forecast demand scenarios	We expect the company to assess how the range of forecast scenarios impact on peak loads and investment up to 2030 and propose investment which is reasonably certain and necessary under a range of future scenarios. We will work with NIE Networks to ensure a common understanding and assumptions.
Whole system planning and solutions	We expect NIE Networks to set out how it will co-operate and co-ordinate with SONI and other relevant stakeholders to consider whole system impacts and decarbonise at least cost and securely.
Distribution System Operator (DSO) transition	We expect NIE Networks to set out how it plans to develop as a Distribution System Operator with the capability to actively manage the network at a local level supporting active consumer participation, consumer choice and improved customer service.
System monitoring, control and data acquisition	We expect NIE Networks to set out its initial plans for investment in system monitoring, system control and data acquisition necessary to deliver the Energy Strategy
Network Resilience	
Asset management excellence	NIE Networks should demonstrate effective long-term stewardship of the asset base and the process in place to deliver asset management excellence.
Making the case for investment	NIE Networks should explain the need for investment in RP7 setting out the need for the investment and demonstrating that it will be delivered at least cost.
Climate change adaptation	NIE Networks should set out how climate change might affect the performance or security of its assets and the steps it needs to take to ensure that the risk to services is managed as global temperatures continue to increase.
Sustainability	NIE Networks should set out how it plans to improve the environmental sustainability of the network services it delivers, taking account of its own greenhouse gas emissions and other environmental impacts.
Cyber security	We expect the company to ensure that its current systems are cyber secure and to ensure cyber security is addressed as it expands monitoring, control and data acquisition.
Innovation	We expect the company to undertake innovation as part of its “Business as Usual” activities, demonstrate the benefit of innovation funded in RP6 and take account of work on innovation by other network operators.
Financial Issues	
Adjusting for inflation	We plan to change the general measure of inflation from RPI ⁷ in RP6 to Consumer Price Index with Housing Costs (CPIH) in RP7.
Weighted average cost of capital (WACC)	We will continue to use the Capital Asset Pricing Model (CAPM) model to determine a weighted average cost of capital for RP7.
Financeability	We will continue to test the financeability of our decisions in respect of an ‘efficient licence holder’ using established financial metrics such as gearing, debt ratios and interest rate cover.

Regulatory asset base and depreciation	We plan to maintain the current structure of the Regulatory Asset Base and depreciation rates for RP7 unless there is a compelling reason for doing otherwise.
Cost benchmarking	We will undertake a range of cost benchmarking to assess cost efficiency including top-down and middle-up econometric benchmarking and unit cost challenge.
Pensions	We will continue to determine on-going pension contributions through benchmarking. In line with our established pension principles, we will fund pension deficit repair costs for assets and liabilities attributable to pensionable service up to 31 March 2012, subject to an early retirement deficit contribution liability factor.
Key issues falling outside RP7 price control	
Smart Metering	DfE plans to carry out a cost benefit analysis on smart data in 2022 which may result in a move to Smart meters. We intend to include a re-opener mechanism in our RP7 price control to address changes in costs arising if Smart meters are adopted.
Connection charging policy	We will engage separately with NIE Networks and DfE in relation to any consideration of connection policy within Northern Ireland.
Contestability	Work is underway to introduce further contestable works within electricity connections. We intend to ensure appropriate NIE Networks' costs are allowed for within RP7.
Transmission Use of System Charges (TUoS) revenue recovery	As set out in our 2020 to 2025 SONI price control final determination, we plan to move TUoS revenue collection cashflow timing risk from SONI to NIE Networks in time for the start of RP7. NIE Networks' business plan will need to take account of this risk transfer as will the RP7 price control package. We plan to consult on appropriate licence modifications for SONI and NIE Networks to implement this decision.

Table 3.1: Summary approach to RP7

⁷ [House of Lords - Measuring Inflation - Economic Affairs Committee \(parliament.uk\)](https://www.parliament.uk/economic-affairs-committee)

General Overview

Introduction

- 3.4 We propose that 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.
- 3.5 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 propose to 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.
- 3.6 We will also carefully consider the impact of any price control decisions on consumers.
- 3.7 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 therefore envisage clearly setting out our information requirements and liaising with NIE Networks on an ongoing basis through a formal query process, with defined timescales, at working level.
- 3.8 No surprises - we will adopt a 'no surprises' approach as we believe this will assist all parties in developing their roles within the regulatory process.
- 3.9 Reporting Instructions and Guidance (RIGs) have been in use since RP5 and NIE Networks is now proficient at populating the data templates. In doing so, it has provided a baseline of actual expenditure incurred, on a consistent basis, to support future benchmarking with its peers.
- 3.10 In Section 4 of this document we provide a timeline of the key milestones which will be followed throughout the RP7 price control process.

General Price Control processes

A Proportionate Approach

- 3.11 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.
- 3.12 We will apply a number of principles to ensure a proportionate approach.

3.13 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 and for this case we will be prudent and conservative.

3.14 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.

3.15 We intend to engage with NIE Networks to agree assumptions and understand its modelling. We expect NIE Networks to have developed its IT and data systems necessary to support its own robust assessment of expenditure and outputs and we will work with them to ensure we understand these prior to the business plan submission. Where it is necessary to adopt a light-touch approach because there is insufficient data, we will adopt an approach to funding which is prudent and conservative until the company can develop a robust approach based on sound data.

Duration of RP7

3.16 The RP6 price control was set for a period of six and a half years beginning in October 2017. This was as a result of the determination of RP5 by the Competition Commission, now the Competition and Markets Authority (CMA) which covered half of the financial year up to September 2017.

3.17 In our recent network price controls for NI Water (PC15 and PC21) and gas distribution networks (GD17 and GD23), we have adopted a six year duration. We consider this duration allows NIE Networks reasonable time and space to plan and develop its network and services within a well-founded regulatory contract while reducing the uncertainty which comes from longer duration price controls. We are aware that Ofgem has moved from eight year price controls to a five year control for RIIO_ED2 (currently in development) to better manage the uncertainty of the energy transition. However, we currently consider that a six year duration continues to strike 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.

- 3.18 However, in view of the uncertainty created by the transition to net zero, we will consider reviewing the outputs and need for investment at the mid-point of the RP7 price control to take account of material changes in demand. This would be a limited review focused on changes in outputs and we would not expect to amend other financial targets such as return on capital or benchmarked operational costs during that review.
- 3.19 We are especially interested in consultees' views relating to the proposed duration and possible use of a mid-point review.

General structure of the RP7 Price Control

- 3.20 The RP6 Price Control is based on a revenue cap. A revenue cap price control sets rules which allow an upper limit to be set on the amount of revenue the regulated company can raise. The company is not incentivised to obtain additional customers and is not exposed to consumption risk. We consider that this approach is appropriate for a network company which already provides an almost universal service and there is every reason for new consumers to connect. We plan to continue to apply a revenue cap regime in RP7.
- 3.21 RP6 included a series of rules creating an upper limit to be set on the amount of revenue the company can raise. These included as appropriate, pre-determined cost allowances, pre-determined unit cost drivers and a range of incentive and correction mechanisms. For example:
- a 50/50 cost risk sharing mechanism against pre-determined cost allowance to incentivise and share out-performance. For RP7 we will consider whether the 50/50 cost share rate remains appropriate if uncertainty and risk increases in RP7;
 - re-opener mechanisms to allow ex-ante allowances to be determined for large transmission projects, selected distribution projects and low-carbon technology; and
 - volume-related allowances for metering.
- 3.22 We plan to continue to use the mechanisms identified on 3.21 in the RP7 Price Control.
- 3.23 In RP6, we introduced a financial incentive mechanism for the reduction of customer minutes lost. This rewards the company for out-performance against target while providing freedom for the company to decide on the

types and level of activity it undertakes to deliver these improvements. Over time it exposes new levels of performance and cost which can be used as the baseline for future determinations.

- 3.24 We would welcome proposals from NIE Networks for further incentive mechanisms for RP7. Any incentive mechanisms should be linked to tangible and sustainable improvements in performance at a cost which consumers are willing to pay. The company should explain why any incentive mechanism it proposes is a better alternative to including planned activities to deliver the same effect in the Price Control. The company should show that it has robust information on current performance trends which will allow future incentive targets to be set. This includes demonstrating how performance against the incentive mechanism can be separated from other improvements such as network upgrades funded through the Price Control.
- 3.25 We will continue to use reputational incentives, largely supported by the publication of NIE Networks' performance during RP7 against targeted outcomes / outputs and KPIs as included within the RP7 Monitoring Plan at conclusion of the RP7 determination process.

Information Requirements

- 3.26 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.
- 3.27 For RP7 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 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 its business plan;
 - add additional information requirements where necessary, for example to support efficiency assessments and capture information on 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;
- add requirements to provide separate reports on specific issues to address new and emerging issues such as DfE's new Energy Strategy, climate change adaptation and mitigation;
- use today's prices as a price basis, with actual or assumed inflation indices to enable switching to other price bases, if necessary;
- reserve the right to appoint, where appropriate, an independent expert to examine either the recording or presentation of relevant information by NIE Networks;
- reserve the right to request, where appropriate, an audit of specified information relating to the RP7 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; and
- build on the learning from the monies invested through the green recovery and low-carbon technologies

3.28 We set out requirements for the company to report on new and emerging issues including but not limited to:

- an overview of how the company plans to respond to the energy strategy, the future demand scenarios it has considered and how it has managed the uncertainty of future LCT uptake, distribution and patterns of use.
- how the company intends to enable whole system solutions including working with the Transmission System Operator (TSO) which will deliver long-term whole system thinking and value to consumers.
- how the company will develop as a distribution system operator, identifying and delivering system services approaches as an alternative to investment.
- setting out a digitalisation strategy and action plan in conjunction with the TSO which will consider the information needs of consumers and the information needed to manage the network effectively. The plan should set out the investment necessary to acquire relevant data and how the company plans to make this data available to consumers.

- how the company plans to secure the resilience of its assets in light of emerging issues such as climate change, cyber threats, physical security and workforce resilience.
 - how the company plans to manage its own greenhouse gas emissions on the path to net zero by demonstrating an understanding of current emissions and its plans to reduce emissions.
- 3.29 In support of the drive for the 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 RP7 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.
 - demonstrate the basis of apportionment of costs shared between group and related parties.
- 3.30 We will issue draft RP7 Business Plan Information Requirements March 2022. These will be finalised by May 2022 after a further 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, document these, 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'.
- 3.31 Prior to issuing the RP7 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.
- 3.32 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, net-zero carbon emissions, sustainability and the needs of future customers, we will require information to demonstrate this.

- 3.33 The design of our RP7 Business Plan Information Requirements will seek to capture only that data and information necessary to inform our appraisal and assessment of NIE Networks' Business Plan and the determinations we need to make.
- 3.34 For the avoidance of doubt, where evidence based 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 timeline.

Business Plan Assessments

- 3.35 One of our aims for RP7 is that NIE Networks should produce a high-quality, well-evidenced business plan which can be accepted following limited scrutiny.
- 3.36 In recent price controls we have applied a process of Business Plan Assessment. This is structured around test questions which we would consider when we assess the quality of the business plan submission. These are grouped under 3 key themes which are set out below:
- Service contribution to good outcomes:
 - ◆ Test 1: Delivering value for money.
 - Services and costs:
 - ◆ Test 2: Delivering services and outcomes.
 - ◆ Test 3: Securing cost-efficiency and managing uncertainty.
 - ◆ Test 4: Aligning risk and return.
 - Trust in delivery:
 - ◆ Test 5: Engaging customers, consumers and other stakeholders.
 - ◆ Test 6: Ensuring resilience and governance.
 - ◆ Test 7: Accounting for past delivery.
 - ◆ Test 8: Securing confidence and assurance.
- 3.37 We plan to carry out a similar assessment of the RP7 Business Plan submission. This will ask NIE Networks to score itself against these questions and we will then consider how NIE Networks has performed in relation to these criteria. We will provide feedback on our view of the quality

of the NIE Networks' business plan submission within our Draft Determination. This approach is consistent with the approach to other network companies e.g. SONI and the Gas Distribution Network Operators (GDNs).

Determinations and licence modifications

- 3.38 Our draft decisions for RP7 will first be published in a draft determination in May 2023 for consultation. Following consultation on the draft determination, we will publish a final determination for RP7 in November 2023.
- 3.39 At or about the same time as the final determination, we will publish proposed modifications to the transmission and distribution licences which give effect to the final determination. These licence modifications are themselves subject to a period of consultation before we make a final decision on how the licences will be modified for RP7.
- 3.40 NIE Networks has the right to appeal our decision on licence modifications to the CMA up to four weeks after publication. If no appeal is made, the licence modifications come into effect 8 weeks after our decision to modify is published.

Consumer focus

Consumer engagement and stakeholder research

- 3.41 Consumers' views on the type and level of service they expect and the prioritisation of delivery of these services within reasonable funding limits, is an integral component of this price control. The results of consumer engagement should be acted on and lead to tangible improvements in outcomes for consumers. It should form the basis for on-going engagement which ensures that the consumer voice drives on-going improvements in service.
- 3.42 In preparation for the previous price control (RP6), representatives of NIE Networks, Utility Regulator, the Consumer Council, and DfE worked together on consumer engagement to inform the company's Business Plan submission through a Consumer Engagement Advisory Panel (CEAP). These working arrangements continued during RP6 to support the delivery of commitments made in the company's RP6 Business Plan and to prepare for RP7.
- 3.43 Work is underway through the CEAP to develop and implement a stakeholder and consumer engagement strategy to inform NIE Networks' RP7 price control. This includes the development of consumer measures

and consumer surveys and major stakeholder events have been undertaken by NIE Networks to both understand stakeholder priorities and inform stakeholders of NIE Networks' emerging plans.

- 3.44 A key aim for RP7 is to continue the consumer engagement underway in the RP6 period and ensure that plans for RP7 reflect the priorities that consumers have identified. NIE Networks' RP7 Business Plan should be consumer-centred with a clear understanding of consumer views underpinning performance commitments. It should identify what consumers want and their priorities for improved services delivered by the electricity network. It should show how these improvements will be delivered and over what timescale. As well as building on consumer surveys and engagement, the plan should demonstrate how targets and delivery take account of actionable data arising from day to day contact with consumers and are underpinned by good asset data and analysis which links improved service to asset performance.

Consumer Protection

- 3.45 It is essential that protecting and supporting consumers that may be at risk of detriment, as well as providing customers with high levels of service, are at the core of NIE Networks' delivery priorities.
- 3.46 In its Vulnerable Customer Strategy, NIE Networks have committed to adopting the themes of the Utility Regulator's Consumer Protection Programme to deliver a reliable service to all its customers and to provide extra support to those customers who may have additional needs or vulnerabilities. We welcome this commitment from NIE Networks. We acknowledge NIE Networks commitment to improve its services, as detailed in its strategy and its ongoing engagement with the Utility Regulator on the Best Practice Framework project. The Best Practice Framework will impact NIE Networks' activities such as vulnerable consumer identification, assistance, staff training, care register delivery (including volume, reach, awareness and promotion) and monitoring and reporting. The Best Practice Framework will also extend into senior management leadership and company ethos around consumer vulnerability issues. We expect submissions to contain information on how NIE Networks will adopt the identified building blocks needed to ensure a consumer-focused network company which will deliver the requirements of the Consumer Protection Programme and the Best Practice Framework
- 3.47 We expect NIE Networks to consider the Utility Regulator's definition of vulnerability in the development of the submission.

‘A consumer is deemed vulnerable when their personal characteristics or circumstances reduce their ability to engage effectively and achieve fair outcomes. A vulnerable consumer is significantly less able to protect or represent their interests and significantly more likely to suffer detrimental impacts on their health, wellbeing or finances.’

- 3.48 This definition recognises that vulnerability is highly context-specific and therefore it is deliberately wide in nature, allowing the definition to be flexible enough to permit its application in a wide range of personal circumstances and personal characteristics.
- 3.49 As part of the RP7 process, we expect to see a breadth and depth of NIE Networks’ engagement with consumers which will highlight customer expectation on service delivery. This should be accompanied by the company’s plan on how this consumer engagement will translate into improved services based on needs; especially for consumers in vulnerable circumstances.
- 3.50 We currently work with a Consumer Vulnerability Working Group which is chaired by the Consumer Council to improve the way vulnerable consumers are served by water, gas and electricity utility providers. We believe that there is merit in NIE Networks presenting the proposals in respect of consumers to this group which includes representatives from bodies with an understanding of the needs of a wide range of vulnerable consumers.

Developing meaningful consumer measures

- 3.51 A better and deeper understanding of consumer needs and priorities, informed through consumer engagement at RP7, can support the development of improved outcomes for consumers and targets for delivery and reporting.
- 3.52 These outcomes and targets might include:
- a) reduced customer minutes lost or customer interruptions;
 - b) improvements for worst-served customers (those experiencing repeat interruptions);
 - c) increased satisfaction with the way NIE Networks responds to consumers including making more channels of communication available, an increasing proportion of issues resolved at first point of contact and increasing speed of response;

- d) recognition of vulnerability with tailored support for consumers in vulnerable circumstances and in rural areas; and
 - e) demonstrable improvements in the service when connections are made.
- 3.53 NIE Networks should build on the aspiration of the consumer engagement undertaken in RP6 to identify targets for improved service in RP7 which reflect both consumer expectations and investment in asset improvements which consumers fund. Some of the improvements which NIE Networks will deliver can be measured through performance targets such as customer minutes lost. However, measures such as customer satisfaction and advocacy can also provide information on the consumer experience with supporting information generating actionable data to drive further improvements. We expect NIE Networks to consider and propose both performance and consumer experience measures for RP7.
- 3.54 We have already worked with NI Water to develop consumer satisfaction and consumer advocacy measures and we set targets for these in our recent PC21 Price Control determination. There is a case for using common measures across all the networks companies we regulate to reveal common themes and provide a useful further incentive toward continuous service improvement.
- 3.55 Where possible the delivery of RP7 should be based on outcomes and outputs 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. In its Business Plan, NIE Networks should set out clearly all the outcomes/outputs it proposes to deliver during RP7, together with a justification for why this particular package of outcomes and outputs.
- 3.56 In our determination we will 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.

Digitalisation and data

- 3.57 As the energy system becomes more complicated and interlinked (through for example, decarbonisation and decentralisation), access to robust data and digitalised services (which use this data) will in turn, become more important to ensure effective and more timely decisions are made to not

only decarbonise, but ensure it is done in a least-cost way and is in the interests of and protects consumers.

- 3.58 NIE Networks plays a key digitalisation role in the energy transition and holds important data. We have already set expectations on SONI regarding access to data and digitalisation through its price control. We also note DfE has, through its energy strategy action plan, proposed creating a Digitised Energy System focusing on Consumer Data, System Data, Accessibility and Smart Technologies.
- 3.59 We propose for NIE Networks to submit a strategy with its business plan which we will then assess upon receipt during the draft determination stage. This should include:
- a) A strategic vision and ambition on what digitalisation and data role NIE Networks seeks to play across its roles and how this will benefit users and ultimately NI consumers.
 - b) An assessment of best-practice innovation and lessons learned elsewhere and what may work in a Northern Ireland context
 - c) An assessment of user and stakeholder needs, strategy to engage and collaborate with users and stakeholders and clear resulting actions and how they link to consumer outcomes.
 - d) A strategy for how NIE Networks is going to ensure that its workforce has the right capabilities, training, experience, culture and how it will embed ideas and learning into the organisation, across digital, data and technology areas.
 - e) A strategy encompassing NIE Networks' ownership of governance, corporate interactions and accountability to promote and account for a culture of digitalisation and data.
 - f) A strategy for engaging and collaborating, co-ordinating with stakeholders (including how it links with whole system strategy), customers and taking account of and aligning with consumer interests.
 - g) An action and delivery plan to meet users' and consumers' needs across NIE Networks roles, to include cost, benefit, options, prioritisation, delivery/timing, milestones, treatment of uncertainty, how success will be measured.
 - h) A cybersecurity strategy that encompasses NIE Network's plans for the digitalisation of data.

- 3.60 We may also consider whether licence conditions are required to underpin our approach to digitalisation and data. We are currently considering this area further.
- 3.61 We are conscious that this is a relatively new area of development and so flexibility may be required over time as expectations become clearer (for example, through government policy). We aim to make our approach as flexible as possible and necessary to achieve our aims.

Delivering the Energy Strategy - pathway to net zero

Introduction

- 3.62 While DfE's new Energy Strategy identifies net zero carbon by 2050 as a policy objective, how the transition will develop in practice will be determined by future policy decisions, the development of technology and processes and how consumers respond to these changes. The RP7 Price Control must address this in a way which facilitates the pathway to net zero while ensuring that investment is delivered at reasonable cost.
- 3.63 In this section of our Approach we consider:
- How **forecast demand scenarios** should be used to inform investment plans which are reasonably certain and necessary in a range of potential future pathways.
 - the development and application of **whole system planning** to secure greater co-operation and co-ordination between parties (including SONI and other relevant stakeholders) in order to decarbonise at least-cost and securely.
 - the transition from Distribution Network Operator to **Distribution System Operator (DSO)** to actively manage the network at a local level; enabling customer access, customer choice and great customer service.
 - investment in **system monitoring, control and data acquisition** which will provide the functionality necessary to actively manage the network and allow producers and consumers to manage generation and demand at a local level.

Forecast demand scenarios

- 3.64 DfE's Energy Strategy recognises that a range of approaches which could be taken to deliver a net zero energy carbon mix by 2050. To help illustrate

potential pathways after 2030, it provides two scenarios based on different policies and technologies:

- a **Power Play** scenario based on high levels of electrification powered by the expansion of off-shore and on-shore wind, solar photovoltaic and marine technologies.
- a **Flexible Fit** scenario which also uses higher levels of electrification but with a greater use of fuels such as hydrogen and bio-fuels.

3.65 These scenarios were developed using a new publicly- funded new publicly-available and open-source Energy Transition Model built specifically for Northern Ireland.

3.66 NIE Networks' plans for RP7 will need to address the increasing demand which will come from the electrification of heat and transport while accounting for potential benefits of energy efficiency and the opportunities offered by the range of new technologies, distributed energy resources and changes in consumption patterns which might reduce peak demand on the network.

3.67 We expect the company to consider a range of forecast scenarios which is informed by the demand modelling undertaken for the Energy Strategy and takes account of emerging local and national policies on issues such as the future of combustion engine vehicles and home heating. The company's Business Plan should set out the forecast scenarios considered in its plans in a way which can be understood by consumers, highlighting key assumptions and how they impact on average and peak demand at intervals up to 2050.

3.68 We expect the company to assess how the range of forecast scenarios impact on peak loads and investment up to 2030 and propose investment which is reasonably certain and necessary under a range of future scenarios. We also expect NIE Networks to consider potential investment beyond 2030 up to 2050. We recognise that there will be greater uncertainty and divergence of scenarios beyond 2030, but we expect NIE Networks to test whether investment proposed up to 2030 will continue to be useful into the future and will not close off alternative future solutions.

3.69 The company should consider the potential for alternatives to investment such as the use of local services such as contracted services for demand reduction or consumer demand management in response to price signals.

3.70 The investment plan should consider and explain the proposed timing of investment. In some circumstances investment in advance of need may be desirable to align with maintenance activities or secure a broader strategic

objective. The company must provide clear justification for investment in advance of need.

- 3.71 A confirmed investment plan should be provided for investment which is reasonable, certain and necessary under a range of future scenarios. The investment should be linked to outputs such as specific projects, volumes of work volume/capacity of connected technology including the associated profile of outputs realised after 1 April 2030.
- 3.72 The company should set out how it has integrated its assessment of investment related to future scenarios and any other strands of work – including maintenance programmes and show how outputs delivered by the different programmes are mutually exclusive.

Whole-system planning and solutions

- 3.73 It is important that if we are to expect an increase in network investment through decarbonisation outcomes that we have confidence all steps possible are being taken to ensure it is co-ordinated to ensure best value for consumers.
- 3.74 To date, planning and actions by networks and system operators have been largely regulated by the Utility Regulator to optimise their networks to benefit consumers, but as the system becomes more complex and interlinked, greater co-operation and co-ordination between parties (including SONI and other relevant stakeholders) is required to take account of system impacts in order to decarbonise at least cost and securely. Regulators are requiring companies to, for example, ensure they consider alternatives to network reinforcement and plan investment more optimally than is currently the case across network boundaries.
- 3.75 We have already set expectations on SONI regarding whole-system planning and solutions through its price control. We also note DfE has, through its energy strategy action plan, identified a need to improve the quality and availability of energy data to support better system planning and operation, and allow greater engagement by consumers.
- 3.76 We propose for NIE Networks to submit a strategy with its business plan which we will then assess upon receipt during the draft determination stage.
- 3.77 NIE Networks will need to build a common understanding of where actions taken by it could have cross-network impacts, identify and implement actions (innovative and/or other) that optimise synergies, and develop processes with SONI and other relevant parties that ensure optimal resource utilisation. NIE Networks will need to ensure that there is clear

delineation of role and responsibility (to take a non-exhaustive example, between the TSO and the DSO functions). This will include:

- a) Strategic vision and ambition: overarching strategic ambition across its different roles and how this is going to benefit Northern Ireland consumers in terms of outcomes.
 - b) Roles and responsibilities: description and justification for interfacing with SONI across the transmission and distribution interface. Roles and responsibilities should be developed and agreed with SONI and stakeholders and customers should be effectively engaged with. Co-ordinating across the wider electricity system (including beyond the distribution and transmission interface) and potentially on a cross-sector, or sectoral basis.
 - c) Innovative best-practice/lessons learned: assessment of best-practice innovation and lessons learned elsewhere that could be relevant to NIE Networks whole-system thinking; and what may work in a Northern Ireland context.
 - d) People planning: setting out how NIE Networks is going to ensure that its workforce will have the right capabilities, training, experience, culture and how it will embed ideas into NIE Networks' organisation.
 - e) Governance: Plan and processes for organisational governance, corporate interactions and accountability to promote and account for a culture of whole-system thinking.
 - f) Co-ordinating and collaborating: Plan and process for engaging and collaborating with stakeholders, customers, and taking account of consumer interests, across all NIE Networks.
 - g) Action and delivery plan to meet Northern Ireland consumer interests, to include cost, benefit, options, milestones, prioritisation, delivery/timing, treatment of uncertainty and how success will be measured.
- 3.78 We may also consider whether licence conditions are required to underpin our approach to whole-system thinking. We are currently considering this area further.
- 3.79 We are conscious that this is a relatively new area of development and so flexibility may be required over time as expectations become clearer (for example, through government policy). We aim to make our approach as flexible as possible and necessary to achieve our aims.

Distribution System Operator (DSO) transition

- 3.80 The move towards a low-carbon economy will change the way we generate and use electricity in Northern Ireland. New technologies, digitalisation and changing customer needs will require active management of flexible Distributed Energy Resources (DER), including generation, services and demand management. Over time, the role of NIE Networks is changing from that of a Distribution Network Operator managing centralised generation with relatively passive demands, to a Distribution System Operator (DSO) with the capability to actively manage the network at a local level with more control over local supply and demand and flexibility. A DSO enables customers to be both producers and consumers, ensuring active consumer participation, consumer choice and improved customer service.
- 3.81 Key potential functions for a DSO include:
- a) Acquisition of data to flexibly manage the system, improve performance, provide data to consumers to allow them to manage their own generation and consumption and provide data to the TSO to optimise network management and development.
 - b) Enabling DER to participate in the Transmission System Operators markets for system services (within the limits of economic development of the distribution network).
 - c) Using active management of the network and local DER as solution to changes in demand and an alternative to conventional reinforcement.
 - d) Developing options for actively-managed connections to heavily-congested networks.
 - e) Offering network tariffs which reflect the benefits of reducing demand at particular times of day or in particular locations to optimise the cost of balancing supply and demand.
- 3.82 Much work remains to be done on the transition from DNO to DSO. Key elements of this work (including the ongoing development of connection policies and the development of markets for distribution services) will be undertaken in parallel with RP7. However, DSO enablers such as network monitoring, data acquisition and network management should form part of the RP7 Business Plan.
- 3.83 We expect NIE Networks to submit a strategy for DSO transition in its RP7 Business Plan building on its consultation and the findings in its report Greater Access to the Distribution Network in Northern Ireland

Recommendations Paper published in December 2019⁸. The company should provide a robust evidence based assessment of the activities and costs necessary to deliver the transition and the timescale over which each element of the transition can be delivered. It should also include plans and costings for activities necessary to enable the transition (such as network monitoring and data acquisition) to the extent that these can be defined with reasonable confidence at this stage.

System monitoring, control and data acquisition

- 3.84 In the section beginning at Paragraph 3.57, we set an overall approach to digitalisation and data. Enhanced system monitoring, system control and data acquisition will be necessary to actively manage the network, and allow producers and consumers to manage generation and demand at a local level.
- 3.85 In its RP7 Business Plan, we expect NIE Networks to set out its plans for investment in system monitoring, system control and data acquisition during the RP7 period. This plan must anticipate the needs of both the company as Distribution System Operator and consumers in advance of a clear understanding of how technology, competitive services and behaviours develop in response to changing needs, expectations and price signals.
- 3.86 To reflect this uncertainty, the plan for system monitoring, control and data acquisition should be based on a clearly articulated strategic vision of future data needs and the potential for active system management. It should propose investment in equipment and processes which are likely to deliver benefits in a range of scenarios while ensuring that planned investment does not unnecessarily close off options for future development at reasonable cost. It should clearly demonstrate why this investment is necessary setting out the functionality it provides, the data it will make available and the benefits this will provide.
- 3.87 The investment plan should be supported by clear outputs and a programme of delivery. This should include:
- the type and numbers of assets monitored and the type of data generated from each point at which the system is monitored;
 - the type and numbers of assets which can be actively managed on the system and the benefits of controlling this type of asset;

⁸ <https://www.nienetworks.co.uk/documents/future-networks/greater-access-to-the-distribution-network-in-nort.aspx/>

- the delivery of communication networks, systems for data processing and data publication; and
- a programme for the delivery of monitoring control and data acquisition.

Network Resilience

Introduction

- 3.88 It is essential that NIE Networks maintains a high level of network resilience and security while ensuring that they deliver a safe, reliable and resilient network for Northern Ireland customers while cost-effectively facilitating Low Carbon Technologies. The following section looks at asset management excellence, sustainability, climate change resilience, cybersecurity and on-going innovation.

Asset management excellence

- 3.89 The transmission and distribution of electricity is a capital-intensive business. NIE operates 45,000 km of overhead lines and underground cables. 258 major sub-stations and 75,000 pole-mounted transformers are used to step voltages down through stages from 275kV to 240V single-phase supplies to domestic consumers. While a key focus of RP7 will be the pathway to net zero, maintaining, improving and expanding the 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).
- 3.90 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. For RP7, we require NIE Networks to set out the steps it

has taken and plans to take to achieve excellence in asset management planning.

- 3.91 To demonstrate that robust asset management processes are in place to inform robust business decisions, we will require NIE Networks to:
- provide an evidence based self-assessment of its asset management capability against a recognised asset management methodology, identifying any further work required to achieve excellence in asset management planning;
 - provide an evidence based 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 its 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 RP7 Business Plan to assess the optimum level of asset interventions and investment over the RP7 period.
- 3.92 We will employ a range of the techniques available to triangulate to a reasonable determination of asset maintenance investment for RP7. 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 RP7 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.

Making the case for investment

- 3.93 Before it sets out its plans for RP7, we expect NIE to provide its current best estimate for the delivery of RP6. The company should demonstrate that any out-performance in RP6 has been taken into account in the assessment of investment in RP7. Our starting point will be that the activity rates and unit costs delivered in RP6 can be sustained in RP7. The company should provide a clear explanation and evidence, if it believes that activity rates or unit costs need to increase in RP7.

3.94 We expect NIE Networks to explain the need for investment under broad headings of projects and programmes of work using RP6 investment categories as a starting point. The RP7 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 RP6; and
- an assessment of deliverability, including an assessment of third party risks, to show that the profile of investment and completion dates are achievable.

3.95 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.

Climate change adaptation

3.96 NIE Networks' plans should address how it will adapt to the impact of climate change over the long-term. It should set out a plan which identifies the impact that climate change will have on its network and the steps it needs to take to ensure that the risk to services is managed as global temperatures continue to increase.

3.97 The company's strategy should identify the changes in extremes of weather which will occur as the climate changes. At a minimum, the DNO must consider the assumptions of temperature rises and/or relevant risks as outlined by the Paris Agreement, the National Infrastructure Commission, the UK Government and Committee on Climate Change, or other equivalent bodies, as well as DfE's Energy Strategy - The Path to Net Zero Energy. The company should highlight how changes such as higher and lower temperatures, increased wind speeds and increased precipitation might affect the performance of its assets.

- 3.98 The company should set out the steps it plans to take to address the impact of climate change. This should consider how these steps fit into its long-term planning and the delivery of other activities such as ongoing cycles of maintenance.

Sustainability

- 3.99 NIE Networks' Business Plan should set out how it plans to improve the environmental sustainability of the network services it delivers. This plan should set out the steps the company plans to undertake to reduce greenhouse gas emissions and reduce the wider impact of network activity on the environment.
- 3.100 The company should first set out its assessment of current greenhouse gas emissions. The company should then set out its plans to reduce greenhouse gas emissions over time, collate the impact of proposed activities and investment across its plans as well as identifying specific projects where greenhouse gas reduction is the main driver for the proposal.
- 3.101 The company's business case and cost benefit analysis for carbon reduction proposals should take account of ongoing cycles of maintenance and the opportunities of cost reduction as emerging technologies develop at scale. For example, proposals to move to an electric vehicle fleet should consider the current cycle of vehicle replacement, reductions in costs as electric vehicles are produced at scale and savings in fuel costs.
- 3.102 NIE Networks should also consider other significant environmental impacts of its network activities. Where the company proposes specific interventions to reduce environmental impact, it should consider the opportunities and challenges and value for money of reducing these impacts and provide evidence of wider stakeholder support for the activities it proposes to undertake. The company should set out how it will target interventions to maximum effect and show how it can measure improvement on a consistent and reliable basis and include relevant output measures in its Business Plan.

Cybersecurity

- 3.103 Cybersecurity is an essential part of NIE Networks' operations. We expect the company to have assessed its existing systems for cybersecurity and have made the necessary investment to secure its information technology and communication systems.
- 3.104 The development of system monitoring, control and data acquisition which will facilitate the delivery of net zero will require particular attention to

cybersecurity. Plans for cybersecurity should be considered an integral part of the company's plans for monitoring, control and data acquisition. The company should set out its plans for approach to further cybersecurity in its plans for monitoring, control and data acquisition and identify any particular costs which are not inherent in the technology, software and systems the company plans to acquire and implement.

Innovation

- 3.105 Ongoing innovation will be necessary to underpin the successful delivery of a transition to net zero. The company's Business Plan should set out its plans for innovation in RP7 and consider how this should be funded.
- 3.106 In the first instance, we expect the company to deliver innovation as a "Business as Usual" activity. The cost risk sharing mechanism allows a proportion of capital and opex cost savings to be retained by the company. This provides a strong incentive for the company to invest in innovation to deliver costs savings and the opportunity to invest these costs savings in future innovation.
- 3.107 The RP6 final determination included funding for defined innovation projects which focused on testing the use of new technologies as an alternative to network reinforcement. The company's innovation plan for RP7 should include an assessment of these RP6 innovation projects and show how they have been included in RP7 to reduce or delay network reinforcement costs. Lessons learned from the development and delivery of RP6 innovation projects should be reflected in the company's plans for innovation in RP7.
- 3.108 Ofgem has already funded extensive innovation projects in GB to collect data on the uptake and impact of low-carbon technologies and to test new methodologies and technologies which could mitigate the impact of low-carbon technologies on networks. NIE Networks' innovation plan for RP7 should show how it has assessed and used this work and how any innovation projects proposed for RP7 adds additional actionable information and knowledge.
- 3.109 Where NIE Networks proposes that specific innovation projects are funded in RP7, it should provide supporting evidence and a business case to justify such a request. Firstly, we would expect NIE Networks to set out clearly in its business plan submission why the price control regime does not provide an appropriate incentive for innovation investments and articulate its rationale for specific funding of innovation projects. Our criteria for assessment of NIE Networks' rationale will include and may not be limited to, the following:

- how RP7 innovation(s) are different to anything that has occurred previously, whether within NIE Networks or within the wider energy industry;
- why there exists a barrier towards innovation which requires some form of regulatory action to progress and the consequences of innovation(s) not happening;
- how NIE Networks have arrived at its 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; and
- a robust business case which quantifies deliverables, costs, benefits, potential frequency of implementation, risk of failure and the proposed treatment of risk and reward.

3.110 If NIE Networks proposes a more general innovation fund in RP7 for future projects which have not yet been identified, the company should set out how it would plan to develop and promote these projects during RP7, taking account of the general criteria outlined above.

Approach to key financial issues

Adjusting for inflation

3.111 We develop our price controls in a constant price base for a stated base year. It is our intention that the Base Year for RP7 will be 2021/22 which is the last complete financial year before the business plan submission.

3.112 As the Price Control is delivered, revenues and tariffs are adjusted for inflation using a defined inflation index. This general measure of inflation must be the same inflation index used when we determine key parameters in the RP7 Price Control such as real rates of return on capital and frontier shift.

3.113 NIE Networks current licences for transmission and distribution use the RPI as a general measure of inflation. However, RPI is no longer recognised as a national statistic. Following a House of Lords Economic Affairs Committee report "Measuring Inflation", published in January 2019, the Chair of the UK Statistics Authority, wrote to the Chancellor of the Exchequer on 4 March 2019 with the following recommendations:

- that the publication of the RPI be stopped at a point in the future; and

- in the interim, the shortcomings of the RPI should be addressed by bringing the methods of the CPIH into it.
- 3.114 In September 2019, the Chancellor of the Exchequer announced his intention to consult on whether to bring the methods in CPIH into RPI between 2025 and 2030. At that time, the UK Statistics Authority noted that: *“We have been clear that the RPI is not a good measure, at times significantly overestimating inflation and at other times underestimating it, and have consistently urged all – in Government and the private sector – to stop using it.”*
- 3.115 Following the consultation, which closed in November 2020:
- the Chancellor of the Exchequer concluded that he would be unable to offer his consent to the implementation of a proposal (such that the UK Statistics Authority intends to make) before the maturity of the final specific index-linked gilt in 2030.
 - in light of the clarification provided by the Bank of England, and given the UK Statistics Authority’s position to address the shortcomings in the RPI in full at the earliest practical time, the Authority Chair replied to the Chancellor informing him that the Authority would be able to legally and practically implement its proposal to the RPI in February 2030.
- 3.116 While it is now clear that RPI will continue to be calculated and published in its current form until 2030, we think that it is reasonable to plan on the assumption that UK Statistics Agency intends to bring the methods and data sources of the Consumer Prices Index including owner-occupiers’ housing costs (CPIH) into RPI shortly thereafter.
- 3.117 In view of both the UK Statistics Agency’s intent to align RPI with CPIH from 2030, and the Agency’s view that RPI is not a good measure of inflation, we have concluded that we should replace RPI with CPIH as the measure of general inflation in RP7. Not only will this use a more robust measure of general inflation in our decisions, it will also ensure that the level of inflation of network prices will follow the general Consumer Prices Index (CPI) which is becoming the commonly quoted measure of inflation and a benchmark for increases in pensions, benefits and wages.
- 3.118 Changing from RPI to CPIH as a general measure of inflation changes how the cost of networks is paid for by consumers today and in the future. Because CPIH is generally lower than RPI, there will be an increase in revenue and tariffs for today’s consumers while future consumers will pay less. Therefore as part of the proposed move to CPIH in RP7 we will

carefully consider a number of issues associated with this decision ensuring inter-generational equity.

3.119 When moving from RPI to CPIH as a general measure of inflation we will:

- calculate real rates of return on capital on a CPIH stripped basis;
- calculate the frontier shift on a CPIH basis; and
- ensure that the opening Regulatory Asset Base for RP7 continues to take account of RPI through the RP6 period.

We will consider any other issues relating to a move from RPI to CPIH which NIE Networks brings to our attention and quantifies in its submissions to us in our determination.

Weighted Average Cost of Capital (WACC)

3.120 The weighted average cost of capital (WACC) is the annual cost of capital applied to the capital investment made by NIE Networks to the extent that this is included in the undepreciated Regulatory Asset Base (RAB).

3.121 A real rate of return (stripped of inflation) is applied to the RAB each year and the RAB is inflated by the general measure of inflation used for the Price Control. We have proposed using CPIH as the general measure of inflation for RP7, and the WACC would be calculated on a CPIH stripped basis.

3.122 We will determine a weighted average cost of capital (WACC) for RP7 using a standard CAPM model. In doing so we will:

- take account of recent regulatory settlements to benchmark appropriate rates including decisions by Ofgem, Ofwat and the CMA; and,
- where possible, use real world observations such as forward debt curves to inform our decisions.

3.123 In RP6 we introduced a debt adjustment mechanism, which adjusts the WACC during the price control to when NIE Networks refinances its debt and the actual cost of new debt is revealed. We plan to condition to use a debt adjustment mechanism in RP7.

3.124 In our determination of WACC, we use a basket of indices for debt at bonds to estimate the future cost of new debt raised in the price control period. The cost of debt mechanism introduced in RP6 adjusted the cost of debt to reflect movement in bond market prices/yields (measured using the Markit

iBoxx database) with the company taking 20% of the benefit or risk of this movement relative to the projections made in the determination. The company retained all of the risk or benefit of the cost of debt raised, relative to the basket of indices used. In RP7, we will consider adjustments to the basket of indices used in the debt mechanism, the balance of risk and reward in the 20/80 sharing mechanism and consider introducing some sharing of actual cost of debt compared to the benchmark indices used.

Financeability

- 3.125 In the decisions we make, we have an obligation 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. We approach this obligation in terms of an 'efficient licence holder' to avoid consumers taking responsibility for decisions that NIE Networks might make on its specific financial structure, sources of finance and payments to shareholders.
- 3.126 We propose to consider the financeability of NIE Networks, using established financial metrics, such as gearing, debt ratios, PMICR (Post-Maintenance Interest Coverage Ratio), etc.
- 3.127 The Utility Regulator will continue to rely on setting an appropriate WACC and depreciation allowance while considering financeability. At this time, we are not minded to make any additional adjustments regarding any concerns about short-term financing. This approach is based 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.

Regulatory asset base and depreciation

- 3.128 NIE Networks' day-to-day operational expenditure (sometimes referred to as "fast money") is paid for by today's consumers from revenues raised each year. Capital expenditure (sometimes referred to as fast money) is added to a Regulatory Asset Base (RAB) and paid for by consumers over a period of time consistent with the useful life of the asset. Each year consumers pay for a return on capital on the RAB and an element of depreciation of the RAB.
- 3.129 NIE Networks' licence currently defines a series of RABs with annual depreciation rates of 20%, 10%, 6.667% and 3%. We do not plan to alter the depreciation rates of the existing RABs in RP7. We are not minded to create any further depreciation rates for RP7 unless a compelling reason subsequently emerges for doing so. Where possible, we will include any additional categories of investment in existing RABs to maintain the

structure of the licence formulae used to calculate revenue and avoid adding further complexity to the licence.

- 3.130 We will continue to maintain separation of Regulatory Asset Bases for distribution and transmission which is necessary for the operation of separate licences for these activities.
- 3.131 We will scrutinise NIE Networks methodology for the allocating of costs between operational and capital expenditure considering best practice and consistency with historical allocations in RP6.

Cost benchmarking

- 3.132 We will 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 RP7 Business Plan. We will expect to see this justification together with information and evidence for us to be able to carry out benchmarking checks against peer enterprises operating elsewhere in UK/Europe.
- 3.133 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 RP7 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; and
 - 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.
- 3.134 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 base-lining of operating expenditure going forward will be to:
- adopt 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 RP7 regulatory contract; and
 - ensure that consumers do not pay for investments that might already have been funded under previous price controls

- 3.135 We expect to ask for a submission from NIE Networks detailing its atypical or exceptional costs and a submission of any 'special factors' which explain why the company's operational and capital spends might be higher or lower than comparative benchmark costs. When assessing the company's submission, we will consider whether there are other special factors (positive or negative) which affect the company's relative efficiency.
- 3.136 We are minded to continue examining the likely extent of frontier shift across the electricity industry, using similar companies to NIE Networks as the basis for expenditure category weights, by adopting the same approach as in other recent network price controls.
- 3.137 '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.
- 3.138 We are minded to use econometric modelling at a range of different levels including:
- top-down analysis of 'total' expenditure (totex) covering operational costs and selected capital costs; and
 - 'middle-up' models split by activity and opex/capex. These would likely include activities such as Closely Associated Indirect costs and Business Costs.
- 3.139 A range of econometric models will be considered and tested and the results of these models considered in our final decisions.
- 3.140 Bottom-up cost analysis will be considered for material elements of expenditure which have to be excluded from top-down benchmarking to ensure comparability between NIE Networks' costs and those of the companies we use to develop our benchmarks. This might include metering and direct capital investment. Unit cost benchmarking and expert judgement will be used to establish efficient costs drawing on historical costs of NIE Networks and GB DNOs.
- 3.141 We expect NIE Networks to identify any additional costs it expects to incur in the future which are not already included in its historical costs and benchmarked cost. In particular, the implementation of the Energy Strategy and the transition to a Distribution System Operator might result in additional maintenance, monitoring and software costs. NIE Networks should demonstrate how additional costs proposed have been minimised. The company should also demonstrate how it has captured potential

savings from improved operational and asset management arising from the wealth of data which it will begin to capture as it improves system monitoring control and data acquisition.

Pensions

- 3.142 In RP5, and RP6, we developed our approach to pensions for the defined benefit and defined contribution pension schemes operated by NIE Networks. For RP7, we intend to continue to apply the principles developed for RP6 to pension deficits and ongoing contributions:
- costs of the defined contributions pension scheme will be covered by benchmarking.
 - we will take account of the current scheme funding, based on the latest actuarial valuation of the scheme, using the Technical Approach method and take into consideration the current treatment by Ofgem on this area, including deficits and the funding implications that will result from this. In particular, we will continue to apply the principle that the “established deficit” which represents the difference between assets and liabilities attributable to pensionable service up to 31 March 2012 will be 100% funded by consumers, subject to an Early Retirement deficit contribution liability factor which reflects historical decisions by NIE Networks on enhancement to pension benefits with no additional funding when the scheme was in surplus.

Monitoring and enforcement

RP7 Monitoring Plan and future regulatory reporting

- 3.143 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 RP7 period. The RP7 Monitoring Plan will need to be fully consistent with our determination.
- 3.144 The RP7 Monitoring Plan supersedes its RP7 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 RP7 regulatory contract.

Key areas falling outside the RP7 Price Control

Smart metering

- 3.145 DfE's Energy Strategy action plan requires progress on the timely and detailed access to data for consumers and service providers as part of a flexible, resilient and integrated energy system. It highlights Smart meters as one potential tool for providing this and commits to carrying out a Cost Benefit Analysis on the introduction of Smart metering. This will have an impact on NIE Networks' electricity metering costs.
- 3.146 Pending the outcome of this work, we expect NIE Networks to develop its Business Plan based on the current approach to metering. We also expect the company to include an outline assessment of the likely costs and savings of the introduction of Smart metering including any information provided to DfE to inform its Cost Benefit Analysis (CBA).
- 3.147 We intend to include a re-opener mechanism in our RP7 price control to address additional costs and savings arising from future decisions on Smart metering. We would expect any additional costs determined through this re-opener to be in line with the costs identified within the CBA carried out. We would also seek to consider wider savings on network response and interventions as a result of the additional information available from Smart meters.

Connection charges policy

- 3.148 We will continue to engage with NIE Networks and DfE on connection charging policy to ensure that the regime is fit for purpose to facilitate new connections and meet the decarbonisation and 2030 Energy Strategy targets

Contestable Works in Connections

- 3.149 The Utility Regulator, with the assistance of NIE Networks and other relevant stakeholders, has been taking steps to continue to introduce further contestable works within electricity connections in Northern Ireland. Our intentions are set out in our 'Expanding the Scope of Contestability in Northern Ireland - Next Steps' paper⁹. We acknowledge the fact that the further introduction of contestability will require NIE Networks to incur additional costs and we intend to ensure appropriate NIE Networks costs are allowed for within RP7.

⁹ <https://www.uregni.gov.uk/files/uregni/documents/2021-07/contestability-next-steps-final-paper.pdf>

TUoS revenue collection

- 3.150 As part of SONI's 2020 to 2025 price control, we proposed to move the TUoS revenue collection from SONI to NIE Networks reducing SONI's risk and overall costs to consumers. We plan a further consultation on appropriate licence modifications with the intention of it being in place for the start of the RP7 time period.

4. Timelines

RP7 Timetable

- 4.1 We have set out the key milestones to RP7 below. We note that the dates indicated are provisional dates which may be subject to change.

Key Milestone	Key Date
Issue draft approach to RP7	March 2022
Consultation on approach closes	May 2022
UR publishes final approach to RP7	June 2022
Draft information requirements issued	March 2022
Final comments on the information requirements	April 2022
Final information requirements issued	May 2022
Business plan submission	October 2022
Publish the draft determination	May 2023
Consultation on the draft determination ends	July 2023
Publish Final Determination and proposals on licence modifications	November 2023
Close of representations on proposals	December 2023
Decision on licence modifications published	January 2024
Licence modifications come into effect	March 2024

Table 4.1: RP7 key milestones

5. Feedback

How to provide feedback

- 5.1 This is an open document for consultation on the RP7 approach. We have not posed any specific questions in this paper. Instead we invite stakeholders to express a view on any particular aspect of our draft approach.
- 5.2 If you wish to submit a written response this should be received **no later than 4 May 2022 at 5pm** and should be addressed to:

Sean Lyons
RP7 Project manager
Utility Regulator
Queen's House
14 Queen Street
BELFAST
BT1 6ER
Tel: 028 9031 1575

- 5.3 Our preference is that responses are submitted by e-mail to Electricity_Networks_Response@uregni.gov.uk copied to Sean.Lyons@uregni.gov.uk

Publication of responses

- 5.4 We plan to publish the responses received to this consultation. We also plan to publish a summary of responses and how we have addressed them in finalising our Approach to RP7.
- 5.5 Individual respondents may ask for their responses in whole or in part, not to be published, or that their identity should be withheld from public disclosure. Where either of these is the case, we will ask respondents to also supply us with the redacted version of the response that can be disclosed.
- 5.6 As a public body and non-ministerial Government department, we are bound by the Freedom of Information Act (FOIA) which came into full force and effect on 1 January 2005. According to the remit of FOIA, it is possible that certain recorded information contained in responses can be put into the public domain. Hence, it is now possible that all responses made will be discoverable under FOIA – even if respondents ask the Utility Regulator to

treat responses as confidential. It is therefore important that respondents note these developments and in particular, when marking responses as confidential or asking the Utility Regulator to treat responses as confidential, should specify why they consider the information in question to be confidential.