# Annex R

# Draft determination consultation responses (non- NIE Networks)

**30 June 2017**



# About the Utility Regulator

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

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

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

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

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| Our Mission | Value and sustainability in energy and water. |
| Our Vision | We will make a difference for consumers by listening, innovating and leading. |

## Our Values

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

Be a united team.

Be collaborative and co-operative.

Be professional.

Listen and explain.

Make a difference.

Act with integrity.

# 1. Introduction

1.1 Our draft determination (DD) for NIE Network's 6th price control (RP6) was published 24 March 2017.

1.2 Since then we have engaged with interested parties including via a formal workshop event on 28 April 2017. At the request of attendees from April's workshop we held an additional workshop that focused on the consumer engagement advisory panel (CEAP) impact on the DD on 16 may 2017.

1.3 Our consultation closed on 19 May 2017 with 23 responses received from the following respondents:

**arc21**
**Brookfield Renewable**
**Construction Employers Federation**
**CBI NI**
**CCNI**
**CCNI (ECA consultancy)**
**Energia**
**Kelvatek**
**Manufacturing NI**
**Mutual Energy**
**NEA NI**
**NIRIG**
**NI Chamber of Commerce and Industry**
**NI Housing Executive**
**PowerOn Technologies Ltd**
**Prospect**
**Smart Grid Ireland**
**QUB**
**SONI**
**SSE**
**Ulster Farmers Union**
**Ulster University – Centre for Sustainable Technologies**
**Unite the Union**

# 2 Comments from respondents

2.1 In the table below we address the non-confidential responses received to our draft determination for RP6 (DD). This excludes those from NIE Networks which are addressed in a separate document.

| Nos. | Respondent | Section/Topic | Comment | UR response |
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| 1 | **arc21** | Connections | Refer to previous submission to UR connections policy consultation (April 2017).<br><br>Recognising UR's independence and energy being a devolved matter, prior to FD arc21 would consider it reasonable that UR responds to the NI Affairs Committee report dated 28 April 2017 i.e. respond to set out how UR determinations reflect or reject the Committees relevant recommendations as the Committee is a democratically accountable body and has provided evidence based good counsel in its report. | We must work within the legislative framework set by Government and ensure any changes we make are consistent with Government policy. Our decisions in the RP6 determination are made in the context of our statutory duties as set out in legislation.<br><br>We have also taken into account the input of the Department for the Economy as part of its work on the CEAP. |
| 2 | | Network reinforcement | UR position seems to be no network reinforcement without exact match between demand and supply on the basis this is inefficient over-provision. This leaves subsidy free price taking generators without grid access. It also protects incumbent thermal generators and subsidised developers from competition particularly in the next capacity auction.<br><br>Think there is a clear case for reinforcement allowing grid access for suitable generators who can be online by 2021 or 2023. If even to mitigate the impact of N/S interconnector not being online and decommissioning of | The final determination provided flexibility to allow future generation connections including any amendments to connection policy flowing from the outcome of the current connections review. The 'D5' mechanism allows the determination of additional allowances to enhance transmission capacity where this is supported by SONI. An additional re-opener has been included for additional investment in the 33kV network to provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions. |

| Nos. | Respondent | Section/Topic | Comment | UR response |
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| | | | large conventional generators due to the Industrial Emissions Directive.<br><br>Table 40 Defined D5 Projects provides some allowances. There is little description of the drivers and rationale for these. One is at Airport Road which we assume is due to the 14MW generator planned in the vicinity. This being the case pro-rata reinforcement costs seems to be £200k/MW. Using SONIs mean supply deficit value of 100MW this suggests the need for at least £20m further in the D5 mechanism for reinforcement. We believe NIE Networks have suggested a value multiples of this to allow new generators grid access. Difficult to understand UR grounds for preventing generators access to the grid that would solve the energy 'trilemma'.<br><br>Relying on capacity market and auctions may ensure security of supply in the short term but does little for long term encouragement of new entrant investment. It also leaves non-renewables further entrenched. | The defined distribution projects in Table 40 of the draft determination are projects whose scope costs could not be defined at this stage, partly due to their interaction with potential transmission projects which will be undertaken under the transmission system capacity re-opener. This is not targeted at any particular connection.<br><br>The various steps being taken to ensure security of supply are not determined or constrained by this price control. But the mechanisms described above allow the RP6 determined amounts to be amended to take account of such decisions. |
| 3 | | Innovation | Note NIE Network representations and UR response. New generators may have a contribution to innovation (e.g. flywheel technology) and this is not recognised in the DD by UR or NIEN. Deployment, testing and validation costs could be shared, reducing bill payer costs. | In requesting that NIE Networks improves the business case for its innovation projects, UR would welcome that future proposals set out how NIE Networks proposes to work with other parties in carrying out innovation. |

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| | | | DD Annex O sets a high standard to sift innovative technologies prior to testing/trialling. Not clear whether the cost/benefit is relative to electricity consumer or operator. We believe it should be relative to the consumer with same principles applied when prioritising grid connections for new generation. E.g. price taking base load generators with low marginal costs and no ROC subsidies can only be good for consumers.<br><br>arc21's energy from waste plant has potential to improve electricity affordability for consumers.<br>2016 modelling indicates €6m/year cost benefit from the arc21 plant due to reducing online time of more expensive generation. Don't understand why this isn't of interest to UR. | UR will not dictate to NIE Networks what innovation projects it should pursue. UR is working with CER and other stakeholders to design iSEM to deliver an efficient and effective wholesale electricity market where all generators can compete to the benefit of consumers. |
| 4 | **Brookfield Renewable** | Connections / reinforcement | In agreement with NIRIG submission. RP6 should be viewed with other key/future policies including UR connection review, SONI transmission development plan and Dept of Economy energy strategy.<br>Wind energy decarbonises, reduces cost and improves security of supply. System capacity is vital to accommodate commercially viable wind projects and requires commitment to investing in network capacity improvements. | The various steps being taken to ensure security of supply and policy decisions on decarbonisation and wind energy capacity are not determined or constrained by this price control. However, the mechanisms described above allow the RP6 determined to be amended to take account of such policy decisions. |

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| | | | Significant delays to transmission reinforcements for firm access for committed renewables. This contravenes AIP/SEM/114/06 which says system operators and network owners should be obliged to complete deep reinforcement in timely manner. Requirement to provide firm access is contractual arrangement when connection offers are executed.<br><br>Significant development of the electricity network required to facilitate future commercially viable renewable projects, provide firm quantities to existing generators and provide a grid network that facilitates a competitive electricity market. DD proposes a mechanism to allow for additional investment to increase capacity and capability of the transmission system. This is welcomed but we note proposal to reduce transmission investment by £9 million/year relative to RP5. Also note investment proposals from NIEN to relieve congestion on the 33kV network have been reduced from £10.4m to £8.9m. Such reductions are unwarranted given the lack of investment in the network to date. Continued efforts to improve network capacity need to be prioritised and investment in transmission reinforcement needs to be strategically addressed. | The reduction in £9m relative to RP5 reflects the fact that the core plan for RP6 submitted by NIE Networks does not include investment to reinforce the transmission network. This will be determined under the D5 re-opener mechanism as and when need is confirmed and the project scope and costings well developed (for example, the N/S Interconnector).<br><br>The projects proposed by NIE Networks to address congestion on the 33kV Network have been included in the final determination. |

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| | | | RP6 should acknowledge the need for additional investment following development of the SONI Transmission Development Plan and a new Energy Strategy from the Department for Economy. | |
| 5 | | Innovation | Maximised use of existing network decreases need for investment in new infrastructure delivering value for consumers. We support trialling of innovation projects proposed by NIEN in sections 9.36 – 9.38 given current network capacity limits. Don't agree proposed £10.48m reduced to £7.26m – NIEN should be given adequate funding to develop and integrate these technologies and so maximising utilisation of the existing grid and delivering improved value to consumers.<br><br>Draw attention to NIRIG and Brookfield response to Electricity Connections Policy that NIE Networks consider an as-built rating review to take account of the multiple margins of safety which are built into ratings assigned to assets. This has the potential to release pre-existing network capacity back into the system for minimal outlay thereby minimising the need for new infrastructure. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials.<br><br>As set out in the March 2017 Connections consultation, with respect to the points on planning and connection standards, we note that this is something which is an integral part of the work carried out by NIE Networks. It should continue to consider opportunities whilst ensuring network safety and stability. |
| 6 | **Construction Employers Federation** | | We believe the introduction of option 2 will unfairly penalise many new customers who happen want to live in an area which, through no fault of their own, suffers from either inadequate or aging and underfunded | We have decided to introduce Option 1 of DD with respect to housing sites of 12 or more dwelling. We understand that the current standard connection charge structure |

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| | | | infrastructure supply. We believe that this burden of infrastructure connection, if it must be passed on to new customers, should be recovered with all customers contributing equally and fairly as they all end up with the exact same service. A fixed payment charge (option 1) is the only fair way of achieving that goal without major discrimination taking place. We also would be concerned that the introduction of option 2 could have a negative effect on the development of many areas during a housing supply crisis – something that is undoubtedly happening now given the disparity between the number of new houses required in Northern Ireland and the number being annually built. | for these connections provides a degree of certainty for developers. |
| 7 | **CBI NI** | Capital investment | CBI supports the vast majority of the Utility Regulator's draft determination and recognises the difficulty UR faces without strong policy direction from government. However there must be a proper balance between investment and cost reduction. Concern about >15% reduction in planned investment for 33kV congestion issue. We seek clarity from UR this reduction will not hinder business' efforts to reduce energy costs through own generation, nor hinder their ability to participate in the electricity market. Many large energy users (LEUs) have standby generation. Incentivising their use to cover sudden drops in renewable generation may avoid constraint payments; | Following further discussion with NIE we have included the full level of investment proposed by the company in respect of 33kV congestion. |

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| | | | reduce LEUs energy costs and consumer costs. UR must ensure that the network retains sufficient flexibility to accommodate business' efforts to reduce costs and increase competitiveness.<br>For business to grow they need access to grid infrastructure that supports their growth ambitions.<br>Local businesses particularly in the west of NI report growing network congestion has led to firms being unable to obtain new or improved connections unless they pay the high costs of upgrading the local network themselves. A clear barrier to economic development.<br>Industry seeks assurance that the proposed reduction in NIE Networks' capital expenditure budget will not adversely impact regional economic development. Addressing this issue within the final determination would go a long way to assuring local businesses that the right balance between cost and investment has been identified. | UR has funded RP6 to ensure that network will be in place to support economic connections in line with the connection policy. |
| 8 | | Innovation | CBI recognise the up-front costs of innovation for firms are part of a healthy business model that pay off in the longer term. We have some concerns UR is not fully supporting NIE Networks' efforts to innovate. Where there are opportunities to invest in innovative products and practices now, in return for greater cost reductions in the future, it would be the CBI's view that these opportunities ought to be taken. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This includes trials of energy storage. This funding is ring-fenced to be released when NIE Networks |

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| | | | Businesses intrinsically understand that requirement.<br>Energy storage offers many benefits and has seen recent improvements in technology. Energy storage offers efficiency, constraint payment avoidance, system balancing benefits, reinforcement investment reduction. CBI is concerned UR has refused planned spend to examine facilitation of energy storage services. This should be business as usual activity. The final determination should allow NIE Networks flexibility to pursue storage opportunities in the event of successful outcomes of the proposed work. That is either via capital spend or service agreements with third parties.<br>UR re-profiling of RTU investment spreads the cost of installation but delays the benefits. The sooner investment is made the greater the return, as we understand all RTUs are needed before benefits are realised.<br>NIE Networks should be provided with the necessary resources (only 2% of capex spend) it requires to innovate to the best of its ability. We seek greater clarity from UR for the proposed reduction of innovation spend by nearly 1/3. | has further developed the design of the proposed trials.<br>In view of the strong support on innovation investment received in response to the draft determination we hope that contractors given the opportunity to be involved in these trials will also wish to invest in them allowing NIE Networks to leverage the investment being committed by consumers and maximise the opportunity. |
| 9 | | Optional Network Investment | CBI has concerns on UR optional spend position. NIE Networks has already done its part by undertaking a comprehensive stakeholder engagement exercise and | We agree that consumer engagement is something to be encouraged and given adequate recognition but we disagree that we have not fully appreciated the evidence or |

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| | | | presenting the gathered evidence to the Regulator. UR has not fully appreciated that evidence and we hope that the final document will contain further clarification as to why each individual optional investment was not included within the final price control determination. Such comprehensive consumer engagement is something that should be encouraged and given adequate recognition. | given adequate recognition to the consumer engagement work. We have noted the mixed response of consumers to the optional investment programmes, in particular a mixed willingness to pay. We have also noted that the company was unable to prepare a cost benefit analysis to show that the benefits proposed from the optional investment outweighed the tariff impact of the costs taking account of the extensive willingness to pay surveys which were undertaken. In these circumstances we have concluded that the optional investment programme has not been justified and indeed note that NIE Networks ultimately decided not to include it in its RP6 business plan. |
| 10 | **CCNI** | General | Welcome the engagement by NIEN and the UR has also benefited from this.<br>Welcome the DD as it delivers benefits to consumers of:<br>• ensuring NIEN deliver value for money<br>• ensuring sufficient investment for system safety and resilience<br>• balances financial risks between consumers and company<br>• provides flexibility for investment in security of supply and renewable generation<br>• allows innovation investment | We welcome CCNI's very fulsome and detailed response to our draft determination. The issues CCNI has raised with our draft are important, both for consumers (both domestic and industrial & commercial) and to ensure a fair and robust price determination for NIE Networks through the introduction of a welcome balance of competing opinions on many of the matters we determine upon.<br><br>We deal with CCNI's responses contained in their detailed letter to us, as well as their attachment of a longer list of issues raised by their consultants ECA, in the following sections. |

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| | | | Trust same robust economic tests will be carried out when UR is preparing the final determination.<br><br>ECA report and its points should be considered alongside CCNI response responded to as UR develops its FD.<br><br>Welcome the NIEN and UR measured and consumer focused development of the RP6 project plan.<br><br>Pleased with the level of consumer and stakeholder engagement and the improvements of quality and transparency of the information | |
| 11 | | Consumer Engagement | Acknowledge consumer engagement by NIEN and UR for RP6. The consumer engagement advisory panel (CEAP) was tasked with coordinating this engagement. The engagement process findings were in the Empowering Consumers report by CCNI. Recognise consumer engagement outcomes are sometimes ambiguous at the micro level. More work needed to drill further down into it as committed to by CEAP. | Going forward we look forward to progressing the good work stakeholders have undertaken in conducting robust consumer engagement and research to inform both NIE Networks' business plan and our determination process. We shall work with CCNI and company in developing the many new consumer metrics, KPIs and targets which we shall measure NIE Networks' progress against through RP6 and into their next price control at RP7.<br><br>Our collaborative partnership model of consumer engagement will continue with the re-constitution, under new agreed terms of reference, of the Consumer Engagement Oversight Panel (CEAP). |

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| | | | | Once the final determination has been accepted we shall progress onto development of the RP6 Monitoring Plan, where we would be happy to allow the CEAP to perhaps extend its oversight role to cover, at the least, the development of new, actionable consumer measures and satisfaction surveys. |
| | | | At a macro level the consumer engagement can inform RP6 more than the DD suggests. | We detail the extent to which we view our own determination and company's business plan submission has been informed via the RP6 CEAP process of consumer research. This is detailed further in Chapter 4 – RP6 Outcomes, Outputs and KPIs and our Technical Annex J – Outputs, Outcomes and KPIs. |
| | | | There are proposals in the DD not supported by the consumer research (see below) | The concerns around potential for double funding of service improvement to CMLs via our Reliability Incentive are addressed within Chapter 14 – Incentive Mechanisms. |
| 12 | | Innovation | GB innovation expenditure is higher than NI (low carbon network fund of £500m).<br>NIEN's policy is to implement projects most successful in GB.<br>UR has determined £7.26m out of requested £10.48m. While we appreciate the need to ensure NIEN delivers value for money this is an area where consumers (domestic and business) understand the degree of uncertainty. And they understand the benefits if not the technology. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |

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| | | | Recognise NIEN's funding request represents a reasonable investment for consumers commiserate with the potential benefits to consumers and the NI economy. Would expect UR to have sufficient oversight of projects to ensure allowance is spent prudently and as intended. | |
| 13 | | Optional investment | £45.4m request to improve network resilience. Labelled optional by NIEN due to mixed support during the customer engagement and unwillingness to pay especially from business customers. This area would benefit from further and more detailed consumer engagement and research. May be possible to defer investment decisions in this area until later in RP6 and substituting them for projects that become a higher priority. | We have noted the mixed response of consumers to the optional investment programmes, in particular a mixed willingness to pay. We have also noted that the company was unable to prepare a cost benefit analysis to show that the benefits proposed from the optional investment outweighed the tariff impact of the costs taking account of the extensive willingness to pay surveys which were undertaken. In these circumstances we have concluded that the optional investment programme has not been justified and indeed note that NIE Networks ultimately decided not to include it in its RP6 business plan.<br><br>NIE Networks has highlighted that the impact that some of these projects may impact on the level of GSS and would need to be taken into account in the any future decision to change GSS. This is something which could also be informed by further consultation to support a CBA analysis. |
| 14 | | Key performance indicators | Connections were a key issue in the consumer research. We support UR's proposed connections KPI. | The company's offering with regards new outputs and KPIs for RP6, specifically related to connections, is detailed under our |

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| | | | | Technical Annex J – Outputs, Outcomes and KPIs |
| | | | We welcome UR proposal to task CEAP with developing new consumer advocacy measures/metrics. We welcome the proposed reputational incentives but urge careful consideration of their design and use to maximise consumer benefit. | The RP6 Monitoring Plan is intended to ensure new metrics are actionable (because gaining insight, without taking action, is of no real value). Ultimately, consumers will either be more or less satisfied with NIE Networks' services to them and more or less likely to recommend the company to others as best in class. New consumer surveys will encourage the company to target improvements in service which are valued by consumers rather than simply make improvements across a suite of new outputs and KPIs as defined by ourselves and the CEAP. |
| | | | Ask UR for consumer research to assess if there's support for financial incentives to accompany reputational. | The introduction of our new Reliability Incentive, alongside the existing 50:50 sharing mechanism established at RP5 by the CC, is the only new incentive for RP6. As such, the Reliability Incentive is intended to test the extent to which the company can be incentivised to maintain and improve consumer service levels for CMLs as the result of a new financial incentive (financial rewards and penalties are symmetrical). The extent to which this trial incentive proves a success, as well as further consumer research to establish future support for its retention and potential introduction of further financial incentives, will inform the development of RP7. |

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| 15 | | Reliability incentive | Note proposal for customer minutes lost (CML) incentive from 2018/19 and expose 1.23%/£14m of NIEN's revenue. Concerned consumers will pay twice – once for the incentive and again for the cost of achieving the improved performance. The CEAP research highlights a high level of satisfaction with current NIEN service from domestic and non-domestic customers. Power cuts are also no longer a significant issue for most consumers. These cast doubt over the propose incentive and the CML indicator. Recommend willingness to pay research for incentives per 14.35 of the DD. | The concerns around potential for double funding of service improvement to CMLs via our Reliability Incentive are addressed within Chapter 14 – Incentive Mechanisms. |
| 16 | | WACC | CCNI highlights that a number of the UR's DD WACC parameters sit at the high end of possible ranges. CCNI suggests that this could mean that there is scope for reducing the allowed return. | The UR agrees that two of the parameters in the DD WACC calculation – the risk-free rate and the expected market return – are towards the upper end of plausible values.<br><br>The UR also notes that NIE considers that there are grounds for using a higher beta than the UR put forward in its DD.<br><br>The UR is of the view that it is necessary to look at the cost of equity inputs 'in the round'. The allowed return set out in Chapter 12 of this FD is intended to be a balanced overall assessment, which gives recognition to the arguments that there are for lower or higher figures for individual line items. |

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| 17 | | WACC | CCNI suggests that the RP6 framework will reduce risk relative to previous price controls and that this reduction in risk should translate into a reduction in the cost of capital. | The UR's assessment is that many of the innovations that CCNI view as risk-reducing mirror innovations that Ofgem has made within its RIIO price controls. Insofar as the UR is benchmarking NIE's WACC to Ofgem's cost of capital estimates, it ought to be that the return on offer to NIE is commensurate to the risks it faces. |
| 18 | | WACC | CCNI notes that the GB DNOs appear to be earning returns that sit well above Ofgem's estimate of the cost of equity capital. | The UR does not necessarily consider out-turn RIIO returns to be directly relevant to this RP6 review. DNOs' returns are primarily a function of companies' out-performance against their company-specific expenditure allowances and other incentives, which derive ultimately from circumstances that are particular to GB.<br><br>In making this FD, the UR has set out to provide a balanced price control package. The UR judges that the expected return on equity is in line with the calculated cost of capital, and that there should be no presumption that NIE will automatically out-perform. |
| 19 | | Costs and benchmarking | Considerable level of analysis and modelling carried out. Opex around 25% of NIEN's revenue. Essential NIEN becomes most efficient company it can for consumers. Therefore we welcome the 2% efficiency gap proposal. This can be positive for the company from a reputational and performance management perspective. | The concerns around the extent to which (i) a local labour adjustment (or amelioration of our Regional Wage Adjustment) to the company's benchmarked Indirects and IMF&T costs as well as (ii) our consideration of the inclusion of a number of material negative special factors (alongside the company's own special factors re- |

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| | | | Points to highlight on UR benchmarking:<br>• ECA issues 3 to 7<br>Labour adjustment<br>• applying full local labour adjustment not justified<br>• UR's consultants recommended it not applied<br>• 100% of NIEN workforce/costs are in NI<br>• No evidence NIEN competes for workforce resources in the national market<br>• UR should determine efficiency gap without local labour adjustment or with it only applied to GB data<br>Special factors<br>• UR DD 5.51 i to iv identify 4 areas NIEN's policy and standards are lower than GB. This should mean lower costs for NIEN's IMFT and indirect costs.<br>• Therefore surprised UR decided not to apply a negative special factor and no explanation to support the decision.<br>• UR should apply negative special factor to reduce costs to consumers. Robust evidence/support must be provided for decision to not apply. | submission) are discussed in Chapter 5 (IMF&T and Indirects) of the main final determination. |

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| | | | Severe weather allowance<br>• ECA analysis indicated GB costs may be higher than NIEN. Table 5 of the DD supports this in regards to line lengths.<br>• Suggest reconsideration of severe weather allowance taking account of customer numbers and line length. | These concerns have informed our re-assessment of a fair and robust level of severe weather allowance pertaining to our local company, drawing on experience both locally and nationally as well as a variety of alternative methodologies, including network characteristics. The composition and calculation of our allowance is detailed in full at Chapter 6 – Other Operating Costs, Severe Weather Allowance. |
| 20 | | Uncertain transmission investments | Prudent to maintain the D5 mechanism for RP6 due to transmission projects uncertainty eg north/south interconnector.<br>We welcome UR commitment to transparency by providing cost/bill impact estimates at DD.<br>Though no detail as to how projects will be assessed and approved under D5. Clarity is needed to ensure appropriate scrutiny and approval. Clarity needed on rate of return applicable to D5 projects. | The rate of return for the RP6 period forms part of the final determination (subject to the debt mechanism). This will apply to any additional capital allowances (including D5 projects) for the RP6 period.<br><br>Additional capital allowances will be determined following a submission by NIE Networks to the Utility Regulator which will then be subject to detailed scrutiny to allow a reasonable allowance for the work to be determined. Typically this is often at a time when works have been well defined and costs supported by tender estimates, providing a greater degree of certainty on the cost estimates. |
| 21 | | Metering | DD approach to metering is volume driven allowance with set unit cost. Given no issues identified in DD we accept application of this method.<br>UR should apply catch up efficiency to NIEN indirect costs for metering activities to directly benefit consumers. | We have given due consideration of the proposal to apply a catch up efficiency reduction of 2% to indirect costs for metering activities. Whilst this is a reasonable point, given that our allowances are based on historical run rates, we do not have a good benchmark (unlike IMF&T) and we are not |

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| | | | Note the cap on recertification meter program to avoid over provision. However this program was started with support from industry and consumer representatives due to illegal meter activity costing £14m/year. Need to assess if cap may impact success of program.<br>Ask UR to identify alternative remedies to the cap such as catch up efficiency or a lower unit rate. | convinced that it has a strong enough evidence base to warrant a reduction for catch up efficiency. |
| 22 | | Direct network allowance substitution | Recognise the rationale for allowing the substitution however the DD seems to contradict the proposal. DD 13.13 states NIEN has applied substitution in RP5 while 13.11 reminds of the CC rejection of a substitution mechanism for RP5. UR also admits concerns about the mechanism (source of complexity in assessing price control outcome/double funding).<br>No explanation of 20% cap on output substitution, and higher than NIEN request of 15%. Explanation and supporting evidence should be provided for the cap.<br>UR should introduce mechanisms and processes to assess potential double funding. Proposals at 14.27 i to v are welcome.<br>Note RP5 capex underspend and support UR proposal at 14.21 to re-profile allowances for Rp6 planned work to reduce risk to consumers. | The level of the cap on substitution is a matter of judgement. We have provided some additional information in the final determination which aims to show that 20% is reasonable for workload volumes estimated up to 8 years in allowing a small level of uncertainty increasing over time.<br><br>We have continued to use the D3 deferral mechanism from RP5 which addresses the issue of potential double funding. |
| 23 | | Pensions | We accepted RP5 CC decision to fund NIEN pension deficit to 2022 but we did not support it. Our opinion is still that regulators | We have considered established regulatory practice in this area including that of the outcome of Ofgem's recent pension decision |

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| | | | should minimise revenues for pension deficits where possible. | which may be accessed here: https://www.ofgem.gov.uk/system/files/docs/2017/04/decision_on_policy_for_funding_pseds.pdf, which indicates that having a hard stop date is not appropriate, based on a number of factors, which is outside the control of Network Operators and have moved to be more flexible approach for funding of the deficit. However, the pension scheme deficit has continued to grow since the RP5 CC decision, we are proposing to permit allowances to 2024. We will examine the pension scheme performance at RP7 and make any required adjustment(s) at that time. |
| | | | Do not support DD decision to set regulatory fraction to 100%. The monetary impact is not significant but can see no justification of the £0.8m increase to £114.5m. | In our DD we proposed removal of the regulatory fraction and setting it to 100% going forward with no retrospective adjustment in respect of previous price controls.<br><br>At the DD, setting the Regulatory Fraction to 100% resulted in an associated cost of £0.8m above the Business Plan requested amounts. However, upon consideration of consultation responses and further review of pensions we are not proposing to include this additional uplift at this time and have retained the Business Plan assumptions. However, we will review treatment of Article 75 debt payments further and make adjustments in RP7 if appropriate. |

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| 24 | | Indexation of revenues | Ask UR to start planning for adopting CPI instead of RPI as GB regulators are doing/likely to do. | UR will consider the issues around moving to CPI more generally across all our price controls as part of any review of our approach to price controls. |
| 25 | | Rates | Agree that rates are not wholly uncontrollable, support decision against pass through in RP6. | We note that the CCNI response is in agreement with Business Rates not being treated as pass through expenditure items as it concurs that Rates are not wholly controllable. We welcome the CC support for the UR's approach of setting an annual allowance for Rates as opposed to pass through of expenditure. |
| 26 | **CCNI (ECA)** | WACC | ECA made a number of observations in relation to Cost of debt adjustment (Chapter 12, 12.7 and Annex H) and Cost of equity and revenue (Chapter 12, 12.19 and 12.21). | See responses to CCNI comments on WACC above. |
| 27 | | Benchmarking IMF&T and indirects Chapter 5 | Significant variation in the efficiency gaps depending on the data used making data and model choice significant for the level of catch up and charges to customers.<br>Application of full local labour cost adjustment has material impact on the efficiency gap. Our main concern is the local labour adjustment. The implication of making this local labour adjustment is that some activity occurs outside a network's region (or that they are competing in a national market):<br>UR's consultants recommended not applying local labour adjustment<br>UR states it did not have access to the detailed underpinning of how Ofgem arrived | The concerns around the extent to which (i) a local labour adjustment (or amelioration of our Regional Wage Adjustment) to the company's benchmarked Indirects and IMF&T costs as well as (ii) our consideration of the inclusion of a number of material negative special factors (alongside the company's own special factors re-submission) are incorporated into our triangulation of our P0 efficiency discount at Chapter 5 – IMF&T and Indirects. |

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| | | | at the percentages for the local labour adjustment and can't be certain the assumptions hold for a NI based network.<br>UR said GB distributors appear to locate their customer service and new connection centres within the region they operate. This supports not applying local labour adjustment.<br>NIE confirmed they locate 100% of their workforce and costs in NI<br>In making a local labour adjustment there is an implicit assumption some costs are incurred outside the region. And that there is a national market for certain resources/roles. The former is demonstrably not true and cannot justify a local labour adjustment. The latter we saw no evidence of in our DD review.<br>Accordingly, without further evidence, we consider that UR should determine the efficiency gap using data with no local labour adjustment (ie the RWA should apply to all indirect labour costs), or with the local labour adjustment applied only to the GB DNOs' cost data. | |
| 28 | | Benchmarking IMF&T and indirects<br>Table 17 and 5.176 | UR states that the efficiency gaps from the 'middle-up' modelling are within those of the top-down models. This is not true based on the data presented in Table 17 (as amended) when the models use a 'full local labour adjustment' and a pre-allocation of connection costs. In this case, the middle-up model shows a larger efficiency gap than the top-down models. | The concerns around incorporation of our middle-up models are incorporated by their inclusion into our triangulation of our P0 efficiency discount at Chapter 5 – IMF&T and Indirects. |

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| | | | When the models use a full local labour adjustment and a post-allocation of connection costs, the efficiency gap from the middle-up model only just sits within the range of the top down models.<br>These results would appear to call into question the models based on a full local labour adjustment (see issue no. 4). To the extent that UR continues to apply a full local labour adjustment, then there may be merit in UR including the results of the middle up models in determining the efficiency gap. | |
| 29 | | Special factors for IMF&T and indirect costs<br>5.51 – 5.52 | UR uses GB DNO data to inform its assessment of NIE's efficient level of IMF&T and indirect costs. UR highlights four areas where NIE's standards and policies are different (typically lower) than GB DNOs. UR notes that these factors could warrant a negative special factors adjustment, but that it decided against introducing one for the DD without explaining why. Making such an adjustment would reduce costs to consumers. UR should consider whether the special factor mentioned is material. | The concerns around the extent to which (i) a local labour adjustment (or amelioration of our Regional Wage Adjustment) to the company's benchmarked Indirects and IMF&T costs as well as (ii) our consideration of the inclusion of a number of material negative special factors (alongside the company's own special factors re-submission) are incorporated into our triangulation of our P0 efficiency discount at Chapter 5 – IMF&T and Indirects. |
| 30 | | Severe weather allowance<br>6.34 – 6.37 | UR set NIE's severe weather allowance based largely on the costs historically incurred by GB DNOs.<br>On average, GB DNOs serve more customers and have more length of lines than NIE (as shown in Table 5 of the UR's RP6 DD), as well as having more dense networks (customer numbers / line length). These different factors may mean different consequences from and costs of responding | These concerns have informed our re-assessment of a fair and robust level of severe weather allowance pertaining to our local company, drawing on experience both locally and nationally as well as a variety of alternative methodologies, including network characteristics. The composition and calculation of our allowance is detailed in full at Chapter 6 – Other Operating Costs, Severe Weather Allowance. |

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| | | | to severe weather events. A severe weather event affecting a given size of area would (on average) affect more customers and line length of a GB DNO than NIE. Other things equal, this may reasonably be expected to result in greater costs for the GB DNO than NIE. If this is the case, not adjusting for the difference in scale, UR's use of GB DNO data in the DD could result in overstating NIE's severe weather allowance. Accordingly, UR should consider the underlying cost drivers for severe weather events in GB and Northern Ireland and whether making adjustment for the difference in scale between GB DNOs and NIE is appropriate. | |
| 31 | | Absence of Catch-up efficiencies. 11.12 and chapter 11 generally | In relation to the meter installs / changes programme, UR states they did not apply any catch-up efficiency, but will consider further if they should.<br>For the cost items in Chapter 11, UR appears not to have applied any catch-up efficiencies. To the extent that there are similarities with the costs in the econometric benchmarking (eg indirect costs and overheads) or that NIE are managing the activities with a similar level of efficiency, then UR should consider applying catch-up efficiencies. | While this is a reasonable point, given our allowances are based on historical run rates, we do not have a good benchmark for metering costs (unlike Indirects and IMF&T) and we are not convinced that it has a strong enough evidence base to warrant a reduction for catch up efficiency. |

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| 32 | | Outputs and KPIs<br>Chapter 4 | Most of the measures and KPIs are for development in RP6 (and in some cases will inform RP7 – ie in 6.5 years). The potential benefits to customers may, therefore, not be delivered for some time. | The company's offering with regards new outputs and KPIs for RP6 is detailed under our Technical Annex J – Outputs, Outcomes and KPIs.<br>The RP6 price control period is some 6½ years duration and our aim is to include clear outputs and KPIs into RP6 Monitoring Plan |
| | | | UR is separately consulting on Guaranteed Standards of Service (GSS), and changes including additional standards, raising some existing standards, and increasing compensation are to be welcomed. To the extent this involves raising standards towards those of the GB DNOs, against which NIE is benchmarked, we agree with UR's approach to not allow NIE additional costs. | We note CCNI's view and we are agreed. |
| | | | Connections were identified by consumers, through the Consumer Engagement Advisory Panel (CEAP) Empowering Consumers report, as an area for improvement. It is, therefore, important for NIE and UR to progress the development and reporting of NIE's proposed outputs. | We agree that the consumer research evidences connections as an important area. We encourage NIE Networks to progress the connections outputs in a timely manner. |

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| | | | UR has proposed development incentives in relation to asset health and load indices, asset management, worst served customers, and customer advocacy and survey metrics. UR proposes that these are reputational incentives. Due consideration is needed to maximise the impact of these reputational incentives (eg through comparison to targets, comparison to GB DNOs, and comparison to other sectors).<br><br>The strength of reputational incentives can be greatly enhanced when they are linked to a financial penalty or reward, as this can draw greater attention than the performance data alone, particularly where the financial adjustments are in period (making the issue more 'immediate'). UR should consider linking these reputational incentives to financial incentives.<br>See also issues 9, 11 and 12. | The introduction of our new Reliability Incentive, alongside the existing 50:50 sharing mechanism established at RP5 by the CC, is the only new incentive for RP6. As such, the Reliability Incentive is intended to test the extent to which the company can be incentivised to maintain and improve consumer service levels for CMLs as the result of a new financial incentive (financial rewards and penalties are symmetrical). The extent to which this trial incentive proves a success, as well as further consumer research to establish future support for its retention and potential introduction of further financial incentives, will inform the development in RP7. |
| 33 | | D5 projects<br>9.20 – 9.31 | UR proposes to retain the CC's D5 mechanism, providing for allowances to be set for investments uncertain at the time of the price control review.<br>There is a potential step change in the number and value of investments that might be determined within the price control period through the D5 mechanism in RP6 (compared to RP5). As allowances for these will be set outside of the price control, it is vital that subsequent review processes and their application are adequately robust to protect consumers' interests. | We agree that it is vital that the subsequent review processes for D5 projects and their application are adequately robust to protect consumers' interests.<br>The final determination and the proposed licence modifications make it clear that additional allowances are for incremental costs not already covered in the price control allowances, in particular there should be no double funding of asset replacement costs and load related investment.<br>During the licence consultation process for RP5, the CC clarified that this did not relate |

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| | | | One important aspect in protecting customers is to establish a clear boundary between up-front allowances and the D5 allowances. This boundary will support UR's assessment of whether consumers have already funded part (or all) of an investment through upfront allowances. It was for this reason that the CC did not allow the inclusion in the D5 mechanism of distribution network expenditure (para 5.265 of CC NIE final determination5). However, UR is now proposing that some relatively small distribution reinforcement projects are included through the D5 mechanism (Armagh Main distribution reinforcement at £1.6m and Airport Road distribution reinforcement at £2.7m). This would appear to contradict CC's intent for this mechanism. UR has included within RP6 an "indicative allowance" of £57.9m for three transmission asset maintenance projects (and the above distribution network projects). These costs are indicative as UR states that the projects "are not sufficiently well developed to allow us to determine ex-ante efficient costs". UR's intention, therefore, is to set the level of allowances later, during RP6. Again, this potentially weakens the boundary between costs funded through upfront allowances and through within-period determinations. It was for this reason that CC rejected NIE's view that cost uncertainty should determine which projects should be subject to the D5 mechanism (para 5.265 of CC NIE final | to distribution works carried out as a consequence of the transmission project which would not have been required had the transmission project not taken place. An example is where the company has to under-ground distribution conductors that cross the route of new transmission OHLs. We will continue to rely on the general principle that work already covered in the determined allowance will not be double funded in D5 projects.<br>The small distribution reinforcement projects identified in the re-opener mechanism are projects which would be materially affected by possible transmission projects.<br>We have set out our reasons for not providing an ex-ante allowance for transmission asset maintenance projects in RP6. The passage of time weakens any reliance on a pre-determined amount. We are also concerned about potential bias in application where the company only asks for projects which exceed the initial budget to be reviewed.<br>However, we would expect the company to identify major asset maintenance projects (because they have a pressing need) and develop costs for the next business plan submission. Including these projects in the D5 mechanism should not be seen as normal practice. |

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| | | | determination). UR should consider setting the level of allowance for these investments now and including them in allowed revenues if the investment is required during RP6. If the scope of these projects changes, then UR could revisit the cost (as proposed by CC in para 5.278(c) of CC NIE final determination). | |
| 34 | | Meter volume driver<br>11.6 | A set unit allowance provides a unit cost efficiency incentive for NIE. However, such mechanisms can incentivise doing more work and can create distortionary incentives between meter types depending on the unit rates. To the extent that this mechanism has been in place during RP5, and UR has reported no problems, it seems unlikely to be a significant issue. | As noted in CCNI's response we have not reported any issues with the meter volume driver approach and see no reason to change it. |
| 35 | | Direct network investment allowance substitution<br>13.8 – 13.19, and 14.11 – 14.21 | UR proposed allowing NIE to substitute outputs between different direct network investment allowances. UR proposes a limit of 20% on the value of outputs that can be substituted out from any single direct network investment allowance.<br>This proposal is intended to afford NIE greater flexibility. A similar substitution mechanism was proposed by NIE and rejected by the CC at RP5, on grounds that NIE already had sufficient flexibility. We note UR's assessment that NIE has generally delivered outputs consistent with its allowances, and that NIE can already substitute outputs within allowances. In this context, UR does not make clear what has changed to demonstrate that more flexibility | The fact that the company had broadly delivered the outputs in RP5 could be taken as a strength or weakness. The company did exercise its right to substitute outputs within allowances, but did not substitute between allowances. This may be because there was not a need to substitute or because the company felt constrained and delivered the planned outputs rather than the best outputs.<br>While Annual Cost and Performance Reports will provide useful information we would express some caution over drawing strong conclusions from performance in any one year. A substitution made in one year could be reversed in another as new information emerges. The impact of any substitution will |

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| | | | for NIE is of benefit to consumers. UR notes (14.17) this mechanism complicates the assessment of deferral of expenditure (which is subject of the D3 mechanism introduced by CC and needed to ensure customers do not pay twice for deferred spend).<br>If UR implements the uncertainty mechanism, then the regulator reporting of NIE's performance against outputs as part of UR's proposed Annual Cost and Performance reporting becomes more important. This reporting will support understanding of potential adjustments required at the next price control (subject to performance in the remainder of RP5), as well as tracking and highlighting issues with performance against outputs and volumes in RP6 that will inform the next price review. | only become apparent towards the end of RP6. In this context we would note that substitution is a part of the determination of deferral and pre-funding for the next price control which the Utility Regulator will assess at the end of RP6. It is for NIE Networks to make the investment decisions necessary and the Utility Regulator will not endorse individual decision as they are made. |
| 36 | | Reliability incentive<br>14.22 - 14.60 | UR proposes to introduce penalties/rewards tied to NIE's performance against reliability targets, with penalties and rewards applied symmetrically for under- and over-performance, respectively.<br>Welcome the introduction of this incentive mechanism and on a high-level review seems to be well-designed based on regulatory precedent and practice elsewhere. We also note that rewarding NIE for outperformance, as well as penalising it for underperformance, creates a symmetrical incentive. (This avoids the so-called 'cliff edge' effect, as well as the negative effect on WACC that can result | We disagree. The concerns around potential for double funding of service improvement to CMLs via our Reliability Incentive are rejected within Chapter 14 – Incentive Mechanisms. |

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| | | | from a penalty-only regime.) On the other hand, this may be unfair for customers because it requires them to pay twice, that is, for the incentives as well as the costs of achieving the enhanced performance. Moreover, electricity reliability surveys undertaken in various countries generally show that customers place less value on improvements in reliability than in reductions, so symmetrical incentives would not reflect customer preferences. | |
| 37 | | Pensions Regulatory fraction 8.46 -8.48 | Proposed resetting the regulatory fraction (the proportion that is attributable to services provided to the NIE regulated business versus other entities covered by the NIEPS scheme) from 99.26% in RP5 to 100% in RP6.<br>Part of UR's justification for a 100% regulatory fraction is simplicity, a laudable objective. It seems a consequence of the UR's proposal regarding the regulatory fraction, that it is minded to grant a pension deficit repair allowance that exceeds NIE's request by £0.8 million (UR reports that NIE's request was for £114.5m and UR proposes allowing £115.3m).<br>Notwithstanding the relatively small difference, UR needs a strong justification for providing a larger allowance than NIE requested. | See CCNI Response above. |
| 38 | | Pensions allowances for 2022-2024. Paragraphs | UR proposes granting pension deficit repair allowances for the last two years of RP6, despite the current deficit recovery period running to 2022. | See CCNI Response above. |

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| | | 8.33 - 8.34,<br>8.58 - 8.59 | Whether there will be a deficit or surplus post-2022 is uncertain. There is no evidence presented in the DD that one outcome is more likely than the other (although we note NIE reports in its business plan (para 7.138) a recent funding update showing a lower funding ratio).<br>It is unclear why this should be decided on now in favour of the business, notwithstanding that in NPV terms customers would ultimately pay the same (because of the adjustments that will be made in RP7). One option for UR could be to address this issue as a mid-term review, by which time another Triennial Actuarial Valuation will have been completed. | |
| 39 | | Indexation of revenues<br>1.31 | UR proposes RPI inflation is applied to RP6 revenues.<br>RPI is no longer a national statistic and has known calculation methodology flaws (possibly giving upward biases). Ofcom has switched to CPI and Ofwat will also switch away to CPI/CPIH. CPI tends to be less volatile than RPI, which may benefit customers' bills. While RPI will still be produced it may be seen as less legitimate. However at this stage in the price control changing from RPI could be detrimental to consumers through increased regulatory risk and on the cost of capital. UR and NIE should consider planning for this change | UR will consider the issues around moving to CPI more generally across all our price controls as part of any review of our approach to price controls. |

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| | | | well in advance of the next price control period. | |
| 40 | **Energia** | System capacity | Concern with crisis of overload on the transmission system.<br>Renewables currently have a MTP which has delivered 1000MW of capacity on the system and there are at the moment in excess of 1600MW of installed and committed projects with SONI/NIE. This is a wholly unacceptable situation and many of the already connected projects are operating at levels without FAQ.<br>33kV investment also needed due to congestion but NIEN's proposal has been reduced by UR<br>Work on reverse flow relays and transformer settings at 33:11kV substations should continue. Disappointed NIEN allowance has been reduced to £8.9m from request of £10.421m. Crucial the request is maintained.<br>NIRIG response is supported by Energia. | The final determination provided flexibility to allow future generation connections including any amendments to connection policy flowing from the outcome of the current connections review. The 'D5' mechanism allows the determination of additional allowances to enhance transmission capacity where this is supported by SONI. An additional re-opener has been included for additional investment in the 33kV network to provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions |
| 41 | **Kelvatek** | Annex O D602 | Our experience shows stringent inflexible milestones can be detrimental to project outcomes and benefits. Can lead to focus on intermediate goals rather than maximising opportunities from learning in the early stages.<br>Planned but flexible approach has been key to many successful products we have undertaken e.g. BIDOYNG and WEEZAP. Both were trialled under LCN Tier 2's Smart | We agree that stringent inflexible milestones can be detrimental to project outcomes and benefits. However, good project management including clear objectives, plans and programmes are important for any project including trials and innovation. Our intention is to drive good project design to minimise the risk of lost opportunities and the waste of scarce innovation funding. Good project design will build on previous projects |

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| | | | Street. BIDOYNG has moved into business as usual with 10k units in use in GB and NI. Recommend enough flexibility in projects to allow maximum benefits to be achieved. Delighted to speak further if beneficial. | and ensure that issues not resolved in those projects are addressed. |
| 42 | **Manufacturing NI** | General | MNI engage with NIEN and others but have no direct involvement with the energy industry giving a wide view and independence in our responses.<br>Manufacturing is major economic contributor in NI. ~£10bn to NI GVA, ~£7bn in exports directly employing 85k people.<br>The need for competitiveness greater than ever with geographic, government policy and Brexit challenges. According to Oxford Economics, reduced competitiveness risks jobs whereas when manufacturing grows so does the economy.<br>Energy is third largest input cost for most manufacturers. For some it is larger than payroll.<br>UR and DfE cite limited levers to curb some of the highest costs in Europe for these manufacturers. However price controls offer a clear mechanism to avoid excessive costs for present and future customers.<br>UR should note NIEN and other energy firms are consistently amongst the most profitable NI companies.<br>In this context we are pleased DD brings a marginal fall in network charges over RP6. We urge UR to remain firm maintaining this position when considering responses and amendments for FD. | We welcome MNI's detailed response to our draft determination. The issues raised with our draft are important, both for consumers (both domestic and industrial & commercial) and to ensure a fair and robust price determination for NIE Networks through the introduction of a welcome balance of competing opinions on many of the matters we determine upon. |

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| | | | RP6 starting point is CMA determined RP5. Content that UR has provided sufficient rationale, analysis and funding for NIEN to be financeable, provide investment and incentive for a safe reliable and sustainable network. NIEN's own analysis is the company is in good condition, so in our view sufficient funding levels are met by DD. Note that the customer engagement reported 3 out of 4 business customers believe no additional funding should be provided. | |
| 43 | | RIGs | We understand NIEN have provided the first 4 years of RP5 RIGs. This should give strong indication of costs and outputs. Deep analysis of the RIGs is in customers' interests to ensure transparency of cost and funding levels in RP6. As we understand NIEN expect to come under budget in capital costs, indirect capex is particular concern as they expect significant overshoot of this. This is significant risk for consumers. Urgent need for UR to provide confidence that NIEN is as efficient as possible in these indirect cost areas. While there is significant overspend we do not accept that totex figure is more relevant.<br><br>We seek commitment from UR indirect capex costs are strongly audited to ensure opex costs are not being capitalised and value for money is assured. | We have carried out extensive benchmarking of Indirects and IMF&T, building on the econometric modelling base and data requirements envisaged by the CC at RP5. Our findings and subsequent triangulation of our P0 efficiency discount are detailed at Chapter 5 – IMF&T and Indirects.<br><br>We have stated our intention to pursue the necessary data undertakings on the company if their data systems are not appreciably improved to our satisfaction during RP6. We are seeking a Data |

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| | | | | Assurance Plan as part of this workstream in parallel to our RP6 Monitoring Plan, further details of which can be found at Chapter 13 – Future reporting requirements, Data assurance. |
| 44 | | Deferral | We remain very concerned about investment levels (being collected through current bills) for RP5 capital projects will not be met or with significant deviation from budget provided by CMA (up to £32m in DD). Do not believe "reputational risk" is a sufficient means to ensure delivery and value for money. We seek a stronger penalty mechanism. | The objective of the Price Control is that the company delivers the objectives. Cost savings against the original budget are shared between the company and consumers and captured in the subsequent price control determination. The 'penalty' mechanism for not delivering an output is that the investment is deferred and deducted from the subsequent price control as a 'pre-funded' cost. In the final determination we have made one adjustment for pre-funded costs. We will continue our assessment of RP5 delivery when final figures are available. In view of the savings realised in RP5 we will ask the company to explain how major savings were achieved as part of our review and also provide consumers with a simple explanation of this. |
| 45 | | D5 | Note UR anticipates slight reduction in network costs when D5 investments are excluded. Concerned the company has not provided sufficiently well developed analysis of potential costs on D5 projects. At this point UR has only taken a view on what they may be.<br>FD should not have additional network costs in bills. Seek commitment in RP6 that if | An ex-ante allowance will be determined for each D5 project once the scope and costs of the project can be established with confidence. The allowances will be subject to the same deferral and cost risk sharing mechanisms as other allowances and costs. |

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| | | | these projects overshoot cost estimate of £200m that the money is recovered from elsewhere in the budgets to guarantee no additional network costs. | |
| 46 | | Customer engagement | We have already made it known to NIEN and UR the Consumer Engagement process leading to the NIEN business plan was not satisfactory.<br>Our view is the process was designed around confirming the company's view on what investments were needed. This was rather than open discussion leading to addressing consumers concerns or needs. Discussion from some workshops did not appear in the business plan, with areas of little or no concern were retained.<br>We welcome requirement for engagement but with review and improvement. | Our collaborative partnership model of consumer engagement will continue with the re-constitution, under new agreed terms of reference, of the Consumer Engagement Oversight Panel (CEAP). One of its first tasks shall be the necessary review and evaluation of the RP6 consumer research to ascertain what worked well and what lessons are required for new research in the future, both during RP6 and to inform the next price review of RP7. |
| 47 | | Transparency | There was a significant increase in transparency brought about by the consumer engagement. More documentation that is digestible for consumers was available. Journey to greater transparency is welcome as it can increase consumer confidence in the company.<br>Content and style of DD shows this in many ways. However it would be fair on consumers and company for UR to offer deeper explanation for decisions to refuse certain investment proposals from NIEN. This would help consumers understand the process and justification for decisions. | We welcome MNI's positive comments as regards enhanced transparency and would aim to continually improve both the accessibility of our published documents as well as ease of understanding, across a much wider reader base than was normal previously. |

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| 48 | | Low carbon technology | Review of strategic energy framework not yet published. However factors in UK and NI policy and reports from DfE which show no support for LCT generation in short and medium term. As such it is unclear why there would be a need for funding in this area.<br>See also DfI annual report on electric vehicle uptake and attitudes. Demand and likelihood to purchase in future remain consistently low (~1%). This is a useful metric for UR in assessing investment need in this area. | The low carbon technology funding is to allow for load growth from new technologies such as electric vehicles. The assessments in the price control are underpinned by low growth forecasts. The re-opener for the latter half of the price control will allow informed decisions to be made when there is a clearer understanding of rates of uptake of this type of technology and the impact it has on the network. |
| 49 | | Innovation | Manufacturers understand value of innovation more than most. As such we are generally supportive of plans to find new approaches that will reduce future financial demands. Concern that guaranteeing 100% of the income through RP6 would not encourage the company to work alongside others to access alternative funding sources and relieving customer burden. | In view of the strong responses on this topic it is clear that there are multiple parties active in this area and keen to contribute to innovation and we would expect NIE Networks to set out in its future submissions how it has incorporated third parties into its proposals – including with respect to leveraging funding. |
| 50 | | Theft | Agree no additional funding needed yet. Meter replacement programme and code of practice work allow company to suggest other actions. Regardless these costs should be beneficial for the consumer rather than the company. | We consider that the existing arrangements and planned work in this area are sufficiently adequate for NIE Networks to address electricity theft. |

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| 51 | | Rates | In no other business would customers accept simple pass through of additional costs. None of MNI's supporters could for instance simply pass through additional energy costs to customers. Increased costs should be offset by increased efficiency. UR's approach is already more than advantageous to NIEN. | We welcome the MNI response which supports the UR approach to Rates of setting annual allowances for Rates as opposed to allowing pass through of costs. |
| 52 | | Connections | Agree with UR to settle on option 2 – removal of housing site 12+ pass through. 'Cluster' not in the interests of consumers, should be paid by developer. Already more renewable generation connected/connecting than demand. | We have published our decision on connections policy. We have decided to maintain the connections cluster charging methodology. Our RP6 decision will ensure that NIE Network's will not incur any expenditure in relation to new cluster developments without the Utility Regulator's approval on a project by project basis. This mitigates against NI consumers picking up an unacceptable level of risk from cluster investment.<br><br>We have decided to implement Option 2 with respect to Housing sites. Our reasons for this are set out in Chapter 13 in the main report. |
| 53 | | Optional investment | Agree with not including these costs. NIEN's own consumer engagement identified business customers were not prepared to pay for these investments. Company to date has not justified value for money of them. If UR decision was reviewed, domestic customers should pay the costs through a tariff adjustment with NIEN challenged to justify a business case on that basis. | We have noted the mixed response of consumers to the optional investment programmes, in particular a mixed willingness to pay. We have also noted that the company was unable to prepare a cost benefit analysis to show that the benefits proposed from the optional investment outweighed the tariff impact of the costs taking account of the extensive willingness to pay surveys which were undertaken. In |

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| | | | Consumer engagement confirms no consumer appetite to increase NIENs funding and urge UR to not commit to additional cost burden on consumers at FD. NIEN is more than sufficiently rewarded for operating a monopoly – demonstrated by their profitability. Further productivity gains should be encouraged if NIEN are to seek greater levels of profitability. | these circumstances we have concluded that the optional investment programme has not been justified and indeed note that NIE Networks ultimately decided not to include it in its RP6 business plan. |
| 54 | **Mutual Energy** | Transmission investment | SONI has assessed future incremental benefits of the Moyle interconnector operating at full capacity in the order of £16m/year.<br>Current network constraints in NI and GB have led to restrictions on the maximum flows on the interconnector.<br>To capture full benefits the system constraints must be removed. This is in keeping with requirements of EU Regulation 714/2009 on access to the network for cross-border exchange in electricity, notably paragraph 1.7, Annex 1.<br>We understand the processes for transmission system planning and development. Therefore expect to see reference to SONI schemes to address transmission system restrictions in NIE Networks plan under D5.<br>SONI did cost benefit analysis in 2014 on potential network reinforcements to support increased interconnector flows.<br>Note the NIE Networks business plan makes no mention of addressing capacity | The 'D5' mechanism allows the determination of additional allowances to enhance transmission capacity where this is supported by SONI. |

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| | | | restrictions or the legal requirement to do so nor does the UR DD.<br>Urge all parties to consider these requirements, positive economic case for them and ensure relevant plans are developed in timely manner to benefit NI consumers. | |
| 55 | **NEA NI** | | Latest NI House Condition Survey showed 42% of households in NI were in fuel poverty. This is one of highest in northern Europe and higher than GB.<br>NIE Networks costs are 21% of final bills therefore vital customers are assured the costs are required. I.e. for investing minimum necessary for legal and licence compliance and provision of a reliable quality service.<br>Commend NIE Networks for robust and systematic approach to customer and stakeholder engagement.<br>Acknowledge UR's work throughout the process, promoting short and long term interests of customers and having due regard to protecting the vulnerable. | We welcome NEA NI's positive feedback and note the various specific concerns raised here. |
| 56 | | Innovation | Future generations should benefit from progress in RP6. This should be given a place in the overall context of this process and as such the Innovation Integration Projects could help with this. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is |

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| | | | | ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 57 | | Rural and vulnerable customers | Due regard should be given to rurality and vulnerability. While this may not stack up economically they should still be given consideration given the society we wish to live in (providing a secure, sustainable and affordable electricity supply for all NI).<br>Of the 42% of households in fuel poverty, 44% are in rural areas. The size and scale of the problem here outstrips rest of UK making it one of the biggest issues facing our society. Therefore welcome the downward pressure on costs in the DD. | We welcome NEA NI's feedback, especially around ensuring consumer research continues to encompass the rural/urban as well as economic divides. |
| 58 | | Cost of Capital | Welcome the adjustment, making up the biggest proportion of price difference between NIEN business plan and DD. | We note NEA NI approval of UR position on cost of capital. |
| 59 | | Outputs and KPIs | Welcome new outputs and KPIs. However are concerned about worst served customers (WSC). We recognise the investment to mitigate severe weather did not pass economic test by PwC (on behalf of NIE Networks). However there may be unquantified benefits or wider societal issues to be considered.<br>This poses a dilemma while wanting to drive down costs we need to protect the vulnerable. Further consideration of more focused work with rural community on the issue. | UR will continue to work with stakeholders on consumer engagement issues and note these comments in that regard.<br><br>UR also plans to progress further on changes to GSS and this will be a further opportunity to consider consumer issues. |

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| | | | Could there be some innovation and specific pilot work carried out to mitigate the problem?<br>Have other issues been considered such as the concept of rural-proofing aspects of public policy? | |
| 60 | | Substitution mechanism | Welcome this mechanism as it seems sensible approach ensuring NIE Networks will consider new investment options and innovations within RP6. | We have included the substitution mechanism in the final determination |
| 61 | **NIRIG** | Investment | DD is unlikely to adequately protect future consumers or to facilitate a competitive and regionally robust economy.<br>Wind energy reduced consumer electricity costs yet DD reduced transmission investment by £9m/year compared to RP5. This fails to provide a clear path for continued connection of the cheapest electricity source thereby the long term protection of consumers.<br>Grid infrastructure is an essential tool for economic development. It has clear priority from the draft NI Programme for Government and draft Industrial Strategy.<br>Connections for generators and businesses are imperative for economic growth, security of supply, regional development and decarbonisation – particularly acute in west of NI.<br>DD does not seem to address requirement that UR provide firm access as outlined in SEM Generator Connection Policy Decision Paper AIP/SEM/114/06. | UR has funded RP6 to ensure that network will be in place to support economic connections in line with the connection policy<br><br>The reduction in £9m/year relative to RP5 reflects the fact that the core plan for RP6 submitted by NIE Networks does not include investment to reinforce the transmission network. This will be determined under the D5 re-opener mechanism as and when need is confirmed and the project scope and costings well developed (for example, the N/S Interconnector).<br><br>The final determination provides flexibility to allow future generation connections including any amendments to connection policy flowing from the outcome of the current connections review. The 'D5' mechanism allows the determination of additional allowances to enhance transmission capacity where this is supported by SONI. An additional re-opener has been included for additional investment in the 33kV network to |

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| | | | Alarmed that >1600MW installed and committed projects with SONI/NIE yet the medium term plan only delivers 1000MW. Many connected projects are operating at levels without FAQ.<br>Urge this consultation aligns with UR connections consultation, future SONI transmission development plan and expected DFE energy strategy to meet 3 key needs for NI economy and energy sector:<br>• further strengthening of current network to provide firm access for committed generation<br>• growth of network as a framework for modern economy and competitive electricity market<br>• appropriate connection policy in short term and enduring policy that facilitates connections and sends correct market signals | provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions. |
| 62 | | Direct Network Investment Appraisal: RP5 vs RP6 | Concerned at UR proposed reduction in transmission investment of £9m /year vs RP5. Given lack of investment in transmission planning, network growth and firm network capacity, we do not agree reduction is warranted.<br>Concern with reference made to future D5 projects without indication of what these are, amount or timescale.<br>Would like to see second North South Interconnector separately identified. | Capital allowances will be made for D5 projects when the need, scope and costs have been developed. The N/S Interconnector is one of those projects.<br><br>The reduction in £9m/year relative to RP5 reflects the fact that the core plan for RP6 submitted by NIE Networks does not include investment to reinforce the transmission network. This will be determined under the D5 re-opener mechanism as and when need is confirmed and the project scope and |

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| | | | Concern at reduction of refurbishment and replacement of general transmission assets in DD. Assets are central to availability and normal running of network and failure will impact curtailment and constraints for generation.<br>Concern there is no allowance for low carbon technologies and 33kV capacity at RP5 and only £3.7m/year in RP6. Urge a higher level of investment as it will facilitate additional renewables and lower consumer costs protecting consumers. | costings well developed (for example, the N/S Interconnector).<br><br>An additional re-opener has been included for additional investment in the 33kV network to provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions |
| 63 | | Optional investment 9.32 | Concerned with non firm treatment of optional investment plans. We see these plans as essential to any 11kV developments and should be included in RP6.<br>Replacement of 11kV network with 50mm conductor will address capacity and potential failures. 11kV network is essential for connection of renewables, data centres, new factories, distributed load and for economic and commercial growth. | We have noted the mixed response of consumers to the optional investment programmes, in particular a mixed willingness to pay. We have also noted that the company was unable to prepare a cost benefit analysis to show that the benefits proposed from the optional investment outweighed the tariff impact of the costs taking account of the extensive willingness to pay surveys which were undertaken. In these circumstances we have concluded that the optional investment programme has not been justified and indeed note that NIE Networks ultimately decided not to include it in its RP6 business plan. |
| 64 | | Stakeholder engagement 9.34 | We feel the renewables sector was not included in the engagement process. The conclusions do not reflect concerns of renewables and wider industry. We question the validity of this approach in providing a robust and future proofed | Our collaborative partnership model of consumer engagement will continue with the re-constitution, under new agreed terms of reference, of the Consumer Engagement Oversight Panel (CEAP). One of its first tasks shall be the necessary review and evaluation of the RP6 consumer research to |

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| | | | network capable of supporting growth and sustainable connections. | ascertain what worked well and what lessons are required for new research in the future, both during RP6 and to inform the next price review of RP7.<br><br>Whilst the NI Renewables Industry Group was invited to the early stakeholder workshops as part of the RP6 consumer research, the strong concerns expressed here will be carried into the evaluation of RP6 research. |
| 65 | | Innovation 9.36 - 9.39 | Fully support innovative nature of projects proposed by NIEN in this section. Agree that proven innovative technologies should be taken up, particularly given the capacity limits of the network. £7.26m is insufficient, NIEN should be given funding needed to develop and integrate proven innovative technologies as soon as practicable. Binding innovation to cost benefit analysis and demonstration of success is unlikely to lead to real innovation. Innovation implies trying new approaches, products or systems and we believe NIEN should move to the NI network proving phase of these projects as soon as possible. Believe NIEN should be given adequate funding without onerous restrictions to bring this work to conclusion at the earliest possible time. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 66 | | Annex O 4.12 | We recognise the importance of the uptake of low carbon technologies in a low carbon economy for NI in order to reduce consumer costs. | The final determination does nothing to prevent the uptake of low carbon technologies. An ex-ante allowance has been provided for the first three and a half years of RP6 based on projections made by |

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| | | | We support investment in LCT and welcome the NIEN investment as proposed, although we believe it is conservative. We are therefore surprised to see that the Total Direct Allowance has been drastically reduced from £13.2m to £2.63m. We do not support the reasons given for the reduction (4.17 - 4.22). If there is no investment and therefore growth in this sector the NI consumer and economy will be significantly disadvantaged. We believe investment in LCT and the electric vehicle growth are linked. Lack of investment now will stunt the potential growth with commensurate loss to the NI economy in jobs, technology adaptation opportunities, vehicle uptake and greenhouse gas emission reductions. Local companies are investing in this innovative technology and a strong industrial strategy will rely on such synchronicities in local investment. Recommend allowance for secondary network LCT should be approved in line with NIEN proposals. | NIE Networks. Due to the uncertainty over uptake and the impact these technologies will have on the network, we have included a re-opener mechanism to ensure that additional capital allowances can be made for the last three years of RP6 when better information based on experience will be available. |
| 67 | | Annex O 4.24 | We believe as the pressure to provide connections is sustained, areas of the network which may potentially hold connection capacity will increasingly be constrained due to fault level limitations. We urge UR to support the NIEN proposal in respect of fault level reinforcement at the proposed £1.83m. | We consider the allowance made in the final determination adequate. |

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| 68 | | Annex O<br>4.31 – 4.37<br>33kV congestion | Concerned and disappointed 33kV investment has been reduced from NIEN proposal. NIEN has been working on this with industry with some relief provided by reverse flow relays and transformer settings. Keen this work continues at 33:11kV substation and urge original request of £10.421m be maintained. | We have provided NIE Networks with an allowance to undertake all the 33kV congestion projects proposed in its Business Plan submission. |
| 69 | | Annex O<br>4.39 | NIEN has invested significant effort in SMART technologies and managed connection solutions. We note increasing importance of energy storage facilitation with our members working with NIE to develop these. Given their importance in relieving a stressed network we are surprised NIEN's proposal has been reduced from £10.48m to £7.26m.<br>Given there was a similar reduction at RP5 which stalled the roll-out of these technology solutions it is entirely inappropriate to reduce the RP6 allowance. We urge NIEN be allowed the necessary resources to research and deploy these technologies and maintain the £10.4m proposal. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 70 | | Annex O<br>6.0 | Disappointed with the number and speed of decisions taken. Aware there are no plans for future transmission system extension, either a medium term plan (MTP) phase 2 or an enhanced renewable integration development plan (RIDP) which would set down transmission developments to 2030 and beyond. These plans are essential for the investments in projects to maintain system security and generation standards. | The final determination provided flexibility to allow future generation connections including any amendments to connection policy flowing from the outcome of the current connections review. The 'D5' mechanism allows the determination of additional allowances to enhance transmission capacity where this is supported by SONI. An additional re-opener has been included for additional investment in the 33kV network to |

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| | | | A MTP phase 2 should assess potential for further transmission capacity by:<br>Focusing on 110kV works<br>• Maximising the capacity of clusters<br>• Identifying existing space on the network<br>• Approving funding to facilitate Firm Access for all connected and committed<br>• generation | provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions |
| 71 | **NI Chamber of Commerce and Industry** | Optional network investment | We note the extensive body of consultation with commercial users as outlined in the Non-Domestic customer consultation research conducted by perceptive insight on behalf of NIE. We note in the draft determination that the four Optional network investments have not been included in this draft determination. Businesses truly valued the opportunity to contribute to this important debate and let their voice be heard in shaping the decision making process for the four proposed investment options. Following the extensive consultation exercise, it is disappointing that the basis on which the Regulator has made this decision is not transparently set out in the draft determination, with the result that this may actually frustrate future engagement with business. | We have noted the mixed response of consumers to the optional investment programmes, in particular a mixed willingness to pay. We have also noted that the company was unable to prepare a cost benefit analysis to show that the benefits proposed from the optional investment outweighed the tariff impact of the costs taking account of the extensive willingness to pay surveys which were undertaken. In these circumstances we have concluded that the optional investment programme has not been justified and indeed note that NIE Networks ultimately decided not to include it in its RP6 business plan. |

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| 72 | | | We recognise significant progress has been made by DNOs in GB through their regulatory frameworks have received funding and been able to absorb the risks associated with pioneering R&D activities. Innovation Funding Incentive was established to encourage DNOs to conduct research and development. In DPCR5, 2010 to 2015, Ofgem introduced a new £500m Low Carbon Networks Fund to stimulate a culture change, innovation and trialling of new technologies. We support NIE Networks proposed investment of £10.4m for "investing for the future" and believe we have an opportunity to leverage the significant investment and learning and best practice from these activities to the betterment of NI customers. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 73 | | CMA referrals | NI Chamber members have raised concerns regarding the recent referrals to the Competition & Markets Authority. Imperative we have a strong and robust regulatory framework that balances the rights of consumers whilst attracting the necessary investment. We hope that all parties concerned can find a local solution to this price determination to protect the long term interest of both domestic and commercial users. | The aim of the RP6 price control is to set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need and our aim is buttressed by our legislative duties as the independent regulator for Northern Ireland. |
| 74 | | Stakeholder engagement | The price determination exercise is a very technical and cumbersome process and it is difficult for businesses to stay fully engaged in the process. NI Chamber calls for a more "joined up" approach between Utility | Our collaborative partnership model of consumer engagement will continue with the re-constitution, under new agreed terms of reference, of the Consumer Engagement Oversight Panel (CEAP). The CEAP is then |

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| | | | Regulator and electricity stakeholders that will involve more regular engagement versus the current review process every 6 years | expected to oversee further and continuous stakeholder (and consumer) engagement by the company during RP6 so to inform RP7 in a timely and informed manner.<br><br>The company's offering with regards new outputs and KPIs for RP6 is detailed under our Technical Annex J – Outputs, Outcomes and KPIs<br><br>We plan to publish an annual cost and performance report during RP6 and are happy to consider the appetite for wider stakeholder engagement around this publication<br><br>Continuous engagement will be a separate and additional output for the company as outlined at draft, to be incorporated after discussion within our RP6 Monitoring Plan. |
| 75 | **NI Housing Executive** | Housing strategy and RP6 investment | We are currently developing two major strategies/ policies that can have an impact on RP6:<br>• 10 year energy efficiency strategy for our housing stock (~86k homes), examining insulation and energy savings.<br>• A periodic review of the heating systems that we install.<br>While we follow government policy in installing gas heating systems where feasible 34k homes still rely on oil heating, | A review of tariffs is not part of the RP6 process although it is something we know has been commented on by stakeholders in terms of UR workplans and will be considered as part of this process taking into account other priorities and available resource.<br><br>If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | often in areas with good wind energy resources.<br>We would like to move away from oil heating and there are some electric alternatives to be explored. Electric heat pumps (allowing pay as you go), depending on the installation approach the demands for additional grid investment will vary.<br>Direct electric heating when demand is low is a further option. However this requires changes to the current retail tariffs to be cost feasible.<br>It also requires better controls for electric systems to allow interruption or change recharging of storage heaters and hot water tanks with excess wind energy when demand is low.<br>We will welcome developments by NIE Networks that support remote control of heating loads and the development of new tariffs for tenants, or new revenue streams for social landlords. | |
| 76 | | Metering | NIE Networks provide, read and service more energy meters than anyone else in NI. Adding further meters should be possible at a competitive cost and UR should establish a regime or rules to allow NIEN to do this.<br>The additional equipment could allow electric vehicle charging, for variable or interruptible electricity supplies to make more use of available wind energy, for other fossil fuels, and if feasible, for heat itself.<br>A second meter would also provide the basis for a valued pay-as-you-go system for | The NI Housing Executive have noted a number of other potential metering solutions, however we have only assessed the metering categories that have been submitted by NIE Networks in their Market Operations Business Plan. |

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| | | | heating oil, by charging extra for remotely controlled electric heating and recycling additional revenues to pay for future heating oil fills. This would also mean spillages of oil are less likely e.g. by not using small emergency drums and tanker traffic in residential areas is reduced with fewer deliveries.<br>Providing such additional metering services will reduce NIE Networks' investment costs and carbon emissions, by cutting the use of electric heating in peak winter demand periods, and by using a bigger fraction of wind energy, some of which might otherwise be 'curtailed' and wasted.<br>Alternatively UR should establish rules to establish when extra electricity has been used when controlled by remote switching, to make a different pricing regime appropriate. | |
| 77 | | Network capacity | The EA Technology report mentions dynamic rating/wire cooling by wind/cold and active network management. These both treat electricity as an independent variable.<br>The role of demand side management and heating load control needs to be developed to reduce network costs in the long term. If electricity for new full or partial electric heating applications is distributed in a controlled way, and can be limited at short notice to conserve grid capacity for conventional demands, the average capacity of the grid to distribute electricity | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | has also been increased, without installing or paying for more wires. NIE Networks should investigate how large this load limiting 'Demand Side Response' can be, as electrification of heating is usually seen as part of decarbonising energy supply. | |
| 78 | | Active load controls | We have a lot of choice in the heating systems installed, controls used and where the installations are done. The NIHE would like to investigate with NIE networks how it may be possible to safely install additional solar PhotoVoltaic panels on more homes, and on roofs that are not facing due South. E.g. Diverting peak solar outputs to heat hot water to prevent unwelcome reverse flows at transformers. If damaging back flows can be avoided with local controls that sense insolation, voltage, or frequency, or which simply operate according to a summer calendar, such systems cannot be disrupted by hacking. | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |
| 79 | | Managed connections / control of local loads | Increasing numbers of households have access to internet communications. Even if this is not 100% reliable, it may be reliable enough to improve, say, the performance of electric storage heaters, if the controls return to a safe default mode with any break in data communications. | We do not propose specific innovations. This is for NIE Networks to set out in its business plan. We expect NIE Networks to work with third parties or leverage resources into its business plans. We are supportive of innovation but require NIE Networks to submit quality business cases before the allowances can be formalised. |
| 80 | | Security of supply and electric heating / connections | It may be appropriate to reduce the rated loads on electricity connections, or to charge more for connections with heavier maximum currents. Increasing comfort | We do not propose specific innovations. This is for NIE Networks to set out in its business plan. We expect NIE Networks to work with third parties or leverage resources into its |

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| | | | standards, larger under occupied homes, removal of fireplaces and higher incomes make it more likely that people may attempt to heat homes electrically in the event of a fossil fuel supply interruption, particularly for heating oil, making power cuts more likely. Providing a proportion of the heating for oil-fired homes using electricity extends the life of the heating oil stored in garden tanks, or allows kerosene or wind energy to substitute for gas used for generation, improving security of supply. | business plans. We are supportive of innovation but require NIE Networks to submit quality business cases before the allowances can be formalised. |
| 81 | | Smart metering | NIHE can foresee value in a secure Low Power Wide Area radio network or low bandwidth communications system, and would want to ensure that NIHE tenants obtain good value for any investment in new 'Smart Metering' systems and their communications, whether by reductions in electricity costs or in heating costs, which are both large and comparable amounts, or in obtaining other valued services (see table in our consultation response). | At this stage there are no plans for a smart meter roll-out in Northern Ireland within the price control period. As such there are no provisions for a smart metering roll-out in NIE Networks Market Operations Business Plan.<br><br>The Department for Economy are the government department responsible for a decision on whether a smart meter roll-out will be required. |
| 82 | **PowerOn Technologies Ltd** | Energy storage | Distributed energy storage has the potential to address several issues at the core of RP6; security of supply for Worst Served Customers, diminishing returns from investment in rural networks, understanding how network assets can be managed in a smarter way and what customers should be asked to pay.<br>Storage may prove to deliver a range of benefits and solutions to networks: soak up and store electricity at times of high supply | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | from renewables; shave peak demand levels by supporting 'in-situ' consumption; releasing energy back into the grid for voltage support/frequency issues. It may also stimulate the electricity market with enhanced reliability, lower consumption costs and DNO costs to serve. Hence we want to run a pilot program and disagree with the reduction of NIE Networks proposed Investing for the Future to zero. | |
| 83 | | Worst served customers | NIE Networks has a pivotal role in 'keeping the lights on' and the effectiveness and efficiency of NIE Networks are key to domestic, industrial and commercial customers.<br>Worst served customers deserve more resilient supply and a smarter system with capital expenditure on rural networks targeted based on robust data. And a system that allows domestic customers to collectively access the sources of economic value in the market that to date have been reserved for large, corporate players.<br>We believe that distributed energy storage 'behind the meter' will help to keep the lights on, improve the efficiency and effectiveness of power networks in Northern Ireland because:<br>1. It can be a key component in providing flexibility and supporting renewable energy integration in the energy system<br>2. It could participate effectively in electricity markets | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | 3. It could provide demand response services in areas right across Northern Ireland more effectively than other providers<br>4. As an enabler of higher amounts of variable renewable energy sources, could contribute to energy security and decarbonisation of the electricity system and of other economic sectors such as social housing<br>5. The cost-efficient use of decentralised storage and its integration into the system should be investigated in a rigorous, customer-led manner by the regulatory framework.<br>The NI network is ideal test-bed to deploy a meaningful, rigorously evaluated, domestic energy storage pilot with customer benefits at its heart.<br>Recent research by Regen SW describes the UK system as under pressure. The factors they identify (Figure 1 in response) are applicable in NI, to an even greater degree in many cases. | |
| 84 | | Field trial | We have been working closely with University of Ulster (UU) on a series of experiments.<br>A trial would provide clear, quantifiable evidence in the form of performance, profile and network impact along with quantitative and qualitative customer experience feedback. | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |
| 85 | | Trial location | Storage 'behind the meter' (on consumers premises) can technically provide the largest number of services to the electricity | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE |

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| | | | grid and critically, greatest value to the individual consumer.<br>Furthermore, customer-sited storage can provide perhaps the most important energy storage service of all: backup power. It is crucial to analyse how economics change depending on where energy storage is deployed on the grid and requires a field trial. As does assessment of providing 'stacked services' to customers.<br>Some areas have deployed an 'early adopter' incentive such as in Germany and Sweden.<br>Recent suggestion in publication that Ofgem's RIIO innovation element is adjusted to 'prime the pump' for storage for limited time until market takes over. Ofgem don't appear to share this position.<br>RP6 presents an opportunity to shape a nascent market and allow policy and strategy to be developed based on evidence ensuring delivery for customers. This could be measured by safety, reliability, availability, benign environmental impact and customer experience. | Networks in advance of future business plan submissions. |
| 86 | **Prospect** | Regional Wage Adjustment | Important comparisons are meaningful when setting RWA. Dataset used by CEPA doesn't differentiate between groups of workers and so is difficult to know how to evaluate the data. E.g. greater proportion of employees with higher qualifications will tend to work in better paid jobs in London and the South East. These compositional differences help to explain the difference in | The type of top-down econometric analysis we undertook when benchmarking for Indirects and IMF&T does not get into the micro detail of the arguments advanced by Prospect. Rather we sought and obtained a re-submission by NIE Networks of any special factors which they felt were material and necessary to ensure as 'like for like' |

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| | | | pay levels between Northern Ireland and the rest of UK. What it will not help to do is make a judgement about the appropriate level of pay in the energy sector.<br>DD does not take into account experience of NIE and other DNOs. DD shows level of regional pay is not an important factor for energy companies when locating their workforce. However this is not reflected in the pay comparison methodology.<br>Inclusion of London workers pushes up average rate of pay. When London is excluded the NI-UK average difference narrows to 3% (see table in response, p3).<br>Pay pinch points are starting to emerge. Bank of England Agents report observes; "recruitment conditions had tightened a little further, with skills shortages reported in a wider range of activities." This will increase the premium of workers with specialist skills in the energy sector.<br>UKCES Employer Skills Survey – NI had higher vacancy rates in energy/utilities than rest of UK (see table, top of p4 response).<br>CBI NI warns more than half of NI businesses fear they will not be able to recruit enough high skilled workers to succeed in the future and STEM sectors especially acute.<br>RWA that doesn't account for NI energy sector particularities would only keep pay artificially low, exacerbating already acute skills shortage. | comparison of their costs to the GB comparator set of DNOs.<br><br>When we examined NIE Networks' special factor claim and our own negative special factors (activities locally where costs ought to be lower due to a lower quality of service compared to that enjoyed in GB), we triangulated our P0 efficiency discount in the round, having judged the inherent uncertainties to cancel each other out.<br><br>Regional wages are an important factor to consider when establish as 'like for like' comparison of local utilities to their counterparts in GB. We have included a substantially material amelioration of our wages adjustment for the proportion of the workforce employed via the national, as opposed to local, labour force.<br><br>Regarding the Bank of England Agents' comments on labour market, the full quote from the May 2017 Agents' Summary is: *"In the labour market, recruitment conditions had tightened a little further, with skills shortages reported in a wider range of activities. Labour costs growth had edged up in manufacturing. But pay awards remained clustered around 2%–2½% across the economy."*<br>For comparison, the OBR predicts 2.7% wage growth for 2017/18. |

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| | | | Pay settlements in energy sector have kept pace with inflation for last 10 years. NIE competes for labour in this market so has to remain competitive.<br>Provision of pay settlement data 2007-2016 from Prospect, Income Data Research and XpertHR.<br>Brexit likely to exert upward pressure on wages. BoE note EU migrants are not leaving UK a number of companies report difficulty in recruiting new migrant workers.<br><br>Any labour supply reduction likely to increase skilled labour premium.<br><br>Concerns were raised on restrictions on investment which were felt would inevitably | The concern around our decision to not apply any specialist labour premium to our Real Price Effects forecasts represents our preference to apply previous regulatory precedent on this matter, as decided by the CC at RP5. Also, the extent to which the concerns raised around miss-matches in labour supply and demand are unclear as to their likely period they might apply or not. This is important given the RP6 period is some 6½ years duration, such that any over forecast on labour RPEs would inevitably over compensate the company, take more money from consumers and with no guarantee that any enhanced pay settlement would attract to Prospect's members.<br><br>Rather, and as applied to our top-down benchmarking, we are not concerned with the micro day-to-day or annual pay settlement negotiations and decisions taking place within the company. In exercising our duty towards consumers in Northern Ireland, the RP6 aim remains to set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need. The management of the company is then responsible for its own decisions on how they deliver to consumer needs, although we regularly report on their progress towards meeting customer expectations.<br><br>Part of the goal of the price control was to set an appropriate level of investment while |

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| | | | mean that it will be more difficult for NIE to deliver appropriate IT systems in a timely way. | enabling NIE Networks to discharge their duties and responsibilities adequately. These factors have shaped our analysis of the investment proposals and the appropriateness of these systems was a consideration in Gemserv's analysis. |
| 87 | **Smart Grid Ireland** | Investing in the future<br>D602 | Believe reductions proposed by DD are arbitrary and don't reflect need for urgent creation of wider reaching approach to enable innovative technologies. Table 1 provided in response detailing DD reductions by sub-programme.<br>A flawed philosophy is behind the reductions.<br>At RP5 we highlighted there was no equivalent of the GB low carbon network fund (LCNF) and no provision for incentivising innovative technology trials.<br>It is disappointing to see benefits gained by UK DNOs via LCNF (Ofgem estimate £800m - £1.2bn net benefit). While NI has been deprived of an opportunity to develop solutions specific to NI the network.<br>Regarding table 1 above, there is very little substantive justification cited to support cuts of £3.2m to NIE Networks' proposal. At DD 4.42 the largest cut of £1.95m which is a 50% reduction on the request for RTU replacement programme – the reasons given seem somewhat contradictory. It acknowledges this is an investment "*to facilitate the use of innovative solutions over conventional only in addressing LCT investment requirements*". The statement | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials.<br><br>We agree that innovation trials need to proceed on the basis of reasonable certainty rather than guaranteed outcomes. However we believe that scarce innovation resources must be invested well and that good trial design is essential. |

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| | | | ignores a fully upgraded RTU fleet would enable NIE Networks to fully implement the outcomes of the innovation trials from the outset of RP7.<br>Each of the other areas has been subject to cuts with no justification given. Our experience is areas of “smart” technology are ripe for exploitation of innovative technologies to introduce new ways of working to benefit consumers.<br>This latter point is important. The ongoing rationale of cutting current investment in trialling technologies that deliver the greatest benefits undermines the ability to deliver network at least cost. The explicit UR requirement that trials/pilots should be almost zero risk and defined end results are calculated must also be accounted for. This risk averse approach is unrealistic and goes against the concept of research and innovation. We accept trials need full appraisal of likely benefits but contend given the nature of such trials they can only be akin to the level of reasonable certainty rather than guaranteed outcomes.<br>It’s often quoted investments should adopt proven technologies, the risk averse, non-innovative fast follower. This doesn’t account for the unique features of NI electricity system that need unique solutions requiring an NI specific incentive programme.<br>There is a further unexplained cut in energy storage services research. Concerned NIE | |

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| | | | Networks and UR are underestimating critical contribution of storage services to renewable integration to the grid. This view was clearly articulated by the NI Affairs Committee report on the NI Electricity Sector (Third Report of Session 2016/17 published 01 May) paragraphs 125 and partly 126 (quote provided in the response). This report makes a powerful case for research and investment in innovation in storage. The DD should therefore not only be reinstated but there should be additional provision of at least £2m. This does not need any policy provision but rather a practical view of likely benefits and recognition waiting on RP7 is not acceptable. | |
| 88 | | Section 5 Distribution Network Operational Expenditure | Cannot understand UR approach to this category. The £25.6m submission for 11kV investment is only nominally an optional investment. It was classified as optional after public/stakeholder consultation undertaken by NIE Networks under the direction of the CEAP group of which UR was a member. We would expect UR to review this item from a more critical consumer perspective. The risk of ice accretion has increased in recent years and no investment for a further 7 years seems an unwarranted risk. We query why the UR has passed on making a positive intervention? | We have noted the mixed response of consumers to the optional investment programmes, in particular a mixed willingness to pay. We have also noted that the company was unable to prepare a cost benefit analysis to show that the benefits proposed from the optional investment outweighed the tariff impact of the costs taking account of the extensive willingness to pay surveys which were undertaken. In these circumstances we have concluded that the optional investment programme has not been justified and indeed note that NIE Networks ultimately decided not to include it in its RP6 business plan |

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| | | | In offering these comments we recognise the limitations of UR in the discharge of its duties:<br>• the absence of clear energy policy direction<br>• the need for an urgent update of the Strategic Energy Framework<br>• The fact that the interaction between energy policy and the economic growth agenda is not within the URs purview while nevertheless being a critical component of NI's economic health. A strong grid is essential to power the Northern Ireland economy.<br>SGI would be happy to be available for any discussions or clarifications. | |
| 89 | **QUB** | Research projects, innovation | QUB have track record of working with GB DNOs through the EPSRC Supergen projects. A number of projects funding is via the GB low carbon network fund (LCNF), network innovation allowance (NIA) and network innovation competition (NIC). The LCNF and NIC have provided the GB DNOs with significant resource for innovation and trial demonstrations. It is a matter of great regret that such resource has not been available to NIE Networks.<br>Welcome inclusion of funds for innovation promotion and 'Investing for the Future'. However it is concerning this is significantly curtailed and would urge reconsideration before FD. | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | There is much NIE Networks has and can learn from LCNF, NIA and NIC funded innovation. However the rural nature of the NIE network is very different from many of the GB DNOs. E.g. significant proportion of single phase 11kV and substantial capacity of wind generation connected at 33kV and below. Indeed the installed capacity and instantaneous penetrations of wind generation would be completely unfamiliar to some of the other UK DNOs. This we believe provides unique challenges to NIE Networks for which solutions may not always be found in the existing output of the GB DNO innovation activities. Thus in some instances it will be necessary for NIE Networks to be a leader of innovation, rather than a fast follower of the innovation activities of other UK DNOs. | |
| 90 | | Innovation prerequisites | The prerequisite constraints detailed in paragraph 4.46 of the draft determination are, in our view, a potential barrier to true innovation which is by its very nature speculative and for which outcomes are without guarantees of successful development and eventual deployment particularly within the current regulatory period. Some of the most useful outcomes that have arisen from more speculative endeavours may not have been envisaged at the onset and as consequence, may take longer to mature. Consequently, while retaining the necessary checks and balances to ensure appropriate use of | We disagree that the position set out in the draft determination is a barrier to true innovation. They are just requirement for good trial design to ensure that scarce innovation resources are invested wisely. |

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| | | | resource, we would urge a greater degree of flexibility perhaps making some allowance for longer term activities that may deliver outside the current regulatory period. Additionally, one of the lessons from the recent innovation projects in the GB DNOs is that non-network companies can have good ideas that are not taken forward because of the lack of a host DNO to work with. Given the significant number of SME and larger enterprises within the jurisdiction with expertise in appropriate areas, perhaps some consideration could be given to encourage such collaboration, similar to the CASE projects described below. | |
| 91 | | Specific project areas | Smart asset monitoring – previously worked with NIE Networks on an academic study demonstration of potential of dynamic line rating (DLR) to significantly enhance (in some cases by 47%) line capacity over traditional rating methodologies [1]. With congestion in the 33 kV network increasingly likely to be due to the installation of wind turbines, there would be clear benefit moving forward with a deployment or demonstration project of such technology given the strong correlation between enhanced line ampacity and wind speed.<br><br>Demand side response (DSR) - has been identified as a necessary step to facilitating a greater number of Low Carbon Technologies (LCT), and NIE Networks and | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |

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| | | | QUB have just embarked in partnership (a CASE project funded by Invest Northern Ireland via their Competence Centre Programme) with Europe's largest manufacturer of DSR electrical heating appliances and an aggregator, to explore its potential to both DNO and TSO and also the practicality of deployment.<br><br>Active network management (ANM) - QUB has worked with a GB utility, particularly on the more rural aspect of their network to accommodate a large perforation of wind generation including many single-phase devices.<br><br>Voltage management - QUB are involved in the trials of a GB DNO who are currently trailing conservation voltage reduction (CVR) and methods of reactive power compensation. One observation that was not envisaged at the outset of this project was the potential of such technologies to enhance power quality and help mitigate the deterioration of power quality resulting from the adoption of other LCTs.<br><br>Energy storage - QUB believe the potential of Energy Storage Services covers a plethora of activities including peak reduction, energy arbitrage, and also has much to offer distribution networks in terms of DSR, ANM and power quality. Their capabilities to provide aggregated response | |

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| | | | and services to the Transmission System Operator should not be overlooked. QUB have been working with AES Kilroot and others on battery storage systems. Consequently the presently planned zero expenditure for this category in the draft determination is concerning.<br><br>Communications infrastructure - the underlying facilitator for all low carbon and smart grid technologies. Our contention is that substantial future investment will be required to extend monitoring and control activities beyond the main and primary substations. At the secondary substation and below, the communications infrastructure is likely to be required to share bandwidth with other users whilst at the same time addressing issues such as scalability, security, latency and resilience. QUB would seek further involvement in and benefit from such innovation activity through projects and research studentships. We expect benefits to others: NIE Networks through greater use of existing assets and deferral of CAPEX; electricity prosumers through optimisation of grid utilisation and greater facilitation of their low carbon technologies; societal benefits such as adoption of low carbon technologies and CO2 reduction, and the training of highly skilled personnel required to achieve these goals. | |

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| | | | Consequently and in conclusion, we would urge reflection of the draft determination to allow both greater funding and enhanced speculation in the nature of the innovation projects. Only with greater speculation in these endeavours are greater rewards in the outcomes likely to be realised. | |
| 92 | **SONI** | Responsibilities and approach | EU legislation and transposition into local legislation has lead to the structures and responsibilities SONI and NIE Networks have.<br>Under the TIA SONI has the final decision on the Transmission Investment Plan, though NIE Networks can request changes (subject to a UR adjudicated dispute mechanism).<br>DD 13.27 seems to step outside this process. That is exchanges around transmission network plans should pass directly between SONI and UR to ensure certified arrangements are adhered to and statutory obligations are adhered to.<br>Failure to clarify the roles at FD may subvert and frustrate SONI's role as independent TSO and may call certification into question under 10B of the Electricity (NI) Order 1992.<br>Substitution of asset replacement projects should only be permitted after the necessary TIA processes have been completed.<br>SONI is happy to meet with UR and NIE Networks to discuss options to deliver alignment necessary between TIA and RP6.<br>Inconsistencies between RP6 and TIA processes need resolved as a priority. | We do not find that DD13.27 stepped outside any process. It merely sets an expectation that NIE Networks will consider the SONI business case and comment on it as is appropriate given its statutory role. |

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| | | | No interaction directly between UR and SONI contrary to previous price controls. | |
| 93 | | Consumer engagement | Role of SONI must be incorporated within RP6, particularly around identification and justification of transmission investment, including interaction with the CEAP group. Welcome continuation of CEAP, but would expect SONI representation. | We note SONI's concerns and aspirations. A number of parties have expressed interest in CEAP representation. We are minded to discuss these further within the CEAP once re-constituted with a new agreed terms of reference. |
| 94 | | D5 mechanism | Welcome inclusion of maintenance projects where likely replacement will not be like for like. However would welcome clarification of process followed for their approval. Particularly the role SONI will play in confirming future specification of the assets to be installed.<br>Concerned DD doesn't reflect or facilitate TIA arrangements which give SONI right to request changes to asset management plan.<br>Risk excessive bureaucracy associated with D5 projects could frustrate delivery of transmission investment to network user and customer detriment. | The Utility Regulator is keen that NIE Networks and SONI work together to update the TIA as necessary to facilitate smooth delivery of projects. However UR is also considering taking action to deal with these issues and plans to consult shortly.<br><br>We remain available to discuss any issues the two companies may have and remain of the view that a robust D5 process will best deliver efficient investment. |
| 95 | | Telecoms – transmission network | These costs are shared with SONI; we are surprised not to have been included in discussions about them. We are concerned funding is not adequate to allow NIE Networks to provide telecoms services to SONI suitable for network needs to 2024. We ask you meet with us to ensure FD and any substitution of telecoms investment will not constrain our ability to operate a safe secure network. Also ask UR recognises in | SONI's response appears to focus upon the network related telecoms expenditure, which was deemed outside of Gemserv's scope and is included within our Indirects and IMF&T allowances benchmarked in chapter 5. |

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| | | | FD that telecoms investment revenues are split across RP6 and SONI's price control and provides reassurance it will align provisions made across the price controls to ensure both companies can contribute appropriately. | |
| 96 | | Innovation | SONI acknowledge need for funding for NIE Networks translating innovative solutions from other areas to its network. Though risk these solutions do not address specific needs of NI. Benefits of innovation on transmission network also need realised. While innovation proposals in DD are a step in the right direction a more strategic approach is required for medium to long term.<br>Innovation framework proposed appears consistent with distribution responsibilities, but does not address transmission innovation. This wasn't in SONIs DD either; we welcome tri-partite engagement to explore capturing transmission innovation benefits for customers. | UR has reviewed the innovation submission by NIE Networks and facilitated funding in line with the request subject to appropriate detailed submissions being provided.<br><br>UR would have expected NIE Networks and SONI to work together so that submissions presented are joined up. |
| 97 | | Financeability | Essential for SONI, UR and customers NIE Networks remains financeable. Concerned no sensitivity analysis in the financeabilty assessment presented at DD. Essential for assurance, even if reality is different from modelled base case.<br>Given SONI's reliance on NIE Networks to discharge its own statutory duties, SONI would welcome consideration of some plausible scenarios as part of the assessment that underpins the final | UR has reviewed downside scenarios for NIE Networks but does not find that they add significantly to the information we have presented in the FD. As one would expect, assuming a company over spends leads to worsening ratios. It is not clear why a regulator should make adjustments to its determination to cater for a company which fails to meet efficiently set allowances. |

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| | | | determination. We note this practice has been adopted for other price controls undertaken by the UR, and would have expected a control as important as RP6 to be accorded an equivalent level of due diligence.<br>Consideration should also be given to intergenerational equity in the context of falling RPI nominalised financing costs and the attendant effects on cash and cash ratios under an RPI indexed control. This may give cause to reconsider the current depreciation profiles to ensure that NIE Networks retains sufficient free and available cash flow to remain financeable. | UR has set out in detail in Chapter 12 why it has reached the conclusion that NIE Networks is financeable under RP6. |
| 98 | | Timelines | Ask UR to review timeline for RP6 to ensure robust and sustainable outcome can be achieved, delivering benefits for all network users. In particular SONI does not believe UR has provided sufficient time to allow due consideration of the responses to licence modification consultation. | We have continued to review our RP6 timelines from time to time and in response to the scale of subsequent RP6 submissions, queries and 2-week turnaround alongside consultation responses, and shall make any necessary decisions to re-adjust the RP6 timetable upon receipt of RP6 licence modification responses and the required period of due consideration prior to publishing our decision. |
| 99 | **SSE** | General / investment | Recognise the need for balance between investment and cost efficiency but have concerns whether this has been met.<br>The NI Affairs Committee - third report of session 2016 – 17 on the NI electricity sector. The underlying message was a clear and consistent policy framework is required to ensure appropriate investment to underpin economic growth. Current state of | UR has delivered the RP6 final determination to allow NIE Networks to efficiently operate, maintain and grow the network in line with our statutory duties. This includes allowances and mechanisms to deliver future economic connections in line with the connection policy. |

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| | | | NI infrastructure is result of sustained underinvestment which has led to situation where security of supply is a real concern. This is not the direct remit of UR, but it does have the ability to ensure NIEN as the monopoly network is provided sufficient allowances and flexibility to plan, maintain and expand the network to support future NI needs. | |
| 100 | | Revenue protection | There is an existing revenue protection incentive in place. NIEN have proposed extending the scope of the current incentive to include all unbilled units resulting from illegal abstraction rather than just those from premises without a registered supplier. SSE welcomes the recognition of NIEN of its role and responsibility with respect to this issue. Given the ongoing challenge with revenue protection issues, SSE is concerned UR has not supported this proposal. We see no reason not to support recovery of all unbilled units given there is no incentive at present to do so. Reason given by UR appears to indicate UR believes NIEN would actively cease undertaking its licence and legislative responsibility to deter theft from occurring. DD explains by the amount of money that could be earned from stopping theft that is occurring compared to proactive measures. SSE can see no basis for UR position and would appreciate further understanding from UR.<br>UR stated ideally an incentive linked to losses would be introduced to incentivise | Our position for the FD has not changed from that of the DD with regards to revenue protection. As noted in the DD (Annex N, paragraph 10.13) we are in agreement that it would be ideal to have an incentive that worked to incentivise NIE Networks to keep losses from theft as low as possible.<br><br>However under the proposed arrangement NIEN would not be incentivised to actively deter theft. Rather NIE Networks would only be incentivised to identify and stop theft once it has already occurred. We consider that the design of an incentive mechanism to deter theft would be complex. This was the case in GB where there was difficulty in developing an appropriate incentive mechanism for energy theft.<br><br>Rather than designing a new arrangement we consider that the arrangements already in place or planned work in this area are sufficiently adequate for NIE Networks to address electricity theft, namely the: |

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| | | | NIEN to prevent theft. On discussion this scheme was decided to be too complex to design. We would welcome an RP6 mechanism for NIEN to report estimated system losses and propose steps to address.<br>UR notes 2 existing work-streams to address theft of electricity: meter replacement and Energy Theft Codes of Practice. URs theft targeted programmes are welcome. SSE is engaged in theses initiative but is of the view additional measures are needed to address revenue protection in a timely manner. Meter replacement totals mean only 7k meters are to be replaced over RP6. The basis for this is not clear and would welcome clarification from UR on the total of 20k meters decision.<br>Overall the UR response to NIEN revenue protection proposal is concerning. Rather than engaging in refining the proposal from NIEN, UR has rejected it and noted the solution would be to measure system losses. No proposal has been made in this regard; UR approach is to continue business as usual (BAU). We would appreciate an understanding from UR of where it believes responsibility of ever increasing costs of revenue protection will lie. UR appears to believe suppliers should carry the costs of this network issue. This is inappropriate and not in line with existing legislation. | • current incentive arrangement should remain where NIEN continue to keep 50% of the revenues recovered from premises that are not supplied with electricity from a registered supplier.<br>• Keypad Meter Replacement for Theft programme<br>• Energy Theft Codes of Practice<br><br>We disagree that the UR has adopted a business as usual approach. The UR has been proactive in addressing the spike in electricity meter theft by providing additional funding for the meter replacement for theft programme in RP5 and extending this programme into RP6 and also by initiating the Energy Theft Codes of Practice under our Consumer Protection Strategy.<br><br>The purpose of the meter replacement programme for theft was to address the spike in electricity theft within certain areas of the electricity network for a limited period of time. Once the programme has taken effect, the expectation is that revenue protection activities will return to normal levels. As such we view meter replacement for theft as a limited metering programme, different to the meter installs/updates, recertification and meter replacement for theft for normal levels of theft programmes which will run throughout RP6. |

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| | | | | However we have left some flexibility to re-visit the programme should it be required in the future. To put this into effect we have made provisions within the RP6 licence modifications to include the meter replacement for theft programme within the volume driven meter allowance. However in order to provide some control over the volume of meters installed under this programme we have added arrangements that require NIE Networks to submit a request to the UR for volumes of meters above 20,000. NIE Networks would need to provide evidence supporting their request.<br><br>Furthermore the Energy Theft Code of Practice has not completed and should address some of the issues raised by SSE. We expect that the working group set up to develop the procedures under the Electricity Theft Code of Practice to make further recommendations including clarification on the roles and responsibilities of network operators and suppliers. |
| 101 | | Network investment / connections | RP6 timeframe includes 2020 when renewable targets are to be met. UR is also considering connection policy, which is to be finalised in line with the RP6 FD. There is no monetary commitment for additional network capacity within DD. We urge UR not to make a decision on connections simply to align with RP6 timeline. | We have published our decision on connections policy. We have decided to maintain the connections cluster charging methodology. Our RP6 decision will ensure that NIE Network's will not incur any expenditure in relation to new cluster developments without the Utility Regulator's approval on a project by project basis. This |

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| | | | FD will lay foundation for future development in NI and provides economic signals to developers and business owners. With uncertainty investors are less likely to invest. Obtaining connections is important and ongoing network congestion has led to private investment being required to upgrade the local network to allow connections.<br>Choice by multinationals to locate data centres in the last 5 years in Ireland is directly linked to climate and electricity infrastructure. While Ireland and NI share similar climate, investment levels are very different. This is directly impacting NI economic growth.<br>At RP6 workshop connection process was discussed in context of contestability for all connections being the solution to connection issues in NI. As stated by SSE, this is not the case. Expansion of competition is welcome UR does not seem to understand issue being highlighted.<br>Key issue is network capacity at transmission and distribution due to minimal strategic reinforcement or targeted grid investment. To address there needs to be continued electricity infrastructure investment, in turn supporting economic growth.<br><br>UR should provide NIEN with a capped allowance for capacity investment to allow connections. This approach has worked | mitigates against NI consumers picking up an unacceptable level of risk from cluster investment. We have seen no evidence of under-investment to date and so do not consider this argument of uncertainty being created has particular merit. Indeed, clusters have generally been fully subscribed.<br><br>The N/S Interconnector will be addressed under the D5 process. |

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| | | | well in other jurisdictions. We recognise the need to regulatory oversight for high cost investment. E.g. the north south interconnector – believe case by case for investments of that nature is appropriate. Given the strategic importance of the interconnector we would welcome commitment by UR to make necessary funds available.<br><br>Case by case approach for clusters provides no certainty and is inefficient and likely to deter investment activity. Experience tells us a programme of work is often more resource efficient than on a piecemeal basis, particularly with infrastructure.<br><br>Proposed allowance for trialling and integration of technologies for network load solutions is a welcome development and should provide NIEN with opportunity to identify innovative solutions to constrained network issues.<br><br>We cannot understand proposed reduction in transmission investment of £9m/year against RP5 given the lack of investment in transmission planning, network growth and firm network capacity. The DD allowance is not sufficient to support continued economic growth while ensuring protection of future consumers. | The decision to reduce investment in the transmission network was made by NIE The reduction in £9m/year relative to RP5 reflects the fact that the core plan for RP6 submitted by NIE Networks does not include investment to reinforce the transmission network. This will be determined under the D5 re-opener mechanism as and when need is confirmed and the project scope and |

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| | | | It is unclear what projects are in D5 mechanism, level of investment commitment or timing of it. Clarity and background to URs reasoning would be welcome.<br>With a holistic view making network upgrade investment would seem logical as wholesale electricity costs are falling at present. A modest increase in bills should outweigh short term benefit of maintaining current network charges.<br>Normal activity entails ongoing refurbishment and replacement of network assets. Asset failure will impact curtailment and constraints for existing generation. We are therefore concerned with the proposed reduction in refurbishment and replacement of general transmission assets in RP6.<br>Wind energy reduces the electricity cost and increased wind energy will ensure long term protection of customers. For generators to invest there must be a clear path to enable connection.<br>We welcome NIEN's proposals for investment and integration for low carbon technologies (LCT), though allowance is disappointing.<br>UR should make provision in FD for a change in charging structures given customer trend towards self production of electricity. | costings well developed (for example, the N/S Interconnector).<br><br>An additional re-opener has been included for additional investment in the 33kV network to provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions. |

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| | | | Electric vehicle charging infrastructure must be the precursor for consumers to choose EVs. Investment in EVs and LCT are directly linked. Lack of investment at this stage will negatively impact potential growth and the NI economy - jobs, technology adaptation opportunities and emissions reductions. | We have set an allowance and a re-opener mechanism for NIE Networks to reinforce its network to take account of the roll out of EVs and LCT. |
| 102 | | Price control timeframe | Rp6 is 6.5 years – a significant period of time to be tied to a business plan. UR needs to acknowledge this and provide degree of flexibility for NIEN.<br>A sustained period of underinvestment of almost 7 years will have detrimental effects for the NI economy. We urge UR to ensure NIEN is provided with sufficient allowance and appropriate framework to manage its network in a sustainable and cost effect way. | The price control provides a high degree of flexibility. This include a 50/50 cost risk sharing mechanism which limits NIE Networks exposure to cost over-runs and a substitution mechanism to allow changes to planned programmes of work. Re-opener mechanisms allow additional capital allowances to be determined for items deemed too uncertain to determine in the price control. |
| 103 | **Ulster Farmers Union** | Chapter 4 – distribution network reinforcement. D57 | Secondary network expenditure associated with low carbon technologies (LCT) – uptake of LCT is directly linked with energy storage. £2.63m falls significantly short of the £13.2m proposed by NIE Networks. Consideration should be given to more investment. | The final determination does nothing to prevent the uptake of low carbon technologies. An ex-ante allowance has been provided for the first three and a half years of RP6 based on projections made by NIE Networks. Due to the uncertainty over uptake and the impact these technologies will have on the network, we have included a re-opener mechanism to ensure that additional capital allowances can be made for the last three years of RP6 when better information based on experience will be available. |

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| 104 | | D602 – investing for the future | Major doubts whether 58MW of small scale renewables still in the application stage will be connected. If not members may still wish to consider how they could get connected in future.<br>UFU have taken an alternative look at how renewable energy could be used in the NI countryside and in a way that's integrated into rural businesses.<br>There needs to be move from a supply-side infrastructure to "the other side of the metre" i.e. a bottom up approach. Smart metering for example would support this. This could involve distributed generation and different demand and supply management approach for renewable energy. Key areas include:<br>• local supply/microgrids – onsite use and wheeling to a nearby business (not currently permitted but should be considered at policy level).<br>• zero net energy – full onsite usage. No spill or wastage unlike under the ROC scheme.<br>• Storage – allowing storing of excess energy for future use.<br>UFU have been liaising with AES about a small ion battery storage solution. However the debate needs widened to include unconventional battery storage technologies such as organic storage.<br>UFU are gravely disappointed UR has turned down the NIE Networks proposal for investment to facilitate energy storage. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This includes trialling an energy storage project. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials.<br><br>An additional re-opener has been included for additional investment in the 33kV network to provide capacity for generation connections at LV level where this is economic or supported by wider policy decisions |

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| | | | Urge not just reconsideration of DD position but UR public recognition the role of on-farm energy storage in the future. DD has failed to acknowledge the need to better integrate future installations with existing farm businesses and so fallen short of delivering any hope of achieving small scale renewable not-so unreasonable goals. | |
| 105 | | Chapter 5 – distribution network optional expenditure | NI has approximately 3.5 times more overhead line per customers than the average GB DNO. Following the 2010 ice storm we made the case for extra investment in line strengthening and reinforcement on the 11kV network. Examples of UFU making the case for this supplied in the response. These included the difference between domestic and non- domestic impacts of prolonged power cuts and the reliance of farms on having backup generators for animal welfare reasons. Hence rural businesses need for access to a permanent and reliable service in the 11kV network. Failure to complete 11kV strengthening will lead to higher input costs, loss of man hours (overseeing emergency power supplies) and reduced industry output. | RP6 includes an incentive on NIE Networks to improve its customer minutes lost performance and a development objective in relation to worst served customer.<br><br>In addition further work will be carried out during RP6 on updating GSS which will provide a further opportunity to consider customer issues. |
| 106 | **Ulster University – Centre for Sustainable Technologies** | Innovation | Traditional centralised one way flow of energy is being disrupted by increasing consumer owned distributed energy resources (DER). Alongside market liberalisation, the SEM and renewable uptake the NI energy sector has seen important changes over the last 2 decades. | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | Though options and benefits for consumers have so far been limited. The energy system is still largely driven by supply-side actors with consumers viewed as passive. Larger commercial and industrial consumers' possibilities have developed. Market engagement is not possible for most residential and SME customers. For NI consumers to fully realise the benefits a radical change in our approach to innovation is required.<br>In order to deliver for consumers, innovation, particularly future roles of DER, should be at the heart of NIEN's business plan. Continuing traditional approach where consumer participation is parallel rather than a central component of network planning means consumer will miss out. And failure to tap into demand-side resources mean NI system will miss out on significant potential for flexibility, efficiency and sustainability. Much DER is proven, not experimental. DER assets, particularly distributed storage as already reducing the need for reinforcement in GB, Europe Australia and the US. Potential for NI's largely dispersed rural population is huge.<br>However it will require significant programme of R&D to accurately assess the benefits.<br>The FD will set the course for network investment until 2024. NIEN must urgently begin to assess through field trails and demonstrations the values of innovations | |

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| | | | from other jurisdictions. NIEN must be able to respond to new advances emerging during RP6. There is a risk NI consumers will end up paying for outdated and uneconomical network. | |
| 107 | | Investing for the future | Main observation on the reduced amount is that £1m/year for R&D is wholly inadequate. This funding may have fitted relatively steady pace of grid evolution of the past it is inappropriate today. The impact of innovation and following disruption is unpredictable.<br>Level of funding should be completely reassessed and new allowance calculated to allow development of a NI programme of innovation, commensurate with investment available in GB. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 108 | | Assessment of R&D objectives | Approach to field trials at Section 4.46 is too prescriptive. Many R&D projects fail to deliver expected outcomes and it is not possible to quantify costs and benefits before a trial. This does not mean R&D projects should not have reasonable expectation of success and have 'S.M.A.R.T.' objectives.<br>Failure is not a mark of inefficiency. A negative result is still a result which could prevent money being wasted on technologies or systems that seemed beneficial but are inappropriate here. | We disagree that the position set out in the draft determination is too prescriptive. They are a requirement for good trial design to ensure that scarce innovation resources are invested wisely. We agree that R&D trials should not have a reasonable expectation of success. In particular careful trial design will set out the objectives of the trial, how they will be achieved and how they will resolve issues identified in previous trials. This approach is important to manage scarce innovation resources. |

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| 109 | | Network innovation in GB – RIIO model | RIIO is similar to RP6 in that it is a cost based model for ex-ante regulation of network revenues and prices. However RIIO is more focused on outputs networks deliver and provides strong incentives for innovation. This includes specific innovation funding via low carbon networks fund (LCNF) and network innovation competition (NIC).<br>The results of the BEIS/Ofgem call for evidence on facilitating transition to a smarter more resilient and flexible system should inform a NI programme for innovation. UR should consider a similar call for evidence in NI in the context of the transition of NIEN from DNO to DSO. | The company's offering with regards new outputs and KPIs for RP6, specifically related to connections, is detailed under our Technical Annex J – Outputs, Outcomes and KPIs<br><br>In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 110 | | Incentivising innovation | Absence of LCNF and NIC, DfE should consider how funding for innovation could be leveraged. Including:<br>• Whether the Barnett Formula creates consequential in NI which could replicates NIC and LCNF funding in GB<br>• Potential for use of Financial Transactions Capital to incentivise third party investment in innovation<br>• Seeking State Aid rules derogation for investment in a programme of network innovation<br>In addition to funding commensurate with GB UR should consider uplift on NIEN's rate | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials.<br><br>The funded investing in the future project is not the only source of innovation funding. NIE Networks will benefit from 50% of any cost savings through the cost risk sharing |

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| | | | of return on innovative pilot schemes which deliver clear benefits to consumers (not for schemes or parts thereof which benefit solely NIEN or third parties). Italy for example has done this successfully with an additional 2% on innovation capex.<br>UR should consider extending the uplift to capex for successful innovation trials which are rolled out across the network. | mechanism. This provides an opportunity for NIE networks to carryout innovation projects at risk. The CI/CML incentive in the price control provides an opportunity for NIE to carry out innovation at risk funded from the expected revenue from the incentive mechanism. There are opportunities for NIE Networks to leverage its Investing in the Future Funding by working with other including equipment suppliers, academic organisations, and research bodies. |
| 111 | | Failure to innovate risks | NI has relatively small industrial base with baseload demand dependent on fewer than 20 companies (large energy users – LEUs). Baseload consumers like LEUs bear a disproportionately high cost of the network. We believe there is a real risk of LEU grid defection during RP6, leading to a vicious cycle of increasing fixed grid costs and further LEU defection. This would be felt most keenly by domestic consumers, particularly those in or at risk of fuel poverty. A programme of innovation, based on DER, and which incentivises consumers (particularly LEUs) to become active participants in energy markets is urgently required. | In the final determination we have included the full investment proposed by NIE Networks to replace substation RTUs with equipment which will provide two way IP communication to support SMART solutions. We have also increased the funding for trials and innovation to close to the amount requested by NIE Networks. This funding is ring-fenced to be released when NIE Networks has further developed the design of the proposed trials. |
| 112 | | Current innovation projects | In the last 18 months UU have secured £8m in research funding for distributed energy storage. It is noteworthy this figure is more than was allocated to NIEN at DD for 'Investing in the Future' for all network R&D for the next 7 years. UU is seeking to | If any party has views on how it might interact with NIE Networks innovation plans we would encourage it to engage with NIE Networks in advance of future business plan submissions. |

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| | | | leverage these funds to generate further R&D and innovation capacity.<br>We are currently engaged in a number of joint academic/industry partnerships through Invest NI. Data from these trails will generate real world data which will be used to assess the relative benefits of DER through PhD-level research.<br>Notwithstanding our call for a reassessment of innovation funding for RP6 these trails must be urgently progressed in order to address the lack of network innovation studies in NI.<br>To generate synergies and maximise benefits of innovation expenditure, NIEN should align its R&D as closely as possible with UU's distributed energy storage research programme and other third party work e.g. Invest NI funded businesses. | |
| 113 | **Unite the Union** | | Unite represent the majority of employees within NIE Networks. Their skill set it significantly higher than non NIE Networks electricians. Average training costs are £70k.<br>We have witnessed a significant increase in demand for high voltage craftspersons across UK, RoI and beyond due to:<br>• aging workforce – large number of retirements in 5-10 years<br>• renewable energy sector on and offshore<br>• Need for replacement of aging assets across UK and investment | The type of top-down econometric analysis we undertook when benchmarking for Indirects and IMF&T does not get into the micro detail of the arguments advanced by Unite. Rather we sought and obtained a re-submission by NIE Networks of any special factors which they felt were material and necessary to ensure as 'like for like' comparison of their costs to the GB comparator set of DNOs.<br><br>When we examined NIE Networks' special factor claim and our own negative special factors (activities locally where costs ought to be lower due to a lower quality of service |

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| | | | plans of comparable businesses that have skills shortages.<br>Significant changes to members' terms and conditions since privatisation are reflected in current salaries. This includes reducing from 3k to 1.3k employees through increases in productivity from:<br>• 1998 closure of final salary pension scheme<br>• Longer working weeks (39.5, 40 and 42.5 hour weeks);<br>• New employees receive on average 5 days less leave;<br>• Vehicle trackers fitted to facilitate more efficient employee utilisation and more efficient operation of the company's fleet;<br>• Home to site working introduced to maximise the working day;<br>• Skills based progression arrangements have been introduced to improve efficiency by broadening skills sets;<br>• Incentive schemes have been introduced to improve productivity;<br>• removal of rostered days off which were a significant benefit to our members and rewarded them for flexible working.<br>• a reduction in overtime payments<br>Given high skill level of our members in NIE Networks, keen to understand why UR has not provided a specialist labour premium in | compared to that enjoyed in GB), we triangulated our P0 efficiency discount in the round, having judged the inherent uncertainties to cancel each other out.<br><br>The concerns around our decision to not apply any specialist labour premium to our Real Price Effects forecasts were discussed at our subsequent meeting on 13 June 2017 and we re-state our preference to apply previous regulatory precedent on this matter, as decided by the CC at RP5. Also, the extent to which the concerns raised around miss-matches in labour supply and demand are unclear as to their likely period they might apply or not. This is important given the RP6 period is some 6½ years duration, such that any over forecast on labour RPEs would inevitably over compensate the company, take more money from consumers and with no guarantee that any enhanced pay settlement would attract to Unite's members.<br><br>Rather, and as applied to our top-down benchmarking, we are not concerned with the micro day-to-day or annual pay settlement negotiations and decisions taking place within the company. In exercising our duty towards consumers in Northern Ireland, the RP6 aim remains to set an efficient revenue cap to enable NIE Networks to deliver quality outputs that customers need. The management of the company is then |

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| | | | relation to real price effects. We do not accept salary levels in general economy are appropriate for our members.<br>It appears on one hand you focus on numerous economic models to justify your arguments while, on the other hand, you ignore the most basic of economic principles - the principle of supply and demand. The facts are that there are significant skills shortages in the electrical engineering sector and there is significant evidence to prove this e.g. Northern Ireland Skills Barometer. It is a well-known fact that when any product or service is in short supply and there is high demand, that prices rise. BCIS and BEAMA labour indexes prove this fact.<br><br>Current level of investment is not sufficient to replace the grid but rather to patch up what is there.<br>Workers are retiring and not being replaced as many employers don't wish to train then knowing they may leave and work for a competitor. This is resulting in only NIE Networks training apprentices and engineers that are urgently needed.<br>Reports to the Smart Metering Advisory Committee, suggest that the companies cannot train smart metering engineers fast enough and that as a result meters are being installed incorrectly with potentially disastrous consequences, especially where dual fuel meters are put in place. (gas leaks, | responsible for its own decisions on how they deliver to consumer needs, although we regularly report on their progress towards meeting customer expectations.<br><br>There are no provisions for a smart metering roll-out in NIE Networks Market Operations Business Plan. At this stage there are no plans for a smart meter roll-out in Northern Ireland within the price control period. The Department for Economy are the government department responsible for a decision on whether a smart meter roll-out will be required |

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| | | | cross polarity installations and the huge potential for deaths or injuries). | |