Bringing energy to your door

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Dear Jonathan

RE: Open letter on the RIIO-2 Framework

Thank you for your open letter and the opportunity to respond to your initial letter in this important consultation process on the RIIO framework. This consultation is very welcome as we share many of the concerns expressed within it; we share the desire to develop the regulatory framework to ensure it delivers value for money services for customers; and we recognise that the industry faces dramatic changes which must be successfully negotiated.

The RIIO regime has been a considerable success, improving stakeholder engagement, stimulating innovation and improving the focus on outputs valued by customers. However, we recognise that, as with our own business, we must seek continual improvement in the regulatory regime and we are committed to working with Ofgem on this.

The consultation is also welcome because we recognise that energy has become more politically sensitive now than at any time in the last quarter of a century. We need to refine our mechanisms for engaging with our customers and stakeholders if we are to address the restrictive and damaging air of cynicism that is projected towards our industry from some quarters and demonstrate and further improve the value we provide our customers. This is an essential part of developing the fundamental concept of legitimacy discussed in the second section of the consultation and one that we recognise as highly important for the whole sector.

Therefore, we readily support the overarching objective and we are pleased to explain that our own business objectives are very aligned with it. In developing the RIIO framework it is essential to focus upon the value customers receive rather than just the absolute price customers pay for their service, although this is also very important.

Another reason for welcoming the consultation is the need to recognise that we are heading into a period of substantial economic uncertainty, globally driven by the unwinding of the emergency measures implemented in response to the global financial crisis of 2008, a change in China's off-shore investment policy and locally driven by the economic turbulence that will undoubtedly grow as the United Kingdom goes through the Brexit process over the next few years. How these macro-economic disturbances will combine and magnify each other is very difficult to predict and therefore the RIIO-2 framework needs the flexibility to deal with a wide variety of economic outcomes and the stability to provide assurance and confidence through uncertainty.

Our discussions with national and regional Government indicate a growing awareness of the potential for regulated entities to be increasingly utilised as a tool for implementing Government policy. In uncertain economic times it is not always possible for competitive markets to deliver investment in the timeframes that might be desired, hampered as they are, by the need for economic certainty to provide the conditions for assured returns. Government can create certainty for the type of patient capital that is prepared to invest in utility businesses through the regulatory regime and then harness the investment capability of these businesses by expanding the scope of their operations. We discussed a specific example, energy efficiency investments, in our last meeting with Dermot Nolan.

However, even for regulated businesses, access to capital may not be as easily achieved in the future as it has been in the 25 years since privatisation. This is because competition for investment capital in the global energy sector, and networks in particular, is set to dramatically increase, as neatly summarised by the International Energy Agency's latest report on world energy investment as well as the economic turbulence described previously.

In developing our response to the questions set out in the consultation document we have found ourselves repeatedly returning to four over-arching principles that we believe are essential in a robust regulatory framework and have guided our responses to many of the different issues raised. These guiding principles are the benefits of:

- Transparency
- Clarity
- Predictability
- Stability

We believe these traits are essential characteristics of a robust and sustainable price control framework and therefore, it is not a surprise that where Ofgem has identified areas of the framework that need more thought it is often the strengthening of these traits that will improve the situation or help to address the issues under consideration.

The challenges for our customers, our industry and the RIIO framework are substantial. However, the RIIO framework within the UK regulatory regime provides a firm foundation to build upon and the challenges can be addressed with careful consideration and strong leadership from Ofgem. Key to success will be simplifying the framework to the extent that less time is required on the minutia giving more time to drive strategic change.

We have outlined a considerable number of ideas and suggestions within this response – all of which can be expanded upon in dialogue with Ofgem bilaterally or in the proposed working groups that will help to develop the RIIO-2 policy framework. We hope you find this response a useful starting point for that dialogue and look forward to working with other stakeholders, you and your team on these stimulating and important challenges over the next year. If you would like to discuss any of the issues raised please contact me directly or call Paul Bircham on 0843 311 3700

Yours sincerely,

Peter Emery
Chief Executive Officer
Electricity North West

Appendix 1

Electricity North West Response to RIIO-2 Consultation

4 September 2017

1. Do you agree with our over-arching objectives for RIIO-2 and how we propose to achieve it?

We agree with and share the overarching objective, however, we recognise that the detail of how this objective is described and measured is key as it is almost impossible to disagree with the objective as expressed at the macro-level. The five bullets describing how the objective will be achieved are helpful in giving proposals for measures of success that relate to the over-arching objective. We support virtually all of these proposals:

- We agree that the consumer voice in setting outputs and shaping business plans can be strengthened and have set out below some initial thoughts on how this might be achieved.
- Long-term investors, such as the owners of Electricity North West, recognise that returns will only be sustainable if they are fair, represent good value for customers and are supported by a perception of legitimacy. To do this they must be set in the context of prevailing financial market conditions, but that does not necessarily mean they should always closely follow or directly reflect these market conditions in the short-term. Much network company financing spans multiple price control periods. There are a wide range of drivers that must be considered in the determination of appropriate returns and companies and Ofgem need to work hard to ensure these are clearly articulated and explained for stakeholders.
- We welcome Ofgem's proposal to stimulate changes in how networks are used and the services companies deliver through the use of incentives and we also welcome the focus on ensuring the companies lead the way and develop these changes proactively.
- We support the continued focus on driving innovation and efficiency and using competition to do this where appropriate. We share our views on the range of different types of competitive arrangements that can be utilised to deliver benefits for customers below.
- A focus on simplicity is important and we are supportive of this aim. Simplicity will enable clarity and transparency which are characteristics we prize highly in any effective price control framework.

<u>Giving customers a stronger voice in setting outputs, shaping and assessing business plans</u>

2. How can we strengthen the consumer voice (primarily end-consumers), in the development of business plans and price control decisions?

The concept of a negotiated settlement as currently utilised in airports is of interest as it could be used for strengthening customer representation during RIIO-2 discussions. Whilst we welcome the introduction of another perspective to price control policy development, it is unclear whether there is an appropriate customer representative that could fill the role of network company counter-party. For example, it is not clear that energy supply businesses have the long-term perspective and considerations that would make them appropriate customer representatives. This was demonstrated by the RIIO-ED1 appeals brought by British Gas which focussed upon short-term price reductions rather than long-term customer value. The CMA, in rejecting the vast majority of the grounds for appeal highlighted this point. It was particularly stark in the presentation of arguments about the development of policy on asset lives and depreciation.

The best representative of the customer's perspective will always be the customers themselves and we must, therefore, find ways of strengthening the customer voice in the price control process. Additionally, Ofgem's primary duty under law also ensures that it is a unique consumer advocate and this role must be more explicitly embraced within the price control process. Whilst today's customers can be consulted for their current views it may be that Ofgem is the best representative of future customers and will have to accept the responsibility of determining the long-term customer interest. This is especially important because of the degree of change expected in the industry and the need to cosndier inter-generational issues in long-term industries. Furthermore, in weighing the contributions of different stakeholders to the price control process Ofgem must demand the same evidential standards from all who wish to contribute to the price control process whether they represent customers, companies or third party views.

In developing our business plan for RIIO-ED1 we were able to refine our selection of activities to include in the plan through detailed willingness-to-pay surveys. These surveys were developed in partnership with the well-respected survey company Populus. Populus established an "engaged" customer panel for Electricity North West that enabled a statistically representative sample of customers across all geographies and demographics across the North West of England to become familiar with the core role and costs of a Distribution business. The engaged customers were given a range of choices for services to include in our plan and shown the effect on the average distribution use of system bill of providing services to different levels or delivering greater levels of output. Having made a series of choices, customers were then shown the overall effect of their choices on the bill and provided with the opportunity to refine their choices. Measurement of customer's behaviour through the survey process showed that customers regularly refined their choices once the total bill impact was revealed. Overall this approach demonstrated that a number of enhanced outputs were valued by customers, but there was also a high degree of sensitivity to the price impact of all choices. (see response to question 3 below)

3. How should we support network companies in maintaining engagement with consumers throughout the price control period?

Mechanisms such as the Populus Engaged Customer panel methodology could be developed for all network companies and rolled out consistently across the country to provide a stronger customer voice in the RIIO-2 process. Other network operators will have developed their own methods for assessing customer's views during the development of their own business plans. Ofgem could facilitate an independent assessment of the best techniques and then ensure a common and consistent approach is used by all companies. It is quite appropriate, after a period of innovation, as occurred in RIIO-1, to consolidate learning and focus on best practice.

In carrying out our customer research for RIIO-ED1 we compared our North West panel responses with another survey undertaken nationally. Whilst the results had a high degree of consistency there were a number of issues where we found customers in the North West of England had a different view from the rest of the UK sample at a statistically significant level. For example the propensity for North West customers to want to invest to support vulnerable customers lead us to develop our business plan commitment to strengthen the network serving large groups of such customers. These findings highlight the importance of carrying out customer surveys in each licence area.

Stakeholder engagement continues regularly during the settlement period at Electricity North West. As well as engaging stakeholders on a range of business improvement challenges, we consult to check that our plans are still relevant, to enable stakeholders hold us to account for delivery and to act as a panel through which we can scrutinise additional or amended commitments.

4. Does this structured approach to defining outputs provide the right level of clarity around delivery?

We agree that the outputs-lead approach has served customers well by focussing on providing services that customers value and require in a cost-effective manner. This approach requires further development for RIIO-2 as it is clear that all DNOs, including Electricity North West, have a mix of input and output measures in their schedules of business plan commitments. During RIIO-ED1 we have undertaken considerable consultation with our North West stakeholders to explore the ongoing development of our business plan commitment regime. This is required to refine our approach to reporting on progress in delivering our commitments and to review whether a few of our commitments should be refined to reflect changing circumstances. During these discussions it is clear that stakeholders are more able to engage with commitments that are output or outcome focussed.

The requirement to report on progress against the delivery of each business plan commitment has certainly had a marked impact on the management processes in Electricity North West. Progress in achieving each of our 40 output measures is reviewed regularly at Executive Board level and detailed reporting of investment linked outputs drives our capital programme management, helping business leaders to prioritise activities and make customer-focussed decisions where they need to find solutions to constraints.

The development of the outputs framework for Electricity Distribution is also closely monitored and is an area where we are proud to have taken a lead for the industry. The development of the Common Network Asset Indices Methodology as part of the Network Outputs Measures (NOMs) regime has been a significant break-through. For RIIO-2 we are now ready for the Secondary Deliverables for Network Assets to be elevated to Primary Output status. This is an essential development and success in Electricity Distribution indicates that the same developments should be achievable in other sectors.

We are now using the approved Common Methodology to refine our approach to delivering the most efficient reduction in risk for customers and optimise our investment programme. This should enable us to deliver better outputs for customers at a lower cost and, through the sharing factor, lower prices to customers.

5. How can the outputs framework be improved, including the introduction of additional output categories for example around efficient system operation for distribution network companies?

There are two areas where we have identified the need for improvements in the output framework.

Firstly, we note that the linkage between outputs and the cost allowances was broken in RIIO-ED1. Once companies' output commitments had been reviewed and determined to be acceptable they were not kept in focus as discussions on associated cost allowances continued. In many areas the cost allowance process will have determined a more efficient level of expenditure to deliver the same outputs, but it is likely that for some DNOs expenditure to fund outputs will have been removed from the expenditure allowances. There was no process in place during RIIO-ED1 to revisit output commitments and check whether they were still appropriate once cost allowances had been finalised. For Electricity North West this gap does not exist because, excluding a specific change for Real Price Effects (RPEs) our business plan expenditure forecasts were shown to be efficient and funded in full. However, for other DNOs we anticipate that the absence of this check of the correlation between outputs and expenditure allowances will manifest in Business Plan commitment reporting and the associated change control processes and dialogue that DNOs undertake with their stakeholders. The lack of this part of the outputs process may contribute to the perception that output targets should be tighter, as noted by Ofgem.

The second area of improvement that we are concerned about is the lack of clarity about how the Network Output Measures will be incentivised. We are working with Ofgem to develop the appropriate regime, but are conscious that the ambiguity surrounding the incentive mechanism causes companies to hesitate when determining the optimal course of action, reduces proactivity and therefore is likely to diminish customer benefit. Now that we have an approved, restated Network Asset Workbook, it is clear to us that efficiencies can be made in our investment programme, enabling us to deliver a greater risk reduction at a lower cost to customers. We are currently seeking partners who will be able to help us develop new technological approaches to optimising our investment portfolio over the remaining years of RIIO-ED1. However, the absence of a clear mechanism for the incentive, which acts as the objective function in any optimisation algorithms, is likely to inhibit the application of this technology. Faced with this lack of clarity we are currently not minded to deliver any additional outputs for customers by reducing network risk further. Therefore we are likely to share the benefits of these efficiencies through lower prices. This contrasts sharply with our recent decision to commit additional investment to deliver improved interruptions performance where we can clearly value the customer benefit and build a robust business case. (see our responses to questions 25 and 26)

6. Did the outputs target the right behaviours?

From a business perspective it is clear to see that our basket of output commitments is driving the right behaviours. We are dedicating considerable management time and attention to addressing the small number of areas where our performance is falling short of the commitments we have made as we know this is what our customers and stakeholders value.

For RIIO-ED1 as a whole it is clearly too early to say whether all companies will deliver what customers value, however the feedback from our own stakeholders on our performance is positive. Stakeholders recognise that our commitments form a broad and balanced scorecard.

For RIIO-T1 it is clear that the development of the outputs regime is a key improvement, as indicated by the mid-point review.

7. How can we address areas of expenditure for which a clear output is difficult to define?

There are a number of output commitments that we made in developing and presenting our RIIO-ED1 business plan that were clearly input focussed, rather than outcome focussed. Some of these involved committing to expenditure that we forecast would be required at the time of putting together the business plan. As part of our ongoing dialogue with stakeholders we have discussed a number of these commitments where new information indicates that not all of these inputs are required. Stakeholders have helped us refine the definition of these commitment targets to make them more outcome focussed. In this way we are able to ensure we are delivering the benefit that was important to customers and stakeholders when developing the business plan, but also ensure our expenditure is efficient and focussed on essential activity. Stakeholders encourage us to refocus the expenditure on delivering additional outcomes that customer's value with some of the released expenditure.

This experience has taught us that it is possible to develop output or outcome focussed targets for the majority, if not all, of the 40 business plan commitments we put in place during RIIO-ED1.

For example, we have recently changed our commitment on asbestos management in substations. Our original commitment had been input-focussed, describing the number of sub-stations we would remediate. After dialogue with our stakeholders we are changing the wording of the commitment. We now plan to ensure that the risk of asbestos is removed from our entire stock of sub-stations rather than remediate a specific subset of the population. We expect that this can be achieved with similar costs because new data indicates that the frequency of remediation will be lower than expected, therefore we can inspect every substation.

8. Were the output targets and associated financial incentives set for RIIO-1 appropriate, reflecting what consumers value and are willing to pay for?

Overall we believe that the RIIO-ED1 framework represents a significant step forward in the development of the outputs regime. Business plan commitments and outputs were specific to the regions and stakeholders each DNO serves, but there was a strong degree of commonality between these independently derived plans that was achieved by the incentive mechanisms Ofgem put in place and the way DNOs reflected them into their output portfolios.

Stakeholders were consulted on what outputs should be included within the schedule of commitments, the relative weighting between outputs and the extent to which particular targets should be pursued and the associated expenditure required to deliver each commitment. Our customer willingness to pay research, as explained above, gave high confidence that our business plan reflected what our customers valued and were willing to pay for.

However, we would not expect that the RIIO-2 schedule of outputs would be the same. The achievement of some programmes of improvement will lead to a refinement in our focus and new outputs will become more important to our customers. For example, we have made significant progress in reducing customer interruptions and the associated customer minutes lost. Some stakeholders are questioning whether we should constantly seek improvement in these measures or whether there is a satisfactory level of service to target. Stakeholders that represent customer groups in Cumbria, for example, highlight that the current Customer Interruption and Customer Minutes Lost output targets are focussed upon the average performance across the whole network. This means that good performance in the densely populated southern part of our network serving the Greater Manchester conurbation can mask poorer performance in sparsely populated rural areas. In response to such concerns we introduced our additional output commitment to ensure no customers on our network fall into Ofgem's "worst served" definition, however, if this trend is observed with customer groups across the country it may be necessary to refocus the Interruptions Incentives Scheme (IIS) to address the distribution of customer performance experience across the network rather than just the average.

As the role of DNOs develops and changes we anticipate that additional outputs and incentives may be required in the future, for example the need for a Capacity Management Incentive as discussed below in our answer to question 18.

Allowing regulated companies to earn returns that are fair and represent good value for customers, properly reflecting the risks faced in these businesses, and prevailing financial market conditions

9. What changes in the RIIO framework would facilitate returns that are demonstrably good value for consumers?

It is important to recognise that the long-term, patient capital invested in network businesses does not have any expectation of turning a quick profit. It recognises that investments in energy networks are quite illiquid and that returns are low in recognition of the management of risks achieved by the regulatory framework. Instead, this patient capital is willing to forgo an immediate return in anticipation of sustainable returns over the longer term. These characteristics could be better articulated to stakeholders and commentators, explaining that to achieve these low, stable costs of capital it is necessary to focus on the long-term return required in the future, rather than historic or prevailing market rates. This may help to inform the debate and avoid short-term, headline driven reactions by campaigning organisations.

The Ofgem calculation and publication of theoretical levels of forecast Return on Regulated Equity (RORE) as constructed in its current form and shown in the 2015-16 Annual Report for Distribution businesses is unhelpful and misleading for stakeholders. It does not reflect the overall returns companies are making and this undermines confidence in the effectiveness of Ofgem and is confusing to many stakeholders because it is incorrectly interpreted as a return on investment. A radical change is needed in determining performance measures that accompany a potential change in the determination of the cost of capital itself for all network companies. This will aid the response to the current uncertainty in financial markets.

The debt costs of each regulated entity should be individually assessed to ensure that they have been raised efficiently by suitable competitive processes and then the actual interest costs incurred to service this debt should be utilised, within the new derivation of RIIO Accounts, to calculate the Return on Regulated Equity. Using actual company data will demonstrate to customers and other stakeholders that the returns are not as great as appears and will increase the legitimacy of company performance reporting and improve the perception of companies.

The perception of companies will be further enhanced if there is no prospect of windfall out-performance of the cost of debt. This could be achieved if actual debt costs were utilised in the derivation of each company's cost of capital allowance, building upon the approach taken by the Competition and Markets Authority to embedded debt. When considering debt costs and the funding of embedded debt our most recent discussions with Ofgem made it clear that Ofgem's principle objection to recognising embedded debt stemmed from a fundamental concern that setting a cost of debt that recognised the embedded debt costs of one company risked over-providing for the debt costs of another. In other areas of the price control review this risk of over-provisioning is dealt with by the use of a pass-through mechanism, as is the case with pensions deficit recovery. We advocate that a consistent approach is used to determine the cost of debt. (see response to question 13 below)

10. How can we minimise the scope for forecasting errors?

We need to recognise that in uncertain times, with little precedent, forecasting is likely to be difficult. Therefore, it would make sense to revisit assumptions more regularly and potentially reset the cost of capital determination more regularly. In relation to the cost of debt, this risk could be eliminated altogether by creating a pass-through mechanism for embedded debt costs.

The risk of forecasting error is also a concern for the shareholders of network companies and, therefore, we understand that investors would welcome a shortening of the price control period in part (see question 21) to address this risk of forecasting error in the cost of equity and the risk of forecasting error in inflation, particularly the RPEs. Investors value transparency, clarity, stability and predictability. Publishing more details on the methodology for determining the cost of equity and sticking with that methodology will increase investor confidence. (See question 21 below on shortening the price control review period.)

11. What constitutes a fair return for a regulated monopoly network company, and how can we ensure that returns remain legitimate in the eyes of stakeholders?

Our response to question 12 below sets out our views on a fair return.

Furthermore, we strongly agree with the points made in the consultation on this issue. Both Ofgem and the network companies must ensure that there is continued public understanding of, and legitimacy for, the work that we do. Therefore, greater visibility and promotion of network businesses is essential. A small amount of marketing expenditure should be recognised in all price control settlements and no longer treated as 'disallowable expenditure' in the Regulatory Instructions and Guidance.

In setting a price control, Ofgem's duty to ensure networks companies are able to finance their activities is entirely consistent with protecting the interests of existing and future customers. We do not see any conflict between these two different aspects of Ofgem's objectives as it cannot be in the interest of customers for an efficient network company to fail.

12. What factors do you think are relevant for assessing and setting the cost of capital so it properly reflects the risks faced by companies?

The key factor in assessing and setting the cost of capital is focussing on the appropriate time period. Whilst the consultation document talks about "prevailing" market conditions, it is important to note that the RIIO-2 period is concerned with the decade from 2021 to 2031 and the prospect of securing investor confidence for further investment beyond this period.

The global financial crisis in 2008 prompted an unprecedented and extreme response from central banks around the world, with a £1.2 trillion quantitative easing programme which has driven the level of debt costs down to unsustainable levels.

At the same time, changes in financial regulations to increase the resilience of financial institutions in many markets have encouraged life companies and pension funds, in particular, to increase their purchase of corporate bonds and government issued securities.

Together these macroeconomic changes have had the effect of both reducing the available supply of debt instruments at the same time as increasing the demand for them. The impact of this is visible in both interest rates and equity returns experienced in the market. These low interest rates have driven asset values up (and equity returns down) to levels that can only be sustained by the continued supply of low cost debt. The analysis used by Ofgem (ie the risk free rate tables) points to the conclusion that investors are keen to invest and loose 2% per annum in real terms of their investment per annum to a theoretical risk-free borrower. This is illogical and unsustainable conclusion which either suggests that the figures are derived from studying data that is temporarily distorted by quantitative easing programmes (which are coming to an end in numerous jurisdictions and potentially reversing in the US) and/or from inaccurate presumptions about the meaning of the data sets being used..

The US Federal Reserve started phasing out its asset-purchase programme in 2014, and began normalising interest rates in late 2015. The European Central Bank is debating how quickly to taper its own quantitative easing policy during 2018, and when to start phasing out negative interest rates. Similarly, the Bank of England (BoE) has finished its additional round of quantitative easing, launched in response to the June 2016 Brexit referendum, and is considering increasing interest rates. The Bank of Canada and the Reserve Bank of Australia have both signalled that interest-rate increases will be forthcoming.

Investors in utilities are, necessarily, very long-term investors and basing any forecasts on a short term market distortion caused by, now reversing, government action will not stand up to scrutiny.

Another factor influencing the cost of capital in the relevant time period is global competition for investment. The International Energy Agency's recently published report on world energy investment[1] shows that this will increase markedly in the near future.

[1] https://www.iea.org/publications/wei2017/

Extract from Summary of IEA World Energy Investment 2017

For the first time ever, the electricity sector edged ahead of the oil and gas sector in 2016 to become the largest recipient of energy investment. An 18% decline in global energy investment since 2014 has not yet raised major concerns about the adequacy of energy supplies in the short-term, but falling investment points to a risk of market tightness and undercapacity at some point down the line.

Spending on electricity networks and storage continued its steady rise of the past five years, reaching an all-time high of $277 billion in 2016. In the United States (17% of the total) and Europe (15%), a growing share is going to replacement of ageing transmission and distribution assets.

The 6% increase in electricity network investments in 2016, with a larger role for digital technologies, supports grid modernisation and the ongoing integration of variable renewables. However, new policies and regulatory reforms are needed to strengthen market signals for investment in all forms of flexibility. Investment in new renewables-based power capacity, at $297 billion, remained the largest area of electricity spending, despite falling back by 3%. In 2016, the numbers of heat pumps sold grew 28% and electric vehicles (EVs) grew 38%.

Although carbon dioxide emissions stagnated in 2016 for the third consecutive year due to protracted investment in energy efficiency, coal-to-gas switching and the cumulative impact of new low carbon generation, the sanctioning of new low-carbon generation has in fact stalled. In 2016 the IEA reported that globally, energy investment is not yet consistent with the transition to a low-carbon energy system envisaged in the Paris Climate Agreement reached at the end of 2015.

Even though the contribution of new wind and solar PV to meeting demand has grown by around three-quarters over the past five years, the expected generation from this wind and solar capacity is almost entirely offset by the slowdown in nuclear and hydropower investment decisions, which declined by over half over the same time frame.

Investment in new low-carbon generation needs to increase just to keep pace with growth in electricity demand growth.

It is highly likely that the prevailing market conditions will have changed significantly by the start of the RIIO-2 period and will continue to do so. The unwinding of the emergency measures implemented in response to the global financial crisis of 2008, a change in China's off-shore investment policy and economic turbulence that will undoubtedly grow as the United Kingdom goes through the Brexit process over the next few years are all likely to have a substantial, yet unpredictable effect. These are the market conditions that must be considered when setting the cost of capital so it properly reflects the risks faced by companies.

Furthermore, there is substantive academic literature[2] and empirical evidence[3] [4]that shows that there is an inverse relationship between the Risk Free Rate and the Equity Risk Premium which means that Total Market Returns may not fall as a result of a reduction in the Risk Free Rate. International regulatory precedent shows mixed data on relationship between Total Market Returns and Risk Free Rate.

[2] Smithers & Co, 2003
[3] Bank of England, Inflation Report, August, 2016; Deutsche Bundesbank, Monthly Report, November, 2007
[4] Bloomberg analysis; decline in sovereign yields during the global financial crisis has been accompanied by an increase in the forward looking ERP (derived based on dividend growth models)

13. Can we improve our methods for the indexation of the costs of debt and equity?

As part of the RIIO-ED1 determinations, we raised concerns over the trailing average mechanism calculation and the inability for it to cover the costs of our historical, efficiently incurred debt. As part of this negotiation the trombone mechanism was introduced, which we felt was an improvement over the simple 10-year average which was initially proposed, as it more closely aligned the long term debt issuance strategy employed by all network operators.

In principle, we agree to linking some element of the cost of debt allowance to external market indices which vary throughout a price control period. In this manner, our customers can benefit from more reflective, recent interest rates whilst the network operators continue to be incentivised to outperform the market.

There do however remain concerns. Principal amongst these, and driven by the exceptionally low interest rate environment of recent years, is the absence of any allowance for efficiently incurred embedded debt. Network operators are encouraged to take a long term view of financing in order to provide stability in our customers' bills. Indeed Ofgem has recently extended asset lives in electricity distribution by over 100% to 45 years. Consequently debt is typically issued over a number of decades, and historically efficient debt appears ever more expensive against a trailing average mechanism which inherently places more weighting on recent interest rates.

In terms of the constituents of the calculation itself, we also have concerns over the legitimacy of the iBoxx indices used in the trombone. At present, the nominal iBoxx rate is derived from an equal average of A and BBB rated corporate bond yields. The intention was to provide a fair representation of the credit ratings of the network operators. However as a single DNO which is rated at the BBB level, we are unable to issue debt at the lower implied credit spreads of an A-rated entity. This, together with a lack of any allowance for debt issuance costs in the first place, places an unattainable challenge on ourselves when it comes to issuing debt and means that the debt cycle becomes completely detached from considerations of asset lives.

We are also very concerned that the iBoxx index represents an unachievable theoretical construct. Absent the use of expensive derivative instruments, for an operator to match the trailing index it would have to issue debt on almost an annual basis at sizes that were too small to be efficient in the market.

Furthermore, we have concerns over the mismatch between debt issuances and the trombone mechanism in the event of a rate reversion; say back to pre-financial crisis levels. When interest rates inevitably increase in the future, any debt issuances or refinancing undertaken by the network operators will be at these new higher levels, however there is a drastic lag in an equivalent uplift of the allowance due to the trombone trailing average calculation. We would be very concerned if new bond issuances to fund investment had to be made with annual payment rates substantially more expensive than the debt allowance for up to 20 years, whilst the trailing index caught up.

All of these concerns have lead us to propose that the costs of debt is best met by a company specific pass-through mechanism, in a manner consistent with the Pensions Deficit repair mechanism.

Network businesses should be obligated to document how debt had been procured at a competitive market rate via an efficient process each time a new tranche of debt was sourced and be prepared to provide this evidence for Ofgem's scrutiny and challenge.

14. Are there specific amendments to any core aspects of financeability that we should be considering in light of performance during RIIO-1 and the change in the financial environment?

We welcome Ofgem's explicit recognition that capitalisation rates and depreciation are both regulatory tools to determine and ensure financeability and encourage Ofgem to focus on long-term implications for customers and pricing when utilising these tools, employing pragmatism in preference to the theoretical derivation of the ideal economic asset lifetime.

In setting a price control, Ofgem's duty to ensure networks companies are able to finance their activities is entirely consistent with protecting the interests of existing and future customers. We do not see any conflict between these two different aspects of Ofgem's objectives.

To improve confidence in financeability there is an opportunity to improve the transparency with which Ofgem conducts financeability assessments. We must highlight that financeability assessments are, by both definition and purpose, an attempt to mirror the methodologies and metrics employed by credit rating agencies and must explicitly target the ratios associated with an efficient, investment grade credit rating. There must also be consistency between the credit rating targeted in the financeability assessment and the ratings of corporate bonds utilised to derive the iBoxx index for the cost of debt. The greater the transparency that Ofgem can give to the manner and methodology of its financeability assessments, the more confidence this assessment will provide to rating agencies and markets and the more tolerant they will be of low levels of ratio coverage.

Overall, financeability assessments must recognise the long-term characteristics of investors in network businesses and the need to assure these financial providers that the regulated regime is stable and predictable. Short-term considerations, including the kind of temporary price reductions introduced into the beginning of the DPCR5 price control framework, must be subsumed for longer-term financeability assurance.

15. Should we consider moving to CPIH (or another inflation index) and how should we put into effect any change to ensure it is present value neutral for investors?

The essential consideration for determining the appropriate inflation index is the need to assure potential capital providers that long-term inflation exposures will be covered. It is clear that CPI and CPIH are becoming more widely recognised by customers and stakeholders as important inflation metrics. However, the financial market has not develop any notable liquidity in viable financial instruments that reflect this index as currently is the case for the widely utilised RPI-based derivatives and instruments. Government continues to issue RPI linked gilts, presumably worried about the appetite for alternatively indexed debt. It is essential that inflation of the Regulated Asset Value over the long-term reflects the inflationary expectations of the financial markets and their indexation exposure. The use of long-term inflation assumptions are most appropriate as they match the inflation assumptions priced into long-term debt instruments. Whilst network businesses are funded by a considerable amount of RPI linked commitments they will continue to require RPI based indexation.

<u>Incentivising companies to drive consumer value by shaping or proactively responding to changes in how networks are used and services are delivered</u>

16. Do you think there are sufficient benefits in aligning the electricity price controls to off-set the disadvantages we have outlined?

We believe that there are significant advantages from aligning the price controls for electricity transmission and distribution. We are working closely with the other Distribution Network Operators and with the System Operator to determine how best to co-ordinate actions between electricity networks to ensure efficient whole system operation. It is apparent from this work that there are a number of areas where the DNOs can undertake actions that avoid the need for expensive investment in the transmission network and it may be better for National Grid to pay DNOs to provide services rather than undertake work on their own network. Examples range from the trials described in the joint Government and Ofgem Plan for Smart Systems and Flexibility - Upgrading our Energy System to work of Electricity North West and National Grid to develop the CLASS technology and bring this to market. This exchange of value between networks can be facilitated by aligning the price control reviews.

17. Are there any other realignment options we should consider?

Similar to electricity it seems sensible to align the gas transmission and distribution price control reviews. Through our joint work at the Energy Networks Association (ENA) we are aware of significant potential developments in the decarbonisation of gas and the ongoing utilisation of the gas network. Recent innovations such as the development of bio-methane from anaerobic digestion and trials of the injection of hydrogen into the gas network indicate that the role and use of the gas network maybe changing and the implications of these developments will need to be co-ordinated between the distribution and transmission systems.

18. What amendments to the RIIO framework, if any, should we consider in supporting companies to make full use of smart alternatives to traditional network investment?

We are pleased to see the acknowledgement within the consultation document that energy efficiency measures may well be an efficient way of deferring network investment. We are currently actively researching this possibility having completed our Power Saver Challenge project and developed a proposal for this year’s Network Innovation Competition (NIC) entitled Power Saver Plus. To further enable such developments it would be helpful for the RIIO regime to explicitly recognise the validity of investment behind the meter.

We are not sure whether the right conditions have been established to discontinue all innovation funding, given the uncertainty discussed in the consultation document and the need to develop new techniques and market based mechanisms, some of which are likely to fail.

We also believe that the role of the Distribution System Operator will be focussed around the management and efficient utilisation and stewardship of network capacity. To encourage and facilitate the transition to Distribution System Operators it may be beneficial to introduce a network capacity management incentive regime for RIIO-2.

The need for significant innovation to support and enable an energy revolution and the transformation of DNOs to DSOs is at odds with arguments that the regulatory regime remains so low risk that returns must be reduced. Ofgem’s explanation of the changes the industry is facing is welcome and aids the demonstration of legitimacy to stakeholders and customers.

19. Given the uncertainty around demand for network services, how much of an issue might asset stranding be and how should this risk be dealt with?

Asset stranding is a potential risk that must be considered carefully. Our working assumption is that the risk of stranding of the majority of the electricity network is low and that our key focus in the RIIO-ED2 period will be the provision of new capacity in a timely manner to meet growing customer requirements. As mentioned above, to ensure DNOs do this efficiently it may be beneficial to introduce an incentive for DNOs to encourage the efficient provision of capacity.

There is a risk that inappropriate market distortions caused by the rules concerning the recovery of costs for environmental taxes and other levies continue to drive some customers to consider the need to build private networks to improve the business case for local generation schemes, resulting in the inefficient stranding of network assets. As you know we are working with stakeholders in the North West to find solutions to this problem, but a change in the supplier hub model for cost recovery may also need to be considered.

20. How do we need to adapt the RIIO framework, and the uncertainty mechanisms in particular, to deal with this uncertainty?

The principles developed in the RIIO framework for dealing with uncertainty remain appropriate for the greater risks potentially faced in the RIIO-2 period. However, as the range of risks develops it will become even more important to determine how risks are to be shared between companies and customers at the beginning of the regulatory period. The lack of detail and mechanisms in current regulatory framework has unfortunately increased the perception of regulatory risk. We must avoid repeating the situation that occurred in the DPCR5 period, where the mechanisms for dealing with uncertainty were not properly developed until two years after the completion of the price control period. Whilst Ofgem has committed to developing the mechanisms for the RIIO-ED1 period in the next few years, when developing mechanisms for dealing with the potential risks in the RIIO-2 period the mechanisms must be determined prior to the commencement of the price control period.

21. Is an eight-year price control period with built-in uncertainty mechanisms still appropriate given the greater range of plausible future scenarios?

We originally opposed the extension of the RIIO-ED1 control from five to eight years because there was evidence that the increased risk was not in customers interests.

It is worth noting that a reset of the risk balance between customers and companies more regularly may increase the perception of legitimacy with stakeholders as well as ensuring that companies remain focussed upon the correct priorities and avoiding extremes of loss or gain from under or out performance.

This issue is a particular focus when considering load-related expenditure given the significant uncertainty in the timing of the expected growth in electricity demand likely to arise as the roll-out of technologies such as Electric Vehicles gathers pace. It would, therefore, be sensible to review forecasts for load related expenditure on a more regular basis than every eight years. A four-year review cycle is more appropriate to manage the risk of under and over-forecasting this uncertain investment area, particularly if the lead-time between forecast production and implementation can be reduced by extracting it from the full price control process.

However, for asset replacement expenditure which, with improving developments in condition-based risk management techniques, improving reliability performance and the development of a common methodology for output determination and measurement is becoming accurately forecastable, an eight year regime is becoming increasingly appropriate.

We propose that Ofgem works with the industry and stakeholders to consider whether we should continue with a single forecasting horizon for all aspects of the investment programme and that this horizon must match the period of the price control review. Different investment drivers have differing risk characteristics and it would be sensible to amend the RIIO-2 framework to recognise this.

The issue of price review periods is considered further in our answer to question 25 below. Overall we now think the balance of the argument has shifted in favour of keeping an eight year review period because alternative arrangements can be put in place to address issues where the longer period causes problems.

Using the regulatory framework, or competition where appropriate, to drive innovation and efficiency

22. What improvements should be made to the assessment of business plans?

A key improvement that could be made to the assessment of business plans is to determine an Ofgem benchmarking methodology in advance of the price control determination and report against it annually through-out the period of the **preceding** price control using the data gathered from the annual reporting framework. This would aid clarity and transparency for all stakeholders as to the revealed efficiency of companies' improvement and innovations, aiding Ofgem to explain the effectiveness of the efficiency incentive in delivering lower prices for customers and showing companies how efficiency benchmarks would be derived.

23. Should we give further consideration to companies' historic performance against their business plans?

The publication of an annual efficiency performance assessment alongside data on the delivery of business plan commitments would provide a real-time commentary on companies' efficiency, avoiding the need to look back and try to determine efficient behaviour historically.

24. Should we determine the revenues an "efficient" network company requires before seeking information from the companies themselves?

As discussed above, establishing cost assessment methodologies in advance and committing to them, utilising annual data returns to determine comparative efficiency performance on an ongoing basis and the publication of performance statistics annually would all make the determination of an efficient benchmark level of expenditure for any company a simpler proposition. It is not clear that required revenues could be determined in advance of a discussion with companies because of the inherent volatility in the forecast volumes of activity during the RIIO-2 period. However, the process may be greatly simplified and accelerated at price control review.

25. What has an eight-year price control period allowed network companies to accomplish or plan for that would not have occurred under a shorter price control period?

The introduction of an eight year price control period has not increased the strength of the regulatory incentive for efficiency as this is determined by the sharing factor. Therefore, the extended period does not really affect whether investments in efficiency and innovation are made. However, where the extended price control period has changed investment decisions is in relation to investment to achieve performance outcomes against incentive mechanism metrics. For example, Electricity North West set out an investment programme to reduce customer interruptions and customer minutes lost during the early years of RIIO-ED1. This investment has proven more successful than anticipated and has been delivered early. The eight year period allows for the assessment of whether a business case can be made for further improvements in performance for customers based on the transparent RIIO-ED1 incentive rates and targets set until 2023. This additional investment is viable in the RIIO-ED1 period and work to design the relevant schemes has commenced. Were the price control only five years in length it is unlikely the investment could be completed in time for the performance rewards resulting to accumulate sufficiently to pay for the investment. Therefore, the benefit of the longer control is that additional improvements in performance can be achieved or improvements happen at a faster rate, without waiting for the hiatus caused by the resetting of performance targets.

The eight year price control period has also enabled the substantial investment Electricity North West is making in rolling out the CLASS technology. This investment is enabled by the ability to build a business case across the full regulatory period. The business case cannot be extended over a longer period because of the Ofgem treatment of revenues after the price control reset. Recent discussions with other DNOs highlight this issue. They tell us that it is unlikely they will be able to replicate our investment decision because there is insufficient time left in the price control period for them to construct a worthwhile business case. As a result a technology that we expect to prove has significant benefit for customers will not be utilised. The eight year control issue may not be the key issue for innovative new technologies or services like CLASS. Of more importance is the need to create the right environment to facilitate such innovation including the need to separate the sharing of returns with customers from the periodicity of the price control review and the price control setting process. It may be necessary to allow returns from investment in innovative technologies to be recovered over multiple price control periods in order to ensure the right incentives exist to encourage further such developments.

26. How well has the IQI and efficiency incentive worked in revealing efficient costs through the business plan process and encouraging efficiency throughout the price control period?

It is not clear that the IQI incentive mechanism is effective, given the behaviours by some companies that were observed during RIIO-ED1. The IQI works well in determining how to share the risk and benefit between companies and customers, but the spread of sharing factors between companies that submitted the most and least efficient business plans was a matter of only a few percent (53% to 58%). this does not empirically seem to create either a noticeable reward for providing a benchmark by which the entire industry can be assessed nor a punative disincentive to inflate business plan submissions, even though the scale of reductions between initial and final business plans was extremely large for some companies. Whilst we do not favour the continuation of fast tracking, see question 34 below, we do think that the IQI rewards for developing ‘pace setting’ and honest plans should be increased.

An improvement that could be made to the assessment of business plans is to determine an Ofgem benchmarking methodology upfront and report against it annually through-out the period of the preceding price control as discussed in our answer to question 22 above. This would aid clarity and transparency for all stakeholders as to the revealed efficiency of companies improvement and innovations, aiding Ofgem to explain the effectiveness of the efficiency incentive in delivering lower prices for customers and showing companies how efficiency benchmarks would be derived.

27. What alternative approaches could we consider to encourage companies to give us high quality information that minimises the damage from their information advantage?

Whilst the historic benchmarking of performance as discussed in the previous responses above will improve understanding of current efficiency, the key to effective price control setting is the development of high quality activity forecasts when looking forward. One of the key regulatory innovations in the development of the Information Quality Incentive (IQI) at RIIO-ED1 was the introduction of Totex benchmarking. This approach is a key tool in driving efficient forecasting as it requires companies to focus on the volume and scope of activity as well as forecasting the scope for reducing unit costs. In developing and refining the IQI mechanism for RIIO-2 an increased focus and weighting on Totex benchmarking rather than Dis-agregated benchmarking will strengthen the approach.

28. What impact has the innovation stimulus had on driving innovation and changing the innovation culture?

At Electricity North West we have embraced the opportunities offered by the innovation stimulus packages and have had significant success in creating a more innovative culture. This was recognised by Ofgem during the RIIO-ED1 process as Electricity North West was identified as being the smart grid benchmark organisation and the innovation leader, warranting recognition through a higher percentage allocation of revenue to innovation funding than any other DNO. We continue to operate with a greater volume of innovative ideas and projects to explore than funding and resources allow, hence why we have the greatest utilisation of innovation funding of any DNO. We have successfully funded some innovation projects from relevant Totex allowances where appropriate and continue to look for situations where this is an appropriate approach.

29. Have the incentives inherent in the RIIO model encouraged network companies to be more innovative and what should we consider further?

There is extensive evidence, including from within Ofgem's own reviews of the success of innovation funding mechanisms, that the financial support for innovation in current price controls has stimulated a culture change in companies and the creation of an extensive hinterland of supporting agencies and universities who have focused their research capabilities on energy issues. There is a risk that a sudden removal of the innovation stimulus package when coupled with a simultaneous and systematic reduction in returns across the RIIO framework and potentially a shortening of the regulatory period over which innovation returns can be accumulated could prompt an extreme reaction from companies that removes all funding for innovation and reverses the positive trends seen over the last decade.

30. Do you agree that the scope of competition should be expanded in RIIO-2? What further role can competition play?

It is clear that competition can bring massive benefits to customers and is prevalent throughout the efficient operation of all network businesses. It is important to distinguish between the three different types of competition that we observe and experience in energy networks. Open market competition has been introduced in more aspects of the energy market in the UK than almost any other jurisdiction in the world so that end users of network services can participate and choose their provider not only of commodity energy but also new connections provider. We also have extensive 'procurement competition' where regulated entities under a price control framework act as a central buyer from markets that enable the provision of network services to end users. Additionally we have extensive competition for monopoly rights where the selection of regulated entities that compete for the rights to provide services to end users and become regulated entities is facilitated by a competitive process, either run by Ofgem as is the case for the OFTO regime or run by end users as is the case for DNO network extensions.

The scope for competition is set to become much more extensive and complex in the future as we develop business models for Distribution System Operators. A key role for DSOs will centre on needs identification and securing the most efficient means of network capacity provision for customers. DSOs will need to focus much more on localised and regional balancing of network capacity to ensure that customers are able to operate with the maximum efficient freedom that optimises but does not unduly stress the network. The provision of capacity for customers by other customers is one of the most efficient means of meeting collective requirements. To enable customers to participate DSOs will facilitate local markets to access such flexible capacity allowing end users to become competitive providers either directly or through third parties such as aggregators. This will result in the beneficiaries of open market competition becoming providers to a procurement competition undertaken by the regulated entity.

The development of these new markets will require careful consideration and partnership working between regulated entities and regulators. The very local nature of some distribution constraints will mean that many of these markets will have a constrained number of participants and, at times, low trading volumes and a lack of market liquidity.

Simplifying the price controls by focussing on items of greatest value to consumers

31. Which elements add the most complexity and how do you think that these and the broader RIIO framework could be simplified?

Uncertainty mechanisms and arrangements that change the price customers ultimately pay add the most complexity to the operation and understanding of price controls. The impression of complexity is compounded by the fact that the rules for these mechanisms are so difficult to define and develop that they have not been put in place on the commencement of the price control periods.

The uncertainty mechanisms could be simplified by separating the forecasting horizons from the price control periodicity as discussed in our answer to questions 20 and 21 above.

32. What improvements could be made to the format and presentation of the business plans?

National stakeholders that work with multiple DNOs have told us that they find the prospect of participating in multiple processes overwhelming and that the inconsistency between DNOs makes engagement difficult. This leads to the phenomenon of "involvement fatigue" and diminishes the quality of stakeholder input and the perceptions of legitimacy associated with the process. For this reason we advocate greater consistency and commonality in stakeholder engagement processes, together with more co-operation and co-ordination between network companies. A common methodology for developing and justifying business plans would also be welcomed. This would increase clarity and transparency in the process for stakeholders. For companies, a clear methodology for justifying investment would increase the predictability of the price control outcomes.

33. Should the plans be revised at any stage during the price control, for example annually?

An annual plan revision mechanism involving companies and regulator is completely unfeasible given the fact that the minimum time to report and allow Ofgem analysis of performance in any year means half of the following year will already be completed. However, we do change our plans regularly to reflect changing circumstances, new information and external constraints.

We are developing our processes for consulting with our stakeholders on the major revisions required to our plans or where we find the need to refine the specification of our business plan commitments.

As discussed in our answer to question 21 above, there is a strong case for the plans for different investment drivers to be refreshed on different cycles reflecting the degree of uncertainty with each driver.

34. Should we retain fast tracking and if so, for which sectors?

We welcome and support the transparency of the approach to assessing business plans we experienced in RIIO-ED1. We note that the timescales necessitated by the fast tracking approach reduced the transparency and accuracy of some of the initial assessment techniques and this undermined the validity of those initial results.

We did not experience what we thought was a "proportionate response", there being no noticeable difference in the scrutiny different DNOs were subject to. It maybe that this was because the DNOs all submitted plans that Ofgem perceived to be of a similar quality, we cannot tell. This assumption does not seem to be supported by the Ofgem assessment of plan quality that was published, which gave different traffic light scores to different plans. No Ofgem assessment of whether a different level of scrutiny would be applied to different DNOs was ever published in the RIIO-ED1 process.

In RIIO-ED1 the fast tracking outcome reduced the perception of legitimacy as it led to a series of unintended consequences and potentially an unintended benefit for the fast tracked companies. Results were challenged because the benchmarking methodology changed dramatically between the fast track assessment and the slow track assessment. Avoiding a revised benchmarking and allowance setting approach arguably provided a much greater benefit than the fast track reward itself. This is a very serious outcome that had serious consequences for customers in the fast tracked areas. Whilst having a more robust benchmarking approach that was determined and settled in advance would considerably mitigate the risk that the fast tracking approach would have the same effect in RIIO-2, we do not support the continuation of fast tracking as the risk of a similar occurrence is high. We do not support the fast tracking approach because all customers deserve the benefits that will be provided by company plans being subject to robust assessment. We do not think it necessary to create a different reward mechanism for a particular company. The IQI mechanism should be tuned to create the appropriate strength of incentive to encourage companies to submit bold and honest business plans.

35. Do we collect the right information in the right format and are there better ways to monitor the performance of companies?

A more transparent approach would be welcomed, this means that there is a need to set out the reporting and benchmarking approach first and use then this to derive the information requests companies must fulfil. This is consistent with our proposals in response to questions 22 to 24 above. From our perspective the current regime feels overly burdensome, with all conceivable information that might be required at the next price control requested and the risk that Ofgem seeks to undertake analysis that justifies the original request for the data. At each price control review we undertake an induction exercise explaining the previous benchmarking approach to a new Ofgem team. This team then feel duty bound to create a new benchmarking approach from scratch. It would aid the retention of corporate knowledge within Ofgem, the robustness of the benchmarking approach and the transparency of ongoing efficiency improvement if benchmarking was repeated and published every year. Improvements to the approach could be made following consultation and review, (potentially proposed by Ofgem, companies or third parties) but having an evolutionary rather than revolutionary approach would be beneficial in providing better trend data and reduce the acute sensitivity to the benchmarking technique debate experienced at each price review. As previously explained, the publication of regular benchmarking will help to improve the perceptions of the industry's legitimacy.

36. What are your views on how the changing role of the electricity SO should be factored into the RIIO framework, including whether or not the electricity SO should have a separate price control?

The evidence explored in the debate regarding the separation of the Transmission System Operator from the Transmission Owner demonstrates that the SO price control should be completely separate. However, it is essential that the controls are set and run concurrently.

Providing for stakeholder engagement during the framework review

37. Do you agree with our broad stakeholder engagement approach set out above?

We support the broad stakeholder engagement approach and look forward to participating in the workshops, webinars, working groups and consultations.