REGULATING ENERGY NETWORKS FOR THE FUTURE:

RPI-X@20 EMERGING THINKING

THE RESPONSE TO OFGEM'S WORKING PAPERS FROM

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NORTHERN ELECTRIC DISTRIBUTION LIMITED (NEDL) AND

YORKSHIRE ELECTRICITY DISTRIBUTION PLC (YEDL)

2 July 2010

INTRODUCTION

1. CE Electric UK Funding Company (CE) is the UK based parent company of the electricity distribution licence holders Northern Electric Distribution Limited (NEDL) and Yorkshire Electricity Distribution plc (YEDL). This paper is the response of CE, NEDL and YEDL to the following publications and working papers published by Ofgem in May 2010:

   - *Regulating energy networks for the future: RPI-X@20 Current thinking working paper: The length of the price control period,* Ofgem, 7 May 2010;
   - *RPI-X@20: Output measures in the future regulatory framework:* Frontier Economics, report prepared for Ofgem, May 2010;
   - *RPI-X@20: The future role of benchmarking in regulatory reviews*: Frontier Economics, final report prepared for Ofgem, May 2010;
   - *Regulating energy networks for the future: RPI-X@20 Current thinking working paper: Financeability*, Ofgem, 19 May 2010;
   - *RPI-X@20: Providing Financeability in a Future Regulatory Framework*: CEPA final report for Ofgem, May 2010.

2. In the following sections we provide some overall comments on each area; we then provide more detailed comments on the two current thinking working papers and the Frontier Economics report on outputs.

OVERALL COMMENTS

3. CE continues to support many of the changes that Ofgem is seeking to bring about under the RPI-X@20 project. With appropriate changes we believe that the RPI-X approach to network regulation will continue to provide benefits and meet the challenges of the future.

4. We noted in our April response to the main consultation papers that we were concerned in a number of respects that Ofgem's proposals represented a fundamental departure from the privatisation model and that Ofgem had not made a compelling case to move away from this model to the extent proposed in its emerging thinking.

5. In general, we view the reports published by Frontier Economics positively. The paper on benchmarking suggests more emphasis should be placed on the forward projected costs and benchmarking at a total cost level. Both are worthy aspirations but our experience is that it is very difficult to develop usable models that can capture and correctly align the lumpiness of capital expenditure. We look forward to working with Ofgem on developing the proposed approach.

6. The Frontier Economics paper on outputs develops the principles in the DPCR5 proposals in a constructive way and we would agree that the measures should not be used in a mechanistic way.

7. Our main concerns are with the two 'current thinking' working papers. On the proposals on the length of the price control review we are concerned that the emerging thinking proposal to extend the price control period to eight years, with a tightly controlled four year mini-review, will actually result in something more like two four-year review periods. These concerns are expanded below in paragraphs 10 to 11.

8. The current thinking working paper on financeability builds on the January consultation and, with the aid of the CEPA report, Ofgem has been able to complete some of the gaps in the January document. Our main concern is that the principles within the straw man are being finalised and recommendations prepared for the Gas and Electricity Markets Authority (the Authority) without:

   - all the evidence being available to support the principles;
   - all the current issues being addressed; and
   - the principles being tested by robust and detailed scenario testing.

9. We comment below in more detail on the length of the price control, financeability and the outputs regime.

LENGTH OF THE PRICE CONTROL PERIOD

10. We agree that the regulatory framework should encourage energy networks to play a full role in facilitating a sustainable energy sector and to deliver value for money network services over the longer term. We also concur with Ofgem's view that the existing regulatory framework is geared towards encouraging network companies to minimise costs in the short term and that this may not always be consistent with providing value for money over the long term. We also agree that the intensity and

frequency of the price control process means that two out of every five years the network company's management team is involved to a significant extent in the price control review and that this must, to some extent, distract from the management of other aspects of the business. The changes that Ofgem is proposing within the wider regulatory framework, such as longer-term business plans, longer-term outputs, the innovation stimulus, and greater clarity on *ex post* efficiency adjustments, go some way towards negating these effects. Nevertheless, we can see the case in favour of extending the price control beyond five years if this can be done without giving rise to the adverse effects Ofgem has mentioned. However, we would urge caution in relation to the straw man that Ofgem is considering. The history in the water sector, and our own experience since privatisation of the pressures that are brought to bear on regulators, suggest that a full price control period of eight years, with a mini-review after four years (to adjust for changes in outputs), may be difficult to sustain. In practice the interim review will be hard to insulate in the way that would be required to secure the incentive benefits of an extended price control period. In particular, once a change in outputs has been acknowledged, it may prove very difficult to carry out the mini-review making assumptions relating to the costs of delivering the revised outputs that remain consistent with the assumptions made at the initial review for a different set of outputs. However, as Ofgem points out, if new cost considerations, even in relation to revised outputs, are allowed to inform the mini-review this will create incentives around the triggering, and conduct, of the mini-review that would undermine the purpose of the extension of the price control proposal. We therefore think that coupling a longer price control period with a mini-review after four years will not achieve the objective that Ofgem has in mind.

11. In short, we agree that a mini-review would be necessary if the price control period were to be extended to eight years, but the mini-review has the capacity to become an interim review that would have precisely the opposite effect from the one that Ofgem intends. The danger is that a five year price control period effectively becomes a four year price control period. Instead, it may be preferable to consider certain aspects of the normal five year price control review and to make commitments, insofar as this is possible, about the treatment of those specified aspects at subsequent reviews. Another alternative would be simply to extend the current five year period to, say, six years. This could be done in conjunction with some of the other proposals that Ofgem has made in the RPI-X@20 project.

FINANCEABILITY

Overview

12. Ofgem stated in the January consultation document that the impact of its proposals with regard to financing and cost of capital would be regarded as an empirical issue which Ofgem will investigate. However, no further information from this investigation has been provided. Moreover, the straw man does not address all of the issues in the current model. For example, it ignores the inter-generational issue of the 'real versus nominal' mismatch which sees the funding for inflation logged into the RAV for future generations to fund (this is explored in the First Economics paper submitted by the Energy Networks association (ENA)). Finally, whilst there are some modelling results in the CEPA paper on the future impact on financial ratios, the information provided is limited and the basis of this modelling is not available for review and validation.

13. The ENA has submitted papers that address the impact of Ofgem's proposals for financeability on the cost of capital and the inter-generational issue of the funding mismatch. We believe these important papers require consideration and an Ofgem response prior to the preparation of formal recommendations to the Authority.

14. There may also be further considerations for energy network regulated industries emerging from the Competition Commission on the appeal made by Bristol Water. Ofgem also indicates that there may be implications from changes in legislation, such as the EU Third Package.

15. We would, therefore, urge Ofgem to continue to develop its thinking on financeability separately from other RPI-X@20 items and to set out a revised timetable that addresses these issues.

16. We now respond to the current thinking working paper based on the sections within the paper.

Embedding financeability in a new regulatory framework

17. Our previous comments provided in April to the January consultation apply and whilst we can see that Ofgem has updated the straw man in light of the CEPA report, it is less evident how the responses of the many respondents (including ourselves) have been incorporated or considered in this current thinking working paper.

18. The main points from our April response which do not seem to have been considered are presented in the following paragraphs.

19. We remain concerned that Ofgem's proposals on financeability will significantly increase regulatory risk, increase the cost of capital and undermine important efficiency incentives that are present in the existing arrangements. Ofgem's proposals suggest a diminution in the importance that Ofgem will attach to financeability considerations in future price control reviews, which is at odds with the realities of the financial markets and with Ofgem's insistence that network businesses are inherently low-risk.

20. We agree that efficient, well-managed network companies must be able to access finance on reasonable terms and that there should be no 'bail out' for inefficiency. Further, we agree that network companies should earn a below-average return if they fail to deliver appropriately determined outputs or if they deliver them inefficiently, and that a particularly poorly-performing company might, as in the competitive sector, see zero or negative returns. We would expect the assumed cost of capital to be commensurate with this redefinition of risk.

21. We agree that the allowed return embedded in the regulatory settlement should relate to the riskiness of the network company's revenue and cost streams, assuming that it operates in an economic and efficient manner.

22. We do not agree with Ofgem's proposition that the depreciation charge should reflect the average expected service life of network assets (Ofgem calls this the 'economic life'). The regulatory system does not reflect or derive its outputs from accounting concepts of operating costs and capital costs and, therefore, using concepts of depreciation to determine cash flows is misleading. It would be preferable for Ofgem to adopt the vocabulary of 'payment terms' rather than of 'depreciation periods' in this context.

23. We agree that the distortions between different types of costs should be removed by equalising incentives that apply to competing costs so that a fixed percentage of total expenditure is remunerated through the regulatory asset value (RAV), which is returned as 'slow money', while the remainder is received within a year, i.e. as 'fast money'.

24. We have no objections in principle to Ofgem's use of the return on regulatory equity (RORE) measure as used at DPCR5.

25. We agree that Ofgem should continue to assess the expected financial health of an efficient network company under a proposed price control and we can see why Ofgem might have concerns about reliance on the judgements of credit-rating agencies. We also agree that Ofgem should avoid the use of essentially arbitrary adjustments (e.g. accelerated depreciation) to the price control to ensure financeability. However, if a company is operationally efficient and has an actual financing structure that is broadly consistent with Ofgem's notional one (itself meant to represent an 'efficient' capital structure), Ofgem must recognise that it has an obligation to ensure a sufficient match between revenue and financing costs to prevent a company having financing difficulties.

26. Regulatory risk is the main risk a network company faces and the price control review is where the regulatory risk principally arises. Lengthening depreciation periods adds to regulatory risk because it increases the frequency of the risk before the asset is paid for.

27. Diminishing the importance of financeability considerations at price control reviews reduces the reassurance investors derive from an important contributor to regulatory confidence.

28. Moving the regulatory asset life assumption outwards from the current 20 years would have a negative impact on all our key financial ratios and would be likely to lead to a ratings downgrade and an increase in our cost of debt.

29. Ofgem proposes that the costs of long-lived assets should be recovered over the lifetimes during which those assets are expected to be operational. This approach confuses accounting depreciation with economic depreciation of assets. An efficient depreciation schedule should take account of :

- the price signals that customers should be exposed to in order to encourage efficient location and consumption decisions;
- the impact of the speed of cost recovery on the commitment regulators are able to provide to enable businesses to recover efficiently incurred costs;
- the impact of the speed of cost recovery on regulatory discipline and accountability; and
- the impact of the speed of cost recovery on the financeability of the businesses.

30. These factors would point towards a depreciation period far shorter than the technical life of the assets in order to facilitate efficient outcomes. Ofgem should be considering whether a higher effective depreciation rate would be appropriate in order to strengthen the price signal being sent to current customers.

31. A longer regulatory depreciation period implies a higher RAV in the longer run, which has implications for the calibration of the RORE mechanism. The higher RAV in the long run will also mean that future generations will pay more than if the existing depreciation period was retained because of the additional inflation indexation and the increased return from the higher RAV that will need to be funded from network charges. Whilst an extension to the depreciation paid may be NPV-neutral to companies, such a move will create a legacy of increased outturn prices for future customers.

32. Ofgem's suggestion that network businesses should seek out a different class of owner that attaches more value to longer-term income streams suggests that Ofgem does not recognise the reality of equity markets. We are aware of no equity investors who are indifferent to cash flows in the short to medium term.

33. Accordingly, we conclude that Ofgem's proposals on financeability are ill-judged, disconnected from the realities of the financial markets and inconsistent with its financing duty.

34. Some of these issues are further explored in the next sections.

The updated straw man

Calibrating the package – risk allocation versus notional gearing

35. Ofgem should be cautious about introducing any differentiated rates of return within the sector where the difference is argued to be justified by reference to matters such as different topographical areas or capital intensity (e.g. large urban areas versus small rural ones) or because some companies operate on a very different scale. One of the underlying characteristics of the RPI-X regime as it has been practised so far is that all sunk investments attract the cost of capital that Ofgem deems to be necessary to attract the marginal investment. This has given investors confidence that over the lifetime of the asset (which may be several price control review periods that may span periods when the licensee is cash positive and when the licensee is cash negative) the prevailing cost of capital will be applied. It is not clear to us that either differences in topographical areas or differences in scale (within the limits of the different distribution

network operators (DNOs)) would justify a different base cost of capital for the companies concerned.

36. However, we see merit in the RORE approach, which effectively differentiates the returns that are available to companies that perform well and those that perform poorly (assuming the efficiency assessment and the calibration of incentive rewards have been properly carried out).

37. We note that a longer depreciation life implies a higher RAV that would need to be funded through larger equity investments, along with increased amounts of debt in absolute terms. This leads to the following observations on the use of RORE:

- with a larger equity component, incentive schemes would need to have enhanced power in order to achieve the same range of potential equity returns that are in place at DPCR5;

- enhancing the power of a given incentive may not be appropriate from the point of view of that particular incentive scheme, but failure to do so would risk diminishing the incentives for equity investors to put in place measures to deliver good outcomes for network customers;

- another way to place equity investors in the same position would be for Ofgem to increase the assumed financial gearing, although this might imply levels of gearing well beyond those currently observed; and

- from an overall investor point of view, the returns from simply having a large RAV could become more important than the returns that are available from running the business well from a customer viewpoint.

38. We would, however, need more information on how Ofgem would use RORE information to derive how much equity would be required in the notional capital structure of a network licensee and thus the calculation of the allowed return to make any further comment.

WACC based allowed return/cost of equity

39. We support the proposal in Ofgem's updated straw man that Ofgem would continue to set an allowed return on the basis of a single weighted average cost of capital (WACC).

40. Whilst CAPM is traditionally regarded as the best method for setting the WACC, subject to appropriate cross checks, we would draw Ofgem's attention to the Oxera report that the ENA submitted on 10 June 2010. The report shows that CAPM does not deal with the time profile of cash flows and extending the duration of cash flows will have a material impact on financing costs. This additional cost could be significant, adding 100 basis points to the WACC.

41. Ofgem has stated that this should be an empirical issue which it will investigate. We believe that these investigations should be concluded before recommendations are put to the Authority.

Cost of debt

42. We may be reading more into the straw man than is intended but there appears to be a move away from the position taken, for example, at DPCR5. At that review Ofgem stated:

> 'Our traditional approach is to largely base our cost of debt on the 10 year trailing average of a mixture of BBB and A graded bonds with a small margin.'

43. In the straw man Ofgem states:

> 'We are therefore suggesting that, in future price controls, the cost of debt embedded in the allowed return is essentially a backwards looking determination, based on a long-term trailing average of forward interest rates - updated annually.'

44. The distinction we draw is that the DPCR5 method was said to be 'largely based' on the trailing average, whereas the straw man is said to be based on the trailing average but nothing is said about any other judgement that might affect the answer. This appears to rule out adjustments that might make some allowance for the matching of the cost of debt assumption with the actual debt costs incurred by each DNO.

45. We would need to see further details on how the average is calculated to be able to comment on the appropriateness of its application.

46. The introduction of the annual correction adjustment should remove the need for any significant step change for each price control period but may lead to shorter term volatility. Such a change will create arbitrary winners and losers because, although a debt issuance might be justified in the circumstances prevailing at the time, it might

turn out to be less favourable than the 10-year trailing average. In other words, the annual correction may encourage DNOs to issue debt to match the trailing average rather than to adopt a financing strategy aimed at securing the lowest (long-term) debt cost.

47. The cost of equity is higher than the cost of debt due to the level of risk assumed. If the cost of debt is to be subject to an annual correction mechanism then the cost of equity should by impacted too to maintain the headroom between the cost of equity and cost of debt.

48. In adopting a correction mechanism, the formula calculation must take precedence but how are customers and DNOs protected in a period of financial turmoil when the trailing average does not reflect today's, or the anticipated future, cost of funding?

49. Further detail will be needed to review the full effect of the proposed annual correction mechanism. For example, how will debt maturing in a price control period be incorporated into the trailing average?

Capitalisation and depreciation

50. We have previously expressed our view that the combination of speed of money/capitalisation and depreciation should determine the repayment profile. This repayment profile should take account of the following factors:

- the price signals that customers should be exposed to in order to encourage efficient location and consumption decisions;
- the impact of the speed of cost recovery on the commitment regulators are able to provide to enable businesses to recover efficiently incurred costs;
- the impact of the speed of cost recovery on regulatory discipline and accountability; and
- the impact of the speed of cost recovery on the financeability of the businesses.

51. Whilst we appreciate that Ofgem may wish to develop a set of principles that are more transparent we believe that matching the repayment profile to the operating life of assets will increase the regulatory risk and therefore financing cost. The basis of our concern is as follows:

- Regulatory risk is the main risk a DNO faces.
- A 20-year depreciation period implies four price control reviews. A 40-year life implies eight price control reviews.
- The price control review is where the regulatory risk principally arises.
- Lengthening depreciation periods adds to regulatory risk because it increases the frequency of the risk before the asset is paid for.
- Diminishing the importance of financeability considerations at price control reviews reduces another contributor to regulatory confidence.
- Ofgem cannot instruct the debt markets to 'look through' deteriorating credit metrics.

52. This will be further compounded if Ofgem adopts the back-end loading of the depreciation policy for electricity distribution companies suggested in the working paper.

53. We also believe that the Ofgem straw man does not address the issue caused by the mismatch between real rates of return included in price controls and the nominal interest payments paid to lenders. This deferral of compensation for inflation requires rectifying in the Ofgem straw man proposals if Ofgem is to pursue the lengthening of asset lives for electricity distribution companies. The current repayment period of 20 years has been the vehicle that Ofgem has used to provide net present value neutral accelerations to resolve the mismatch and financeability issues. The mismatch is more fully described in the First Economics paper submitted by the ENA on 15 June 2010.

54. Ofgem also does not address the problem that the price signal based on its proposed method will result in the wrong signals being given to the current generation of customers who benefit from the assets having being sold at a discount at privatisation. In addition, a longer regulatory depreciation period implies a higher RAV in the longer run, which has implications for the calibration of the RORE mechanism. The higher RAV in the long run will also mean that future generations will pay more than if the

existing depreciation period were to be retained because of the additional inflation indexation and the increased return from the higher RAV that will need to be funded from network charges. Whilst an extension to the depreciation period may be NPV-neutral for companies, such a move will create a legacy of increased outturn prices for future customers.

55. Therefore, we find Ofgem's straw man deficient on a number of counts when seeking to achieve the objective of balancing the cost of investment between current and future generations. If Ofgem pursues this thinking, there is a clear need for transitional arrangements.

Assessing financeability

56. Ofgem's assertion that it would not address short-term dips in cash-flow metrics but would place the onus on the companies to resolve the situation by equity injections raises wider issues. It assumes that if the shareholder cannot commit the equity at the required time then the shareholder would have to cede ownership rights to other parties. This seems to extend regulation beyond its normal boundaries by introducing changes that are not necessary in themselves but which would force changes in control.

57. Based on our discussions with credit-rating agencies and investors we consider that the PMICR metric should be used as part of a package of assessments rather than focussing all the attention on one or two measures.

58. Further detail is needed to evaluate the calculation of PMICR. For example, in calculating the capex needed to maintain RAV will the impact of indexation reduce the level of capex required?

59. FFO/Interest and EBIT/Interest still have a significant role to play as they are still utilised by credit-rating agencies. Typically, debt covenants include these measures as part of debt documentation.

60. We note that Moody's has issued a paper which supports Ofgem's view of the important ratios that should be considered but we also note that Moody's believes a move to a company specific cost of capital will affect its analysis of individual company's credit quality and the need to provide company-specific ratio guidance. Moody's observes that:

> 'This could lead to less comparability and potentially greater rating differentiation.'[1]

61. A differentiated cost of capital may signal a move away from Ofgem's past policy of limiting risks taken on by companies in order to minimise the sector's cost of capital.

62. Importantly, Moody's comments that the consequence of flattening the profile of depreciation would be to increase the RAV in real terms and thereby increase the funding needs of the networks, which may impact upon the cost of capital.

63. Interestingly Moody's indicates that Ofgem's proposals to provide greater regulatory commitment should be regarded as no more than credit neutral since the additional commitments provided by Ofgem are addressing areas where there is limited investor concern. Indeed, any material change in the regime could potentially weaken the credit-rating agencies' view that the UK regulatory framework is one of the most transparent in the world, until a good track record of performance has been re-established.

OUTPUTS

64. We are supportive in principle of the move towards greater use of outputs in the regulatory approach. However, we would sound a note of caution. As recognised in Ofgem's consultant's report there are some serious dangers as well as opportunities. The opportunities arise from the inherent advantage of considering *ex ante* the outcomes that are intended to be delivered in exchange for *ex ante* allowances and funding. The dangers arise from inappropriate implementation and use of the concept and hence we would encourage the concept but urge caution and care in the implementation.

[1] Moody's Investors Service Report June 2010: Special comment: RPI-X@20: A Welcome Review of the UK Regulatory Framework But a Step Change Could Raise Credit Risk

65. We would emphasise the well-made point in the report that warns of the dangers of being drawn into increasingly interventionist approaches and encourages the '…development of a cultural predisposition not to intervene…'.

66. We have two further observations. Much of the investment programme of a DNO is determined from a consideration of obligations such as, in our case, the Electricity Safety, Quality and Continuity Regulations (ESQCR). These are essentially safety- and network security- related and as such do not lend themselves to straightforward capture in a quantified manner. The very point of these obligations is to secure the complete absence of certain outcomes and so in that sense a positive output is the absence of an undesirable outcome. This is complicated by the fact that such undesirable outcomes are to be prevented insofar as is reasonably practicable. In other words the outcome and the cost of its likely prevention are to be kept commensurate and must not become grossly disproportionate to one another. Networks should not strive to eliminate all risks but to reduce these to the level that is reasonable practicable. This imperative is what drives the bulk of our investment programme. But the absence of measurable events of the kind that our investments aim to avoid makes it difficult to measure quantitatively the relative performance of the licensees in meeting their duties in the most economical way.

67. Indeed, the prevention of these undesirable outcomes insofar as reasonably practicable is not only a legal obligation but we hold it to be an essential feature of efficient regulation. Events and their consequences can be avoided by excessive and disproportionate investment, and the distinction between a company adopting this approach and one making a more efficient judgement of the proportionality of cost weighed against the risk is hard to capture in an outputs framework.