**RIIO-GD1 AND RIIO-T1**

**CONSULTATION DOCUMENTS**

**THE RESPONSE FROM CE ELECTRIC UK FUNDING COMPANY (CE),**

**NORTHERN ELECTRIC DISTRIBUTION LTD (NEDL) AND**

**YORKSHIRE ELECTRICITY DISTRIBUTION PLC (YEDL)**

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## SUMMARY


***Outputs and incentives***

- Ofgem's proposals for handling uncertainty in business plans need more elaboration to take account of different strategies for handling uncertainty.

- The RIIO-T1 review should recognise the requirements that distributors have of the transmission owner (TO).

- Ofgem's proposed output categories are well-chosen but Ofgem needs to clarify how low-carbon investment will be treated in the cost assessment process.

- We support the increased use of outputs in incentive regulation but there are problems as well as opportunities. The temptation to measure outputs by reference to units of investment delivered must be resisted. This tendency is resisted by Ofgem at the policy level but it manifests itself at working level in the development of the outputs regime.

- The nature of a network company's obligations also raises issues in terms of defining outputs.

- Ofgem's approach to changes in outputs is too restrictive and fails to recognise the dynamic nature of investment decisions.

- Ofgem's position on new information leading to a changed view of asset risk needs further development.

- The outputs for electricity transmission should capture the security level provided by the TO.

- The independent reporter proposals will not meet Ofgem's purpose because they will not lead to better quality assurance of the relevant submissions or more consistency of interpretation.

***Cost assessment***

- We agree that Ofgem's cost assessment should focus on the company's business plans but questions remain about the role of comparative assessment.

- The link between cost assessment and outputs is unclear and needs resolution.

- To date Ofgem has been unable to distinguish inefficiency from a difference in specification that may be efficient. It is not clear that this problem is able to be resolved in these reviews.

- We support Ofgem's aspiration to use totex efficiency comparisons but the challenges of implementation remain significant.

- We support Ofgem's toolkit approach where totex and disaggregated approaches may be used. We consider that totex is superior to total-cost analysis.

- The value of disaggregated benchmarking has been limited in the past. A mixture of techniques offers some protection but finding suitable cost drivers is often difficult.

- The form and structure of the price control should be designed specifically for each sector.

***Business plans, innovation and efficiency incentives***

- Revenue reprofiling may be justified where there is a customer benefit or a clear licensee need.

- Companies' business plans should have the characteristics identified by Ofgem. A ten-year planning horizon is sensible.

- Ofgem's criteria for participation in the fast-track price control review are sensible, but there are doubts about the availability of comparative data about future plans for companies to use in their submissions.

- Ofgem's 'no loser' commitment for fast-tracked companies is necessary, but its applications need further thought.

- The calculation of the reward for fast-tracked companies implies mechanistic use of benchmarking which is at variance with other RIIO commitments.

- Companies should be required to prepare business plans consistently with certain Ofgem specifications but Ofgem must take care that its specifications do not deter fast-track applications.

- The benefit of a greater role for third parties in delivery will vary between the sectors.

- The low carbon networks fund is a sound basis from which to build incentives for low-carbon initiatives. Ofgem should avoid micro-managing the cost lines of innovation projects. Companies' should include their innovation strategy in their business plans.

- Ofgem's proposal for efficiency incentives and the IQI are generally sensible but the tightening of the calibration to diminish the rewards for accuracy sends the wrong signal.

- It is unnecessary to include real price effects within the IQI mechanism.

***Uncertainty mechanisms.***

- The principles set out by Ofgem guiding the use of uncertainty mechanisms are sound.

- Indexation for inflation should be based on a full calendar year of data but some transitional arrangements may be needed under some of the solutions that Ofgem may be contemplating.

- Ofgem's policy on disapplication of the price control within a price control period needs no change.

- The mid-period review of output requirements presents special challenges if it is to be adequately ringfenced because changes in required outputs will be hard to isolate from other changes.

- We favour longer price control periods in principle but the mid-period outputs review may be very distracting and amount to something close to a full-scale review.

- We recommend the introduction of a disapplication mechanism at the mid-period output review.

*Financial issues*

- Asset lives and depreciation have been treated in a muddled way.
- The assumption that regulatory asset lives should reflect economic lives is flawed.
- There are good reasons why statutory accounting lives are longer than the regulatory depreciation period.
- The proposal on asset lives creates serious financeability issues - Ofgem must resolve these or reconsider its proposals.
- The impact on customers of transitioning to longer depreciation lives is detrimental. They will pay higher prices in future and the change is not NPV-neutral for them.
- Ofgem's proposals cannot be applied to existing assets without undermining confidence in regulatory commitment.
- The revenue analysis offered is based on a flawed and adapted assumption that seems designed to give the appearance of a consistent outcome.
- The move to longer asset lives has an immediate and detrimental effect on cash flows and earnings which will cause ratings to be re-assessed.
- Investor assessment will look at equity metrics, which are also damaged by Ofgem's proposals.
- Ofgem's claim to have signalled these changes over a long period of time is both dubious and irrelevant.
- Shorter payback periods provide greatly improved price signals to users and incentives to operators.
- Ofgem's proposals for the indexation of the cost of debt are ill-formed. There is inadequate recognition of the long-term nature of the business being financed.
- The themes of longer regulatory depreciation and shorter-term debt financing appear to be contradictory.

- Ofgem’s evaluation criteria for a cost of debt index are sensible.
- Mathematical averages in indices are problematic because they cannot capture the characteristics of infrastructure companies. A mix of a 15-year trailing average and actual debt costs will tend to be closer to reality than a 10-year assumption.
- Debt issuance costs should be funded on a cash flow basis.
- Gearing should not exceed the DPCR5 assumption.
- The cost of equity range indicated by Ofgem does not meet the needs of equity investors.
- Ofgem’s proposals for the recovery of pension deficits should not exclude deficits relating to activities that are part of the licensed business but happen to be remunerated by non-price controlled revenue.
- Ofgem’s proposed efficiency tests must take proper account of the pension scheme assumptions at the time of valuation.

## INTRODUCTION

1. On 17 December 2010 Ofgem published a number of documents associated with the next gas distribution price control review (RIIO-GD1) and the next gas and electricity transmission price control review (RIIO-T1). This response represents the views of CE Electric UK Funding Company (CE), Northern Electric Distribution Ltd (NEDL) and Yorkshire Electricity Distribution plc (YEDL) on the several publications relating to RIIO-GD1 and RIIO-T1 published on 17 December 2010 (the *Consultations*).

2. We have confined our comments to those aspects of the *Consultations* that affect us, or are likely to affect us, as the holders of electricity distribution licences.

3. Accordingly, there are many aspects of the *Consultations* on which we express few or, in many cases, no comments. We have included a summary of the full response, which we hope Ofgem will find useful.

## CONSULTATION ON STRATEGY FOR THE NEXT GAS DISTRIBUTION PRICE CONTROL RIIO-GD1 - OVERVIEW (Ref: 160/10)

4. Document Ref: 160/10 is a useful overview of Ofgem's proposed approach that is more fully set out in the other RIIO-GD1 consultation documents. Having provided a summary of our response on pages 2 to 6 above and more detailed comments on each of the separate RIIO-GD1 papers, we have few comments to make on the overview paper Ref: 160/10.

***Ofgem's proposals for handling uncertainty in business plans need more elaboration.***

5. We have one observation to make on the price control review process that is set out in the overview consultations. This is that the process calls for the companies to develop their own strategies for handling future uncertainties. The consultation suggests, as an example, taking a view on where gas generation might wish to connect. It is not quite clear what Ofgem expects that the companies should do about this, but we assume that Ofgem is proposing that companies should anticipate future investment and respond to

this by putting it in their business plans. This raises some issues about how such an approach will be treated in the regulatory review process.

6. The thrust of regulation in recent years has been to incentivise companies to avoid investment to meet uncertain needs because, by definition, uncertain investment is more likely subsequently to be proven to be inefficient. So we work hard to achieve the optimum balance between leaving investment as late as we can in order to avoid inefficiency whilst preserving our options for responding efficiently to the uncertain demand wherever possible if and when a given requirement becomes firm. Of course we cannot and do not achieve that entirely; so, for instance, when we plan reinforcement we forecast future load growth. In that respect we handle uncertainty to the degree that we think is justified in light of what we view as reasonable efficiency test. Now it may be that Ofgem merely wishes to see licensees showing in their plans more of the interdependency and the contingency that exists between investments and the dynamic behaviour of customers – i.e. the plan would state that we will do one thing if the following specified indicators begin to appear but we will do something else if they do not. However, some of the expressions used by Ofgem in this consultation might be taken to mean that Ofgem wishes to see more uncertain, and hence to some extent speculative, views built into plans. This raises the question of how the investment proposed to meet that uncertainty will be treated in the efficiency assessment at the price control review. It is not clear to us that Ofgem will develop the tools that will enable it to distinguish an efficient response to an uncertain demand from an inefficient investment programme. We urge Ofgem to address this issue promptly as its resolution is central to the success of the RIIO approach.

## CONSULTATION ON STRATEGY FOR THE NEXT TRANSMISSION PRICE CONTROL RIIO-T1 - OVERVIEW (Ref: 159/10)

7. For the same reasons as are set out in paragraph 4 above we have few comments to make on the transmission overview paper RIIO-T1.

8. In addition to the observations made above with respect to the gas distribution review document we have the following observations on the electricity transmission review.

***It is true that many things that TOs do for their customers are beyond the TO's control…***

9. The section on outputs at paragraph 4.18 outlines a number of issues that will need to be overcome in setting outputs for the transmission owner (TO). It sets out that many things the TOs do for customers are outside their control and that there are complex interactions between the outputs. We would support these sentiments but it concerns us that these considerations are not an explicit part of the equivalent document for gas distribution. Neither was there explicit recognition in any of the DPCR5 narrative that these features are present and therefore are also an issue for the electricity distribution businesses. The implication is that assessing outputs for transmission businesses is more complex than for distribution businesses and this heightens our concern that Ofgem only superficially understands many of the outputs from networks businesses.

***…but the same is true of distributors.***

10. The transmission system is little different in many aspects that are pertinent to a consideration of outputs. The lines, cables and plant of the transmission system have to be engineered to optimise between risk and cost in many areas that are difficult to measure such as risk exposure to major outages, risk of unduly reduced redundancy, risk of major assets flooding, risk of condition-related asset failure and risks associated with demand changes and capacity availability. Moreover, these are often interrelated in a manner that leads to further complexity. We would agree with Ofgem on these points but we would point out that these difficulties are present in distribution networks also.

***The RIIO-T1 review should recognise the requirements that distributors have of the TO.***

11. Later in the section on developing a customer-satisfaction output (at paragraphs 4.35 to 4.37), reference is made to TOs' 'distance' from the end user and the complexity introduced by the fact that the customer-observed performance is dependent on system operator (SO) as well as TO roles. In all of this there is no mention of the distribution companies as users or customers of the transmission business: and yet the distribution businesses have requirements of the TO which it is disappointing are not even considered.

## OUTPUTS AND ASSOCIATED INCENTIVE MECHANISMS RIIO-GD1 AND RIIO-T1 OUTPUTS AND INCENTIVES

12. We have no observations to make about the particular output measures that should be used in the gas distribution and transmission sectors. However, we have some comments to make with respect to electricity transmission.

13. We also have some observations about the practical application of the outputs approach that is fundamental to the RIIO approach. These observations are informed by our experience at the last electricity distribution price control review (DPCR5) and the limited experience we have gained during the currency of the DPCR5 period.

***Ofgem's output categories are well-chosen …***

14. Ofgem has selected six categories of outputs, which broadly speaking are quite close to our own investment drivers, namely: environment, customer satisfaction, connections, social objectives, safety and reliability. We agree that these drivers are the appropriate ones but we note that there is a good deal of emphasis on the part that companies can play in moving towards a sustainable energy sector.

***…but Ofgem needs to clarify how low-carbon investment will be treated in the cost assessment process.***

15. The consultation suggests there will need to be a lot of investment made in order to 'meet the demands of moving to a low carbon economy'. Given that this section is addressing investment plans rather than Low Carbon Networks Fund (LCNF)-type innovation, this reads to us as an encouragement for the companies to bring forward plans that make steps towards decarbonising the network, the sector and the economy. We wonder how such investment, if it is brought forward in material amounts, will be judged in the cost and efficiency assessment processes. Ofgem needs to make this clear if the RIIO model is to deliver its potential.

***We support the use of outputs in incentive regulation…***

16. We continue to be supportive in principle of the move towards greater use of outputs in the regulation of networks. We would, however, sound a note of caution. There are some 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 funding that has been determined by reference to an *ex ante* view of efficient costs.

***…but there are problems as well as opportunities.***

17. The dangers arise from the fact that understanding these outcomes and evaluating them in a quantified manner is complex and unavoidably resource-intensive if it is to be done properly. Businesses should do this: indeed, to do so is fundamental to their purpose. However, the use of such outputs for a regulatory purpose requires Ofgem to deploy its limited resources on complex and time-consuming evaluations. This sort of exercise is often very difficult for a regulator to resource, particularly in the context of a wide-ranging price control review process where there are serious timetable constraints and a competition for resources within Ofgem. Under such circumstances resorting to the more straightforward, but less valuable, approach of simply counting what is readily countable is often too tempting.

***The temptation to measure outputs by reference to units of investment delivered must be resisted.***

18. At the policy level there may be an acceptance of the true role that outputs should play within the overall scheme and, therefore, a willingness to define and monitor the outputs consistently with that overall purpose. When it comes to implementation, however, there is an understandable temptation to define and monitor the relevant outputs by reference to units of activity if these can be readily quantified. This mindset begins to appear almost unconsciously because the staff concerned conscientiously wish to protect the customers from the regulatory failure that would result from companies being rewarded (or avoiding a penalty) for a performance where the real value of the outputs delivered is uncertain or requires the exercise of judgement. In these situations it is easy to see why it may appear to be better regulation to count units of activity; at least that way no one is getting paid for something they have not done. That at least is the instinctive reflex of the people involved. It is understandable and it stems to some extent from a worthy impulse, but it is damaging.

19. Such a mindset is inconsistent with the proper purpose of an outputs approach. This point has been made already in the Frontier Economics report commissioned by Ofgem

in May 2010[1]. We would emphasise the point made in the report that warns of the dangers of being drawn into an increasingly interventionist approach and encourage instead the development of a cultural predisposition not to intervene.

20. Avoiding or delaying investment where that is justified by improved data accuracy or more accurate methods of understanding asset health and its impact on delivered services is a legitimate efficiency that has been a powerful incentive over the last 20 years. To remove this incentive would be a retrograde step. Ofgem needs to ensure that penalties are applied only where companies have not done what they should have done. This is subtly different from penalising companies for not doing precisely what was expected when allowed income was determined.

21. We would also suggest two other areas where care should be taken.

***The nature of a network company's obligations also raises issues in terms of defining outputs.***

22. Much of the investment programme of a networks business is determined after a consideration of the obligations that the company must meet. In our case, the Electricity Safety, Quality and Continuity Regulations (ESQCR) are a good example. These are essentially safety- and network security-related and they do not lend themselves to being captured in a straightforward and quantified manner. The point of these obligations is often to secure the complete absence of certain outcomes and so, in that sense, a positive output is the absence of an undesirable outcome. The fact that companies comply with the regulations generally secures precisely this outcome. This is complicated by the fact that the undesirable outcomes are often expressed in terms of what it is reasonably practicable to avoid. This means simply that the undesirable outcome and the cost of its likely prevention are to be kept commensurate with one another and that they should not become grossly disproportionate to one another. It is the desire to avoid measurable events, but not the complete elimination of risk, that drives most of our investment and this is a difficult concept to measure quantitatively across several duty holders.

[1] Frontier Economics, *RPI-X@20: Output measures in the future regulatory framework,* May 2010.

23. Indeed, the prevention of these undesirable outcomes so far as is reasonably practicable is not only a legal obligation but also an essential component of good incentive 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.

***Ofgem's approach to changes in outputs is too restrictive…***

24. Ofgem sets out in paragraphs 1.21 – 1.24 of this consultation its approach to making changes to outputs once these have been settled at the review. Essentially, Ofgem proposes to make changes to outputs only if Ofgem has identified that an administrative error has been made on Ofgem's part or if an unfit measurement or reporting arrangement is discovered. This is rather loosely defined in the consultation:

> 'If we identify that the measurement or reporting of an output does not meet the intended purpose (e.g. there is scope for gaming on reporting of the figures) then we would look to refine the reporting arrangement so that the intended purpose is met.'

25. Ofgem goes on to set out that this may require an adjustment to the target or the baseline to maintain consistency with the policy intent at the price control review. Ofgem also suggests that this might be an area where it would consider using independent reporters.

***…and fails to recognise the dynamic nature of investment decisions.***

26. This all seems reasonable. However, Ofgem then rules out making changes for any other reason. This is concerning from a number of points of view. Companies are subject to dynamic forces in the factors that drive the need for investment and the factors that set the costs of that investment. Changes in the drivers could be things like unforeseen changes in demand, case law establishing a new and different precedent that effectively reinterprets an obligation, new government policy directives or simply a better understanding of the link between asset condition and an output level. There is the potential for this to be interpreted asymmetrically. For instance, if a company commits to having no more than X% of its assets in a high-risk band for utilisation and then, during the price control period, the demand increases more than forecast, would

Ofgem seek to hold that company to its original output commitment even though that now requires more units to be replaced than was originally allowed for when the targets were set? If it would then presumably the reciprocal would apply, namely that if the demand dropped (or did not grow at the forecast rate) such that the output commitment could be met with no investment would Ofgem view that as acceptable? We are concerned that the answer here would be 'no' although Ofgem makes somewhat contradictory statements that mean we cannot be sure and indeed remain concerned about this in our own regime.

***Ofgem's position on new information leading to a changed view of asset risk needs further development.***

27. Furthermore, if Ofgem would allow such fortuitous gains to be retained and the treatment of the gains and losses resulting from this were symmetrical as between licensees and customers, would Ofgem allow the same treatment where the benefit arose from more intentional behaviour on the part of the licensee? In other words, if a company invested in some research and discovered that actually the connection between utilisation and reliability was much stronger than had previously been thought and consequently it needed to redefine its threshold for defining high risk such that more assets would need to be replaced to meet its original output commitment, would Ofgem expect such investments to be made within the allowances set? We think the answer to this would be likely to be 'yes'. But would Ofgem allow a company to keep the benefit if the study demonstrated that fewer assets needed to be replaced to meet the same output commitment? Our experience from our discussions with Ofgem so far in the DPCR5 period is that the Ofgem staff mindset finds this very much less appealing and would resist it.

28. These are real issues that we believe should be addressed, but our reading of this section of the consultation is that Ofgem is taking a backward step and simply ruling out all changes of this kind in a preference for adherence to the original commitment irrespective of new information that might come to light. This in turn suggests reliance on counting units of activity in a manner that will disincentivise any pursuit of investment efficiency in anything other than the pure cost of delivery. Such an approach disincentivises the achievement of some of the efficiencies that have the greatest value for customers.

***The outputs for electricity transmission should capture the security level provided by the TO.***

29. We now turn to an observation that is specific to electricity transmission. The absence of any consideration of an incentive to manage tightly the reduced security of the transmission network is a concern to us as a distribution network operator (DNO). The transmission system has, quite rightly, very significant levels of redundancy built in. So the service NGET provides to us as a DNO, and hence to the end user eventually, is not best measured as the loss of a 'path' through which energy can find its way to the end user. It is best measured as the provision of a system *with a predefined level of security*. At any time when the system is being run with reduced security the service is falling short of the requirement. In that sense reduced *security* on the transmission system is analogous to our CML and CI incentive. We accept that faults will happen on the non-duplicated distribution system to a certain level and so we are incentivised to manage that. In the same way we accept that bits of transmission system will have to be taken out for maintenance and circuits will even occasionally fail. It seems sensible that if this is the ultimate measure of the quality of service provided, some recognition of that in the outputs framework ought to be made.

***We support Ofgem's broad approach to outputs but urge Ofgem to develop its thinking further.***

30. In conclusion, we would support the use of outputs in the broad manner Ofgem sets out in the *Consultations*. We do, however, see pitfalls as described above and we urge Ofgem to avoid these by adopting a thorough process to arrive at the definition of the outputs and, at least as important, a thorough process *ex post* to determine whether those outputs have been met. There is no escaping the fact that implementing a thorough process carries significant resource implications for Ofgem. Only by doing so can Ofgem reach a position where it can properly assess how well companies are performing against genuine output measures. This is essential if Ofgem is to counter the tendency to fall back onto assessment by counting that which can readily be counted.

***The independent reporter proposals will not meet Ofgem's purpose.***

31. We note that an option being considered is to require the companies to appoint an independent reporter to quality-assure the integrity of regulatory returns. This proposal

is similar to the practice that has been followed in the water industry for some time. Our view is that this kind of measure is not likely to be effective in providing the kind of assurance that Ofgem is seeking. If the intention is to assure that all companies are diligently and conscientiously compiling their regulatory returns in an accurate manner, then we would submit that this is adequately covered by the current arrangements in the energy networks sector and the investigation and enforcement powers of Ofgem. If the assurance being sought is that all companies have interpreted the requirements in precisely the same way and accounted for things in precisely the same place, we do not believe that this proposal will achieve that outcome unless the same entity acts as reporter for all the companies in the sector. The experience of the water industry is that neither accuracy nor consistency of reporting is secured by the reporting regime.

***CE continues to support Ofgem's efforts to improve competition in connections.***

32. The application of appropriate incentives and standards should be used to address opportunities and issues specific to the sector under review, aligned to customer expectations and other drivers that may differ between the sectors. Detailed analysis and understanding of why the reported levels of competition differ between electricity and gas should form part of this consideration. CE continues to work actively with independent connections providers, independent network operators, Ofgem, and the national working groups, to encourage further efficient access to competition for customers. Whether or not the significantly different historical industry structures, that have existed and evolved since the separate privatisations of both electricity and gas, have a bearing on how the relative levels of apparent competition present themselves requires further exploration to ensure that appropriate decisions are taken for the markets of the future.

## RIIO-GD1 TOOLS FOR COST ASSESSMENT AND RIIO-T1 TOOLS FOR COST ASSESSMENT

***We agree that Ofgem's cost assessment should focus on the company's business plans…***

33. The supplementary annexes that deal with RIIO-GD1 and RIIO-T1 cost assessment state that Ofgem's assessment of the efficient costs required by a network company will be largely based on Ofgem's assessment of the company's business plans.

34. However, Ofgem goes on to say that other information such as information in other companies' business plans, benchmarking evidence and information on historical performance will also be used to inform the assessment.

35. We wholeheartedly concur with this general approach to cost assessment. For more than a decade we have been advocating an approach to cost assessment that is properly grounded in the realities of each company and we have consistently argued that the reliance historically placed by Ofgem on regression analysis has been inappropriate. We have argued that, whilst benchmarking should inform the questions that Ofgem might ask a licensee in any cost-assessment exercise, it cannot properly be used to determine the efficient level of costs. A proper determination of the future level of efficient costs needs to emerge from a proper engagement with each licensee, focussing on the business plans that each licensee has proposed.

36. It would therefore be rather surprising if we did not favour the approach that Ofgem has signalled in the RIIO-GD1 and RIIO-T1 consultations.

***…but some questions remain about the role of comparative assessment.***

37. However, we believe that some consequences follow from the adoption of an approach that is fundamentally concerned with an assessment of the business plans put forward by each company to which regard must be had if the outcome is going to be sensible. These relate to the place that comparative analysis will play in Ofgem's assessment of each licensee's efficient costs. We consider these issues further below.

***The link between cost assessment and outputs is unclear and needs resolution.***

38. Ofgem's traditional approach to comparative analysis using statistical regressions takes no account of whether the subjects that are being compared may be delivering different outputs (which may include carrying different service or cost risks) other than those reflected in the chosen composite scale variable (CSV). Whether the assessment is carried out at a high level of costs or at a disaggregated level of costs, the conclusions can be valid only if such uniformity within the subject population is assumed to be a characteristic of the dataset.

39. Once the possibility of different licensees pursuing different solutions with different costs and different outputs is acknowledged to be a desirable feature of the RIIO

regime, the problem (which we believe has always been present) that the costs of activities in different licensees will be assessed without proper regard for the outcomes associated with those levels of cost (whether historical or forecast) becomes more manifest.

***Ofgem has been unable to distinguish inefficiency from a difference in specification that may be efficient***

40. Our experience at DPCR5 suggests that:

    (i) Ofgem remains very attached to comparative assessment; but that

    (ii) Ofgem has not been able to develop the means by which differences in outputs can be factored into comparative cost analysis.

    The contradiction between these was particularly evident in the capital investment assessment at DPCR5 and it went unresolved all the way through that review. In the end Ofgem fell back on a series of unit-cost specifications that were unable to distinguish where costs were lower because lower outputs were being targeted by the company that enjoyed the cost advantage and where costs were lower because the company was delivering essentially the same outputs for less input (i.e. simple efficiency).

41. We should be careful to make clear that we are not saying that the company that targets the lower output is wrong or that it is not worthy of emulation. That may or may not be the case. We are saying that, in the execution of a price control review where issues of timetable and resourcing determine the rigour that can be brought to bear on the process, Ofgem is unlikely to be able to resolve this issue sufficiently to develop cost-comparison techniques that will enable it to compare the historical efficiency of the companies, let along the relative efficiency of their forecast business plans as they pursue disparate objectives. We have seen nothing in the *Consultations* that suggests that this problem is about to be resolved.

***We support Ofgem's aspiration to use totex efficiency comparisons…***

42. If we assume away the problem of different outputs examined in paragraphs 38 to 41 above, there remain the objections that we have made many times to an approach to

cost assessment that singles out particular cost categories for comparison and takes insufficient account of the trade-offs between different cost categories, some of which are present in the regression and some of which are not.

43. We have argued for many years that Ofgem should inform its comparative efficiency assessment by the use of total-cost comparisons that try to capture these trade-offs. Leaving aside the issue of cost classification and the inevitable boundary problems that arise in practice, we have always dissented from the 'capex good' 'opex bad' mind-set that was reflected in the price control reviews before DPCR5. In a time of rising investment it is essential that efficiency incentives operate and that regulation should seek to avoid distorting solutions in favour of one particular category of costs.

***…but the challenges of implementation remain significant.***

44. Thus we find ourselves in full agreement with Ofgem's aspiration to develop a more usable total expenditure (totex) comparative assessment tool. We look forward to playing an active part in the development of this, but we recognise that the challenges are considerable and our fear is that, in the absence of a usable totex benchmarking tool, Ofgem will rely on disaggregated benchmarking that will be used to determine the allowances at the building-block level of the subject group. The trade-offs between the building blocks will be inadequately recognised (because they cannot adequately be specified and calibrated) and arbitrary judgements will have to be made as to which particular set of costs and associated drivers should be used to compare efficiency in a given activity. The same applies to the choice of comparative technique, whether at the broad level (e.g. should it be data envelope analysis or ordinary least squares regression?) or at the more detailed level (e.g. should the upper quartile or some other line be used?).

45. The result of this is that discretion is piled upon discretion, where the chosen technique is selected more because it delivers an answer that fits the prior assumption about the relative ranking of the companies (which may or may not be justified) than because it has a robustness that commends it on an objective basis.

46. So we find ourselves in total accord with Ofgem in its policy intent to give pre-eminence to the companies' business plans, to use comparative analysis to *assist* in but not to determine its assessment of business plans, and to develop measures of totex

efficiency. However, we are not sanguine about the prospects for the latter and we have concerns that the habit of drawing rather arbitrary lines that deliver clear (if doubtful) answers may be so deeply ingrained in the Ofgem psyche that it will prove to be hard to break.

47. The criteria for developing a robust approach to cost assessment that are set out in the *Consultations* look sensible, provided that the data is truly comparable and the specification of the benchmarking model accurately captures the factors that drive the costs that are subject to the analysis. This is very important if companies across sectors are being compared (electricity to gas) and even more so if international comparisons are to be made.

***We support Ofgem's toolkit approach where totex and disaggregated approaches may be used.***

48. Ofgem indicates that cost assessment will be carried out on a 'toolkit' basis using both totex and disaggregated approaches. Ofgem's concern is that the totex approach is unproven so it intends to cross-check the results with the disaggregated approach.

49. We must stress that the cross-check must not mean 'cherry picking' of the preferred outcomes from disaggregated approaches, simply because the totex answer gives a result that Ofgem is for some reason disinclined to accept.

***Totex is superior to total-cost analysis.***

50. In terms of the relative merits of the 'totex' or 'total-cost' analysis we believe Ofgem correctly captures the pros and cons of each approach, and we agree that the totex approach does not suffer from many of the problems associated with the benchmarking of disaggregated costs, such as boundary issues between cost categories and possible 'cherry picking' of the lowest cost from each category. However, we note that there are likely to be issues associated with the cyclical (or lumpy) nature of capital investment and that not enough is yet known about Ofgem's preferred approach to give confidence that it can accommodate cyclical or lumpy expenditures. We favour the use of totex benchmarking over a number of years but we think that lumpiness of expenditure may still be a problem. If one of the answers is smoothing the costs using a moving average as indicated in the consultation paper, we ask over what period this will relate? There

is a risk that past expenditure will have an inappropriate influence on the benchmarking results.

***The value of disaggregated benchmarking has been limited in the past.***

51. Since disaggregated benchmarking appears to have a role to play in RIIO-GD1 and RIIO-T1, at least as a cross-check to the total-costs assessment, we now offer some comments on disaggregated benchmarking. These comments are informed by our DPCR5 experience. This may be useful to Ofgem given that the proposed approach and categorisation of costs at the RIIO-GD1 and RIIO-T1 reviews have much in common with DPCR5.

***A mixture of techniques offers some protection…***

52. We agree that a mixture of techniques for assessing opex efficiency is appropriate, including expert review, as it is likely to be very difficult to benchmark IT and property expenditure via regression analysis (partly because of the high level of fixed costs for items such as IT).

***…but finding suitable cost drivers is often difficult.***

53. In particular it is difficult to find suitable cost drivers for business-support costs. The cost driver needs to reflect the total scale of the business, because business-support costs relate to the entire business. Employee numbers are not likely to be a suitable measure of scale, because employee numbers are influenced by the licensee's actions and because this would fail to take into account differences in levels of outsourcing. Direct costs are also unsuitable as a measure of scale, because these are also influenced by the efficiency of the company. The search for an appropriate driver of business-support costs therefore must continue.

54. We also agree with Ofgem that benchmarking of costs should also be carried out at a group level in addition to comparisons of individual licensees.

## RIIO-T1 AND GD1 BUSINESS PLANS, INNOVATION AND EFFICIENCY INCENTIVES

55. In the supplementary annex *Business plans, innovation and efficiency incentives* Ofgem sets out its proposals with respect to:

- the form and structure of the price control;
- the business plans and proportionate treatment (including fast-tracking);
- a greater role for third parties in delivery;
- innovation; and
- efficiency incentives and IQI.

56. We set out our views on each of these below.

***The form and structure of the price control should be designed specifically for each sector.***

57. We have no comments to make on the scope of the controls to be applied in these sectors. This must be set by reference to the specific circumstances of each sector under consideration.

***Revenue reprofiling may be justified where there is customer benefit or a clear licensee need.***

58. As far as revenue profiling is concerned, we agree with Ofgem that there may be circumstances in which it would be appropriate for revenues to be reprofiled at the request of a licensee. We suggest that the criteria by which such requests would be assessed should take into account:

- the impact on consumers, having regard both to the benefits of a stable and predictable path of prices within the price control period under review and, as far as can be judged, the impact on prices in the first year of the next price control period; and

- the impact on the financial position of the licensee, having regard to the credit and equity metrics by which financial health is to be tested in the formulation of the price control final proposals.

***Companies' business plans should have the characteristics identified by Ofgem…***

59. We agree with Ofgem that companies' business plans should:

- justify their proposed strategy for delivering their output baselines against a thorough understanding of the long-term trends (and risks and uncertainties) that they face. They should also show that they understand their role, and are looking to be proactive, in contributing to the UK's carbon-reduction targets;

- demonstrate that they have considered the views of stakeholders, and the opportunities to use innovative technologies, techniques or commercial arrangements to deliver their outputs at long-term value for money;

- present a holistic view of the package the company believes to be appropriate including the company's view on financeability metrics together with views on expenditure and outputs with the former justified and backed up by other evidence; and

- show that they have engaged effectively with stakeholders.

***…and a ten-year planning horizon is sensible.***

60. We do not see any difficulty with the proposal that companies should provide data for a period that is longer than the price control period. We suggest that a ten-year horizon is appropriate. Under RIIO this would equate to the two remaining years of the current price control and the eight years of the new RIIO control, making ten years in all.

61. In principle, we would not object to providing high-level information beyond that period, but it must be understood that the high-level information would be an indication only of expected trends.

***Ofgem's criteria for participation in the fast-track price control review are sensible, but…***

62. Ofgem states that the assessment criteria for fast-tracking will be informed by three different sources of evidence. The first is the quality of the plan put forward by the licensee; the second is the assessment of the licensee's current performance; and the third is the use of any available comparative evidence both from Ofgem's own data and from additional information provided by the companies, including benchmarking data.

63. On cost assessment, Ofgem states that the onus will be on companies to demonstrate the cost-efficiency and long-term value for money of their business plans. Ofgem also states that it will place more emphasis on the benchmarking of forecasts (as opposed to historical costs).

***…there are doubts about the availability of comparative data about future plans for companies to use in their submissions.***

64. The issue that this raises is whether there is sufficient information about other companies' plans (including outputs) that will be available in order for the company to demonstrate its future efficiency. It will be especially difficult for companies to fulfil the expectation that they should obtain external benchmarking evidence and undertake market testing for forecast years.

65. This is particularly important in the light of the lengthening of the price control period to eight years, as the erroneous results of some benchmarking techniques would now cast a longer shadow and therefore have a more material effect.

***Ofgem's 'no loser' commitment for fast-tracked companies is necessary, but its applications need further thought.***

66. The assurance that no fast-tracked company should be worse off than if it had remained in the full-length process is important and necessary. However, it is only likely to be possible to calculate accurately the adjustments that need to be made to give effect to this commitment in relation to changes in *overall* assumptions.

67. It will not be possible to assess fully the allowances that a fast-tracked licensee would have received had it remained within the process unless allowances are to be set mechanistically. Honouring the 'no loser' commitment is therefore not without process difficulties. It must also be recognised that the fast-track company will remain in the process as a contributor to the comparative dataset.

68. In order to ensure that Ofgem's 'no loser' commitment has been met the fast-tracked company will have to expend effort in the non-fast track review in which its data is to continue to play a part.

69. We note and broadly support the approach to fast tracking set out in the *Consultations*, although we draw attention to the interaction of the fast-track arrangements with the cost-assessment approach.

70. In general, however, we welcome the commitments given on incentive compatibility for fast-track companies. These are necessary to ensure that fast-track companies do not lose out from their status as such.

***The calculation of the reward for fast-tracked companies implies mechanistic use of benchmarking.***

71. We are concerned to see the reference in paragraphs 3.43-3.44 to the calculation of the reward for fast-tracked companies.

72. We find it hard to reconcile the approach set out here with the general approach to cost assessment set out elsewhere. In particular, the calculation of the fast-track reward suggests that the value of the fast-track companies' contribution can be measured by reference to the consumer benefit that it delivers in terms of the assessment of the non-fast tracked companies' efficiency. This carries the unmistakable connotation of mechanistic benchmarking (at least for the non-fast tracked companies), which elsewhere in the *Consultations* Ofgem suggests will merely *inform* its assessment of companies' plans.

***Companies should be required to prepare business plans consistently with certain Ofgem specifications…***

73. We note the assessment criteria for fast-track status set out in this supplementary annex to this consultation. Broadly we agree with these, but we are concerned that Ofgem's *'Criteria 2 – Acceptance of our policies'* may become problematic in future. Paragraph 3.51 states that:

> 'Our March 2011 strategy decision document will set out policy guidance in a number of areas. We expect that a well-justified plan will reflect these. Included here will be a number of key financial policies such as the cost of debt index, asset lives, tax, pensions and capitalisation, as well as a methodology for arriving at the cost of equity. We expect companies to comply with these financial policies and methodologies. We would expect

robust analysis to support any view on the value of parameters, which fall outside the ranges and values we have set out in March 2011.'

***…but Ofgem must take care that its specifications do not deter fast-track applications.***

74. We understand that for the fast-track process to work effectively there must be a set of proposals from the company that are capable of being accepted by Ofgem. This means that all of the relevant parameters of the plans must be set out. We appreciate that Ofgem may wish to prescribe some of these parameters – either absolutely or by specifying a range that companies that wish to gain fast-track status must accept.

75. However, Ofgem must take care that it does not adopt an unduly tough negotiating position in defining these parameters. Failure to recognise this could lead to there being no serious applications for fast-track status as companies will not want to offer a set of proposals where key parameters (such as the cost of equity) fall outside what they regard as an acceptable range. It follows that it may be necessary to have taken the regulatory debate on such issues further than has been the case in the past if Ofgem is to be in a position to specify such matters at this early stage in the process.

***Ofgem's other expectations of the plans are sensible.***

76. We have no objection to the other aspects of the plans that Ofgem is expecting companies to offer. In particular we note that as part of their business plans the network companies will be required to set out their views on asset health, criticality and replacement priorities at:

- the start of the price control period, effectively reflecting their view on the current condition, risk and replacement priorities of the network;
- the end of the price control period with no intervention, effectively reflecting their view on asset degradation over the period; and
- the end of the price control period with investment as proposed in their well-justified business plan.

We support this expectation.

***The benefit of a greater role for third parties in delivery will vary between the sectors.***

77. We agree with Ofgem that the benefits (if any) of giving third parties a greater role in delivery will vary between the sectors.

78. We note that the considerations that may guide policy in transmission differ from those in gas distribution. We also note that Ofgem considers that it is not practical for anyone other than the host gas distribution network (GDN) to undertake and own the development where new projects are heavily integrated with the network of that existing licensee (such as on reinforcement projects).

***The low carbon networks fund is a sound basis from which to build incentives for low-carbon initiatives.***

79. In electricity distribution, the innovation framework covers all stages of the innovation cycle from smaller-scale research and development to smaller and larger network trials (the innovation funding incentive and the first and second tiers of the LCNF respectively). In transition to a new innovation stimulus package of incentives we need to ensure that this full coverage of innovation at the various technology-readiness levels is maintained. We are seeing, and expect to continue to need, the development of good ideas in projects that move through these different stages from drawing board to widespread commercial deployment. This coverage of the different stages of innovation is equally needed in the other networks sectors.

80. Generally, if companies perform well and deliver high-quality learning, the rewards should include recovery of at-risk costs as well as additional rewards for the best projects. These rewards should be contingent on the projects being effectively delivered as opposed to certain learning outcomes being achieved. It is quite possible that a well-delivered project may fail to prove a hypothesis or fail to provide the envisaged solution for quite legitimate reasons. This is the approach taken under the LCNF. Alternatively, if Ofgem wished only to reward 'successful' learning, then the rewards would need to be increased to take account of the risk associated with a competently-delivered project delivering this 'negative' learning. We anticipate that these rewards would need to be significantly higher and it is for this reason that we think this alternative with a correspondingly more extreme risk/reward balance is inappropriate.

***Ofgem should avoid micro-managing the cost lines of innovation projects.***

81. Further, there is another dimension that we would counsel is important to consider in order to deliver an effective innovation framework. Ofgem's natural tendency is to examine and determine the appropriateness of some of the detailed parts of network companies' plans in order to follow its remit of protecting customers. However, the management of innovation requires a different mind-set from the regulator's in order to encourage the best from companies for the benefit of customers. The nature of technical and commercial innovation is such that the regulator must primarily focus on the problem and solution definition. The costs, while important, cannot be micro-managed with recovery dependent upon regulatory approval of variations. Our experience in the development and implementation of the LCNF is that Ofgem could do more to recognise clearly this insight and differentiate its behaviour accordingly.

82. The general principles applicable to innovation in both business plans and the innovation stimulus should be that collaboration should be encouraged and intellectual property rights shared.

***Companies' should include their innovation strategy in their business plan submissions.***

83. In company business plans we agree that there should be an explicit innovation strategy that evidences the value to be obtained from innovation projects.

***Smaller projects should be funded under the normal business plan and larger items merit special treatment.***

84. We believe that projects of smaller value (say up to £3m) should be funded through business plans. For larger projects, only those with a sound business case that may be assessed by Ofgem on an individual basis should be funded in this way. More speculative larger projects are better funded through the innovation stimulus where, through competition, only the best projects are awarded funding.

85. The business-plan expenditure should not be expected to be made up entirely of named and specified projects. A well-justified budget cost should be acceptable due to the difficulty in planning of individual projects for a price control now spanning eight years in duration. Also it is appropriate for companies to adopt a 'probe and learn' type of behaviour in order to define and implement follow-on projects as the need is identified

through the learning outcomes of existing work. Future innovation needs will emerge in the course of a price control period and the framework for allowing innovation in business plans should support this natural evolutionary thinking.

86. For small projects a company-specific innovation allowance should be provided, contingent on there being an innovation strategy as set out in option one in paragraph 5.35 of this supplementary annex. The innovation allowance of one per cent of regulated revenue is appropriate.

***Provision should be made for rollout of innovation solutions and for earlier collection of revenues.***

87. Companies' plans should make provision for rollout of innovative solutions and there should be a revenue-adjustment mechanism to enable companies to apply to collect revenue within the price control period should new information become available to substantiate the business case for innovative ideas. We suggest that companies should be able to apply for such a post-price-control-review adjustment within the middle four years of the price control period. This would reduce the potential funding gap (to two years) for this innovation while also avoiding companies' unnecessarily bringing forward projects in the final two years of the price control period when these projects should instead be set out in the plans for the next period.

***Ofgem's stimulus values appear to be sensible.***

88. The separate innovation stimulus should be introduced for the gas and electricity sectors and the values proposed by Ofgem appear reasonable. From what we can see, the number, quality and total value of projects brought forward do not suggest that the annual fund value of £64 million in the electricity distribution sector is unreasonable. It therefore provides a reasonable 'supply-side' capability-for-innovation comparator when considering the appropriate value for the other network sectors. We can spot no obvious flaws or omissions in Ofgem's thinking in order to derive innovation stimulus values for both the electricity and gas sectors.

***In the electricity sector the innovation stimulus should be focused solely on the low-carbon agenda whereas the needs of the gas sector are different.***

89. We recognise that Ofgem is considering whether the scope for the innovation stimulus should cover delivering long-term value for money for customers rather than being solely focused on the low-carbon agenda. We consider that in electricity distribution (and probably transmission also) there is a need to continue the wider scope that is permitted in the earlier (and therefore less-certain-benefit) stage of innovation that is currently funded through the innovation funding incentive (IFI). We believe this principle should be extended into the continued RIIO innovation stimulus where smaller-value, higher-risk, earlier-innovation-stage projects may continue to be funded through an allowance in the companies' business plans, contingent on there being a supporting logic provided by an explicit innovation strategy. In electricity, we believe that the principally low-carbon future needs of the network and the existing package of efficiency incentives (IQI) mean that a purely low-carbon-scope innovation stimulus is appropriate. However, due to the challenges faced in the gas sector, there may be a case for extending the scope from low carbon to include also long-term network sustainability.

90. Ofgem has made clear its rationale for providing two separate innovation stimuli price controls separately covering the gas and electricity network sectors. Innovation projects to reduce carbon may involve solutions that encompass both sectors. For example, increased use of electrical heating as a substitute for gas-fired heating will impact upon both gas and electricity networks. It is likely that a specific solution will primarily be aimed at benefiting one of the two sectors' customers. Therefore the 'split scheme' is not an issue so long as it is foreseen and made permissible that there can be secondary benefits for the customers of the other alternative network type.

***Innovation funding should be subject to a constant annual maximum and treated as 'fast money'…***

91. With respect to profiling, we support a constant maximum annual level of funding (option one in paragraph 5.25 of this supplementary annex) due to the advantages stated by Ofgem – i.e. that good ideas in later years may then be funded and also that only the best projects will be funded.

92. We favour funding through the fast-money route for the practical reasons that Ofgem recognises.

***…and there is no case to reduce the 90% customer share.***

93. The partial funding should remain at the low-carbon-networks-fund value of 90% since there is insufficient evidence to suggest that that level is too high. It is accepted that there was an excellent response by electricity distribution companies to the inaugural competition for funding in the LCNF. However, it is too early for this to be taken as a clear signal that customers may fund less of the project without a consequential effect on the quality or number of applications for funding.

***Non-network companies should have access to the arrangements…***

94. We continue to support the RIIO policy objective to ensure that innovation takes place on networks through involving a broad range of stakeholders. Like Ofgem, we note that a wide range of third parties (non-network companies) were involved in projects that the electricity distributors submitted for the first year of the LCNF. The highest-quality innovation will be delivered through the continued involvement of this broad range of stakeholders.

***…but this can be achieved without creating a new kind of licensee.***

95. We note that, in the open-letter consultation of 21 January 2011 on non-network company access to the innovation stimulus, Ofgem said that it had not received any complaints about companies being unreceptive to the ideas of third parties. As Ofgem points out, there are a number of complications to establishing innovation licences to allow direct access to funding to third parties. Therefore, it would be unwise to introduce a framework for direct access at this time when the need to do so is not evident.

96. We note that Ofgem is considering an option for third parties to obtain access to innovation funding for ‘off network’ innovation (option two in the open-letter consultation). Again, the need for this access to funding for the earlier innovation stages should be considered only if there is an evident obstacle to innovation. Network companies should continue to be receptive to good ideas from third parties.

***Non-network companies should be able to contribute to the licensee's share of the project value.***

97. The RIIO innovation stimulus proposes to replicate the principle of split funding of projects by customers and network companies. A straightforward way of enabling third parties to take a greater stake in the innovation projects would be to welcome them to contribute part of the 'DNO compulsory contribution' (currently 10% of the project value). The 'Implementing DNO' principle could remain, with Ofgem continuing to make an award to a single licensee through a Project Direction. However, consortium agreements could then cover the part-contribution as well as the treatment within the consortium of any discretionary rewards generated by a successful project.

***Ofgem's proposal for efficiency incentives and the IQI are generally sensible but the tightening of the calibration to diminish the rewards for accuracy sends the wrong signal...***

98. We support Ofgem's proposals with respect to the further development of the IQI mechanism. However we are concerned about some of the detail on the incentive properties of the mechanism. The assessment of future investment by definition contains an element of risk arising from future uncertainties. The rational forecaster will inevitably be impacted to some degree by that. The IQI mechanism incentivises the forecaster to mitigate the upward cost pressure that this generates. To calibrate the mechanism such that the 'perfect forecast', (namely one that eliminates any risk premium) benefits only from the base cost of capital is a step that renders the mechanism unrealistic and hence damages its incentive properties. The mechanism is only viable if a degree of out-performance, previously a modest addition to the base cost of capital to offset the more risky position adopted by the forecaster, is preserved.

***...and it is unnecessary to include real price effects within the IQI mechanism.***

99. We would also suggest including real price effects (RPEs) in the measured forecasts is an unnecessary complication, particularly since Ofgem indicates there are proposals for RPEs to be considered an area where an uncertainty mechanism may be appropriate. This indicates there are likely to be significant differences in economic views on the RPEs over an eight year period. We suggest that if Ofgem wishes to apply an IQI mechanism for RPEs it should be a stand alone element.

## RIIO-T1 AND GD1 UNCERTAINTY MECHANISMS

100. The supplementary annex dealing with uncertainty mechanisms sets out the framework for dealing with uncertainty that Ofgem proposes to adopt in the RIIO-T1 and RIIO-GD1 reviews. We set out below our views on:

- the principles guiding the use of uncertainty mechanisms;
- indexation for inflation;
- disapplication of the price control;
- mid-period review of output requirements; and
- the disapplication mechanism at the output review.

***The principles guiding the use of uncertainty mechanisms are sound.***

101. Table 2.1 of this supplementary annex sets out the potential justifications for and drawbacks of uncertainty mechanisms. In general we agree with Ofgem that network companies should manage the uncertainty that they face and that it would be undesirable to try to design the regulatory regime to protect licensees from all these uncertainties. The case needs to be made separately for each particular uncertainty mechanism and, to be persuasive, that case must demonstrate either that there is likely to be a benefit to customers from the adoption of the mechanism or that the mechanism is necessary to enable the licensee to finance its licensed business. In many cases the first of these will be satisfied if the second is demonstrated.

102. We have no comments to make on the particular uncertainty mechanisms that are appropriate in the gas distribution or the gas and electricity transmission sectors.

***Indexation for inflation should be based on a full calendar year of data…***

103. The supplementary annex considers the potential drawbacks of the various mechanisms in use for indexation to reflect changes in the retail prices index (RPI).

104. It is certainly true that the mechanism in use in electricity distribution, where the indexation is based on the movement in the RPI in six months of one year compared with the movement in the same six months in the previous year, carries the risk that spikes (up or down) that occur in the six months that are not part of the indexation will

never be captured by the indexation mechanism, even though they will have had an impact on the licensee's costs in the year.

105. We became aware of some of the quirks associated with the indexation mechanism at DPCR5 when we were looking at greater volatility in the RPI and, for the first time, negative movements in the index.

106. Figure 3.1 of the supplementary annex effectively demonstrates the close alignment between the different ways of measuring RPI movement that prevailed until the financial crisis and also how the disturbance that followed opened up significant gaps between the approaches that are used across the different network sectors.

107. We conclude that there is merit in the adoption of an inflation measure that takes into account a full twelve-month period. We suggest that, where the price-control year runs from 1 April to 31 March, the indexation should be based on the average movement in the index in each of the twelve months ending with the December prior to the commencement of the price-control year. This would remove the problem of the missing months. For electricity distribution companies the traditional indicative charges could be set with the benefit of firm RPI data for at least ten months[2] and a reasonable estimate could be made of the pattern of RPI during the remaining two months. By the time final charges are confirmed (usually in February, the full dataset would be available. This seems to give the benefit of twelve months of data, relatively little estimation and not too much of a time lag between the inflation taking place and the recovery of the resultant costs.

***…and some transitional arrangements may be needed.***

108. We also consider that a move from one method of indexation to another where this introduces a significant delay in the recovery of the inflation component of allowed income may need to be accompanied by transitional arrangements that ensure that licensees do not enjoy or suffer material windfall gains or losses from the change in the indexation method. An absolute principle should be that the economic value of the indexation in the existing controls must be honoured. We appreciate that the move to a twelve-month index has the potential under some proposals to take into account some

[2] The timing of the publication of November RPI information means that it may not be possible to include this result as an input to indicative tariffs.

of the same data for a second time when the change is implemented. If RPI behaves normally perhaps this may have very little consequence. If the period that is potentially taken into account in both the old and the new controls is likely to give rise to a material windfall or penalty, it may be necessary to factor this into the final proposals.

109. We have no comments to make about the other uncertainty mechanisms that Ofgem cites as being applicable in all sectors.

***Ofgem's policy on disapplication of the price control within a price control period needs no change***

110. Paragraphs 3.30-3.34 of the supplementary annex reiterates Ofgem's policy on how it will treat within-period requests for the disapplication of the price controls. We agree with this approach to within-period disapplication requests although we set out in paragraphs 121 to 122 below some ideas about how the existing disapplication mechanism (which is actually the only part of the licence that defines the duration of the price control period) could be used in conjunction with the mid-period outputs review under the proposed eight-year price-control-period arrangements.

***The mid-period review of output requirements presents special challenges if it is to be adequately ringfenced.***

111. Paragraph 7.3 of the supplementary annex sets out Ofgem's intention to conduct a mid-period review of output requirements. Such a review will:

> 'identify whether changes are needed to the outputs that network companies are expected to deliver. If we consider that changes to outputs are necessary, we would not alter incentive mechanisms, the allowed return or other price control parameters other than as required to accommodate the change to outputs.'

112. We have commented in previous contributions to the RPI-X@20 exercise on the difficulties that we envisage in giving effect to this policy intent and, in particular, the tendency for the proposed eight-year price control period to become two four-year controls. Ofgem is aware of this possibility and has confirmed that the mid-period outputs review will be confined to:

- ‘ material changes to existing outputs that can be justified by clear changes in Government policy (e.g. if Government policy on climate change changes, a higher or lower level of delivery or performance may be needed; and

- introducing new outputs that may be needed to meet the needs of consumers and other network users.’

We welcome this clarification but we remain of the view that the outputs review will be difficult to insulate in this way.

***Changes in required outputs will be hard to isolate from other changes.***

113. Consider the following scenario. A price control review is concluded based on a given set of outputs, an assumed cost of equity and a set of expected costs for the eight-year period.

114. When the mid-period outputs review takes place it becomes clear that:

- the outputs have become, or are about to become, more onerous;

- the assumed cost of equity set at the previous review now looks extremely generous; and

- the costs incurred to date show a material outperformance on the part of the licensee.

115. In assessing the revised allowances that are to be triggered by the more onerous outputs is it proposed that Ofgem would continue to assume the same cost of equity as in the original settlement, despite the fact that this would, quite consciously, build in additional returns for the next four years that were out of step with the best market information about the cost of equity? Similarly, if the cost outperformance in the first few years is very considerable, is it contended that Ofgem would build in the same cost levels for the meeting of the revised outputs, or would it introduce more reasonable cost assumptions for these outputs based on the revealed costs in the first few years?

116. There are problems whatever answer is given to these questions. There is a problem of regulatory credibility and possibly of statutory duty if it seriously contended that the

mid-period review would deliberately build in outdated (and overgenerous) cost or equity-return assumptions. On the other hand, if the answer is that Ofgem would apply the latest and best information available to apply to the new outputs (leaving the old outputs to continue to generate outperformance), there is a very large problem associated with the separation of the costs of meeting the old and the new outputs. This arises from the fact that the new outputs will not arise in discrete sets of actions or activities that have no impact on the costs that would have arisen if the outputs had not changed. So Ofgem will be forced to take a view of the outperformance rewards that would have accrued to the licensee over the full eight-year period had the outputs not changed.

117. This illustration shows how increased regulatory discretion will be an unavoidable part of the outputs review. The lobbying incentives that this creates are pronounced and undesirable.

***We favour longer price control periods in principle…***

118. All other things being equal, we favour longer periods for price controls. Moreover, we note that Ofgem's proposals try to take out some of the uncertainty that might make an eight-year control problematic. The automated cost-of-debt index and the mid-period outputs review are intended to mitigate these problems.

119. However, given that the power of incentives is no longer as affected by the duration of the price control (because it is now largely determined by the incentive sharing factor), we wonder whether the problems of an eight-year control will in practice eclipse the benefits.

***…but the mid-period outputs review may be very distracting and amount to something close to a full-scale review.***

120. If the strength of incentives is not affected by the duration of the control, the main benefit of an eight-year control is the added three years when the management of the business will not be distracted by the conduct of a price control review. However, the mid-period review could itself become very distracting and we therefore believe that it will be difficult to avoid repeating the experience of the water industry when the original 10-year controls, with the potential to reopen after five years, quickly collapsed into a five-yearly cycle.

***We recommend the introduction of a disapplication mechanism at the output review.***

121. If Ofgem is to persist with its proposal for an eight-year duration with an outputs review at the four-year stage we suggest that consideration should be given to the re-formulation of the existing price control disapplication mechanism so that a licensee can serve a disapplication notice to bring the price control to an end:

- after eight years (i.e. the existing disapplication mechanism where eight years takes the place of the current five years); and

- after four years where the licensee can show that the required outputs have changed, or are changing, and that such changes have a material cost consequence.

122. The second of these rights should give licensees comfort that they can force a Competition Commission (CC) reference if they can show that outputs have become materially more onerous in circumstances where Ofgem might be unwilling to recognise this.

123. We have no comments to make about the other uncertainty mechanisms that Ofgem cites as being applicable in all sectors.

## RIIO-T1 AND GD1 FINANCIAL ISSUES

124. In this part of our response we set out our views on the supplementary annex on financial issues[3]. Our reading of the financial proposals is based on their application to the electricity distribution businesses of CE and we have modelled their effects on our financing, where we have actual data.

125. Ofgem's proposals for changes in regulatory asset lives, assumptions for the imputation of costs of debt and equity and financeability are very concerning. We view the proposals as a poorly-assembled selection that lack coherence from the perspective of investor, operator or customer. If adopted in anything like their suggested form we

[3] We note that on 14 January 2011 Rachel Fletcher issued an open letter on regulatory asset lives for electricity distribution assets. We shall submit detailed comments in response to that open letter on 25 February 2011.

believe that these proposals could undermine decades of stable and responsible economic regulation.

126. Ofgem has taken great care over more than twenty years to establish itself as a credible regulator that understands the value that investors place on stability and continuity in matters that affect the earnings that they will receive in return for the investments that they are making. We are aware that in the RIIO final decision document Ofgem endeavoured to make clear that the RIIO proposals would be respectful of the needs of equity investors. Unfortunately we see no evidence that this clearly signalled intent has informed the financial issues section of the *Consultations* to which we now respond.

127. The *Consultations* leave major issues for Ofgem to resolve. These issues are raised by the questions and suggestions that Ofgem pose for consultation and are:

- is Ofgem committed to a stable and long-term regulatory environment that seeks to encourage investment in the UK's energy infrastructure?
- should investors view the UK energy sector as an attractive and secure place to invest?
- are investors entitled to assume that the basis for their investments should stay stable and predictable for the life of those investments, at the time the investment decision is made?

128. We believe the answer to all these questions should be 'yes'. Ofgem's *Consultations* offer a mix of financing outcomes that will deliver the opposite.

129. We note that Ofgem has also issued a separate consultation on asset lives for electricity distribution networks. We shall respond to that consultation in due course. That response will provide a more detailed examination on the adverse impact of Ofgem's proposals on our own sector. However, there are issues of principle that are set out in the *Consultations* that are not sector-specific but that go to the heart of the matter of whether Ofgem's proposed approach is consistent with the principles of sound regulation. Our views on these issues of principle are set out below.

130. We do not believe that the RPI-X@20 exercise gave licensees (and others with views that were opposed to the general direction being proposed by Ofgem) the opportunity to

make representations to the Gas and Electricity Markets Authority (the Authority) on these important matters. Accordingly, we now request that CE be given the opportunity to present to the Authority its views on the financial issues set out in the *Consultations*. It is important that we are given an audience before further publications are issued that establish any more firmly the position of the Authority on these matters.

131. We have set out our views on this section of the consultation under the following headings:

- *Asset lives and depreciation*: we explain why we believe the proposal to extend asset lives offers poor value for customers and has the potential to be financially damaging to licensees.
- *Indexation of the cost of debt*: we offer our views on the indexation proposal, which we believe has some flaws and needs broadening in its scope of sources if it is to be workable.
- *Cost of equity*: we believe that this is significantly impacted by the long-term promise Ofgem asks investors to bank on.

***Asset lives and depreciation have been treated in a muddled way.***

132. Ofgem's consultation highlights the difference between what it terms:

- the technical life of assets; and
- the economic life of assets.

We use these terms in the same way as Ofgem in this response.

133. Ofgem's discussion highlights the differences between the asset lives implied by regulatory depreciation (20 years in electricity distribution) and the asset lives as implied by accounting (statutory) depreciation (40-50 years in electricity distribution companies' accounts). Ofgem offers a misunderstood and misleading analysis of this difference.

***The assumption that regulatory asset lives should reflect economic lives is flawed.***

134. The proposition that is carried through the financeability papers published by Ofgem is that it would be desirable in principle for regulatory asset lives to reflect the economic life of the assets. We understand that this assumption is under-pinned by the notion of

inter-generational fairness. This fairness principle holds that if regulatory depreciation is shorter than the economic life, today's customers will pay for the assets that serve tomorrow's customers.

135. This principle has a natural and intuitive appeal resulting from the use of the same word ('depreciation') to describe two very different concepts. Ofgem confuses these concepts too readily, falling into the misconception of assuming that there should be some straightforward relationship between the lives used for statutory accounting purposes and the regulatory asset life. This needs careful handling.

***There are good reasons why statutory accounting lives are longer than the regulatory depreciation period.***

136. Certainly the published statutory accounts of an entity must give a fair value for the assets concerned and accounting standards require that this value will reflect their remaining earning power. However, the accounting conventions that govern the statutory accounts are markedly different from those that are used to determine the regulatory asset value (RAV) and drive allowed income. There are a number of important differences, chiefly that the regulatory calculation is performed in real terms with an uplift for inflation while the statutory accounts of the licensee are prepared on an historical cost basis.

137. The RAV also contains items which an accountant would not recognize as assets, yet the regulator has chosen to defer recovery of the expenditure as part of the balance of recoveries in the regulatory regime. In return for this deferral, the licensee receives an inflation adjustment to these costs and a return at the cost of capital, ensuring that the licensee is kept whole on the expenditure.

138. These fundamental differences mean that a move to bring regulatory and statutory accounting lives closer together will not result in consistency between the two methods. Neither is there any reason why they should be brought into line. One serves the purpose of reflecting a fair value in an accounting sense whereas the other determines the payment profile being offered and accepted by a service provider and a customer. In any case, if accounting conventions were to be applied, then a material proportion of these costs would be recovered immediately while the remaining cost is spread over a much longer period, destroying the equalisation of incentives that was so helpfully

established in DPCR5 and that is being contemplated for these price controls. We recognise that there are some categories of cost where the reverse is true. This reinforces the point that it is confusing to equate the period over which RAV is remunerated with the asset lives in the statutory accounts.

139. Ofgem's presentation of the various asset lives used for different purposes invites the mistaken inference that regulatory depreciation periods must be too short because the companies themselves have adopted longer periods in their statutory accounts. The different periods allow for very different recovery profiles and the regulatory depreciation period must be seen in the context of recoveries which include speed of money and potential incentives.

***The proposal on asset lives creates serious financeability issues - Ofgem must resolve these or reconsider the proposal.***

140. We will demonstrate that there are six fundamental areas of weakness within the proposal to extend electricity distribution regulatory asset lives. These are:

- rather than creating fairness, changing from one regime to another creates *unfairness* in the transition period, giving a short-term benefit to today's customers (who have also benefited from low opening privatisation asset values) and bestows on future customers a 37.5% real electricity distribution price increase (according to Ofgem's consultant's analysis);

- Ofgem's consultants predict significant and continued increases in electricity network investment over the coming decades, which change in investment profile masks the financial effect of regime change, so that CEPA can state that the end position (but only at that point) is only modestly different from the current assumption *under a different spend profile*;

- at the same time, the impact on the cash flows of the licensee is severe, with attendant degradation of key financing ratios, many of which have not been fully considered by Ofgem;

- changing the rules with respect to investments that have already been made is bad regulation, undermines the credibility and perceived stability of the regime and

gives rise to the well-founded fear that a future regulator may not find the consequential price rises as palatable;

- lengthening the regulatory depreciation period raises serious issues of the credibility and longevity of the commitment to cost recovery of the RAV. This commitment is easily made when the short-term effect is lower prices for customers but there is nothing to bind a future regulator to this same commitment when, in the distant future, customers reimburse investors for their patience through much higher prices (that are not NPV neutral to customers whose cost of capital is inevitably lower than the cost of capital of the investor community); and

- longer regulatory depreciation periods undermine incentives for efficiency because they send weaker price signals to end users. Extending payment periods further distances consumers from their consumption decisions.

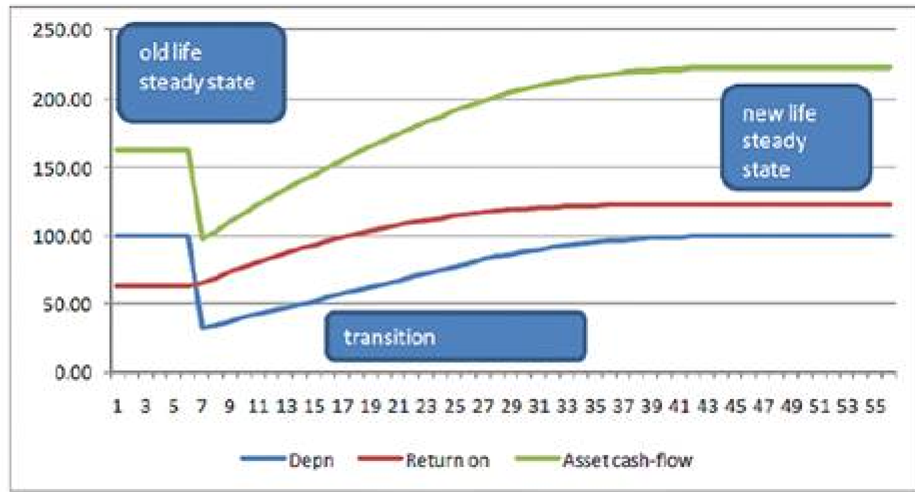
141. In the following paragraphs we will provide the basis to support all of these points, bringing together our financial analysis to support the view that Ofgem's proposals will be bad for customers and bad for the industry in the long term, as well as being damaging to the prospects for investment in the nearer term.

***The impact on customers of transitioning to longer depreciation lives is detrimental.***

142. Figure 2.10 below is extracted from Ofgem's consultation document and shows a simple hypothetical scenario of the impact on cash flows (and therefore revenues) based on a constant annual investment. The consequence of this change from the current situation seems to be accepted too readily, since it will cause financial turmoil and move to a situation that in the very long run will see customers being charged 37.5% more in real terms than would be the case under present arrangements.

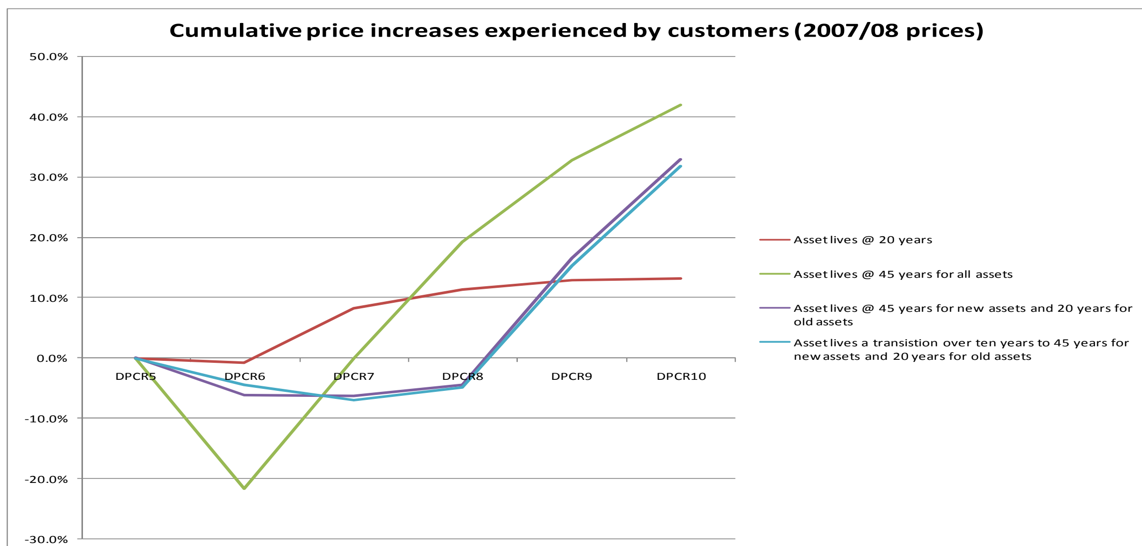
143. The same chart also shows the transitional benefit that is being bestowed on a generation of customers who have received the benefit of the low valuation of privatisation assets. If anything these customers should be seeing increased prices as incentives to becoming more energy efficient to assist with hitting low carbon targets.

**Figure 2.10 Stylised example of the impact of extending asset lives on depreciation, the return on RAV and the combined cash flow**




Source: CEPA

144. Our own analysis is based on our smoothed asset age replacement plans, which contain more stable levels of capital expenditure (i.e. more stable than assumed by CEPA). In relation to the path of prices, the same effect is observed; the current regime delivers real prices that are approximately 40% lower than those that result from a 45 year depreciation life.




145. Whilst CEPA claim the impact on customer prices is modest, CEPA's December 2010 paper includes the following passage on consumers' bills.

***'1.7 Impact on consumer bills***

Any change in the depreciation charge will have an impact on consumer bills. In our modelling the base case shows that bills will increase significantly over the 2010-2050 period owing to the network investments that are required. Current combined bills are just under £1,200 per year, and our analysis shows them rising to approximately £1,650 per year (in real terms) by 2050. Changing the depreciation life has an impact but primarily on the profile of prices rather than the end point, where the differences between our "base", "split" and "full" options are so small that it is not possible to say with confidence that these are significant differences between them. While under the existing profile we believe average consumer bills would be roughly constant (ignoring non-network investment issues) over the next decade or two, extending the electricity sector depreciation life would actually lead to reductions, albeit fairly small, during those periods prior to a more rapid increase in prices.'

146. This rapid increase in prices is an essential element of keeping investors' returns whole when asset lives are extended and implies that today's regulator is in a position to make a deal that will be binding for 30 years. . We are concerned that the repayment profile is so critically dependent upon a regulatory consistency assured more than 30 years into the future, when prices will have to rise so sharply. We believe that future consumers would not be prepared to accept these increases, particularly since the companies would not need the cash to operate their businesses. They would need it to make whole their investments made long ago. Society, politicians and regulators may well take a different view of Ofgem's proposed policy in 30 years time and Ofgem is not in a position to guarantee otherwise.

147. For example, could the Gas and Electricity Markets Authority give a legal binding commitment that would bind its successors over the duration of the proposed depreciation period that the investments would indeed by remunerated over the proposed regulatory asset life? That commitment would have to be plausible in the face of changes in the economic circumstances of the nation, the existing consensus relating to environmental concerns (since the investments we are speaking of may be

driven by the need to meet environmental targets) and would have to be resilient to changes in government and changes in the statutory remit of the regulatory body.

148. We do not think that Ofgem is in any position to give such a binding undertaking. In the absence of such an undertaking, the credibility of the future remuneration must be regarded as very risky indeed and we find it difficult to understand that Ofgem can assert that a change of this kind can be introduced without changing investors' perception of risk.

149. The evidence put forward in the papers prepared by Ofgem's consultants and published along with the *Consultations* draws on the evidence provided by very different markets and where the changes concerned are not remotely of the scale that is being contemplated here. They tell us very little about how investors will respond to changes to regulatory and political risk when a change of this kind is being contemplated.

150. It is evident that this proposal would give rise to a major shift in the cash flows of CE. Cash flows would diminish in the next two decades and a major cash injection would be essential in order to finance the business during this period. The cash injection would be returned to investors only through the very healthy cash flows in the distant future. Both asset life proposals would increase the cost of capital over the asset lifetime because the risk that the assets will not be remunerated is significantly increased.

151. However, this is not the only problem. Once Ofgem makes a move of this kind – especially if it is accompanied by the assertion that such a move than be contemplated because it has no effect on the cost of capital and therefore no adverse impact on consumers – investors' confidence in regulatory consistency will be seriously diminished. Investors are being asked to inject large amounts of cash today in return for higher cash flows (and therefore prices for consumers) in the distant future. Despite Ofgem's assertions to the contrary investors *will* apply a higher discount rate to the distant cash flows. This will reflect the uncertainty over future developments in the regulatory system, governmental policy and future network configurations.

***Ofgem's proposals cannot be applied to existing assets without undermining confidence in regulatory commitment.***

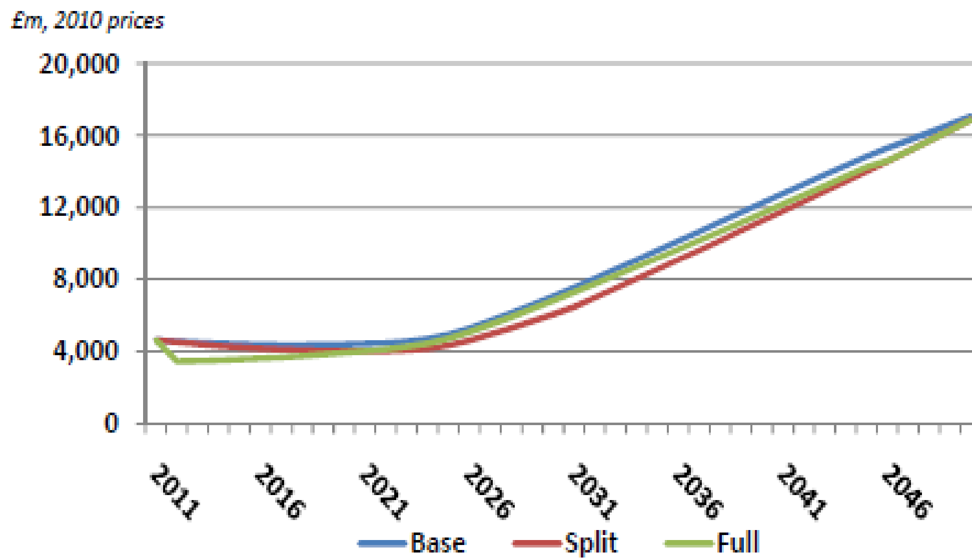
152. The proposal to adopt a 45 year life for all assets (i.e. including those investments that have already been made) is particularly disturbing because it rewrites the terms under which major investments have already been made. Ofgem recognises this issue in its RIIO handbook but it appears in the *Consultations* to believe it is free to do this now and that there will be no adverse consequences for customers that arise from a higher perception of risk on the part of investors.

153. We do not believe that Ofgem seriously believes that elongating the regulatory depreciation period by such a significant amount can be done without any increase in investors' perception of risk. We are not utterly opposed to the principle of a managed transition to a longer depreciation life, but before Ofgem takes what are essentially pragmatic proposals relating to cash flows any further, we would ask that it takes immediate steps to confirm that existing investments will continue to be remunerated at the speed that was assumed when the investment was made. As well as securing the more important outcome of reassuring investors that the UK regulatory regime is not prone to opportunistically changing the deal midstream, retaining the existing asset lives for existing assets takes an important step in the right direction in terms of dealing with the pragmatic problem of maintaining financeability through the transitional period. Our more detailed submission to the open letter in relation to electricity distribution lives will demonstrate that even under this arrangement, there is still a serious financeability shortfall for electricity distributors. Transitional arrangements will be required in addition to the retention of the 20-year life for existing investments in order to maintain sensible cash flows in the next two price control periods.

***The revenue analysis offered is based on a flawed and adapted assumption that seems designed to give the appearance of a consistent outcome.***

154. CEPA's assessment on the effect of changes to depreciation periods on electricity distribution revenues is set out in the graph below:-

*Figure 7.2: Electricity distribution annual network revenue, by year*

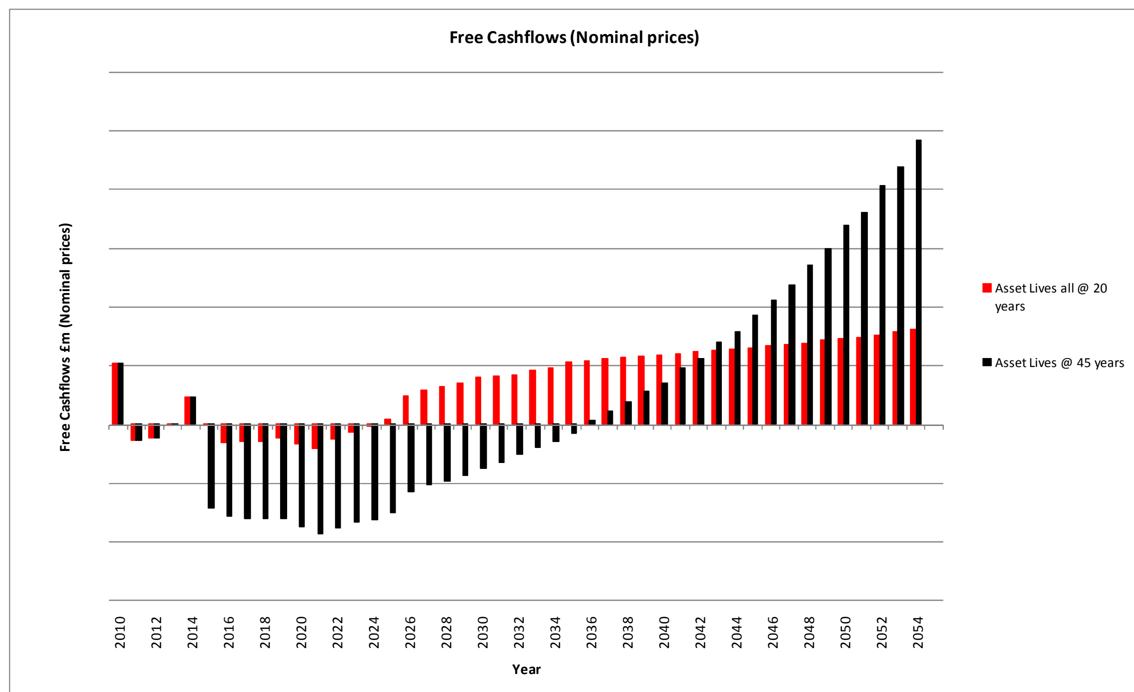



155. This profile appears consistent with the existing asset recovery assumptions, yet it seems to us that CEPA have achieved this by assuming very substantial increases in capital investment over the coming decades, so that under the 'base' scenario of 20 years depreciation lives the revenue is mostly made up of depreciation but, under the 'full' scenario of a 45 year life, revenue is mostly made up of return on an ever increasing RAV.

156. If, as we think is likely, capital investment returns to a steady state (rather than a continuing and steeply rising profile) and these graphs were run further into the future then we would see the 'base' revenues reducing significantly as depreciation in the base scenario declines more rapidly with the lower capital expenditure than in the full scenario. This will then reveal over time the difference in revenue between the two scenarios with the full scenario having a higher RAV value and therefore higher revenues. Alternatively, if the sustained increases in projected capex are not required in the proportions that CEPA suggest, or perhaps if they had shorter peak of activity, then the unwelcome features of the path of prices that are reflected in paragraphs 143 and 144 will be become more evident over the period.

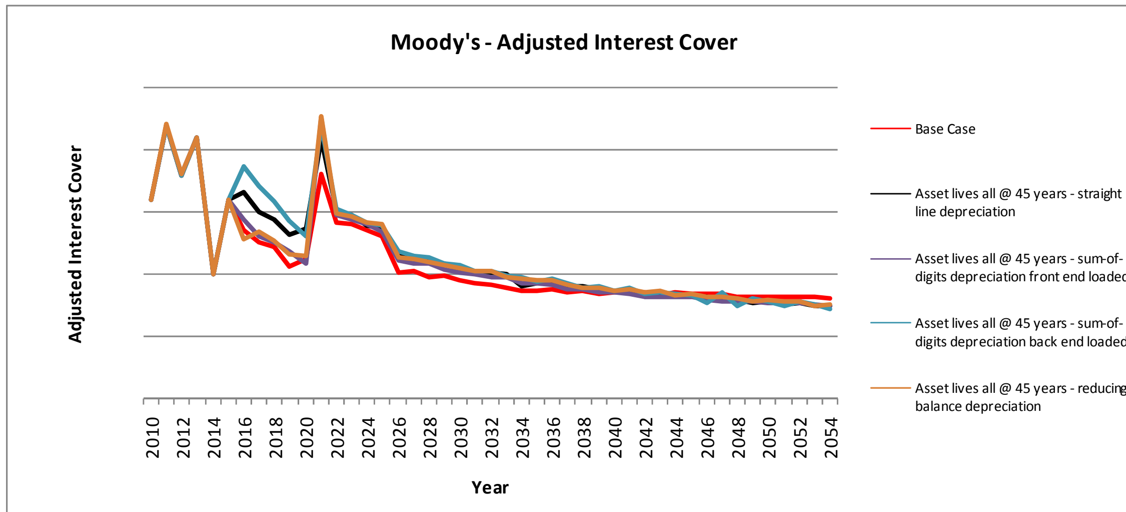
***The move to longer asset lives has an immediate and detrimental effect on cash flows and earnings which will cause ratings to be re-assessed.***

157. The short term benefit to customers and the very long term increase in cost needs to be compared to the significant effect on the network operators' cash flows. The table below shows the effect on CE's cash flows, based on the steady state capex profile that we believe is the only consistently reliable assumption:

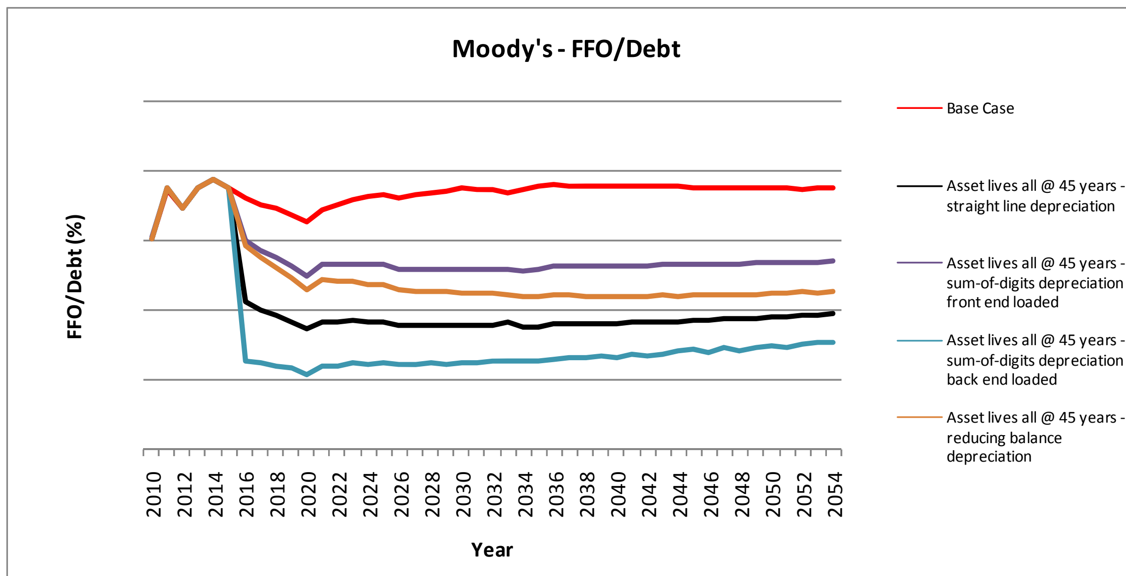



158. Our modelling shows that a move to 45 years without any transition arrangements will place stress both on debt and equity ratios resulting in widespread ratings downgrades, and indeed will not be acceptable in the financial markets. The graphs below are based on CE's plan projections and changing the regulatory depreciation life to 45 years. Our analysis also shows that the fundamental creditworthiness of the companies would deteriorate and it is only those metrics that are built on regulatory parameters (and therefore become self-correcting in this scenario) that create the illusion of stability.

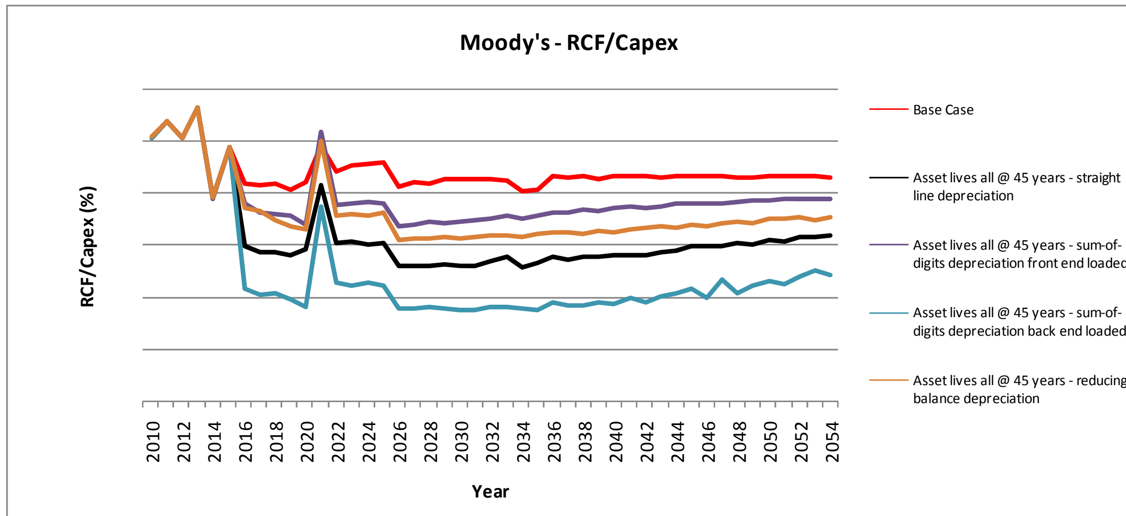
159. Since the Adjusted Interest Cover Ratio measures the extent to which a licensee can cover debt interest via earnings, but utilises regulatory depreciation as a proxy for a capital maintenance payment, this ratio shows very little movement between the scenarios because the reduction in revenues and cash flows is balanced by an equivalent reduction in regulatory depreciation, keeping the scenarios very closely aligned. Ofgem assume equity injections are made to maintain gearing within the desired range.



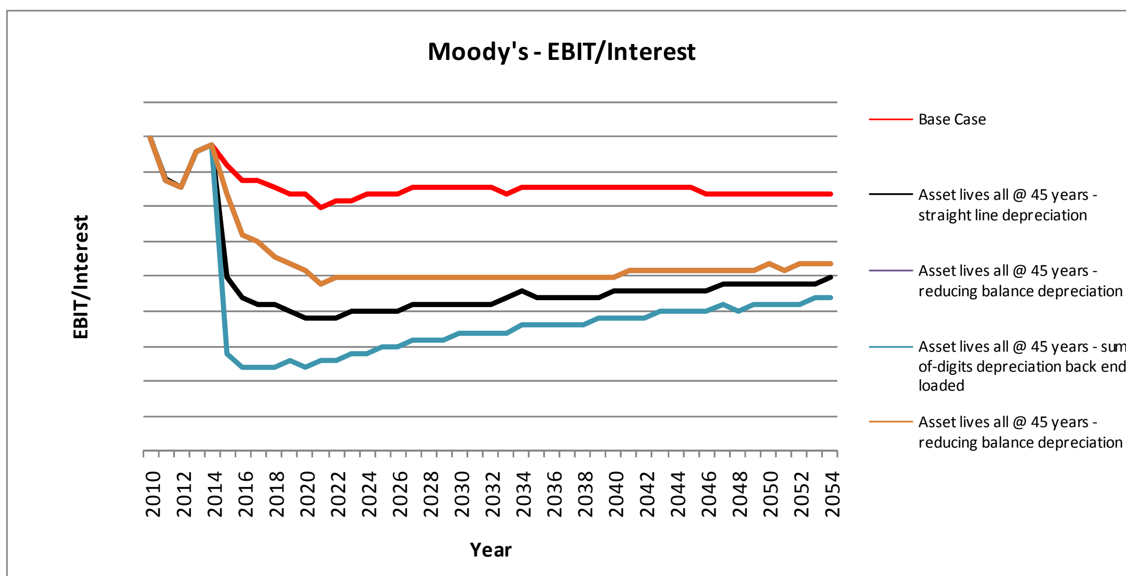

160. A much more telling picture emerges if FFO/Debt is examined. Since this measures the relationship between debt and actual cash flow (Funds From Operations), the impact of the changes in depreciation lives is significant. The rapidly diverging lines on the chart show how debt levels quickly grow out of proportion with the growth in cash flows, damaging the licensee's liquidity. In practice, FFO/Debt is one of the most important liquidity ratios used by rating agencies.




161. A similarly bleak picture emerges from the RCF/Capex calculation. Since this is the ratio between capital expenditure and Retained Cash Flow, the capital expenditure does not move but the retained cash flows do. Again, the scenarios modelled here show how cash flows deteriorate relative to the requirement to make capital investments, another indicator of the degradation in liquidity.




162. EBIT/Interest shows the relationship between Earnings Before Interest and Tax (i.e. accounting profit) and interest payments on debt. Unlike the adjusted interest cover, there is no adjustment made here to eliminate accounting depreciation in favour of regulatory depreciation. This shows a truer picture of what actually happens to a licensees creditworthiness in the eyes of the capital market. Interest coverage deteriorates very sharply as profitability is damaged by the extension of the regulatory payback period.




163. Whilst Ofgem's consultants have modelled some credit ratios, we note that the published ratios have tended to be those which are less impacted by the change (such as adjusted interest rate cover above). This method of presentation does not show the short term damage to the majority of the ratios.

164. The issue of required equity injections deserves further attention. The assumption of stable gearing can only be maintained if debt and equity grow at exactly the same rate. Where assets grow very rapidly, additional debt and equity will both need to be obtained. Some investors may be content to recycle their dividends into the licensee businesses instead of providing new cash. But to suggest that investors have to recycle approximately 80% of dividends for many years to come is simply not realistic.

165. Ofgem has not publicised this new equity requirement fully and we believe that this call for massive new investment should be made clear in these proposals, which require many billions of pounds of new equity subscription to be provided by every equity investor in the industry if they are to be fully funded as is assumed. We do not think that this is remotely compatible with the consistent increase in new investment that we know to be required as the UK moves to a lower-carbon economy.

166. Ofgem also suggests these ratios should be viewed in the 'long-term'. Whilst this might be an appropriate view for a long-term investor to take, this is no use whatsoever when dealing with credit rating agencies. For very good reasons, agencies need to base their analysis on companies' budget data and are not prepared to rely on this data for more than three to five years ahead in any industry. Therefore, the credit rating is reviewed and re-examined annually based on updated budgets and based on a perspective very much shorter than that assumed by Ofgem.

167. Any financeability analysis cannot be complete without the full range of ratios and without an assessment of the three to four year effect of companies' credit assessments.

***Investor assessment will look at equity metrics, which are also damaged by Ofgem's proposals.***

168. Ofgem's consultants have also equity metrics that are built on regulatory parameters, and not those used by equity investors to assess the prospects for return on their investment. We note that in announcing the decision document for the RPI-X@20 project, which gave rise to RIIO, Ofgem placed great emphasis on the need to consider equity metrics along with credit metrics. We believe the below equity metrics should be also be considered.

169. Even the simplest consideration of equity metrics such as net income (profit after tax) and return on book equity (net income over the book value of the assets) shows that the huge step down in revenues, accompanied by the inevitable increase in asset values reduces the numerator and increases the denominator of the equity return. This is in marked contrast to the internal rate of return (IRR) based return that Ofgem tends to quote for its purposes. The gap that emerges between the two views is entirely due to the fact that the IRR method effectively implies a sale of the asset in terminal value. The more value that the regulator locks up in RAV, the higher the terminal value, and at the regulatory rate of return, the IRR is not affected.

170. We do not suggest that the equity markets are blind to the fact that the RAV has a value, but there is a limit to which it is reasonable to expect equity investors to give the same credit to a future promise from a regulator as it would to a forecast of net income over asset value. When comparing investment opportunities, shareholders will inevitably place significant weight on the standard assessments that can be applied across the whole range of investment opportunities. It is unrealistic to think that a collapse in equity return will have no consequence for investor confidence and willingness to make further investments. In essence, the concern that the diminution in equity return comes down to the fact that there is a difference between having earnings that are not distributed and not having them in the first place.

171. Under these proposals, our assessment shows that profit falls very sharply in the early years, taking more than 20 years to recover to baseline levels. After around 20 years, profit climbs steadily. It this steepening climb that we believe is not in customers' long term best interests, although it is necessary to repay investors.

172. Return on book equity is the percentage return available to investors from the equity that they leave in the business, measured in accounting terms. This is the measure publicised annually by the ultimate shareholder in CE and has been the enduring measure of return on the equity investments that have been made. The immediate effect of Ofgem's extension of asset lives is to harm return on book equity by 600 basis points.

173. The projections of these ratios show how Ofgem's proposals damage investors' return and these will be used to assess confidence in the licensee businesses for the future.

Some nervousness appears to be already entering the market with National Grid share price showing a sharp reduction once the RIIO proposals had been digested. It is important to note that those analysts who have not marked down National Grid to this point appear to have refrained from so doing on the grounds that the regulatory proposals will work out much better than they are currently framed. On the other hand, those who are marking the stock down to a 'sell' grade are doing so explicitly because of the threat to revenues from the current proposals.

174. We therefore conclude that:

- further transitional arrangements will also be required to ensure that any change does not leave us with unacceptable credit and equity metrics; and
- Ofgem needs to be open about the very significant injection of new equity that is required from investors if operators are to sustain the extension of cash inflows without serious damage to their financeabilty.

175. We note that CEPA also recognise these points :-

> ***'1.5 Implications of the change***
>
> The simple modelling in section 6 and the more detailed modelling in section 7 shows, unsurprisingly, that:
>
> - shifting to a longer regulatory asset depreciation life can have a significant impact on asset cash-flows and consequently financial ratios;
> - this is exacerbated when linked with an above steady-state level of capex; and
> - front- or back-end loading the depreciation profile can also have a significant impact on asset cash-flows.
>
> The implications of these effects on cash-flows will need to be considered by Ofgem as part of its broader financeability assessment under the RIIO principles at each price determination.

*1.6 Mitigating the impact through a transition period*

Simple modelling in section 6 shows that some mitigation of the cash-flow impacts is possible through the use of a transition period. Two possible options were illustrated:

- keeping existing asset lives for existing assets and only applying the new asset life to new assets; and/or
- gradually introducing the new asset life through a stepped increase.

These, and other transitional arrangements are not mutually exclusive and so, should Ofgem decide that a transition period is needed, it should be possible to design something that is appropriate.'

176. Even with the principle of a 45 year depreciation applying to new assets (and 20 years to existing) further measures will be required to maintain market confidence. We shall present our findings more fully in our response to the consultation on electricity distribution lives. For the present it is sufficient to record that even if transitional arrangements are assumed, the damage to the critical financial ratios is pronounced.

***Ofgem's claim to have signalled these changes over a long period of time is both dubious and irrelevant.***

177. We are pleased to see that Ofgem pays some attention to investors' expectations and that there is some recognition of the fact that changing the rules for existing assets in a way that disadvantages investors could have consequences for investor confidence and, therefore, for the cost of capital. However, Ofgem goes on to claim that it is not convinced that there is an issue in this case because:

> 'we have signalled for some time that the 20-year regulatory life was subject to review.'

178. We disagree with this statement. We do not accept that investors have been warned that Ofgem proposed to change the terms for their existing investments. The airing of an intention to review asset recoveries may imply that future investments could be made on a different basis; it does not imply that existing deals would be unilaterally re-written.

179. The first mention of such a regulatory intention that we have found in recent years was in Ofgem's January 2010 paper *Embedding financeability*. In the open letter Ofgem quotes an extract from a paragraph from the DPCR4 *Final proposals* as evidence of a long-signalled intention. We re-produce the full paragraph below:-

> 'In the longer term, it would be reasonable to expect the price control treatment of long-lived assets to more closely approximate to their useful technical or economic lives, for example so that the customers that pay for an asset are those that derive benefit from it. Were it not for the peculiarities of pre-vesting asset lives and the need to maintain broadly stable financial profiles, it seems unlikely that 20 year lives would be optimal. Ofgem will want to review this issue at the next review in the light of these considerations.'

180. It is clear that Ofgem also signalled in this paragraph the need to maintain broadly stable financial profiles, a position maintained in the DPCR5 review. Investors are entitled to believe that this sent a clear signal of stability, rather than being a notice of retrospective re-negotiation.

181. Moreover, we do not accept that merely giving notice (even lengthy notice) of a change in approach can obviate the adverse effects of a change of this magnitude. The change itself is what destroys confidence when investments have already been made.

182. Whatever else Ofgem may be contemplating it is vital that existing assets continue to be remunerated on the regulatory depreciation life that was in place when the investments were made.

***Shorter payback periods provide greatly improved price signals to users and incentives to operators.***

183. The presumption that the regulatory depreciation period should be aligned with the economic life of the asset neglects to take account of the fact that in competitive markets prices are not driven by physical lives but the economics of the market and uncertainty about economic viability.

184. We have argued previously that there is merit in the regulatory asset life being shorter than the technical or the economic life of the asset because this will send a sharper

signal about the investment consequence of incremental demand, thereby focusing the attention of customers, regulators and licensees on the price consequences of investment. We made this point at the last electricity distribution price control review (DPCR5) and in all of the relevant responses we have made to the RPI-X@20 consultations. The point has not been addressed in any Ofgem publications but we believe that it has merit and should be considered seriously.

***We conclude that Ofgem's proposals with respect to asset lives are unsustainable.***

185. In summary, Ofgem's financeability proposals would deny a licensee 'top line' revenue at precisely the time that it needs it to invest in the business, on the strength of a promise that it will be able to recover these amounts when it will not need the cash. The policy is misconceived because it fails to recognise the realities of the markets in which licensees have to finance their activities and it fails to take account of the range of factors to which the ratings agencies pay attention. Moreover, the promise of repayment in future years lacks credibility and there is nothing that Ofgem can do to overcome this.

186. We do not see the merits of a situation where Ofgem would *deny* a company access to cash at a time when it needs it only to promise to give it *more* cash (i.e. the same net present value) in the future. The result would be that the customers would have been saddled with a financing charge that could have been avoided. It seems difficult to argue that this is an appropriate way to look after customers' interests.

***Ofgem's proposals for the indexation of the cost of debt are ill-formed.***

187. The current regulatory review cycle sees the cost of debt re-assessed every five years based on a historically varied range of criteria, most recently with the consideration of a long-term trailing average. With the proposed duration of the review period under RIIO being extended from five year to eight years we appreciate why Ofgem considers that it would be appropriate to consider the need for a reset mechanism given the longer gap between reviews. Any reset mechanism needs to look to balance the long-term financing needs of the licensee suggesting long-term and broadly-based data with the immediate financing needs in the next regulatory period. The usefulness of the reset may be minimal if a long-term average is used.

***There is inadequate recognition of the long-term nature of the business being financed.***

188. The use of debt in infrastructure companies reflects the very long term nature of their investments and the appetite of debt markets to provide finance to businesses with a predictable and durable return. For this reason, infrastructure companies may hold very long-dated debt. The average maturity of CE debt at the beginning of the DPCR5 period was 17 years, reflecting the desire to align financing with asset hold and business longevity. The theme of longevity of financing is one that rating agencies have found increasingly important in recent years, evidenced at the other end of the telescope by the credit rating agencies' push to see working capital facilities secured or renegotiated a year in advance. Rating agencies have stated that it would be inappropriate to see any more than one third of an operator's debt maturing in a given price control period. We believe that even this level of refinancing may be incompatible with a long term asset ownership position.

189. We would expect that any method used to determine the cost of debt would take full account of the longevity of the business and assets being financed. Long-term indices may be helpful here if they are adapted to align to the debt that is prevalent amongst infrastructure companies – that is long-dated and moderately well-rated (in the A- to BBB range). With this in mind we question the application of a broad index based on ten-year maturities as reflecting the actual or desired composition of debt. This choice loads interest rate risk onto companies over the medium term. Nor does the application of ten-year maturities reflect the economic life of the asset which is being more than doubled from 20-years to over 40 years.

***The themes of longer regulatory depreciation and shorter-term financing appear to be contradictory.***

190. We do not understand the correlation between a regulatory desire to extend the recovery of capital invested from 20 years to a much longer period with the desire to use a debt indexation mechanism that is based on ten years. These themes seem inconsistent. On the contrary, we would expect a move to a longer asset investment recovery to be matched by a move to provide for the cost of longer-term financing. A minimum rate would be the 15-year financing rate, with the expectation of a spread of debt around this tenor so as to allow for efficient refinancing.

***Ofgem's evaluation criteria for a cost of debt index are sensible.***

191. If an index-based approached were to be introduced then we agree that the evaluation criteria laid out in the consultation document provide a reasonable basis. The index should reflect the items listed including simplicity, transparency, credibility, fully mechanistic etc. The parameters used in setting the index are of greater consequence that the approach itself and it is essential that these be reflective of the efficient historic interest costs incurred by the infrastructure companies. The composition of the index must be representative of the industry and not weighted or skewed by other types of entity, be they sovereign securities, index-based indicators or spurious and unconnected industrials.

***Mathematical averages in indices are problematic because they cannot capture the characteristics of infrastructure companies…***

192. We have set out above how the use of a standard ten-year maturity appears to be inappropriate. We also question the appropriateness of a mathematical average for calculating the cost of debt. A simple average of A and BBB rated entities does not reflect the characteristics of infrastructure companies, as there is not a simple average of A rated and BBB rated companies in any infrastructure sector. A simple average will not adequately finance a BBB rated entity and will in theory over fund an A rated company. The achievement of a higher rating will necessarily require some investment or comparable effort on the part of an equity investor and the differential in rating is the reward of this commitment. This highlights the pitfalls of an index-based approach when perhaps a more realistic and fact-based approach may deliver better value for customers and ensure that efficiently-incurred debt can be funded properly.

***…so a mix of a 15-year trailing average and actual debt costs tends to be closer to reality than a 10-year assumption.***

193. Rather than using indices and averages, the efficient approach would see a long-term average cost of debt applied to all debt based on a 15-year BBB rated corporate bond priced on a 15 year trailing average. Debt more than 15 years old would be remunerated at the actual cost (subject to its having been efficiently incurred), with new debt funded at the average for the price control period to encourage efficiency.

194. This more tailored approach mitigates the risk associated with the 'one-size fits all' application of averages from across different infrastructure sectors. The cost of debt for a BBB rated bond will differ between transmission, distribution, water and airports. For example in the 2035 bonds for NEDL and YEDL were issued at the same coupon but the daily spread on the bonds is different despite the issuances being made on the same day, with the same maturities, with the same ownership characteristics and regulatory environment. Therefore the application of an index and actual approach would give each entity a different revenue stream to cover the same interest cost.

***Debt issuance costs should be funded on a cash flow basis.***

195. For the reimbursement of the debt issuance costs we would support their treatment on a cash flow basis in line with the funding of operating expenses. The alternative would be to align the funding to the maturity but would this be done on the maturity assumed in the regulatory settlement or on the actual maturity of the debt issued.

***Gearing should not exceed the DPCR5 assumption.***

196. We would recommend that assumed gearing levels go no higher than the DPCR5 assumption of 65%. It is important that infrastructure companies maintain enough flexibility to access finance at an efficient cost when it is appropriate to do so rather than introducing any risk associated with gearing limits. That is to say, encouragement should be given to maintaining headroom against the gearing targets so that companies can operate effectively in stressful times.

***The cost of equity range indicated by Ofgem does not meet the needs of equity investors.***

197. In the *Consultations* Ofgem suggests a range for the cost of equity of between 4.0% and 7.2% (post-tax, real).

198. The top end of this range is insufficient to attract equity into the sector.

199. In the UK investment remains a voluntary activity. There are plenty of competing and more attractive places for investors to deploy their capital than in the British networks sector if the range of equity return indicated by Ofgem is going to be a feature of the regime in future.

200. Ofgem’s proposed range for the cost of equity has to be seen in the context of increasing financing requirements for infrastructure generally. It is hard to imagine that providers of finance will be attracted by Ofgem’s proposed range for equity returns. Back in July 2010 Invesco commented on the relative unattractiveness of the networks sector in the presence of potentially greater returns elsewhere:

> ‘The simple laws of economics must also play a hand here. When a world of constrained capital (supply) meets a vastly increased level of demand for that capital, returns (or price) must rise in order to establish a new equilibrium. This is the opposite of recent trends in the utility space. Both Ofwat and Ofgem in recent judgements have reduced regulated returns in the water and energy industries reflecting what we believe to be a fundamental mispricing of the cost of capital, borne of a fundamental lack of understanding of the capital allocation process that takes place in an institution like Invesco Perpetual.’

201. We note that the DPCR5 settlement introduced the notion that acceptable equity returns would depend upon securing out-performance against the DPCR5 assumptions. That may be acceptable in a particular review (though it rather depends upon the opportunities’ inherent in the assumptions made at each review). However, if this approach is formalised in the way that Ofgem carries out price control reviews, it has clear implications for the base cost of equity (i.e. the returns that an investor could make without assuming out-performance of the settlements. This pushes the base equity return beyond the range that Ofgem indicates. This fundamental shift needs to be recognised as these reviews progress.

***Ofgem’s proposals for the recovery of pension deficits should not exclude deficits relating to activities that are part of the licensed business but happen to be remunerated by non-price controlled revenue.***

202. Pension principle 2 in the appendix to the RIIO financial issues paper indicates that only the liabilities of the regulated business should be taken into account in assessing the efficient level of costs for which allowance is made in a price control and it is for shareholders to fund liabilities associated with businesses carried on by the wider non-regulated group. The guidance goes on to say that in principle the exclusion of non-regulated activities could include the self-financed activities within transportation or

distribution networks. However, importantly the guidance concludes that these costs are not readily separable from other costs within the regulated business and will be treated on a case by case basis.

203. Quite rightly, for distribution companies in the DPCR5 *Final Proposals* no attempt was made to separate these self-financed activities in calculating the regulatory fraction for deficit calculation purposes. It is not possible to separate the liabilities in such a manner because no records exist to provide such information. Moreover, even if it were possible to separate the deficit liabilities in this way it would be wrong to do so because it would be inconsistent with the approach taken by Ofgem to the regulatory fraction. The underlying purpose of the regulatory fraction calculation was not to separate out the components of the deficit that could be attributed to *price controlled* income but to derive an amount of the deficit that related to the licensed distribution activity (i.e. the Distribution Business of the licensee). This is appropriate because the pension liabilities that are the subject of the deficit recovery arrangements arose from the discharge of the obligations of the Distribution Business rather than the sub-set of those obligations that happens to be recovered through price controlled use of system charges. It is therefore unnecessary - and it would be completely illogical - to try to attribute a share of the deficit to the activities that remain part of the Distribution Business but which are remunerated other than through the price control formula. We would welcome Ofgem's assurance that no attempt will be made to re-open the DPCR5 position for the established deficit.

204. Moreover, we are concerned that Ofgem believes that such a separation can be achieved prospectively; this is not possible because individuals within the Distribution Business work on all these activities and are not discretely allocated to activities that are remunerated by price controlled or non-price controlled income.

205. Accordingly, we urge Ofgem to maintain the distinction that was applied in the DPCR5 *Final Proposals* and to differentiate by reference to activities that fall inside or outside the Distribution Business of the licensee rather than trying to apply the test of whether the activity is remunerated by price controlled revenue.

***Ofgem's proposed efficiency tests must take proper account of the scheme assumptions at the time of valuation.***

206. We also believe that as the proposed methodology is further developed it will prove increasingly complex and costly with potentially future unpredicted and undesired effects.

207. An example to consider is that whilst companies will be subject to efficiency tests, each scheme will potentially have a different set of assumptions appropriate to their scheme at the time of valuation. One company may take a reasonable view of mortality at the established valuation date. This view may be different from the view of another company but later experience shows that the first company could have taken the same view as the other company which assumed a different mortality assumption at the established deficit valuation date. At the next valuation the first company adopts the mortality assumption assumed by the second company. The end result for both companies is the same at the second valuation date but the path for getting there will mean that one company is funded for this mortality liability via the established deficit and the other by the new incremental deficit; this results in different allowance setting consequences.

## RIIO-T1 AND RIIO-GD1 IMPACT ASSESSMENT

208. We have very few comments to make on the Impact Assessment for the *Consultations.* Most of the impacts seem to be fairly described in the qualitative sense and the absence of much in the way of a quantified Impact Assessment is no great loss as it would necessarily be very speculative indeed.

***Ofgem's impact assessment misrepresents the consequences of the proposed cost of debt index…***

209. We strongly disagree with the assessment of the benefits that will flow from indexing the cost of debt (paragraph 2.32). We do not believe that Ofgem has demonstrated that the indexation mechanism will have the properties that are necessary to enable it to be used so as to ensure that efficient companies will be able to finance their licensed activities. The fact that it will be used to remove what Ofgem calls the 'headroom' on the cost of debt at a price control review needs to be balanced by a proper recognition

of the original purpose of that headroom (which was to recognise the embedded debt costs as well as the likely forward debt costs during the price control period) and the adverse effects that a mechanistic debt index may have on licensees' incentives to finance their businesses efficiently.

***…and the proposed change to regulatory depreciation will have adverse consequences for investors' perception of risk.***

210. Similarly, we fundamentally disagree with the assessment of the impact of changing the asset lives. Ofgem asserts that this will improve inter-generational fairness without considering the benefits that present day customers are receiving from the low opening privatisation values and without considering the effects on licensees' ability to attract investors where the cash flows are likely to be so adverse over so long a time period.

211. Otherwise our criticisms of the Impact Assessment are minor and flow from our observations on the main parts of the *Consultations.*