energynetworks association

ENA Response to Ofgem's Consultation "Regulating Energy Networks for the Future - RPI–X@20 Recommendations"

September 6th 2010

1 Introduction and summary of conclusions

At the end of July, Ofgem published its 'recommendations' for how energy network regulation should work and, in particular, for how reviews of energy network price controls should be conducted.[1] Many of these recommendations had been previously aired in earlier consultations and working papers, but Ofgem's thinking has also evolved in a number of areas, at least since the last formal consultations—i.e., the 'Emerging Thinking' consultation[2] and the associated paper 'Embedding Financeability in a New Regulatory Framework'.[3]

ENA has previously indicated its support for a number of the proposals which have survived into the Recommendations. In addition, we broadly agree with Ofgem on some of the proposals which have evolved in the Recommendations from previous positions. Both of these areas of agreement are summarised in section 2.

However, there remain significant areas where we either disagree or have concerns. In particular, we strongly disagree with Ofgem's assumptions and proposals on financeability.

– Ofgem is taking an unrealistic view of the cost of capital implications for its effective proposal to lengthen the duration of cash flows.

– As regards the proposal that the regulatory lives of assets should be linked to the expected economic lives of the assets in question, Ofgem's proposals for a rapid transition from the status quo pays too little regard to the materiality of the impact for companies or to the regulatory reasoning and decisions which led to the current mismatch between regulatory and economic asset lives in electricity. At the very least, the transition should be longer than Ofgem proposes.

– Ofgem's proposals for mechanising the cost of debt, in the overall cost of capital calculation, are inconsistent with Ofgem's statutory duties. Ofgem needs, at each price review, to make its best estimate of likely financing costs in the next price control period,

[1] Ofgem (2010), 'RPI-X@20 Recommendations', July 26th. Ofgem (2010), 'Implementing Sustainable Network Regulation', July 26th.
[2] Ofgem (2010), 'Emerging Thinking', January 20th.
[3] Ofgem (2010), 'Emerging Thinking – Embedding Financeability in a New Regulatory Framework', January 20th.

albeit that longer price control periods may require a within-period adjustment mechanism—which could be the mid-period review.

- Although Ofgem is sticking, for the moment, with RPI-indexation, any move to CPI-indexation for RAV or within-period indexation of allowed revenue would be inconsistent with the (financial capital maintenance) basis on which previous price controls have been set.

Other areas of concern include the following.

- The position which Ofgem has reached on third party appeals, while not changing the legal position from what it is now, would look to be inconsistent with other aspects of Ofgem's recommendations, in particular those with respect to well-justified business plans and enhanced third party engagement (both of which we broadly agree with).
- It is an open question whether eight-year price controls will deliver the benefits which Ofgem claims and we do not see a case has been made for the proposal. However, if such a change was implemented, then Ofgem needs to be far clearer than it has been, thus far, as to just how uncertainty mechanisms, including the mid-period review, will work.
- We do not see how Ofgem's proposals for selective fast-tracking of the price review process can work or, if it is implemented, how it can be in the interests of consumers.
- Ofgem's proposal for, in certain circumstances, itself to be the purchaser of large, separable network enhancement projects flies in the face of its own views on the power of economic incentives and of its own record with, for example, the enduring regime for offshore transmission.

We cover the issues with which we have concerns as follows:

- in section 3, Ofgem's proposals for handling third party appeals against its own price control decisions;
- in section 4, the issue of price controls lasting for eight years;
- in section 5, the issue of fast-tracking price control decisions for some companies;
- in section 6, the issue of third parties having a greater role in the delivery of network outputs;
- in section 7, various issues associated with 'financeability', including:
  - the implications for companies' cost of capital of lengthening the period over which cash flows accrue and the role of 'regulatory commitment' in influencing these implications;
  - the basis for capitalising expenditure into RAV, the length of regulatory asset lives and the associated profile of regulatory depreciation;
  - the use of a backward-looking formula for determining the debt component of cost of capital;
  - the potential partial or total substitution of the Consumer Prices Index (CPI) for the Retail Prices Index (RPI) in determining allowed revenue.

2 Recommendations with which we agree

In our response to Ofgem's Emerging Thinking consultation, we noted several issues on which we broadly agree with Ofgem—and this list has been slightly expanded in the light of the latest recommendations.

- We agree with Ofgem's rejection of ex post regulation and with the recommendation to enhance the existing ex ante approach—for the reasons given by Ofgem, for the reasons given by Ofgem's consultants on this issue and for the reasons given in our previous submissions on RPI–X@20.
- We agree with the general focus on the incentivisation of outputs/outcomes, not least to reflect that we are now in a period when government policy and network users require more outputs from networks, rather than simply reduced costs.
- We agree, in principle, with Ofgem's desire to enhance third party engagement in the price review process, both to improve the quality of price control decisions and to enhance the legitimacy of those decisions. However, we are not clear how, in practice, this aspiration is consistent with Ofgem's proposals for 'fast-tracking' or indeed with the proposals on third party appeals against Ofgem's price control decisions. These latter issues are picked up in sections 3 and 5 below.
- We agree with the thinking underlying the nature of business plans (whether 'richer' or, as now, 'well-justified') which will be required as part of the price review process—and see this as complementary to measures designed to enhance third party engagement in the price review process, as well as being necessary to achieve the desirable linking of allowed revenue to outputs.
- We agree with the use of a specific innovation stimulus, not least because, as Ofgem itself recognises, many of the benefits of innovation will occur beyond any one price control period and will accrue to parties other than energy network operators.
- We agree with the intention to equalise incentives in respect of operating and capital expenditure and we also agree that the deemed ratio between OPEX and CAPEX for price control purposes should be more closely linked to the ratios for actual anticipated spend than it was in DPCR5. At the same time, we think that Ofgem may be underestimating the problems with total cost benchmarking, itself a necessary requirement for not distorting incentives as between OPEX and CAPEX.
- We agree with Ofgem's modification of its position on compelling divestment of network assets—i.e., that it has now ruled out the option, discussed in Emerging Thinking, of requiring sale or lease of network assets where non-discriminatory connection terms were not met.
- We agree with the retention of RPI as the appropriate inflation index for indexing revenue within a price control period and for indexing the Regulatory Asset Value (RAV) between price control periods. At the same time, we note that Ofgem is keeping this issue under review and we pick up this issue in section 7 below.

3 Third party appeals against Ofgem's price control decisions

We recognise that, as Ofgem itself states, Ofgem's proposals in this area do not amount to a formal third party right of appeal, not least given Ofgem's continued role as a gatekeeper to the Competition Commission (CC). In one sense, as Ofgem itself implies, the proposals do little to change the current statutory position on price controls where nothing is settled prior to

the final statutory consultation. However, Ofgem's proposal—to be informed by third party representations, after Ofgem has itself made Final Proposals, as to whether or not to refer those proposals to the CC—does represent a significant break with current *practice*, where a network operator's acceptance of Ofgem's proposals terminates the review of that company's control, subject to subsequent licence drafting and the final statutory consultation itself.

Having said this, we find it hard to see how Ofgem's proposed change in practice is consistent with other proposals which Ofgem is making. Specifically, well-justified business plans and the processes to encourage enhanced engagement are designed to ensure that, among other things, everyone actively participating in the price review process should know the views of all other participants. Parties who do not participate effectively will not have their appeals allowed anyway, given that—according to Ofgem's proposals—appellants would have to provide evidence that 'the third party has engaged effectively throughout the price control review process with Ofgem, Network Licensees and any other relevant party'.[4]

In other words, the combination of (a) well-justified business plans, (b) enhanced third party engagement and (c) the requirement that only representations from active participants in the price review process will inform any third party-triggered reference to the CC should mean that:

– if Ofgem thinks the third party is making valid points, as part of its active participation in the price review process, then these points should inform Ofgem's Final Proposals for the price review;

– if, on the other hand, Ofgem thinks the points are not valid, then there would seem to be no reason for Ofgem to take account of these points either before of after Final Proposals.

In short, we cannot see how the version of third party appeals being proposed by Ofgem is consistent with other proposals which are at the heart of Ofgem's recommendations (and with which we agree), particularly those in respect of well-justified business plans and enhanced third party engagement.

4 Eight-year price controls

Ofgem is proposing that price controls should last for eight years, with a provision for a mid-period review of the outputs than network companies are required to deliver. Ofgem's main justification for this proposal is that it will encourage companies to take a longer-term view of their networks.

We think it is an open question whether eight-year price controls *will* achieve this objective—and Ofgem's statement that it will keep the length of price control periods under review suggests that Ofgem itself has some doubts[5]. We also think that the proposal is notably inconsistent with Ofgem's frequent acknowledgement of the uncertainty as to what energy networks will be required to deliver in the longer term, an uncertainty which has indeed been one of the main reasons for Ofgem undertaking the RPI-X@20 process in the first place.

However, if longer-term price controls are to be a feature of the next round of price reviews, our main initial concern is with how the proposed mid-period reviews will work. For example, Ofgem says that the mid-period review will concern itself only with changes in the required

[4] Ofgem (2010), 'A Guide to Price Control Modification References to the Competition Commission – Licensee and Third Party Triggered References', July 26th, para 2.4.
[5] Ofgem (2010), 'Implementing Sustainable Network Regulation', July 26th, para 5.15.

outputs since the last main review—and will not, for example, make revenue adjustments for changes in input prices. This begs the question of what input prices would then be assumed in the mid-period review for *new or enhanced* output requirements. To use anything other than the most up-to-date information would arguably be inconsistent with Ofgem's financing duties—however, to use this latest information only for new outputs/projects begs the question of whether it is literally only outputs which are being reviewed or outputs and costs and, if the latter, how wide the cost review would or should go.

In addition, there remains the problem—noted in our submission to Ofgem of June 15th—that companies would have no apparent right of appeal against a refusal by Ofgem to make adjustment as a result of a mid-period review. This is because, in this case, there would be no licence amendments.

Against this background, and in the absence of a more detailed and plausible description of how mid-period reviews will work, companies may fear that the ambiguity which attaches to the mid-period review process, as currently described, will be asymmetrically interpreted to the disadvantage of companies—i.e., Ofgem will be more likely to use any mid-period adjustments when unexpected developments in the first few years of the control have worked in favour of companies. Any unexpected developments which have worked against companies could be ignored by Ofgem and, as noted above, a company would have no right of appeal to the CC in the face of no changes to its licence. At the very least, Ofgem needs its final conclusions on RPI-X@20 to provide significant more detail on:

- what will, and will not, be up for grabs at the mid-period reviews;
- how companies would have right of appeal in the face of Ofgem's refusal to make licence amendments to accommodate material unexpected changes in the first four years of the extended price control.

5 Fast-tracking within price control reviews

Ofgem makes much in its recommendations of its 'proportionate' approach to price reviews. In particular, it suggests that some companies could be 'fast-tracked', with their reviews (including relevant licence drafting) completing inside 12 months or so, rather than the default 30 months.[6]

We find it difficult to see how this fast-tracking process would work, or why it would be a good idea for consumers even if could be made to happen, for a number of reasons.

- Ofgem itself is ambiguous about when exactly the 'generic' parameters of the review (including required outputs, cost of capital and incentive and uncertainty mechanisms) would be definitively settled—stating only that it would commit to these at an early stage in the review 'as far as possible'.[7] However, without these (and probably other) parameters being completely nailed down at an early stage, fast-tracking would look to be logically unachievable.
- Ofgem and other regulators routinely start price reviews with the intention of sorting out the big issues at an early stage. This has rarely, if ever, been achieved, and for a number of reasons, including the following.
  - Even without relevant 'facts' changing, price reviews are dialectical processes. Ideas evolve throughout reviews and one would hope that Ofgem's proposed

[6] Ibid., Chapter 2.

[7] Ibid., para 3.3.

'enhanced engagement process' will make these interactions even more productive in future reviews than in past reviews—otherwise, enhanced engagement will have failed. For this reason alone, it is not credible that Ofgem will reach the position which is best for (present and future) consumers at an early stage in the review.

  - Relevant facts do not typically stay unchanging throughout a price review—'stuff happens'. Decisions taken later in a price review will be informed by more of this stuff and will therefore be likely to be better decisions. Given this point in particular, it is a moot issue why any network company would want to be fast-tracked.

- Ofgem may think that it will be easier to set the cost of capital at an early stage in the price review because it takes the view that cost of equity can be assumed to be relatively unchanging and because of its proposed automated/backward-looking estimation of the cost of debt. However, the experience of the last few years suggests that the cost of equity can be quite volatile and we give reasons in section 7 below why we think that Ofgem's proposed approach to the cost of debt is both unsatisfactory and, as implied by the CC's provisional findings in respect of Bristol Water's price control, inconsistent with Ofgem's statutory duties.

- The problem of data becoming out of date will be exacerbated by Ofgem's proposal for eight-year price controls. Ofgem's fast track proposal would, on the face of it, seem to imply that fast-tracked companies would be exposed to decisions made up to ten years before the end of the relevant price control period.

For these reasons at least, we cannot see how fast-tracking, as apparently envisaged by Ofgem, could work to the advantage of consumers. It will probably mean either that a number of price review decisions will be less well-informed than they need to be or that fast-tracked companies have an option to re-open to take advantage of decisions taken later in the price review process—which would question what actually fast-tracking would really mean.

6 Role of third parties in the delivery of network outputs

Ofgem's proposals in this area comprise two main variants.[8]

- Ofgem might require network companies to explore the option of giving third parties a greater role in delivery, albeit with the relevant licence obligations remaining with the incumbent network company.

- For 'large, separable enhancement projects', Ofgem might, following a competitive process run by Ofgem itself, licence third party entities to deliver particular projects and to own the relevant assets.

As regards the first of these options, Ofgem will be aware of the substantial contracting out of delivery already undertaken by the network companies and the strong incentives which companies already have to optimise the division between out-sourced and in-house delivery. It is not obvious that the additional threat of compelling exploration of further contracting-out would significantly change or sharpen the incentives which currently exist.

On the second option, it is true that, as in previous consultation documents, Ofgem qualifies the threat of separate licensing of third party in a number of ways, including that it would not consider the option if there was a risk to timely delivery of key outputs. However, more fundamentally, it is not obvious that Ofgem is likely, even in principle, to be a more efficient

[8] Ibid., Chapter 13.

purchaser of major network projects than is an existing licensee. It is odd that Ofgem, with its belief in the power of financial incentives, believes that highly financially incentivised network companies might perform less well in this regard than a government agency operating without any such incentives.

In this regard, Ofgem might, in addition, have acknowledged the history of its own involvement as a purchaser of 'enduring' offshore transmission projects—a history which has meant that, despite the relevant issues being under consideration for many years (over five years since the first consultation paper on the issue), neither Ofgem nor the government has managed to decide, even in principle, how offshore transmission will work on an enduring basis. The recent joint DECC/Ofgem consultation on a 'generator build' option not only highlights the general lack of resolution which still surrounds the overall offshore transmission project but also the specific problems posed by Ofgem interposing itself between users (in this case, offshore developers) and providers in the procurement of large network construction projects.[9]

Overall, Ofgem's proposal to retain the option of itself as a procurer of large separable network enhancement projects is not supported by economic logic (at least for those who believe in the power of financial incentives) nor by the evidence of its own record in this area to date.

7 Financeability

Ofgem's broad proposition on financeability has the following main elements.

– Companies should be responsible for their own financeability, given an appropriate rate of return, adjusting their level of gearing to changing circumstances (through injection of new equity if necessary).[10]

– For a given rate of return, investors should, in the round, be indifferent between different profiles of cash flow. Any lengthening of the duration of cash flows, but holding the rate of return constant, is 'value neutral'.[11]

– The value neutrality of, for example, delaying cash flows will be underpinned by 'regulatory commitment' to 'clear, ex ante rules and principles' which 'would provide as much certainty as possible to investors, companies, rating agencies and consumers whilst ensuring that our ability to react to future events is not unduly constrained'.[12]

– Although increasing the duration of cash flows should not affect financeability, a sudden reduction in cash flow (from lengthening regulatory asset lives) 'could increase perceived regulatory risk'[13] and Ofgem will consider a transition period, albeit not one lasting more than one price control period[14].

– Changing the duration of cash flows will be driven by (a) the rate of regulatory capitalisation of companies' expenditure, (b) the regulatory life of the capitalised spend and (c) the profile of regulatory depreciation within that life.

[9] Ofgem E-Serve/DECC (2010), 'Providing additional flexibility in the enduring regime for offshore electricity transmission – Ofgem E-Serve/DECC open letter', July 27th. Ofgem E-Serve/DECC (2010), 'Offshore Electricity Transmission: Further consultation on the Enduring Regulatory Regime', August 26th.

[10] Ofgem (2010), 'Implementing Sustainable Network Regulation', July 26th, para 12.18.

[11] Ibid., para 12.52.

[12] Ibid., para 12.5.

[13] Ibid., para 12.41.

[14] Ibid., para 12.53.

  - Ofgem proposes that the rate of regulatory capitalisation of a company's total spend will be linked to that company's expected spend but could be varied in the interests of 'inter-generational fairness'.[15]
  - It proposes that the regulatory life of assets should reflect what Ofgem expects their economic life to be.[16]
  - The default approach to regulatory depreciation through the specific regulatory asset life would be straight-line depreciation but this profile could be front-end loaded or back-end loaded, depending on whether Ofgem expected increasing or reduced utilisation of the relevant assets.[17]

- The cost of debt, as part of the overall calculation of the cost of capital, should be determined by a long-term year trailing average of forward interest rates.[18]
- The continued use of RPI indexation in price controls is at least partly contingent on the development of a market in CPI-indexed bonds.[19]

In sum, Ofgem's position is that:

- some companies will have to wait substantially longer for payback on capital investment, albeit that transitional arrangements might mitigate the abruptness of the change to the new regime;
- it will be up to companies to, if necessary, restructure their balance sheets to cope with this;
- there is no need for a higher rate of return to compensate for this extra waiting because Ofgem will commit to delivering on its side of the regulatory bargain in future price reviews—and investors will, in the round, accept this commitment as meaning that they will require no higher rate of return than if the cash had accrued earlier;
- the cost of debt component of cost of capital will be calculated on a formulaic backward-looking basis, whatever the expectations for the future at the time of a price review;
- Ofgem will continue with RPI indexation for the moment but might opt for CPI indexation (whose rate of change is, over time, systematically lower than for RPI), in whole or in part, some time in the future.

We think that much of this proposition is implausible and we certainly think much of it undesirable. In particular:

- it is implausible that Ofgem's proposals will not increase regulatory risk and cost of capital;
- the short period proposed for adjustment to different regulatory asset lives ignores the materiality of the proposed change and the fact that current mismatch between regulatory and economic asset lives arises from past mistakes made by regulators themselves;

[15] Ibid., paras 12.36-12.37.
[16] Ibid., para 12.38.
[17] Ibid., para 12.40.
[18] Ibid., para 12.24.
[19] Ibid., para 11.55.

– Ofgem's proposals for calculation of the cost of debt are inconsistent with its duties.

We expand on these and related ideas in the following sections, covering in turn:

– cash flow profiles and cost of capital;

– regulatory capitalisation and depreciation;

– calculating the cost of debt;

– CPI and RPI indexation.

7.1 Cash flow profiles and cost of capital

As noted above, Ofgem suggests that the proposed re-profiling of revenue which would result from its proposals for regulatory capitalisation and depreciation will not materially affect the cost of capital for energy network companies. This is also the basis for Ofgem's assertion that changing the profile of cash flows will not affect financeability. In other words, Ofgem thinks that investors, viewed in the round, are broadly indifferent to the cash flow profiles of the companies in which they invest as long as there is no change in the underlying rate of return being earned.

Reasons why Ofgem is being somewhat Panglossian in this view include the following.

– Ofgem itself is proposing transition periods before the proposed regulatory asset lives and depreciation profiles become completely embedded. This is justified on the basis that 'any sudden reduction [in cash flows] could increase perceived regulatory risk'.[20] This sits oddly with the proposition that investors are broadly indifferent to different cash flow profiles with the same rate of return. If investors are generally indifferent, they should perceive no greater risk from the changed profiles, at least as long as that risk is the sort of risk which affects cost of capital (and if it is not, then Ofgem would presumably not be worried about it). In other words, Ofgem cannot have it both ways—if changing the profile of cash flows affects perceptions of risk, then it can be expected to affect required rate of return, i.e. cost of capital. By proposing transition periods for its proposed changes to regulatory capitalisation and depreciation, Ofgem is effectively accepting that investors are not indifferent to different cash flows profiles with the same rate of return and are likely to demand a higher rate of return for less attractive cash flow profiles.

– Ofgem might argue that its proposed transition period is to allow some sort of transition from investors who worry about short-term cash flows to those who do not. However, Ofgem has yet to identify this latter class of investors. It would at least appear not to include the person running one of the biggest UK funds investing in infrastructure, Neil Woodford of Invesco. The FT of August 14th (under the headline 'Invesco pulls plug on utility bail-outs') reported one of the major value investors in the country as being unattracted by Ofgem's proposition that financeability could be solved—and more or less costlessly—by investors injecting more equity into energy network businesses.

– Although the issue of cost of capital and duration of cash flows is not one which is it is easy (or even possible) to resolve within the framework of Ofgem's preferred Capital Asset pricing Model (CAPM) framework for estimating cost of capital, the work which ENA commissioned from Oxera, and which has been submitted to Ofgem, suggests that, even within the confines of orthodox financial theory, increasing the duration of cash flows can be expected to increase the cost of capital for relatively low beta

[20] Ibid., para 12.41.

businesses (like energy networks).[21] We are unconvinced by the Ofgem/CEPA response to this paper[22] which asserts that, among other things, an increase in the duration of cash flows would be immaterial for a regulated energy network (not least because the yield curve is relatively flat at the longer end) and that cash flow betas for regulated utilities may not be in the range where expected returns increase with the duration of cash flows.

– The distinction between cash flows within the current regulatory period and cash flows in future regulatory periods does matter, due to the perception of regulatory risk and uncertainty. Even if it were the case that this distinction is slight and that investors attach little additional weight to an assessment of cash flows over the current regulatory period relative to cash flows over the asset lives, the increase in the duration of cash flows, at least for electricity network companies, is likely to be from approximately 7 to 14 years, hence occurring over a relatively steep part of the yield curve and having a material impact on the cost of capital.

– While the framework in the Oxera paper suggests that the cost of capital for some companies with very risky cash flows declines as duration increases, for regulated utilities—where the risk of cash flows is likely to be lower than for the average company—the relationship between duration and the cost of capital is likely to be positive. The critical parameter in this framework is the 'cash flow beta', which is lower than both the asset and the equity beta. For a regulated utility, it is almost certainly the case that the cash flow beta is comfortably within the range for which the cost of capital increases with duration.

– Moving beyond the academic debate, we simply find it implausible that pushing cash flows out over several more price control periods will not increase perceptions of regulatory risk and uncertainty. This is not only because more stuff can happen over time. It is also for at least two further reasons.

– Ofgem's proposed approach—in which the impact of variations in CAPEX on company balance sheets is that much greater as a result of longer duration cash flows—means that, some time in the future when CAPEX tails off, companies will have significant financial surpluses. It is naive to think that larger surpluses than would otherwise be the case will not prove a temptation to the government and/or regulator of the day—and that investors will not factor this into their own calculations.

– These problems cannot be solved by the 'commitment' which Ofgem talks about. Setting out clear principles now is desirable in itself but does not get over the fact that UK regulators have spent the last 20 or more years repeating that they cannot fetter the discretion of their successors. Any 'commitments' made by current regulators cannot, logically or constitutionally, transcend this very basic barrier.

To be clear, we do not see anything intrinsically wrong with the proposition that it is for companies to sort out short-term financeability issues *within the context of an appropriate long-term financial framework*, including an adequate assumed rate of return. Instead, we find it worrying that Ofgem should be ignoring the extent to which extending the duration of cash flows is likely to affect the willingness of investors to bankroll investment in energy networks and the cost at which they would be prepared to provide financing.

[21] Oxera (2010), 'What is the impact of financeability on the cost of capital?', report prepared for Energy Networks association, June 9th.
[22] CEPA (2010), 'Cashflow profiles and allowed WACC', July.

7.2 Regulatory capitalisation and depreciation

In DPCR5, Ofgem broke the link between what capital expenditure companies were expected to incur and what would be capitalised into RAV. In the Recommendations, Ofgem is proposing to partially, but only partially, restore this link. In other words, in the interests of helping to equalise incentives between OPEX and CAPEX, Ofgem will continue to set a fixed percentage of total expenditure to be capitalised during the price control period. However, this percentage will be informed by, but not constrained to equal, the share of CAPEX in companies' expected total expenditure. This is because Ofgem wants to reserve the option of varying the capitalisation percentage in order to achieve what it considers to constitute 'intergenerational fairness'.[23]

It is true that Ofgem also recognises that that 'if the regulatory approach to certain expenditure items deviates significantly from the treatment of those same costs by companies, it is likely that perceived regulatory risk would increase'[24]. However, the meaning of 'significant' in this context would seem to be at Ofgem's discretion and no investor is likely to be reassured by the statement that 'We believe that establishing clear, ex ante rules and principles, would provide as much certainty to investors, companies ratings agencies and consumers while ensuring that our ability to react to future events is not unduly constrained'[25] when Ofgem's underlying consideration in determining regulatory capitalisation is its views on inter-generational fairness, views which are unlikely to be constant through time.

Clearly, regulatory capitalisation and regulatory depreciation will jointly influence the profile of allowed revenue. Ofgem's proposals on regulatory asset lives themselves (as opposed to the cost of capital implications of changing them, covered above), have several aspects.

- Regulatory asset lives should reflect the expected economic lives of the assets in question.
- Any adjustment to the appropriate life should take place over, at most, one price control period, albeit that there are a number of different adjustments paths which could be followed over that period.
- It might be appropriate to profile regulatory depreciation, within the designated economic life, in line with Ofgem's expectation of the utilisation of the assets in question.

Regulatory asset lives and the transition period
Other things being equal, regulatory asset lives *should* reflect expected economic lives of the relevant assets. This is because, among other things:

- spreading the cost of assets over their lives is both 'fair' and, unlike with Ofgem's proposals on regulator capitalisation, would base that fairness on judgements (about economic asset lives) which might have some minimal level of objective content;
- this is the basis on which statutory accounts are prepared and is likely to be broadly aligned with how a firm in a competitive industry might try to recover its costs from its customers.

However, Ofgem's proposal to transition quickly (i.e., within one price control period) to new asset lives which might be substantially different from those currently assumed ignores both:

[23] Implementing Sustainable Network Regulation, paras 12.27 – 12.37.
[24] Ibid., para 12.36.
[25] Ibid., para 12.5.

– the very material effect which such a change could have on some companies (mainly electricity network companies because, for gas networks, Ofgem would seem to be proposing that changed regulatory asset lives would be, to a greater or lesser extent, offset by changes in regulatory capitalisation); and

– the reasons why electricity network asset lives are currently what they are. Specifically, the reason for the current misalignment between regulatory and economic asset lives is that the Office of Electricity Regulation (Offer) tried to simplify its financial modelling in the mid 1990s when setting price controls for the distribution businesses of the then Public Electricity Suppliers. Offer's simplifying assumption—that all pre-privatisation assets had a remaining regulatory life equal to the *average* remaining life of the assets in question—led directly to the problems which persuaded Ofgem (initially in DPCR4 but then in TPCR3) to shorten the regulatory lives of post-privatisation assets from 40 years to 20 years.

Thus, to suggest that investors should take a material short-to-medium-term financial hit because of problems caused the then regulator would seem, on the face of it, to be more than somewhat unreasonable (as well as inconsistent with Ofgem's overall view that *companies* should be penalised for poor performance). At the very least, the transition to more economically realistic asset lives should take place over a significantly longer period than one price control period.

Profiling regulatory depreciation

On the basis of the above, Ofgem's plans to transition quickly to economic regulatory asset lives for electricity networks would look to be unreasonable. However, Ofgem is thinking about compounding this problem by changing the profile of regulatory depreciation *within* the given assumed regulatory lives. Specifically, Ofgem suggests that

> ....for electricity distribution there is a real possibility of growth [in asset utilisation through time] as the transition to a low carbon world changes the pattern of demand. Therefore, a depreciation profile that back-end loads the charge would be appropriate.[26]

It is true that Ofgem also suggests that front-end loading might apply to gas distribution. However, because of Ofgem's stated intention to review the regulatory expensing of replacement capital spend by gas distribution networks, it is not clear that this would produce improved short-term cash flow for gas distribution networks, relative to the status quo.

Thus, for electricity networks, Ofgem's mooted (but not proposed) changes to the profile of depreciation within the new lives would compound the unreasonableness of the proposals on regulatory asset lives, as well as compounding the feeling that Ofgem is multiplying the levers for playing with the profile of future cash flows. This is bound to increase the uncertainties facing investors in energy networks, not least because of the degree of subjectivity and regulatory discretion which surrounds Ofgem's proposals in this area.

7.3 Calculating the cost of debt

Ofgem is proposing that 'in future price controls, the cost of debt embedded in the allowed return is based on a long-term trailing average of forward interest rates, and that the revenues allowed under the price control are adjusted each year for changes in this trailing average'.[27]

[26] Ibid., para 12.40.

[27] Ibid., para 12.24.

Like the CC (in relation to Ofwat's duties), we cannot see how this approach would be consistent with Ofgem's duties which, in this area, are very similar to those applying to Ofwat. As the CC put it in their provisional report on Bristol Water's price control:

> Long-run averages [of cost of capital] are relevant only to the extent that they affect the cost of capital in that period. They may do so for two main reasons:
>
> (a) Regulated companies finance long-life assets in part through the issue of fixed-rate debt with long maturity and the cost of existing fixed-rate debt is affected by interest rates at the time the debt was issued.
>
> (b) Asset prices and/or yields may have a tendency to revert to a longer-run mean value and, if so, past levels are relevant to estimating the expected level over the relevant period.
>
> It is sometimes suggested that regulators should seek explicitly to set required return equal to some concept of long-term average cost of capital rather than the expected cost of capital for the specific price cap period. It seems to us that this would not be consistent with the duties in this reference. Setting required return below the expected cost of capital for the period would not be consistent with the section 2(2A)(c) duty to secure that the company can finance the proper carryout out of its functions. Equally, setting the required return above the expected cost of capital in the relevant period would not seem consistent with the consumer objective under section 2(2A)(a) (because periods when return is above expected cost of capital would never be balanced by periods when return is below).[28]

We therefore think that Ofgem cannot escape the need to make a reasonable estimate of the likely cost of capital in the relevant price control period, rather than partially delegating this task to a backward-looking statistical artefact. This would not, by itself, preclude the sort of indexation or trigger approaches which Ofgem rejected in DPCR5 but which might acquire new relevance if Ofgem sticks with its proposal for longer price controls. Alternatively, and probably preferable, given the problems with indexation/triggers identified by both Ofgem and the CC, the adjustment mechanism could be the mid-period review.

7.4 CPI and RPI indexation

RPI-indexation currently affects price controls in a number of different ways—for example, through:

– indexing RAV *between* price reviews;

– indexation of allowed revenue *within* a price control period;

– providing the default indexation for cost lines in the financial models used to set price controls, before allowance for real price effects (RPEs).

Ofgem is proposing to retain RPI indexation for the moment, on the basis that:

– a wholesale move to CPI-indexation would run up against the lack of a market for CPI-indexed bonds;[29]

– a 'hybrid' indexation approach (using RPI for rate of return and indexation of RAV, but otherwise using CPI) would be complex.[30]

[28] Competition Commission (2010), 'Bristol Water plc, A Reference under Section 12(3)(a) of the Water Industry Act 1991, Provisional findings report', June 18th, paras 9.6 and 9.7.
[29] Ibid., para 11.54.

However, Ofgem proposes to keep the issue under review and would be more inclined to look seriously at CPI-indexation if a market developed in CPI-indexed bonds.

It is ENA's view that:

– RPI-indexation should be retained, at least for the indexation of RAV and returns and for the indexation of allowed revenue within a price control period;

– the default indexation of cost lines needs simply to be consistent with the methods used for assessing RPEs in those cost lines.

The basis for retaining RPI-indexation for the indexation of RAV, returns and indexation is, in brief, as follows.

– Part of the basis for calculating allowed revenue in real terms has been the concept of Financial Capital Maintenance (FCM). In other words, the underlying concept of real returns has been seen through the ideas of the investor.

– The key characteristic for inflation indexation, therefore, has to be that which best approximates the inflation rate faced by investors who ultimately are also consumers.

– The best measure of measure of inflation from a consumer/cost of living perspective is RPI, as suggested by the Office of National Statistics (ONS) itself.

> The HICP and the RPI differ in their purpose and construction. The RPI is the best indicator of consumer price inflation in the United Kingdom.[31]

This is not a surprising conclusion. The UK government's adoption of CPI for inflation targeting was not on the basis that this was the best measure of changes in the cost of living. Rather, the government was looking for an inflation measure which would be a reasonable guide for macroeconomic policy. Thus, the government initially preferred RPIX (which excluded mortgage interest rates) on the basis that it was perverse to target a measure of inflation which would rise when interest rates were raised to reduce the inflation rate. The later choice of HICP/CPI had the advantage of also excluding mortgage interest rates but had the additional advantage of being more consistent with inflation indices in other countries and also being systematically below RPI, mainly because of the way in which it is calculated (the reason why the 2.5% target for RPIX was replaced by a 2% target for CPI, albeit that, in practice, the long-term gap between the two inflation measures has been greater than this).

Thus, as long as Ofgem accepts the FCM basis of setting price controls (and to not do so would be arguably inconsistent with how price controls have been set, to date, by Ofgem and, even more explicitly, by Ofwat), RPI remains the logical basis of indexation of RAV and returns between price control periods and of allowed revenue within price control periods.

[30] Ibid., para 11.57.

[31] Jim O'Donoghue and Colin Wilkie (1998), 'Harmonised Indices of Consumer Prices', March 18th. On the ONS web site at http://www.statistics.gov.uk/cci/article.asp?id=410