RIIO-T2 and GD2 methodology response

NORTHERN POWEGRID'S KEY POINTS

- Overall, Ofgem's proposals represent a politicised overreaction to the concerns about returns.
- The proposals depart from the fundamentals of RIIO and good regulatory practice that have created the significant consumer benefits associated with UK energy networks outperforming the economy's productivity gains by around 1% p.a. for the past 30 years.
- The supporting analysis is not rooted in sound regulatory economics or justified with evidence.
- We recognise that Ofgem will take action in RIIO-2 to address the perception that returns have been too high, but Ofgem is placing insufficient weight on two key facts:
  - Returns have *already* come down.
  - A five-year control coupled with a return adjustment mechanism limits outperformance.
- With the risk of runaway returns constrained, Ofgem must drastically improve the rest of the settlement to encourage three key behaviours that drive value for consumers:
  - **Investment**. The cost of equity is wrong by a significant margin (in the region of 200 to 250 basis points). This approach carries with it many unintended, negative consequences for consumers; not least, that companies simply will not invest enough in the network.
  - **Ambitious plans**. Ofgem has sterilised the incentive for companies to put forward challenging, efficient plans. As a result, costs to consumers will increase.
  - **Productivity**. The incentive power of the regime has been severely diluted. When companies aren't rewarded for improved performance, productivity stagnates and costs increase.
- Ofgem will fail in its primary duty to act in the interest of consumers if it doesn't change course.
- Ofgem must:
  - Correct the flaws in the mechanism for setting the cost of equity.
  - Scrap the idea of a cashflow floor that obliges consumers to bail out failing firms and is already being signalled as ineffective by the rating agencies.
  - Calibrate the business plan incentive more sharply so that it delivers a meaningful penalty for those that submit bloated plans.
  - Set consistent, challenging, evidence based targets for companies to incentivise performance within the price control period.
  - Refrain from attempts to intervene and micromanage through features such as secondary deliverable measures, prescription of inputs and discretionary rewards.
  - Increase the emphasis on comparative totex benchmarking as opposed to overly complex disaggregated models.
  - Remunerate efficiently incurred taxes with no ex post discretionary clawback mechanism.
- Some elements of the proposals are well-judged and sensible:
  - The new grouping of outcomes and principles for evaluating cost drivers.
  - The changes to the innovation mechanisms strike an appropriate balance.
  - The immediate shift to CPIH avoids unnecessary complexity.
  - Maintaining a consistent approach to the cost of debt and pensions.

Contents

1. Executive Summary

1. We realise how important it is for Ofgem to reinforce the legitimacy of the regulatory framework and build stakeholder trust through a robust set of price controls. However, Ofgem's attempt to do so has departed from the fundamental RIIO principles and good regulatory practice that have delivered significant benefits to consumers since privatisation.
2. Ofgem's characterisation of its proposals as a continuation of the RIIO Framework to "use strong incentive-based regulation to align the interest of companies and consumers" is wrong. Rather than being a well-calibrated adjustment to a framework that has delivered, the proposals represent a politicised overreaction to the charge that companies are being too well remunerated in RIIO-1. Implementing Ofgem's proposals would damage the interests of current and future consumers.
3. Ofgem's own research suggests that the UK energy networks have outperformed the productivity performance of the UK economy by around 1% per year over the past 30 years. This has led to large real price reductions and improved standards of service. Investment in the networks has increased dramatically at the same time. We should pause to reflect on the significance of this achievement, and the benefits that consumers have enjoyed in lower charges and improved service as a consequence. We should also recognise the twin drivers of those benefits:
    a. The stability and predictability of the WACC-setting process, which maintains investor confidence in order to encourage investment whilst keeping investors' cost of capital low; and
    b. A clear and stable incentive-based framework that encourages companies to manage operational risk and seek ongoing improvements to service quality and efficiency.
4. Ofgem's proposals undermine these twin pillars of incentive-based regulation. Ofgem's analysis is not rooted in sound regulatory economics or strong evidence. It has lost sight of what it should be trying to achieve and, as a consequence, is not on course to fulfil its duties to either consumers or investors. It has had insufficient regard for the evidence that shows what works and what does not.
5. We recognise that Ofgem will take action in RIIO-2 to address the perception that returns have been too high. But in doing so, Ofgem must recognise that:
    a. Returns have *already* come down. ET1 and GD1 have seen sector level returns on regulatory equity in the range of 9.5% to 11%. In contrast, returns in the ED1 settlement are already markedly lower.
    b. The reintroduction of a five-year price control will, by its very nature, mitigate some of the most significant sources of outperformance that have caused Ofgem concern in relation to ET1 and GD1.
    c. The proposed introduction of a return adjustment mechanism is a major departure from each, ex ante, incentive-based price control set since privatisation. The driver for the

decision is well-rehearsed, and the price of a diminished incentive on companies to outperform is now seen by Ofgem to be one worth paying.

6. With the risk of runaway returns constrained, and the incentive to innovate and outperform inevitably reduced, Ofgem should establish a high hurdle of evidence for any further dilution of the incentives that have served consumers so well historically. But instead, at almost every turn, Ofgem is proposing to weaken incentives and introduce the prospect of micromanagement by civil servants.

7. If Ofgem is to rescue an effective set of price controls from these proposals, it needs to drastically improve the rest of the settlement by encouraging three key behaviours:

   a. **Investment.** The cost of equity is wrong by a significant margin (in the region of 200 to 250 basis points). Ofgem has:

      i) Got the range wrong by miscalculating beta, and by adopting the harshest possible approach to address the switch from RPI to CPIH when estimating the total market return ("TMR").

      ii) Exposed consumers to risk by departing from a well-established regulatory safeguard in ignoring the top half of the range.

      iii) Made a further arbitrary reduction to recoup in advance unidentifiable future outperformance.

      This approach carries with it many unintended, negative consequences; not least, that companies simply will not invest enough in the network. None of which is solved by Ofgem's purported remedy – a bailout mechanism for bondholders.

   b. **Information Revelation.** In the misguided pursuit of simplicity at the expense of efficacy, Ofgem has sterilised the incentive for companies to put forward plans that are as efficient as possible. The business plan incentive was introduced specifically to address a real risk to consumers that stemmed from the problem that there was little to discourage a company from being conservative when assembling its cost forecasts. When companies' forward-looking plans aren't objectively tested, and then rewarded or punished for their impact on consumers, the pressure to produce lean and innovative business plans weakens. As a result, costs increase.

   c. **Productivity.** The incentive power of the regime has been severely diluted. The ex ante nature of the deal has been replaced at each opportunity with reopeners, retrospective assessments and indexation. Many of the incentive mechanisms have been watered down. There is no reason to expect that a complex array of indices and interventions settled on by civil servants will create a more accurate answer. It will be wrong, just for different reasons. When companies aren't rewarded for improved performance, productivity will stagnate.

If Ofgem sets price controls that do not encourage investment, information revelation and productivity gains, it will not have met its primary duty to act in the interest of consumers.

8. Ofgem appears paralysed by the presence of “asymmetric information”. All regulators have to deal with this problem and they have done so in ways that have delivered positive outcomes to consumers. Yet Ofgem’s response to this challenge is to both reduce incentives for information revelation and reduce incentives for efficiency enhancement. Ofgem has not given any examples where this kind of low-incentive, micromanaged, regulatory model has generated superior outcomes than the ones we have observed under the regulatory model to date. We are not surprised by this because we are not aware of any. The model that Ofgem has chosen sets the sector on a path back to the inefficiencies of the past.

9. At ED1, Ofgem developed a competition for business plans that was universally regarded as having brought forth better plans than in the past. However, some aspects of implementation were flawed and this led to higher costs to consumers than were necessary. But the process required to do this properly is not complex. What consumers need from their regulator is improved implementation of a basically sound model, not for that model to be discarded altogether.

10. Crucially, at successive price control reviews, there has been sufficient incentive for companies to undertake the necessary investments for cost discovery and innovation that have led to a productivity performance for the sector that is 30% greater than that of the UK economy over the period since privatisation. It is a simple equation. If the allowed cost of equity is forced below the real value, the marginal investments will not be made. Ofgem cannot wish this problem away.

11. As the inexorable consultation and decision-making process marches onwards, the options available to Ofgem to rectify these mistakes will only narrow. In other words, Ofgem risks painting itself into a corner. Ofgem needs to correct these flaws before they go any further. We have set out below a summary of the way in which we believe Ofgem should go about this.

2. Our response to the Consultation

12. In this section we set out our response to Ofgem's consultation, and in three annexes (cross-sector, finance and sector-specific) we answer Ofgem's questions set out in its Consultation Document. In doing so, we note that Ofgem states that it will "consult on arrangements for electricity distribution companies prior to any decisions being made for that sector". There are some significant differences between electricity distribution sector and the other energy network sectors, which means that even though Ofgem notes that "certain measures set out … in this conclusion document may be capable, in principle, of application for RIIO-ED2", different approaches may still be appropriate. Our response to the Consultation must be considered in this light: we look forward to responding in detail to any proposals Ofgem will make in due course in respect of ED2. But that does not prevent us from having deep concerns about the direction of travel Ofgem has embarked upon in this Consultation. The interests of consumers and good regulation require that it should be reversed.

13. This section is organised as follows:

    a. Return adjustment mechanism;

    b. Returns and financeability;

    c. Setting strong incentives;

    d. Benchmarking costs;

    e. Using competition where appropriate; and

    f. Solutions to the problems created by the proposals.

Return Adjustment Mechanisms ("RAMs")

A return adjustment mechanism is Ofgem's key to setting strong incentives elsewhere

14. Ofgem is clearly under wider political pressure as a result of the returns being earned in the sector. These returns vary considerably across the sector, with those in electricity distribution being the lowest of all. Although the recent past has seen strong outperformance across the sector, this has not been consistently observed over time. At DPCR4, for example, the core cost and output targets were set at levels that many companies could not meet. At the gas distribution price control period ending in March 2007, companies overspent their allowances by £864m, with companies bearing 31% of the value of the overspend.

15. The outperformance (which has gone hand-in-hand with improved service) is due to three factors, with the second and third of these growing in significance over the past two review cycles:

    a. Unanticipated efficiency savings that were driven by the strength of the incentive arrangements;

b. Understandable forecasting errors, which were most in evidence in the regulatory reviews after the Great Financial Crash; and

c. Target setting misjudgements.

16. A RAM – in combination with the reintroduction of the five year price control period - may be needed as a backstop to reassure stakeholders. But it is not a substitute for a properly calibrated price control. Ofgem's duties and the focussed nature of the appeal regime mean it remains incumbent on Ofgem to get each of the constituent elements of the price control right.

17. Despite the significant departure that it represents from one of the key features of the UK network regulatory arrangements and the risks that come with it, we can come to terms with a well-designed RAM if it has the following features:

a. The terms of the RAM are set out clearly and in full at the outset, such that it cannot collapse into ex-post regulation.

b. The calibration of the RAM:

i) Permits an upside that has sufficient headroom over the WACC to reward well run companies who drive benefits for consumers; and

ii) Ensures it is not activated if one or two companies happen to enjoy mis-calibrated settlements (as is the case at ED1).

c. There are no adjustments for companies earning less than the equity return expected by Ofgem.

d. Financing performance is not included. This would amount to a sharing factor on the cost of debt through the back door and require robust measurement of the cost of debt on an annual basis.[1].

18. With a RAM in place and the risk of runaway returns constrained, Ofgem can encourage investment, information revelation and productivity gains.

Returns and financeability

Ofgem's cost of equity is simply too low

19. The cost of equity is Ofgem's incentive for investment. It is not an arbitrary number to add or subtract value from an overall settlement. Moreover, the process for setting the cost of equity should be recognisably similar to that used in previous reviews and rooted in objective evidence. This provides the reassurance of continuity to investors, enabling investments to be brought forth, and efficiency improvements to be made. Not only has Ofgem set the cost of equity too low, but the

[1] Ofgem has ruled out a sharing factor because it would not be able to measure what is to be shared. We assume Ofgem therefore does not intend to take the steps necessary to measure the cost of debt robustly on an annual basis.

process by which it has arrived at that number does not provide the continuity of approach that reassures investors.

20. It is by now well understood in theory and practice that the costs to consumers of a regulator setting too low a cost of capital outweigh the costs of an error of the same magnitude being made in the opposite direction. This is why good regulatory practice is to establish a credible range for the cost of equity, and then position the outcome away from the bottom of the range. But Ofgem has proposed a cost of equity range that is already too low and has then chosen a value at the bottom of it. As far as we call tell, no regulator has ever aimed down to the bottom of its range in this manner.[2] It is not something a credible regulator should contemplate. Its approach will cause significant consumer detriment because investors will be unwilling to provide the equity finance necessary to make key long-term investments.

Ofgem's range for the cost of equity is too low

21. In determining where to locate its range for the cost of equity, Ofgem has not considered the role of political or regulatory risk and how this raises required returns in the sector above those which CAPM estimates will provide. These risks are on balance to the downside, and will not be fully correlated with the stock market and caught by beta. We highlight this, and the need for an evaluation of this missing risk, in our response to the Framework Consultation.[3] When Ofgem briefed its proposals to investors, we understand it was one of their first questions, and one that Ofgem could not adequately answer Ofgem must consider the balance of these risks when determining the cost of equity. So far it has failed to do so, instead choosing, across the board, to place most weight on the evidence that supports the lowest conceivable number. The end result is a range for the cost of equity that is inconsistent with a balanced appraisal of the evidence and is manifestly too low.

22. In terms of the technicality of the calculation, Ofgem has made mistakes. The range for the cost of equity is based on Ofgem's range of values for beta, the TMR and the risk-free rate. We can see two problems in Ofgem's assessment of the range:

    a. Beta is set too low due to errors that Ofgem has made; and

    b. The TMR has been set too low, due to Ofgem adopting the harshest possible approach to address the switch from RPI to CPIH.

[2] Frontier Economics working on behalf of the energy networks association identified no examples

[3] Northern Powergrid's RIIO-2 Framework Consultation response paragraphs 357, 363-364 and 368

23. Ofgem has made two errors in its re-gearing of beta:

   a. An arbitrary 10% adjustment is applied to market gearing based on Indepen's "view" that an adjustment should be made "until further research has been undertaken", where 10% is just a suggestion ("say 1.1x") as a "starting point".[4]

   b. Spot gearing rates have been used in Ofgem's re-gearing calculation, rather than gearing rates over the whole estimation window, with no justification.

24. Both of these are departures from standard and long accepted practice by respected regulators and finance practitioners around the globe. Ofgem's calculations are flawed and these adjustments should be reversed. We estimate that correcting these errors in beta calculation alone would increase Ofgem's point estimate of the cost of capital by more than 100 basis points.

25. On the TMR, Ofgem has re-interpreted the historical record on inflation as being consistent with CPI rather than RPI, and reduced its range downwards as a consequence. Ofgem has little or no evidence on historical inflation or returns that was not available when the Competition and Markets Authority ("CMA") took its decision to set a range equivalent to ca. 6% - 7.5% plus CPIH in the NIE price control reference. The evidence Ofgem has presented does not justify lopsidedly narrowing the CMA's range to truncate the top half of that range. A measured appraisal of the evidence on TMR, consistent with established precedent, would increase Ofgem's cost of equity range by at least 50 basis points.

Ofgem has ignored a well-established regulatory safeguard

26. Having chosen a range for the cost of equity which is itself too low, Ofgem then chooses the midpoint of the range as its point estimate (prior to the 50 basis points adjustment that we discuss below). In other words, Ofgem has abandoned regulatory practice to date by assuming that the risks of setting the cost equity too high and of setting it too low are symmetrical.

27. The asymmetry of risk and the reasons for ensuring that the cost of equity is not too low have been repeatedly articulated by regulators, including the CMA and are summarised well as follows.

> *Given the uncertainties in cost of capital estimates, we considered the cost of setting an allowed WACC that was too high or too low. If the WACC is set too high then the airports' shareholders will be over-rewarded and customers will pay more than they should. However, we consider it a necessary cost to airport users of ensuring that there are sufficient incentives to invest, because if the WACC is set too low, there may be underinvestment from BAA or potentially costly financial distress…Given the significance to customers of timely investment at Heathrow and Gatwick, we have given particular weight to the cost of setting the allowed WACC too low. Most importantly, we note that it is difficult for a regulator to reduce the risks of underinvestment within a regulatory period.*[5]

[4] Indepen, Ofgem Beta Study - RIIO-2, pages 34-35

[5] Competition Commission, A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd), September 2007, page 49.

28. Academic evidence shows the consumer detriment from a cost of capital that is set too low is worse than the detriment from one set too high.[6] This is a considered reason that regulators, including the predecessor of the CMA, have given for decisions to set the cost of equity towards the top of their estimated ranges, in line with their respective duties to consumers.[7] Ofgem should do the same.

Ofgem's 50bp downward adjustment will have profoundly damaging effects

29. Ofgem then proposes a further downward adjustment of half a percentage point on the assumption that companies will outperform in other parts of the settlement.

30. This adjustment is not only without any merit in its own right, it also carries with it serious unintended consequences. It is without merit for several reasons:

    a. The evidence that Ofgem relies upon to support its assumption of continued outperformance (and to calibrate the 50 basis points) is based on a selective historical sample and also ignores the impact Ofgem's proposals in other parts of the price control settlement that will significantly reduce the future prospects for outperformance.

    b. The theoretical model that Ofgem relies upon is deeply flawed.

    c. A reduction to the cost of equity on account of an unrelated mis-calibration in another part of price control settlement would not be by definition well targeted. It would be manifestly badly targeted, and would violate the principles of better regulation, to which Ofgem must have regard.

31. The unintended consequences will be very damaging to investors and consumers alike. It will lead to:

    a. Erosion of investor confidence and increased investor risk, as it is:

        i) An arbitrary adjustment to previous practice, for which there is no known UK precedent or satisfactory conceptual or evidential basis; and

        ii) A retrospective claw-back of the value of past investments.

    b. Weakened incentives for efficiency and innovation, due to Ofgem clearly signalling that future outperformance will affect its future calibrations of settlement returns.

    c. Distortion of the incentive to invest because the cost of equity is too low.

32. Ofgem must abandon the downward adjustment.

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https://webarchive.nationalarchives.gov.uk/20111202214947/http://www.competition-commission.org.uk/rep_pub/reports/2007/fulltext/532.pdf.

[6] For example, Ian M. Dobbs, 2012, Journal of Regulatory Economics, 39(1) 1-29, *Modelling welfare loss asymmetries that arise from uncertainty in the regulatory cost of finance*

[7] For example, Competition Commission, 2007, *BAA Ltd A report on the economic regulation of the London airports companies (Heathrow Airport Ltd and Gatwick Airport Ltd)*, pages 49-50

Ofgem's cross-checks on the cost of equity range are flawed

33. Turning to Ofgem's cross checks, the Consultation fails to see obvious warning signs. In particular, Ofgem has not highlighted that market to asset premia on listed water companies have disappeared, as Ofwat has re-based expected allowed returns in the water sector to 5% plus CPIH from 2020. We reproduce the chart in the Consultation below:[8]

Figure 11: Market-to-asset ratios of three publically listed companies

Source: CEPA analysis

34. Instead of recognising the latest position, Ofgem's commentary bizarrely highlights that "We can see that these listed companies have been trading at a premium for the majority of the previous nine years. This implies that investors may expect the return on the RAV to be greater than their costs of capital".[9] Yet the majority of the previous nine years don't reflect recent valuations in current market conditions, in light of the risks facing networks in general and Ofwat's proposals on the cost of equity.

35. The up-to-date results instead signal that markets expect water sector returns to be aligned with the expected cost of capital, at a return on equity for the next regulatory period of 5% plus CPIH (including any uplift that might happen on appeal). Ofgem must recognise the balance of the evidence.

Better sense checks clearly show that the equity beta and total market return are being calibrated too low

36. Ofgem should be able to see that the range is set too low with some simple sense checks: if the ten year yield on RPI linked gilts returns to 2.0% real, and debt spreads are at typical levels of circa 150

[8] The Consultation, Finance annex, page 43

[9] The Consultation, Finance annex, paragraph 3.123

basis points, its equity return would be only 80 basis points above debt returns.[10] This will not encourage equity investment because equity carries the vast majority of the operational, political and regulatory risk involved in operating the regulated assets. Ofgem's base calibration is manifestly too low, and a higher equity beta is necessary, which would give a higher spread over debt returns at a higher risk free rate.

Ofgem should be setting a range that is higher, and choosing a value in the top half

37. By way of comparison, Ofwat is proposing a value 100 basis points higher than Ofgem; a value which could still be revised upwards in the price review or on re-determination by the CMA. And in the NIE determination, the CMA adopted a cost of equity equivalent to ca. 5.1% plus CPIH at 45% gearing. Re-geared to 60%, the value would as high as 7.0% plus CPIH. In this context, Ofgem's 4.0% plus CPIH is implausible.

38. Ofgem should remove its erroneous adjustments on equity beta, and properly recognise the evidence from the water sector on listed asset premia.

39. Ofgem should revisit its approach to setting the TMR in the light of the switch from RPI to CPIH – it has chosen the most value destroying approach to dealing with the change, violating its commitment to NPV neutrality. Other approaches could be equally justified that would allow Ofgem to make good on its commitment and have a less damaging impact.

40. Ofgem should then choose a value at or towards the top of this range on the basis that setting too low and allowed cost of equity is more damaging to energy consumers than one that is the too high by the same absolute amount.

41. Ofgem should abandon its unjustified and arbitrary 50 basis points downward adjustment.

42. If Ofgem did this, it would arrive at a range for the cost of equity much closer to but, nonetheless, lower than the current ED1 settlement, while still being significantly below the T1 and GD1 settlements. This would be better aligned with the balance of the evidence and which would continue to encourage investment.

43. Taking all of these issues into account, the evidence shows that the appropriate cost of equity is in the region of 200 to 250 basis points higher than Ofgem's current assumption.

There is no need to index the cost of equity as it is a long term parameter and, with a properly calibrated equity beta, it doesn't move much with the risk free rate

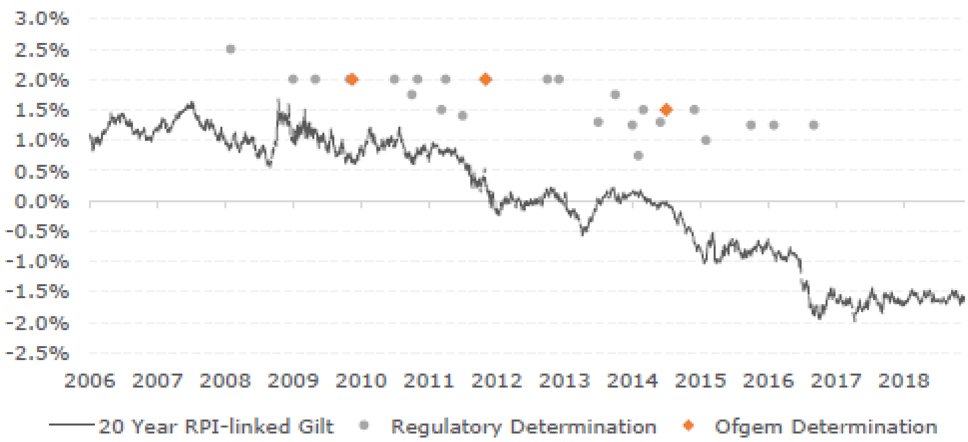
44. Equity indexation is not necessary; the cost of equity is a long term parameter that can be reset every five years.

45. We are concerned that the Authority and other stakeholders have concluded that regulators have "aimed up" on the risk free rate ("RFR") and in doing so materially inflated the cost of equity. But this is not the case and should not be concluded from the chart presented in the Consultation.

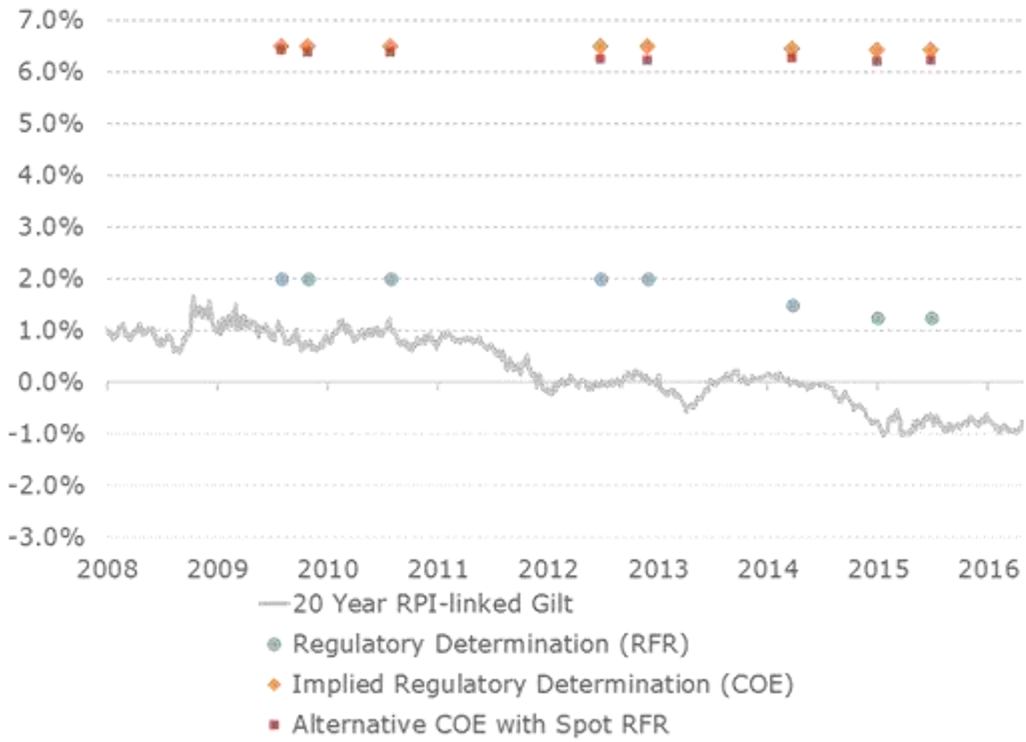
[10] The CPI linked cost of equity would be circa 5.3%, compared to a CPI linked cost of issuing new debt of 4.5%.

46. The chart creates entirely the wrong impression for the consequence for the cost of equity. In the context of a set of settlements that (correctly) used a relatively fixed set of TMR estimates, and equity betas close to one, the impact on the cost of equity will have been far smaller than the chart seems intended to suggest.

Figure 5: The RPI risk-free rates: gilts versus regulatory precedents



47. The chart below shows how different the picture looks when the evidence is presented in full. [11]



48. The impression may have been created amongst some stakeholders that a very material error has been made by failing to use spot RFR[12]. This is clearly not the case. Although regulators have aimed up on the risk free rate, this has made very little difference to the cost of equity they have allowed.

[11] For illustration purposes, we have adopted a fixed TMR of 7% and an equity beta 0.9 to estimate the effect of the adopting an estimate of RFR above spot levels.

On the cost of debt, Ofgem should now continue its ED1 approach, as it proposes

49. Given Ofgem has ruled out pass through and debt cost sharing, we can see advantages from full indexation, essentially re-running the ED1 approach.

50. We previously advocated a cost of debt based on pass through of company costs, which would be straightforward for Northern Powergrid (with its transparent and conservative approach to debt financing) but which may be challenging for those companies with a less transparent cost of debt. Ofgem has decided against this approach.

51. With this decision taken, Ofgem should now maintain its full indexation approach:

    a. On a sector specific basis; and

    b. Recalibrated at successive review, where the evidence shows this is justified, to match the expected real debt cost of the sector.

52. This is essentially in line with the approach taken at RIIO-ED1, although technical refinements are warranted (as detailed below).

The inflation time horizon used in forecasting debt costs must be consistent with the price control period

53. Ofgem is right that there are issues with the current use of 10 year RPI inflation break-evens to deflate nominal debt costs, and as a consequence should use a five year forecast for CPIH (or CPI) to deflate nominal debt costs.

54. This is because the price control:

    a. Is moving to a CPIH basis, which is lower than RPI;

    b. Will only be five years long, with inflation beyond this accounted for at the next reset.

55. The value used annually, to deflate the nominal iBoxx index, should be calculated the same way, or possibly on a shortening time horizon (to align with the end of the price control period).

56. Ofgem will need to use reputable economic forecasts, such as the OBR's inflation forecasts, irrespective of whether it uses the "wedge" approach or the direct estimate approach. Because

[12] This is not the only issue with Ofgem's chart. The chart only shows spot rates with the benefit of hindsight, rather than a forward curve for expectations at the time of the settlement, which is the relevant market based comparator. We are also surprised by the figure for the risk free rate for ED1 as we had previously been informed that Ofgem and GEMA made no explicit assumption for this value in taking its ED1 equity returns decision, and that a 1.5% figure published by UKRN (and subsequently reproduced elsewhere) was erroneous. The ED1 equity returns decision itself stated that '*Focusing on the most up to date data … the implied forward rate rises to a peak of around 0.7–0.8 in nine years' time, before declining again. Hence, the latest market evidence suggests that* ***the risk-free rate over the RIIOED1 control period is unlikely to be as high as our previous range*** *(after adjusting for the RPI formula effect)* ***of 1.3 to 1.6 per cent****' (page 9, emphasis added)*. These statements make a point value of above 1.3 per cent unlikely and would instead place Ofgem's ED1 decision closer to the curve than many contemporaneous regulatory settlements.

economic forecasts need to be used anyway, Ofgem should apply the CPI forecast directly, which will also have the benefit of avoiding any distortions in RPI linked inflation breakevens.

A cashflow floor would protect poor management and be detrimental to consumers

57. Ofgem has a duty to ensure that companies can finance their regulated activities. If Ofgem sets a price control that won't allow for this, but protects licensee debt investors from the consequences of that decision, it simply will not have met its duty.

58. On the other hand – if Ofgem sets a price control that will allow a company to finance its regulated activities - the cashflow floor as currently proposed could only reduce pressure on underperforming management, leading to worse outcomes for energy consumers.

59. This is an actively damaging regulatory innovation that should not be implemented.

The reality is that companies can take many actions to avoid cash shortages, to the point that entering the mechanism would be largely decided at management and shareholder discretion. This creates an adverse selection problem for Ofgem, with bad outcomes for consumers.

a. Shareholders could take an easy choice not to inject equity when there is a cash call, before seeing how risks play out and injecting equity later if they do not materialise.

b. If spot rates on debt rise above the allowed cost of capital (with its lagged value for historical debt rates), shareholders might prefer the mechanism to debt issuance.

60. And if Ofgem takes any comfort that current holdco finance structures make this unlikely, it shouldn't: financing arrangements can change rapidly when the incentives are strong enough.[13]

61. As the Financial Times puts it: "Britain's energy regulator is drawing up plans for a "bailout" scheme for the large monopolies that run Britain's gas and electricity networks, which would see consumers provide 'potentially unlimited' money to companies that run into unexpected financial difficulty and could not make debt payments".

Rating agencies are already seeing through it

62. Rating agencies have already published their initial assessment of Ofgem's present proposals for the cashflow floor. They are clearly unimpressed.

63. Moody's initial view is that the "mechanism is likely to have significant practical limitations" and that it provides "no support for leveraged holding companies". It does not offset the low cost of equity, with Moody's describing Ofgem's proposals as "a credit negative divergence from established regulatory practice".

[13] Examples can be seen in the UK water sector. Facing increasing pressure from the regulator and policy makers, some of the highly geared water companies have started to decrease their opco gearing level by borrowing at the holdco level and passing the funding onto the opco. For example, Thames Water has been reported to have borrowed £250 million in excess of its group refinancing requirement, in order to reduce the gearing level of its opco from 81.1% to 76% by April 2025.

64. Fitch notes that:

> *[T]he benefit of this mechanism in its proposed form is limited for companies with investment-grade ratings. Firstly, liquidity is rarely a core concern at investment grade, as we would generally expect liquidity concerns to arise towards the low 'B' rating territory. Good liquidity is a necessary but not sufficient feature for a company to have investment grade rating. In the most likely scenario, the liquidity support and dividend lock-up would come into force after a network migrates to speculative grade and its license is either revoked or questioned.*
>
> *Secondly, the cashflow floor appears to merely buy time rather than address the underlying issue causing the liquidity emergency in the first place. It would work well if the issue was caused by a major one-off event or something that could be controlled by management within a short period of time. However, its benefit would be limited if there was persistent operating or financial underperformance due to factors outside of management's control (eg extremely ambitious performance targets in combination with low totex allowances or onerous inherited swap portfolio).*
>
> *Finally, the cost of liquidity support is high and could on its own put more pressure on a network's financial profile.*

65. We are even less convinced. The cashflow floor will be equivalent to allowing companies to "temporarily" accelerate the depreciation on their RAV, under the proviso that the company must "buy back" that RAV under a repayment plan. Rating agencies have tended to strip out of their credit metrics the impact of accelerated depreciation, since it is offset by slower RAV growth, and we see no reason to expect a different approach to this mechanism. Moreover, measured on a net basis, RAV will be reduced while the cashflow floor is in in operation. It remains to be seen whether this might lead rating agencies to adjust their measure of RAV for various other credit metrics.

If Ofgem was proposing a proper cost of equity, it wouldn't have to worry about this

66. Ofgem must ensure that the costs that companies necessarily incur in delivering their obligations are financed, including the cost of capital and depreciation on long term investments.

67. Where it requires companies to finance investments over the long term, it needs to: (1) set an adequate cost of equity (and cost of debt); (2) consider notional gearing very carefully (making full allowance for the cost of the notional company issuing equity); and (3) consider unwinding changes to asset lives, to the extent these are giving discounts to current consumers, relative to fully-loaded cost reflective charges and at the expense of future consumers having to pay fully-loaded charges.

68. If Ofgem were to get these three areas right, its reason for the introduction of the cashflow floor would fall away.

Setting strong incentives

Ofgem's proposals would weaken significantly its incentive package. Consumers will pay the price now and in the future.

69. Ofgem has previously focused on creating a stable commercial framework within which the network companies can operate. Ofgem stuck to its key task – the creation of this stable framework by setting clear, transparent, high powered ex ante incentives that align the interests of the investor and the consumer. Ofgem has then left the networks to work out how to deliver against this framework, rather than inserting itself into operational decisions.

70. This approach has been a key driver of the success of economic regulation in the UK over the years. According to Ofgem's own research, the UK energy networks have outperformed the productivity performance of the UK economy by around 1% per year over the past 30 years.

71. On the first page of the Consultation Executive Summary Ofgem claims that it wants "to continue to use strong incentive-based regulation to align the interests of companies and consumers". But there is scant evidence to support this claim in the remainder of the document.

72. The ex ante nature of the deal has been replaced at each opportunity with reopeners, retrospective assessments and indexation. Many of the incentive mechanisms have been watered down. When companies aren't rewarded for improved performance, productivity will stagnate.

73. Ofgem appears paralysed by the presence of "asymmetric information". Yet Ofgem's response to this challenge is to both reduce incentives for information revelation and reduce incentives for efficiency enhancement. Neither measure will work.

74. On numerous aspects of its proposed incentive framework Ofgem must think again, change direction and reaffirm its genuine commitment to established and coherent price control principles.

Under the new "business plan incentive", Ofgem is encouraging cost base growth and bad value for energy consumers

75. The RIIO framework places the business plan at the heart of the price control process. If companies have weak incentives to submit good plans, then Ofgem has poor information to work with from the beginning. Asymmetries of information are exacerbated, not mitigated.

76. The business plan incentive is then at the heart of the battle against asymmetric information, a concern that Ofgem has emphasised in its December document.

77. In the name of simplicity Ofgem has decided, for GD2 and T2 at least, not to use the IQI. However its proposed replacement mechanism appears to us to be equally complex and, based on our review, doomed to failure.

78. Firstly, companies would face weak incentives to submit a plan containing a lean cost forecast, and would likely regret it if they did.

a. In effect, there is no penalty for submitting a heavily inflated plan. Ofgem's mechanism would split companies into three buckets, good, average and poor according to their overall benchmarking efficiency score. But by setting the threshold for poor at >104% of Ofgem's view of efficient cost, the cost incentive is all but "switched off" for most companies, because Ofgem's proposal to apply the same penalty whether companies are 5% or 30% inefficient.

b. Any reward for submitting a lean plan would be diluted not once, but twice.

    i) Since Ofgem uses the upper quartile to determine what 100 is in its benchmark, rewards for low cost business plans in the distribution sector will inevitably be shared, diluting any upside; and

    ii) Any outperformance will be further diluted due to Ofgem's proposal to intertwine the outcome of its cost appraisal with its assessment of plan quality.

79. Secondly, companies would be able to earn material rewards by getting good scores in a subjective appraisal of plan "quality". There are several problems with this.

a. Consumers will rightly focus on value rather than some woolly conception of "quality". If Ofgem is doing its benchmarking right, value should be captured under the cost element of the incentive. Adding a quality dimension adds little.

b. Yet Ofgem's plans would put vast sums in play on quality. To illustrate, National Grid's transmission operator alone (excluding its other interests), at annual expenditure levels like those seen in 2016-17 (of £1.1 billion), would see up to £110 million on the line as part of an essay writing competition. There is simply no justification for this.

c. Ofgem's past track record on gauging plan quality does not inspire confidence that it will be able to award prizes to the right parties.

d. The potential for this quality dimension to dilute the cost element of the business plan incentive – the part that really matters – makes this part of Ofgem's mechanism particularly destructive.

80. Ofgem's proposals for the IQI's replacement are so weak over the critical ranges that whether Ofgem wants to admit it or not, it is in effect encouraging cost base growth to the detriment of consumers. Over time, coupled with little or no prospective reward for outperformance, cost bases would balloon.

81. Given the importance to price control outcomes of stimulating the submission of lean business plans, Ofgem needs to fundamentally change its proposal.

a. Ofgem must split the business plan incentive into its two component parts, with a standalone cost incentive that is not diluted by the value of the plan quality incentive.

b. If the quality dimension is to be retained, the sums in play must be turned down substantially.

c. The cost incentive should also be much finer-grained than Ofgem's proposal to make companies at all points in the efficiency spectrum think harder about where to locate their plans.

d. Ofgem should abandon plans to dilute rewards on the cost dimension. The dilution it seeks is, in the distribution sector, guaranteed by upper quartile benchmarking.

e. Penalties and rewards should rise gradually to significant levels.

82. The IQI and before that the SSM have worked well in the right circumstances and always resulted in better outcomes than would have occurred without them. Looking ahead to ED2, Ofgem must keep a "simplified and intensified" IQI on the table, as it signalled it intended to in its RIIO-2 Framework Decision.

Weakening the totex incentive mechanism will harm consumers

83. Ofgem has proposed two ways in which it might set the strength of totex incentives following its decision to abandon the IQI for GD2 and T2. Neither will work well.

84. The thinking behind Ofgem's blended sharing factor proposal is muddled.

a. Ofgem's sole focus is on the degree of confidence it can have in setting a forecast. If confidence is low, then Ofgem argues that a low incentive rate is called for.

b. Ofgem makes no mention of the principal motivation for having an incentive in the first place, i.e. the belief that there is uncertainty around outcomes for some given activity and that the company, appropriately incentivised, is able to manage that risk to achieve better outcomes on behalf of the consumer. This is a glaring omission.

c. The cost heads around which there is lowest confidence will (almost by definition) be related to areas where outcomes are particularly uncertain.

d. These are likely to include areas where management focus may therefore offer the greatest reward in terms of lower cost and better outcomes.

e. Yet under Ofgem's proposal, such cost heads would receive a low incentive rate, not a high rate.

f. As a result, sectors where there is much that the company could do to manage cost would be most likely to have the lowest blended incentive rates, whereas sectors where there is least to play for would receive higher incentive rates.

85. The effect of Ofgem's proposal would seem calculated to weaken incentives in the exact areas where they should be strongest, and to transfer to consumers risks that should be properly borne and managed by the networks.

86. When coupled with Ofgem's misguided proposals for business planning, it becomes clear that under Ofgem's proposals companies would face no incentive to submit lean forecasts, and then weak at best incentives to outperform the resulting allowances. Ofgem needs to go back to the drawing board.

87. Lastly, the Ofwat framework, simply put, should not be adopted. We have analysed carefully the effects of Ofwat's proposals in depth already.[14] They create distorted incentives and would lead to poor outcomes for consumers.

We support the new framework for describing outcomes, but the different forms of output incentive needs to be used wisely

88. Ofgem's new grouping of outcomes is simple, clear and focussed. We support it.

89. We also support the overall framework design (clearly distinguishing license obligations, price control deliverables and output delivery incentives). This is a good build on the ED1 approach, which was the best-developed of the three RIIO-1 price controls.

90. However, it is critical that Ofgem chooses wisely when deciding if and when to use Price Control Deliverables or Licence Obligations, if it is to avoid stunting incentives to drive service improvement and to search hard for cost saving innovations.

91. While Ofgem describes Price Control Deliverables as outputs, paragraph 4.16 of the Consultation makes clear that price control deliverables are in fact highly likely to be "*input activities*". These are, by definition, not "outputs".

92. The concern is that Ofgem ends up regarding Price Control Deliverables as lists of inputs (not outputs) that would be agreed upfront. At the end of the price control, Ofgem could check whether each input on the list had been delivered and, if some had not, would clawback the related allowance.

93. This creates the risk that companies end up with a strong incentive to simply stick to the original plan and deliver the inputs regardless of whether new information comes to light that might reveal a more efficient alternative. Companies avoid the potential for Ofgem to clawback revenue ex post, and consumers foot the bill of the company building things that are not needed.

94. Price Control Deliverables may then become akin to input regulation, further stunting the incentives for innovation and discovery.

95. Ofgem seems to be alive to these risks, as it refers to feedback already received in paragraph 4.21. In our view it needs to go much further than this paragraph signals however, committing to limit the use of Price Control Deliverables to cases where the monitoring of inputs is justified, and in ensuring that incentives for innovation and efficiency are not stunted by being clear how it will conduct its (necessarily ex post) review of delivery.

[14] Frontier Economics, November 2018, *Development of the IQI, A report prepared for Northern Powergrid*

96. Licence obligations should be used where there is a consensus that service standards have already reached a level that is optimal for consumers and where it is clear that further improvement would not be cost efficient. Examples of areas that are currently subject to an incentive that we think could be safely transitioned to a licence obligation are the stakeholder engagement and consumer vulnerability incentive, the incentive on connections engagement and the losses discretionary reward.

97. The emphasis placed on price control deliverables and licence obligations adds to a worrying impression that Ofgem is abandoning light touch, high powered incentive regulation in favour of micromanagement. The inescapable vision is of work programmes and standards of performance agreed ex ante with Ofgem, with delivery against this Ofgem sponsored plan checked off ex post. Plans would be ossified, with the risk of ex post scrutiny creating a strong incentive to simply stick to the plan, something that weakened ongoing incentives would be unlikely to counteract.

Ofgem must resist the creep towards micromanagement when appraising resilience

98. The drift towards micromanagement is made more concrete by Ofgem's proposals to for ensuring long term resilience.

99. In respect of asset resilience, Ofgem must pull back from secondary deliverable arrangements that will lead it into micro-management (and potentially close to cost pass through).

    a. Ofgem's secondary deliverable arrangements (especially network asset resilience measures) are turning into a requirement for companies to:

        i) deliver their original plan; or

        ii) pursue investments which "optimise" against Ofgem's framework rather than seeking those which they judge their network actually needs.

    b. Ofgem's proposals to base "risk removed" at RIIO-2 on a long-term net present value measure will worsen the distortions the framework can cause, because it will make it more heavily dependent on highly speculative risk curves far into the future. Over long planning horizons those curves increasingly become guesswork and are unlikely to be reliable in all cases, yet Ofgem seems intent to make a uniform set of assumptions on this the corner stone of asset management practice.

    c. Ofgem needs to make sure its framework encourages, and appropriately rewards management teams that engage in a process of discovery and innovation, rather than directly regulating the replacement cycles according to a model that is not fit for the purpose.

100. Ofgem should also drop plans to micromanage workforce planning. Ofgem (indeed, any regulatory office) lacks the expertise and resources to micromanage the businesses. If it did staff up sufficiently to take this on, it would result in a destructive blurring of responsibilities.

A cyber resilience re-opener might be needed, but they mustn't penalise early movers

101. There has been a step change in the cyber threat profile and this area is now as sensitive as physical site security. We can see why Ofgem might want to remove the incentive for companies to reduce expenditure (through use it or lose it allowances), and also to provide a reopener in case there is a further step change.

102. This type of mechanism inevitably distorts incentives, across and within price control periods, which is detrimental to consumers over the longer term. Ofgem should therefore try to minimise this detriment.

   a. Across price control periods, Ofgem's assessment of company requirements must check whether other energy networks already spent the necessary money. To maintain the strongest possible incentives, those companies that did shouldn't be disadvantaged, while those that didn't shouldn't be advantaged by their slowness to act.

   b. Within price control periods there will be strong substitutability between costs for "new" cyber requirements and "business as usual" requirements. This could lead to inefficient substitution if "use it or lose it" is applied to one but not the other. This damage may be reduced if the approach is applied to all related costs.

Output targets should set at challenging, evidence based, levels, and the associated risk to companies should be recognised in the cost of capital

103. Ofgem should set challenging, evidence based, targets for network companies, on a fixed (but not necessarily flat) profile between regulatory resets.

104. Where benchmarking data is available, and performance is comparable, Ofgem should use this at the price review periodic reset. In doing so it should consider carefully whether there are reasons that performance may not be fully comparable across companies.

105. Where there is evidence to show that productivity improvements are likely to be achieved over time, or are being funded through cost allowances, Ofgem should reflect this in a declining profile of target.[15] Ofgem should always try to maintain strong incentives to improve performance throughout the price control period. In some cases it may be appropriate to use a rolling incentive based on historical performance in order to achieve this.

106. With all the tools available to Ofgem, there should be no reason to expect, a priori, outperformance by a sector as a whole, especially in those sectors where Ofgem is able to make effective use of the tools of comparative regulation.

[15] While ensuring it does not double count with its productivity assumption on costs

Perpetual cross-sector benchmarking of targets should be avoided…

107. Setting *cross sector benchmarked* targets (dynamic-relative targets in Ofgem's terminology) would introduce uncertainty around the benefits of investments, could potentially penalise good performance and would discourage collaboration. It would also make non-comparability between companies an even bigger issue. If dynamic targets are used, this creates a risk that if Ofgem fails to set targets fairly for all in the sector then windfall gains for some may be turned directly into windfall losses for others.

108. Cross sector benchmarked targets should be avoided. But if they are implemented, the heightened risk for companies in these sectors should be recognised in a higher allowed cost of equity (compared to the cost of equity Ofgem allows in sectors with no such risks).

… as should bespoke outputs, which would make the settlement confusing and "leak value"

109. We support the desire to enhance consumer engagement, including through companies taking input from consumer engagement groups ("CEGs"), but Ofgem must keep in place its own firm assessment and decision making process, so companies are disciplined to reject stakeholder proposals that are not in the interests of consumers. Otherwise Ofgem's decisions are vulnerable to appeal.

110. In light of this, Ofgem's proposal for bespoke outputs is deeply flawed.

111. There should be no need for company specific bespoke outputs. Ofgem's existing framework already incentivises delivery across key areas. If a new candidate output incentive is discovered in the course of consultation on RIIO-2, and judged to be beneficial to energy consumers in one part of the country, it should be introduced across the whole country as part of a consistent incentive package, through a rigorous Ofgem led process of national consultation and evidence evaluation.

112. If Ofgem follows this approach, then almost by definition any candidates for bespoke outputs are likely to bring at best limited incremental value for consumers, as all material items will already be captured by the common, core outputs framework. Bespoke outputs will therefore most likely bring unnecessary complexity and administrative burden to the price control and dilute the relative incentive strength of core output delivery incentives ("ODIs") that carry the greatest value to consumers. The more complexity Ofgem introduces in terms of bespoke outputs, the more likely its settlement will "leak value" to specific companies or stakeholder groups, to the detriment of energy consumers.

113. If Ofgem wishes to retain the option for companies to propose bespoke outputs, it must set a high bar when appraising them.

We agree with Ofgem that consumer vulnerability arrangements should avoid cross subsidy while promoting targeted action (where there is little or no cost associated)

114. We agree with Ofgem's overall stance of seeking to "avoid significant cross-subsidy" whilst funding "targeted company action to support consumers in vulnerable situations in the interests of fairness".

115. If the proposals Ofgem has set out for the GDNs were mirrored in electricity distribution, we would generally be supportive.

116. But in an electricity distribution context (and potentially a gas distribution context, dependent on Ofgem's duties in that sector) the proposals could be improved upon to:

a. Strike a better balance between Ofgem's principal objective to protect the interests of existing and future consumers and its duty to have regard to the interests of those classes of persons set out in Section 3A(3) of the Electricity Act 1989 (the "Act"); and

b. Incentivise companies to deliver enhanced services for vulnerable consumers.

117. We believe that Ofgem can best meet its principal objective by ensuring that there is as little cross-subsidy as possible between any classes of persons in respect of the core services provided by the DNOs. The two core services being the duties under the Act to:

a. Develop and maintain an efficient, co-ordinated and economical system of electricity distribution; and

b. Provide connections to the network.

We do not agree that Option 3 is the optimal solution for consumer vulnerability

118. The options Ofgem has considered for developing a "consumer vulnerability package" contain the right mechanisms for improving the service companies offer to vulnerable consumers. However, we do not agree with Ofgem that Option 3: The Combined Package is the optimal solution. Instead, Ofgem should:

a. Set out any minimum requirements in the licence. To the extent these are required, they should be prescriptive.

b. Rely on the business plan incentive to ensure that companies offer enhanced ancillary services beyond the minimum requirements.

c. Set an ex ante allowance for companies to deliver these commitments, ensuring they are delivered as efficiently as possible.

Ofgem is right to discount a utilisation incentive; it has more precise tools available to it

119. A utilisation incentive would be worse-targeted than the tools Ofgem already uses, and would have many drawbacks. We agree with Ofgem that it should be discounted, and agree with its reasons as listed in the Consultation.[16] All of this reasoning, and more, will apply when Ofgem considers this question in respect of ED2.

[16] With the exception of the second sub-bullet in paragraph 7.23, which relates to asset health and is irrelevant to utilisation

120. The fact is, big changes in utilisation may be entirely beyond the control of network companies, and so exposing companies to this would significantly increase risk and require major increases in the cost of capital. At the same time, Ofgem already has many incentives that encourage companies to raise utilisation where they can. This includes its totex cost incentive and totex benchmarking approaches, that encourage companies to minimise cost, including through higher utilisation.

121. There is also no genuine economic reason to think high(er) utilisation is always a good thing, at the margins. For ED2, it is important to consider that:

a. DNOs can use demand side response to encourage less network usage, and lower utilisation, to reduce total costs; and

b. In the future consumers might get good value from a robust "backup" network with occasional power flows (and low utilisation).

122. Instead of a utilisation incentive, we continue to advocate that Ofgem should focus on incremental improvements to its existing suite of incentives. We have set out our proposals for this in other parts of this response.

Managing the whole system through discretionary mechanisms or reallocation would damage incentives and cloud accountability

123. Ofgem's whole system proposals break down into two classes:

a. Approaches consistent with the cornerstones of the RIIO-framework (in particular strong incentives and innovation) and which represent incremental additions that may improve on the existing framework (proposals 1, 2 and 4); and

b. Highly damaging and distortionary mechanisms to re-allocate accountability and funding on an on-going basis, subject to discretionary within-period decisions, which will create perverse incentives to focus more on lobbying than achieving low costs and leave it unclear as to who is to blame when things go wrong (proposals 3, 5 and 6).

124. We support the first set of proposals. These would build on the current arrangements and allow Ofgem to establish clear accountability for issues, giving totex allowances to the accountable party. The framework should then allow for that party to meet its obligations by buying services from third parties, and Ofgem could also establish obligations for other energy networks to share information and offer solutions at cost plus a reasonable margin.

125. We reject the second set of proposals due to the damage they would cause, the complexity they would introduce and the loss of clear accountability that would follow. A discretionary incentive on cross-sector collaboration is exactly the type of incentive that Ofgem has identified drives administrative burden and leads to subjective outcomes. A mechanism to transfer obligations and allowances within period would create perverse incentives, whether managed through reopener windows or via a discretionary mechanism. This is unnecessary because:

a. The existing system allows networks to provide and pay for services from other network companies; and

b. Staggered five yearly price controls can accommodate any major reallocations of responsibility with a 2-3 year transition period.

Benchmarking costs

We understand cost benchmarking decisions will be sector specific but, anywhere RIIO-1 models are used, they should be carefully inspected for any distortions they may cause

126. We understand that cost benchmarking decisions will be undertaken on a sector specific basis, reflecting the different characteristics of different network sectors.

127. In general, however, we do not think that the RIIO-1 approach to benchmarking should offer the default template for RIIO-2 and, if it is used for GD2, this must not set precedent for ED2. If Ofgem does use the GD1 models as a start-point GD2, it should carefully inspect those models, and in particular the disaggregated models, for any regulatory distortions that they might cause, and work hard to reduce or eliminate these.

Where possible, Ofgem should use comparative totex benchmarking, plus an assessment of value for money over successive periods, so companies make efficient cost trade-offs

128. Where possible, cost assessment should use totex benchmarking, plus an assessment of value for money offered over successive price control periods, to encourage companies to make efficient cost trade-offs. Totex benchmarking was given a significant role in the RIIO framework to mitigate distortions that can otherwise arise between different categories of cost; Ofgem should consider a more prominent role for it in GD2.

129. Turning to ED2, we think a significant role for top-down totex benchmarking is even more important than in the past, to give DNOs the strongest possible incentive to propose the cheapest solutions, and make use of new approaches to managing network issues, rather than allowing the inevitable distortions associated with disaggregated benchmarking to have a major impact on the results.

Ofgem should apply more intense scrutiny to high cost areas of high cost plans…

130. As well as totex benchmarking, Ofgem needs the tools to heavily scrutinise high-cost parts of poor value plans, as part of a genuine proportionate treatment process. The existing GD2 models might not give it these tools.

131. Other network sectors are unlikely to offer easy comparators for GD2 business support costs as no variable can defensibly be used to control for differences between the sectors. We have considered these comparisons, as a tool for benchmarking our own costs, and found we could make no commercial use of it. They offer a poor regulatory solution.

…and also place greater focus on long-term value, spanning across price control periods

132. Northern Powergrid continues to believe that cost benchmarking could place greater emphasis on long term value for money. This could be achieved through a comparative totex benchmark of the costs that the companies charged to consumers in the last period, in addition to the normal totex benchmark of the costs that companies propose to charge in the next.

133. We are happy to work with Ofgem further if this is a solution it would like to see developed, either for T2 and GD2 or later for ED2.

Ofgem has identified the right set of criteria for a good cost driver

134. For GD2, Ofgem has proposed a sound set of principles for evaluating cost drivers. Ofgem needs cost drivers that are relevant, complete, and outside of company control.

135. Many cost drivers Ofgem used at RIIO-1 were within company control to some extent, and should be re-considered at RIIO-2.

136. Ofgem should not use network deliverables (such as health indices) in cost assessment as this would move Ofgem further into micromanagement, and because the condition assessments that feed the measures are heavily influenced by discretionary company judgements (and also by past investments, disadvantaging companies that have maintained their networks well).

While maintaining a high bar against regional adjustments

137. We agree that Ofgem should maintain a high bar for making regional adjustments, because every network company faces issues that will raise its costs relative to other companies, and because all parties (including the other networks) face asymmetries of information when assessing them.

138. Ofgem is right to maintain the option to make asymmetric regional adjustments (for instance where the evidence base is uncertain), giving a company some allowance for a factor, while not penalising others for this allowance (as they may face an even worse asymmetry of information than Ofgem).

NARMs are poor cost drivers; they certainly shouldn't be used in distribution

139. Ofgem should not rely on network asset resilience metrics ("NARMs") in its cost assessment of asset renewal, or to calibrate penalties, especially in sectors where it can use comparative competition. This would lead to windfall gains and losses and, because companies can heavily influence whether they have a "high" or "low" monetised risk, it could allow companies to bias Ofgem's results.

140. NARMs have a legitimate role in the regulatory settlement on asset renewal[17], as a check to ensure companies deliver the value they promised as part of that settlement. But Ofgem is now proposing a bigger role for the monetised risk measure from NARMs:

a. As a cost driver in cost assessment; and

[17] We use this term to incorporate asset replacement and refurbishment.

b. To calibrate penalties where companies have not delivered.

141. In electricity distribution at least (and possibly other sectors) monetised risk values are simply not fit for these purposes, because:

a. The margin for error on these values may be very wide;

b. Asset management decision making cannot use them in this way (as monetised risk may not be well-correlated with asset renewal needs);

c. Poor asset stewardship in past periods would boost performance on the assessment, introducing perverse incentives; and

d. At their core NARMs rely on company led assessments of asset condition which introduces subjectivity that can make comparisons between companies misleading.

142. The reality is, if NARMs are used in the way proposed, they will distort company decisions between different classes of cost and will undermine the totex approach to cost assessment. In any sectors where Ofgem has a credible alternative (and this is certainly the case for ED2 and probably for GD2) it should not use NARMs in cost assessment or in determining claw-back penalties.

A common base scenario should not undermine companies that take a risk-accepting view

143. A common base scenario may be helpful for presentational purposes, especially if the base case is aligned towards the lowest reasonable view of uptake of new network technologies, with alternative cases flexing upwards above that to show the potential impact of higher update.

144. It must not become a vehicle for "setting" the level of network investment to cover a particular scenario, and to lock in a particular approach to investment, with no thought to what would happen when a different scenario materialises. It must also not undermine the incentive for companies to present a lower-cost plan than their peers, by accepting more risk than others, by giving an Ofgem-led green light for higher levels of investment.

145. The really important question is instead how the regulatory arrangements should flex upwards (or downwards) from the base case, as actual levels and patterns of uptake of new technologies become clear.

Using competition where appropriate

Ofgem's criteria for late-competition are appropriate and should be applied to all sectors

146. Ofgem's existing criteria for late-competition in transmission should be extended to other sectors. The criteria will ensure that this type of arrangement is focussed on high value projects that justify the administrative costs, while avoiding problems such as a lack of clarity over the ownership boundary. The criteria are sufficiently generic that they must, by definition, be suitable for all of the sectors.

147. Maintaining these criteria at the levels set will also help mitigate some of the additional costs of a more fragmented system that competition can introduce. Ofgem's impact assessment is right to recognise the existence of these costs.

Distribution company operators should compete for transmission options

148. There are many existing electricity network operators with the expertise to construct , maintain and operate extra high voltage lines. Distribution licences allow their holders to operate high voltage lines, with no voltage limits, as part of their distribution network. And even where it would not form part of their distribution network, and where the activity would be transmission, the Secretary of State can grant a derogation from the requirement for a transmission licence under the Act. DNOs are therefore a ready-made source of potential competition on transmission projects, especially projects involving new connections (like any prospective move to build a new network to serve motorway car charging infrastructure).

149. The only regulatory barrier we can see to distribution operators competing for transmission projects (on an early or late basis) are distortions between the charging framework for the transmission sector and the distribution sector. These distortions should be addressed, to ensure distribution companies can offer connections at very high voltages on the same basis as a transmission company.

There is already extensive and growing competition in distribution, whether or not the new criteria are met

150. Of course, electricity distribution projects are less likely to qualify under the criteria. They are typically smaller and less likely to justify the administrative expense of a bespoke Ofgem led late-competition process. The systems are also significantly more meshed and overlapping, making it more difficult to identify assets that are sufficiently separable that clear ownership and operational boundaries could be established.

151. But while Ofgem should recognise that these practical issues will limit the number of projects that are likely to justify bespoke competitions in distribution, it should also be clear that distribution consumers will still benefit from extensive early and late competition:

a. There is extensive competition through design and procurement of network solutions.[18]

b. Asset financing makes extensive use of third party debt, issued on competitive markets.

c. Ofgem's benchmarking of asset and finance costs imposes competition between networks.

152. There is also already extensive competition in distribution, in construction of network extensions to serve new connections and in ongoing ownership and operation of these. Ofgem has not yet

[18] 80% of Northern Powergrid's direct operational work load consists of bought in goods, services and materials; the majority of which is tendered. This means that a large majority of the works that we deliver are already exposed to market forces.

harnessed the benefits of the latter type of competition, as the benefits currently flow either to landowners or to the relevant network operators. In parallel to RIIO-2, it has the opportunity to address this shortcoming through suitable reform to this system.

Ofgem's use of the "full" RIIO framework in distribution gives the ideal environment for native competition

153. In electricity distribution at ED1 Ofgem was able to apply the "full" RIIO framework on a unified basis to ownership and operation activities.

154. This creates a major advantage over the electricity transmission model, where practical reasons (at T1 and prospectively T2) mean that system operation and system investment costs are subject to very different incentives, and this fragmentation creates conflicts of interest and boundary issues between price controls that are challenging to manage.

155. The ED1 framework regulates away these conflicts of interest, and creates all the right incentives for network companies to use native competition to identify cases (and only those cases) where alternative solutions will reduce long-term network costs. These savings will be passed on to energy consumers, first through the totex sharing factor, and over the longer term through comparative benchmarking of company costs which ensures distribution companies have a long term incentive to secure benefits from native competition. Ofgem must build on these positive arrangements.

Electricity distributors are the right parties to take on the DSO role and minimise costs to consumers

156. The efficient co-ordination of increasing volumes of energy resources connected to distribution networks is one of the key issues for the RIIO-2 price controls. The scope of the distribution system operator role needs refinement but it is already clear that electricity distributors have a key role to play as the DSO itself.

157. As set out above, distributors are ideally placed to facilitate native combination. No other party can be given the same blend of a genuine commercial incentive to minimise total cost, equalised incentives between different solutions, and money on the line based on the "real" results (rather than based on a presentational exercise, like the ESO's incentive).

158. Integrated ownership and operation also ensures clear accountability, with money on the line if there is a failure.

159. And lastly, separation of ownership and operation (or even ring-fencing of operation) are more technically challenging in electricity distribution than transmission.

  a. Distribution networks are more complex. They have many more nodes and much greater levels of interconnection, and have far less automation at lower voltages.

  b. As such operation, maintenance and asset management are much more closely linked than for transmission networks.

160. This inevitably makes the case for the separation of operation from ownership, or even for ring-fencing of operation within the same organisation, much more difficult to justify for distribution when compared to transmission.

Real conflicts of interest matter, not "perceived" conflicts

161. The Consultation repeatedly mentions "perceived bias" alongside actual bias.

162. While it is no doubt important to help address the concerns of key stakeholders, the tail shouldn't wag the dog and lead to bad regulatory design.

163. Commercial entities bidding for contracts understand the difference between perceptions and reality, and would not be put-off from entering a market by such perceptions. Of course, that isn't to say they wouldn't still lobby for changes if, for example, they thought they could encourage Ofgem to introduce of bias in their favour (to the detriment of energy consumers). So Ofgem should assess the position for itself. DNOs manifestly have a very strong incentive under the ED1 arrangements to seek out, and utilise, alternatives that help them to defer or even avoid altogether expensive network investment.

164. Ofgem must not let misperceptions of conflicts of interest or ill-founded allegations lead it to fragment the existing "unified" RIIO framework for electricity distribution, or to reallocate responsibilities to parties that may have actual conflicts of interest, or simply lack the expertise or deep knowledge of the local network to take the relevant decisions.

Indexation and tax

We support Ofgem's proposal to move immediately to CPIH indexation, with no transition

165. Given Ofgem has decided to make the move to CPIH indexation, there would need to be strong reasons not to make the move immediately in respect of the entire RAV. A transition would add complexity and delay the benefits from moving to the new approach.

166. While Ofwat has decided to transition existing RAV gradually, it justified this on the basis of a high proportion of RPI linked debt in the water sector. There is less RPI linked debt in the energy network sector than the water sector and therefore this justification is weaker.

167. Although there is no justification for sector wide transitional arrangements, Ofgem could still consider any company specific issues at the business plan stage. Companies with RPI linked debt have a number of options, such as swapping it to CPI linked debt, or gradually buying back RPI linked debt so its balance grows less quickly than RPI.[19] Companies have always made financing choices that do not necessarily match the indexation approach in the price control and remain free to do so.

[19] If companies use the circa 1 percentage point in additional cost of debt allowance they will receive under a CPIH linked price control, compared to an RPI linked price control, their RPI linked debt balances would accrete a slower rate than would otherwise occur.

Ofgem must confirm that it will remunerate efficiently incurred tax bills while it should not invest its own reputation in "badges" like a fair tax mark

168. Ofgem's options for taxation have not moved on materially since the Framework Consultation, and our views on the appropriate framework for tax allowances remain the same:

   a. Ofgem must remunerate efficiently incurred tax bills that companies incur in meeting their obligations by making allowance for the taxes that a notional, standalone, entity would incur.

   b. Ofgem should give companies at least some small incentive to avoid paying too much tax, within the law and on behalf of energy consumers.

169. This is essentially the model Ofgem has followed to date. The current approach to tax allowances is the best available. Ofgem has also confirmed in the Consultation that it has reviewed the tax trigger mechanism and found that "this mechanism is working relatively well".

170. Yet all of the options that Ofgem has elaborated for RIIO-2 to date suffer a major flaw against this framework and would not be in the interests of consumers:

   a. A move to "pass through" would remove incentives, encourage inefficiency and, since taxes are calculated for corporate entities, Ofgem would pass through tax for activities beyond the notional business.

   b. The option in the Consultation to allow for the "lower of actual or notional" taxes would systematically under-allow for tax (e.g. where timing differences arise), even for an efficient company, which Ofgem has a duty to fund.

   c. The option to add to the current approach a discretionary and one-sided clawback mechanism at the price control close out, based on whether taxes actually paid are lower than the notional allowances, would raise regulatory risk (and the cost of capital) and suffer the same critical flaw as the "lower of actual or notional" option.

171. Meanwhile, "badges" like the fair tax mark carry their own risks and issues that mean Ofgem should not invest its reputation in them. Those companies eligible to join should be allowed to take their own decisions.

Encouraging innovation

Ofgem is right to remove the IRM, refresh the NIC, and consider retaining the NIA

172. We think Ofgem is right to remove the Innovation Roll-out Mechanism ("IRM") and refresh the Network Innovation Competition ("NIC").

173. We agree with Ofgem's reasons for considering continuation of the Network Innovation Allowance ("NIA").

a. We have found the mechanism effective in helping us leverage larger amounts of innovation funding from other sources which gives good value to energy consumers.

b. It has provided SME's significant support and the lack of an application window has been commented on positively.

c. It has helped ensure that projects like the UKPN / Northern Powergrid collaboration on "Development of Oil-filled Cable Additive", set to make a multi-million pound contribution to efficiency in oil cable management, proceed.

174. We do not think the answer to this question should hinge on "tracking benefits" from the NIA, as it is always difficult to draw robust conclusions from the reporting of non-costs. But to the extent Ofgem is concerned it may encourage an inefficiently high level of innovation by protecting expenditure from cost-cutting via the NIA and then it can account for this in how it calibrates the level of the allowance.

However, it would be short-sighted to exclusively limit focus on EST issues

175. We are concerned that the focus on energy system transition ("EST") projects is:

a. Too limited, as non-EST projects can deliver savings to consumers;

b. Poorly defined, leading to boundary issues in trying to establish whether projects address EST issues; and

c. Guaranteed to lead to less innovation in non-EST areas that can still be valuable.

And Ofgem must not impose claw back if projects are not rolled out, because innovation is (by definition) an uncertain activity

176. We are concerned by Ofgem's proposal to claw back funding for any projects that aren't rolled out into business as usual. This will be a strong disincentive to any innovation, where (by definition) it is uncertain whether the research will prove or disprove a hypothesis. Even when a project proves a method shouldn't be rolled out, it represents valuable learning (by telling others not to try this).

If legislation is made to give innovation funding directly to third parties, there is no reason for this to be funded via energy networks

177. We are not the sole source of knowledge on what could benefit our consumers – we welcome collaboration and ideas from our partners; we would encourage other parties seeking to develop products and new services to innovate, whether or not we are involved.

178. We are however accountable for the safe and reliable operation of our network such that granting others direct access to live networks to test innovations, without our direct involvement and oversight, is unrealistic. We are also responsible for passing on the cost for the innovation funding we receive and therefore have an incentive to only use innovation funding in ways that we expect to

reduce long term bills; this incentive is further underpinned by Ofgem's role in the governance arrangements, requirements for DNOs to provide their own commercial contribution.

179. Giving direct access to that funding to others, removing network companies from the governance, creates additional risks to consumers. There would therefore need to be alternative governance arrangements in place to manage the expenditure, and reduce these risks to consumers. There is no reason that the innovation would need to be limited to energy network activity; it could be off-network. And there is also no reason it should be funded through energy networks, since, for example, it could be raised with greater administrative efficiency through a single party, such as the ESO.

Solutions to the problems created by the proposals

180. Ofgem needs to make significant changes to the proposals set out in the Consultation or it will fail to meet its duty to act in the interests of existing and future consumers.

181. The returns adjustment mechanism and the shorter control period give consumers concrete protection against windfall returns for investors.

182. To ensure the settlement will continue to drive the improvement in performance that has characterised the regime since privatisation, as a minimum, Ofgem must:

a. Set a much higher cost of equity.

b. Scrap the idea of a cashflow floor.

c. Ensure the business plan incentive delivers a meaningful penalty for those that submit bloated plans.

d. Set challenging, evidence based, targets for network companies to incentivise performance within the price control period.

e. Refrain from attempts to micromanage.