RIIO-2 Framework consultation

Northern Powergrid's response

KEY POINTS

- **The RIIO framework is delivering many good outcomes for consumers** during RIIO-1.
- To benefit consumers further, **Ofgem should reinforce the three tenets of an effective regulatory system**:
  - **sharp and sensibly calibrated incentives** with well-reasoned, evidence-based allowances;
  - an **adequate base return** that is assessed objectively; and
  - recognisable consistency over successive price controls to **signal stability to investors**.
- **Some of Ofgem's suggestions would fail to achieve this objective**.
- **The RIIO-ED1 model for outputs currently sets the benchmark**; Ofgem should build on this, while correcting its direction of travel on network outputs (NOMs) to avoid micro-management.
- **RIIO-1 marked a step-change in companies revealing information** compared to previous reviews. There were some flaws in implementation, but Ofgem can and should build on RIIO-1 to develop a better, proportionate system to encourage operators to submit challenging plans.
- **Cost assessment should encourage companies to target long-term value for money**, while avoiding the costly mistakes of RIIO-1, such as ED1's disaggregated benchmarking.
  - By focussing on long term value, benchmarking totex, and introducing proper proportionate assessment of plans, Ofgem would reinforce its incentives to submit challenging business plans and reduce the costs paid by current *and future* consumers.
- **Ofgem can ensure fair returns** through an evidence-based cost of *capital*, cost assessment that avoids the mistakes of RIIO-1 and a return to 5-year price controls - a safety valve to protect consumers. **This must be coupled with clear and strong incentives**, exposing companies to the risks that they are able to control **in order to deliver benefits for consumers**.
- **All of Ofgem's other 'fair return' suggestions are fraught with measurement or incentive difficulties**; but a carefully designed **sculpted incentive regime would be the least damaging**.
- Ofgem's apparent enthusiasm for reducing risk and return through **uncertainty mechanisms should be applied infrequently and carefully to avoid unintended consequences**.
- **The allowed cost of equity is the incentive for investment: it must be high enough to attract equity to the sector.**
- The risks in energy are higher than in water. Even Ofgem's own advisor, CEPA, thinks energy network equity, at 60% gearing, may be as risky as the wider market (with an equity beta of 1.0). **A consensus approach, like Oxera's, gives an equity beta of 0.9 to 1.0**.
- **The cost of equity doesn't need to be indexed.**
- Ofgem should honour its commitment to maintain the same cost of debt index subject to a test that confirms it to be a reasonable estimate of actual costs. New indices will be required for any groups of companies that fail, tailored to the sector or company in question.
- **We can see the case for innovation funding for whole system changes**. Ofgem should retain some 'use-it-or-lose it' allowance for value to be leveraged with external innovation funding.
- We support the desire to enhance consumer engagement but Ofgem must keep in place its own firm 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.

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1. Overview

1. Ofgem published its RIIO-2 Framework Consultation (the Consultation) in March 2018, close to five years before the start of the RIIO-2 price control that will apply to Northern Powergrid. Yet with RIIO-2 price controls for several other sectors due to start earlier, and with some stakeholders, politicians and commentators questioning the effectiveness of the RIIO-1 price controls, the Consultation poses questions of fundamental importance for the future direction of energy network regulation in Great Britain (GB). In spite of the increasingly politicised atmosphere, it is essential that the Gas and Electricity Markets Authority (the Authority, or GEMA) takes an objective, considered decision grounded in its duties.

2. In the next chapter we set out a summary of our views, starting with our general thoughts on the content of the Consultation, then moving to 24 of the key topics it covers.

3. The chapters that follow then give our response to each of the numbered questions posed by the Consultation, chapter by chapter.

2. Summary of our views

4. In paragraph 2.21 of the Consultation, Ofgem reports that 'RIIO-1 has been successful at incentivising companies to deliver better returns through strong performance'. We would go further and say that the entire post-privatisation period has been a success: the real electricity distribution cost to customers has fallen by about 17%, whilst delivering £80bn of investment, and power cuts have halved in the last fifteen years. This has been due to Ofgem successfully incentivising companies to reveal information, comparing levels of efficiency (where practicable), setting ex ante allowances and targets, incentivising underlying investment with reasonable base returns and incentivising enhanced performance through additional rewards and penalties.

5. RIIO-1's successes have also been wider than Ofgem sometimes acknowledges. In terms of transparency, Ofgem has introduced its return on regulatory equity (RORE) measure, which other regulators are now starting to adopt. On the financing side, companies have passed on the lower cost of their debt to consumers through the debt index, an approach that other regulators are also now emulating after pressure from the National Audit Office. This has contributed to energy networks earning a lower allowed return on *capital employed* (ROCE), which has fallen from 7.4% real in 2010-11 to 5.7% in 2018-19, far lower than the 16%+ suppliers have tended to earn and a reduction of almost a quarter in eight years. This reduction is saving energy consumers over £1.1bn per annum, compared to the old framework, or a saving of about £9bn over the RIIO-1 period.

6. Quite clearly, RIIO-2 should seek to build on this legacy rather than jettison it.

7. In paragraph 2.22 of the Consultation, where Ofgem discusses how it can learn from the past, it reports that *'the framework was ambitious and complex and we operated at an informational disadvantage to the companies'*. We agree with this statement as well. Throughout the RIIO-ED1 process we pointed out to Ofgem that not only was the approach to cost assessment complex, the

results that emerged were spurious and more a manifestation of its highly disaggregated approach than a serious efficiency assessment. One of the most costly mistakes of the RIIO-ED1 process was the fast tracking of Western Power Distribution's high cost plan. As well as being procedurally flawed, this decision resulted from errors in Ofgem's cost assessment, especially its disaggregated modelling which received a high weight. Moreover, we pointed out at the time that the slow track resubmission process which followed allowed companies to optimise their business plans, improving their efficiency scores without reducing their costs. Ofgem's own process and modelling considerably worsened the effect of any information disadvantage it may have faced. Quite clearly, *RIIO-2 should seek to eliminate these errors.*

8. Given these two very clear conclusions that follow logically from Ofgem's own assessment of RIIO-1, Northern Powergrid is concerned that the Consultation leaves plenty of scope for Ofgem to head in the opposite direction.

    a. Viewed in the round, the Consultation leaves open a route to a low-powered, increasingly politicised, virtually cost-plus approach to regulation that would ignore the objective evidence of success of the last 25-30 years. This would result in the dilution of the incentives that have been the primary driver of network efficiency and customer benefits.

    b. The consultation also leaves open the reintroduction of many distortions that Ofgem has carefully eliminated over the years, along with the development of a cost modelling framework as complex as the one which was at the root of most of the failures of RIIO-ED1.

9. All of these options would be a backward step in regulation.

10. RIIO-1 had many attractive features in principle: the benchmarking of plans and the fast-tracking of operators significantly improved incentives for companies to reveal information, compared to previous price control reviews by, quite simply, reversing the burden of proof around future expenditures. Unfortunately, in gas and transmission there were insufficient operators to have a meaningful competition; and in electricity distribution the implementation of the principle was compromised by deeply flawed modelling, as we discussed with Ofgem at the time.

11. Ofgem should reflect on the experiences of the last six price control reviews for electricity distribution, and the gas and transmission reviews. Were it to do so it would draw many lessons, of which two are most relevant for present purposes:

    a. First, whilst Ofgem faces some informational disadvantages, where companies fail to challenge themselves before submitting their cost proposals, the greatest successes of regulation for the benefit of customers have come when Ofgem has provided a stable framework which incentivises companies to find innovative and efficient solutions to problems. In many cases these solutions were not imagined to have existed at all, by either the business or the regulator.

b. Second, Ofgem has always learned the lessons from previous reviews within this framework, and its modifications have typically been to improve the incentive-based regime for the benefit of customers, not to weaken it.

12. Ofgem can address the weaknesses of RIIO within an incentive based framework which has three basic components:

   a. Sharp but sensibly calibrated incentives and well-reasoned, evidence based decision making in respect of allowances and targets to incentivise better performance.

   b. An adequate base return, assessed objectively, to incentivise continued and ongoing investment in the asset base.

   c. Recognisable consistency from one price control review to the next, creating stability that maintains investor confidence and facilitates reductions in the cost of capital over time.

13. In its efforts to address the issue of high returns for some operators, Ofgem should not compromise these three tenets of effective regulation that have historically led to significant benefits for customers.

14. In the rest of this chapter we set out an in-depth summary of our views aligned to 24 of the key topics covered by the Consultation, in the same approximate order as they arise in the Consultation.

Giving consumers a stronger voice

We welcome enhanced consumer engagement

15. Northern Powergrid recognises the need to give stakeholders a voice. It underpins our legitimacy, helps us find balanced efficient outcomes, and ultimately plan our business better. This is why the stakeholder engagement we designed at RIIO-ED1 already had some of the features that Ofgem proposes for RIIO-2, such as customer and expert panels engaging directly on the business plan content and direction.

16. We also recognise that special interests call loudest for what they want, at the expense of voices that are tougher to hear, including the energy consumers who will pay the bill. Success depends on defending the interests of consumers in general, balancing them against the interests of stakeholders that might seek costly investments or un-even playing fields that benefit only a subset of customers.

17. This is why Ofgem's role remains vital to the success of stakeholder engagement in any form. It needs to have in place a strong price control framework within which it scrutinises the total cost of the plan and sets challenging output targets (as well as setting the financial parameters that Ofgem has already said it will retain responsibility for). This strong framework will hold companies to account for the results of their engagement, which is necessary to make companies have difficult conversations with specific stakeholders where this is the right thing to do for energy consumers.

18. We are in any case sure the Authority is aware that the decision remains its own, and that if decision making on cost assessment or output target setting was devolved to stakeholder engagement, for example, Ofgem would lack control over the content and quality of the calculations, and be more likely to be overturned in price control appeals.

Responding to how networks are used

A return to five year price controls will address many of the concerns raised in RIIO-1

19. Ofgem's decision to move to eight year price controls had many sound reasons, especially the strong incentives it placed on companies to innovate, reduce costs, and respond to and manage the risk of changes in how networks are used. But while we supported it when Ofgem was building the RIIO-framework, we were also clear it may be difficult to sustain such long price controls.

20. Ofgem needs to avoid a repeat of RIIO-1, where it has called for what amounts to the voluntary re-opening of RIIO-T1 and RIIO-GD1, and consulted on re-opening RIIO-ED1. This has been damaging to investor confidence, and therefore damaging to energy consumers as well (by weakening the confidence Ofgem has built in its regulatory system and raising the longer term cost of capital).

21. If Ofgem is to reduce the length of the price control period, then five year controls would be the right approach, bringing Ofgem back into line with practice that prevailed prior to RIIO, balancing clear incentives on companies with more frequent regulatory reset. This more frequent reset would help address many of Ofgem's concerns over the level of returns and legitimacy, and provide a safety valve to protect consumers from any future mistakes.

22. We see little point in an eight year period with a wide-ranging mid-period review. This would almost certainly unwind to two four-year price control periods. It would mean shorter price controls than the well-established status quo, further weakening the onus placed on companies to manage risks, reducing the strength and clarity of incentives that eight year periods were intended to achieve.

Longer term allowances for some cost categories could be highly distortionary

23. Ofgem also needs to maintain a very high bar against setting certain cost allowances for a different period (shorter or longer) to the main price control. Otherwise Ofgem would risk distorting incentives between different categories of costs. The Competition and Markets Authority (CMA) has recognised the work that the Authority and other regulators have done in removing the distortions between different types of costs. It has also given firm guidance that Ofgem should give careful consideration to any changes to how costs are treated or assessed that might re-introduce such distortions, since this would be a backward step in regulation.

24. If Ofgem does put this tool in place, a high bar should limit its use to large and completely discreet projects or programmes of work, in a similar way to its criteria for competition. It should also put in place steps to make sure that the need to re-set one category of costs, out of step with the others, cannot turn into a price control re-opener through the back door.

We welcome the focus on whole system outcomes

25. Northern Powergrid can see the benefits for our customers from efficient outcomes across the whole system, including co-ordinated network planning across the transmission and distribution boundary, between network boundaries within distribution, and across different sectors (gas and electricity). This is why electricity networks, working together through the ENA, have been developing new approaches to co-ordination across the transmission and distribution boundary. It is also why Northern Powergrid (with Northern Gas Networks) is taking forward its InTEGReL innovation project, and also working on a range of electric vehicle related projects through a strategic partnership with Nissan.

26. As well as co-ordination within an energy system, there are big questions about interactions between energy systems. The way in which heat and transport needs are met in future could have major implications for how demands on various energy systems evolve. It could also have implications for whether Ofgem regulates all of the relevant system, under the current legislation, if dedicated heat networks become a significant part of the energy supply mix.

27. Northern Powergrid supports the lowest cost energy system solution being adopted over time. We also we think that markets (and policy) will evolve in this direction through a process of discovery. Since the outcome of this process of discovery is uncertain, Ofgem should:

    a. Recognise the value of keeping options open. History is littered with mistakes that result from technocrats picking the 'right' technology.

    b. Design price control mechanisms that remain flexible to respond to demands, while maintaining strong incentives on companies to control their costs, using carefully designed exogenous revenue drivers.

28. Ofgem is correct that nothing in this requires that price control start dates should be aligned, either within or between energy systems. Provided each price control is set based on the best information available at the time, and in a way that can flex in response to objectively measured external demands, it will not be wrong.

System operation should remain linked to asset ownership…

29. The key challenges for Ofgem in setting a separate price control for the electricity system operator (SO) are ensuring:

    a. accountability in the event of system problems;

    b. that risks are allocated to those who are best able to manage them;

    c. strong incentives to balance total costs with system performance; and

    d. that any potential conflicts of interest are mitigated as far as they reasonably can be.

30. The SO price control, if set separately, must be constructed to meet these challenges.

31. However it is set, there are still benefits to customers that arise from a single organisation owning and operating the assets, with links between the two price controls. This is especially important for the first two points above, since it makes accountability clear, and also helps ensure that the owners of the SO remain exposed to the risks it is responsible for managing (unlike a model with a lightly capitalised, fully separate, SO, which might transfer risks to consumers instead).

32. The RIIO model itself was itself built with (c) and (d) in mind, with its output incentives, equalised cost incentives across capital and operating solutions, and equalised capitalisation rates on different types of cost. But this core part of the RIIO model was not actually implemented for the electricity SO at RIIO 1; because its costs were treated separately from those of the transmission operator. Indeed it may be impracticable to apply RIIO in full to transmission, since the electricity SO presides over a system that includes the Scottish transmission networks and interconnectors as well as National Grid's transmission business. Ofgem therefore needs other key aspects of its electricity SO price control to achieve these last two objectives.

…especially in relation to distribution system operation

33. While the RIIO-ED2 price control review is some way off, the role of distribution system operator (DSO) is also becoming increasingly prominent. Here we see that electricity distributors have a key role to play, and also that the existing RIIO arrangements for electricity distributors score well on all four objectives above. There is clear accountability for system problems. There are strong incentives to balance total costs with performance. And RIIO's equalised incentives apply in full to internal asset based solutions as well as external service provider (or innovative) solutions, meaning that Ofgem has already regulated away the main conflicts of interest that can affect a DSO.

34. Compared to transmission networks, in this context, distribution networks are more complex. They have many more nodes and much greater levels of interconnection, and have far less automation at lower voltages. As such operation, maintenance and asset management are much more closely linked than for transmission networks. This inevitably makes the case for the separation of operation from ownership for distribution much more difficult to justify.

35. So, having already put in place a framework in RIIO that facilitates the development of the DSO model, Ofgem should now focus on the many other important questions there are to answer, such as who should be responsible for holding customer data, including for vulnerable customers, where distributors will also have some key advantages over other organisations.

Ofgem has several tools available to it to mitigate utilisation and stranding risk

36. Firstly, RIIO was built with a range of incentives to minimise costs for consumers, including through submission of challenging business plans. As we set out in other parts of this response, we believe Ofgem should maintain and enhance these incentives at RIIO-2.

37. Ofgem should also aim, where possible, to set 'allowance drivers' that flex based on exogenous information on consumer demands of the system, so funding is provided as need is demonstrated (and not before). In electricity distribution, for example, Ofgem should consider setting an allowance driver based on actual uptake of distribution connected low carbon technology by energy consumers. This would avoid the need to set high baseline allowances that might not be necessary.

38. Having put all of these measures in place to minimise the ongoing costs of running a network, there could still remain a longer-term stranding risk. Ofgem's direct mechanism to mitigate this would be a shortening of the regulatory asset life, so the assets are paid for in a timeframe where stranding is less likely.

Driving innovation and efficiency

Ofgem should maintain a backstop network innovation allowance to encourage more whole system innovation

39. We think there is a strong case for innovation remaining at the heart of the RIIO framework; integrating new technology and working practices into networks operations is a key driver of performance improvement and efficiency.

40. More innovation projects targeted at whole system design would be warranted, as this is an area which has been relatively overlooked by the innovation arrangements to date, although there have been important exceptions, such as Northern Powergrid's InTEGReL work with Northern Gas Networks.

41. The InTEGReL project highlights why a backstop level of Network Innovation Allowance (NIA) funding remains important, since it is the flexibility of this funding that has made it possible. This funding should be on a use-it-or-lose-it basis, for early stage innovations with no proven commercial business case. It is not possible to predict exactly where potential innovations will arise, or be needed, and the NIA allows flexibility in response to this. In addition to whole system projects, the qualification criteria should include break-through innovations that could deliver a step change for customers but where the business case is also sufficiently uncertain.

42. There are good examples in RIIO-1 of the NIA being combined with other funding sources such that it offers more value to customers than the 0.5%-1% of revenues that are included in the RIIO-1 allowance. We are already leveraging this value in RIIO-1 to trial novel uses for domestic demand side response and the widespread roll-out of vehicle to grid customer propositions and technology. This leveraged funding was accessed from competitions operated by Innovate UK.

43. Further, we are involved in collaborations with partners bidding for higher education funds to develop the whole systems InTEGReL project where our NIA contribution to the project may be significantly leveraged. Maintaining the NIA in RIIO-2 would enable this benefit to customers from the leverage of value to continue.

This would render other forms of price control innovation funding redundant

44. At the same time, the complex and overly bureaucratic network innovation competition (NIC) arrangements should be brought to an end. Ofgem recognises that it is whole energy system projects that would be particularly valuable for customers and it is for such projects that the split NIC arrangements for gas and electricity are unsuited. The separation of gas and electricity NIC funding competitions is a barrier to introducing learning for new approaches to deliver efficient whole system thinking and solutions. Arrangements more like the NIA, on the other hand, are far more flexible.

45. Similarly, the Innovation Roll-out Mechanism (IRM) is arguably unnecessary. The opportunity for seeking funding for larger scale demonstration or deployment projects should be at the time of business plan submission and assessment, especially if Ofgem returns to five year price controls. Alternatively, the IRM could be modified to apply only once at the mid-point of a price control.

46. Lastly, Ofgem must maintain a link between innovation funding through network bills and direct network company participation. There are many sources of funding for third parties to innovate, and it was the network funding gap that the arrangements were designed to mitigate. Direct access to network innovation funding for third parties may just result in other forms of funding being diverted to different types of research, raising bills for energy consumers for no benefit. On a practical level it is also not possible to provide access rights for third parties to innovate on networks where the accountabilities for safety and performance need to be clearly associated with the regulated licence holder.

Early stage competition is needed in transmission

47. Ofgem should develop genuine forms of competition in transmission at relatively early stages, for example when distribution voltages may offer alternative options, since this will create much larger potential cost savings for energy consumers. Ofgem's competition proxy approach, as developed for the Hinckley Point C transmission link, does not provide a starting point for this; instead a blank sheet approach is needed, based on a thorough assessment of how to ensure all options are considered at the appropriate times in the process.

The criteria for competition can be extended to all sectors, but in reality competition for new asset construction arrived long ago in distribution

48. Ofgem's criteria for bespoke competition can also 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.

49. Of course, 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 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. But while Ofgem should recognise these practical limitations of bespoke competition in distribution, it should also be clear that distribution consumers will still benefit from extensive competition:

a. Competitive tendering is used extensively in procurement by distributors who have to comply with the Utilities Contract Regulations 2016. 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.

b. There is extensive competition in network extensions to serve new connections, between distribution network operators and independent connection providers.

50. Distortions in the current arrangements mean that Ofgem has not yet harnessed the benefits of the competition described at point b above for energy consumers but, in parallel to RIIO-2, Ofgem has the opportunity to address this shortcoming through suitable reform to this system.

Ofgem needs to maintain and enhance the strong, clear, output incentives that have driven significant performance improvements under RIIO-1

51. Above all, Ofgem needs to put in place clear incentives for companies to improve their performance. Whether or not you agree with the exact targets that were set, RIIO-1 has unarguably been a success in terms of incentives leading to service improvements for consumers.

52. RIIO-ED1 in particular sets the benchmark for output incentives. At RIIO-2 Ofgem needs to build on this success rather than undermine it.

53. Strong and clear incentives remain essential in relation to those areas where consumers value improvements the most, and where investment decisions need to be optimised over time (such as power interruptions and customer service), and where performance can be measured objectively and reasonably accurately.

54. The Consultation asks about how to set output targets. This will depend on the output in question.

a. Benchmarked (or relative) targets will be possible where Ofgem has enough competitors in the sector for there to be effective competition, and enough data to control for differences between licensees that would lead to valid differences in the outputs delivered and/or cost to serve.

b. Company specific targets will typically be more appropriate where there are too few competitors for there to be effective competition, or where Ofgem lacks the data to control for factors that mean performance cannot reliably be compared across companies.

55. In this respect, Ofgem must recognise the realities of the limited dataset it is dealing with for setting targets. It is simply not large enough to support incentives updated on an annual basis, or zero sum

incentives, owing either to limits on the robustness of benchmarking and/or limits on the scope for effective competition.

56. Furthermore, in order to avoid perverse incentives, long-accepted regulatory theory also says that regulators should avoid ratcheting targets immediately down to revealed performance levels, otherwise companies will face weaker incentives to improve towards the end of the price control period than the start. This is why 'incentive rollers' lag the company's historical performance by a number of years.[1]

57. Overall, Ofgem will achieve the strongest and clearest incentives for improvements in service levels, while avoiding unintended consequences, if it sets a fixed schedule of output targets for the duration of the price control period. It will therefore be important for Ofgem to properly analyse the potential outcomes of its incentive schemes through the enhanced scenario analysis advocated by British Gas[2].

58. These observations have important consequences for many of Ofgem's proposals for ensuring 'fair returns'. Many of these are un-implementable.

Ofgem must pull back from secondary deliverable arrangements that could lead it into micro-management and cost pass through

59. Ofgem must ensure its secondary deliverables do not lead to micro-management of company decisions, or become a rule book for 'Ofgem vetted' investment and pass through of costs. This would lead to poor consumer outcomes as it would:

a. Create incentives to optimise to the metrics and favour certain investments over others that may, in fact, be more necessary (or more effective or give rise to lower lifetime cost or greater lifetime benefit).

b. Undo the strong clear incentives to minimise costs that Ofgem has worked for so many years to put in place.

60. Ofgem's network output measures in the RIIO-1 settlements are already heading in the wrong direction. Ofgem must take the opportunity at RIIO-2 to undo this. But some of the suggestions Ofgem makes in the Consultation would instead make this emerging issue significantly worse.

a. Mandating the specification, budget and timing for large capital projects would lead, in effect, to Ofgem *attempting* to micro-manage large parts of energy network delivery

[1] We note that CEPA has criticised the RIIO-ED1 interruptions incentive targets as too loose due to using out-of-date performance data. However, to the extent that lagged company specific data is a reason behind rewards being earned, these rewards are consistent with a mechanism designed to encourage continued improvements in performance towards the end of DPCR5 period. In this light, they may in fact represent good value for money to consumers.

[2] Advocated by British Gas in its presentation at Ofgem's RIIO-2 workshop on October 24, 2018

chain. This would remove responsibility from the network companies for some of the most important decisions in asset management.

b. Putting in place a clear methodology to adjust for every instance where a project runs late, or to a different specification, could become a system of near-cost pass through. It could also discourage companies from adapting to new information as it is revealed during the price control, since this would lead to regulatory intervention and increased regulatory risk. Indeed, these proposals could create a powerful incentive to simply stick to the plan regardless of evolving circumstances.

c. Also if Ofgem does try to scrutinise individual decisions, except perhaps for a few of the very largest projects, the resource burden for Ofgem would be intense.

61. Ofgem should re-commit itself to the principles for secondary deliverables set out in the RIIO-handbook. This includes the principle that they should be set at the highest possible level, including intermediate outputs if possible, rather than inputs (which the Consultation mentions). It should also recognise that, if secondary deliverables are being used as a mechanism by which cost allowances are routinely adjusted, this may be better viewed as an uncertainty mechanism and appraised as such. Even where there is some uncertainty, an uncertainty mechanism will not always be the best answer for consumers, especially where this weakens the incentives companies face.

We can also see areas where minimum licence standards may be appropriate

62. We set out at paragraph 53 above the circumstances in which strong financial incentives are appropriate, to encourage companies to optimise performance levels on behalf of consumers and in light of the costs.

63. But in other areas Ofgem's proposal to move to licence minimum standards is sensible. In electricity distribution, the stakeholder engagement and consumer vulnerability incentive, and the incentive on connections engagement, are two areas where this would be appropriate. These incentives have driven a step change in company performance, but their nature means they will continue driving ever higher levels of investment in the area, to the point that the costs will not be in the interests of consumers in general. The arrangements are also highly bureaucratic, both for Ofgem and licensees. By codifying licensee responsibilities into explicitly stated licence requirements, Ofgem could simplify its regulatory arrangements and avoid unnecessary costs to consumers through incentives to further improve administrative processes that have already been brought up to a good standard.

Cost assessment must avoid the flaws of RIIO-1, and instead promote long-term value for money in the total cost to consumers

64. Ofgem's cost assessment toolkit must allow it to tell whether companies are offering consumers long-term value for money, so this can be encouraged and rewarded. It should also give Ofgem the tools to heavily scrutinise poor value plans, so these can be discouraged. By focussing on long term

value in this manner, Ofgem would reinforce its incentives to submit challenging business plans and reduce the costs paid by consumers.

65. Ofgem also has to learn from the lessons of RIIO-1, including which cost assessment tools worked well and which didn't. At RIIO-ED1, Ofgem's disaggregated modelling results proved to be susceptible to undue influence by company plans. This allowed some companies to improve their scores significantly at the second stage of a plan submission, without cutting overall costs, by reallocating costs between categories of expenditure. Excessive confidence in these disaggregated models also led Ofgem to place too much weight on them at RIIO-ED1: one of the key factors behind the mistake Ofgem made in its RIIO-ED1 fast track decision, at significant cost to consumers.[3]

66. These factors suggest Ofgem should place more weight on total cost (totex) assessment in its main assessment of whether companies are offering value for money. Where detailed scrutiny of a plan or particular part of a plan is required, Ofgem should deploy detailed scrutiny, not a set of cookie-cutter disaggregated models. Such cookie-cutter models are not designed to address a specific issue with a specific plan, and by relying more heavily on granular company plan inputs, they also create a material risk of distorted incentives.

67. In order to identify whether companies are offering long term value for money, Ofgem should place weight on both:

   a. a benchmark of **forecast costs** for the next period (where this benchmark is informed by historical actual costs as well as forecasts); and

   b. a benchmark of **historical costs** charged to consumers in the last period (i.e. allowances less the customer share of any underspend), in order to understand the value for money actually experienced by customers).

68. This will help smooth over investment cycles, and enhance incentives for companies to forecast accurately, since any benefit they derive from gaining high allowances that are subsequently not required will not be forgotten by the regulatory system. The lack of this weight on historical value for money was another element missing from the RIIO-1 framework.

Annual cost allowance re-setting for certain costs would be highly distortionary and a backward step in regulation

69. Ofgem's proposals for annual cost allowance re-setting are deeply flawed for three reasons.

   a. Ofgem lacks enough companies in every sector. In transmission annual cost allowance setting would collapse into company specific one year price controls and, in effect, pass

[3] Ofgem placed a 75% weight on its disaggregated modelling in its cost assessment for the RIIO-ED1 fast track decision. (Ofgem, 2012, RIIO-ED1 business plan expenditure assessment - methodology and results, page 12). This high weight was a determining factor in the decision that was taken. Ofgem cited confidence in the robustness of these models, yet in its final RIIO-ED1 expenditure assessment Ofgem revised many fundamental model assumptions, such as the asset profile assumed, which significantly changed the results. Ofgem also reduced the weight on these models to 50%.

through regulation. This would create extremely weak incentives for companies to reduce costs over time. Even in electricity distribution there are not enough companies to set robust benchmarks on a year-to-year basis.

b. Using actual data to set upper quartile or frontier benchmarks would lead to systematic under-recovery of costs for the sector as a whole. We think this would be inconsistent with Ofgem's financeability duty and so should be discounted.

c. Annual allowance setting applied to only some cost categories would distort incentives between those and other types of cost; which is why the CMA has given Ofgem clear guidance to think very carefully before implementing this type of approach.

70. Overall Ofgem should not adopt the annual cost resetting suggested in the Consultation.

Real price effects indexation was considered and rejected at RIIO-ED1 and carries significant risks of unintended consequences

71. Ofgem consulted on real price effects (RPE) indexation at RIIO-ED1 and chose not to implement it. We supported that decision at the time and continue to support it.

72. In short, the indices available to Ofgem do not measure the year-to-year cost pressures facing the relevant sectors and instead offer only a long term benchmark. Ofgem has also been unwilling to measure company costs more directly because it fears it would undermine incentives. Updating allowances annually with such imperfect measures would actually add risk to the settlement. So if Ofgem does take this option forward, the risk it creates would need to be recognised in the cost of capital.

73. We also note Ofgem suggests setting a zero RPE allowance. Over the long term and across the economy as a whole, productivity growth leads to increases in labour costs in real terms. In this context, and given the importance of labour costs to network asset construction and maintenance, simply assuming a zero RPE allowance is unlikely to be justified. On the other hand, a more thoughtful assumption that RPEs net of productivity growth (net-RPEs) will be zero might be more easily justified by reference to objective evidence.

74. Lastly, Ofgem is considering changing the inflation index used in the price control. We highlight below, at paragraph 118, that if Ofgem does make a change, it is vital for investor certainty that Ofgem demonstrates the change has been net present value neutral. One of the steps Ofgem must take to achieve this is to set out a clear basis for how its real price effect calculations will vary depending on whether the price control is indexed to RPI, CPI or some other index.

Simplifying the price controls

Incentives to reveal cost information should be simplified and made much stronger

75. Incentives for companies to develop challenging business plans before the price control review starts remain as important now as they have ever been, across every network sector that Ofgem regulates. In fact, due to the changes in network usage taking place, they may be more important than ever.

76. At RIIO-ED1, some companies genuinely responded to these incentives. The incentive to reveal information at that review consisted both of an information quality incentive (IQI) and a sizeable fast track reward. But the manner in which the fast track process was operated at RIIO-ED1 has undermined its credibility for the companies, and led Ofgem to conclude that it cannot be implemented again in the same way. This makes it important that Ofgem *strengthens* its other incentive to reveal information, including the IQI.

77. For the last decade Northern Powergrid has been highlighting to Ofgem that the IQI did not give 'sharp' enough incentives for companies to develop and submit these challenging plans. We can therefore see why Ofgem would now identify that it has not worked as well as intended, although the evidence Ofgem has presented is not the correct evidence to understand the reasons.

78. Ofgem's objectives for the IQI have always been the right ones, and the correct response to any past failure of the IQI is to:

    a. Strengthen the incentives for companies to develop and provide information, through bigger differences in settlement where companies are found not to have challenged themselves, using financial rewards for the best plans and penalties for the worst.

    b. Make cost assessment processes more robust, avoiding the highly disaggregated models used at RIIO-ED1, that allowed certain companies to influence Ofgem's benchmarks upwards, and instead moving further towards exogenous totex cost benchmarks.

    c. Implement genuine proportionate treatment, applying bespoke cost assessment to high cost areas of high cost plans, not a cookie cutter approach, to identify a challenging but justifiable cost benchmark for those companies that have not challenged themselves.

79. In designing its menu of options to incentivise companies to reveal information, Ofgem should avoid reliance on qualitative assessments of business plans which could lack objectivity. Not only would this result in bad outcomes for consumers, but few companies would believe it would be a fair competition. The results of the RIIO-ED1 cost benchmarking models were significantly distorted through modelling choices that led to a particular fast-tracking decision being taken. A qualitative framework would encourage the view that similar distortions could result.

80. If Ofgem does want to set an award for the best written plan, or best business strategy, or best stakeholder engagement, it should do so separately from its incentives for companies to reveal information. This will maintain the strong and clear incentives that RIIO is intended to provide (by

avoiding an attempt to incentivise very different things through the same mechanism) and allow Ofgem to calibrate the value of each separate mechanism based on the value consumers will derive.

81. Good value for money plans can be worth billions of pounds to energy consumers, so Ofgem should be willing to base a sizeable incentive scheme upon it. While we should and do aspire to present our business plan in a way our stakeholders can access, setting out clear reasoning and showing how we have strategies in place to manage our business, this presentational exercise will not be worth billions to consumers, and so warrants a distinctly lower-powered incentive.

Fast tracking has been undermined by its operation at RIIO-1, so must be reformed

82. We support Ofgem's assessment that fast tracking should not be retained in its RIIO-1 form.

83. The presence of fast tracking before RIIO-ED1, and the belief of several companies that they may succeed, did result in better and lower-cost plans being submitted. The manner in which it was operated at RIIO-1 has however undermined its likelihood of success at RIIO-2 without serious work to reform the incentive and restore confidence.

84. We can also see why Ofgem is proposing to remove fast tracking from transmission, given the problems the incentive encountered in RIIO-1, and the concentrated nature of transmission ownership. But Ofgem must still ensure it maintains strong incentives for transmission companies to develop challenging business plans and reveal information. Consumer engagement does not offer a replacement. While it could aid transmission companies in developing better and more robust scenarios for potential customer demands, this cannot replace Ofgem undertaking its own extensive diligence to identify appropriate cost levels.

Annual reporting should be rationalised, and the approach tailored to the audience

85. Ofgem should rationalise annual reporting requirements, removing or reducing duplication to lessen the administrative burden on all parties.

86. We want to deliver efficiently produced material that stakeholders want, whether for Ofgem, the public, or other interested parties. For Ofgem-facing publications we can see why there will sometimes need to be a prescriptive format. But these prescriptive formats should be avoided for stakeholder facing publications, except the contents of summary information tables, allowing companies to innovate in how they present information, and then learn from best practice.

Ensuring fair returns and financeability

Before re-setting the cost of debt, Ofgem must apply the test it set in the RIIO handbook, to avoid undermining the commitments it made to longer term debt remuneration

87. Before assessing how to set the cost of debt, Ofgem must recognise its commitment in the RIIO-handbook to longer term decisions on debt remuneration.[4] Ofgem committed to maintain the same index at successive price controls, subject to a test that it remains a reasonable estimate of the cost of debt. Only if this test is failed for a particular sector (or company where a company specific index was set) should Ofgem consider how to reset the cost of debt for that sector.

88. Once this hurdle is met, Ofgem's principles seem broadly sound – although they could be consolidated and simplified. But in considering its options under these principles, Ofgem should also recognise the need to have multiple tools for different circumstances. A one size fits all approach would not be appropriate since the different sectors have very different corporate histories, with gas distribution companies having been created (as standalone entities) relatively recently, while other companies were created much earlier and therefore have different financing histories. The sectors also have different industry structures, ranging from six groups (electricity distribution) to one (gas transmission). These issues must be considered carefully as part of each sector's more detailed consultation process.

89. As well as the options Ofgem lists, we had previously suggested an option that involves controlling for the timing and tenor of company issuance. Ofgem should consider this option, provided it is willing to mitigate any incentives for companies to buy back debt if interest rates rise faster than expected.

The cost of equity is Ofgem's incentive for investment and so it must be set at a credible level based on an objective assessment of the evidence

90. We can understand Ofgem's concern about whole sectors earning double digit returns, but the direction of travel on the cost of equity revealed by Ofgem in the Consultation is concerning. Ofgem must not let any prior assumption that the cost of equity for networks is low cloud its assessment of the evidence on equity costs.[5] Neither must it use the base cost of equity to try and offset proven or suspected errors in other parts of its settlement, like the cost allowances it set at RIIO-1 for some companies.

91. By setting out at such an early stage a range for the cost of equity that is so low and lacking in credibility Ofgem risks taking positions on the cost of equity that are unsupported by the evidence

[4] Ofgem, 2010, RIIO Handbook, paragraph 12.16

[5] Yet there are signs that Ofgem may be risking this, like at paragraph 7.49 of the Consultation when it lists all the 'good reasons' to expect network company non-diversifiable risk to be lower than the market average, without listing the other side of the coin (like much higher assumed financial gearing than other listed companies, which concentrates asset risk on a thinner equity wedge).

that Ofgem has available to it. For this reason, it is helpful that the ranges published in the Consultation (for Ofgem and Ofwat) are still subject to extensive consultation, because they present very real risks to consumers. The fundamental driver of this risk is a possibility that Ofgem may mistakenly decide that problems with the base cost of equity are the reason for its concerns about overall returns.

92. The cost of equity is Ofgem's incentive for investment in the sector and its asset base, and the level of investment into energy networks is one of the successes of Ofgem's RPI-X and now RIIO-1 regulation. There has been significant investment (around £80bn since privatisation) while the stable regulatory system has facilitated a gradually declining allowed cost of equity and overall return on capital employed (which has declined by almost 25% between 2010-11 and present, from 7.4% to 5.7%, saving energy consumers about £9bn over the RIIO-1 period). Ofgem should not be proposing significantly weaker incentives to invest, at a time when the energy system transition is likely to place significantly changing demands on energy networks, with potential near-term investment requirements as high as £6bn per annum.[6]

93. Looking across the many academic and practitioner experts involved in the process to data (CEPA, Oxera, the participants in the UKRN study), there is broad agreement that the total return that investors in the equity market expect (the total market return) is relatively stable over time, in the region of the range published by the CMA in the Final determination in the Northern Ireland Electricity price control re-hearing. Ofgem is therefore right to adopt this view of the total market return, and to highlight the CMA's range of 5.0% to 6.5%, which CEPA and Oxera both concur with, and which remains appropriate.

94. There is also a broad consensus across regulators over how to estimate how risky equity investments in regulated infrastructure are, relative to the wider equity market (i.e. the estimation of equity beta). Ofgem's own consultants, CEPA, do not agree with Ofgem's apparent view that equity must necessarily be less risky than the market at 60% gearing (i.e. they don't conclude that equity beta must be below 1 at 60% gearing). This ought to cause Ofgem to challenge any prior assumption it has that energy network equity investments are low risk but it has not been acknowledged in the Consultation. Oxera's independent study on behalf of ENA into the cost of equity for RIIO energy networks also applies the consensus approach, and finds that investments in energy networks are riskier than water companies.[7] The recommended equity beta, at 60% gearing, is 0.93 to 0.98.[8]

95. Yet the presentation of Ofgem's range alongside Ofwat's in the consultation makes it appear as though Ofgem thinks energy networks are as low risk as water networks. This ignores the heightened political profile of energy, and the potential for major changes in how energy networks are used. It also fails to take account of the increasing regulatory risk profile in energy network

[6] DECC, 2014, Delivering UK Energy Investment, page 86

[7] Oxera, 2018, The Cost of Equity for RIIO-2, page 7

[8] Op. cit., page 6

regulation, exemplified by the consultation Ofgem published in November 2017 on whether to reopen the RIIO-ED1 price control settlement even though the criteria for a mid-period review are not met.[9] In the parlance of econometric equity beta estimation, these risks can be termed 'alpha risk'.

96. The use of alternative approaches to beta estimation, outside of the global regulatory mainstream, would further heighten these risks. They should be should be avoided.

97. In summary, the published range is not an appropriate starting point to what will now be a lengthy process. It fails to signal a desire on the part of Ofgem to engage in a balanced review of the evidence. This is regrettable and is already having a corrosive effect on investor confidence across the capital markets. Considerable further work is needed to land on an objective and credible final allowance. Ofgem must keep its mind and its options open and engage fully with the evidence.

98. In terms of specific next steps, Ofgem has already signalled that it expects to look more closely at novel techniques for estimating equity beta, a study which we expect is unlikely to yield techniques which will see widespread practical application. At the same time, it should also take ahead a study of non-systematic risk, or 'alpha risk', to gain a balanced view of the total risk that must be remunerated. Both of these novel issues, to date not explicitly recognised in mainstream regulatory cost of capital estimation, would need to go through a lengthy process of evaluation and consultation before any conclusions can be reached.

Cost of equity indexation is not desirable and, if implemented, could be highly damaging

99. We do not support equity indexation.

100. If the equity beta is set at an appropriate level then indexation will see the allowed cost of equity move relatively little. It would therefore be an unnecessary complication.

101. The only reason equity indexation would lead to material movements in the cost of equity from year to year is if Ofgem establishes an equity beta well below one. For the reasons set out above (and below in our more detailed answers to question 35 of the Consultation), this would be highly damaging to Ofgem's incentive for investment in the asset base and investor confidence. This damage would be made worse if Ofgem combined that low equity beta with indexation.

102. We note that Ofgem highlights Citizens Advice's suggestion of indexing the equity return directly to stock market movements. Ofgem is wise to disregard this proposal. Any direct link to stock returns would markedly increase the volatility of returns and add to the systematic (beta) equity risk already faced by investors in energy networks and raise their required return, thus adding to costs for consumers with no benefit.

[9] Some of the more novel proposals that Ofgem has brought forward in the Consultation, in particular but not limited to the 'fair returns' proposals, would raise this established risk profile even further and, if adopted, need to be reflected in Ofgem's cost of equity determination.

Any reductions in notional gearing should be fully funded

103. If Ofgem genuinely wants to encourage equity investment into the sector, it firstly needs to set its allowed cost of equity at a credible level. Equity returns that are too low, such as Ofgem's proposed range, will encourage an exit of equity capital.

104. Ofgem also needs to set the gearing of the notional company. There are reasons why it may make sense to reduce this assumption, and if Ofgem decides that it would be appropriate to do so, it should take three steps.

a. Apply caution in its de-levering calculations, and ensure it allows a marginal cost of equity, for the notional increase in equity funding, that is higher than the allowed cost of debt.

b. Fully fund the notionally financed business for the high cost of equity issuance it would incur (without reference to whether equity issuance is actually required, since this would distort incentives and discourage companies from injecting equity in future).

c. Avoid any reduction to the threshold at which tax clawback for excess gearing applies.

The Authority cannot abdicate responsibility for financeability…

105. *'…the Authority must recognise that, to the extent that the utilities legislation places obligations on utility companies (whether directly, through licence conditions or otherwise), such companies must be able to finance those obligations.'*[10]

106. This means the Authority cannot 'place the onus' on licensees to ensure they remain financeable, as the Consultation proposes it should.

107. Instead Ofgem needs tools for ensuring that companies are able to finance their regulatory obligations, and its three primary tools should be:

a. Setting the allowed cost of equity at a credible level, which does not rely on the possibility that additional returns are earned from other parts of the price control.[11]

b. For any given cost of equity, setting notional gearing to reflect the risks facing energy network sectors, while funding issuance costs for any reduction in *notional* gearing (to avoid distorting incentives that might discourage voluntary equity injection).

c. Shortening asset lives where necessary, as a tool that allows long term fine-tuning of the path of prices for consumers as well as company financeability.

[10] Utilities Act 2000, explanatory notes, paragraph 22

[11] This is unlikely to be compatible with the price control appeal framework in any case.

… and neither is a nominal cost of capital a financeability silver-bullet

108. Ofgem has suggested a nominal cost of capital as one additional option for addressing financeability issues. This would be a material departure from a regulatory convention that has prevailed for decades, and would leave GB energy networks out of step with other UK network sectors, making them likely to be less attractive to existing investors.

109. It also seems likely to be discounted from the assessments of some rating agencies.[12]

110. Ofgem should therefore discount this option.

Ofgem should continue its current approach to taxation, since the alternatives are either unworkable or could amount to un-picking the decisions of Parliament

111. We think Ofgem should give companies at least some small incentive to avoid paying too much tax, within the law and on behalf of energy consumers, but should otherwise allow the taxes for the notional, standalone, entity in full. This is essentially the model Ofgem has followed to date.

112. Ofgem has indicated that it has some concerns in relation to taxation. We do not think that the issues which have led to political and media pressure in the water sector, such as offshore vehicles, are prevalent in energy networks. Any risks inherent in such structures should also not be concerning to the Authority, since the ring-fence would protect consumers from these risks. But if Ofgem is aware of specific issues, it should spell them out, so we can consider them and provide an informed view.

113. Beyond this, Ofgem has suggested a review of actual taxes paid, and whether this could be a basis for tax allowances. This would be a complex exercise since taxes are levied on the statutory entity, which may undertake more than just regulated activities. Any analysis of actual taxes would have to remove the effect of these other activities. This would be a resource intensive task which, if done properly would lead to the same or similar results as Ofgem's current approach.

114. Also, it is for Parliament to set taxation policy and for HMRC to implement it, and it would not be appropriate for a regulator to unpick Parliament's or HMRC's decisions in relation to un-regulated activity.

115. The final option in the Consultation, the 'lower of actual or notional' approach, would systematically under-allow for tax and so should be discounted.

[12] For example Moody's has previously discounted other measures that increase current cashflows while reducing RAV growth.

Any change to price control indexation should be done in a manner that is, very transparently, net present value neutral

116. Ofgem has considered whether to use the retail prices index (RPI) or consumer prices index (CPI) for price indexation at every electricity distribution price control review since its first (DPCR1). No stakeholder should be surprised that Ofgem would consider this question again for RIIO-2.

117. At various times Ofgem has set tests for a move away from RPI indexation that have included the development of a liquid CPI linked bond market. This test has not yet been met.

118. Should Ofgem decide to move away from its previous tests, and decide to abandon RPI, it must be highly transparent over how it has accounted for the move in other price control parameters (the cost of equity, cost of debt, and real price effects). Ofgem has not yet set these parameters out in terms that are specific enough to allow investors to derive any reassurance on how they will be set and so it is important that Ofgem moves to fill this gap soon.

119. On the choice between CPI and the Consumer Prices Index including Owner Occupiers' Housing Cost (CPIH), Northern Powergrid believes that CPI is the stronger option of the two. This view is based on the relative strength of the institutional framework surrounding the two measures, although this assessment could change with time. We would also support simple arrangements involving an immediate move rather than a complex transition.

Asset lives provide a tool for guiding the long term path of prices, while capitalisation rates should be guided by the activities in question

120. As set out above, to ensure financeability Ofgem should first get the base equity return right, then the level of gearing, and after that the asset life.

121. Ofgem's move to 45 year asset lives at RIIO-ED1 increased equity risk compared to the previous, 20 year, approach. It will also place a significant burden on consumers in the distant future. At present, consumers are enjoying a discount on cost reflective charges thanks to historical policies of accelerated depreciation. This discount is set to first deepen and then narrow over the coming decades due to Ofgem's change to 45 year asset lives. But beyond that, charges will rise for an extended period, until they reach the higher level that 45 year asset lives imply.

122. Turning to capitalisation rates, we support Ofgem's continuation of its RIIO-ED1 approach of broadly mirroring the accounting policy, although Ofgem could consider setting a single capitalisation rate for the sector in order to ensure companies are neutral to their own decisions on operating versus capital solutions in the transition to DSO. We could not, however, support the capitalisation of any increases in pension deficit contributions, in effect adding pension deficit growth to RAV, which was the approach taken in Ofgem's RIIO-ED1 settlement for the fast-tracked distribution company.

'Fair returns' can be achieved without recourse to a failsafe mechanism

123. Much of the so called 'excess return' that has arisen in RIIO-1 flows from cost benchmarking mistakes, and cost allowances that were too high for some sectors or some companies. Most of the rest comes from out-performance.[13]

124. Looking between the RIIO-1 controls, there was also evidence of Ofgem learning as the process carried on, with the RIIO-ED1 price control set at a markedly tougher level than the earlier RIIO-1 controls; with cost benchmarking mistakes more predominant in Ofgem's disaggregated analysis and focussed on specific companies.

125. While this still leaves issues for Ofgem to address, it has a battery of measures at its disposal to achieve this:

a. Ofgem is minded to shorten price control periods to five years. This will significantly speed up the process by which cost reductions (or performance improvements) can be passed on to consumers and help substantially to address issues Ofgem has raised around retention of benefits.

b. Ofgem is also proposing additional mechanisms to adjust uncertain costs to reduce the likelihood of company costs moving out of step from allowances.[14]

c. We have also proposed that Ofgem should develop cost benchmarking techniques that are more robust to influence by company plans than the deeply flawed RIIO-ED1 disaggregated benchmarking suite.

d. British Gas has proposed that Ofgem should undertake enhanced scenario analysis, so Ofgem develops a good understands of potential value outcomes.[15]

126. Armed with the above measures, a well-respected regulator such as Ofgem should be able to set price controls at RIIO-2 that are much more robust to 'excess returns', while still maintaining the strong incentives that are central to the continued success of RIIO in delivering benefits to consumers.

127. Ofgem should not need a backstop mechanism to mitigate the costs to consumers that could result from flaws in the RIIO-2 settlement. The risk if it introduces one is that it will undermine the strong incentives that are one of the tenets of RIIO, or worse, it may also undermine the low risk nature of

[13] Admittedly an area which is less controversial because consumers have seen improved service, and where it is difficult to be sure there have been any 'excess returns' because the incentive payments may have been required to fund the cost of the improvements.

[14] We note that in doing so Ofgem must take care to avoid blunting the strong incentives that have benefitted consumers since privatisation.

[15] Advocated by British Gas in its presentation at Ofgem's RIIO-2 workshop on October 24, 2018.

the settlement which is a further tenet underpinning the benefits to consumers that Ofgem's RIIO approach to regulation is intended to bring.

…but if one is implemented, sculpted returns applied to costs and outputs would be the least damaging approach

128. If Ofgem still believes that it needs a backstop mechanism, then the least damaging candidate would be carefully calibrated sculpted returns applied to cost *and* output incentives. This would allow Ofgem to retain the clear and strong incentives created in the RIIO-1 arrangements, which have been successful in delivering improved service levels for consumers and a lower cost base.[16]

129. The other three options in the consultation are unworkable: a hard cap on returns (an extreme special case of sculpted returns) eliminates the incentive to improve performance above a certain level; a discretionary adjustment seriously undermines regulatory certainty; all the options involving zero sum incentives (including zero sum anchoring, another extreme special case) would:

    a. Collapse to pass through in sectors like gas transmission where there are few comparators.

    b. Materially raise risk, and the cost of capital, in other sectors, since there are too few comparators to mitigate the risk that an error in setting cost allowances or targets for one company could lead to an unjustified windfall loss for another.[17]

    c. Would be almost impossible to calibrate in line with customer preferences, which would be likely to lead to inefficient over- or under- delivery of different outputs.

    d. Undermine the collaboration on which innovation depends.

Next steps

In terms of procedures, shorter price controls necessitate shorter price reviews

130. If Ofgem does move to a five year price control period, it will need to shorten its procedural timetable in future RIIO-rounds (for RIIO-3 onwards).

131. The RIIO-2 framework process started in mid-2017, almost four years before the commencement of RIIO-T2 and RIIO-GD2, and almost six years before the commencement of RIIO-ED2. An identical

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[16] If Ofgem does adopt sculpted returns, it should consider whether it should sculpt *how* incentive rewards are paid, rather than just reducing those rewards. As performance levels vary, incentive rewards could be paid either as NPV positive revenue adjustments, or NPV neutral revenue adjustments (i.e. payments out of RAV). By sculpting between these two options, Ofgem could maintain a cash-flow incentive for management to improve performance, while reducing the risk of excessive regulatory returns on capital employed. It would also be creating a dividend for future consumers.

[17] Since there are too few comparators to mitigate the risk that a mistake in the cost allowances or targets for one company could have a serious effect on the returns of others.

RIIO-3 timetable would mean starting RIIO-3 almost as soon as any RIIO-T2 and GD2 price control appeals have been settled, and before the RIIO-ED2 price control has actually been set.

132. If moving to five years, Ofgem therefore needs to lighten its own procedures, and ensure that the new business planning procedures it expects companies to adopt are designed to match five-year price control periods. Increasing the requirements for business planning, while at the same time shortening the periods over which those business plans are binding, does not make sense.

3. Responses to questions on giving consumers a stronger voice

133. Northern Powergrid welcomes enhanced consumer engagement but Ofgem must keep in place a firm decision making process of its own, so companies are disciplined to reject stakeholder proposals that are not in the interests of consumers, and so Ofgem is not made vulnerable to price control appeals.

134. Our over-arching views on giving consumers a stronger voice are set out at paragraphs 15 to 18 above. These should be read in conjunction with our responses to the specific questions below.

Q1a. How can we enhance these models and strengthen the role of stakeholders in providing input and challenge to company plans?

135. Northern Powergrid recognises the value that stakeholder engagement has brought the company to date, including through our RIIO-ED1 business planning. We understand that energy networks must identify the needs and interests of their end users in order to ensure their own long term sustainability. They also need to achieve a balance between the conflicting interests of the stakeholder community, including the interests of the households and business that ultimately pay to use the infrastructure.[18]

136. An increased opportunity for stakeholder voices to be heard, and greater consistency across companies in terms of how they achieve this, should therefore deliver value to energy consumers and for energy networks themselves.

137. Northern Powergrid recognises the need to give stakeholders a voice. It underpins our legitimacy, helps us find balanced efficient outcomes, and ultimately plan our business better. This is why the stakeholder engagement we designed at RIIO-ED1 already had some of the features that Ofgem proposes for RIIO-2, such as customer and expert panels engaging directly on the business plan content and direction. The four key lessons we can see for Ofgem from our own understanding of the issues, and our experience at RIIO-ED1, are set out below.

138. Firstly, in designing its stakeholder engagement model, Ofgem will be well aware of the need to be conscious of the statutory framework under which the Authority operates. Stakeholders and independent experts can help to inform better decisions by Ofgem, but of course this does not relieve any burden from Ofgem as the energy regulator because the duty to take the decision under the statute still lies with the Authority. This means that:

[18] Politicians, for example, may have interests that are focussed on the next five years or less; the need to balance this short term bias in the political process is why Parliament has given Ofgem a duty to consider current and future consumers.

a. If Ofgem relies on the results of stakeholder engagement without undertaking its own analysis it carries greater risk of being overturned at price control appeals.

b. Moreover, the statute in energy allows for appeal of specific errors, and grants appeal rights to third parties. This makes energy different from sectors like water or airports where stakeholder engagement has also been promoted.[19]

c. 'Agreement' by a stakeholder group of a plan in the round, or even aspects of a plan, is not enough to protect Ofgem from successful legal challenge on those aspects.

139. Secondly, Ofgem must recognise that the interests of the stakeholders that are best resourced, and best able to participate in the process, may not be well aligned with Ofgem's statutory duties towards current and future energy consumers.

a. Some parties may have an interest in securing a particular outcome – for example housing developers or local authorities may have an interest in new infrastructure that is paid for by energy consumers in general, not by the specific development. This may be the case for many stakeholders in distribution, or for generators in transmission, who will generally have an interest in ensuring that they benefit while others pay.

b. Other parties may have a fairly weak incentive to participate at all. For example energy suppliers have incentives to care more about their competitive position relative to other energy suppliers than about the level of distribution charges, while distributors are not directly exposed to the cost of many decisions taken by transmission companies.

140. Thirdly, Ofgem needs to avoid a postcode lottery. Different individuals on the panels of different companies will arrive at different views, in answer to questions that are ostensibly the same. Ofgem must recognise that there are several core price control tasks that Ofgem will be both better placed and better resourced to undertake effectively than any stakeholder panel established by the companies. This includes:

a. Financial analysis in cost of capital and gearing.

b. Setting incentive targets.

c. Assessing costs, including proposals for regional specific allowances.

141. Fourthly, building on our third point, the engagement will result in a better outcome for energy consumers if strong checks and balances are in place. Ofgem must be willing to override the results of this stakeholder engagement process where this is the correct decision for current and future energy consumers.

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19 In the water sector, for example, price controls are agreed in the round, and if an appeal is made the entire decision is subject to appeal.

a. It is the very presence of the pre-existing price control review framework sitting behind stakeholder engagement that forces the best outcome from that engagement, because it aligns the interests of companies with those of energy consumers.

b. A stakeholder engagement process therefore should not be seen as a replacement for that price control review framework; instead it is complementary to it.

Q1b. What are your views on the proposal to have Open Hearings on areas of contention that have been identified by the groups?

142. There are many practical questions to answer in relation to open hearings. How open? Who can participate? What evidence would be needed to support a counter-proposal to a company's plan in a particular area? How would competing interests be balanced?

143. Open hearings also present questions around the ability to participate. For example, well-resourced and commercially driven stakeholder groups would take part. However, hard to reach stakeholders who do not have the capability to participate would be excluded. Even organisations that claim to offer advocacy on behalf of these hard to reach stakeholders will lack duties that are equivalent to Ofgem's.[20]

144. Lastly, we would highlight that in all stakeholder engagement processes, including open hearings, stakeholder fatigue is likely to become an issue. We have seen some evidence of this in our ongoing RIIO-ED1 stakeholder engagement and have already heard some of our stakeholders highlighting their concern that the resource burden on them will be too intensive under Ofgem's proposals for RIIO-2.[21] This may limit effectiveness of any proposals; although testing them and then monitoring the response may be the best way to understand if this will become an issue.

4. Responses to questions on responding to how networks are used

145. Many of the changes made under the RIIO approach to regulation were designed to encourage longer term decision making, and place the onus on companies to respond to changes in how networks are used. These objectives remain valid as they will reduce long-term costs to consumers, so Ofgem must recognise them in any adjustments it makes to the RIIO-2 framework.

146. This has practical implications for some of Ofgem's questions.

[20] They may also have interests that diverge from those of the stakeholders they claim to represent. In the charity sector, for example, headline-grabbing policy advocacy can garner significant publicity (which makes fund-raising easier for the charity) whether or not the charity has the expertise to provide informed views.

[21] Northern Powergrid stakeholder panel, June 18, 2018 in Newcastle, discussion on RIIO-2.

a. The eight year price control period, for instance, was designed to encourage longer term decision making, so if Ofgem moves to a five year period, it must find new ways to achieve its original objectives under RIIO, such as placing more weight on long-term value for money in cost assessment.

b. Cost-saving incentives were equalised across different parts of the cost base to encourage companies to choose the least cost solution overall, recognising that new innovations will increasingly challenge the boundaries between capital and operating solutions. Ofgem should therefore maintain a high bar for setting longer term allowances for certain cost categories, limiting this to instances where Ofgem is, in effect, regulating a distinct network. It should rule out re-setting any categories of cost allowances at a shorter timeframe than five years.

147. We expand upon these points in our answers which follow.

Length of price control

148. Our over-arching views on the length of the price control are set out at paragraphs 19 to 24 above. These should be read in conjunction with our responses to the specific questions below.

Q2a. Do you agree with our preferred position to set the price control for a five-year period, but with the flexibility to set some allowances over a longer period, if companies can present a compelling justification, such as on innovation or efficiency grounds?

149. Our views are unchanged since Ofgem considered its move to eight year price control periods, during its review of its previous price control arrangements (the RPI-x@20 review). At the time, we said that:

> *We concur with Ofgem's view that the existing regulatory framework is geared towards encouraging network companies to minimise costs in the short term and that this may not always be consistent with providing value for money over the long term. We can see the merit of extending the price control beyond five years if this can be done without giving rise to adverse consequences. However, we continue to urge caution because the history in the water sector, and our own experience since privatisation of the pressures that are brought to bear on regulators, suggest that a full price control period of eight years, with a mini-review after four years (to adjust for changes in outputs), may be difficult to sustain.*[22]

150. We continue to view an eight year price control period as superior to five years, as it creates stronger incentives, encourages longer term thinking, places the onus on companies to manage and minimise the costs of uncertain changes in patterns of network usage, and better matches the long

[22] Northern Powergrid's response (then CE Electric UK) to Ofgem's RPI-X@20 review recommendations, paragraph 20

term horizons of our own business. However, we can see that the lack of an observable counterfactual makes it impossible to quantify the benefits of adopting any particular price control length. Given that most of the UK network regulators that set extended price control periods opt for five years, we can see that a five year horizon is a relatively standard and therefore robust choice.

151. Ofgem also suggests retaining some flexibility to set certain allowances for longer or shorter periods than five years in specific cases. If it retains this option, it would risk distorting incentives between different categories of costs and taking a backward step in regulation. It should therefore limit its use to potentially setting longer price controls for costs that relate, in effect, to a separate network. Our response to the following questions explains this more fully.

Q2b. What type of cost categories should be set over a longer period?

152. Allowing cost categories into a longer term framework is likely to create different strength incentives for different cost categories, and undermine Ofgem's move to an equalised totex cost incentive. This was in turn designed to encourage companies to innovate, since innovations often challenge the boundaries between different regulatory cost categories.

153. We note that the Competition and Markets Authority (CMA) has recognised the work that the Authority and other regulators have done in removing the distortions between different types of costs. It has also given clear guidance that Ofgem should give careful consideration to any changes to how costs are treated or assessed that might re-introduce such distortions, since this would be a backward step in regulation.

> *…GEMA and other economic regulators have – over many years – rightly recognised the potential for what can be relatively arbitrary classifications of costs to give rise to undesirable incentive effects (including the direction of material resources towards seeking to influence what should be included in different categories, where such decisions have significant financial consequences). In line with this, GEMA has developed approaches that have diminished the significance of such categories, and the development of a totex approach can be understood within this context.*
>
> *This suggests to us that careful consideration should be given to the risk that the use in the cost assessment process of specific cost categories, such as, smart/conventional, may lead to undesirable incentive effects representing a backward step in terms of incentive regulation. This is because of the potential for the use of such categories to distort incentives in undesirable ways.*[23]

154. As such, a high bar should be maintained for setting allowances for any categories of cost for a longer period. They would have to be costs:

[23] Competition and Markets Authority, 2015, Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc v the Gas and Electricity Markets Authority, Final determination, paragraph 4.128-4.129

a. where there are no other solutions to the same issue, so that totex incentives cannot be distorted by encouraging one approach over another;

b. where there are no inter-relationships with different parts of the cost base, for instance in how resourcing is scheduled (e.g. working hours vs. overtime); and

c. which are clearly ring fenced in reporting terms from other cost categories, with no scope for discretion in cost allocation.

155. We think there are likely to be limited candidates which meet these hurdles in electricity distribution, given the move to the DSO role and the increasing substitutability between very distinct asset light and asset heavy solutions. This may well also be the case in gas distribution. For instance, even the repex programme has links to other types of expenditure, because its cost will be impacted by how work resourcing is scheduled (high vs. low cost). Differential incentives in different activities could therefore still cause distortions that raise costs to consumers overall.

156. However, the relevant hurdles would be met where Ofgem is regulating a project that is essentially separable from the main price control. For instance we can see that specific and very distinct large capital projects could be suited to longer term allowances, once the needs case is met and the project is definitely going ahead. The project specific 25 year price control that Ofgem is currently considering for the Hinkley-Seabank transmission link is one example.[24]

Q2c. How could we mitigate the potential disruption this might cause to the rest of the framework?

157. By applying the high bar set out in our response to the previous question, at paragraph 154 Ofgem would limit the potential disruption caused to the rest of the framework. The approach would only be applied to separable and distinct parts of a network that can, in effect, be run under their own price control with no inter-linkages to the rest of the cost-base.

158. Ofgem should also minimise the potential regulatory uncertainty that could result if a price control specific to a particular area of costs comes to an end mid-way through a price control for the main business.[25] Ofgem should therefore commit to setting roll-over controls for the specific cost lines in isolation of the rest of the settlement. This would mean that the lack of a cost allowance for one specific area does not become an opportunity to re-open the main control via the back door, which would undermine regulatory certainty and raise costs to consumers through weaker incentives to improve performance coupled with higher financing costs.

[24] We note however that these specific examples are also likely meet Ofgem's criteria for competition, because they are new assets that are clearly separable, and they would need to be high value to justify a project specific price control.

[25] This circumstance may be unavoidable, particularly if Ofgem changes the length of the price control period at RIIO-3 or future reviews.

Q2d. What additional measures might be required to support longer-term thinking among network companies?

159. Ofgem took three steps at DPCR5 and the RIIO-1 reviews to support longer-term thinking by network companies. First, in introduced the LCN Fund, and continued this with its RIIO-1 innovation funding policy. Second, it moved to longer price control periods. Third, it moved to a total cost benchmarking and incentive approach.

160. While the first two of these policies are now set to evolve at RIIO-2, Ofgem can still support longer-term thinking among network companies by:

a. Maintaining at least a five year price control period.

b. Continuing with the network innovation allowance, so that ongoing innovation funding is well suited to leveraging additional funds from external sources.

c. Ensuring there is funding available for innovation to address whole system changes, such as Northern Powergrid's InTEGRel project.

d. Maintaining and enhancing its total cost approach to cost assessment and incentive strength, to ensure incentives do not creep back in to favour one approach to saving costs over another.

e. Recognising long-term value for money in assessment of company business plans, at successive price control reviews, as advocated in our response to question 20 below

f. Setting an administrative timetable that settles price controls, and licence modifications, as early as possible in order to resolve uncertainty over the framework and minimise disruption in the transition from one framework to another.

Q2e. Do you instead support the option of retaining eight-year price controls with a more extensive Mid-Period Review (MPR)? What impact might the alternative option of an eight-year price control with a more extensive MPR have on how network companies plan and operate their businesses?

161. No, we do not support this alternative option.

162. It would be essentially equivalent to setting a four year price control period, with the pre-set 'option' of a four year roll over. This has two disadvantages.

a. This would weaken incentives compared to an eight (or even five) year period, as Ofgem notes at paragraph 4.19 of the consultation. These stronger incentives are the main advantage of an eight year period.

b. It would be administratively inefficient if there were a reset at the mid-point of the period, since the effort of developing assumptions beyond this period would be wasted.

163. A five years' duration with no mid period review would be preferable to an eight year period with an extensive (or worse, loosely-specified) mid-period review.

Whole system outcomes

164. Our over-arching views on whole system outcomes are set out at paragraphs 25 to 28 above. These should be read in conjunction with our responses to the specific questions below.

Q3. In what ways can the price control framework be an effective enabler or barrier to the delivery of whole system outcomes? If there are barriers, how do you think these can be removed? What elements of the price control should we prioritise to enable whole system outcomes?

165. Interfaces between electricity transmission and distribution need to be considered at the price control reviews for the respective sectors. This includes considering how the base price controls are set, as well as how uncertainty mechanisms allow for flexibility within the price control period.

a. At both stages, the most significant whole electricity system benefits are in investment planning – i.e. assessment of options on both systems to resolve an issue that materialises on either, minimising the total cost of the system as a whole.

b. At the business planning stage (during the price control review), stakeholder engagement needs to demonstrate that projects at the interface have been considered by both parties.

c. Within the price control period, there must be a clear allocation of responsibilities (and associated funding) to each party, coupled with mechanisms to allow each party to procure services from the other. This is in effect how electricity voltage management is working within the RIIO-1 period – with the electricity SO responsible for management of voltage over the system, and with the primary funding, and distributors able to provide services to the SO while charging their reasonably incurred costs in doing so.

166. Looking further ahead, there is potential whole energy system benefit for our customers from investment (efficient capital deployment) and operations (distribution system operation, DSO, flexibility) being co-ordinated across the electricity and gas networks. The innovation stimulus needs to be able to support these more uncertain benefits from increased collaboration. Our InTEGRel project is targeting these potential future benefits for customers, facilitated by the relative flexibility of the network innovation allowance.

Q4. Do you agree with our minded-to position to retain the current start dates for the electricity transmission and electricity distribution price controls, and not align them?

167. Yes, we agree with Ofgem's minded-to position.

168. It is not necessary to align the start date of two price controls in order to design mechanisms that allow and encourage whole system thinking. Setting transmission and distribution mechanisms at the same time, so they move in lockstep, would mean they are fixed based on the information set at that point in time. Setting them in a staggered fashion may create more scope for apparent gaps, but only if new information means it is apparent that a different approach would be appropriate by the time the second control is set. In the relatively fast moving environment of whole system thinking, DSO development, and new linkages between transmission and distribution, a series of smaller steps, setting transmission price controls and then distribution price controls for overlapping periods of five years, may allow for more effective evolutionary thinking than a five yearly grand re-set for both together.

Q5. In defining the term 'whole system', what should we focus on for the RIIO-2 period, and what other areas should we consider in the longer-term? Are there any implementation limits to this definition?

169. Within and before the RIIO-1 period, whole system thinking has typically focussed on the whole *electricity* system or the whole *gas* system. For example, within the RIIO-ED1 period electricity distributors have worked with transmission operators to find ways of managing new challenges that the system is facing both efficiently and economically.

170. For the RIIO-2 period, this focus needs to be extended to cover the whole *energy* system, taking gas, electricity, and (ideally) heat together. Depending on the carbon reduction pathway followed by GB, there could be very different profiles over time of use of the existing gas and electricity networks.

171. For example:

a. If heat moves towards electrification faster than its current gradual pathway, price controls for gas distribution should flex downwards, while they should flex upwards for electricity distribution. Conversely, gas distribution price controls may need to move upwards if hydrogen emerges as a least-cost pathway.

b. Similarly, if uptake of electric vehicles increases, then funding for electricity networks should flex upwards. The balance of this funding between distribution, urban charge points, and transmission infrastructure should be set based on current technologies and patterns of usage – and updated at the next price control as these change.

c. If there is a move towards local heat networks, rather than gas (or electricity) for heating, then this should again be reflected in funding levels.

172. Northern Powergrid supports the lowest cost energy system solution being adopted over time. We also we think that markets (and policy) will evolve in this direction through a process of discovery. Since the outcome of this process of discovery is uncertain, Ofgem should:

a. Recognise the value of keeping options open.[26] History is littered with mistakes that result from technocrats attempting to pick the 'right' technology.

b. Design price control mechanisms that remain flexible to respond to demands, while maintaining strong incentives on companies to control their costs, using carefully designed exogenous revenue drivers.

173. The only implementation limits we can see are the need to take decisions based on the information available at the time of setting the price control and the lack of any statutory footing for Ofgem in the regulation of heat networks. This would however not cause implementation issues for any of the examples described above.

System operator price controls

174. Our over-arching views on system operator price controls are set out at paragraphs 29 to 35 above. These should be read in conjunction with our responses to the specific questions below.

Q6. Do you agree with our view that National Grid's electricity SO price control should be separated from its TO price control?

175. The key challenges for Ofgem in setting a separate price control for the electricity system operator (SO) are ensuring:

a. accountability in the event of system problems;

b. that risks are allocated to those who are best able to manage them;

c. strong incentives to balance total costs with system performance; and

d. that any potential conflicts of interest must be mitigated.

176. On the first two of these, if there is a transmission system failure, accountability will be clearer where transmission asset ownership remains linked to system operator ownership. Moreover, it might not be possible to hold a lightly capitalised, and fully separated, system operator fully accountable for its decisions, transferring risk to consumers. By retaining a link between the two price controls, Ofgem can avoid this. This also means, unless the electricity SO is fully separated, that the cost of capital for the two businesses should be estimated, and set, as a single value.

[26] Northern Powergrid's responses to the Government's calls for evidence on the cost of energy review and on a smart flexible energy system, and our response to Ofgem's call for evidence of the future of supply market arrangements, are all relevant to this topic.

177. The electricity SO itself plays a key role in managing the allocation of risks to other market participants where they are best placed to manage them. Its duties and incentives must be cast in way that encourages optimal outcomes, and discourages sub-optimal outcomes such as certain market participants free-riding.

178. On the third, RIIO was built to maintain strong incentives for companies to balance total costs with system performance. But because the costs and performance of the electricity SO are regulated separately from those of the electricity transmission operator this becomes very difficult to manage. Ofgem needs to ensure the price control for the electricity SO is one through which gives strong incentives for the SO to minimise total costs from system operation to consumers.

179. On the last, Ofgem also built RIIO to mitigate conflicts of interest and ensure that network operators choose the least total-cost solution. Its tools to achieve this were equalised incentive and capitalisation rates, irrespective of whether the cost was internal or third-party, capital or operating. But this part of RIIO was not applied to the SO, since its costs are treated in a very different way (for example with a much lower capitalisation rate). Ofgem therefore needs to ensure it has in place additional responsibilities and duties to mitigate any actual or perceived conflicts of interest.

180. Although the RIIO-ED2 price control review is some way off, we see an important role for electricity distributors in the transition to the role of distribution system operator (DSO). In relation to the DSO role, we would not agree that the system operator price control should be separated from that of the asset owner. This is because the RIIO arrangements for electricity distribution already score well on the four objectives above. For instance, there is clear accountability for system problems. Risks are borne in the first instance by the distributor for all the decisions it is responsible for. There are strong incentives to balance costs with performance. Moreover, conflicts of interest have been resolved:

a. RIIO's equalised cost saving incentives and capitalisation rates apply in full to internal asset based solutions as well as external service provider (or innovative) solutions.

b. This means that profit and RAV growth are not dependent on choosing an internal solution over an external solution.

c. Provided that Ofgem's cost assessment approach incentivises long term value for money, the company will do best if it chooses the solution with the lowest long-term costs, whether it is internal and asset based or external and service based.

181. Distribution networks also have very different characteristics to transmission networks – they are longer, much more complex and have less or no automation at lower voltages. As such operation, maintenance and asset management are much more closely linked than for transmission networks. For example reconfiguring the network involves on-the-ground physical interventions at lower voltages. This also militates against the separation of operation from ownership for distribution.

182. The application of the full RIIO model on an integrated basis should help to limit the extent to which new responsibilities and duties will be required, for distributors to accommodate new generation

and loads without favouring distribution asset solutions. Any issues Ofgem has identified in relation to transmission system operation may flow from some of National Grid's cost allowances being set and remunerated on a different basis to others, thus creating differential incentives and undermining RIIO's objectives. If this is the case, it is fortunate for the development of the DSO model that the starting position of distribution regulation (and funding) is better suited to mitigating potential conflicts of interest.

183. So, having already put in place a framework in RIIO that facilitates the development of the DSO model, Ofgem still has many important questions to answer, such as who should be responsible for holding customer data, including for vulnerable customers, and distributors will have some key advantages over other organisations.

Q7. Do you agree that we should be considering alternative remuneration models for the electricity SO? If so, do you have any proposals for the types of models we should be considering?

184. As set out in our response to the previous question, it is not in the interests of consumers to view the SO as an entirely separate, asset light, organisation. In certain circumstances it can be difficult to ensure that an asset light organisation is fully exposed to the risks created by the decisions it takes. This implies that returns on the asset heavy part of NGET should not be ring-fenced from the outcome of decisions taken by the SO, and that the risks faced by the two parts of the organisation should remain closely linked. The remuneration of NGET should therefore reflect this reality. A unified cost of capital on the whole asset base makes sense, rather than a separate SO margin.

185. One of the cornerstones of the RIIO model is the equal treatment of different types of cost, in terms of cost efficiency incentive rates, capitalisation treatment, and cost assessment. This may not be practicable as a remuneration model for the SO, but it does perform well against the last two of the four objectives we set out in our response to the previous question. Ofgem should therefore retain this remuneration model in its full list

Q8. Should we consider alternative remuneration models for the gas SO? If so, why and what models?

186. At this point, we can see no reason why different principles should apply to the gas SO remuneration model, unless the principles are impacted by the different drivers impacting gas in the future – particularly the questions over future gas supplies and the transition to low carbon heat that could involve green gases such as hydrogen, a move to electrification or greater reliance on heat networks.

187. For the same reasons as set out above, the gas SO role should be, from the perspective of remuneration for risk exposure, integrated with the asset-heavy transmission operator, in order that the SO continues to be exposed to appropriate responsibility for its decisions.

Network utilisation, stranding and investment risk

188. Our over-arching views on network utilisation, stranding and investment risk are set out at paragraphs 36 to 38 above. These should be read in conjunction with our responses to the specific questions below.

Q9. What options, within the price control, should be considered further to help protect consumers against having to pay for costly assets that may not be needed in the future due to changing demand or technology, while ensuring companies meet the reasonable demands for network capacity in a changing energy system?

189. The range of incentives in RIIO-1 should be carried forward into RIIO-2. In electricity distribution these include:

   a. Strong incentives to submit efficient business plans and reduce costs in the price control period relative to those plans – see also our views in response to Ofgem's questions on the fast track reward and information quality incentive, which are summarised at paragraphs 75 to 84.

   b. Network Output Measures (NOMs) that include load indices ensuring that capacity on the system is understood and delivered when required, noting our views that Ofgem should avoid micro-management (see paragraphs 59 to 61).

   c. Cost sharing of reinforcement works between connectees and the generality of customers already connected.

190. In electricity distribution, Ofgem should also consider setting an allowance driver based on actual uptake of distribution connected low carbon technology by energy consumers. This would avoid the need to set high baseline allowances that might not be necessary. The revenue driver value could be set through a business plan competition that recognised the value of companies being willing to take on risk of controlling costs in the face of changes in network usage. We acted as advocates for this proposal in the RIIO-ED1 review, unlike some other electricity distributors that opted to argue for higher baseline allowances instead. We continue to believe that the development of this sort of mechanism would be beneficial to energy consumers over the long term.

191. Having put all of these measures in place to minimise the ongoing costs of running a network, there could still remain a longer-term stranding risk. This would need to be mitigated somehow (to avoid a significant escalation in the risk that must be remunerated via today's cost of capital, and therefore higher costs to consumers). Ofgem's direct mechanism to ensure this would be a shortening of the regulatory asset life, so the assets are paid for in a timeframe where stranding is less likely.

End-use energy efficiency

192. Energy efficiency was recently the subject of a Government consultation. Our response to that consultation is summarised in response to Ofgem's question below.

Q10. In light of future challenges such as the decarbonisation of heat, what should be the role of network companies, including SOs, in encouraging a reduction in energy use by consumers in order to reduce future investment in energy networks? What could the potential scale of this impact be?

193. Northern Powergrid set out its views on this question in its response to the Government's consultation entitled 'Call for evidence: building a market for energy efficiency'. Our key points from that response are summarised below.

194. In the longer term, capital investment in home energy efficiency may be part of the distribution system operator's (DSO's) toolbox, if this proves to be cost effective. DSOs should in general be required to solve network constraints with non-reinforcement solutions when doing so is the cheapest reliable and secure solution. This should be technology neutral and DSOs should avoid prescribing specific technologies and approaches, letting the options compete on their merits.[27]

195. Beyond this, Government and Ofgem must work together to decide what is being targeted with fiscal interventions, regulation and market structures. A key challenge is how the cost of regulatory interventions is shared amongst energy bill payers.

   a. It is inequitable if the entire customer base (including the fuel poor) pays for improvements that they do not benefit from.

   b. This would be a regressive policy that repeats some existing failings of the current energy system (e.g. the avoidance of taxes by those customers that join private wire combined heat and power projects behind the meter).

   c. Moreover, a lack of cost and price signals for the people taking decisions that drive those costs would lead to economically inefficient decisions.

196. As a distribution network operator (DNO), we welcome the challenges presented by the idea of using permanent energy reduction as an alternative to network reinforcement: it may even work with the grain of government social objectives, and it may support efficient investment. But the value of doing so is yet unproven.

   a. Generally, there is a lack of practical research and development to test the merits of a networks-led energy efficiency programme.

[27] We note that the RIIO approach to regulation, with equalised incentives to save costs via different approaches, and equalised capitalisation rates, is already designed to be neutral towards different solutions to network issues.

b. The majority of energy efficiency benefits are likely to derive from savings in heating cost. Heat is today predominantly fuelled by gas such that there may be greater savings and synergies with gas networks when compared to the savings in reinforcing electricity networks.

197. Overall, we think it would be unwise to make new policy decisions on energy efficiency in isolation of the more fundamental market reviews being carried out in parallel and the ongoing transition to a smart flexible energy system. Making network operators responsible for load reduction has some logic, but there is a lack of evidence to make this a compelling proposition – and it needs to be considered holistically with other policies.

5. Responses to questions on driving innovation and efficiency

Innovation

198. Paragraphs 39 to 46 above provide our over-arching views on innovation, and should be read in conjunction with our responses to questions 11 to 15 below.

Q11. Do you agree with our proposal to retain dedicated innovation funding, limited to innovation projects which might not otherwise be delivered under the core RIIO-2 framework?

199. We agree with Ofgem's proposal to retain some dedicated innovation funding for projects that might not be delivered under the core RIIO framework. Where return is expected in the near future and is reasonably certain (low risk) then this should be included in the general price control ex ante assessment of costs (e.g. smart grid enablers).

200. How it will be implemented is, however, key. Before turning to Ofgem's new proposals (the subject of the next question), Ofgem should assess each of the existing tranches of funding in turn.

a. Network Innovation Allowance (NIA) stimulus is still required for projects where there is material risk of the solution not working or uncertainty over the need (i.e. where option value to de-risk potential future scenarios justifies the project). These projects are not necessarily limited to energy transition issues.

b. The Network Innovation Competition (NIC) should be closed as it has served its time limited purpose and appetite for funding is reducing as the risk of duplication of previous projects rises over time. Plans that include wide-area innovation, involving near commercial stage demonstration or deployment, should instead be brought forward at the price control review business plan stage. Further, whole system demonstration projects should be pursued through other competitive funding routes where there is no separation of gas and electricity innovation funding, which would also reduce innovation costs to energy consumers.

c. The Innovation Roll-Out Mechanism (IRM) is not required alongside five-year price control periods. It is an unnecessary administrative complication since companies could include funding for innovation roll out in their plans. Northern Powergrid's £83m smart grid enablers programme of control and communications upgrades was included as part of our RIIO-ED1 business plan, demonstrating that the IRM was not necessarily required in an eight-year price control.[28]

201. **The Network Innovation Allowance should therefore be continued.** Its use should be limited to early stage testing and trials, and collaborations on whole energy system projects where it may be significantly leveraged with other competitive funding sources from government or academic sources. It should remain on a use-it-or-lose-it basis, to minimise administrative burden and reduce the need to incorporate innovation funding in baseline allowances.

202. A separate allowance was initially put into the price control to protect this relatively modest level of research, development and demonstration expenditure that is not linked to short-term outputs and where the incentive properties are relatively weak. If Ofgem was to reverse this allocation of 0.5-1% of revenues then it would need to strengthen its longer-term incentives, but that is not a feature of the RIIO-2 proposals and it is difficult to see how this could be achieved pragmatically.

203. There are good examples of the NIA in RIIO-1 being combined with other funding sources such that there is more value to customers than the price control allowance itself. We are already leveraging value in RIIO-1 to trial novel uses for domestic demand side response and the widespread roll-out of vehicle to grid customer propositions and technology. This leveraged funding was accessed from winning bids with partners in funding competitions operated by Innovate UK.

204. Further, we are involved in collaborations with partners bidding for higher education funds to develop the whole systems InTEGReL project where our NIA contribution to the project may be significantly leveraged. Maintaining the NIA in RIIO-2 would enable this benefit to customers from the leverage of value to continue.

205. At the same time, the complex and overly bureaucratic NIC arrangements should be brought to an end. Ofgem recognises that it is whole energy system projects that would be particularly valuable for customers and it for such projects where the split NIC arrangements for gas and electricity are unsuited. The separation of gas and electricity funding competitions is a barrier to introducing learning for new approaches to deliver efficient whole system thinking and solutions, while more flexible arrangements like the NIA suffer no such barriers.

[28] Noting that our cost allowances entail this programme being delivered at little or no incremental compared to the more traditional operational IT and telecoms cost allowances that other companies requested and were funded for.

Q12. Do you agree with our three broad areas of reform: i) increased alignment of funds to support critical issues associated with the energy transition challenges ii) greater coordination with wider public sector innovation funding and support and iii) increased third party engagement (including potentially exploring direct access to RIIO innovation funding)?

206. On point i) we think that innovation funding – in the form of a continued Network Innovation Allowance - should be available for use to address critical energy transition changes. This includes projects of the kind that have not yet been explored extensively by existing gas or electricity centric innovation projects, considering links across the different sectors. Northern Powergrid's InTEGReL project, in partnership with other organisations including Northern Gas Networks, is a rare example of a project that is already considering this type of issue. Another example is the range of electric vehicle related projects that Northern Powergrid is working on in a strategic partnership with Nissan. Both projects have been progressed using NIA funding, illustrating how NIA-type funding can be well suited to the issues Ofgem has highlighted, and are also leveraging external funding from academic and Innovate UK sources, meaning electricity distribution customers are not paying the whole cost of the projects.

207. However, we think NIA funding should not be limited solely to issues associated with energy transition challenges. Different types of innovation could be equally difficult to fund through the main price control, yet nevertheless deliver benefits to energy consumers over the long term. Ofgem is not well placed to mandate that a certain type of innovation will lead to benefits for energy consumers while other types of innovation will not.

208. In terms of point ii), greater co-ordination with other sources of funding, this will be achieved by the general withdrawal of Network Innovation Competition (NIC) funding. By its nature, the NIC targets widespread demonstration trials of innovation that is nearer to commercial maturity, with higher technology readiness levels. In reducing the level of innovation stimulus it is rational to first withdraw the funding from the innovation that is closest to being justified as business as usual expenditure. Conversely, the NIA focuses on innovation that is furthest from being justified for business as usual deployment since the benefits are less certain.

209. In terms of point iii), increased third party engagement was considered as part of the Network Innovation Review and new measures were introduced at that time. In the NIA, for example, currently at least 75% of expenditure must be with third parties and that should continue.

210. Direct access to innovation funding for third parties would present several challenges and risks:

a. Many of the benefits of innovation projects flow from synergies that arise from combining energy network expertise with third party expertise. Direct access funding would not generate such synergies. On a practical level it is not possible to provide access rights for third parties to innovate on networks where the accountabilities for safety and performance need to be clearly associated with the regulated licence holder.

b. There would be new challenges associated with enforcing duties to share the outcomes of the research openly, since Ofgem would lack statutory and licence based powers over the party undertaking the research.

c. The funds may simply displace other sources of funding that are currently available to the third parties, allowing that research funding to be diverted to different uses, and raising costs to energy consumers without leading to more energy-innovation research.

211. Direct access to RIIO innovation funding for networks for third parties would also undermine transparency and accountability over responsibility for the energy network bill. When energy networks access innovation funding, adding to consumer bills, they do so on the basis that it will reduce their own long term costs and therefore be justifiable to the end users. This link would be broken if third parties are allowed to access the funding without any involvement of the relevant energy network. There are already enough distortionary issues created through government policies being funded through energy bills, along with the associated incentives for socially inefficient decisions to move energy use behind the meter, that Ofgem should avoid adding another to the list.

Q13. What are the key issues we will need to consider in exploring these options for reform at the sector-specific methodology stage, including:

(i) What the critical issues may be in each sector and how we can mitigate the bias towards certain types of innovation through focusing on these issues?

(ii) How we can better coordinate any dedicated RIIO innovation funding with wider public sector funding and support (including Ofgem initiatives such as the Innovation Link and the Regulatory Sandbox)?

(iii) How we can enable increased third-party engagement and what could be the potential additional benefits and challenges of providing direct access to third parties in light of the future sources of transformative and disruptive innovation?

212. Network sectors have produced innovation strategies that set out the key priorities. These could be used as the basis for shortlisting areas where innovation stimulus would be most valuable (e.g. cross vector trials and projects). However, innovation funding should not be limited to these areas since this would create bias against other projects that might be equally valid.

213. Ofgem should seek to avoid co-ordinating innovation and should aim to put in place incentives to encourage useful outcomes for customers. Clarity on the outcomes required, with strong incentives to achieve these, is key. Network companies should therefore be given every incentive to leverage wider public sector funding for innovation. As we propose elsewhere in this response, retention of

the NIA would assist in leveraging innovation funding from these other sources, while an end to the NIC would ensure network companies have to look to other funding sources for innovation projects that extend beyond their NIA allowance.

214. There is already extensive involvement of third parties in network innovation funding (for instance, 75% of innovation expenditure under the NIA must be with third parties). This means that there are no obvious benefits from offering third parties direct access to funding. There are, however, many drawbacks, including the loss of synergies from working with energy network companies and the ability to trial innovations on operational networks. The funding may also displace other sources of funding the third parties could access, raising costs to energy consumers with no benefit. Acting in this way the innovation funding would worsen incentives for energy generation and usage to move behind the meter point. Our views on these points are set out in greater depth at paragraphs 210 and 211 above.

Q14. What form could the innovation funding take? What would be the advantages and disadvantages of various approaches?

215. We support use-it-or-lose-it allowances instead of an Ofgem-led expert panel judging and awarding funding (since this latter type of award exists in other forms like Innovate UK and academic bodies).

216. The Network Innovation Allowance (NIA) is fit for purpose and should be continued, potentially in a modified form.

217. The Network Innovation Competition (NIC) should be closed. Competitive plans should instead be brought forward to Ofgem at the price control review business plan stage, including innovation built into the plan. Ofgem should incentivise this by ensuring its approach to cost assessment encourages long term value for money, not short term cost saving at the expense of higher costs in future periods. Further, Ofgem's lack of duties in relation to customers connected to heat networks is a barrier for whole energy system projects examining efficient customer solutions. We support competition to bring forward the best projects and other academic and government funding (such as Innovate UK) have advantages in judging projects since they are not constrained by the same legislative framework and governance as Ofgem.

218. The Innovation Roll-Out Mechanism (IRM) is not required with five-year price control periods. It is an unnecessary complication. Arguably, Northern Powergrid's smart grid enablers programme demonstrates it was not really required in an eight-year price control either; all that was required was a management team that was prepared to think through the longer term issue, and not just present a business plan based on rolling forwards their past approach.

219. But if Ofgem does still think there is a risk that unforeseen circumstances could arise shortly after the price control is settled, it should limit the IRM to operating once at the mid-point of the price control period, and maintain a high bar for its application (for instance that management couldn't have reasonably foreseen the need for the roll-out of the relevant innovation in its business planning).

220. We do not see this as being likely in anything less than eight year-price control periods. Under five year periods, for example, for the mechanism to operate would require an innovation to:

a. become demonstrably necessary within two years of Ofgem's initial determinations;

b. require extensive funding within the current price control period; and

c. secure immediate and extensive benefits to consumers (such that the bulk of the roll out cannot wait a further two and a half years until the next price control has been set).

221. While we cannot rule this out, we would highlight the practical point that mobilising a genuinely ambitious and innovative approach can take several years. Ofgem therefore needs to strike a balance between the benefits that retaining a mid-point IRM window might bring and the costs it could also cause through taking some costs outside of the main RIIO price control settlement, removing all the incentives it entails from business plan submission to execution.

Q15. How can we further encourage the transition of innovation to BAU in the RIIO-2 period? How can we develop our approach to the monitoring and reporting of benefits arising from innovation?

222. Incentive structures should provide a clear opportunity to make reasonable returns by transitioning innovation to business as usual.

223. Where incentives are not possible then specific roll-out cases should be assessed by Ofgem as part of the ex-ante business plan assessment stage of the price control review.

224. The tracking of benefits should not be based on unprovable counterfactuals, at least where any use is going to be made of the figures within the price control. These sorts of figures may be necessary when helping justify the value of innovation, but they are not sufficiently reliable for other purposes. For this reason alone, Ofgem should limit the resources it (and companies) dedicate to trying to improve this tracking of benefits. The current figures with ongoing incremental evolution are already fit for their purpose. Ofgem should not dedicate significant administrative effort towards changes due to the inherent difficulties in ensuring consistent application of a counterfactual that is not measurable. The same resource should instead be dedicated towards activities that will be beneficial to energy consumers.

Competition

225. Paragraphs 47 to 50 set out our over-arching views on competition, and should be read in conjunction with our responses to questions 16 to 18 below.

Q16. Do you agree with our proposal to extend the role of competition across the sectors (electricity and gas, transmission and distribution)? What are the trade-offs that will need to be considered in designing the most efficient competitions?

226. In terms of Ofgem's proposal i), for late stage competition, we agree with the proposal provided that the current criteria are maintained.

227. The trade-offs that Ofgem refers to in the question are already captured in the criteria:

a. For smaller projects, the administrative costs of the regime described in proposal i) are unlikely to be justified.

b. The criteria also recognise that the boundaries to existing assets need to be distinct. Where the asset is too integrated into the rest of the system, with unclear boundaries, it would be impossible to know who is responsible for maintenance. This is more likely to be an issue in distribution systems than transmission.

228. Finally, the model can only be applied to new assets. Otherwise ownership rests with the existing operator, and their property rights must be respected.

Q17. Do you consider there are any reasons why our new, separable and high value criteria might not be applicable across all four sectors? If so, what alternative criteria might be suitable?

229. Ofgem's workstream i) is to evaluate the scope of assets that are subject to late models of competition. The criteria set out in Ofgem's workstream i) at paragraph 5.39 are appropriate, and can be applied directly to distribution projects. In particular:

a. We agree that Ofgem has defined an appropriate set of criteria for transmission projects that could be subject to project specific competition.
b. The criteria are sufficiently generic that there can be no logical reasons for different criteria to the applied to other sectors.

Q18. What could the potential models be for early stage competitions (for design or technical solutions)? What are the key challenges in the implementation of such models, and how might we overcome them?

230. Ofgem's workstream ii) is to identify when competitions are run and what they are for. We agree with Ofgem's proposals under workstream ii), in particular the development of early stage

competition for transmission issues. There may be distribution system solutions to transmission issues, or vice versa.

231. The current regulatory arrangements allow price control funding to flow from one party to the other when it requests services. There may however be some distortions at the margin, where the costs are treated in a different way, under a different set of arrangements for cost assessment or incentive rates. Ofgem could consider whether it could further equalise incentives.

232. The evolving electricity SO role is already beginning to create a platform which could allow greater early stage competition; we have seen at least one example where DNOs are likely to be able to provide services that can assist in balancing the system at lower cost than the balancing market, for example.

233. These arrangements need to be built on a regulatory framework requiring the electricity SO to tender for solutions to transmission issues at a relatively early stage, where Ofgem's criteria for competition are met based on an initial 'problem identification' case. Although development of the DSO role is relatively nascent, we can see a similar platform role for the DSO.

234. Wider than the RIIO-2 framework, we also highlight that the framework for competition for network ownership in relation to new distribution extension assets should also be reviewed.

6. Responses to questions on simplifying the price controls

235. We support Ofgem's objective in simplifying the price controls. Simple, clear and strong incentives are one of the cornerstones of the RIIO approach to regulation. Where arrangements have built up over the years which are perhaps too complex, or are no longer necessary because they have already addressed the problem they were designed to address, Ofgem should simplify the settlements.

236. At the same time, Ofgem is responsible for the economic regulation of tens of billions of pounds of expenditure at each price control round. The arrangements will necessarily remain complex where this is of value to consumers.

Ofgem's approach to setting outputs

237. Paragraphs 51 to 58 above set out our over-arching views on Ofgem's approach to setting outputs, and should be read in conjunction with our responses to question 19 below.

238. Ofgem's consultation questions do not touch on secondary deliverables, but Ofgem's current direction of travel in RIIO-1, and some aspects of Ofgem's proposals in the Consultation, could potentially see the measures descend into micro-management of company investment decisions by Ofgem, which would lead to higher costs over the longer term and be a bad outcome for energy consumers. Ofgem should instead re-commit itself to the principles for secondary deliverables set out in the RIIO Handbook. Our comments at paragraphs 59 to 61 above provide more details.

Q19a. What views do you have on our proposed approach to specifying outputs and setting incentives?

239. Strong and clear incentives are one of the cornerstones of the RIIO-framework, and have been one of the big success stories of regulation, since privatisation and in the RIIO-1 round of price controls.

240. They remain essential in relation to those areas where consumers value improvements the most, and where investment decisions need to be optimised over time (such as power interruptions and customer service), and where performance can be measured objectively and reasonably accurately.

241. Although Ofgem's proposals generally seem aligned to these principles, certain aspects appear to lose sight of them. Ofgem must guard against this risk.

242. Turning to the proposals that Ofgem sets out, we agree with the following aspects of them:

a. Relying on statutory and licence obligations in exchange for base revenue allowances, where minimum obligations must be met (paragraphs 6.13 – 6.14). In electricity distribution, the stakeholder engagement and consumer vulnerability incentive, and the incentive on connections engagement, are two areas where this would be appropriate.[29]

b. The option to put in place output delivery incentives for areas where the 'right' level of performance may be unclear, so companies can optimise over time and deliver cost-justified improvements for consumers.

c. Price control deliverables for certain specified activities to support longer term delivery, with clear rules for how these will be treated in the event of variations relative to the original expectations, following the secondary deliverable framework described in the RIIO handbook (paragraph 6.15 – 6.16).[30]

243. However, we do not agree with the following proposals:

a. Ofgem giving itself powers to reopen price controls on what may be a relatively discretionary basis, such as a 'good reason' or a view that there has been a 'material change'. (Paragraph 6.17, final sentence) Ofgem should instead set out clear rules of how certain circumstances would be treated, in line with paragraph 6.16. This would

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[29] These incentives have driven a step change in company performance, but their nature means they will continue driving ever higher levels of investment in the area, to the point that the costs will not be in the interests of consumers in general. The arrangements are also highly bureaucratic, both for Ofgem and licensees. By codifying licensee responsibilities into explicitly stated licence requirements, Ofgem could simplify its regulatory arrangements and avoid unnecessary costs to consumers through incentives to further improve administrative processes that have already been brought up to a good standard.

[30] As set out at paragraphs 49 to 51 above, it is vitally important that Ofgem follows the RIIO handbook framework for secondary deliverables. This will help Ofgem avoid the risk of micro-management. Some of Ofgem's RIIO-1 approach to secondary deliverables is leading in the wrong direction, and this should be corrected at RIIO-2.

strengthen incentives and also minimise political risk, reinforce investor confidence, and in so doing keep the cost of capital down.

b. Sector level mechanisms to recalibrate targets to stretch levels based on actual performance within the price control period (Paragraph 6.20, second half of final sentence). The effect of this would be a material weakening of any incentive to improve and reveal innovation, because any benefit arising would swiftly be taken away from the networks (see further response to Q19c below). In addition, such models will almost certainly require very complex calibration and absolute confidence that the benchmarking approach used, and the data inputted, was robust. Ultimately, this is likely to distort incentives, generate unintended outcomes, and encourage optimisation against the models to the detriment of customers. **Instead Ofgem should act in line with the first half of the same sentence; setting targets based on information available at the time of the final determination, and allowing the strong incentives this creates to act and reveal information over time.**

Q19b. When might relative or absolute targets for output delivery incentives be appropriate?

244. Ofgem should put in place a framework which allows the full range of established mechanisms for setting incentive targets to be applied in the appropriate circumstances.

245. This includes setting its targets based on relative (or 'benchmarked') performance at the time of the price control review (which might lead to the same target level being set for all companies). It also includes setting targets based on the performance of the company in question (e.g. a rolling incentive – where each company is set individual targets based on its own historical performance).

246. Benchmarked targets are generally more appropriate where it is reasonable to think that all companies should be able to deliver the same level of performance, for example because:

a. companies have historically been funded to a level that would allow the same performance on each respective network; and

b. there are no factors specific to their network or region that would make it easier or tougher to perform at a particular level of service.

247. In the past Ofgem has made this assumption in electricity distribution for output targets for customer service, speed of connection, and certain aspects of the k incentive (e.g. low voltage speed of restoration). However, should Ofgem consider benchmarked targets to be appropriate for certain outputs under RIIO-ED2, it will need to take into account the material funding disparity at RIIO-ED1 between slow-track DNOs and Western Power Distribution (WPD) licensees. With allowances around £650m higher than they would have been in the slow track process, in addition to other generous aspects of its settlement, WPD has been funded to deliver higher levels of performance

than every slow-track DNO. This means targets for other companies will either have to be adjusted to reflect this or be based on data that excludes WPD altogether.

248. Rolling or company specific targets are generally more appropriate where company, regional or network specific factors necessarily mean that different networks perform at different levels. This has historically been considered the case for customer interruptions on electricity distribution networks, where differences in network configuration factors that arose before privatisation (such as Scottish Power Manweb's closed ring HV network configuration, which is designed with solid interconnection[31] and leads to better network reliability but is relatively high cost) will necessarily lead to differences between companies. Losses is another example where rolling targets have typically used, before the quantitative incentive was abandoned during the DPCR5 period due to data quality problems. This is again because differences in network configuration inherited at privatisation, or different local topography, will lead to potentially material differences in the level of lost power.

Q19c.What impact would automatically resetting targets for output delivery incentives during a price control have? Which outputs might best suit this approach?

249. This question is linked to Ofgem's proposals on ensuring 'fair returns', and so our response to it should be read in conjunction to our response to question 45 below and are summarised at paragraphs 123 to 127 above. As we set out in that response, several of the changes Ofgem is proposing for RIIO-2, such as shorter price control periods, alongside the enhanced scenario analysis for cost and output targets that British Gas proposed,[32] should be sufficient to ensure fair returns while at the same time maintaining the strong, clear and sensibly calibrated incentives that are one of the tenets of the RIIO approach to regulation.

250. Ofgem must recognise the realities of the limited dataset it is dealing with for setting targets. It is simply not large enough to support benchmarked incentive targets updated on an annual basis, or zero sum incentives. The proposals for zero sum incentives should be rejected.

251. Any other approaches for automatic target re-setting should be evaluated carefully to ensure they do not weaken the incentives RIIO is intended to give, at a time when Ofgem is already proposing to shorten the price control period.

252. Ofgem should recognise that the approach it has taken to date in electricity distribution, typically using benchmarked targets that are reset only at the price review, or five year (plus) rolling incentives, has led to significant performance improvements being seen by energy consumers.

253. There is a trade-off between the strength of incentives and the frequency of targets being reset. The strongest possible incentives are created when incentive targets are set based on a group of

[31] See, for example, Ofgem, 2014, RIIO-ED1 Final determination, expenditure assessment, page 48, paragraph 4.34

[32] Advocated by British Gas in its presentation at Ofgem's RIIO-2 workshop on October 24, 2018

comparators and fixed for a long time period. Where appropriate comparators cannot be identified, the strongest incentives are created by rolling incentive targets set on a long term basis. If Ofgem moves to more frequent re-setting, it will weaken incentives. In circumstances where Ofgem is already proposing to reduce the length of the price control period, this would be inappropriate.

Ofgem's approach to setting cost allowances

254. Paragraphs 64 to 74 above set out our over-arching views on Ofgem's approach to setting cost allowances, and should be read in conjunction with our responses to questions 20 to 22 below.

Q20. What views do you have on our general approach to setting cost allowances?

255. A unified approach to cost incentive rates and capitalisation treatment, on all costs, is one of the fundamental reforms brought in by the RIIO approach to regulation. This is necessary to ensure that incentives are not distorted between competing solutions to network issues, such as when taking decisions between innovative asset light solutions or more traditional asset investment.

256. Unified incentive rates are widely recognised as being a success but, in order to work as intended, they must be supported by an approach to setting cost allowances that prevents differential incentives from creeping in through the back door. This will happen wherever Ofgem sets cost allowances for different categories of expenditure through separate, disaggregated, cost benchmarking approaches.

257. But this is not the only reason to avoid this type of disaggregated benchmarking model. At RIIO-ED1, Ofgem's disaggregated models proved to be susceptible to undue influence by company plans. This exacerbated the information asymmetry problem Ofgem faced because their use:

a. allowed some companies to benefit from submitting high costs in the first instance, so they could wait until Ofgem had revealed its hand on individual cost categories and then align their plan to this; and

b. allowed some companies to improve their scores significantly at the second stage of a plan submission, without cutting overall costs, by reallocating costs between categories of expenditure.

258. Instead, Ofgem should continue to develop and place more reliance on total cost (totex) benchmarking. This captures decisions on volumes as well as unit costs, and avoids distorting incentives between different approaches to asset stewardship, which is becoming more important in distribution thanks to the move to a distribution services operator (DSO model). There are increasing options to substitute asset light approaches for asset heavy approaches, and disaggregated approaches to benchmarking fail to capture the trade-offs between very different parts of the cost base. Totex benchmarking, on the other hand, caters to these trade-offs and does not suffer from the same flaws.

259. But the RIIO framework is about more than just distribution, and Ofgem's cost benchmarking toolkit must of course allow it to choose tools that are suitable for each specific sector, as there are significant differences. There are a reasonable number of comparators in electricity distribution (and to a lesser extent, gas distribution) which means it may be possible to make some use of forecast plans for setting cost benchmarks. But in all sectors, historical information on total cost levels can be used – provided a relatively small number of exclusions are made, such as the major, lumpy, asset upgrades in transmission that Ofgem is proposing to apply competition to in future.

260. Ofgem should also apply true proportionate treatment, focussing additional cost tests on high cost areas of high cost companies, while applying a lighter touch assessment to companies which are offering consumers long term value for money. In RIIO-ED1 Ofgem applied exactly the same toolkit to all the slow-track companies, even though its initial assessments indicated there were materially larger issues with some plans than others. This mistake should not be repeated in RIIO-ED2.

261. Lastly, Ofgem's approach to setting cost allowances should also identify, and incentivise companies to offer, long term value for money to their customers. We set out a way that Ofgem could achieve this at paragraphs 66 to 68 above. This approach would place weight on historical costs charged to consumers, and forecast costs charged to consumers, to reflect the long term pathway the company is steering. It would also help encourage long term decision making by the company, since any costs it underspent but retained under the sharing factor would still be recognised in assessing the long term value for money it was offering.

Q21. What views do you have on our intention to index RPEs?

262. After several price controls Ofgem has not yet been able to develop indices which would accurately track the cost pressures faced by the sector on a year-to-year basis. Its measures have only been suitable as a proxy for the long term direction of travel. If it attempts to implement RPE indexation based on similar measures, it will add to risk of the sectors compared to a fixed allowance, and raise the cost of capital.

263. Ofgem consulted on the same question, specifically and in some detail, during the course of the RIIO-ED1 price control review. Much of Northern Powergrid's response to that consultation remains relevant. However, our summary points were as follows:

> *'The basket of indices currently proposed has demonstrably failed to match the cost pressures faced by the sector in recent years. While these indices might maintain incentives to minimise cost at the same level as an ex-ante settlement, they would add significant additional risk to the settlement and so raise the cost of capital as well as creating additional costs for consumers associated with higher price volatility.*
>
> *It may be possible to devise an alternative basket which does not create additional risk. But this would require direct measurement and use of data on the cost pressures*

> *actually experienced by the sector. Mechanistically updating cost allowances based on this information may significantly weaken incentives on the sector to minimise cost.'*[33]

264. Ofgem gave two principal reasons for its decision not to introduce indexation to the RIIO-ED1 price control review. One was regulatory certainty, since the idea was introduced at a relatively late stage in the price review. The other was the challenges of designing an appropriate RPE index.

> '*At this stage of the price control process we think there is a significant risk of unintended consequences. This is due to the challenges of designing an RPE index and appropriately addressing its interaction with other areas of the price control settlement.'*[34]

Even though Ofgem has longer now, in the lead up to the RIIO-2 price controls, it should not under-estimate the difficulty of improving on the very limited indices it currently has available to it.

265. We note that Ofgem also suggests potentially setting a zero RPE allowance. Across the economy as a whole, and over the longer term, growing factor productivity is the reason for real price effects. For example, better productivity underpins real wage growth. An assumption of zero real price effects is therefore simply unrealistic over the longer term, when coupled with positive assumptions on productivity. It may be more likely to be realistic if Ofgem assumes that productivity growth and real price growth offset one another, meaning RPEs net of productivity (net-RPEs) are set to zero. However, such a conclusion could only be reached if the evidence supports it. This can only be assessed during the price reviews, rather than in a framework consultation several years in advance.

266. Moreover, an appropriate real price effects allowance cannot be set in isolation of the measure of price inflation used for cost allowances. So, if Ofgem were to use CPI (or CPIH) rather than RPI to index cost allowances, then all else held constant Ofgem will need to set higher real price effect allowances. If Ofgem does decide to change its inflation index, it is vital for investor certainty that Ofgem demonstrates the change has been net present value neutral. To achieve this, Ofgem must set out a clear basis for how its real price effect calculations will vary depending on whether the price control is indexed to RPI, CPI or some other index.

Q22. What impact would resetting cost allowances based on actual cost performance (e.g. benchmarked to the average, upper quartile or best performer) during a price control have? Which cost categories might best suit this approach?

267. Resetting cost allowances annually would be deeply flawed, for several reasons.

268. Firstly, even if it were applied to the whole cost base, it would have the same drawbacks as the most extreme version of anchored returns, which are set out in our response to question 45 below, at

[33] https://www.ofgem.gov.uk/sites/default/files/docs/2014/10/northern_powergrid_response_0.pdf

[34] Ofgem, 2014, RIIO-ED1 slow-track Final determination, Supplemental annex setting out reasons for Ofgem's decision on the treatment of real price effects, page 6, paragraph 2.1, first sub-bullet

paragraph 419.a. If Ofgem rejects that option, then it should not re-introduce it through the back door in its decision on cost allowances. Its incentive properties would also differ between sectors.

a. In gas transmission it would amount to full cost pass through, or close to full pass through, for National Grid, and so can be ruled out.

b. In gas distribution, Cadent accounts for 50% of the cost base and therefore it may result in a significant element of cost pass through for Cadent in particular, depending on how benchmarks were calculated.

c. In electricity distribution, it would not collapse to cost pass through, but Ofgem still lacks sufficient comparators to set accurate benchmarks, and the approach could undermine incentives to reduce costs, and therefore it must not be used.

   i) If Ofgem simply updates its allowances to reflect average performance against them, this would be equivalent to anchoring and suffer all of the same flaws (as set out in our response to question 45 below).

   ii) If it calibrates a specific model, and then re-runs that same model on an annual basis, this re-running may well accentuate flaws and mis-calibrations in the original models and lead to incorrect results, with similar problems to anchoring.

   iii) If it adjusts its model the model to correct flaws which become apparent from the actual data it also would undermine the strong and clear incentives RIIO is intended to create to reduce costs over time.

269. We note the question mentions setting cost allowances at the revealed upper quartile or best performer level. Any approach that is designed to allow the sector less than its actual, revealed, level of costs would not reflect established regulatory practice and should be discounted.

270. The question also mentions applying annual cost allowance resetting to specific cost categories. If Ofgem attempted to apply this approach to specific cost categories it would reintroduce distortions in incentives across cost categories. This would undermine Ofgem's move to totex benchmarking and incentives, at a time when the move to a distribution system operator (DSO) role is increasing the already extensive options to substitute asset-light solutions for asset-intensive solutions in distribution (in addition to accounting boundaries which often leave scope for judgement on allocation).

271. As noted at paragraph 256 to 257 above, the overly-complex disaggregated benchmarking approach developed at RIIO-ED1 created distorted incentives and encouraged companies to optimise their plans to improve their results in the models without reducing costs to consumers. If Ofgem's proposal is to re-run this type of benchmarking model on a more frequent basis, the negative consequences of these distortions for customers will only be enhanced. The model of regulation would encourage networks to focus on influencing the process by which the benchmarking models

are established, or optimising their business model to 'suit' the models, rather than focussing on what matters, which is reducing total costs for customers.

272. The same points apply to the unit cost benchmarking that WPD has repeatedly called for in Ofgem working groups – since it would distort incentives towards a business model that minimises *unit costs.* This type of benchmarking would fail to create incentives to ensure that work volumes are no higher than necessary, and even if Ofgem undertook separate volume benchmarking, it would inevitably create incentives that favour one business model over another.

273. Our response to question 2b above, on setting allowances for some cost categories for longer periods, is also directly relevant to the question of setting cost allowances for some cost categories for shorter periods. The CMA gave Ofgem clear guidance to give very careful consideration to approaches to cost assessment that might encourage one type of solution over another, which it said would represent a backward step in regulation.[35] Ofgem should therefore avoid annual cost re-setting for specific cost categories within a price control period.

Information-revealing devices

274. Paragraphs 75 to 84 above set out our over-arching views on information revealing-devices, and should be read in conjunction with our responses to questions 23 to 30 below.

Q23. Do you agree with our assessment of IQI?

275. Whatever Ofgem's assessment of RIIO-1, at RIIO-2 incentives to develop challenging business plans and reveal information remain as important, or possibly more important, as they have ever been. This is true across all the network sectors Ofgem regulates, whether distribution or transmission, although differences in how they are organised may mean Ofgem needs different tools in different sectors.

276. The idea of incentivising companies to reveal information has significant merit. It can be used to its strongest effect in sectors such as electricity distribution, where comparative competition in business plans can be expected. It even remains important in sectors like gas transmission, where the fact there is only one company limits the scope for competition at the price review. Ofgem may just require a different set of tools to incentivise information being revealed (for example through the action of cost incentives over time).

277. The IQI itself, as implemented in previous price control reviews, and before that the sliding scale mechanism at DPCR4, relied on a finely tuned set of mathematical equations to give fairly small incentives for accurate plans, which Ofgem termed 'incentive compatibility'. But this incentive compatibility was entirely undermined when Ofgem applied benchmarking approaches such as RIIO-ED1's disaggregated benchmarks (where the company's benchmark efficient level of costs can be highly dependent on its own plan).

[35] We quote this guidance from the CMA at paragraph 153 above.

278. We do however support the principle of incentives such as the IQI. Our assessment of the IQI relates to its implementation mechanics in previous price control reviews, not its objective.

Q24. Do you agree with our assessment of fast-tracking?

279. We support Ofgem's assessment that fast tracking should not be retained in its RIIO-1 form.

280. The presence of fast tracking before RIIO-ED1, and the belief of several companies that they may succeed, did result in better and lower-cost plans being submitted. The manner in which it was operated at RIIO-1 has however undermined its likelihood of success at RIIO-2 without serious work to reform the incentive and restore confidence. This manner included decisions by Ofgem to revise its own policies mid-way through the process and many choices in the disaggregated modelling suite that distorted the benchmarking results (when compared to the more considered modelling choices Ofgem made following a more extensive and in-depth review).

281. We can also see why Ofgem is proposing to remove fast tracking from transmission, given the problems the incentive encountered in RIIO-1, and the concentrated nature of transmission ownership. But Ofgem must still ensure it maintains strong incentives for transmission companies to develop challenging business plans and reveal information. Consumer engagement does not offer a replacement. While it could aid transmission companies in developing better and more robust scenarios for potential customer demands, this cannot replace Ofgem undertaking its own extensive diligence to identify appropriate cost levels.

Q25. What are your views on the options we have described? How might these apply in the different sectors? Should we retain the IQI, amend it or replace it entirely?

282. Before we turn to the individual options, we would highlight that our points at paragraphs 77 to 81 above, are directly relevant to how Ofgem designs and evaluates its incentives for companies to reveal information at price reviews.

283. Turning to the specific options Ofgem has set out in the Consultation, there are five – three in distribution and two in transmission. Our views on each of the options are set out below.

Distribution option 1: retain the IQI

284. If the IQI is retained in any sector, then Ofgem should make the incentives 'sharper'. At DPCR5, Northern Powergrid (then CE Electric UK) submitted a proposal for a revised matrix to achieve this. It may, however, be easier to achieve sharp incentives through a simplified menu of, say, four options that companies could be aligned against.

285. The IQI (or similar incentives) will also be more successful if Ofgem limits the extent to which its cost benchmarks depend on the plans of the company. In distribution, this means Ofgem should seek to avoid detailed disaggregated benchmarking of the type used in RIIO-ED1, or unit cost benchmarks of the type proposed by some companies. This type of flawed benchmarking created potential for

companies to influence their cost benchmarks upwards. Genuine total cost benchmarking, with exogenous cost drivers, is superior.

Distribution option 2: Retain fast tracking

286. If Ofgem were to retain fast tracking, it would need to make significant changes compared to RIIO-ED1 to convince companies that they have a genuine chance of being fast tracked (while still retaining uncertainty over their prospects). If companies feel too certain that they are likely to be fast tracked, or too certain they will not be fast tracked, this removes the competitive pressure the incentive is intended to foster.

287. Our comment at paragraph 285 above regarding cost benchmarking in relation to the IQI also applies for fast tracking. Cost benchmarks should be calculated using aggregated cost data and exogenous cost drivers in order to ensure the strongest possible comparative competition. Ofgem's cost assessment models should not be vulnerable to being influenced upwards by company plans or any resubmissions.

Distribution option 3: single business plan incentive

288. We note that this is Ofgem's preferred option and that the option does not preclude aspects of the other two options.

289. We think this option should draw heavily on the principles of the IQI – seeking to reward and incentivise companies to submit challenging business plans (and low cost forecasts). It should also use a simplified 'menu' of options that companies can be allocated to, creating clearer distinctions than the finely balanced maths of the IQI. For example, the base allowed cost of equity for a company submitting a challenging plan could be significantly higher than the equivalent for a plan that is not challenging, and this could be accompanied with a high sharing factor (placing the onus on the company to deliver its plan). Thus companies could choose from a menu of relatively high-risk, high return business planning, or self-select into a low risk, low return option.

290. It must not be used as a discretionary award, which would be bureaucratic in its administration and subjective in its award. Such an award would have too much scope to degenerate into the approach Ofgem took to the fast track award at RIIO-ED1 – with the rules and cost benchmarks bent by Ofgem in order to fast track Ofgem's pre-existing favoured company. Instead, it would have to be firmly quantifiable, and based on long term value for money being offered to consumers by the company, reflecting both its past decisions and its proposals for the forthcoming period.

291. If Ofgem does want to recognise wider aspects of the plans, like the networks' strategy for dealing with future network challenges, then it should create a separate discretionary award for doing so.

Transmission option 1: retain the IQI

292. Incentives to reveal information are as important in transmission as in distribution. However, there are differences between the sectors that Ofgem must take into account in its design of information revealing incentives.

293. The IQI relies on cost benchmarks that are independent of the company's business plan to function effectively. Under RIIO-1's finely balanced IQI, this 'incentive compatibility' was easily overwhelmed once any link between business plans and cost allowances was created. Independent benchmarks may also be more difficult to achieve in transmission, where the lack of direct comparators makes it more difficult to create effective comparative competition.

294. This does not mean Ofgem should abandon incentives such as the IQI in transmission. If anything, it means they need to be even 'sharper' to strengthen the incentives individual companies have to challenge themselves in their business planning. To the extent that the IQI cannot be made sharp enough, Ofgem may also need additional tools for identifying appropriate cost levels, such as greater weight being placed on revealed historical costs or greater use of engineering consultancy scrutiny.

Transmission option 2: retain fast tracking

295. Our comments in relation to the IQI at paragraphs 292-294 above also apply to fast tracking. Incentives to reveal information in transmission remain important. To the extent, however, that fast tracking's effectiveness is dependent on the prospect of a major award creating a competition amongst companies, it is not likely to be value for money in transmission.

Q26. What factors should we take into account when assessing plans for example, under fast-tracking (option 2) or a single business plan incentive (option 3)?

296. The long term value for money being offered by the company, objectively quantified, is by far the most important factor in any assessment of the plan.

297. In terms of that assessment of value for money more specifically, any approach which seeks to incentivise information quality will be more successful if Ofgem uses high level benchmarks based on exogenous cost drivers that are not influenced by the detail of the company's business plan or any resubmission. Ofgem should therefore use different cost assessment approaches to those implemented in RIIO-ED1. We also note that this would reduce the consumer detriment from allowing companies to iterate their business plans having seen the cost assessment models (which was a pronounced problem at RIIO-ED1).

298. The use of qualitative assessments as part of the main information incentive should be limited. The financial value to consumers provided by these 'benchmarks' is likely to be limited compared to the financial value of low cost business plans. Moreover, the incentive may be weakened if companies believe such qualitative assessment could distort the overall outcome (as was the case with subjective decisions at RIIO-ED1 such as various choices in the initial cost disaggregated modelling).

299. However, if Ofgem does want to encourage the 'best' business plan, strategy and stakeholder engagement, it could set a separate distinct financial reward for this. This would avoid clouding the incentive properties of the main business plan information quality award.

Q27. Do you have any views on the factors we should take into account when deciding how to differentiate efficiency incentives for companies if we do not use the IQI?

300. The points we make above at paragraph 289 are directly relevant to this question. Even if Ofgem decides to break free from the shackles of a formula based IQI, it should still use similar principles to those in the existing IQI when differentiating efficiency incentives for companies.

301. Long term value for money is by far the most important factor when deciding whether companies have submitted challenging plans and how to differentiate efficiency incentives for companies.

Q28. Is an explicit upfront financial reward required to incentivise companies to submit high quality business plans, in addition to differential incentive rates or sharing factors?

302. The principle of the IQI – that a company ought to expect to do better if it submits a genuinely challenging view of its future costs – should be retained. This will require some form of financial reward.

303. Differential incentive rates are not a financial reward. If a company has submitted a challenging plan, it will be much more difficult to outperform, and there is also a greater likelihood that the company will need to spend more than its plan. This therefore creates more risk to the company, and also makes outperformance tougher to achieve. A challenging plan coupled with a higher sharing factor and no form of financial reward would be universally unappealing.

Q29. Do you have any views on our proposal to remove fast-tracking for transmission?

304. Our views on the likely effectiveness of fast tracking in transmission are set out in paragraph 295 above. In light of the lack of comparative competition in transmission, nor a likelihood of transferrable benchmarks between companies, there may be little for Ofgem to gain from retaining the option.

Q30. Do you have any views on how we propose to incentivise better business plans from transmission companies, including removing the prospect of an upfront financial or procedural reward and placing greater reliance on user and consumer engagement and scrutiny?

305. Removing the prospect of upfront financial or procedural rewards, without some form of replacement, cannot, by definition, incentivise better transmission company business plans. Ofgem probably therefore needs to think of some form of incentive for the companies to reveal information, even if the value of that information is limited to the company in question rather than being applicable to other comparators.

306. This can be supplemented, but not replaced, by better user and consumer engagement. Indeed, it is difficult to see how a transmission company could form a view of the demands it is likely to face in future without speaking to its end users. However, while this may inform better business plan scenario planning by the transmission company, it will not effectively forecast the future, nor will it give Ofgem any certainty that the transmission operator has identified the lowest cost solution to a particular demand.

307. There therefore remains a significant gap in relation to the arrangements, at least in terms of the list mentioned in the question. We note that filling this gap is likely to require some combination of detailed business plan scrutiny by Ofgem, well-designed uncertainty mechanisms, and the introduction of early stage competition to solve network issues that system operator identifies.

Annual reports/reporting

308. Paragraphs 85 to 86 above set out our over-arching views on annual reporting, and should be read in conjunction with our responses to questions 31 to 32 below.

Q31. How can we best improve the suite of annual reporting requirements to be as efficient and useful as possible?

309. Our response is broken into three parts:

a. Regulatory reporting from network companies to Ofgem.

b. Annual stakeholder reporting by companies.

c. Reporting formats in general.

Regulatory reporting from Network companies to Ofgem

310. Northern Powergrid recognises the necessity of the regulatory reporting obligations placed on its licensees to submit information to Ofgem that allows it to form a meaningful view of the absolute and relative performance of the network companies.

311. There is currently a large quantity of information collected and reported to Ofgem annually which is subject to detailed data assurance processes; however, it isn't clear that Ofgem uses all of this information.

312. We fully support Ofgem's stated intent to strike a balance between ensuring the right information is published and maintaining efficient reporting processes.

313. We support the suggestion that Ofgem '*only request information that is eventually utilised, and help networks to understand the purpose behind the data requests*'. We recommend a comprehensive review is conducted of the information that is submitted alongside where and how it is used. The

review should aim to arrive at a proportionate solution that takes account of the cost of the reporting burden that is ultimately borne by customers.[36]

DNO annual stakeholder reporting

314. Our business plans must be developed through engagement with our stakeholders. We understand the importance of accounting for our performance to our stakeholders and value the discipline that this brings to us as a business. In the absence of regulatory requirements in this area Northern Powergrid would chose (and has chosen) to do this as a matter of course.

315. As part of any review of annual reporting in the industry, we would encourage Ofgem to review the stakeholder reporting obligations placed on networks to ensure they are efficient. Production of high-quality external information (which is subject to data assurance processes) carries a cost for customers.

316. As far as possible, Ofgem should seek to avoid duplication in the reporting requirements for network companies including reports submitted to Ofgem itself (for example Strategic Commentary) and published stakeholder reports (for example RIIO accounts, Business Plan Commitment Reports, ICE Reports and Environment and Innovation Reports).

317. Northern Powergrid supports the suggestion to create a working group to improve reporting processes and requirements. This working group should take a holistic view of all annual reporting requirements in order to arrive at the most efficient and effective solution.

Reporting formats

318. In terms of Ofgem mandating the requirements for reporting, we suggest two clear distinctions are necessary:

a. For information that is to be provided to Ofgem, solely for Ofgem's use, Ofgem should be prescriptive about the content and format to ensure consistency and comparability across the network companies.

b. For information that network companies publish for their own stakeholders, Ofgem should avoid being prescriptive to ensure that DNOs are able to produce information that responds to the bespoke requirements of their stakeholders via the means, and in the format, most relevant to them.

[36] We have already highlighted to Ofgem that we have seen little or no evidence that the current Regulatory Accounts are used by stakeholders. In this context, and given the cost to energy consumers of preparing additional sets of accounts, Ofgem should consider whether it is in fact necessary to replace them with RIIO Accounts. Ofgem should also question whether a higher standard of 'fairly presents' audit opinion is genuinely required for RIIO accounts, given the costs this would impose upon consumers and the possibility that RIIO accounts will also see little use.

Q32. How can we make the annual reports easier for stakeholders to understand and more meaningful to use?

319. Northern Powergrid continues to believe that Ofgem should produce an annual report that provides stakeholders with an independent assessment of the performance of network companies.

320. It is also Ofgem's opportunity to present a balanced and accurate picture, and correct misleading claims sometimes made by other sources of information (such as reports which set out accounting profit margins without an evaluation or the amount of capital employed, or whether accounting measures genuinely reflect the profits being paid for by consumers).

321. We believe the process could be improved in three key areas:

a. Being clear on the audience of the report(s): It is not totally clear who Ofgem is targeting with its annual report. The reports are often too detailed for domestic customers but lack sufficient analysis in certain areas for expert interest groups. Ofgem should determine its target audiences and cater to their needs in terms of the information provided and the reporting media used. This may require different reports for different audiences.

b. Publishing the reports earlier, following the end of the regulatory year: The delay between the end of the regulatory year and the publication of the annual report on performance during that year lessens its impact. In recent years, the ED1 annual report has been published around ten months after the end of the regulatory year that it has reported on. Ofgem understandably needs to make sure that it has finalised input information and has understood the reasons for the key changes in the information prior to forming its views for the report. Earlier publication timelines however would give the report more impact. A simpler report published earlier, to present information but not analyse it, may be better on balance than a more complex report published later.

c. Making better use of interactive websites for providing analysis and information: Ofgem's annual report conveys a significant amount of information about the performance network companies. Whilst infographics have been used during RIIO-1 to better convey the information, these could be used more and made more interactive to respond to the requirements of different audiences.

7. Responses to questions on fair returns and financeability

322. In order to ensure the RIIO approach to regulation continues to deliver significant benefits to energy consumers, it is essential Ofgem sets an adequate base return that is assessed objectively while maintaining recognisable consistency over successive price controls to signal stability to investors.

323. Our views on how Ofgem can best achieve these objectives are set out below.

Cost of debt

324. Paragraphs 87 to 89 above set out our over-arching views on the cost of debt, and should be read in conjunction with our responses to questions 33 to 34 below.

Q33. What are your views on the policy objectives that we have defined with respect to the cost of debt?

325. We have three points to make on Ofgem's objectives:

a. The original RIIO policy (as set out in the RIIO handbook) defines a set of circumstances under which an index will not be changed. This should be respected irrespective of any new objectives defined by Ofgem now. A new index should be set if and only if the relevant RIIO handbook tests for a revision to an index are met.

b. If a new index is needed, it is important for Ofgem to recognise that differences in timing of historical debt issuance are a legitimate and inevitable consequence of differences in corporate history across companies and sectors, and that this can lead to legitimate differences between and possibly within sectors in respect of the efficient cost of debt.

c. The objectives themselves could be simplified.

326. We set out more on each of these points below.

The policy objectives are only relevant if the test set in the RIIO handbook is met

327. In its RIIO handbook, Ofgem stated that *'At subsequent [to RIIO-1] price controls we envisage retaining the same index subject to a check that the index still provides a reasonable estimate of the cost of debt.'*[37]

328. This is extremely important. Ofgem's purpose in designing its RIIO cost of debt index framework was to extend the concept of regulatory commitment to remunerating debt costs, even beyond the immediate price review period.[38]

329. Since Ofgem set indices for 'blocks' of companies at RIIO-1 (in essence an index per network sector with some bespoke treatment for selected companies) we presume that the intent was to apply the test to those same blocks in the RIIO-2 price review. Failing this, Ofgem should perform the test for each sector separately. If the test is passed, the same index should continue to be used. Only if the test is failed should there be a reset.

[37] Ofgem, 2010, RIIO Handbook, paragraph 12.16

[38] Ofgem, 2010, RIIO Handbook, paragraph 12.13

The concept of efficiency should recognise that timing differences are legitimate

330. Two of the policy objectives refer to the concept of efficient debt costs.

331. It is important that Ofgem recognises that differences in the timing and tenor of debt can lead to legitimate differences in the cost of debt across companies (or between sectors) that are not due to any difference in efficiency.

332. Given the very different corporate history of the sectors, it remains important that Ofgem continues the RIIO-1 approach of setting sector specific, or even company specific, cost of debt allowances

333. Under one of its options, Ofgem refers to weighting debt allowances by RAV growth. This may not adequately recognise that much company debt was issued when they first came into existence (since many companies were created with little or no debt).

The objectives themselves could be simplified to avoid repetition and aid clarity

334. Beyond this, we think the policy objectives are sensible. They could however be simplified and stated in briefer terms as:

a. Ensuring customers do not pay any inefficiently incurred debt costs.

b. Ensuring companies can recover the cost of reasonably incurred debt, up to the notional gearing level.

c. Ensuring companies are incentivised to minimise their cost of debt on an ongoing basis.

d. Ensuring simplicity and transparency of arrangements.

Q34. Which option might help to ensure that the approach to updating the cost of debt methodology delivers best value to consumers and why?

335. Our response makes four points:

a. Ofgem may need more than one option in its toolkit.

b. The options are not entirely mutually exclusive, but B and C have significant merits.

c. Ofgem should also consider a further option; controlling for the timing and tenor of debt.

d. There are some flawed suggestions in Ofgem’s detailed proposals.

336. We set out more on each of these points below.

Ofgem must recognise that different options may perform differently in different sectors – Ofgem may need more than one option in its toolkit so it can choose the right one at each sector review

337. Given the differences in corporate history, and hence the timing of debt issuance, across sectors, Ofgem's options can perform differently in different sectors. So a one size fits all policy will not be appropriate.

338. Since an appraisal of the performance of different options will require detailed analysis, the appropriate place for this to be done is during the sector specific consultations that will follow in due course.

Turning to the options, we think options B and C have significant merits

339. We think the options Ofgem lists represent a good start in describing the possibilities, although we also think that a fourth option (a variant on three) should be added to the list. Our views on each of the options are set out in turn below.

340. We are unclear on how to assess Ofgem's option A, a re-calibration of the existing RIIO-1 indexation policy, absent further information on how Ofgem would operate it.

a. Our view would depend fundamentally on Ofgem's assessment of the efficient costs that Ofgem would expect companies to already have on their books and to incur in future.
b. This assessment sounds like it may begin to second guess what companies ought to have issued, when, and at what tenor, in order to know when they are expected to issue more.
c. Without further details this option may undermine the longer term commitment to funding debt costs that debt indexation under RIIO was intended to entail.
d. It may, however, be equivalent to the approach Ofgem took at RIIO-ED1 and to option B, which has some merit (see below).

341. ***Option B*** essentially describes the RIIO-ED1 slow track approach, which Ofwat is now adopting (albeit with some adjustments to the detailed mechanics).

a. The only change Ofwat is making, relative to RIIO-ED1, is to set the allowance explicitly in two parts, rather than trying to calibrate a trailing average that caters to both (as was the case at RIIO-ED1).
b. Since this change gives an additional degree of freedom to match the expected profile of new debt issuance it does allow more precise targeting of allowances to the sector's expected cost of debt.

342. This option has the merit that it would recognise the actual costs that the sector is incurring, and is expected to incur in future based on its refinancing profile. It also ensures strong incentives for individual companies to minimise their total debt cost.

343. We also think ***option C***, a pass through allowance for debt, or something close to this, has significant merits. Like with tax, companies need only a relatively small incentive at the margin to minimise their cost of issuing debt. We do not agree that quantifying the actual cost of debt of the relevant licensees would be as difficult as Ofgem imagines, since it has significant information gathering

powers, and because the companies in question must publicly report debt costs that are externally audited.

Ofgem should also consider a further option

344. We would also propose a further option, where Ofgem controls for the timing and tenor of actual debt issuance and sets the allowed cost by reference to a relevant reference point rather than the actual cost of debt that the company incurs. This would still encourage cost minimisation any time debt at a particular tenor is issued. Ofgem should consider this option, provided it is willing to mitigate any incentives for companies to buy back debt if interest rates rise faster than expected.

There are, however, some flawed suggestions in Ofgem's detailed proposals

345. Ofgem suggests using a longer term inflation measure in its cost of debt indexation, such as 20 year gilts. This would be inappropriate. Under RIIO the company's or sector's expected, largely nominal, cost of debt is tested versus the real allowance at each price control reset. If markets expect inflation to increase or reduce beyond the forthcoming price control period, this should not affect the determination of a real cost of debt for that period. The horizon for inflation projection used in calculating the cost of debt allowance should therefore be shortened to match the price control duration, and avoid a mismatch that could cause value to leak into or out of the settlement.

346. Ofgem's use of evidence from gilts would in any case be overtaken if Ofgem moves to CPI indexation of the RAV, as suggested in the Consultation. A different source of inflation assumption would be needed, such as the Bank of England's inflation target.

Cost of equity

347. Paragraphs 90 to 102 set out our over-arching views on the cost of equity, and should be read in conjunction with our responses to questions 35 to 36 below.

348. In short, we can understand Ofgem's concern about whole sectors earning double digit returns, but the direction of travel on the cost of equity revealed by Ofgem in this paper is concerning. Ofgem must not let any prior assumption that the cost of equity for networks is low cloud its assessment of the evidence on equity costs and neither must it use the base cost of equity to try and offset errors in other parts of its settlement.

Q35. Do you agree with our proposed methodology to estimate the cost of equity?

349. We agree with some aspects of Ofgem's proposed methodology, for example the proposal to continue to rely on long standing frameworks.

350. But we disagree strongly with other important aspects of the proposals. The overall methodology, as proposed, would be likely to lead to too low an estimate of the cost of equity. By setting out at such an early stage a range for the cost of equity that is so low and lacking in credibility Ofgem risks taking positions on the cost of equity that are unsupported by the evidence that Ofgem has available

to it. For this reason, it is helpful that the ranges published in the Consultation (for Ofgem and Ofwat) are still subject to extensive consultation, because they present very real risks to consumers.

351. First and foremost, the cost of equity is Ofgem's incentive for ongoing investment in the asset base. A cost of equity that has historically been objectively and credibly assessed is one of the reasons for Ofgem's success in attracting £80bn of investment into energy networks since privatisation. Ofgem must ensure it does not set too low a cost of equity based on a flawed assessment of the evidence or, worse still, its prior assumptions, especially at a time when the energy system transition is likely to place significantly changing demands on energy networks, with potential near-term investment requirements as high as £6bn per annum.[39]

352. The CAPM is, as Ofgem also concludes (at paragraphs 7.33.1 and 7.33.2 of the Consultation), the right framework for the estimation of the allowed cost of equity. It has three components: the real risk free rate, the premium required by investors in equity (the ERP), and the riskiness of the equity investment relative to average (equity beta, which measures the ratio of equity risk to that in the wider market). Therefore Ofgem needs to estimate each of these in turn.

353. Ofgem is right that the estimate of risk free rate used in CAPM should be a long term one (Consultation paragraph 7.33.5), reflecting the long term nature of the investments. There is extensive, objective, evidence on current market expectations for this parameter over the coming price control period. It shouldn't present a challenge to Ofgem.

354. The total market return, and therefore the equity risk premium above the risk free rate, isn't directly observable. This makes it more challenging but Ofgem, and the CMA before it in the 2014 NIE price control re-determination, has undertaken the extensive work necessary to establish a sound basis to estimate it. Long term historical returns are the best measure of future investor expectations (Consultation paragraph 7.33.4). This is the approach recommended by many academics and practitioners, including Oxera, CEPA, and the authors of the UKRN study.

355. The CMA itself established a range of 5.0% to 6.5% and Ofgem's own research continues to support this range.[40] The only thing Ofgem now needs to do to arrive at a sound value for this parameter is to take note of the CMA's decision, that the imperative to ensure investment and the financial health of an efficient operator necessitated the choice of a value at the top of this range.

356. This leaves equity beta. And here we have our most significant concerns. Written throughout the consultation seems to be a prior view that the risk of equity investments in network utilities relative to the wider market (i.e. equity beta) must be below 1. With this prior assumption, there is serious risk that Ofgem could disregard valid evidence to the contrary, and only listen to evidence it wants to hear.

[39] DECC, 2014, Delivering UK Energy Investment, page 86

[40] We are not clear how Ofgem has interpreted the UKRN range to be stated in CPI linked terms at 6%-7%. The authors lacked access to a reliable CPI index pre 1987. The 6%-7% range may therefore have been estimated in terms of an inflation measure that is closer to RPI than CPI. The CMA's range, which ran from 5.0% to 6.5%, remains valid.

357. Instead, equity beta needs to be assessed based on objective evidence and that has not yet been done. This primarily means estimates of observed equity beta from market data for relevant comparator companies. But it also requires an assessment of those equity risks that apply to the sector that may not be systematically correlated with the equity market in general, so will not be captured in equity beta estimates, but that create additional downside risk to investors in the energy network sector which must be recognised in any estimate of the cost of capital for the sector. This includes, for example, the political and regulatory risk created by the heightened public profile of the sector, to the extent this might not only manifest itself at times when stock markets are doing badly (as has been the case recently, for example).

358. Turning to market based evidence on equity beta, even Ofgem's own consultants, CEPA, do not agree with Ofgem's apparent view that equity beta must necessarily be below 1 at 60% gearing. This ought to cause Ofgem to challenge its implicit assumptions, but it has not been acknowledged in the Consultation. Beyond this, though, the range CEPA has provided Ofgem is too wide to be practically useful to a regulator. Translated to 60% gearing, equity beta runs from 0.63 to 1.00.

359. And Ofgem must recognise that notional gearing has a significant impact on the cost of equity, as the Consultation omits to directly address (by presenting a range on the cost of equity without stating the associated gearing levels). It is not correct for the Consultation to say that equity risk relative to the market (equity beta) for utilities should be lower than market averages.[41] This cannot be regarded as a common sense rule, as equity betas will vary with gearing, since higher gearing means the same amount of equity risk is concentrated on an ever smaller pool of equity. Gearing itself varies widely across the sector and the notional level of gearing in the price control is yet to be determined. It is entirely possible for equity risk in utilities, when concentrated on a relatively thin equity wedge of, say, 35%, to lead to equity that is as risky as the market and an equity beta close to or possibly higher than 1.

360. This point has been recognised by all of Ofgem's advisors, and credible estimates of the appropriate range for equity beta from market evidence, based on standard regulatory practice, are set out in Oxera's independent report on the cost of equity, on behalf of the ENA[42], and in the Burns appendix to the UKRN paper.[43]

361. Instead Ofgem raises the prospect of using a wider set of econometric techniques to estimate equity beta (Consultation point 7.33.5), including those proposed by a subset of the UKRN authors (Wright

[41] Yet there are signs that Ofgem may be risking this, like at paragraph 7.49 of the Consultation when it lists all the 'good reasons' to expect network company non-diversifiable risk to be lower than the market average, without listing the other side of the coin (like much higher assumed financial gearing than other listed companies, which concentrates asset risk on a thinner equity wedge).

[42] Oxera, 2018, The Cost of Equity for RIIO-2

[43] Appendix F to the study on behalf of UKRN, 2018, Estimating the cost of capital for implementation of price controls by UK Regulators, an update on Mason, Miles and Wright (2003), Stephen Wright, Phil Burns, Robin Mason, Derry Pickford et al

and Robertson).[44] One of the UKRN authors (Burns) raises concerns that the results reflect a single atypical econometric specification applied to just two stocks. Even Wright and Robertson highlight that their results are preliminary and do not provide a basis for an immediate switch in approach, even admitting that some of their results may not be unbiased[45]. They also find that multi-factor models can materially increase their estimates of asset risk and beta,[46] which is particularly important in energy networks, where one of the biggest risks (political and regulatory risk – the alpha risk that we reference above) might sometimes be un-correlated with stock markets, and will be difficult to control for in an econometric estimation.

362. To our knowledge, no regulators in the world have proposed to use this kind of econometric analysis in estimating equity betas to date, and there are likely to be good reasons for this.

363. Lastly in relation to equity risk, if Ofgem does implement some of the more novel proposals that it has brought forward at this consultation, in particular but not limited to the fair returns proposal, this would materially increase risk for energy networks. This increase may arise through a number of channels, such as through linking the financial performance of one company to errors in allowance setting for other companies, or through providing Ofgem with many more avenues for the application of arbitrary ex post discretion than it has had in the past.[47] We do not think this would represent good value for consumers but, if these novel proposals are implemented and increase risk versus prevailing arrangements, this must be reflected in Ofgem's equity determination.

364. Whether these risks are systematic in nature, and hence apt to be captured in an appraisal of beta, or more specific to the energy networks (and hence better thought of as 'alpha risk'), or some blend of the two, it would be wrong for Ofgem to fail to take these heightened risks into account.

365. Moving past equity beta, we agree that Ofgem should use sense checks to the CAPM from other methods (7.33.4). However, we do not agree with all of the sense checks Ofgem suggests. For instance, evidence from OFTO transactions is not relevant to onshore RIIO networks because the risk profile is much lower.[48] Ofgem should also be drawing in dividend growth models, such as those set out in Oxera's report on the cost of equity for ENA.[49]

366. Lastly, and although not actually an issue relating to estimating the cost of equity, Ofgem should not consider deducting expected outperformance from incentive schemes from the base cost of equity

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[44] Appendix G to the study on behalf of UKRN, 2018, Estimating the cost of capital for implementation of price controls by UK Regulators, an update on Mason, Miles and Wright (2003), Stephen Wright, Phil Burns, Robin Mason, Derry Pickford et al

[45] Op. cit., page G 147, penultimate paragraph

[46] Op. cit., pages G 151-152

[47] Whether these risks are systematic in nature, or more specific to the energy networks (and hence better thought of as 'alpha risk'), or some blend of the two, it would be wrong for Ofgem to fail to take them into account.

[48] See Annex A to Northern Powergrid's response to Ofgem's Hinkley-Seabank project: minded-to consultation on delivery model

[49] Oxera, 2018, The Cost of Equity for RIIO-2

(Consultation point 7.33.7). This would create a wedge between the estimated cost of equity and the allowed return on equity investments. But the base allowed cost of capital is Ofgem's incentive for investment in the asset base. Returns from other incentive schemes encourage different, shorter term, behaviour. Importantly these returns do not, and should not, scale directly with the size of RAV. They therefore **cannot** act to incentivise marginal investment in the asset base. Reducing the base allowed return on their account would leave Ofgem with the risk of an under-investment problem, which would be highly detrimental to energy consumers.

367. In any event, estimating future expected outperformance against whatever set of incentive arrangements is finally decided upon would be extremely challenging, creating a further source of uncertainty.

368. In terms of specific next steps, Ofgem has already signalled that it expects to look more closely at novel techniques for estimating equity beta, a study which we expect is unlikely to yield techniques which will see widespread practical application. At the same time, it should also take ahead a study of non-systematic risk, or 'alpha risk', to gain a balanced view of the total risk that must be remunerated. Both of these novel issues, to date not explicitly recognised in mainstream regulatory cost of capital estimation, would need to go through a lengthy process of evaluation and consultation before any conclusions can be reached.

Q36. Do you agree it would be desirable to index the cost of equity? Do you have views on our proposal for indexation?

369. We do not support equity indexation. The only reason equity indexation would lead to material movements in the cost of equity from year to year is if Ofgem establishes an equity beta well below one. For the reasons set out above, this would be highly damaging. This damage would be made worse if Ofgem combined that low equity beta with indexation.

370. If Ofgem nevertheless decides to implement equity indexation, then Oxera has developed a set of recommendations based on its appraisal of the evidence on the cost of equity:

a. Equity beta ought to be estimated and then fixed for the duration of the control.

b. The evidence supports a relatively stable total market return.[50]

The proposal Ofgem sets out at consultation paragraph 7.64, footnote 96, is therefore the least damaging option that Ofgem could adopt.

371. We note that Ofgem highlights Citizens Advice's suggestion of indexing the equity return directly to stock market movements. Ofgem is wise to disregard this proposal. Any direct link to stock returns would markedly increase the volatility of returns and add to the systematic (beta) equity risk already faced by investors in energy networks and raise their required return, thus adding to costs for consumers with no benefit.

[50] Oxera, 2018, The Cost of Equity for RIIO-2, page 8

Financeability

372. Paragraphs 103 to 110 above set out our over-arching views on gearing and financeability, and should be read in conjunction with our responses to questions 37 to 39 below.

Q37. Do you consider there is merit in removing the indexation of the RAV and adopting a nominal return model in RIIO-2? What would be the benefits and drawbacks?

373. This would be a significant shift from the current model and would set GB energy networks on a different return model to other UK asset-based regulated utility businesses. It would also go against the grain of Ofgem's stated target of cost-reflectivity across different generations. If taken forward a change such as this would need further impact assessment and consultation.

374. Ofgem notes this would be a significant change to the regulatory framework. We agree. It would, by definition, reduce demand for network assets from investors who value inflation proof investment opportunities. It is of course possible that it may make the assets more attractive to other investors. But at a time when Ofgem is proposing reduced returns to investors, and when potential investment needs are increasing, there is a risk that the sector will not attract the investment it requires.

375. We also note that a move to nominal allowed returns would significantly increase current charges to consumers. An increase on the base cost of capital of around 3% to reflect the removal of indexation would immediately add about £2.4bn per annum to consumer charges from the outset of RIIO-2, assuming £80bn in RAV.[51]

376. So this option may meet a short term issue in bringing forward cash flows but it is likely to deliver long term impacts that are difficult to predict (both investor appetite and customer charge levels); on this basis we do not think it recommends itself.

Q38. Should the onus for ensuring financeability lie with the network operating companies in whole, or in part?

377. Ofgem sets out in the financeability section the Authority's duties with regard to the companies' abilities to finance their activities and the licence requirement on companies to maintain investment grade credit rating.

378. Ofgem's duties place limits on the extent to which it can place the onus on companies for ensuring financeability. Ofgem has to put in place a settlement that allows a licence holder to finance its regulated activities. Once Ofgem has done this, it can then place the onus on companies for ensuring they continue to run themselves well enough that they remain financeable. Ofgem's licence condition requirements that companies maintain an investment grade credit rating are only reasonable in this context.

[51] Nominal value of RAV at the start of RIIO-2 based on closing RAV from Ofgem's financial model's, uplifted for RPI

379. Companies do however have a role: a key task they carry is in preparing their business plans to propose appropriate responses to financeability issues.

380. But even ahead of this, Ofgem can form a view. Ofgem acknowledges its own testing based on the proposed cost of equity and market forecasts of the cost of debt make it challenging to meet the standard financeability metrics so has identified three options for addressing the issues. This recognition, and development of options, is positive. However, Ofgem must make sure it understands the relative effectiveness of the tools it has at its disposal:

a. First and foremost, it has to set the cost of equity at a level that reflects the risks faced by the sector. Ofgem's range does not achieve this, especially below the top, and by considering it Ofgem is unnecessarily worsening concerns over financeability.

b. Secondly, Ofgem needs to consider gearing carefully. If Ofgem does think the cost of equity must come down from RIIO-ED1 levels, then this is less likely to cause financeability concerns if Ofgem reduces assumed gearing. For this tool to be effective, Ofgem would need to be cautious about how this de-gearing is reflected back into the allowed cost of equity, thus offering support to the cost of capital as a whole.

c. Thirdly, asset lives present a valid tool for addressing financeability concerns, at least in electricity distribution where Ofgem signalled in its defence of the RIIO-ED1 price controls that it would continue to consider the appropriate approach.

381. The long term path of consumer prices also represents an important consideration, in any decisions over financeability, since this informs how different generations will feel the impact of Ofgem's decisions.

Q39. Do you consider the introduction of a revenue floor, to protect the ability of companies to service debt, to have merit?

382. We conclude this option may have some merit in providing extra protection within a price control period but should not be a substitute for ensuring the price control package is financeable on a stand-alone basis, i.e. it should be an element of the arrangements that is expected to be called into operation infrequently under more extreme circumstances. Ofgem's primary tools for ensuring financeability should remain setting the base return on equity at a high enough level, de-leveraging (without reducing equity returns to an offsetting extent) and shortening asset lives (which has the benefit of reducing equity risk, even if rating agencies might discount it in their assessment) with measures such as a revenue floor viewed only as a safety net.

383. Ofgem states that its analysis suggests the revenue floor option could secure high value for consumers as it would have a positive impact on credit ratings and reduce default risk. We would appreciate it if Ofgem could share this analysis.

384. Our understanding of this proposal is that cash flows would be adjusted to assist companies in meeting credit metric ratio levels. Any adjustments would then be reversed at some future period.

We can see the benefit of the protection for securing financeability but, in effect, these are adjustments that advance future cashflows, in the same way as adjustments to capitalisation ratios. We would be interested in the view of ratings agencies since Moody's has previously said that it seeks to discount such cash flow approaches. We also note that some of the approaches that Ofgem suggests for ensuring repayment, such as a dividend freeze, would also place equity at greater risk in certain circumstances, and could therefore raise the cost of equity.

385. Under the minimum coverage basis (variant 2) we are unclear whether Ofgem is indicating it could set the opening position of the price control knowing that a revenue floor adjustment is required. This would be a failure of Ofgem in its duty to ensure network companies can finance their activities.

Corporation tax

386. Paragraphs 111 to 115 above set out our over-arching views on corporation tax, and should be read in conjunction with our responses to question 40 below.

Q40. Do you agree that Ofgem should review the causes of any variances between tax allowances and taxes actually paid to HMRC (including the treatment of group tax relief)? Which of the options described in this consultation may be worth investigating further to address any material variances?

387. We think Ofgem should give companies at least some small incentive to avoid paying too much tax, within the law and on behalf of energy consumers, but should otherwise allow the taxes for the notional, standalone, entity in full. This is essentially the model Ofgem has followed to date.

388. Ofgem has indicated that it has some concerns in relation to taxation. We do not think that the issues which have led to political and media pressure in the water sector, such as offshore vehicles, are prevalent in energy networks. Any risks inherent in such structures should also not be concerning to the Authority, since the ring-fence would protect consumers from these risks. But if Ofgem is aware of specific issues, it should spell them out, so we can consider them and provide an informed view.

389. Ofgem should not attempt to unpick the tax regime put in place by Parliament through the back door. The tax regime is a matter for Parliament and, to the extent that Parliament puts in place rules such as group relief, if would be inappropriate for Ofgem to prevent a group from benefitting from them. Changes to Ofgem's approach to regulating tax would also appear opportunistic, particularly as Ofgem did not pass the costs of the 1997 windfall tax on energy companies through to consumers.

390. Beyond this, Ofgem has suggested a review of actual taxes paid, and whether this could be a basis for tax allowances. This would be a complex exercise since taxes are levied on the statutory entity, which may undertake more than just regulated activities. For some companies, including ours, the tax payments are also based on a 31 December year end rather than a regulatory year. For these

reasons comparisons between allowances and actuals are not simple or straight forward. The two would not be expected to match.

391. The review would also reveal that options B and C in the consultation are not viable. Option B, using actual taxes, would necessitate the remove the effect of other activities (described in the previous paragraph). This would be a resource intensive task which, if done properly, would in any case lead to the same or similar results as Ofgem's current approach.

392. The final option in the Consultation, option C (the 'lower of actual or notional' approach), would systematically under-allow for tax. There will be differences in the actual versus notional tax calculations relating to timing differences (such as capital allowance pool tax allocation). Option C means that the consumers are benefitting from these timing differences from option A and also when the reverse happens in option B (and vice versa). It should therefore be discounted.

Other finance issues

393. Paragraphs 116 to 122 set out our over-arching views on other finance issues and should be read in conjunction with our responses to questions 41 to 44 below.

Q41. Do you agree that we should move away from RPI for RIIO-2 (including for the indexation of the RAV if retained as a feature)? If yes, which of the two potential indices – CPI or CPIH – might be most suitable? Is a phased transition between RPI and the chosen successor index necessary or desirable?

394. Ofgem has considered whether to index using RPI or CPI at every price review since DPCR1. It is therefore appropriate that it should consider the question again at RIIO-2.

395. Ofgem has previously set out various tests that it expected to be met before it moved to CPI from RPI. These included the development of a liquid market for CPI linked securities. This test has not yet been met for CPI, and less so for CPIH, and so Ofgem would need to develop its own benchmarks for the real risk free rate. Moreover, it would need to consider whether the relative illiquidity of CPI linked assets makes them less attractive to investors generally (which could, for instance, raise the cost of equity).

396. In terms of the question of whether to use CPI or CPIH, CPIH has the advantage of recognising owner occupied housing cost. It is not however, backed by the same legal framework as CPI, and this represents a disadvantage of CPIH relative to CPI from the point of view of investors. This could however change, depending on how the legal framework around the respective inflation measures evolves over time.

397. If Ofgem concludes on a move to a CPI based rate, it should signal the intent to make the move transparently value neutral by adjusting three key parameters (the cost of debt, cost of equity and real price effects) by the long term gap between CPIH (or CPI) and RPI. We currently estimate this to be around 0.85% based on CPIH.

398. Only by accounting for these changes transparently will Ofgem mitigate the increase in regulatory risk entailed by a fundamental change in the basis of the price control. It is in the interests of consumers that Ofgem mitigates this risk. To date however Ofgem has not taken the opportunity to do so, thanks to:

a. the exceptionally wide range for the riskiness of investments in energy network assets (asset beta) underpinning Ofgem's consultation range on the cost of equity; and

b. proposals on real price effect which make no cross reference to the choice of price control inflation measure.

399. Even having mitigated the potential for regulatory risk to arise at the time of a change in framework like this, Ofgem may still need to uplift the allowed cost of equity to the extent of any extra return required by investors in non-RPI markets.

400. All of this said, if Ofgem were to move to CPI or CPIH indexation, Northern Powergrid would have a preference for an immediate move rather than a complex transition, to maintain simple regulatory arrangements. Arguments for a transition such the carrying of RPI linked debt do not apply to Northern Powergrid since it has a relatively conservative financing structure that does not make use of RPI instruments or bank swaps.

401. We also note that the ability to swap RPI for CPI linked debt may mean that there is limited justification for a transition in the case of any company, as long as Ofgem is willing to set an allowance for the notional company sufficient to cover the costs of such swaps (particularly if there is a degree of illiquidity in the market, which would make swaps more expensive).

Q42. In the light of our proposal not to amend, at a price control framework level, our policies for depreciation and asset lives set in RIIO-1 do you have any views or suggestions that you wish to put forward?

402. Paragraphs 120 to 122 above set out our over-arching views on asset lives which should be read in conjunction to the further details below. In particular, while longer asset lives raise the cost of capital, they do provide a tool for fine tuning the path of prices to consumers. Moreover, current electricity distribution customers are already enjoying a discount on the charges they would be facing had asset lives always been, say, 45 years. Only by understanding issues such as this will Ofgem be able to take an informed decision.

403. While issues across sectors may vary, Ofgem should in general keep asset lives open as its third option (behind the cost of equity and gearing) for making a price control settlement financeable. While the existing arrangements may set the starting point for company business planning, decisions can and should be taken only once Ofgem has seen detailed evidence presented in business plans, and properly understood the long term implications of the decision for companies and for consumers.

404. Shorter asset lives may be discounted by rating agencies (at least to the extent that key rating metrics are adjusted for depreciation), but they do help mitigate equity risk and so make a sector more attractive to equity, thus indirectly aiding financeability. They also allow a degree of fine tuning the long term path of prices for consumers, since they have a gradual and long term impact (as opposed to more sudden changes, such as changes in capitalisation rates, or Ofgem's proposal to remove inflation indexation).

405. While Ofgem is correct to state that this issue was discussed extensively in RIIO-1 and indeed was the subject of an appeal to the CMA at RIIO-ED1, this issue has actually been considered at every round of price reviews since privatisation.

406. Ofgem has also omitted to mention that in its substantive defence of its RIIO-ED1 asset lives policy at a price control appeal, it stated the following:

> *In response, GEMA provided a new argument which it had not included in the RIIO-ED1 process or its Response. GEMA confirmed that it did have some concerns about the end point, ie the medium-term use of 45-year indexation. Therefore, in addition to the evidence provided in the Notice of Appeal, it confirmed that it was likely to review the end point. This reflected the pictures presented above from GEMA's analysis, which demonstrated that there would be a sharp decline in revenues over ED2 and ED3. GEMA stated that it had concluded that there was a risk to financeability in the medium term, and therefore that a more substantive review would be appropriate.*[52]

407. We are not aware that Ofgem has formally reviewed the end point or completed a more substantive review. We recommend Ofgem publish the analysis of the basis of their conclusion or leave the option open.

Q43. We propose to review the fast/slow money split at the business plan submission stage, do you have views that you wish to put forward at this stage?

408. Ofgem states the assumptions for the fast/slow money split will be reviewed in the light of operational practice to date and the information in the company business plans (in particular the ratio of capital expenditure to total expenditure).

409. In theory an approach that sees the same level of capitalisation for regulatory and statutory accounting purposes makes sense, i.e. the RAV and the fixed assets in the statutory books should align over time (subject to indexation). At RIIO-1 all the companies needed to demonstrate that their statutory capitalisation rate and align our business plan proposal, this has led to electricity

[52] Competition and Markets Authority, 2015, British Gas Trading Limited v the Gas and Electricity Markets Authority, Final determination, paragraph 7.31

distribution companies, for example, having different capitalisation rates in the current regime.[53] But we also recognise the importance of the RIIO model minimising distortions in company choices between operating and capital solutions. In order minimise the extent to which these distortions could re-emerge, it may in future be necessary to set a single capitalisation rate for the whole sector.

410. In practice the capitalisation rate may have to be utilised to address financeability issues and if Ofgem is not open to changing depreciation profiles this may be the route to adjust cash flows. We would therefore support finalisation of capitalisation rates at the business plan submission date.

Q44. Do you think existing mechanisms for providing allowed revenue to compensate for the raising of notional equity are appropriate in principle and in practice?

411. Ofgem should recognise there is a cost of raising new equity and, if investment profiles and other parameters of the notionally modelled company imply that further equity should be injected then the associated costs should be allowed. Ofgem should, therefore, maintain, or even enhance, its approach to funding equity issuance costs at previous RIIO reviews.

412. We believe the 5% boundary is a reasonably material amount to represent a position where a call for additional equity should be undertaken within the price control period.

413. Moreover, if Ofgem determines a step change downwards in the notional gearing of any sector is required, then it should cover any equity issuance costs associated with such a move irrespective of whether companies actually need to issue new equity. This would ensure Ofgem does not dis-incentivise companies from adopting lower levels of gearing than the regulatory assumption in future.

414. We note from the consultation that Ofgem wishes to test existing allowances to see if they are reasonable. We believe such tests should be market evidenced if possible. Equity issuance as a process entails significant costs through the damage it can do to investor perceptions and hence the value of the equity in the company. Measures such as a dividend lockup, while allowing longer term rebalancing of a balance sheet, are also likely to raise investor requirements for returns. Ofgem must ensure its review identifies and reflects all such indirect costs of equity issuance.

[53] Noting that WPD took a different approach to the calculation in its fast tracked plan compared to Ofgem's guidance, through the treatment of pension deficits in the calculation, in effect boosting its capitalisation level compared to other companies, and sending the increase in its pension deficit repair to RAV.

Ensuring fair returns

415. Paragraphs 123 to 129 set out our over-arching views on ensuring fair returns and should be read in conjunction with our responses to questions 45 to 46 below.

Q45. What are your views on each of the options to ensure fair returns we have described in this consultation?

416. Ofgem has already learned from the RIIO-1 round of reviews. The RIIO-ED1 cost allowances, although not perfect (largely thanks to flaws in the disaggregated cost benchmarking), were set at a markedly tougher level than at RIIO-GD1. Ofgem also took a longer and harder look at the allowed cost of equity. Large parts of the RIIO-ED1 settlement were also subject to scrutiny by the CMA, with several grounds of appeal arguing that the price control should have been set at a still tougher level. Since all but one of these grounds of appeal failed, there is plenty of strong evidence that large parts of the RIIO-ED1 price control were relatively well-set.

417. Beyond the steps Ofgem already took at RIIO-ED1, at RIIO-2 we also expect Ofgem to set a shorter duration of price control, and one which is better calibrated and hence tougher across a number of other areas. As a package this significantly reduces the chances of double digit returns and therefore it reduces the need for any of the options set out in the consultation.

418. Ofgem, therefore, already has a direct way to ensure 'fair returns', without damaging or undermining the strong incentives that are a key part of the RIIO framework, and are central to driving improvements in performance and therefore consumer benefits.

419. All of Ofgem's other 'fair return' options are fraught with risk of undermining these strong incentives or, worse still, leaving energy networks exposed to higher risks and therefore raising the costs of financing those networks, that consumers have to fund. Beyond this observation, our views on the options set out in the consultation are as follows:

a. Ofgem should steer well clear of **anchoring returns to the base cost of capital and other forms of zero sum incentives**.

   i) There aren't enough comparators in any of the sectors to set reliably robust benchmarks. Ofgem cannot mitigate the risk that errors in target setting result in unjustified windfall losses. An approach that runs the risk of leaving companies unreasonably underfunded would be inconsistent with Ofgem's duties to secure financeability and, if adopted, this would raise the cost of capital for all investors.

   ii) Similarly, the structure of most sectors is concentrated, limiting the extent to which a zero sum arrangement might be expected to generate strong incentives for efficiency and other service improvements.

iii) These approaches would also remove all incentives to collaborate and share learnings from innovation, reducing the pace with which benefits are shared with consumers.

iv) Under any of these approaches, it seems difficult (in some cases impossible) to ensure that incentives could be calibrated at customer willingness to pay. As a result, economically efficient outcomes would not be incentivised and companies might over- or under-provide certain outputs.

v) Ofgem quotes an 'advantage' of companies critiquing each other's plans. However the volume of submissions, **including additional appeals** of the parameters indirectly being included in each company's settlement, would be an administrative nightmare; the 'red tape' costs would be excessive and Ofgem would not be able to manage anything useful out of the volume of submissions it would receive.

vi) The 'competed pot' option appears to be an alternative to zero sum incentives with many similar properties. It should be disregarded as a distinct option. All of the disadvantages above apply, but in addition under the fixed pot approach the effective incentive strength for marginal improvements would be unknown and unknowable in advance. This uncertainty would harm incentives to seek efficiency and service improvements.

b. Discretion for Ofgem to reduce returns on an ex post basis, as described under the **discretionary caps and collars** mechanism, should be avoided.

i) This would be highly damaging both for investor certainty, and for incentives to reduce costs and / or improve performance.

ii) If a discretionary option were to be taken forwards, it should be on the basis that Ofgem sets semi-firm caps and collars with an 'option' to switch them off in certain circumstances (e.g. if one company deserves material additional reward for significant innovations). This would still weaken incentives but would not damage investor decision making certainty.

c. **The RORE sharing factor option, which in effect broadens the sculpted incentives** sub-component of one of the options in the Consultation, is the least damaging of any of the frameworks that Ofgem has suggested. The strength and clarity of incentives would be diminished compared to an approach of fixed ex ante targets with a five yearly reset. But the approach would at least avoid creating the risks associated with the other options. If adopted, Ofgem should not restrict the application of sculpted returns to costs (and combine it with zero sum incentives for output incentives as per one of the Consultation options); it should instead apply it to all incentives, or even RORE, as a global sharing factor. The sculpting could also be applied in the form of a RAV draw-down. Incremental returns, at higher levels, could be sculpted towards to being paid out of RAV, rather than in addition to RAV, to maintain some incentive for management to continue making further improvements, while conferring a discount on future consumers.

d. We note that many of the options can be combined with one another, as a hybrid option. For instance, anchoring need not anchor the sectors returns to the base cost of equity, as Ofgem highlighted in its workshop on March 28, 2018. Instead, it could operate so that returns for companies are only adjusted if that company's return exceeds a certain threshold, at the same time as the sector as a whole performs at that level. A hybrid approach like this would have a mixture of the strengths and weaknesses of the two models they combined. It would reduce the clarity and strength of the incentive framework, but it would also not cause the same risks to financeability as Ofgem's initial anchored returns proposal.

Q46. Is RoRE a suitable metric to base return adjustments on? Are there other metrics that we should consider, and if so why?

420. The current RORE approach is one potentially appropriate measure for adjustments under any fair equity returns framework.

421. Other measures of equity returns, such as accounting returns on book equity, would, however, not be appropriate. These can be distorted by accounting treatments which reasonably differ from regulatory treatments, and so do not reflect long term value to equity. Similarly, profit margins presented without any adjustment or accompanying commentary have the potential to be deeply misleading indicators of profitability; they could therefore not be built into a return adjustment mechanism.

422. In its ongoing tracking of returns over time for annual reporting purposes, Ofgem should also consider return on capital employed (ROCE) as a measure that allows comparisons with other sectors that illustrate the low risk nature of the sector and how consumers benefit from this. ROCE incorporates debt and tax allowances and therefore shows the rate consumers are actually paying under RIIO for asset investments. Analysis of ROCE demonstrates that Ofgem's RIIO-1 round of controls are on track to save consumers a total of £9bn over eight years, thanks to allowing lower financing costs than under the previous five year controls. This material saving for customers - which has arisen as a result of how RIIO-1 was designed - has not been adequately communicated to date.

8. Responses to questions on next steps

423. Paragraphs 130 to 132 above summarise our views on price control procedural timelines but our full responses to the questions below also draw together some of the other issues that we have mentioned throughout this consultation.

Q47. Do you have any views on the interlinkages and interactions outlined in this consultation and those that we will need to consider as we develop our sector-specific proposals?

424. There are many interlinkages and interactions outlined in both the consultation and our response. We do not attempt to repeat these points here and instead refer the reader to our response above.

425. We would, however, highlight the inter-linkages mentioned at above at paragraphs 397 and 398. If Ofgem is to move to CPI indexation, it should be very explicit about how it will make this move neutral to investors, to mitigate the regulatory risk that investors would otherwise face. The current very wide range proposed for the base settlement in relation to asset beta, and some of the proposals for RPE indexation, do not ensure this level of transparency.

Q48. Do you have any views on the issues highlighted that we will consider as we develop our sector-specific proposals?

426. In terms of the cross-cutting issues highlighted by Ofgem, we would make four comments:

a. We note that there are significant differences between the sectors across several dimensions, and Ofgem therefore needs to have enough options within its RIIO-2 framework to select appropriate options for each sector.

b. This applies to any area where comparative benchmarking could be used. This could have implications for fast tracking and IQI design, as Ofgem notes, but also the setting of certain incentive targets, cost benchmarking approaches, and also the setting of cost of debt allowances (where some of Ofgem's options entail benchmarking).

c. In using stakeholder engagement to enhance outcomes, Ofgem must recognise all those areas where stakeholders may lack the necessary expertise or have interests that are not appropriately aligned with those of end-users. This extends well beyond financial estimation, and includes cost assessment generally, assessment of appraisals for specific (major) investments and output target setting. While sometimes regional specific targets will be appropriate, it is unlikely to be in consumers' interests for Ofgem to step back from its role in establishing these.

d. Forecasts beyond RIIO-1 will be of limited value until companies have completed their business planning processes in light of Ofgem's sector specific RIIO-2 strategy decisions.

Ofgem should not create additional administrative costs trying to seek forecasts as part of its annual reporting round.

Q49. Are there any sector-specific issues or policy areas that we should ensure we review and consider as we develop our sector-specific proposals?

427. Ofgem has chosen not to highlight any of the sector specific issues it will consider as part of RIIO-ED1 for electricity distribution. This will include issues such as:

a. The move to a distribution system operator (DSO) role, how this should be structured, and what this will require of electricity distributors, including how interactions with passive embedded networks (IDNOs) and DNO connected private wire networks should be managed.

b. The potential implications of heat and energy decarbonisation, and how to make the price control flexible in the face of uncertainty over the likely pathway.

c. The long term pathway for consumers prices, where issues in electricity distribution are likely to be distinct from other sectors.

d. How to deal with the uneven playing field created by the significant level of additional funding granted to the fast tracked company, WPD, and how to set ensure that other companies are not set targets at ED2 which they cannot reasonably be expected to meet.

428. Looking beyond the RIIO sectors, Ofgem should also consider the role of competition at lower distribution voltages. It is difficult to see how the current IDNO relative price control arrangements are consistent with Ofgem's statutory duties, since the benefits of competition flow to property developers or IDNOs, rather than energy consumers, and are causing upward pressure on prices to energy consumers over time.

Q50. Do you have any views on our high-level proposals for timing of RIIO-2 implementation, and on our proposals for engagement going forward?

429. If Ofgem does move to a five year price control period, it will need to shorten its procedural timetable significantly in future RIIO-rounds (for RIIO-3 onwards).

430. The RIIO-2 process framework started in mid-2017, almost four years before the commencement of RIIO-T2 and RIIO-GD2, and almost six years before the commencement of RIIO-ED2. An identical RIIO-3 timetable would mean starting RIIO-3 almost as soon as any RIIO-T2 and GD2 price control appeals have been settled, and before the RIIO-ED2 price control has actually been set.

431. If moving to five years, Ofgem therefore needs to lighten its own procedures, and ensure that the new business planning procedures it expects companies to adopt are designed to match five year price control periods. Increasing the requirements for business planning, while at the same time shortening the periods over which those business plans are binding, does not make sense.