

Renewing the RIIO Framework

Cadent's response to Ofgem's RIIO-2 Framework Consultation

02 May 2018



Building on the RIIO framework to deliver more for customers

At Cadent, we exist to keep the energy flowing. We own and operate four of the eight Gas Distribution networks serving over 11 million homes, offices and wider UK industry. We operate across the North West, West Midlands, East of England and North London and are the largest Gas Distribution company in the UK employing over 10,000 people across our networks.

Ofgem's RIIO-2 framework consultation is a critical decision point that will not only shape the industry for the next five years but out to 2050 and beyond. As such, the RIIO objectives of encouraging network companies to play a full role in the delivery of a sustainable energy sector and deliver long-term value for money for existing and future consumers are more important than ever.

The key issue that Ofgem must address within this consultation is establishing the correct balance of risk and reward between energy networks and customers. In doing this it is critical that Ofgem balances protection for customers whilst maintaining the strong incentives present in the RIIO framework on companies to continue to take a long term view when managing the networks, driving innovation and efficiency which is to the benefit of those same customers.

We are supporting the introduction of the RORE sharing factor which progressively shares more benefits with customers as a way to achieve this balance, this would represent an innovative way of offering the protections Ofgem are seeking whilst maintaining strong incentives on companies and a stable platform for investors. We set out in more detail in this response how we believe Ofgem can achieve the right balance of risk and reward for networks and current and future customers across a range of areas and summarise our recommendations in the table below.

Our recommendations are built around the following four key messages:

- **The RIIO framework has delivered service quality improvements and efficiency for all of our customers providing a strong platform to build on for RIIO-GD2.** This should be underpinned by enhanced engagement across our diverse customer and stakeholder base reflecting our four regions and ensuring there is legitimacy behind our plans.
- **The biggest challenge facing the UK energy networks is the decarbonisation of heat and transport.** Achieving the UK's 2050 targets in the least cost manner and causing the least disruption to customers will mean the gas networks must play a vital role. The RIIO-2 framework must encourage long term thinking around asset management, innovation and market and regulatory frameworks required to support this transition to deliver the best outcome for customers.
- To secure the substantial investment required in the energy networks, either capital investment or investment in new technologies, and to continue the success of driving innovation, long term efficiency and better service, **networks must be able to achieve attractive but fair returns. These returns should be supported through service quality improvements that are in the interests of, and supported by, our customers.**

■ Finally, **collaboration across the industry will be critical in delivering against the increasing demands of our customers and stakeholders and the 2050 targets for decarbonisation.**

Collaboration allows us to ensure that best practice and innovations are deployed with minimal delay across all network areas, it allows us to work on cross sector and cross network projects to explore new technologies to advance the decarbonisation agenda and for networks to share best practice on all areas improving service, cost and delivery.

The table below summarises our position on the key topics, in the remainder of this executive summary we build on our key messages for RIIO-GD2 and expand our positions below before providing detailed responses to the 50 questions posed by Ofgem in its framework consultation.

Summary of Cadent recommendations

Building on the success of RIIO we support the following changes for RIIO-2:

1. Introduction of an enhanced customer engagement through the Customer Engagement Group (CEG) and RIIO-2 challenge group
2. Introduction of RORE sharing factors that provide a phased sharing of performance with customers (increasing the customer share of outperformance on Totex and output incentives beyond a dead band) to further protect customers and act as a failsafe mechanism
3. Moving to a 5 year control whilst recognising this will limit the efficiency savings possible within RIIO-2
4. Reshaping of the innovation funding mechanism to incorporate innovation in the business plan removing the explicit Network Innovation Allowance (NIA) and reshaping the Network Innovation Competition (NIC) into a cross vector scheme targeted at key industry challenges.
5. Implementing an output framework that includes the material minimum standards in the licence, introducing price control deliverables and an enhanced set of output delivery incentives whilst recognising regional variation in these measures
6. Introducing indexation of Real Price Effects (price movement above or below inflation)
7. Removal of fast track and strengthening the IQI with clear parameters set up front

We support these changes and advocate maintaining the acknowledged world leading features of RIIO including:

1. Maintaining the pioneering approach to cost of debt that has saved customers £2bn over RIIO, the changes discussed in the consultation are a step backwards.
2. Maintaining up front comparative cost assessment utilising historic information that is already available and forecast data incentivised by a strengthened IQI
3. Maintaining the use of absolute delivery targets within control that ensures collaboration between networks and delivers the greatest value for customers
4. Maintaining and enhancing a strong and challenging output delivery incentive package with a RORE range that incentivises innovation and efficiency whilst rewarding delivery of exceptional performance for customers.

The Financial Package:

Critical to the success of the RIIO framework is the financial package that allows networks to earn fair returns and secure the significant investment required in the UK. Our analysis of the current market conditions points to a cost of equity range of 5.5% to 6.3% as evidenced by Oxera¹. This is reflective of the long run historical averages and current observable data in line with previous decisions and reflects the latest Beta analysis by NERA².

It is also critical that the overall package is financeable at the base cost of equity and we therefore do not support the proposals by Ofgem in the consultation that plug a gap (i.e. revenue floors) rather than address underlying financeability of the price control, our view is supported by Moody's analysis³. These issues are fundamental and ensure networks can raise capital efficiently to the benefit of customers and at a time where foreign investment decisions in the UK are marginal, changes such as this could have profound impacts.

RIIO-1 provides a strong platform to build upon

The RIIO framework has delivered service quality and cost efficiency improvements for customers and it is important not to abandon the core principles when setting RIIO-2. The RIIO price control review process simulates competition through the setting of allowances and performance targets based on a robust comparison of all companies' historic and forecast performance. This 'repeat game' process ensures that the benefits shared with customers in RIIO-1 are fully passed to them on an enduring basis at RIIO-2.

RIIO-2 will see network companies raise the bar again for customers. Ofgem will have more information than ever before to support its assessment of historic performance. And by increasing the transparency and the power of the information-revealing devices used in business plan assessment companies will have clear incentives to respond to that will enable Ofgem to deliver significant benefits for customers.

We agree that the framework can be evolved to address Ofgem's concerns around uncertainty and balance of risk between networks and customers. Although an eight year price control in RIIO-1 has delivered significant benefits to customers we understand the attraction of moving back to a 5 year period for RIIO-2 even if it erodes some of these benefits. Likewise we also recognise the strong support from customer representatives for reducing uncertainty on cost forecasts, particularly with regards real price effects. The weight of customer support for these two measures is apparent and hence we are supporting Ofgem's proposed changes within our response.

¹ Oxera (2018): Cost of Equity for RIIO-2, p6

² NERA (2018): Estimating Beta Risk at RIIO GD-2

³ Moody's British energy regulator's proposals would reduce returns for network owners 12 March 2018.

We support the introduction of customer engagement groups and believe these will ensure the customers voice is heard loudly in setting RIIO-2; providing increased assurance that customers and stakeholders have influenced company business plans. We are committed to creating a business plan that is underpinned by real and meaningful engagement with customers and stakeholders from across our four regions ensuring there is a real advocacy for our submission.

On the specific issues covered by the RIIO-2 framework consultation questions:

- **We support the enhanced engagement approach proposed and we are looking to have our Customer Engagement Group (CEG) established within the next three months.** We support the principle of open hearings via the RIIO-2 Challenge group but significant clarification on how they will work is required, this should include the criteria for calling an open hearing, details of the hearing process, clarification on the role of the hearing chair and protocols for maintaining company confidential information.
- **We support maintaining up front comparative cost assessment utilising both historic information and forecast data** that will be provided through the business plans incentivised by a strengthened IQI. We do not see the merit of other changes discussed in the consultation including moving to frontier assessment in benchmarking given the limited number of comparators and therefore weak statistical significance. Similarly the concept of resetting of allowances within period runs counter to the ex-ante principles of RIIO and would introduce unnecessary complexity and volatility.
- **We support the use of information-revealing devices and believe Ofgem should strengthen the IQI to ensure it is a powerful incentive and remove the fast track process.** It is essential that any devices should have clear, comprehensive and transparent rules and guidelines set out upfront that reflect the multiple ownership models and allow networks to respond to the incentives. A single business plan incentive is feasible but given the time constraints in the GD process we believe evolution of the IQI will deliver the desired objective and represents the simplest solution. Finally, we do not believe the fast track process has delivered material benefits to customers and removing it allows more time to ensure the regime is calibrated properly and further stakeholder engagement.
- **We accept moving to a fixed 5 year price control** as the best option within the consultation document. This will limit the efficiency savings possible as significant benefit has been delivered to customers through eight year price controls; in particular we have seen the benefits of the stability this offers in our contracting arrangements and longer term paybacks for innovation projects. We believe that multi tracking is technically complex, will significantly increase the regulatory burden and will distort the overall Totex principles of RIIO meaning it is not feasible or in the interests of customers.
- **We support indexation of RPEs subject to ensuring any index is representative of network costs, workable in practice and on material cost items.** We consider that RIIO-GD1 has worked well in accordance with regulatory principles around RPEs but note this is not the perception of some stakeholders. We believe that the indexation of RPEs may help with the stakeholder acceptability of the RIIO Framework, subject to materiality and making the proposition work in practice.

Ofgem must recognise that there is no credible pathway to decarbonisation without gas

When RIIO-1 was set there was uncertainty over the future role of gas. This was reflected within the framework, with Ofgem introducing a shorter cost benefit analysis payback period for gas investments and providing significantly more innovation funding for electricity projects with £496m available through the network innovation competition compared to £152m for gas projects.

Despite this disparity of funding, RIIO-1 has enabled gas networks to redefine the future role of gas and the wider role it should play in decarbonisation utilising the innovation funding that has been available. As part of this, a study published by KPMG shows that compared to electrification evolving the existing gas networks for secure decarbonisation would realise savings of £200bn, or £10,000 per household, by 2050.

On the back of this study, a range of innovation projects have been undertaken to explore how renewable gas resources can be facilitated and how the networks can be re-purposed to transport lower carbon forms of gas including hydrogen. Cadent-led projects include BioSNG development, CNG Transport connections, HyDeploy, HyNet and Future Billing Methodology. As an industry we have been helping policymakers collect the evidence to assess different energy pathways and chart a strategy for how the lowest cost, sustainable and secure outcome can be delivered for customers. This is critical in protecting all customers but particularly important for those in the most vulnerable situations across our four regions.

Most commentators now accept that gas has a key role to play in delivering Great Britain's decarbonisation targets. This is evident in the number of cross parliamentary groups on topics such as hydrogen and carbon capture and storage. This coupled with increasing acceptance at industry events and within the corridors of Westminster means we must ensure that we continue to incentivise behaviours in the long term interests of customers both within and across the various energy sectors.

Therefore we are supportive of Ofgem's objective of identifying mechanisms to maximise the use of existing network assets to reduce the cost of the total future network investment required for decarbonisation. To build on the momentum under RIIO-1, we also support Ofgem's whole system thinking in the area of innovation recognising that the benefits delivered can be wider than just pure network boundaries, for example a company in one sector could achieve a customer outcome in another network sector. For this to be effective in RIIO-2 whole system must mean cross-sector.

In setting the mechanisms within the RIIO-2 framework, the most critical objective must be ensuring that networks play a full role in the delivery of a sustainable energy sector which delivers long-term value for existing and future consumers. This means driving the right network behaviours of long-term thinking around asset management, collaboration between networks both within and across sectors, innovation not only in technology but also in regulatory regimes and market design to support the energy transition and most importantly attracting the required efficient investment.

On the specific issues covered by the RIIO-2 framework consultation questions:

- **We support reshaping of the innovation funding mechanism to incorporate innovation plans in the business plan removing the explicit NIA allowance.** To ensure the incentives are maintained it is critical that there are strong in-control incentives. This should be delivered through strong and fair efficiency and output incentives where all networks have the realistic opportunity to benefit where they have delivered positive customer outcomes. This approach would deliver a step-change from RIIO-1 in enabling the transition of innovation to business as usual (BAU).
- **We support the recommendation that transformational innovation should be funded through a cross-sector stimulus with heat and transport decarbonisation as a priority.** This should be explicit in recognising that companies in one sector can deliver benefits to customers in another. The funding should be focused on delivering the outcomes customers need from the energy transition of affordable, secure and decarbonised heat, power and transport. The priority for this funding should be on heat and transport given the scale of the challenge and relative success of decarbonising power already.
- **We support Ofgem's objective of identifying mechanisms to maximise the use of existing network assets to reduce the cost of the total future network investment required for decarbonisation.** A study published by KPMG showing that a minimum incremental investment of c. £100bn, or an average of c. £150 investment per year per household highlights the importance of this objective to consumers' long term bills. In the highest cost case, of an all-electric future, these figures are even higher at more than £300bn and £450 respectively.
- **We do not believe that additional mechanisms are required to manage uncertainty.** The proposed changes elsewhere (5 year price control, phased sharing factors within the fair return mechanisms) and existing framework (strong focus on output delivery) mean that the risk to customers is already well managed.

To deliver the investments required, all networks must have the realistic opportunity to achieve attractive, but fair, financial returns linked to the delivery of positive customer outcomes

To achieve decarbonisation significant investment will be needed in the energy networks, with between £100bn and more than £300bn of incremental spend required by 2050. It is therefore critical that Ofgem maintain a stable and predictable regulatory environment to attract the necessary investment within the UK, particularly given the wider economic uncertainty as a result of Brexit.

Ensuring the correct balance of risk and reward between networks and customers is key and this is under more scrutiny than ever given the current social and political context. We believe the increasing scrutiny of energy networks and perception of network returns needs to be addressed and this can be achieved by ensuring that returns are clearly linked to incentives that improve customer outcomes and a clearer articulation of what the RIIO regime delivers for customers. This will allow networks and

Ofgem to clearly demonstrate that returns are linked to the improvements they are delivering for customers.

In this setting the RIIO-2 review is the first test of the strength of the regulatory commitment set out in the RIIO Handbook and it is very important that Ofgem demonstrate this to be a meaningful commitment given the long-term benefits to consumers of regulatory consistency, as was noted by the CMA.

We do not agree with the proposed cost of equity range within the consultation. Whilst we are broadly accepting of the current market conditions affecting the risk free rate, we see little new evidence that supports a significant downward shift in assumptions for total market returns, or in the business risk (as reflected in the Beta assertions) faced by energy networks. Given Ofgem's requirement to ensure an efficient company is able to finance its activities, and licensee obligations to maintain an investment grade credit rating, the baseline allowed revenue scenario must be financeable at the allowed cost of capital.

It is critical that Ofgem maintain a predictable and stable financial package, as this provides the best platform for network companies to innovate and drive enduring cost efficiencies, to the long term benefit of consumers. Financing decisions around capital structures, debt and equity are long term, aligned to the long term nature of the businesses we run and as such regulatory stability over multiple price controls is critical in not undermining this confidence.

Building on the core financial package it is also important that there is a strong and challenging output delivery incentive package to reward networks and shareholders for delivering exceptional customer outcomes. Output delivery incentives have delivered significant benefits to customers in RIIO-1 with improvements in a range of areas including customer satisfaction, complaints handling performance, stakeholder engagement, emissions reductions and network demand management. We believe that these incentives should be challenging with targets set upfront giving all networks the opportunity to earn a return for delivering great customer outcomes. The scale of these incentives is a key question as this drives so many of the outcomes in a price control. We note that Ofwat have outlined a RORE range that would enable networks to earn a reward of up to 500bps for exceptional performance. Whilst there are differences between water and energy sectors and the underlying framework the importance placed on output incentives is clear.

On the specific issues:

- **We support Ofgem's position that their pioneering approach to debt indexation has worked well in RIIO-1 saving customers £2bn over the period.** Therefore we strongly support option A within the framework consultation to re-calibrate the RIIO-1 indexation policy, as the most logical evolution for cost of debt in RIIO-2, and the option that is likely to drive best value for consumers in the long-term. We consider that the other options presented dis-incentivise efficient debt issuance and represent a step backwards in an area that Ofgem have been leading the way. This has been a significant principle of previous price controls and we see no material reason to change.
- **Our analysis suggests a cost of equity range of 5.5% to 6.3% as articulated by Oxera.** This is reflective of the long run historical averages and current observable data in line with previous

decisions. This is consistent with the CEPA view within the recent Hinckley Seabank consultation that 'Historic returns are most suitable for long-term investments where investments are being made on a rolling basis'. We believe this is the most appropriate way of determining a range as it is reflective of the long term nature of network businesses and the scale of investment that requires funding.

- **Updated econometric analysis by NERA does not indicate reductions to equity beta.** The UKRN report suggests that a range of 0.3 – 0.5 for equity beta is econometrically defensible when applying the GARCH technique. However, NERA find that this outcome is more driven by the use of inappropriately long time frames, and unorthodox data frequencies rather than the GARCH approach itself. Indeed they find that GARCH and the traditional OLS approach bear similar results when using the same assumptions.
- **The requirement for Ofgem to ensure an efficient company is able to finance its activities remains a fundamental element of the regulators duties,** including the primary duty to customers. Given the benefits to customers of regulatory consistency and hence a low cost of capital environment, the onus for ensuring financeability of the notional efficient company lies with the regulator and not the company. The proposed solutions to overcome potential financeability concerns are not adequate and simply bring forward revenue thus creating issues in future controls. The need for devices such as a revenue floor would impact credit ratings and the ability of networks to efficiently finance themselves which is to the detriment of customers.
- **We support maintaining and enhancing a strong and challenging output delivery incentive package** that rewards networks for delivering exceptional customer outcomes with a RORE range that incentivises innovation and efficiency whilst rewarding delivery of exceptional performance for customers.. We also support including minimum expected standards within the licence, the inclusion of price control deliverables and output delivery incentives to reward improved customer outcomes whilst recognising regional variation in these measures.

Long-term thinking and collaboration across the industry will be critical in responding to the evolving needs of our customers and stakeholders and delivering 2050 decarbonisation targets

Collaboration, long-term thinking and innovation are important and must be retained for RIIO-2. The RIIO framework already simulates competition through the process of setting the allowances and performance targets that become a company's contract with their customers. Networks then have absolute targets, based on upper quartile performance levels, which they must achieve and the regulatory framework sets out the rewards and penalties that will be applied if they out or under-perform against the targets in the contract.

This is similar to many competitive industries, such as construction, where there would be a tender process, with the key criteria set through enhanced engagement with the customer, and once the contract was set the company would only be competing against the agreed targets, for example a reward for early, or penalty for late, delivery. This approach, whilst making network companies

compete during the price control review process, fosters a culture of collaboration during the period to ensure that any innovations or best practices developed by one company can be shared with another so that all energy customers can receive improved outcomes.

Collaboration in RIIO-1 has delivered great outcomes for customers. We have collaborated with other networks across sectors on innovation projects and best practice sharing across all the customer output measures. Examples of this include developing customer safeguarding protocols and also in proactively supporting them to support their customers during emergencies. A recent example is a gas incident in West Yorkshire where 3,500 customers were impacted and all four gas distribution companies collaborated as a united industry to minimise the impact on this community. We provide further examples in the appendix under question 19.

Collaboration like this would not occur if a company could only 'win' if another 'lost'. Applying retail-type competition to infrastructure ownership would drive undesired behaviours from networks and poor outcomes for customers as has been seen in some of the challenges being experienced through the Energy Company Obligation (ECO) scheme and smart metering roll-out.

Our proposal to maintain collaboration and the power of incentives driving great outcomes for customers is to introduce the RORE sharing factor. This introduces phased customer sharing factors that return more benefits to customers as networks reach the top of an expected range for efficiency and output incentive performance. This will address the challenges around balance of risk and reward between networks and consumers within the RIIO framework and allows the uncertainty Ofgem are concerned about to be managed in a simple and transparent way. This will also give networks a clear ex-ante understanding of the cost benefit trade off of actions they take to deliver great outcomes for customers.

Some of the other 'failsafe' options proposed, including the anchoring of returns, are ex-post interventionist mechanisms that will destroy this collaborative culture. These options should not be considered, especially if set at a sectoral level, as they will also introduce increased uncertainty and risk for networks, with their returns being outside of their control, as well as increasing the regulatory burden for all parties. They will increase the volatility of customer bills and make them harder to predict. The power of upfront and within-control incentives for companies to drive cost efficiencies and performance improvements will be weakened and the benefits for customers will be reduced. They will also drive companies away from the desired behaviours of long term thinking, proactive anticipation of future customers' needs, whole system thinking, innovation and collaboration. We note that our view has been strongly supported at Ofgem's stakeholder and investor workshops which have had good representation from across the broad spectrum of interested stakeholders.

We also believe that the introduction of relative, zero sum, fixed pot or annual resets for incentives would deliver a poor outcome for customers. Any mechanisms would need to be very carefully calibrated, adjusted for company size, set at a company level rather than network and have externally auditable and comparable data. These considerations will add significant complexity to the framework and increase the overall risk to investors which should in turn be reflected in the baseline returns.

In addition to the technical challenges this would drive undesired company behaviours where networks would not collaborate or share best practice as they need others to lose to ensure they win. An over -

arching principle for any network regulatory framework must be to encourage better service for all customers. Creating a framework that forces a distribution of winners and losers amongst companies would also do the same for customers.

On the specific issues:

- **We support the inclusion of RoRE sharing factors to provide a failsafe mechanism on Totex and output incentive performance.** To ensure that it supports the delivery of what customers want and need Ofgem must ensure that it is calibrated correctly. The existing tools and mechanisms within RIIO can be evolved to improve the framework and deliver against Ofgem's objectives for RIIO-2; however the RoRE Sharing Factor could complement these enhancements.
- **We do not support the introduction of relative, zero sum, fixed pot or sectoral annual resets for incentives as this would deliver a poor outcome for customers.** This would introduce unnecessary complexity and drive undesired company behaviours where networks would not collaborate or share best practice as they need others to lose to ensure they win. An over-arching principle for any network regulatory framework must be to encourage better service for all customers.

We are committed to working with Ofgem to ensure the RIIO-2 framework delivers for existing and future customers. The RIIO framework can be evolved to address the changes in the external landscape seen since the beginning of RIIO-1 and be able to respond to a wide-range of future developments that may occur during the RIIO-2. We set out our detailed responses to Ofgem's 50 questions, along with our views on how RIIO can be evolved, in the annex to this document.

Annex

Responses to Ofgem's 50 questions

Giving consumers a stronger voice

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

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

Cadent supports the enhanced engagement approach Ofgem is taking and completely agree that stakeholders and consumers should be at the heart of the way energy companies run their businesses. We are not opposed to Ofgem's proposal to hold open hearings and believe that a working group should be established to develop this area further.

Throughout RIIO-1, Ofgem have been successful in encouraging companies to engage with Stakeholders in the preparation of Business Plans and through incentives such as the Stakeholder Engagement Incentive Submissions (SEIS), Customer Satisfaction and Complaints handling.

In RIIO-GD2, we believe that engagement should be widened to secure a representative sample of our customer base. Along with hard to reach customers, future customers and communities, it should include our Industrial & Commercial (I&C) customers as well, who in Cadent's North West network account for over 40% of total demand.

Cadent is already looking to establish a Consumer Engagement Group (CEG) within the next three months and looking at how we will apply this to our RIIO-GD2 business plan process whilst noting that energy networks are different to water companies who have a direct relationship with their customers through their retail businesses.

Cadent do not object to Ofgem's proposal to hold open hearings once Ofgem are in receipt of the Business Plan, the CEG report and the report from the RIIO-2 Challenge Group.

We would like to understand how the open hearing would work in practice along with the governance framework that would support the process. Further consideration will need to be given to areas including but not limited to:

- The reasons/factors that need to be met in order to proceed to an open hearing;
- The handling and publication of confidential information – would there be in option to proceed in private?
- The order of proceedings;
- Would Ofgem Chair the hearing, or would the Chair be independent?

- Would there be the opportunity to bring areas of contention between companies, Chairs of various groups and Ofgem to open hearings?

Ofgem should establish a working group as soon as possible to develop the proposals in this area.

Collaboration, long-term thinking and innovation are important and must be retained for RIIO-2. The RIIO framework already simulates competition through the process of setting the allowances and performance targets that become a company's contract with their customers. Networks then have absolute targets, based on upper quartile performance levels, which they must achieve and the regulatory framework sets out the rewards and penalties that will be applied if they out or under-perform against the targets in the contract.

Responding to changes in how networks are used

Length of price control

2. 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?

We accept moving to a fixed five year price control as the best option within the consultation document. This will limit the efficiency savings possible as significant benefit has been delivered to customers through eight year price controls; in particular we have seen the benefits of the stability this offers in our contracting arrangements and longer term paybacks for innovation projects.

We believe that multi tracking, whilst attractive in principle will not be workable in practice as it is technically complex, will significantly increase the regulatory burden and will distort the overall Totex principles of RIIO meaning it is not in the interests of customers. The distortion of Totex could introduce perverse incentives on companies to move costs between categories or alter phasing of work which is clearly not in the interests of customers.

At the Open Letter phase we set out our support for the continued use of eight year controls as this is in the best interests of customers. This is because a longer term control provides stability and certainty to networks that in turn encourages longer term thinking aligned to the long term nature of the businesses and leads to better customer outcomes.

For example within Repex, the certainty of work over a longer period enabled us to let longer contracts which, especially when coupled with the new risk removed approach, helped us realise significant benefits beyond those that would have been realised in a shorter control. These contracts have locked in benefits for customers and will have protected them from price increases over the eight years of RIIO.

For innovation, the eight year duration, enabled a wider-range of projects to be planned, developed, tested and embedded than would have been possible in five years.

Whilst both of these areas have benefitted from longer allowances in RIIO-1 these benefits are unlikely to be replicated in RIIO-2.

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

All cost categories should be set over the same duration.

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

The proposal to set different durations for different cost categories would add complexity and the interactions between long and short term allowances could drive unintended behaviours.

This will increase the regulatory burden significantly, on both Ofgem and Networks, though increased complexity of the price control mechanics and effectively introducing another round of price controls (renew after five and then eight years). Some of the considerations that would need to be addressed include how to:

- Reset the sharing factor for some, or all, allowances after five years;
- Mitigate any incentives to move expenditure between cost categories if there are different sharing factors;
- Maintain an effective and efficient Totex approach whilst using discrete allowances;
- Ensure that the resetting of the sharing factor for some, or all, allowances does not drive undesired decisions on the phasing of work; and
- Make sure that companies' can still innovate between cost categories set over different durations.

These issues would significantly distort the Totex incentive principles which are a fundamental element of RIIO and would be to the detriment of current and future customers.

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

Incentives have successfully been used during previous price controls to drive network behaviours that are aligned with customers' requirements. Examples from the current gas distribution control include the Totex efficiency incentive, which has driven forecast reductions in customer bills of 9%, and the stakeholder incentive which has led to a step change in networks engagement.

Therefore incentives that encourage long-term thinking should be used across all RIIO-2 price controls. This is particularly important where a shorter control period is set especially against the backdrop of the energy transition and the innovation that will be required to deliver a decarbonised whole energy system.

The framework should, therefore, have incentives that recognise and reward the delivery of long-term consumer benefits. Where it is clear that the benefits will span more than one price control Ofgem could explore alternative payment methods, to ensure inter-generational fairness, including adding reward payments to a company's RAV which would ensure that the customers that receive the benefit pay for it.

Tools such as the roller mechanism used on shrinkage and the environmental emissions incentive have also been successful in recognising the enduring long-term nature of the benefits that networks can deliver for customers. So their wider-use should be explored.

To deliver long-term thinking, Ofgem must avoid incentives that drive short term, reactionary and insular behaviours, which would for example be an effect of introducing within-control relative mechanisms. These mechanisms, including the annual reset of allowances and incentive targets at a sector level, the use of zero sum or fixed pot incentives and introducing a 'failsafe' set at sector level, do not enable long-term planning and would have companies focusing on their 'competitors' next move rather than customers long-term requirements.

Do you instead support the option of retaining eight-year price controls with a more extensive Mid-Period Review (MPR)?

We do not support an eight year control with an extensive mid period review, and agree with Ofgem's assertion that this would introduce additional risk and uncertainty to the detriment of customers.

As discussed above we believe that a longer price control increases stability and certainly to the overall benefit of customers. An eight year control with an expanded mid period review would essentially represent a four plus four year price control which is not in the interests of customers.

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?

A more extensive MPR would reduce the stability of the framework and increase uncertainty for customers and networks which is likely to drive shorter term thinking. It would increase risk on networks and is likely to stifle innovation.

There would also be an increased resource burden for Ofgem, networks and stakeholders attached to a more extensive MPR. The impact of this could be felt greatest if Ofgem were to undertake one for RIIO-ED2 whilst developing RIIO-3.

This is similar to many competitive industries, such as construction, where there would be a tender process, with the key criteria set through enhanced engagement with the customer, and once the contract was set the company would only be competing against the agreed targets, for example a reward for early, or penalty for late, delivery. This approach, whilst making network companies compete during the price control review process, fosters a culture of collaboration during the period to ensure that any innovations or best practices developed by one company can be shared with another so that all energy customers can receive improved outcomes.

Whole system outcomes

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

Cross-sector interactions can be sufficiently managed through incentives and collaboration so alignment may not be required in the short term. Some new flexibility may be required to support cross-sector solutions.

Incentives for collaboration may be required to enable networks to prioritise and deliver successes at pace. Whilst both sides may benefit from an initiative, there is likely to be one that benefits the most, with the other network therefore less inclined to match the commitments and resourcing.

Flexibility should be considered to enable electricity consumers to fund gas solutions and vice versa e.g. taking gas out of a Multiple Occupancy Building, or installing gas fuel cells or CHP to address EDNO constraint. Ofgem should consider least cost to overall energy consumers not gas and electricity separately.

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

We support an overall regulatory timetable and process that maximises the benefits to consumers by enabling a true whole energy system approach across gas and electricity, and distribution and transmission.

If aligning price controls, or other structural options are a significant enabler to achieve this, then Ofgem should take the necessary steps.

- 5. 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?**
- a. Are there any implementation limits to this definition?**

A meaningful whole system approach must be cross sector and include gas and electricity, and transmission and distribution to maximise the value from all energy networks and deliver the most efficient solutions.

Consumers and stakeholders generally desire energy solutions, not gas or electric, or distribution or transmission. They may have a default energy source, but should that be unobtainable, either on cost of timescales, then the alternative energy source is turned to. Where new electricity capacity cannot be accessed, the "Plan B" source of power is more often than not connected to the gas grid.

There is an increasing recognition amongst regional stakeholders that a full energy system plan is critical to supporting the long term ambitions of the region. Manchester is a great example of this, where the environmental and economic ambition is clear, and to achieve this they have made the development of a whole energy system plan a top priority; including electricity, gas, heat, transport and waste. The regulatory framework must facilitate this thinking and enable the funding for investments where appropriate. Investments could well be required within the RIIO-2 timescales, rather than longer term.

We note the stated intention that the detailed thinking on a whole system approach will be contained in the sector specific consultations. We believe the discussion and principles must be explored initially at the sector neutral stage to be meaningful as whole system should be cross sector.

We struggle to see how the pros and cons of a whole system approach can be discussed independently in an electricity or gas consultation. This can be overcome in a variety of ways, for example through cross sector working groups with joint or coordinated customer engagement on the issues and opportunities identified. It would also be helpful for Ofgem to publish their thinking in a single document which can be referenced from the sector specific reports.

Our recommendation for focus areas, arising from current issues, is the "dash for gas" in the form of engines and CHPs. These are required to support the electricity grid, or driven by lack of electricity grid capacity. This latter point is likely to increase in importance as the electricity networks becomes increasingly intensively utilised at the local levels, making access much harder to the significant new loads, vital for economic growth.

A further focus area would be where combined solutions across sectors could be more efficient e.g. gas CHP for a district heating scheme could also support the local electricity grid.

System Operator price controls

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

This is consistent with the principles of the SO and TO, however we would urge an overall view on whether the benefits of these changes are sufficient to justify a further step change in the level of complexity in the regulatory and market arrangements. The benefit for customers should be clear.

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

No comment.

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

No comment.

Network utilisation, stranding and investment risk

9. 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?

The current and proposed RIIO framework effectively incentivises companies to control costs through time in line with customer requirements. Despite changes in demand and technology there is a clear long term need for the gas network to deliver low carbon, low cost energy. As such further considerations are not required.

The proposed RIIO framework is rooted in customer engagement and scrutiny. Companies are already incentivised to produce efficient investment plans based on robust options evaluation, including innovative approaches, and good contracting practises. The move to a five year control also shortens the horizon over which companies will submit their plans, reducing uncertainty.

Companies must take into account changing demands and technology in their planning approach. Future scenarios are uncertain, but not un-mapped. That is to say, although government have not yet produced a future heat position many scenarios have been considered and can be factored into company business plans. Our analysis is clear: the gas network is required in the long term for decarbonisation of heat: demand and technology risk is minimal in the 2021 -26 period.

In addition, Ofgem needs to be mindful that any further intervention to defer costs in the short term because of perceived uncertainty will have impacts on current service. We need to make asset investments now to deliver a safe and reliable service to today's customer. The majority of our interventions are low cost (high volume) and spread throughout the communities we serve. For example: replacing emergency control valves and services at individual properties, the pipelines in residential streets or the pressure regulation assets serving local communities.

If Ofgem mandated the deferral of investment due to a perceived risk of underutilisation, whole life costs are likely to rise. We would increase Opex in the short term to try and maintain service, but would still have to pay capex bill in later periods. Deferring investment due to perceived uncertainty with regards to the future of the gas network is unlikely to be the least worst regrets approach and would result in a net increase in customer bills through time.

As such we maintain that risk to consumers of 'paying for costly (gas distribution) assets which may not be needed in the future' is small and that the current RIIO mechanisms already protect consumers from inefficient investment.

End-use Energy Efficiency

10. 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?

We support Ofgem's objective of identifying mechanisms to maximise the use of existing network assets to reduce the future investment in energy networks. Gas distribution network companies are well placed to undertake a wider role in encouraging a reduction in energy use by consumers in our regions.

We have already undertaken a piece of work which has identified the extent to which increasing the energy efficiency of 'off-gas grid' homes across our regions would reduce the number of households living in fuel poverty within the communities we serve. This work can be broadened to include non-domestic properties, 'on-gas grid' properties and to consider the impact of this approach not only upon reducing fuel poverty but also reducing demand, and therefore investment requirements, on the gas and electricity networks in our regions.

We support Ofgem's objective of identifying mechanisms to maximise the use of existing network assets to reduce the cost of the total future network investment required for decarbonisation. A study published by KPMG⁴ showing that a minimum incremental investment of c.£100bn, or an average of c.£150 investment per year per household, highlights the importance of this objective to consumers' long term bills. In the highest cost case, of an all-electric future, these figures are even higher at more than £300bn and £450 respectively.

As such, this objective is a key theme in our thinking on how the regulatory framework should be renewed for RIIO-2 and we have signposted a number of approaches to support this elsewhere in our response, including:

- Innovation mechanisms to enable the research and development of technology to exploit the wider potential of the gas network in delivering the lowest cost decarbonisation of heat, power and transport; and
- Incentives to drive the most effective and innovative management of existing assets on one network to mitigate the need for investment on another network.

In this section we will consider how networks could encourage the reduction in end-use energy demand through demand-side measures and in-home or business energy efficiency measures such as offering energy efficiency advice when in the home, raising awareness of the Priority Services Register (PSR) or carrying out appliance replacement.

Demand-side measures

Networks already offer demand-side products to incentivise consumers to turn up, turn down, shift or permanently reduce their energy demand. At Cadent, we have tendered for large users to take interruptible contracts that mean they will reduce their demand at times of constraint on our network or when gas supplies are stretched. However, these have had limited take up to date as many users are not maintaining secondary fuel sources due to cost and emissions impacts.

The RIIO-2 price control review presents an opportunity for networks to work with Ofgem and the wider market to review existing arrangements, assess their alignment with other products in the market – including through suppliers, and understand what demand-side products or incentives would be attractive to, and see a greater take up from, consumers.

This may currently be more relevant to electricity networks, due to the existing constraints being seen, however with new sources of embedded gas on the network and new demand for gas, including compressed natural gas for HGVs, there could be a growing requirement to manage local constraints on the gas network in the latter years of RIIO-2.

It is currently difficult to assess the potential scale of impact on our network but as an example the avoidance of one large reinforcement project could save up to £10m.

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<https://www.energynetworks.org/assets/files/gas/futures/KPMG%20Future%20of%20Gas%20Main%20report%20plus%20appendices%20FINAL.pdf>

End-use energy efficiency measures

As mentioned in Ofgem's framework consultation, BEIS is currently exploring a range of potential solutions for energy efficiency investment. As such, Ofgem's call to understand what role network companies can take in RIIO-2 to encourage a reduction in energy use by consumers is timely.

The main existing end-use energy efficiency programme is the supplier-led Energy Company Obligation (ECO), which has delivered two million insulation heating measures since 2013, primarily cavity wall insulation as well as boiler upgrades. However, Ofgem, in their response to BEIS's consultation on building a market for energy efficiency, have stated a need to review the role of energy suppliers as the primary route in funding and delivering low-carbon support mechanisms, including the ECO. Ofgem outline that the current arrangements incentivise suppliers to minimise the short term cost of meeting the obligations rather than deliver the best long-term value.

Since 2008 the gas distribution networks (GDNs) have had targets to tackle fuel poverty by delivering more energy efficient homes, through the provisions of gas connections which have provided these households with the ability to make informed energy-use decisions. To date GDNs have delivered almost 100,000 fuel poor connections.

We have already been working with stakeholders and specialists in behavioural economics to identify how GDNs could more effectively tackle fuel poverty in RIIO-2. Our work to date has identified a strong link between the Energy Performance Certificate (EPC) of a property and the likelihood of the household living their being in fuel poverty. Our evidence shows that, at the extreme, households living in a G rated property are 46 times more likely to be living in fuel poverty than a household living in an A rated property.

As such, we are developing a proposal for a RIIO-GD2 output that enables us to utilise a 'fuel poor voucher' in the most efficient way to improve the EPC rating of off gas grid properties, which may not always be through a gas connection.

Whilst our work to date has been focused on tackling fuel poverty it is well aligned with delivering end-use energy efficiency across all consumers, such as offering energy efficiency advice or carrying out appliance replacement.

We would be well placed to expand our role in this way as we already enter around 400,000 customers' properties every year, through emergency situations where our workforce are seen as trusted advisers. We are also independent from the supply market so consumers would be assured that we have no incentives to increase their usage or sell other products to them which could support increased take-up of end-use energy efficiency measures. Combining tackling fuel poverty with delivery of end use energy efficiency could see a truly effective, least disruption, whole house solution delivered to consumers.

Our 'The Future of Gas: Domestic Heat' publication⁵ outlines the scale of opportunity from delivering energy efficiency measures, including from through replacing existing boilers with A-rated condensing boilers, installing Smart enabled thermostats and providing solid wall insulation.

We will continue to develop our thinking with stakeholders on how we can support the reduction in end use by consumers and look forward to discussing further with Ofgem during the sector-specific strategy stage of the RIIO-2 price control review.

We also look forward to discussing further how networks can support customers in vulnerable situations and those that find themselves in fuel poverty. It is important that any end-use efficiency measures developed are aligned with fuel poverty solutions to maximise the benefits for customers in vulnerable situations whilst also improving overall building energy efficiency.

Driving innovation and efficiency

Innovation

11. 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?

We support Ofgem's proposal to retain dedicated innovation funding in RIIO-2. There should be:

- *A large cross-sector fund, evolving the NIC, to deliver transformational innovation in decarbonising heat, power and transport;*
- *Network funding to support the testing, demonstration and roll-out of third party transformational innovations;*
- *Small company-specific allowances delivered through the business plan to deliver low Technology Readiness Level research and development projects which might not otherwise be delivered;*
- *Strong Totex and Output Delivery Incentives to reward the transition of non-transformational innovation to business as usual; and*
- *Avoidance of mechanisms that will discourage innovation and collaboration.*

We support Ofgem's objective to foster a culture in network companies where innovation becomes business as usual (BAU) over time. Ofgem has been consistent with this objective, and their direction that any innovation stimulus would be time-limited, since designing the RIIO framework. Whilst the time is not right to remove all dedicated funding a step change in this transition can be delivered in RIIO-2.

⁵ [https://cadentgas.com/getattachment/About-us/The-future-role-of-gas/Doc-promo-Domestic-heat/Cadent Gas - Domestic Heat.pdf](https://cadentgas.com/getattachment/About-us/The-future-role-of-gas/Doc-promo-Domestic-heat/Cadent_Gas_-_Domestic_Heat.pdf)

Moving innovation towards BAU does, however, increase the risk for networks so care must be taken to ensure the rest of the RIIO-2 package is balanced to enable this transition.

By the very nature of innovation, not all projects will be successful, so to support the transition to BAU networks need rewards for innovating that recognise the risk that they take and the costs they'll incur; central to this in RIIO-2 will be access to strong Totex and Output incentives.

As well as including incentives to drive innovation Ofgem must seek to avoid the introduction of mechanisms which add further uncertainty or risk and therefore discourage innovation. As an example, the sectoral anchoring of returns will create significant uncertainty for networks which could lead them to not pursuing the higher risk projects which could deliver greater benefits for customers. The table below outlines how some other options being considered within the framework consultation could impact innovation in RIIO-2.

Figure 11.1: Impact of RIIO-2 options upon the transition of network innovation to business as usual

Option	Impact on innovation
Shortening length of the price control	Shortens payback period for any innovations.
Network utilisation, stranding and investment risk	Increases risk on investors, so they may be unable to bear more risk through funding innovation.
Output licence obligations	Could restrict networks ability to innovate in their delivery.
Relative performance and zero sum incentives	Would introduce further uncertainty as to whether investments in innovation would be repaid, thus increasing risk.
Annual reset of absolute incentive targets and Totex allowances	Innovation would need to pay back within a year to be considered, as benefit would be lost through reset process – unless incentive regime recognises enduring benefits. This would limit innovation to small projects and discourage higher risk projects which could deliver greater customer benefits.
Introducing an ex-post 'failsafe' mechanism	Would introduce further uncertainty as to whether investments in innovation would be repaid, thus increasing risk for investors.

As such, the scale of dedicated innovation that will be needed in RIIO-2 will be dependent upon the strength of incentives on offer and the number of options pursued elsewhere in the framework that will add uncertainty or risk, shorten payback periods and remove collaboration.

Our responses to questions 12 to 15 will discuss our proposals in more detail.

12. 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
- iii. Increased third party engagement and (including potentially exploring direct access to RIIO innovation funding)

We agree with Ofgem's three broad areas of reform and that:

- i. A large cross-sector fund, evolving the NIC, should be used to deliver transformational innovation against the critical customer outcomes of decarbonised heat, power and transport. This funding should recognise the priority in heat and transport given the significant progress made in decarbonising power in RIIO-1;*
- ii. There should be greater engagement around, and understanding of, how RIIO-2 innovation fits in to wider public sector funding whilst maintaining the independence of the fund; and*
- iii. It is in customers' interests for third parties to have direct access to RIIO innovation funding, but network companies must not take on any additional obligations or risks as a result of this and should receive supporting allowances where testing or demonstration on their network is required.*

We are supportive of Ofgem's proposal for a stimulus for transformational innovation in RIIO-2 and agree with the three areas of reform set out in the consultation. The funding should be cross-sector, i.e. not gas or electricity specific, and focused on the key critical energy transition outcomes required by consumers of decarbonised heat, power and transport.

We support Ofgem's whole system thinking in the area of innovation recognising that the benefits delivered can be wider than just pure network boundaries, for example a company in one sector could achieve a customer outcome in another network sector. The stimulus should also enable innovation around markets and regulation, as this will be vital in enabling the roll out of transformational technology.

As a minimum the current value of gas and electricity NIC funds should be combined, however with the scale of the decarbonisation challenge that faces Great Britain Ofgem should consider increasing it and prioritise it towards heat and transport.

We agree that it is in consumer and tax payers' interests for Ofgem to work with other bodies to discuss the coordination, or alternatively the intentional lack of coordination, between RIIO and other public sector innovation. As a minimum there should be a joint policy statement across Ofgem and the relevant other public bodies setting out who is funding what and how all of the funding fits together. This would ensure that all key energy policy makers are engaging on how best to deliver decarbonisation.

We are supportive of the principle that third parties should be able to access RIIO innovation funding. However, Ofgem should manage this direct with the third party and network companies should bear no risk, responsibilities or licence obligations where this is the case. Where third parties need to test or

demonstrate their innovations on a network the relevant companies should receive supporting allowances.

13. 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?

The key issues in exploring the three areas for reform are:

- i. *How to mitigate existing funding bias towards electricity solutions in delivering transformational innovation on the critical customer energy outcomes of decarbonised heat, power and transport. The decarbonisation of heat poses the largest challenge, potential for greatest disruption and the highest likely long term cost for customers if the wrong solution is selected. As such, the largest share of innovation funding in RIIO-2 should be focused on this;*
- ii. *Understanding what funding is available, from where and how it aims to drive innovation against different energy outcomes. As well as seeking coordination between funds where possible whilst maintaining the independence of Ofgem's RIIO innovation funding; and*
- iii. *Finding the right balance between consumer protections and the benefits that encouraging new ideas from outside of the energy networks would deliver whilst avoiding placing additional obligations or risks on network companies.*

To mitigate the bias towards certain types of innovation or technology, the funding should be cross-sector and focused on the outcomes that consumers need from the energy industry of the least cost pathway to decarbonised heat, power and transport.

Figure 13.1: Areas where gas networks can support transformational innovation in RIIO-2

Heat	Power	Transport
<ul style="list-style-type: none"> Identify further new sources of low or zero carbon gas Further demonstrate the potential for Biomethane, BioSNG, Hydrogen blending and Hydrogen 	<ul style="list-style-type: none"> Using the gas network to mitigate constraints, and the need for investment, on the electricity network 	<ul style="list-style-type: none"> Demonstrate the capability of the gas network to support filling stations for hydrogen fuel cell vehicles

Historic bias towards certain types of innovation and technology can be seen through the longer duration and larger scale of innovation funding for electricity networks seen to date, as shown in the table below⁶.

Figure 13.2: Low carbon network fund and network innovation funding

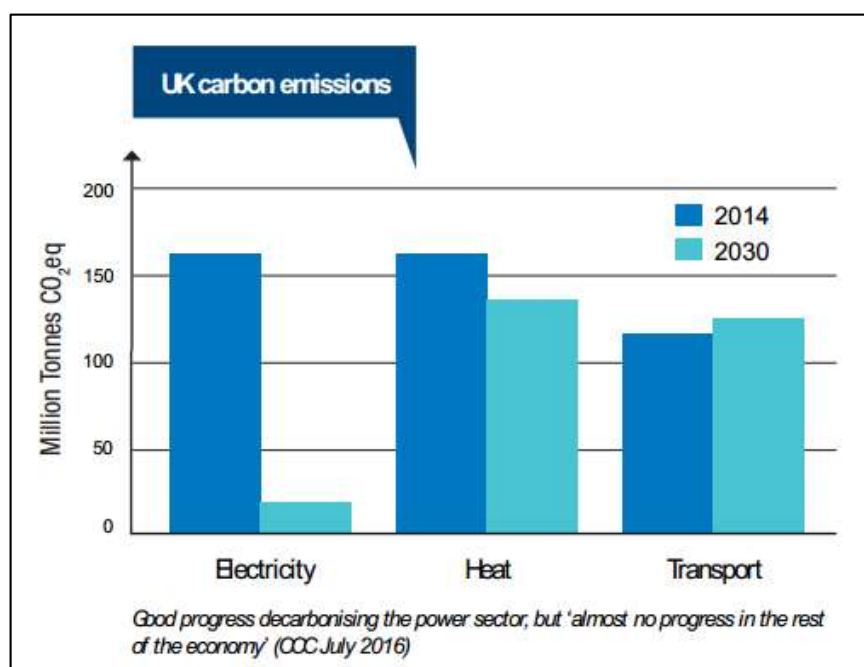
Year	Electricity Network Innovation Funding		Gas Network Innovation Funding
	Low Carbon Networks fund	Network Innovation Competition	Network Innovation Competition
2010	£500m	n/a	n/a
2011			
2012			
2013		£27m	£18m
2014		£27m	£18m
2015	n/a	£81m	£18m
2016		£81m	£18m
2017		£70m	£20m
2018		£70m	£20m
2019		£70m	£20m
2020		£70m	£20m
Total	£996m		£152m

This bias reflected the industry uncertainty regarding the future of gas at the time the DPCR5 and then the RIIO-1 controls were set. This focus on electricity has resulted in significant developments in the decarbonisation of power during RIIO-1 but limited progress in the decarbonisation of heat and transport.

The decarbonisation of heat poses the largest challenge, potential for greatest disruption and the highest likely long term cost for customers if the wrong solution is selected. As such, the large st share of innovation funding in RIIO-2 should be focused on this.

⁶ Table excludes Network Innovation Allowance funding in RIIO-1 of between 0.5% and 1% of revenue for each gas and electricity network.

Figure 13.3: Progress in decarbonising power, heat and transport



A challenge, and opportunity, for Ofgem in coordinating RIIO and other public sector innovation funding is that the Department for Business, Energy and Industrial Strategy (BEIS) may be focused on issues or technologies aligned to the government's policies, which could change following a general election. As an independent regulator Ofgem should consider all options and not show bias towards any technologies. To support the alignment of funding BEIS could play a role in setting some, but not necessarily all, of the criteria for Ofgem's annual competition or contribute to the assessment of bids for this transformational innovation funding.

The benefits of increased third-party engagement are being able to draw on a broader range of thinking for ideas, including bringing ideas from other industries and bringing new and different ways of thinking that are separate to just the operation of the network.

Some of the challenges associated with driving increased third-party engagement and access to funding that will need to be considered are how to:

- Ensure there are adequate consumer protections in place;
- Ensure that no requirements, responsibilities or risks sit with network companies from Ofgem's decision to award funding to a third party;
- Collect funds from customers for Ofgem to issue to third-parties;
- Attract commercial third parties when under current rules they will not own the intellectual property (IP) from any innovations and therefore not be able to make money from them;
- Funding the testing or demonstration of third party innovations on networks;
- Fund the roll out of third party innovations where they would be disruptive to network company operations; and
- Fund the demonstration, testing or roll out of third party developed innovations for network operations.

14. What form could the innovation funding take?

- What would be the advantages and disadvantages of various approaches?

For RIIO-2 there should be:

- *A large cross-sector fund, evolving the NIC, to deliver transformational innovation in decarbonising heat, power and transport;*
- *Network funding to support the testing, demonstration and roll-out of third party transformational innovations;*
- *Small company-specific allowances to deliver low Technology Readiness Level research and development projects which might not otherwise be delivered; and*
- *Strong Totex and Output Delivery Incentives to reward the transition of non-transformational innovation to business as usual.*

Transformational Innovation

Transformational innovation should be funded through a cross-sector stimulus, with third party access, which recognises that companies in one sector can deliver benefits to customers in another – for example a power to gas project which could demonstrate how utilising the gas network could mitigate constraints, and the need to curtail renewable generation, in electricity. The funding should be focused on delivering the outcomes customers need from the energy transition of affordable, secure and decarbonised heat, power and transport.

The funding for transformational innovation should reflect the customer value that is at stake, of between £100bn and >£300bn of incremental investment, and should be at least the equivalent of the current gas and electricity network innovation competitions (NICs) combined. The largest portion of funding must be towards heat as this area poses the largest challenge, greatest potential for disruption and the highest likely long term cost for customers if the wrong solution is selected.

As the benefits of transformational innovation will be spread across all energy consumers, likewise the funding should be collected from across all consumers. Network companies and third parties can then submit applications through a periodic competitive process to access the funding.

Low technology readiness level research and development

Networks should be able to propose allowances within their business plans for innovation on low technology readiness level (TRL) research and development. Technology readiness level 1-4 projects are the most uncertain, so without this funding there is risk that networks will focus only on more developed ideas and true innovation will stop.

For any projects which come out of this research and development phase, depending on what they deliver and their scale, will either become ideas for transformational projects or will require networks to make business decisions to pursue with them based on the Totex and Output delivery incentives within the price control. This will form part of the transition of innovation to BAU.

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

To further encourage the transition of innovation to BAU in the RIIO-2 period Ofgem must provide strong Totex and Output Delivery Incentives to reward the successful delivery of innovation projects focused on improving service and reducing costs. They must also avoid introducing mechanisms that will add uncertainty or risk to the framework, shorten payback periods and remove collaboration.

Networks should report on the progress of, and benefits from innovation projects delivered through direct funding, however this must be proportionate and recognise that as part of the nature of innovation there will not always be benefits. Innovation delivered through Totex and Output Delivery Incentives should form part of networks annual regulatory reporting pack (RRP) narrative.

Encouraging the transition of innovation to BAU in RIIO-2

We support Ofgem's objective to foster a culture in network companies where innovation becomes business as usual (BAU) over time. Ofgem has been consistent with this objective, and their direction that any innovation stimulus would be time-limited, since designing the RIIO framework. Moving innovation towards BAU does, however, increase the risk for networks so care must be taken to ensure the rest of the RIIO-2 package is balanced to enable this transition.

By the very nature of innovation, not all projects will be successful, so to support the transition to BAU networks need rewards for innovating that recognise the risk that they take and the costs they'll incur; central to this in RIIO-2 will be access to strong Totex and Output incentives.

As well as including incentives to drive innovation Ofgem must seek to avoid the introduction of mechanisms which add further uncertainty or risk and therefore discourage innovation. As an example, the sectoral anchoring of returns will create significant uncertainty for networks which could lead them to not pursuing the higher risk projects which could deliver greater benefits for customers.

Monitoring and reporting of benefits from innovation

Networks are currently working with the Energy Innovation Centre and Ofgem to develop a proposal to assess the outputs from innovation. This work should shape the approach for RIIO-2.

At a high level, Networks should report on the progress of, and benefits from innovation projects delivered through direct funding, however this must be proportionate and recognise that as part of the nature of innovation there will not always be benefits. Innovation delivered through Totex and Output Delivery Incentives should form part of networks annual regulatory reporting pack (RRP) narrative.

Competition

16. 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?

We support the principle of extending the role of competition across all sectors where assets are separable, where differing ownership will not bring additional risks to the incumbents licence and where the benefits for customers outweigh the administrative costs, burdens and any risks introduced.

There is already significant connections competition in gas distribution. However, it is unlikely that any further competition benefits will be realised in gas distribution during RIIO-2, as there are not likely to be any new or replacement separable assets with a value of over £100m.

There is already strong competition for connections in gas distribution. During RIIO-1 almost half a million properties have been connected to IGTs within our footprint and we have been active in encouraging competition in the entry, particularly Biomethane, connection process, including undertaking a trial to provide Self Lay Organisations (SLO's) the opportunity to lay high pressure pipelines on our behalf.

At this time it is not clear that widening competition in electricity transmission in RIIO-1 has delivered benefits. It is also unlikely that any further competition benefits will be realised in gas distribution during RIIO-2, as there are not likely to be any new or replacement separable assets with a value of over £100m.

For gas networks, further consideration will be required during the energy transition when investment in completely new hydrogen conditioning assets, including steam reformation plant, and pipelines to transport the hydrogen from its source to the local distribution network will be needed.

We are committed to working with industry parties to identify the most efficient research, development, design, delivery and ownership model(s) for these new separable hydrogen assets and work has already begun through the H21 and HyNet projects in RIIO-GD1.

Something that could be introduced at RIIO-2 is a cross-sector collaboration incentive to encourage networks to articulate the outcomes required by their customers and work with other companies in their region to identify if there is a more efficient and / or quicker⁷ way to deliver the outcome.

⁷ For some customers it may be the timescale, rather than the costs, that are the prohibitive factor.

17. Do you consider there are any reasons why our new, separable and high value criteria may not be applicable across all four sectors?

- **If so, what alternative criteria might be suitable?**

The 'new, separable and high value' criteria could be applicable across all sectors; however it is not clear what benefits have been delivered in Electricity Transmission, as such we would welcome others experiences of whether these criteria work. We would also welcome increased clarity of the criteria definitions from Ofgem through the sector-specific process.

18. 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?**

Any model developed for early competition should be based on delivering against a defined customer outcome. The two main challenges in achieving this that we have identified are:

- *Overcoming the difficulty in assessing the project at an early stage to confirm that it would meet all of the 'new, separable and high value' criteria; and*
- *Ensuring timely delivery of the project where the development and then, potentially complex, assessment of multiple approaches to deliver the same outcome is required. This is particularly important as local homes or jobs as well as regional industrial and economic growth could be dependent upon project delivery.*

Simplifying the price controls

Our approach to setting outputs

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

- When might relative or absolute targets for delivery incentives be appropriate?
- What impact would automatically resetting targets for output delivery incentives during a price control have? Which outputs might best suit this approach?

Customer outcomes should be defined and used to support enhanced engagement both before and during the RIIO-2 price control. These outcomes should be used to test that any outputs or deliverables developed for RIIO-2 deliver what customers want and need. This approach will aid in identifying where different measures are needed to deliver the same outcome to different customer groups or across different regions. Ofgem can also use this framework to support rationalising the number of measures that networks are monitored against in RIIO-2 and focus on the performance areas that customers value the most.

We support the principle of protecting customers through the use of minimum standards but Ofgem must work to ensure this does not impact companies' ability to respond to evolving customer needs or to innovate during the price control.

We do not support the introduction of relative, zero sum, fixed pot or sectoral annual resets for incentives as this would deliver a poor outcome for customers. This would introduce unnecessary complexity and drive undesired company behaviours where networks would not collaborate or share best practice as they need others to lose to ensure they win. An overarching principle for any network regulatory framework must be to encourage better service for all customers.

At a time of significant change in, and scrutiny on, the energy industry it is now more important than ever to ensure that customers and stakeholders can understand their energy services and recognise whether network companies are delivering what they want and need.

As such, the simplification of the RIIO framework will be vital to enhanced engagement with customers and stakeholders, increasing their understanding as well as their ability to participate in the regulatory process which will be key in supporting consumer confidence in the next price control. This principle is particularly important in setting outputs which are fundamentally network companies' commitments to their customers.

Some of the options being considered by Ofgem in setting outputs and incentives in the RIIO-2 framework consultation seem to be adding complexity rather than achieving simplification. As such, in

this section of our response we set out our proposals for how stretching outputs and incentives can be set to deliver against the simple and understandable outcomes that customers want, need and value. We also set out our thoughts on the importance of setting incentives which drive networks to improve performance over and above customer expectations.

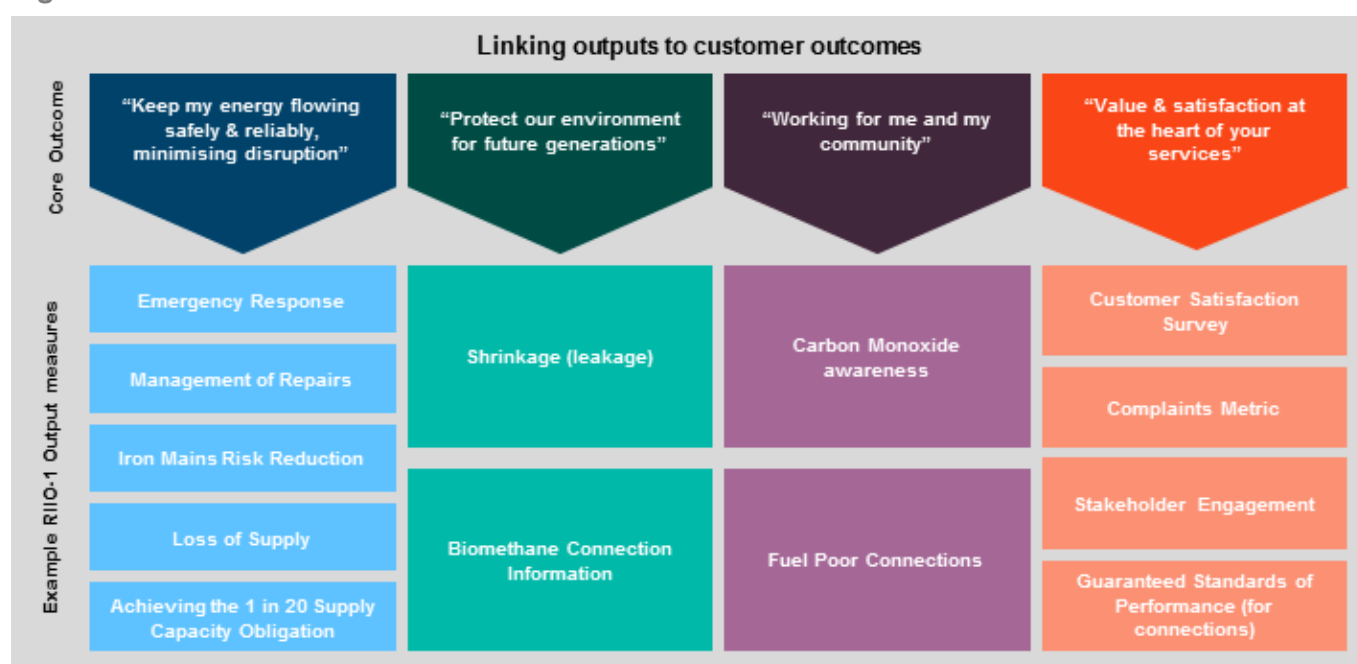
Recognisable customer outcomes

Capturing the recognisable outcomes that customers want and need within the RIIO-2 framework will enable understanding, aid accessibility and support the assessment of if network companies are providing value for money.

For us, moving to an outcomes-based approach does not mean providing network companies with allowances for work that they can subsequently choose not to undertake, as described in paragraph 6.9 of Ofgem's RIIO-2 framework consultation. It should instead be the basis to identify, set and communicate the deliverables within the framework, whether they be licence obligations, price control deliverables or output delivery incentives.

An outcomes based framework should include identifiable customer outcomes, replacing and potentially rationalising the six existing industry focused output categories, which are underpinned by measurable outputs which networks must deliver. In order to set the outputs effectively, networks must work with customers and their representatives to understand the outcomes that they want and need and must ensure that the outputs developed are tested to ensure they deliver against these recognisable customer outcomes. Figure 19.1 below illustrates how customer focused outcomes can be underpinned by outputs in key performance areas.

Figure 19.1: Illustration of an outcomes-based framework



Evolving the current outputs-based framework in this way, moving from six output categories to outcome areas such as those shown above, would allow customers, and wider stakeholders, to easily

understand how the delivery of outputs, that are often technical and complex, deliver the recognisable outcomes they want and need from their energy network. At the same time Ofgem and industry stakeholders, who have a greater understanding of the regulatory framework, would be assured that network companies continue to deliver measurable outputs. Network performance would become more transparent to customers, aiding their assessment of if they have received good value for money.

This approach will also aid in identifying where different measures are needed to deliver the same outcome to different customer groups or across different regions.

High level outcomes, as shown in figure 19.1, would be recognisable across all energy network sectors, i.e. gas and electricity, distribution and transmission. This would enhance customers' ability to compare the service they have received, especially between distribution companies, and also recognise the interactions and any potential offsets between different sectors through the energy transition.

Setting outputs

RIIO-2 presents an opportunity for Ofgem to rationalise the number of measures networks are monitored against and provide greater focus on the performance areas that customers value the most. As an example, there are currently around 60 measures within the RIIO-GD1 framework compared to just 14 being proposed, across the whole value chain⁸, in Ofwat's PR19 framework. We are already working with, and will continue to work with, customers and stakeholders on this and look forward to engaging with Ofgem with our proposals ahead of the sector-specific strategy consultation.

We support the principle of protecting customers from unacceptable levels of performance and agree that placing minimum standards for outputs within the licence is one approach to achieving this. However, Ofgem must consider the impact this may have on networks ability to respond to evolving customer needs, or on their risk appetite to implement new innovations, during the control.

If Ofgem did adopt a similar approach to Ofwat in rationalising the number of measures within the framework they could focus them on the areas most valued by customers providing incentives against them all potentially meaning that minimum standards would not be required.

Where minimum standards on outputs are to be included in the licence, and therefore carry the risk of enforcement action, it is essential that more work must be undertaken than in RIIO-1 to ensure the targets are calibrated correctly and measured consistently or alternatively that any variations are acknowledged explicitly. For example, in RIIO-GD1 Repair Risk network targets were not comparable as the scoring mechanism and job categorisation was not consistent across all gas distribution networks.

The description of minimum standard outputs in the RIIO-2 framework consultation, stating that there will be no direct funding, could be confusing to stakeholders. As such, this would benefit from further clarification from Ofgem that the delivery of outputs within the licence will be funded through the assessment of input and workload costs.

⁸ Equivalent of generation / wholesale, networks and supply in energy.

Setting incentives

Incentives rewarding companies for improving performance have proven to be successful in RIIO-1 and previous price controls; customer satisfaction for instance has improved across all products in every network since the start of RIIO-1. The stakeholder incentive has also been recognised, including in responses to Ofgem's open letter on the RIIO framework, as successfully encouraging networks to make a step change in their approach to engagement during RIIO-1.

*"The stakeholder engagement incentive has improved the responsiveness of networks in RIIO-1, and we encourage Ofgem to be ambitious in strengthening this mechanism for RIIO-2"*⁹

Citizens Advice

Incentives encourage the right network behaviour and must be built upon and expanded in RIIO-2. We have already started working with our customers and stakeholders to understand the areas they value most and will be developing incentive proposals in these areas in readiness for the sector specific consultation. We also have a significant volume of evidence, from the RIIO-1 customer satisfaction surveys and complaints, which highlights what drives satisfaction, or dissatisfaction, that we are using to support our development of measures and incentives for RIIO-2.

Against the backdrop of the energy transition, and building on the themes in the 'Network utilisation, stranding and investment risk' and 'End-use energy efficiency' sections of the RIIO-2 framework consultation, a key area for incentivisation will be in the management of existing assets to avoid investment in new ones particularly cross-sector. The incremental investment needed in the energy networks to deliver decarbonisation will be at least £100bn and could be more than £300bn¹⁰ so incentives for networks to operate, innovate and collaborate to minimise or avoid investment would drive significant long term value for energy consumers.

Incentives have already been successfully used in gas to optimise investment between the distribution and transmission networks and RIIO-2 now presents an opportunity on how to incentivise collaboration and the lowest cost delivery of decarbonisation between gas and electricity.

One consideration in setting incentives that deliver benefits over multiple controls is whether the reward payment could be added to the networks companies notional RAV so that all of the customers that feel the benefit of the positive actions pay for them delivering inter-generational fairness.

Ofgem discuss that for activities which have been funded through base revenues (Totex), there will be no further reward through the incentive mechanism for performance improvements. We are supportive of the principle to avoid potential double-counting between revenue underspend gains and incentive rewards, however in cases where a network company innovates using the base revenue and delivers more than the requirements they should be rewarded as this delivers long term consumer benefit. In cases where networks have not delivered the required service quality improvements expected in the

⁹ Citizens Advice response to open letter on the RIIO-2 framework, page 2

¹⁰

current price control, there are close out mechanisms in place to manage over and under delivery against targets.

Introducing retail-style competition mechanisms

The RIIO framework already mimics competition through the process of setting the allowances and performance targets that become a company's contract with their customers. Networks then have absolute targets they must achieve and the regulatory framework sets out the rewards and penalties that will be applied if they out or under-perform against the allowances and targets in the contract.

This is similar to many competitive industries, such as construction, where there would be a tender process, with the key criteria set through enhanced engagement with the customer, and once the contract was set the company would only be competing against the agreed targets, for example a reward for early, or penalty for late, delivery.

We understand Ofgem's desire to explore whether more competition could be introduced to the process for RIIO-2. However, using relative incentives, to force a distribution of performance, or resetting targets at a sector level during the control will not deliver the outcomes that customers want and need.

When exploring the use of retail-style relative output delivery incentives during RIIO-2 Ofgem must weigh up whether customers will benefit more from additional competition or collaboration. In the following sections we consider the benefits of collaboration as well as exploring how or where the use of relative output delivery incentives, and the resetting of absolute targets, could work.

The benefits of collaboration

We strongly believe that collaboration, long-term thinking and innovation are important and must be retained for RIIO-2. The existing approach, whilst making network companies compete during the price control review process, fosters a culture of collaboration during the period to ensure that any innovations or best practices developed by one company can be shared with another so that all energy customers can receive improved outcomes.

An over-arching principle of, and objective for, any network regulatory framework must be that it is possible for all customers to receive exceptional performance. Indeed all companies responding to the incentives within the framework to improve the service they deliver should be a key indicator of a successful price control. Creating a framework that forces a distribution of 'winners' and 'losers' amongst companies would also do the same for customers as they would not be able to change network in the same way they would with their mobile phone service provider or energy supplier.

This culture of winners and losers would drive undesired company behaviours where networks would not collaborate or share best practice as they need others to lose to ensure they win.

Collaboration in RIIO-1 has delivered great outcomes for customers. We have collaborated with other networks across all the output categories, on innovation projects, in developing customer safeguarding protocols and also in proactively assisting them to support their customers during emergencies.

A recent example is a gas incident in West Yorkshire where 3,500 customers were impacted and all four gas distribution companies collaborated as a united industry to minimise the impact on this community. Figure 19.2 sets out some further examples of collaboration during RIIO-1.

Figure 19.2: Benefits of collaboration in RIIO-1

Project area	Companies involved	Benefits of collaboration
Customers in vulnerable situations / safeguarding	GDNs, DNOs, electricity suppliers	Consistent messaging for vulnerable customers, avoidance of multiple registers (reduced cost), sharing of best practice
Carbon Monoxide (CO) awareness	GDNs	Shared training / experience, sharing of best practice, increased CO awareness
Fuel Poverty	GDNs	Creation of non-gas map, shared costs and resources
Locking cooker valves (safety)	GDNs	Increased levels of safety, over 200 valves fitted in 17/18
Complaint Handling	Cadent, NGN	Increased complaints handling performance (D1 from 35% to 45%)
Customer satisfaction	Cadent, NGN	Increased customer satisfaction levels for Planned Work (average levels from 8.00 to 8.20)
HyDeploy	Cadent, NGN	Assists path to 2050 UK decarbonisation target
The Energy Loop	GDNs, DNOs	Increased number of connections, improved connection efficiency and completion rates with greater access to hard to reach customers
CISBOT	Cadent, SGN	Significant savings from reduced excavations, overall reduction in disruption from mains replacement work
NUFLOW	GDNs	Overall reduction in disruption from mains replacement work
Energy Innovation Centre	GDNs	"When companies from the same sector collaborate, the mutual benefits can be more powerful than any benefits that competition might produce" EIC

Relative output delivery incentives

We have developed a set of criteria that can be used to assess how and where relative output delivery incentives could be used in RIIO-2. Meeting these criteria is vitally important as one networks' returns will be derived by other networks' performance. The criteria are:

- The relevant data is transparent and auditable for all networks;
- The consistency of each networks measures, targets and methods of recording and calculation can be fully evidenced;
- The incentive can be calibrated at a company level so not to penalise multi-network ownership;
- The value of the incentive recognises the additional risk and uncertainty to networks; and
- The benefits of competition outweigh those from collaboration.

Assessing the existing output categories against these criteria, the only area that we have identified which may meet all of them is connections. However, there is already effective competition in connections with Independent Gas Transporters (IGTs) and Utility Infrastructure Providers (UIPs).

We did explore if there were other ways to mitigate the issues in the other output categories, however the options we identified added further complexity or eroding the benefits of introducing further competition. For example, to mitigate the issue around the sharing of best practice there could be a collaboration incentive so that the leading networks would work with other companies to help them improve performance for their customers. However, this incentive would need to be greater than the value of the competitive incentives otherwise it would not drive the required behaviours.

As such, our early assessment suggests that relative output delivery incentives should not be applied to safety, reliability and availability, environmental, social or customer measures.

Resetting output delivery incentives

Absolute output delivery incentives could be reset during the control at either sector or network level.

If resetting them at sector level the same criteria as discussed in our relative output delivery incentive section would need to be met. As such, our early assessment suggests that output delivery incentives relating to safety, reliability and availability, environmental, social or customer measures should not be reset at a sector level during the control period.

However, resetting output delivery incentives during the control at a network-specific level could work if either:

- The annual incentive payment recognised the enduring benefits to customers from the improvement in performance. This would operate in a similar way to the environmental emissions incentive roller; or
- After the target had been reset the incremental incentive value was adjusted:
 - a. i.e. in an incentive where the cap was set at a score of 100 with a value of £10m, with the incentive value increasing with a straight line, then -
 - i. If a company's opening score was 50 and by the end of year 1 it was 60 they would receive an incentive payment of £2m (each point worth $\text{£}10\text{m}/(100-50)$)
 - ii. If at the end of year 2 their score was 65 they would receive an incentive payment of £1.25m (each point worth $\text{£}10\text{m}/(100-60)$)

These approaches would mitigate the risk that networks would not be able to justify investments or innovations to improve performance because they would not payback due to the reset mechanism.

Our approach to setting cost allowances

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

To summarise, we consider that RIIO-GD1 has worked well in accordance with regulatory principles around RPEs but note this is not the perception of some stakeholders. We believe that the indexation of RPEs may help with the stakeholder acceptability of the RIIO Framework, subject to materiality and making the proposition work in practice.

In respect of Ofgem taking a long term view of allowances, we do not disagree with such an approach, but in practice it would depend on the efficient level of costs being capable of accurate prediction many years ahead, and Networks would need to be clear that a long term view was being taken prior to accepting the price control outcome.

Our detailed response to this question comprises four elements:

- The Consultation Paper's basic premise;
- The five proposals to protect customers from forecasting risk;
- Benchmarking using RIIO-1 costs; and
- Taking a long term view of allowances.

Each is considered in turn below.

The Consultation Paper's basic premise

The premise for Ofgem's proposed approach to setting cost allowances is contained in paragraph 6.25 of the Consultation Paper, which states that the RIIO framework is used to "incentivise companies to beat cost and output targets. If they spend less and deliver more they get to earn a higher return. Consumers benefit because they share the benefits in the current price control period and we can set lower allowances and more stretching targets for the next period. Our experience in RIIO-1 however has highlighted that we need to ensure we protect consumers from paying for costs that were assumed to be required, which then do not materialise."

We consider that RIIO-GD1 has worked well in accordance with regulatory principles. At the price control review, Ofgem acted to reduce workload from the levels assumed in Business Plans to minimise expenditure, reset allowed costs to the Upper Quartile level (creating an efficiency challenge for six of the eight GDNs), and overlaid RPEs and Continuous Improvement, thus returning the benefit of achieved and forecast cost reductions to all customers. Companies have responded to the challenge by typically delivering the agreed outputs, and where they have not been delivered, e.g. Repair Risk, London Medium Pressure and CSATs, have returned money to customers already. Looking forward, the new Network Output Measure Incentive Methodology will also return money to customers at the end of the period if the overall asset risk target is not achieved. In addition, the lower level of costs being achieved in RIIO-1 is being shared with customers now and efficiencies will be fully returned when the price controls are reset.

However, we note that stakeholders have raised legitimacy concerns over the level of returns projected to be achieved over RIIO-1, and these concerns include the setting of allowances, in particular in respect of Real Price Effects (RPEs).

For RIIO-2, we consider that customers may need protection from expected costs that do not materialise, and also that companies may need protection from unexpected costs that occur, but that each case needs to be considered on its merits, rather than the “blanket approach” set out in the Consultation.

In assessing whether or not an uncertainty mechanism is appropriate, we support the application of the RIIO framework, which aims to limit the number and complexity of uncertainty mechanisms, and sets out in the RIIO handbook, an overarching principle for when they should be applied. We note that the RIIO framework was developed by Ofgem in a very comprehensive process used to understand the issues and challenges facing energy networks, and to explore alternative regulatory frameworks, during two and a half years of extensive engagement with stakeholders, interested parties, academics and individuals. We do not believe that the RIIO framework developed as a result of that exercise should be discarded unless Ofgem carries out an exercise of similar thoroughness.

However, we also believe that the application of the RIIO Framework should be tailored to take account of the strongly held and consistent views of customers and their representatives – regulatory principles count for little if public legitimacy is lost.

The five proposals to protect consumers from forecasting risk

The Consultation Paper then lists out five proposals to protect consumers from forecasting risk, which we address below.

- The use of competition rather than company forecasts to set prices for new, separable, and high value investment projects.

At a principle level, we believe that customers should pay for the efficient costs of running energy networks. If competition can reveal the efficient level of costs for investment projects, then we support using competition to do so, as long as competition is then responsible for delivering them.

For gas distribution, competition is already extensive in the provision of connections and biogas entry. Although there are no separable, high value, investment projects underway at present in gas distribution, we are exploring potential options for major future projects associated with new, environmentally friendly energy services, that might require a different regulatory mechanism in order to be financially viable.

- The use of simplified incentives to reward well-justified, ambitious and high quality business plans.

We support the reward of high quality business plans. For further information, please see our response to Question 25.

- To index uncertain costs where possible.

We are conscious of the tension between established regulatory principles, as set out in the RIIO Handbook following the RPI-X@20 review, and the pressures from considerations of public confidence that returns are warranted, as evidenced in the representations of consumer bodies.

From the perspective of regulatory principles, there appear to be four significant reasons why the indexation of uncertain costs where possible could be considered undesirable.

First, it runs counter to the RIIO Framework (which we support), which states that: "Generally, we would expect Network companies to manage the uncertainties they face – this is consistent with the approach adopted by other regulators, including the Competition Commission...the aim would be to limit the number and complexity of uncertainty mechanisms as far as possible" [para 6.44, 6.45 RIIO Recommendations, July 2010].

Second, as set out by CEPA on page 56 of their report, there is a regulatory principle that risk should be allocated to the parties' best placed to manage them. Companies can manage most uncertainties, whereas consumers cannot, therefore, using this logic, companies should be allowed to manage most risks.

Third, indexation will add to the complexity of the regulatory regime, and could well reduce transparency, both of which appear undesirable.

Fourth, changes in allowed revenue during the price control period are very likely to add to the volatility of charges to customers. It would seem inevitable that prices charged to end-users would become less predictable if widespread indexation were adopted.

These four reasons may be powerful, but they do not suggest that there are no circumstances under which indexation should be used, rather that the pros and cons of each proposal need to be assessed carefully, as under the RIIO Framework.

For example, as part of RIIO-1 Ofgem applied indexation to the allowance for the cost of debt. In this case, there was a clear public benefit, as Ofgem had, for a number of price control periods, set an allowance that was higher than observed rates to protect companies from potential rises during the price control period.

Other examples exist from before RIIO. For example, at GDPCR1 Ofgem applied an index in respect of shrinkage gas prices, where this was a material, volatile cost that was very largely outside management control and for which there was a robust independent benchmark price.

Moreover, from the perspective of public confidence, there is a clear perception issue over the fact that, specifically for the RPEs in RIIO-GD1 price controls, ex-post values have thus far been significantly below the level of the ex-ante forecasts used to set the current price controls. Although our own RPEs have been broadly in line with the ex-ante forecasts, so we have not made material

gains from the variation, we note that customer representatives have expressed strongly held and consistent views on this issue.

Ultimately, it is critical that public confidence is retained, as regulatory principles will count for little if it is lost. Therefore, on balance, we accept that RPEs be indexed for RIIO-2, subject to materiality, and making the proposition work in practice. [See also our response to Q21.]

- Where unit costs are stable, but quantities are difficult to predict, the Consultation Paper proposes to use volume drivers.

We consider that any potential uncertainty mechanisms should be assessed under the RIIO framework and Handbook, where the potential level of materiality would be a significant consideration. We note that the volume driver used in RIIO-GD1 in respect of Tier 2 mains replacement has worked well.

- Where there is uncertainty over the scope of work and the potential costs are significant to customers, the Consultation Paper proposes not to set up front allowances, but to use revenue drivers or within-period mechanisms.

We consider that revenue drivers and within-period mechanisms arising under this proposal need to be assessed according to the RIIO principles. We note that RIIO-1 mechanisms have worked well.

We note that, where costs are material, by not allowing an expected level of costs up front, there is a risk that, even with an uncertainty mechanism, a network could be placed under financial strain and also that customer bills could become more volatile once any adjustment is made. Therefore, we consider that, in the event of such a mechanism being put in place, it would be beneficial for companies and customers to allow an expected level of cost up front.

Benchmarking using RIIO-1 costs

We agree that RIIO-1 will provide Ofgem with a valuable set of benchmarking costs.

We also suggest that the RIIO-2 business plans could play a useful role in benchmarking, as at RIIO-GD1 and RIIO-ED1. This is because efficiency modelling has always been recognised by networks and regulators as being imprecise, and consequently, it would seem sensible to use an element of forecast costs in determining efficiency allowances.

We also note that Ofgem's RIIO Handbook includes the benchmarking of future plans as well as historical costs [para 8.22], which appears logical as RIIO-2 plan costs should be more reflective of RIIO-2 plan outputs, whereas RIIO-1 costs will reflect RIIO-1 outputs.

Taking a long term view of allowances

The Consultation Paper suggests that, where the cost profile of work spans multiple price controls, for example, the Repex programme, Ofgem will consider taking a long term view of costs when setting

allowances. This is to avoid companies deferring expensive work they have been funded to deliver in one price control, then seeking a new funding allowance for the same work in the next price control.

We agree that, under the RIIO framework, companies should not be funded twice for delivering the same agreed outputs. Consequently, customers should only pay for an agreed output once.

In principle, we do not disagree with Ofgem taking a long view of allowances, but in practice this would depend on the level of efficient costs being capable of accurate prediction many years ahead.

In addition, in the event of Ofgem taking a long term view of costs, networks would need to be clear that this was the case prior to accepting the price control outcome.

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

To summarise, we consider that RIIO-GD1 has worked well in accordance with regulatory principles around RPEs but note this is not the perception of some stakeholders. We believe that the indexation of RPEs may help with the stakeholder acceptability of the RIIO Framework, subject to materiality and making the proposition work in practice. We will support Ofgem if this route is chosen, and envisage the most significant practical difficulties will be in respect of minimising volatility in customer bills, and finding or creating suitable indices to match changes in the efficient level of costs, in particular for RIIO-GD2 subcontractor prices for mains replacement.

In more detail, the proposal contained in the Consultation Paper for RPEs has three elements as follows:

- Indexation of RPEs
- No upfront allowance
- Setting RPEs to zero in certain circumstances

Each is considered in turn below.

Indexation of RPEs

We consider that there are reasons for and against the indexation of RPEs. Both are considered below, with the reasons against indexation listed out first.

Underlying the proposal in the Consultation Paper to index RPEs is the assertion in paragraph 6.26 that companies have materially benefited from lower RPEs than projected when price controls were set. It follows that, to protect customers from this happening again, it is necessary to index RPEs in future.

However, as demonstrated by the CEPA report, the RIIO-1 price controls were at most half way through when it was written, and for most of the 26 RIIO-1 Network Operators, RPEs have not been a material source of positive or negative returns.

Although we have previously shown that Cadent has not materially benefitted from this source, we accept that, for RIIO-GD1, allowed RPEs would have been significantly lower, thus far in the price control period, if Ofgem had possessed perfect foresight. However, we also note that Continuous Improvement, which was overlaid at the same time as RPEs by Ofgem, would have been lower also, as evidenced by the OBR's recent publication on productivity growth, at least partially offsetting the lower RPEs. As such the net impact is significantly lower than some observers believe.

In respect of the regulatory principles against indexation, in our answer to question 20 we set out these out in some detail, which we summarise below:

- There is a regulatory principle that risks should be allocated to the parties best placed to manage them, and companies can manage most uncertainties.
- Indexation will add to the complexity of the regulatory regime, and could well reduce transparency.
- Changes in allowed revenue during the price control period are very likely to add to the volatility of charges to customers.

However, from the perspective of public confidence, there is a clear perception issue over the projected level of returns over RIIO-1, and specifically for the RPEs in RIIO-GD1 price controls, ex-post values have thus far been significantly below the level of the ex-ante forecasts used to set the price controls, a point upon which customer representatives have expressed strongly held and consistent views.

Ultimately, it is critical that public confidence is retained, as regulatory principles will count for little if it is lost. Therefore, on balance, we accept that RPEs be indexed for RIIO-2, subject to materiality, and making the proposition work in practice.

We are willing to work with Ofgem in order to achieve this. We envisage the most significant practical difficulties will be in respect of minimising volatility in customer bills, and finding or creating suitable indices to match changes in the efficient level of network costs, in particular for RIIO-GD2 in respect of sub-contractor prices for the successors to the present contracts for mains replacement.

No upfront allowance

The Consultation Paper states on page 63 that "Specifically we propose to index RPEs rather than set an upfront allowance."

Where costs are material, by not allowing an expected level of costs up front, there is a risk that, even with an indexation mechanism, a network could be placed under financial strain and also that customer bills could become more volatile once any adjustment is made. This is in a context where revenue adjustments are likely to be made two years after the year in question.

Therefore, we consider that, if an RPE indexation mechanism is to be put in place, it would be beneficial for companies and customers to allow an expected level of cost up front.

Setting RPEs to zero in certain circumstances

Paragraph 6.28 states that “We will also examine the potential to set RPEs to a zero value if the evidence indicates that deviations in costs from general inflation indices have not been (or are not expected to be) material.”

Because the Consultation Paper states that there will be no upfront allowance for RPEs, we interpret this sentence as meaning that, for certain RPEs, Ofgem will not apply indexation. This would represent the RIIO-1 approach, but with an ex ante allowance set to zero.

We agree in principle with this approach, but we consider that it should apply in circumstances where deviations in costs from general inflation have not been and (as opposed to or) are not expected to be material. Setting an ex ante RPE allowance of zero (with no indexation) for a specific cost type, in the context of more general indexation, is only logical in circumstances where it is likely that the specific RPE will be zero in future, which is likely to be the case only if it has also been close to zero in the past.

Finally, we agree with the observation that materiality should be assessed on the size of the change in costs, rather than the size of the change in the index.

22. 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?

The resetting of allowances within period runs counter to the ex-ante price controls proposed by the RIIO Framework, would be expected to strongly encourage short-term thinking in Networks, and make RIIO 2 price controls far more complex, with volatility and underperformance in most Networks deterring investors. However, we do not understand why it is necessary. If a Failsafe mechanism such as the RoRE sharing factor approach were applied in RIIO-2, Network outperformance and underperformance would be limited with far fewer negative consequences.

In more detail, our response is divided between:

- The impact of resetting cost allowances during the price control period
- Benchmarking to average, upper quartile or best performer
- Cost categories best suited to this approach

The impact of resetting cost allowances during the price control period

Resetting cost allowances during the price control period would have far reaching implications for Network Operators and also for Ofgem.

For Network Operators, they would not know their level of cost allowances, revenue or financial position for the period of the price control – or only for that proportion of the period before the cost allowances were reset. Consequently, the effective price control period would become much shorter than previously, and companies would be expected to think only in the short term.

In addition, the process of resetting cost allowances, assuming an Upper Quartile were used, would lead to six of the eight GDNs underperforming at any one time, with significant volatility, which is likely to deter potential investors in Network Operators. This would place strain on credit ratios, and therefore credit ratings, while the returns of equity investors are likely to be hit hard by probable Totex underperformance.

To implement this approach, in order to overcome cost allocation and cherry-picking issues, the allowance reset would need to be carried on Totex, so in effect Ofgem would carry out a price control review every year, or however often the reset occurred. Given that setting cost allowances typically involves bottom up analysis, top down analysis, external comparators, regression analysis, and non-regression efficiency assessment, all with potential adjustments for outputs, such a review would be a complex, time consuming and expensive undertaking for Ofgem and for Network Operators, adding significantly to the regulatory burden.

Furthermore, the process of resetting cost allowances would need to incorporate consideration of the extent to which companies had achieved their agreed outputs over the period in question. Clearly, it would not be appropriate for companies which had not achieved their agreed outputs to be driving cost allowances for other companies. Therefore, it would be necessary for Ofgem to set separate outputs for each period prior to cost allowances being reviewed, rather than for the price control period as a whole. Therefore, if cost allowances were to be reset every year, the level of outputs would also need to be set for every year also – a result which represents the opposite of long term thinking.

Such a process would also need to place reliance on reported data for costs, activity drivers and outputs from companies every time cost allowances were reset. Inevitably, in a very substantial annual data return, sometimes mistakes are made. If cost allowances were to be reset during a price control period, there would need to be a process for rectifying any mistakes in the reported data when found, that had an impact on the reset allowances.

It is difficult to see how such an approach could represent a “Simplification of price controls”, as this chapter of the Consultation Paper is entitled.

Although not a specific question in the Consultation Paper, we also note that such an approach would run counter to the RIIO Framework. Conclusion number 6 of the October 2010 Conclusions document was “an Ex ante price control” with paragraphs 5.5 and 5.6 stating that “In our Recommendations consultation we emphasised the importance of network companies, stakeholders and Ofgem thinking longer term when considering what needs to be delivered and how best to deliver..... We recommended a package of measures aimed at encouraging network companies to identify ways of delivering better value for money over the longer-term... Respondents to the consultation were supportive of these measures and welcomed the development of a framework designed to encourage changes in this direction. We have therefore decided to implement RIIO regulation with a view to encouraging longer-term thinking.”

There is a parallel here to the water sector. Prior to PR14, Ofwat had regulated in a manner which was highly detailed and intrusive, with the result that companies focussed on satisfying the regulator, rather than their customers. After a number of misreporting cases, Ofwat moved to a less detailed, less intrusive and higher level approach, which was much more focussed on companies being incentivised

to deliver the outputs their customers wanted. The proposals within the Consultation Paper appear to represent a move towards a methodology which experience led Ofwat to abandon.

We have given many reasons why we do not consider resetting cost allowances within period to be desirable. However, we do not understand why it is necessary. If a Failsafe mechanism such as the RoRE sharing factor approach were applied in RIIO-2, Network outperformance and underperformance would be limited with far fewer negative consequences.

Benchmarking to average, upper quartile or best performer

The Consultation Paper also mentions that benchmarking could be carried out to the average, upper quartile or best performer.

We do not agree with this path for the reasons set out above, but if it were followed, the efficiency level selected would need to be the same as that used at the price control review. We note that, with eight GDNs and only four ownership groups in gas distribution, issues of statistical significance in cost assessment modelling have led previously to Ofgem applying an Upper Quartile efficiency challenge. Difficulties in cost assessment were also partly behind why Ofgem adopted the IQI, in particular the need for Totex interpolation between business plans and Ofgem's assessed efficient level of cost.

Cost categories best suited to this approach (i.e. resetting cost allowances in period)

If this approach were adopted, we consider that it would need to be applied at a Totex level to avoid cherry-picking and cost allocation issues, which the RIIO-1 Totex approach was designed to, and succeeded in overcoming.

Information-revealing devices

23. Do you agree with our assessment of IQI?

We do not agree with Ofgem's assessment of IQI for a number of reasons, including:

- ***The networks did not have visibility of the incentives available so could not respond to them in their business plans;***
- ***The median out-performance against allowances across all networks seen in RIIO-1 is lower than in the previous round of price controls; and***
- ***Much of the Totex out-performance seen in RIIO-1 relates to the Iron Mains Replacement Programme which Ofgem stated was expected in the RIIO-GD1 final proposals. Ofgem provided this strong incentive to drive gas distribution networks to transform the way they deliver this vital safety-driven work following a review by the HSE. As such, this out-performance is not related to the IQI.***

Overall we consider the evidence suggests that the IQI has met Ofgem's RIIO-1 objective of bringing incremental benefits to the quality of business plans. Ofgem can improve the IQI further by making the incentives known in their sector-specific decisions and by differentiating more between companies through the incentives.

We agree that an indicator of a successful price control is where companies respond to incentives to beat genuinely efficient cost allowances and stretching output targets. Whilst the most robust assessment can take place at the end of the price control, we believe this has happened in RIIO-1 through use of the Information Quality Incentive (IQI); which aimed to encourage companies to provide robust expenditure forecasts as part of well their justified business plans and incentivised companies to increase efficiency to drive down customer bills.

The key feature of Ofgem's assessment is the view that there is little evidence of IQI influencing companies to submit business plans that reflect their best estimate of likely efficient expenditure. However, at the time of submission for RIIO-1 whilst networks knew there would be an incentive they did not know the details of it so were unable to fully respond. The IQI mechanism could have achieved more in RIIO-1, and would have had a greater impact on networks' plans, if clearer guidelines and details of the incentives had been set out in the strategy decision document.

Even though networks did not know full details of the IQI at RIIO-1 it has led to improved accuracy in forecasts from the previous round of controls. In those controls the median out-performance against allowances across all networks was c.6%, however forecasts for RIIO-1 show median expected out-performance of c.5%. The CEPA report that was published in conjunction with the RIIO-2 framework consultation seems to support this view by confirming that there has been no systematic outperformance of allowances in RIIO-1.

Indeed, one of the major drivers of this median position is the out-performance against Repex allowances in RIIO-GD1. By excluding the eight GDNs the median level of RIIO-1 Totex outperformance drops to under 4%. In respect of Repex it was Ofgem's intention to incentivise networks to change their approach towards a completely new three tier risk removed approach that would deliver long-term benefits for customers. Networks have responded to this incentive and in RIIO-2 there is likely to be less out-performance so it would be expected that the network median of 5%, seen in RIIO-1, would fall again.

We also note Ofgem's expectation for RIIO-1 was that IQI would '*at best bring incremental benefits to the quality of information that companies submit in their business plans.*' The evidence outlined above suggests that, despite the lack of clarity over the calibration of IQI at RIIO-1, this is likely to have been achieved.

In addition, the IQI matrix could also have differentiated more between networks at RIIO-GD1 as whilst there was an 11% spread in IQI scores there was a spread of less than 2% in incentive rates. If retained for RIIO-2 this is another area that could be evolved to further improve the accuracy of forecasts.

In summary IQI can be improved for RIIO-2 both by providing greater differentiation in incentive rates and by publishing details of the mechanism well in advance of the submission of business plans by companies.

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

We have not seen any material benefits from the fast-track process in electricity transmission and gas distribution in RIIO-1.

We agree with Ofgem that fast-tracking is most likely to bring benefits where there are a larger number of companies to compare and where the relative size of one company does not impact the business plan assessment process.

As such, the fast-track mechanism used in RIIO-1 would not be suitable for use in RIIO-GD2 as there are only four companies, one more than in electricity transmission, and one company is the size of all of the other companies' combined.

Fast tracking was introduced to incentivise companies to submit ambitious, and their best, business plans at the first time of asking. Networks qualifying for fast track would receive financial rewards, receive less scrutiny and through early settlement would have longer to get ready for day one of the new control period.

We support the objectives of fast track and the scale of the customer benefits seen in RIIO-ED1, as set out in Ofgem's RIIO-2 framework consultation, demonstrate the value that such a mechanism can deliver where there are a statistically sound number of independent companies to compare. For this reason, we consider that it is less likely to be of value in gas distribution, where there are only four independent companies, with one of them around four times the size of two of the others.

25. What are your views on the options we have described?

Amending the IQI to make it more transparent and provide greater differentiation between companies sharing factors would deliver the desired improvements and would not require much work to do so.

Introducing a single business plan could also deliver the desired improvements, however as it would be a new mechanism it would take significant effort to design which could be spent in developing other areas of the framework.

The fast-track mechanism should not be retained for RIIO-GD2.

Whatever approach is used Ofgem must provide clear, comprehensive and transparent rules and guidelines in their sector specific strategy decision documents, including setting out if assessment will be at company, licensee or network level.

We are supportive of the inclusion of a mechanism that acts to encourage networks to work with customers and stakeholders in developing and submitting ambitious plans which include accurate forecasts. In general, we feel any option developed must adhere to the following key principles:

- Clear, comprehensive and transparent rules and guidelines must be set out upfront, in the sector specific strategy decision documents;
- The requirements from, and impact of, customer research and stakeholder engagement need to be included in any assessment;
- The Totex interpolation rule should remain in any mechanism developed to recognise the difficulty Ofgem faces in setting accurate allowances and the potential impact of allowances being set too low¹¹;
- The impact of different ownership models, i.e. company, licensee or network, upon business plan assessment and their suitability for any rewards available must be clearly identified;
- The limits, if any, on the number of companies, licensees or networks that can be assessed in a specific category, i.e. fast track, must be documented;
- There should be a significant variation in the level of incentives applied to plans of varying quality;
- Where there is a two stage business plan submission, as implied by the timeline included in the framework consultation, it must be clear where the incentives will be applied, i.e. first plan, second submission or some form of weighted average of the two plans;

In the context of the general principles set out above, the table 25.1 below provides views on each proposed option:

¹¹ The Totex interpolation rule was introduced at DPCR4 in recognition of Ofgem's low confidence in setting accurate allowances for the investment that would be required due to the changing energy landscape (up to £5.8bn at DPCR4 from £4bn at the previous control) and the statistical limitations of the benchmarking methodology.

Figure 25.1: Assessment of information-revealing device options

Options	Views
1. Retain but amend the IQI	<p>The IQI mechanism could be fit for purpose for RIIO-2 with only a few amendments:</p> <ul style="list-style-type: none"> Ofgem will need to provide full details of the calibration of the mechanism well in advance of business plans submission, so that networks understand the incentives available and can therefore respond to them. <ul style="list-style-type: none"> This should include the influence of the first and second submissions on the IQI outcome. Ofgem should include greater incentives to drive upfront differentiation between companies. <ul style="list-style-type: none"> Some, or all, of the upfront value of the fast track process from RIIO-1 could be applied to the 'Additional Income' element of IQI to provide a greater reward for the most efficient plans. There should be an increased spread of sharing factors. At RIIO-GD1 a spread of 11% on the IQI score element led to less than a 2% spread in the incentive rates provided. <p>We do not agree with the suggestion that Totex interpolation be removed given the scale of the challenge of the energy transition. Whilst large incremental investment is not expected to be required in RIIO-2, it will be in RIIO-3 and beyond so to remove this mechanism would be a mistake.</p> <p>Part of networks enhanced engagement should focus on how to best present IQI so it is understandable and accessible for stakeholders.</p>
2. Retain fast-tracking	<p>As stated in answer to Question 24 above, we do not consider that fast-tracking is likely to play a valuable role in transmission or gas distribution.</p> <p>If it were retained without IQI, we would also be concerned over the level of regulatory discretion associated with it, making its outcome difficult for companies to predict.</p> <p>We would recommend that if only one of the existing information-revealing devices is to be kept that it would be easier to amend IQI to deliver against the principles set out earlier in this section.</p>
3. Single business plan incentive	<p>Bringing the objectives of the two existing information-revealing devices together into a simple single incentive, which amalgamates the benefits of both IQI and fast-track, could provide a suitable alternative to an evolved IQI for RIIO-2 where Ofgem did not believe that the required amendments could be made to IQI.</p> <p>We agree that, for business plans assessed as high quality, Ofgem should retain a proportionate approach to assessment, and that company plans should not be settled early, as a more robust price control is likely to result for all companies.</p> <p>We agree that high quality business plans should be rewarded, but consider that this should apply on an absolute rather than relative basis, once a certain quality threshold has been crossed. In an ideal world we would like to see all companies submitting high quality plans, and being rewarded for doing so. The alternative of rewarding only the "best" plan, could lead to the least bad of a set of mediocre plans being rewarded, which would seem bad for incentives and customers.</p> <p>Whilst a mechanism similar to that proposed by Ofwat for PR19 would not be any less-complex than IQI, with many calculations taking place behind the outcomes presented, its small number of assessment categories could be easier for stakeholders to understand at the level they want to.</p> <p>Due to the discretionary elements of this approach, even greater clarity on assessment criteria and guidelines would be required than with an amended IQI.</p>

- **How might these apply in different sectors?**

As discussed above, either the first or third options set out in the table, tailored to reflect our comments, could be made to work effectively in Gas Distribution. What is key is that companies have visibility of the calibration of the relevant mechanism well in advance of submission of business plans.

- **Should we retain IQI, amend or replace it entirely?**

Although we believe that both the first and third options could be made to work, our preference is for the first option, that of amending the IQI, as we would rather evolve an existing mechanism, which seems to have broadly delivered the incremental benefits Ofgem had hoped for, than replace it with a new one. Amending the IQI to provide greater incentives for ambitious plans and increased transparency of the rewards available would encourage further accuracy in networks' plans whilst enabling Ofgem to differentiate based on upfront relative performance.

26. 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)?

In addition to efficiency, the quality of networks consumer research, stakeholder engagement and innovation strategies should be factored in to Ofgem's assessment of business plans regardless of the approach taken. The assessment should recognise where a network has set more challenging output targets than their peers. The views of the Customer Engagement Group, RIIO-2 Challenge Group as well as the quality and navigability of the business plan document itself that should also be considered.

Whatever approach is used Ofgem must provide clear, comprehensive and transparent rules and guidelines in their sector specific strategy decision documents, including setting out if assessment will be at company, licensee or network level.

27. 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?

Any mechanism to differentiate efficiency incentives should as a minimum achieve the same outputs seen through the IQI:

- *Efficiency ratings that provide a reputational incentive by enabling stakeholder comparison between companies. This could either be individual scores or categorisation;*
- *A calculation for an upfront reward or penalty for companies that is driven by the efficiency score or categorisation of their plan;*

- *A calculation which differentiates, based on efficiency, the rewards that may be retained by companies during the control for out-performing their allowances and potentially output incentives; and*
- *Retains the Totex interpolation rule which recognises the challenges Ofgem faces in setting accurate allowances and protects consumers and companies from errors in assessment or other networks plans.*

The IQI, with minor amendments, would be fit for purpose to provide differentiating incentives relating to efficiency. If it was not to be used then the key factors Ofgem would need to take into account when deciding how to differentiate efficiency incentives are the plan's cost efficiency relative to benchmarks, the quality of consumer research, stakeholder engagement and innovation strategies, views of the Customer Engagement Group, RIIO-2 Challenge Group as well as the quality and navigability of the business plan document itself.

Regardless of the approach taken, Ofgem must as soon as possible, and at the latest in the sector specific strategy decision document, set out the clear, comprehensive and transparent details of the incentives and criteria for assessment.

28. 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?

An explicit upfront financial reward is required to incentivise companies to submit high quality ambitious business plans. Where there are only within control rewards, a company may assess that they have a better chance of achieving a reward by submitting a less ambitious plan, which they believed they could outperform, than if they submitted a more ambitious one, which they were less likely to outperform against, regardless of the differentiation.

The assessment of a high quality business plan should not be limited to ambition on costs and service levels but should also seek to reward companies for the quality of their consumer research and stakeholder engagement and how this is accounted for in their plans.

Differential incentive rates and sharing factors are important to ensure networks continue to drive efficiencies, beyond those expected, where possible within the control. However, where the key goal for information-revealing devices is for networks to submit high quality, accurate and efficient business plans then setting an explicit upfront financial reward is important in achieving this objective because there is a clearly identifiable, quantifiable link between plan quality and reward, and by receiving it up front, this link is not muddled by the passage of time.

We note that not all companies that submit highly cost efficient business plans actually achieve them. For example, to date in RIIO-ED1 the fast tracked company has over-spent its allowances, suggesting it needed to be overly-ambitious in order to be assessed as fast track. We do not consider that forecasting a level of costs that cannot be achieved is desirable, and consequently, we believe that Ofgem will need to calibrate carefully the balance between reward for high quality business plans, and the incentive for cost outperformance.

In addition to this, it would be important to assess the interactions with other incentives or mechanisms within the framework. Some of the options being considered will significantly constrain networks' ability to achieve rewards through Totex and output incentives. Therefore the upfront incentive may be the only achievable measure to reward companies in driving costs down for customers.

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

We have no direct views on transmission; however, we agree that such a mechanism will be most effective where there are a statistically sound number of companies to compare.

30. 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?

We do not have any specific proposals for incentivising better business plans in transmission. However, the principle of rewarding companies who submit high quality, accurate and efficient business plans should apply across all sectors. Likewise, enhanced engagement must be a key component of business plan assessment across all sectors as it will provide Ofgem with more confidence and assurance in their assessment.

Whilst recognising the challenge Ofgem faces in being confident in any upfront rewards provided in a sector with few participants, the principle of rewarding companies who submit high quality, accurate and efficient business plans should remain.

Whilst we have not fully considered how Ofgem could achieve this, placing greater emphasis on customer and stakeholder engagement and the overall quality of the companies' plans may enable Ofgem to have more confidence.

In these scenarios, Ofgem must provide the transmission companies with clear, comprehensive and transparent details of the incentives and the criteria for assessment.

Annual reports / reporting

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

For annual reporting to be useful to customers and stakeholder it should be easily accessible, comparable, transparent and focused on what they value the most. Reporting should be proportionate, avoiding duplication, and data should only be requested where it is going to be used and is useful to Ofgem, customers and stakeholders.

By assessing the current suite of annual reporting requirements against these criteria and removing any requirements that do not meet them it will enable Ofgem to improve them, making them as efficient as possible for RIIO-2.

For annual reporting to be useful to customers and stakeholders it should be easily accessible, comparable, transparent and focused on what they value the most. Inaccessible, complex and exhaustive reporting focused on technical measures that only Ofgem and networks understand has been described by Citizens Advice¹² as a barrier to legitimacy and is also not in line with Ofgem's "simpler and clearer" objective for RIIO-GD2.

In developing the reporting requirements for RIIO-2 Ofgem should follow the principle of only requesting data where it is going to be used and is useful to Ofgem and stakeholders. Reporting requirements should also be aligned to Outputs with little or no need for additional secondary deliverable monitoring.

During the RIIO-GD1 price control review there were extensive discussions with Ofgem regarding the simplification of annual reporting and the need to reduce the volume of reporting. At that time, Ofgem were not keen to remove data items as they believed they could support benchmarking between GDNs, however none has been undertaken during RIIO-GD1 to date.

Two examples of annual regulatory reporting requirements embedded in the licence which networks must comply with but where neither Ofgem nor other stakeholders use the information are:

- Standard Special Condition D5, interruption services, which was first implemented in GDPCR1 and has never been used by Ofgem since; and
- Standard Special Condition D10, connection quotation audit reports, which is a legacy of the development of competition in the early 2000s.

There are numerous other examples of lower level reporting where the information is not used by Ofgem, stakeholders or GDNs so does not provide value to money for customers and we welcome the opportunity to support Ofgem's review.

¹² Comment attributed to Stew Horne, Principal Policy Manager - Energy Regulation, Citizens Advice at Ofgem RIIO-2 Framework Review workshop on Simplifying the price controls, 31 October 2017

During RIIO-1 a number of other reporting work-streams have also been introduced, in addition to the Regulatory Reporting Pack (RRP) and accompanying commentary, that appear to have similar objectives and in some cases cross-over. These include the Ofgem Annual Report, the Strategic Performance Overview (SPO) and the RIIO Accounts.

RIIO Accounts

There are areas of the RIIO accounts that could be automated once the enduring methodology has been agreed. In our view this exercise would reduce data and process handoffs (with a by-product of reduced error risk) and ensure there is a common and balanced view across all networks.

The RIIO accounts are targeted at quite a narrow investor audience when, at a time when there is clear misunderstanding of how networks are regulated and funded in the press, we should focus on expressing our performance in a way that is meaningful and transparent to customers and stakeholder to enable them to understand if network companies are providing the value for money services they want and need.

This should be reviewed for RIIO-2 with the requirements rationalised to ensure they are proportionate, avoid duplication and provide value for customers. This review should promote clarity, transparency, consistency and objectivity of information provision across energy networks.

We estimate that complying with all of the current regulatory information provision requirements costs our business around £2m per year. By simple extrapolation, based on the numbers of networks operating under the RIIO regime, we estimate that it could cost £16m per year, or £130m over an eight year price control, for companies to meet Ofgem's reporting requirements excluding Ofgem's own costs.

We recognise that reporting is important and that some costs are necessary; however we question the overall efficiency of the current approach. There are opportunities to rationalise and integrate reporting if networks and Ofgem were to consider information provision on a holistic basis.

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

The reports should focus on the things that customers and stakeholders value the most and identifying these should be part of networks enhanced engagement for RIIO-2. As a starting point, based on discussions we have held with stakeholders to date, there should be more emphasis on how performance impacts customers and their bills, including incentive payments. The reports should also show both service performance levels and company returns in a simple and comparable way.

Ofgem could work with companies to identify how to present performance in the most accessible way, for example like the Food Hygiene or Euro New Car Assessment Programme (NCAP) ratings. There could be a simple 'star' rating against each outcome area and networks could work with Ofgem to identify the methodology for converting technical Output measures in each area, using consumer

research, into these easily understandable ratings. High level outcomes that are recognisable across all sectors could also be developed so customers and stakeholders can compare networks performance across gas and electricity, distribution and transmission.

As well as being simplified, reporting in RIIO-2 should demonstrate the value that has been delivered for customers by network companies. This should be presented in a comparable way and include how a company's performance has impacted their customers' bills. This will be particularly important if Ofgem pursue some of the options being considered elsewhere in the framework consultation, including zero and fixed sum incentives, where customers of one company could potentially pay for performance improvements delivered by another company to consumers in a different part of the country. Another area that could be included to demonstrate the value that networks deliver for customers in other areas of the market is around how they have provided leadership through significant industry change programmes. Three examples are Project Nexus, the Xoserve Funding, Governance and Ownership review and the Faster Switching programmes.

In summary, the objective for reporting in RIIO-2 is that it is easily accessible, comparable, transparent and focused on what customers value the most.

Fair returns and financeability

Cost of debt

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

In summary we agree with the policy objectives, noting that consumers should pay no more and indeed no less than an efficient cost of debt for a notional company. The judgement is what constitutes "a fair and reasonable estimate" and we draw on the RIIO Principles and the CMA RIIO-ED1 determination to inform this. In particular we note the CMA view of the "benefits to consumer of regulatory consistency and hence a low cost of capital environment" should inform Ofgem's decisions around any changes.

We estimate that the approach to cost of debt indexation implemented by Ofgem will have helped to reduced domestic customer bills by around 6% or £8 per annum across RIIO GD-1 in our networks and we are supportive of a similarly based approach for RIIO-2. We generally support the policy objectives outlined by Ofgem, but supplement this with additional comments below.

a) Consumers should pay no more than an efficient cost of debt

Whilst we agree with this objective, we think it important to add a qualification that consumers should also pay no less than an assessed efficient cost, to preserve incentives for networks to raise debt as efficiently as possible, and ensure financeability. We add that an efficient cost of debt should include due consideration for transaction costs, as recommended by CEPA¹³. This is discussed in further detail in our response to Question 34 below.

b) The cost of debt allowance should be a fair and reasonable estimate of the actual cost of debt likely to be incurred by a notionally geared, efficient company

We agree with this objective, and would emphasize the point that cost of debt allowances are provided on the basis of a notionally geared efficient company. This concept is a fundament of regulatory financing arrangements and should have consistently applied logic in all areas (cost of debt, cost of equity, financeability and tax). By extension of this, the risks associated with financing decisions, and decisions made outside of the regulatory ring fence should be borne by organisations and not consumers.

However, the basis for assessing the “fair and reasonable estimate” is very important given the RIIO principle that “*the cost of debt assumed in the WACC to be based on a long-term trailing average and updated annually within a price control*”¹⁴. Network companies have adopted financing strategies to reflect this principle and the guidance provided by Ofgem: “*At subsequent 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*”¹⁵.

Therefore Ofgem needs to again consider the long-term debt profile of the regulated energy industry, taking account of the quantum of embedded debt, refinancing and new debt requirements in the RIIO-2 review periods, and a range of potential interest rate environments to ensure that the allowance remains “a reasonable estimate of the cost of debt” through the price review periods.

In the evidence Ofgem (GEMA) gave to the Competition and Markets Authority (“CMA”) responding to the British Gas Trading (“BGT”) appeal in 2015 the CMA report states:

*“GEMA stated that its approach was to consider efficiency of debt at the industry level, not to assess the efficiency of individual companies or their debt portfolios”*¹⁶

In its assessment the CMA said:

*“We attach more weight to the argument which recognises the challenges with identifying an effective efficiency test at the industry level. It is a common regulatory approach for sector regulators to consider debt costs at an industry level rather than an individual company level. In this light, GEMA’s approach seems broadly consistent with accepted regulatory practice.”*¹⁷

¹³ CEPA (2018): Review of Cost of Capital Ranges for Ofgem’s RIIO-2 for Onshore networks, p39

¹⁴ Handbook for implementing the RIIO model Principles page 105 Box 10 Summary of financeability principles

¹⁵ Handbook for implementing the RIIO model Principles page 114 paragraph 12.16

¹⁶ CMA BGT Final Determination paragraph 8.13

¹⁷ CMA BGT Final Determination paragraph 8.38

In the specific context of Cadent's debt portfolio we also note the CMA's comments at paragraph 8.42 which went on to say:

*"In principle, these measures should protect both consumers and debt providers from any unusual corporate activity with respect to debt costs. GEMA noted that its position was consistent with its previous regulatory approach and consistent with those of other utility regulators. We agree."*¹⁸

In the Joint Regulators Working Group (JRWG) report on the Cost of Equity, Appendix J examines the basis for premium to RAV paid and in respect of potential cost of debt outperformance notes:

*"To develop our cost of debt outperformance scenarios we draw on publicly available evidence from Cadent. As we set out below, there is evidence to suggest that Cadent will outperform significantly its RIIO-1 cost of debt allowance. The primary reason for this is that at the time of the transaction Cadent did not have a book of higher cost embedded debt. Cadent's debt book was largely refinanced as part of the recent sale process and hence Cadent presently has a debt portfolio with a low average coupon that gives rise to a substantial debt outperformance."*¹⁹

The CMA has previously affirmed the principle that that consumers and debt providers should be protected from unusual corporate activity. Accordingly, Ofgem's assessment of industry level debt costs should reflect the pre-transaction position in respect of Cadent's proportion of the industry total. This will ensure that allowances are not inappropriately skewed to the disadvantage of network companies' debt providers overall. The £900m premium paid by Cadent for early repayment of previous debt was necessary part of the business separation requirements of the sale transaction, and a real cost to the company that is not recovered through regulatory mechanics.

c) Companies should be incentivised to obtain lowest cost financing without incurring undue risk

We agree with this objective, and providing an industry benchmark for a notionally geared efficient organisation should provide such incentivisation, a view supported by CEPA²⁰. This is discussed in further detail in our response to Question 34 below.

This is also consistent with the CMA findings in the BGT Appeal:

*"GEMA noted at its hearing that there were also strong incentives to avoid under-performance. It commented that: If a company takes out particularly expensive debt, more expensive than it needs to, then it will effectively suffer the consequences or very substantially suffer the consequences for the lifetime of that debt. They are quite strongly incentivised to manage their debt costs in that way. We agree in principle with this approach to incentives."*²¹

¹⁸ CMA BGT Final Determination paragraph 8.42

¹⁹ JRWG Cost of Equity Study, Appendix J "What drives bid premia for regulated utilities" page J169

²⁰ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p27

²¹ CMA BGT Final Determination paragraph 8.40

d) *The calculation of the allowance should be simple and transparent while providing adequate protection for consumers*

We are in full agreement to the objective of transparency, and in broad agreement with the objective of simplicity, but as is often the case, there can be a trade-off between simplicity and accuracy.

In addition, whilst the mechanism should provide protection for consumers, the RIIO Principles behind the introduction of an index include:

- a longer-term view of financeability - reinforced by regulatory commitment; and
- risks to be allocated appropriately between companies and consumers - depending on who is the best placed to manage them²².

Therefore the consumers' interests should not result in an asymmetric risk to companies that any short term out-performance is treated as "profiteering" and removed whereas a shortfall against allowances regarded as company risk to bear.

The CMA BGT determination is also helpful in noting the "*benefits to consumer of regulatory consistency and hence a low cost of capital environment*".²³

In respect of the "simple and transparent" objective, Ofgem currently publishes the model used to establish the indexed cost of debt. Whilst there are some low level areas of possible simplification, the mechanics of the existing calculation are reasonably straightforward and can be traced back to source input data. The resultant annually revised allowed cost of debt percentage can be traced into the Price Control Financial Model, which is again published by Ofgem. We consider that continuation on a similar vein will adequately satisfy the transparency objective.

We note that the temporary cessation of underpinning Bank of England data impacted the cost of debt determination for the November 2017 Annual Iteration Process. Whilst the impact can be practically resolved retrospectively via the Price Control Financial Model, it may serve as a check point to test the durability of input data into existing indexation calculations.

Should Ofgem decide to switch to a CPI or CPIH based inflation indexation methodology, this would involve additional data inputs and calculative steps in the cost of debt indexation calculation, but we would not envisage these to be overly complex, and should be traceable back to source data provided that there is a consistent adjustment for the "wedge" between RPI and CPI.

Should Ofgem choose to amend the parameters of the existing indexation methodology, this again may involve additional data inputs and / or calculative steps in the cost of debt indexation model. In our response to Q34, we explore ways in which the cost of debt indexation methodology might be enhanced.

²² RIIO Handbook Summary of financeability principles Box 10 page 105

²³ CMA BGT Final Determination paragraph 8.64

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

In summary, we consider Ofgem should review and re-calibrate the RIIO-1 indexation policy which is considered to have been of great benefit to consumers and we consider that pursuing the other options would be retrograde steps for Ofgem. Ofgem has led the way in UK regulation with the concept of indexation and should not feel compelled to now follow other regulators which are catching up.

Ofgem have proposed three options for cost of debt allowance in RIIO-2

- a) *Re-calibrate the RIIO-1 indexation policy*
- b) *A fixed allowance for existing debt plus indexation for new debt only*
- c) *Pass-through allowance for debt*

We acknowledge the background against which Ofgem is reviewing options for RIIO-2 and these include referencing decisions made by other UK regulators. However, in this area Ofgem was a thought leader in establishing the RIIO Principles and adopting full indexation for debt allowances since 2013, a decision which has delivered material savings for consumers.

The RIIO-2 review is then the first test of the strength of the regulatory commitment set out in the RIIO Handbook and it is very important that Ofgem demonstrate this to be a meaningful commitment given the long-term benefits to consumers of regulatory consistency, as was noted by the CMA.

Therefore we strongly support Option A to re-calibrate the RIIO-1 indexation policy, being the most logical evolution for cost of debt in RIIO-2, and the option that is likely to drive best value for consumers in the long-term. We consider that both options B and C dis-incentivise efficient debt issuance. This has been a significant principle of previous price controls and we see no material reason to change.

Under option B, a fixed allowance is set for opening embedded debt, which holds for the entirety of the price control period. The allowance for incremental debt is based on an index mechanism. In these regards, we do not consider that option B is as refined a mechanism as the existing RIIO mechanism, and provides inconsistent incentives on embedded and new debt.

For Option C, we consider that a pass through arrangement would fail the policy objective that consumers should pay no more or less than an efficient cost of debt. Additionally, we consider this approach would be overly subjective and open to interpretation given potentially complex financing arrangements including cross-currency borrowing, derivatives and the need to adjust nominal debt for inflation. The lack of consensus between companies in the RIIO Accounts working group to agree how to measure a company's real cost of debt illustrates the difficulties in agreeing what would be the correct "pass through" figure.

We understand that for some single network licensees, that can't issue debt as frequently as the trailing average assumes, can have challenging embedded debt profiles and may therefore be attracted to the concept of pass through arrangements. We suggest that it is up to companies to demonstrate to their customers and Ofgem any related company specific financeability issues and that these are dealt with through separate mechanisms rather than apply pass through for the whole energy sector, for the reasons stated earlier. We comment further in our response to Questions 38 and 39 on financeability solutions.

Turning to our initial suggestions about the scope of refinement to the trailing average mechanisms, as we have already noted in our response to question 33(b), the indexation of the cost of debt has driven tangible reductions to domestic bills in RIIO GD-1. Much of the debate on cost of debt for RIIO-2 seems focussed on apparent network outperformance of allowances. We address this in further detail below, but argue from the outset that it should be desirable for organisations to have the ability to outperform a well calibrated indexation mechanism to a reasonable extent at times, whilst accepting there will equally be occasions where some companies may have a shortfall.

Given that regulated utilities currently make up around 50% of iBoxx indices²⁴, energy networks are strongly driving the actual allowance as currently defined, and the ability of organisations to issue new debt at levels below the prevailing allowance should only seek to drive the curve down further over time to the benefit of consumers. The concept of the trailing average is that as prevailing debt costs change over time, the allowance will adjust accordingly. For companies that can issue debt broadly in line with the assumptions, then this should be a reasonable proxy for actual debt costs. The challenge is where there are material short-term changes in rates as the trailing average will always lag and this is what we observe in recent years where the allowance is lagging behind prevailing issue costs but over time the averaging concept will apply.

CEPA's "Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore Networks" report provides some useful discussion on the appropriateness of existing approaches to cost of debt indexation, and factors for consideration when attempting to understand perceived network outperformance.

We agree with CEPA's assessment that the iBoxx GBP non-financial corporate A and BBB rated 10yr+ indices remain the appropriate basis of underlying indexation design²⁵. We consider that there is a compelling logic to harmonise the basis of the indexation mechanism in RIIO-2 for all Ofgem regulated network companies since fundamentally they have very similar credit and debt issue characteristics.

CEPA argue that the indexation mechanism could be improved by matching the timeframe for inflation adjustment to the average tenor of debt raised, taking 20 year break even inflation data over 10 year as is currently the case. This has the effect of lowering the real equivalent index because the 20 year break even inflation is higher. We broadly accept the logic for this, and it appears consistent with the principle recommended in the UKRN report accompanying Ofgem's RIIO-2 framework consultation, that components of the CAPM based WACC are estimated on a methodology consistent with chosen

²⁴ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p31

²⁵ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p35

time horizons²⁶. By extension of the same logic we propose that the trailing average period for the index should also be set at 20 years to ensure consistent logic throughout. Given the 10 to 20 year “trombone” implemented in RIIO ED-1, it may make practical sense to transition to a 20 year time frame on this existing methodology. This approach has been previously been supported via the CMA appeals process, albeit in an Electricity DNO context²⁷.

As the CEPA report notes, the 20-year trailing average is consistent with a low growth RAV and assumed similar tenor of debt with assumed bullet payments. We consider that Ofgem's further review of these factors will support this conclusion.

Whilst the CEPA based forecasts show that the 20-year index is currently forecast to be higher than the comparative 10-year index, it will be at absolute lower levels than prevailing rates, given the increasing number of years of low and negative real rates making up the index. Ofgem needs to review how the network companies' debt portfolio, including 15-25 year long-term debt issued in the past decade will respond under a range of future interest rate scenarios.

In addition, as the CEPA report observes, debt transactions costs are not explicitly dealt with under the existing RIIO framework and Ofgem's next stage of review needs to fully assess the reasonable level of these additional costs, including costs of holding liquidity to meet debt maturities.

The references to the perceived “halo effect” of network companies consistently issuing debt at lower levels than other similar rated companies has been dealt with in detail through the RIIO-ED1 price review and in particular was part of the BGT appeal to the CMA.

In summary, initial assessments infer a high degree of out-performance, and CEPA has made this same mistake. Ofgem acknowledged in its RIIO-ED1 final determination that when adjusting the date for tenor there is no such large halo effect and NERA submitted a detailed report to the CMA which fully demonstrated this. This was accepted by the CMA with a conclusion that although historic levels could be observed, there had been a significant narrowing and that any remaining amount could be assumed to be off-set by transaction costs. This is covered in detail in paragraphs 8.44 to 8.54 of the CMA determination and we urge Ofgem to review this rather than repeat the same process. However, we recognise that it may be helpful ahead of the RIIO-2 final determinations for the data analysis, originally provided by NERA to the CMA, to be updated to ensure the conclusion remains appropriate for RIIO-2.

The CMA report concluded:

“In summary, our analysis suggests that GEMA's assessment of the halo was adequate, and recent data suggests that the halo has been diminishing (i.e. DNOs have been less able to outperform the index). We do not therefore consider that GEMA was wrong in assuming a zero

²⁶ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p29, G-139

²⁷ CMA (2015) British Gas Trading Limited v The Gas and Electricity Markets Authority: Final Determination

*halo effect for new debt (net of issuance costs) or that GEMA failed to take account of any halo effect.*²⁸

Ofgem has signalled a review of the level of transaction costs incurred by network companies and we are keen to fully participate in this. Together with debt issue costs such as legal, book-runner and rating agency fees (which we observe at around 1% total of amount raised at time of issue) it is very important to consider the costs of holding the required liquidity. Companies cannot just assume they can refinance a maturing bond on the date of maturity (as implicitly assumed in the PCFM) with no incremental costs of raising the new debt early or holding undrawn bank facilities as stand-by liquidity. We support Ofgem and CEPA's view that this is an area that should be analysed further in assessing the RIIO-2 indexation mechanism, and perceived performance levels.

One final point concerns the Ofgem consideration as to whether to change the composition of the index to the A iBoxx alone rather than an average of A and BBB indices. Whilst this may be intuitively attractive, in that A band issuers will pay lower credit spreads, the choice of benchmark index needs to be consistent with the target credit rating profile of the notional company. The CEPA initial analysis of credit rating profile of a notional company based on the recommended cost of capital allowances is a weak BBB range (Moody's Baa2 or Baa3) at best. On this basis, the index should reflect a BBB rating rather than the average of A and BBB rated. However, we do not consider it a necessary and justified additional cost for consumers for the target financial profile to fully support a solid single A rating which would be consistent with selecting the A index alone.

At the RIIO-1 price reviews, Ofgem signalled a target of "solid" investment grade at the upper BBB / low single A area which informed the choice of benchmark indices for the cost of debt allowance. As we comment in response to question 38, we consider that it is necessary for network companies to retain these solid investment grade ratings given the debt capacity requirements and the related financial profile would be consistent with retaining the average of single A and BBB band indices.

Cost of equity

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

We do not agree with a number of aspects of Ofgem's proposed cost of equity estimation methodology and consider that, for a variety of reasons, the presented range of 3.07% to 5.08% (RPI stripped, real) is too low. We are supportive of the range of 5.51% - 6.34% recommended by Oxera in their report for the ENA "The cost of equity for RIIO-2".²⁹

We recognise that estimation of the cost of equity in a regulatory context is particularly challenging, and requires judgement on a wealth of varying sources of evidence. The fact that the authors of the UKRN report find it challenging to reach consensus on numerous points, and the very wide range presented by CEPA are a reflection of this.

²⁸ CMA (2015) British Gas Trading Limited v The Gas and Electricity Markets Authority: Final Determination paragraph 8.54

²⁹ Oxera (2018): Cost of Equity for RIIO-2, p6

To assist in the debate for RIIO-2, the Energy Networks Association (ENA) commissioned Oxera to provide what we consider to be a very balanced review of the current evidence for the cost of equity. The report, titled "The Cost of Equity for RIIO-2" can be found on Oxera's website here: <https://www.oxera.com/Latest-Thinking/Publications/Reports/2018/The-cost-of-equity-for-RIIO-2.aspx> but is also attached as an annex to our response for convenience.

Our views on Ofgem's proposed cost of equity estimation methodology are summarised as below.

Use of the Capital Asset Pricing Model (CAPM)

We agree that the Capital Asset Pricing Model (CAPM) should continue to be the basis for cost of equity estimation in RIIO-2, as there are currently no viable alternatives.

Interaction between Total Market Return, Risk Free Rate and Equity Beta

We agree that the CAPM calculates a weighted average between the risk free rate (RFR) and the expected total market return (TMR), the weighting to TMR driven by the equity beta.

Determination of the Risk Free Rate (RFR)

We agree that an appropriate proxy for the RFR would be the yield on UK index linked gilts in line with accepted practice.

We suggest that the time horizon for "long dated" gilts is given a clear and consistent definition. For instance Ofwat adopt 10 and 20 year zero coupon nominal gilts³⁰ whereas CEPA appear to focus solely on 10 year index linked gilts to provide their range³¹. In a report commissioned by the Energy Networks Association, Oxera also reference both 10 and 20 year gilts³².

When converting nominal gilts to real equivalents, a consistent approach for inflation adjustment is required, such that the time horizon for break-even inflation matches the time horizon for the data set in question.

Ofgem propose establishing the RFR at current levels and indexing forwards. We discuss this further in our response to Q36.

In the event that Ofgem decide not to implement indexation of the RFR, and implement a static assumption, an approach to estimate this for the period of the relevant price control will be required. The approach should be consistent with logic used elsewhere when estimating components of the CAPM and the WACC more broadly.

³⁰ Ofwat (2018): Delivering Water 2020: Our methodology for the 2019 price review Appendix 12, p65

³¹ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p31

³² Oxera (2018): Cost of Equity for RIIO-2, p11

Given the volatility we observe in the gilt data and what this might mean for the use of forward curves, there may be a case for adoption of forecast trailing averages, as suggested by CEPA³³. This has clear parallels to the approach adopted for cost of debt. If this approach were to be adopted, the time horizon for the trailing average should be consistent with assumptions adopted elsewhere, as recommended in the UKRN report³⁴.

The range presented by CEPA sets the low end at -1.75% based on spot rates for 10 year gilts at September 2017. Given that this is looking solely at a now historical snap shot of 10 year gilts, and in the context of the implied forward curves for 10 and 20 year gilts, we consider that this looks pessimistic. Indeed, CEPA recognise that the lower bound of their range is:

*"...less likely to be relevant in an ex-ante setting of the cost of equity, but more relevant with cost of equity indexation, or alternatively if a regulator considers that forward curves lack of predictive power means that current rates are most appropriate for using in estimations."*³⁵

We recognise that RFR, unlike other components of the CAPM, is more observable, and given that we are three years away from the commencement of RIIO-2 it is probably too early to conclude a position on this component, and we should instead continue to monitor the gilts data as we move through the process.

Determination of the Total Market Return (TMR)

We agree that the use of long run historical average returns remains the best objective basis for estimating future investor expectations. The UKRN report notes that, as we might expect, recent updates to the historical data set do not imply any significant change in view of long run averages³⁶.

When considering historical data, much depends on the weight attributed to geometric or arithmetic averages. Oxera provide some useful commentary to support the approach for weighting between geometric and arithmetic average³⁷. The view that academic literature is broadly supportive of placing more weight on arithmetic averages when estimating equity market returns is subsequently reaffirmed by Oxera³⁸.

We recognise that forward looking approaches (such as the Dividend Growth Model) provide a useful cross check to this position, but the outcome can be very sensitive to the assumed input parameters, and can indicate a variety of outcomes both higher and lower than historical long run averages. CEPA have developed a DGM to help inform their view of the TMR range based on forward looking evidence,

³³ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p45

³⁴ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p29

³⁵ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p46

³⁶ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, G-125

³⁷ Oxera (2018): Cost of Equity for RIIO-2, p19

³⁸ Oxera (2018): Review of Ofgem's initial cost of equity proposals for RIIO-2, p12

suggesting a range of 4.3% - 4.8% real³⁹. This varies to the view of Oxera of 7.5% based on the Bank of England DGM⁴⁰. Oxera note that the difference in view is driven by differences in the short term growth assumption applied (with CEPA adopting Office for Budgetary Responsibility projections, and Oxera utilising Institutional Brokers' Estimate System (IBES) forecasts of dividend growth for the FTSE All-Share index) and long term growth assumptions (with CEPA focussing solely on UK GDP growth, whereas Oxera taking weighted averages of international GDP growth forecasts)⁴¹. We support Oxera's approach, particularly with its basis in the Bank of England DGM, and in regard to long term growth assumptions, given that companies listed on the London Stock Exchange will be influenced by international markets which will have different GDP growth prospects to the UK.

A useful factor in determining a spot position for the market return is to consider the stability of the TMR. Within the CAPM formula, the equity risk premium (ERP) is defined as the difference between the TMR and the RFR. One argument is that the ERP is the stable proposition, and that the TMR will move with changes in the RFR. Alternatively, it is the TMR that is the stable proposition, and that the ERP will move to offset changes in the RFR. There is a wealth of academic and empirical evidence on this topic, with the consensus pointing to stability in the TMR. We note that this is also the shared opinion within the UKRN⁴² and Oxera⁴³ reports, and implicitly by CEPA in their assessment of cost of equity indexation options⁴⁴. The view is implicitly supported by Ofgem in their proposal for cost of equity indexation:

"One way of indexing the cost of equity calculation would be to treat it as a weighted average of the risk-free rate and the total market return, with the weight equal to the beta factor.⁹⁶ If we then assume that the total market return and beta values remain stable over the life of the price control, then it becomes straightforward to index simply the risk-free rate, and allow (1-beta) times the change in the risk-free rates to feed through into the cost of equity."⁴⁵

Oxera examine a broad and balanced range of evidence on the TMR, and we are supportive of their recommended range of 6% - 6.5%, on an RPI stripped real basis⁴⁶. This compares to the TMR of 7.25% adopted for RIIO GD-1.

Determination of Equity Beta

We do not agree with Ofgem's position on business risk as it relates to cost of equity determination. The emphasis of the RIIO-2 framework consultation document is on equity beta. We would make two observations at the outset. Firstly, business risk is reflected by asset betas, with equity betas rising as gearing increases. This is an important point because a company with a very low asset beta could still feasibly have an equity beta greater than one if its gearing level is sufficiently high. Secondly, the presented equity beta range of 0.71 to 0.80 is somewhat distorted by CEPA applying a high (65%)

³⁹ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p114

⁴⁰ Oxera (2018): Cost of Equity for RIIO-2, p34

⁴¹ Oxera (2018): Review of Ofgem's initial cost of equity proposals for RIIO-2, p12

⁴² UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p38

⁴³ Oxera (2018): Cost of Equity for RIIO-2, p33

⁴⁴ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p56-58

⁴⁵ Ofgem (2018): RIIO-2 Framework Consultation, p93

⁴⁶ Oxera (2018): Cost of Equity for RIIO-2, p33-35

gearing to the low end of their asset beta range (0.25), and conversely a low gearing assumption (50%) to the high end of their asset beta range (0.40). Ideally, the asset beta and gearing assumptions should be separated in the table presented by Ofgem for more clear interpretation by users.

Ofgem propose the use of more sophisticated econometric techniques such as the GARCH technique referenced in the UKRN to help inform beta estimation. We are supportive of any approach that can help provide objectivity, reliability and consistency to complement the determination of betas, but we are not convinced by the assertion in the UKRN report that equity betas of 0.3 to 0.5 would be econometrically defensible, because this range appears to be underpinned by illogical long range time periods, and by the unorthodox adoption of quarterly data points, and the use of limited UK-only comparator data.

To assist in the development of debate on this topic, Cadent has commissioned NERA Economic Consulting to review the beta related sections of Ofgem's RIIO-2 framework consultation, and the work undertaken for the UKRN and CEPA reports that it draws upon. The NERA report is provided as an annex to our consultation response, and we summarise the findings of the NERA report below.

NERA find that asset betas have increased since the financial crisis, and since the RIIO-1 determinations. The financial crisis led to a "flight to quality" for defensive stocks such as National Grid's, causing a reduction in price volatility that suppressed asset betas. They find that this situation has since reversed.⁴⁷

NERA have examined the analysis undertaken by CEPA, and instead conclude a range of 0.3 – 0.4 for the same UK-only comparator companies using 1-year, 2-year, 5-year and 10-year estimation windows. The difference in range appears to be driven by CEPA's weighting of historical data in the period 2011 to 2014 when asset betas were depressed for the reasons mentioned above. NERA argue that beta should be assessed on more recent data because this better represents the risks currently faced by companies.⁴⁸

NERA have provided a useful analysis of National Grid's asset beta, considering this to be a better proxy for energy network companies given the dominance of water companies in the UK comparator data set. The reality that National Grid's business is affected by US interests is a frequent point of challenge when considering its impact on the UK comparator company data. NERA have undertaken a compelling analysis of National Grid's beta, splitting it into its UK and US components, concluding a range of 0.43 to 0.47 for its UK activities.⁴⁹

CEPA's assertion that the risk faced by energy companies is comparable to the water sector is also challenged by NERA. CEPA only quote differences in pension deficit funding to justify this position. Whilst this may have some bearing, there are probably more relevant and higher impact considerations that would imply higher risk for the energy sector, such as the more dynamic nature of regulatory debt

⁴⁷ NERA (2018): Estimating Beta Risk at RIIO GD-2, p7

⁴⁸ NERA (2018): Estimating Beta Risk at RIIO GD-2, p8-11

⁴⁹ NERA (2018): Estimating Beta Risk at RIIO GD-2, p13-17

funding, the relative size of capital investment to RAV, and the uncertainty associated with the decarbonisation of heat. NERA also note the increase in regulatory and political risk since 2000.⁵⁰

NERA observe that the GARCH analysis included in the UKRN report is based on very long run estimation periods, and the highly unusual application of quarterly data frequency. It is argued that more recent, high frequency (daily) data should be used, the latter especially being more suited to the GARCH methodology. Interestingly, NERA find that GARCH offers similar results to the traditional OLS approach when using the same time period and data frequency. NERA consider that low frequency data results in imprecise beta estimation and arbitrary aggregation rules which appear illogical in combination with GARCH methodology. Of particular note is that NERA find that the specific definition of quarter start points can create dramatically different outcomes. Consequently, NERA find that the UKRN range is more driven by the choice of time frame and data aggregation rather than adoption of the GARCH model itself. In their own analysis, NERA consider data from additional European comparator companies, noting that a wider range of data should be employed when estimating betas.⁵¹

The topic of equity beta is also heavily referenced in Oxera's May 2018 follow-up report for the ENA, "Review of Ofgem's initial cost of equity proposals for RIIO-2".

Oxera also note the exclusion on non-UK comparator companies in CEPA's analysis, arguing that for a number of reasons, this is not representative of best practice⁵². It is noted that GARCH is one of many possible supplemental techniques that could be deployed, and offer the following advice when considering new approaches:

*"As Ofgem is considering introducing other econometric techniques to estimate the beta in addition to OLS, it would be advisable to consider a wide range of available techniques and not restrict these to one or two specific econometric models. Once the range of potential new techniques has been identified, their advantages and limitations relative to OLS can be examined, thus allowing the most effective techniques to be shortlisted to complement the standard OLS analysis."*⁵³

With regard to the GARCH methodology, Oxera note that consistency with a CAPM based methodology, which establishes a clear relationship between equity and market returns, needs to be demonstrated, and also that there are a number of functional forms of GARCH that could be used to test the overall robustness of beta estimates, and suitability of the GARCH approach. Oxera note that UKRN have utilised one functional form of GARCH with a single set of assumptions, and therefore recommend that a more comprehensive review is required.

We refer to Recommendation 6 in the UKRN report:

"Regulators should make more use of econometric estimates of equity beta. They should derive these estimates from sound econometric evidence and practice, utilising all available data for

⁵⁰ NERA (2018): Estimating Beta Risk at RIIO GD-2, p11-13

⁵¹ NERA (2018): Estimating Beta Risk at RIIO GD-2, p18-27

⁵² Oxera (2018): Review of Ofgem's initial cost of equity proposals for RIIO-2, p15 - 16

⁵³ Oxera (2018): Review of Ofgem's initial cost of equity proposals for RIIO-2, p17 - 18

*relevant listed companies. Betas for unlisted companies should be derived from estimated equity betas from the closest available comparator listed companies.*⁵⁴

There are some important points within this recommendation. The UKRN report recommends that econometric estimates should provide a supplement to traditional approaches to beta estimation, not to replace them. There are conflicting views amongst the authors of the UKRN report on both the application of the techniques adopted, and the interpretation of the results. Therefore caution needs to be taken until there is strong evidential support for these techniques.

We agree that betas for unlisted companies should be derived from estimated equity betas from the closest available comparator listed companies. However, there are only a very small number of UK listed comparator companies, and there are comparability issues even within that sample (for example the weighting towards water companies, and organisations that have substantial non regulated or overseas interests). Given that the UKRN report recommends consideration for both UK and International evidence in assessing the total market return⁵⁵, we see no reason why the same could not apply for beta estimation conceptually.

Because of the limited comparator data, the equity beta determination is the area of the CAPM based cost of equity that requires the most judgement and discretion of the regulator, and we therefore support the view of Burns in the UKRN report that:

*"Regulators should continue to use the CAPM on a wide range of comparator stocks, using higher frequency data (subject to testing for thin-trading and serial correlation), over different sample sizes, and interpret that body of evidence judiciously, in line with practice to date."*⁵⁶

The treatment of gearing when determining equity betas from observed comparator data is another key consideration. We concur with the approach recommended by Burns in the UKRN report that raw equity betas for comparator organisations cannot be transferred directly into the CAPM at the notional gearing level, and require de-gearing (at the observed level of gearing for the comparator organization) and re-gearing at the notional level⁵⁷. This is a view shared by both NERA⁵⁸ and Oxera⁵⁹.

We note that CEPA's proposed range of 0.7 – 0.8 is underpinned by a notional gearing range of 50% - 65%. The final determination of equity beta would need to be restated at the determined level of notional gearing for the relevant price control, and may vary by sector.

We do not agree with Ofgem's portrayal of the level of risk faced by network organisations, and we observe some inconsistent logic to proposals contained elsewhere in the consultation document. For

⁵⁴ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p55

⁵⁵ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p8

⁵⁶ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p9

⁵⁷ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p57

⁵⁸ NERA (2018): Estimating Beta Risk at RIIO GD-2, p28

⁵⁹ Oxera (2018): Review of Ofgem's initial cost of equity proposals for RIIO-2, p15

example, Ofgem cite protection from inflation via RAV indexation as a contributor to reduced risk, and yet propose the removal of this as a means to offset the financeability issues that will be created by lower returns. Additionally, where the efficiency frontier moves down between price controls, this incrementally makes the ability to outperform more challenging, and therefore a greater degree of cost recovery risk. The ability for share price rebound does not necessarily indicate risk resilience, nor (given the points on data comparability above) is not necessarily representative for all network organisations.

Whilst it can clearly be argued that regulatory protection may lower risk compared to other higher risk sectors, it does not entirely insulate network organisations. The UKRN report recognises that the regulatory regime can be directly consequential to the risk faced:

*"It has been established both in theory and in practice that the beta moves with the regulatory regime...A company's risk profile can be influenced by the nature of the regulatory system it faces, and this conclusion is well supported by empirical evidence."*⁶⁰

Market to Asset Ratios and Competitive Benchmarks

We agree that great care must be taken when drawing conclusions from observed market transaction bid premia, and at best can only provide a very broad general rationalisation of bidder expectation. We consider the following to be particularly pertinent:

- Transaction premia reflect the position of bidders at the point of the transaction - a retrospective lens with updated information may give a distorted position versus the original expectation
- The very long time horizon over which bidders would assess future cash flows
- The expectation of ability to outperform Totex and output incentives in the current price control period
- An expectation on ability to outperform Totex and output incentives in the longer term, and perceptions about the stability or consistency of regimes between price controls, (for instance, relative to the potential achievable RORE ranges sign posted by the regulator for the current price control period)
- Appropriate translation of enterprise level gearing to the notional RAV based gearing assumed in the relevant price control
- The ability to optimise financial structures outside the regulatory ring fence
- The extent to which transactions carry mark to market / fair value adjustments
- Willingness to pay a premium to establish credentials as a UK infrastructure investor

Ofgem also propose to consider competitive benchmarks from areas such as Offshore Transmission (OFTO) and the Thames Tideway Tunnel in the water sector. This might provide an additional cross check, but as Ofgem already note, there is not necessarily a direct read across to network companies. The UKRN report notes the difference in risk profile for OFTO assets:

⁶⁰ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, p82

"However, it is worth noting that the OFTOs and Private Finance projects have very different risk characteristics to most of the network utilities. Compared to established utilities operating under traditional regulatory frameworks, OFTO are awarded contracts that give rise to a regime with the following characteristics:

- *Fixed 20-year revenue stream, index linked to RPI.*
- *No price controls, so no regulatory reset risk (although some residual political/regulatory risk may remain should the OFTO model be revised retrospectively)*
- *No construction risk (at least all existing OFTOs for which evidence is available have been delivered under the "generator build" model under which the OFTO faces no construction risk)*
- *The OFTO asset value is fully depreciated by the end of initial 20 year revenue stream, implying no terminal value risk.*
- *Financing can be largely completed upfront, implying very limited refinancing risk (but with some scope for refinancing upside).*
- *Limited counterparty/bad debt risk, as the counterparty to OFTO contracts is National Grid.*
- *No exposure to generator performance.*

*This leaves only (capped) availability risk and operational cost risk to be borne by the OFTO. Private Finance projects involve greater construction risk than OFTOs but like OFTOs face lower risks than regulated utilities in terms of financing, regulatory and counterparty risks"*⁶¹

Despite the significantly lower risk borne by OFTOs, Ofgem note the recent tenders for offshore transmission imply a real RPI stripped cost of equity range of 4% to 5.5% which is much higher than the range of 3.07% to 5.08%⁶² proposed in the RIIO-2 Framework Consultation. Additionally, Ofgem's range is comparable to the Thames Tideway Tunnel, and it seems likely the Government's guarantees of certain risks will lower the overall financial risk for the project.

Distinction between Baseline Allowed Return and Expected Return

In setting the cost of capital, Ofgem seeks to ensure the ability of "efficient network companies to secure financing in a timely way and at a reasonable cost in order to facilitate the delivery of their regulatory obligations". Coupled with licensee obligations to maintain an investment grade issuer credit rating of not less than BBB- this infers that as a minimum, the baseline allowed revenue proposition must be financeable at the allowed cost of equity.

Ofgem propose to draw the distinction between baseline allowed returns and expected returns, but there is currently insufficient detail to understand what this will mean in practice. Any level of distinction would clearly have financeability implications, and therefore the points above should provide the guiding principles.

⁶¹ UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, pJ-172

⁶² Ofgem (2018): RIIO-2 Framework Consultation, p90

Additional high level sense check

Oxera make an important observation regarding the presented cost of equity range that we feel Ofgem should consider when assessing the overall WACC proposition. An inconsistency between estimates for the cost of debt and cost of equity is noted, in that the cost of equity range implies a lower level of remuneration required for the risks associated with assets than that provided to the debt on the same assets. Because debt has a higher priority claim over equity in the payment of interest and in the event of financial failure, investors in the assets are carrying more risk, and therefore should be compensated. This is shown in the table below, where the asset risk premium is lower than the debt risk premium in the low and mid case scenarios, and only equal in the high case.

Parameter	RIIO-2 proposals-	RIIO-2 proposals-	RIIO-2 proposals-
Real risk-free rate	-1.75%	-0.6%	-1.2%
Real cost of debt	0.30%	2.15%	1.2%
Equity risk premium	6.75%	7.10%	6.9%
Asset beta	0.25	0.40	0.325
Asset risk premium	1.7%	2.8%	2.3%
Debt risk premium	2.1%	2.8%	2.4%

Source: Oxera (2018): Review of Ofgem's initial cost of equity proposals for RIIO-2, p6

The implication is therefore that the presented cost of equity range of 3.07% to 5.08% is too low. As stated previously our analysis of the current market conditions points to a cost of equity range of 5.5% to 6.3% as evidenced by Oxera. This is reflective of the long run historical averages and current observable data in line with previous decisions and reflects the latest Beta analysis by NERA.

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

We recognise Ofgem's aspiration for objective and process driven mechanisms to set the cost of capital, but we are concerned that this will introduce further dynamic elements, and therefore uncertainty, to an already complex framework.

From a hypothetical perspective we recognise the attraction of an indexation mechanism that could remove subjectivity from the cost of equity determination. From a general point of fairness, if a component of the cost of equity can be reliably observed to move with market conditions, then again there is a prima facie attraction, although we should also consider how this might affect the balance of risk between network organisations and consumers. We are also sympathetic to the uncertainties faced when setting an ex ante cost of equity allowance for the duration of a regulatory price control period.

In practice though, only the risk free rate component of the CAPM can be objectively observed via index linked gilts (even this is a proxy for the risk free rate). We consider that the subjectivity involved in determining ex ante positions for the other CAPM components (TMR, ERP and Equity Beta) would mean that a reliable, stable and predictable basis for meaningfully indexing them is highly doubtful.

We should consider the impact of introducing a further dynamic element into the regulatory financing equation, given that Ofgem already note the potential impact to financeability resulting from lower returns. The ability to objectively assess the financeability of the RIIO-2 proposition would be more challenging with the existence of an additional moving parameter.

The extent to which the introduction of a dynamic parameter creates revenue volatility is another consideration. In a landscape where we are aspiring to drive down customer bills, this might not be an attractive proposition if there is likely to be year on year volatility in the index. Similarly, if there is likelihood that indexation will increase the cost of equity across the price control this possibility should be clearly signalled. We would note however that the impact of a movement in risk free rate alone is likely to have relatively low level of impact given its prominence in the CAPM calculation (the closer equity betas are to 1, the lower the weight of the risk free rate, and this does mean that the cost of equity is more sensitive to changes in the risk free rate at lower level of equity beta).

We are open to further engagement and industry debate on this topic – for instance, at present there is no clear proposal on how the RFR indexation mechanism might be designed. As noted above, the interaction with other aspects of the framework needs to be carefully considered. If it is concluded that indexation of the cost of equity based on movement in RFR should not be implemented, we recognise that there could be some useful practical applications of the thinking that could assist in setting an ex ante allowance in future price control reviews.

Financeability

37. 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?

We do not perceive benefit in this option, and appears to be a rather extreme solution to solving financeability issues that we believe should not occur if the regulatory finance framework is well calibrated and operating correctly.

Theoretically, the option should be net present value neutral as the higher nominal WACC drives cash flow at the front end at the expense of RAV indexation in the future. Although it is difficult to fully gauge given the current broad range on the base line WACC and unclear implications of the proposed performance driven expected return, we anticipate that this is likely to have a marked impact on customer bills at the commencement of RIIO-2, taking a number of years to restore to previous levels, all else being equal.

We also doubt that this option would be desirable to institutional investors who favour the future cash flow stability afforded by RAV indexation.

We consider that a potential switch to CPI (or CPIH) indexation could assist in easing financeability issues whilst still retaining an element of RAV indexation, and so may be a more suitable proposition comparatively, notwithstanding our view of this as an option as detailed in our response to question 41.

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

The requirement for Ofgem to ensure an efficient company is able to finance its activities remains a fundamental element of its duties, including the primary duty to consumers, given the “benefits to consumer of regulatory consistency and hence a low cost of capital environment”⁶³

Therefore it follows that so long as a network company is financed in line with the regulator's assumptions around gearing and frequency of debt issuance, and based on a price review package for an “efficient” company, then the onus for ensuring financeability lies with the regulator and not the company.

However these assumptions include a range for interpretation as to an “efficient” company and where the size of the company RAV means it is unable to practically issue debt as frequently as the trailing average assumes (i.e. either 1/10th or 1/20th per year).

If the network company cannot operate within the finally determined Totex allowances or if it has gearing higher than the assumed level for the notional company then the onus for financeability sits with the Company and its shareholders.

As CEPA notes it is too early in the respective price reviews to determine the appropriate notional gearing based on scale of capex and other cash flow variability. As business plans are developed companies will need to test the appropriate gearing levels and make proposals for Ofgem to review.

There is one further area of CEPA's report we have to challenge in this area. Under section 6.2 on Financeability CEPA notes that the main route open to companies to improve cash flow metrics is *Companies could influence the timing of their obligations through index-linked debt or swaps*⁶⁴.

Whilst it is accepted that this route has been a traditional option for all utility companies and indeed the Ofgem RIIO-1 Financeability assessment assumed 25% of index-linked debt, this has been against the background of RPI linked indexation.

Elsewhere CEPA recommends immediate shift to a CPI or CPIH based indexation for RIIO-2 (and we comment below under Question 41) but it is important to understand that there is no CPI bond or swap market to enable companies to match a proportion of their future RAV growth and revenue to the related index.

A small number of CPI linked bonds have been issued “by appointment” on bilateral basis but no large scale public and regular issuance in the absence of CPI linked gilts. Similarly it will not be possible for banks to enter into CPI inflation swaps until there is a CPI gilt market to match their obligations.

We note that Ofgem has engaged with the Debt Management Office and received no certainty that the government will start issuing CPI linked gilts anytime in the foreseeable future.

⁶³ CMA BGT Final Determination paragraph 8.64

⁶⁴ CEPA page 65

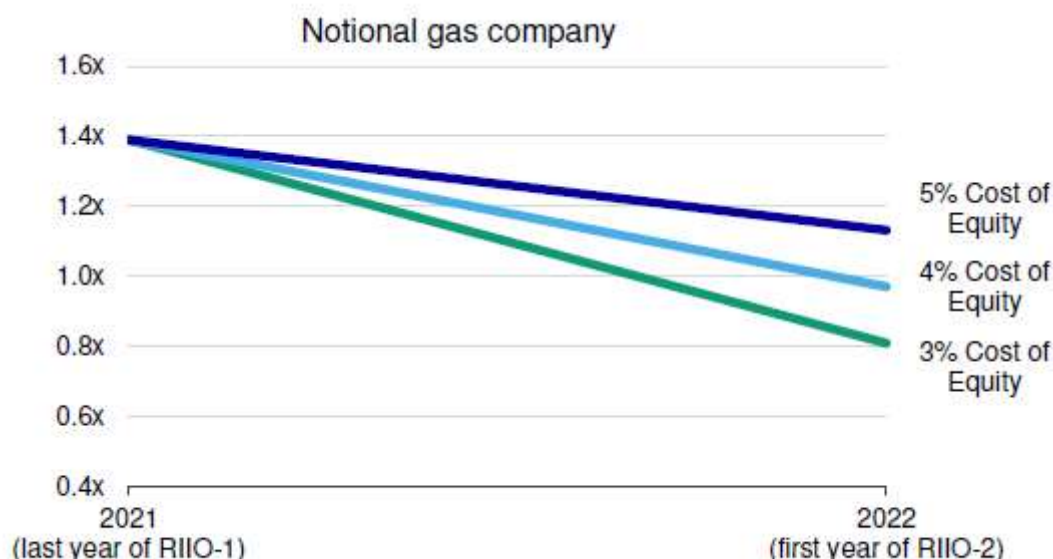
Therefore Ofgem should understand that alongside a shift to a CPI basis for the overall RIIO -2 price reviews network companies' ability to strengthen their financial profile through the use of index-linked bonds or swaps is not a viable route in any material quantum without creating a separate basis risk between RPI and CPI. Over the life of these types of instruments these liabilities would be very material and contribute to an increased financial risk profile of the companies, a further reason for the need for target financial profile to be "strong" BBB investment grade.

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

Whilst this might serve as some form of protective mechanism to manage short term financeability issues, we would be concerned by the prospect of an underlying regulatory finance situation that would require such a measure. The requirement for such a measure would have an adverse impact on credit ratings.

We note that on the 12 March 2018, following the publication of the RIIO-2 consultation document, Moody's published a special comment entitled "*British energy regulator's proposals would reduce returns for network owners*" in which it noted that at the low end of the cost of capital range, a notionally geared gas distribution company (65% RAV) would be unlikely to achieve the investment grade level financial profile, particularly with regard to the adjusted interest cover ratio.

"We estimate that a notional gas distribution company would have a Moody's -adjusted interest coverage ratio (AICR) of around 1.4x at the end of the current period, the bottom of the 1.4x-1.6x range that we generally regard as consistent with a Baa1 rating. If the allowed cost of equity is cut to 3%-5% in RIIO-2, we estimate that the company's AICR would fall to 0.8x-1.1x. This suggests that even a company leveraged close to regulatory assumptions would come under pressure in RIIO-2".



Projected Adjusted Interest Cover Ratio (AICR) based on indicated cost of equity range. Assumes 75% notional debt and 25% index-linked debt.

Source: Moody's British energy regulator's proposals would reduce returns for network owners 12 March 2018.

Note that this analysis only shows the step down in the first-year of GD2 and does not additionally factor a declining cost of debt allowance through the five years of GD2. Ofgem should review the forecast financial profile of the network companies through RIIO-2 and consider a range of interest rate scenarios and then determine the refined and aligned cost of debt mechanism that, together with a spot cost of equity delivers a resilient profile supporting strong BBB band credit ratings for a notional company.

Corporation tax

40. 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?

We would expect Ofgem to review tax arrangements as part of any price control process. However, we think that the current approach for calculating tax allowances within the Price Control Financial Model remains appropriate, and the main reasons for any differences between tax allowances and actual tax costs would not indicate a need for adjustment.

The PCFM for RIIO GD-1 includes a detailed computation of tax allowances for a notionally geared efficient organisation. Tax allowances are initially calculated on an ex-ante basis, and updated annually via the Annual Iteration Process (AIP) to take account of actual Totex performance, changes to cost allowances, and annual updates to the allowed cost of debt arising from the indexation mechanism.

The tax calculation also includes “tax trigger” events to adjust tax allowances (subject to a dead-band) for changes in corporation tax rates and other changes to the statutory tax regime.

It is important that the regulatory tax allowance calculation follows the principles of a notionally geared efficient organisation in line with the regulatory framework elsewhere. This then ensures the correct and consistent interaction between other elements of the regulatory finance model, such as the cost of capital, net debt and the Totex incentive mechanism. This principle necessitates the operation of the tax allowance calculation entirely within the regulatory ring fence, using regulatory definitions of allowed costs and revenues for network organisations.

The current approach provides a protective clawback mechanism in the event that an organisation's actual gearing and interest costs both exceed notional levels, which provides a solid incentive for network companies to operate within intended regulatory parameters.

The current approach does include some reasonable simplifications, for instance opening capital allowance pools are set at actual levels, with incremental additions based on percentage of Totex rules that are the same for all Gas Distribution Networks. Similarly, the calculation takes account of actual opening tax losses, which are offset by future ex ante tax calculations.

The PCFM is designed to make two year lagged adjustments to allowed revenue, and as such there can be timing differences between actual cost performance and revenue adjustments. This then would create a source of variance between tax allowances and actual tax costs. Similarly, the PCFM does not take account of the tax impact of actual cost pass through variances to allowances, because pass through true ups are calculated outside of the PCFM. Again, these create a timing difference between actual costs and revenues, and consequently tax allowances and actual tax costs. The PCFM could be refined to take account of these timing differences, but this would add a great deal of additional complexity for little value if it is proven, and accepted, that these are purely timing differences.

In addition to the above, we would anticipate the following to be the key sources of difference between tax allowances and actual tax costs:

- Differences between UK GAAP and regulatory definitions of taxable costs, and tax treatment thereon
- Differences between notional gearing and actual gearing levels
- Differences between allowed cost of debt and actual cost of debt (note that where an organisation outperforms the allowed cost of debt, its interest costs would be lower, resulting in a lower tax shield and higher actual tax costs)
- The legitimate exclusion of excluded services, non-formula or non-regulated activities from the PCFM tax allowance calculation
- The exclusion of additional revenue earned from output incentives, some of which carry an embedded notional tax gross up within the licence formulae, and others which do not
- Group relief claimed from other group companies. In accordance with the regulatory arms' length principle Cadent's policy is to pay the full economic cost for the group relief and therefore the cost of the group relief replaces the cost which would otherwise be paid to HMRC.

We do not consider that these sources of difference fundamentally bring the current notional tax allowance approach into question. As always, there can be areas for refinement, but this should strike an appropriate balance between simplicity and accuracy.

With regard to the options tabled by Ofgem, we consider that the current approach, inclusive of annual iteration process adjustments, tax triggers and clawback mechanisms sufficiently fulfil the aim of Option A (notional allowance with added protections).

We consider that Option B (actual payments to HMRC) and Option C (the 'double-lock': the lower of notional and actual) are not workable because they represent a structural break in the principle of a notionally geared efficient organisation applied elsewhere in the regulatory finance framework. Actual payments to the HMRC are made at entity level, and will reflect the legitimate sources of difference between tax allowances and actual tax payments detailed above. As such there is no concept of actual tax payments made within the regulatory ring fence. To understand the difference would involve complex and burdensome reconciliations to separate the relevant costs and revenues as they relate to the regulatory ring-fence, and to reconcile the differences between UK GAAP and regulatory accounting treatments.

Other finance issues

41. Do you agree that we should move away from RPI for RIIO-2 (including 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?

We remain of the view that energy networks are different to water companies, in that the regulator does not control the final consumer bill through the regulatory process, therefore the justification for a change to a CPI basis is not compelling in the interests of consumers, given the complexity this would add to framework and the potential higher costs to current consumers.

We also remind Ofgem of its criteria to review this in the RIIO Handbook was that a market in CPI gilts and bonds needed to have become established and as stated in answer to Q38 there is no such prospect at this stage.

However we recognise the presentational issue given the move away from RPI as a national statistic and pressure on Ofgem from the JRWG and other commentators to move the price review to a CPI basis.

We believe that Ofgem should establish a joint working group with the Energy Network Association and other invited stakeholders to work through the mechanics of such a change to ensure all aspects of the future price review are internally consistent and to determine the best way to deal with the transition question and mitigate the risks identified by CEPA and others. Ofgem can then base a final decision on

the work group output against the criteria proposed by CEPA: Value, Accuracy, Transparency, Legitimacy and Complexity.

42. 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?

Given the change in depreciation methodology that was implemented for RIIO GD-1, we had not anticipated further changes for the RIIO-2 price control. This in itself resulted in retrospective catch up adjustments to allowed revenue in RIIO GD-1 that create a sharp drop in regulatory depreciation between price control periods.

RIIO GD-1 included a change from 45 year straight line depreciation on post vesting RAV additions, to a 45 year sum of digits basis, and was driven by the change in capitalisation policy for mains replacement, which shifted from a 50/50 fast/slow split in the first year of GD-1 to fully slow funded by 2020/21.

The differential between the two methodologies was calculated for the period 1st April 2003 to 31st March 2013. The resulting differential (£263m in 2009/10 prices across Cadent's four networks) was allocated across the eight year RIIO GD-1 period on a manually profiled basis. As a result of this we anticipate a sharp drop in regulatory depreciation between 2020/21 and 2021/22 of around 15% (or £90m in current prices).

This provides a useful example to demonstrate how management of short term financeability issues can have downstream consequences, and evidence of why we are reluctant to rely on short term levers to solve financeability gaps in RIIO-2.

43. 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?

We agree that the business plan submission stage would be the logical point in the process to assess fast/slow splits.

Given the current uncertainty over baseline allowed and expected returns, and Ofgem's current position on financeability, we would aim to have initially assessed our view of this during business plan development.

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

We currently see no reason to amend this approach, and consider that by extension of the same logic, a similar mechanism for the transactional costs of raising debt, as recommended by CEPA⁶⁵ is warranted.

Under current arrangements, if notional gearing is exceeded by more than 5%, the Price Control Financial Model assumes an equity injection to restore the position to the notional gearing level. Equity issuance costs are allowed in base revenue at 5% of the value of the equity injection.

The Price Control Financial Model (PCFM) is designed to simulate the financing arrangements for a notionally geared efficient network organisation. It is important that this logic should be consistently applied throughout - in cost of capital estimation, tax and interest calculations, and funding of costs at an efficient level. If therefore, the regulatory model assumes that network companies should inject equity to maintain the notional level of gearing, and to do so would attract transactional costs in the real world, then the PCFM should appropriately reflect this.

We consider that the same logic would apply for the transactional costs of raising debt. Traditionally, this has been treated as a notional offset to perceived cost of debt outperformance, but where Ofgem are seeking to improve the precision of allowed cost of debt indexation, this should be a separately identifiable and defined component.

Ensuring fair returns

45. What are your views on each of the options to ensure fair returns we have described?

We support the inclusion of the RoRE Sharing Factor mechanism. To ensure that it supports the delivery of what customers want and need Ofgem must ensure that it is calibrated correctly.

The existing tools and mechanisms within RIIO can be evolved to improve the framework and deliver against Ofgem's objectives for RIIO-2; however the RoRE Sharing Factor would complement these enhancements.

We consider that RIIO-GD1 has worked well in accordance with regulatory principles. GDNs have delivered cost reductions, service improvements and have redefined the future role, and wider potential, for the gas networks. However, the key issue that Ofgem must address within this consultation is establishing the correct balance of risk and reward between energy networks and customers.

Whilst evolving the existing RIIO mechanisms would deliver the desired framework improvements at the same time as maintaining regulatory principles, it is critical that public confidence is retained as

⁶⁵ CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p39

regulatory principles will count for little if it is lost. Therefore, we believe that Ofgem can best meet the objectives for RIIO-2 through the development of the RoRE Sharing Factor 'failsafe' mechanism. We note that our view has been strongly supported at Ofgem's stakeholder and investor workshops which have had good representation from across the broad spectrum of interested stakeholders.

The existing framework mechanisms can be improved for RIIO-2

The external stakeholder environment has changed since setting RIIO-1 and we recognise the requirement to improve areas of the framework for RIIO-2, however these improvements can be delivered by amending and evolving existing tools and mechanisms.

Some key updates and evolutions to the existing tools within the RIIO framework that will deliver the required improvements for RIIO-2 include:

- The introduction of Customer Engagement Groups and the RIIO-2 Challenge Group which will provide increased assurance on how the outputs from customer research and stakeholder engagement have shaped companies' plans;
- The use of RIIO-1 data, in addition to pre-RIIO data, to support Ofgem in setting stretching performance targets and allowances;
- The resetting of Repex allowances in gas distribution. This will see the transformational benefits delivered following the HSE review of the Iron Mains Replacement Programme at RIIO-1 passed on to customers. This will significantly reduce the opportunity for GDNs to outperform allowances in RIIO-2;
- Reviewing the length of the price control. A shorter control, whilst reducing the efficiencies that can be delivered for customers, is likely to restrict the distribution of actual costs from allowances compared to if a longer control period was used;
- Resetting the cost of equity. This will adjust allowed returns in line with current market conditions. The shorter length of control will then limit the variance between the allowed return and market conditions;
- Reviewing the cost of debt to ensure the most representative index is used. This will drive the best long-term value for customers; and
- Amending the information-revealing device(s) for RIIO-2 to be more transparent and provide greater differentiation between companies.

Introducing a 'failsafe' mechanism to retain public confidence

Whilst we are confident that these updates to the existing tools and mechanisms within the RIIO framework would deliver the required improvements we would support the introduction of a RoRE Sharing Factor mechanism to further protect customers and ensure that public confidence is retained.

There is much work to do to determine the precise form of this mechanism and setting an appropriate deadband will be an important point. Ofgem should work with companies to develop clear, comprehensive and transparent guidelines and assessment criteria for the RoRE Sharing Factor mechanism. The final details of how the RoRE Sharing Factor mechanism will work should be provided at the earliest opportunity and at latest in the sector specific strategy decision documents. This should include how it will be applied to different ownership models i.e. company, licensee or network level.

We have developed a set of criteria to assess which of the 'failsafe' mechanisms would be suitable for use in RIIO-2. Based on this assessment the RoRE Sharing Factor option represented the smallest departure from the RIIO regulatory principles and was the only one to meet each criterion. As such, this is the only one of the options proposed within the framework consultation that we support.

The criteria we have tested the 'failsafe' options against are:

- Will it restrict returns above / below a set level;
- Is it predictable for network companies, avoiding additional uncertainty outside of their control;
- Does it maintain the incentives within the framework for companies to keep driving cost efficiencies and performance improvements;
- Does it maintain the desired network behaviours of long term thinking, proactive anticipation of future customers' needs, whole system thinking, innovation and collaboration;
- Does it support customer bill stability and predictability; and
- Does it avoid regulatory burden.

We have provided a summary assessment of the 'failsafe' options against these criteria in figure 45.1 below and provide further detail in the following sections.

Figure 45.1: Assessment of proposed 'failsafe' mechanisms

Assessment Criteria	Hard cap / floor	Discretionary adjustments	Constraining Totex and output incentives	RoRE sharing factor	Anchoring returns
Restricts returns					
Predictable / avoids uncertainty					
Maintains incentives					
Drives desired behaviours					
Supports bill stability and predictability					
Avoids regulatory burden					

Hard Cap / Floor

Assessment Criteria	<u>Hard Cap / Floor</u>
Restricts returns	A hard cap and floor would completely stop returns above or below set levels
Predictable / avoids uncertainty	Companies would know where the pre-determined levels were set. The use of this mechanism would be based solely on a networks own performance. Therefore, this option provides certainty for companies.
Maintains incentives	<p>This option would weaken the incentives for networks to submit ambitious plans.</p> <p>Incentives to drive cost efficiencies and performance improvements would also be completely removed once the cap or floor was exceeded.</p> <p>This would reduce the benefits customers receive from well performing networks and expose them to more downside from poorly performing networks.</p>
Drives desired behaviours	<p>As this measure is set on company specific performance it would maintain positive collaborative behaviours and would not be restrictive to whole system thinking or networks proactively responding to evolving customer needs.</p> <p>It may, however, be restrictive to innovation and some long-term thinking where the cap would mean that investments would not deliver the returns required by companies to make these business decisions.</p>
Supports bill stability and predictability	<p>This option could introduce some volatility and limitations to the predictability of customer bills. These challenges would be greater depending on if the cap and floor were applied on an annual or cumulative basis.</p> <p>If used, it should be applied on a cumulative basis to recognise that networks do not necessarily have flat workload profiles throughout the control period, so there may be years with greater or lesser opportunity to out/under-perform.</p>
Avoids regulatory burden	Whilst company forecasts could be used to assess whether the cap or floor would be breached, this option would place greater focus on Ofgem's annual assessment process and require a true up mechanism at the end of the control which would introduce some additional regulatory burden.

Discretionary Adjustments

Assessment Criteria	<u>Discretionary Adjustments</u>
Restricts returns	This option would require a network to justify their returns if they exceeded a set level. If Ofgem did not agree with the justification the company's returns would be restricted.
Predictable / avoids uncertainty	<p>As application of, and assessment against, this option would be at Ofgem's discretion it would introduce significant uncertainty to the price control, potentially increasing the required base returns to maintain investment. Due to the discretionary nature it would also require the most definition upfront. This definition would need to include clear, comprehensive and transparent guidelines on:</p> <ul style="list-style-type: none"> • The returns level at which it would be applied; • The evidence that networks must capture, beyond that submitted through existing regulatory reporting, to justify their performance; • The assessment process to be followed; and • The timelines for adjustment.
Maintains incentives	<p>This option would weaken the incentives for networks to submit ambitious plans.</p> <p>Companies may also 'take their foot off the gas' as they approach the set returns threshold. This is due to previous experiences of ex-post assessments, including uncertainty mechanisms, where companies have no right to appeal if they disagree with the decision. This is different to ex-ante regulation where networks can refer proposed licence changes, relating to Ofgem's decisions, to the CMA. This challenge could be heightened where there is concern over the risk of inconsistent treatment between different companies.</p> <p>This would reduce the benefits customers receive relating to cost efficiencies and performance improvements.</p>
Drives desired behaviours	<p>This measure would maintain positive collaborative behaviours and would not be restrictive to a whole system approach as it would not be impacted by other companies' actions.</p> <p>It may, however, be restrictive to innovation and some long-term thinking where networks were reaching the set returns threshold unless clear guidelines on what would be considered justified were available to companies.</p> <p>Careful consideration would also need to be given to whether the threshold is set at a company, licensee or network level.</p>
Supports bill stability and predictability	As this option is discretionary it would make accurately predicting customer bills impossible for networks as they approached the returns threshold. This would be because the company would assert that these returns were justified but Ofgem may not and therefore subsequently claw them back.
Avoids regulatory burden	<p>This option would also introduce the greatest level of burden on networks and Ofgem.</p> <p>Networks would be able to breach the set threshold on a cumulative basis at any point in the control and there is the possibility of multiple companies requiring assessment at different points within the period.</p> <p>This option would also require the greatest level of information provision and assessment.</p>

Constraining Totex and Output Incentives

Assessment Criteria	<u>Constraining Totex and Output Incentives</u>
Restricts returns	This option would restrict the amount of returns that a company could keep from efficiency performance as well as limiting the number of companies that could achieve positive returns from incentives.
Predictable / avoids uncertainty	The constrained Totex element of this option would be predictable; however, as the outcome from output incentive element would be dependent on other companies this would introduce significant uncertainty for networks.
Maintains incentives	<p>We agree with Ofgem that the sculpting of Totex would not introduce incentives for networks to be less ambitious in their plans, but could have the potential to delay efficiency improvements if not calibrated correctly. As such, careful calibration of the sharing factors would be required to ensure that sufficient incentive remained for networks to continue trying to reduce costs whether they are under or over spending.</p> <p>Limiting output incentives, or indeed including the ability to penalise networks where they've delivered improvements beyond expectations, would not align with the principles of RIIO or be in customers' interests.</p> <p>A key indicator for a successful regulatory framework is where company performance is aligned to the delivery of good customer outcomes. Therefore, output incentives where all networks can be rewarded by responding to what their customers want or need should be an essential part of the RIIO-2 framework.</p> <p>This relative performance approach would limit networks incentives to improve performance and could actually reward companies for providing a worsening service, as long as the deterioration was less than seen from others.</p> <p>This option also creates a disconnect between the incentives on Totex and those on Outputs, with those on Totex being predictable and those on Outputs not. In this scenario it would be difficult for a company to decide whether to incur costs to achieve a better Output. This approach would be both unpredictable and inconsistent between the treatment of Totex and Outputs and therefore bad for incentives.</p>
Drives desired behaviours	<p>This approach would put networks in direct competition with each other, guaranteeing that some 'win' and others 'lose' which would deliver a, potential forced and unjustified, spread of returns. This culture of 'winners' and 'losers' would mean that companies would not collaborate or share best practice with each other as they could only 'win' if someone else 'lost'. Please see our response to question 19 for details on the benefits delivered to customers through collaboration. Careful consideration would also need to be given to whether competition is set at a company, licensee or network level to ensure that it does not discriminate against specific ownership models in some sectors.</p> <p>This option would also drive insular, reactive and short-term behaviours in networks at a time when the most value for customers will be driven by a proactive, long-term and whole system approach to finding the lowest cost pathway to decarbonisation.</p>
Supports bill stability and predictability	This option could potentially make it easier for networks to forecast customer bills and reduce volatility as customers would pay a fixed amount to contribute towards sector output incentives regardless of the performance they receive.
Avoids regulatory burden	This option is likely to require increased resource to analyse output incentive performance and calculate the adjustments to cumulative Totex out-performance.

RoRE Sharing Factor

Assessment Criteria	<u>RoRE Sharing Factor</u>
Restricts returns	<p>This option would restrict the amount of returns that a company could keep from cost efficiency and output incentive out-performance.</p> <p>Companies' successes and failures would be shared with customers; this aligns well with RIIO principles.</p>
Predictable / avoids uncertainty	<p>This option would provide certainty for companies as they would know where the pre-determined change in sharing factors were set.</p>
Maintains incentives	<p>This option would not introduce incentives for networks to be less ambitious in their plans especially where coupled with a high-powered information-revealing device.</p> <p>There could be some reduction in incentive for companies to keep driving costs down or improving performance; however, this could be mitigated through careful calibration ensuring that sufficient incentive remained for networks.</p> <p>This approach supports the link between incentives on Totex and those on Outputs with the same, known, sharing factor available for both. This would enable a company to make an informed decision in incurring costs to achieve a better output.</p>
Drives desired behaviours	<p>If calibrated correctly this option would maintain all of the desired network behaviours.</p> <p>Careful consideration would, however, need to be given to whether the sharing factors should be set at a company, licensee or network level.</p>
Supports bill stability and predictability	<p>This option would not increase the difficulty in forecasting customer bill nor introduce any further volatility in to them.</p>
Avoids regulatory burden	<p>The RoRE Sharing Factor mechanism may introduce some additional burden into the process, including calculating the impact on returns at different performance levels for different companies, but this is likely to be minimal.</p>

Anchoring Returns

Assessment Criteria	Anchoring Returns
Restricts returns	Anchoring returns would restrict the number of companies that could achieve returns outside of a set range.
Predictable / avoids uncertainty	<p>This option would introduce further uncertainty, as a company's returns would be out of their control and driven by the performance of other networks.</p> <p>The extent of this would be driven by the approach Ofgem took to anchoring. Ofgem presented three options at a workshop held on 28th March – absolute adjustment, proportionate adjustment and targeted adjustment. Out of these options targeted adjustment would introduce the least uncertainty.</p>
Maintains incentives	<p>This option may weaken the incentives for networks to submit ambitious plans. The absolute and proportionate adjustment options weaken this incentive the most.</p> <p>In the targeted adjustment option companies may 'take their foot off the gas' as they approach the set returns threshold to avoid adjustment thus delaying benefits for customers.</p> <p>Under all options companies would have difficulty sanctioning investments and innovations that could deliver customer benefits as they may not be repaid either because the network would exceed the allowed returns range or due to other companies' performance resulting in an adjustment.</p> <p>At an extreme this mechanism could actually lead to networks allowing their performance to deteriorate so that sector returns fall below the expected level. This would then lead to all companies returns being 'boosted' by Ofgem even though they will have failed their customers.</p> <p>Another issue with anchoring would be managing the effects of companies of unequal size on the mechanism. If a big company performs well against Totex and Output incentives it will have a far bigger impact on a small 'competitor', than on the big company if the small company does well.</p>
Drives desired behaviours	<p>The absolute and proportionate adjustment options would put networks in direct competition with each other, with ones opportunity to 'win' amplified and increased if others 'lose'.</p> <p>This would drive undesired outcomes for customers and would signal the end to collaboration and sharing of best practice. Please see our response to question 19 for details on the benefits delivered to customers through collaboration.</p> <p>These options would also drive insular, reactive and short-term behaviours in networks at a time when the most value for customers will be driven by a proactive, long-term and whole system approach to finding the lowest cost pathway to decarbonisation.</p> <p>Careful consideration would also need to be given to whether competition is set at a company, licensee or network level to ensure that it does not discriminate against specific ownership models in some sectors.</p>
Supports bill stability and predictability	This approach would increase the difficulty for networks to accurately forecast customer bills and would introduce volatility, both of which would be driven by other companies' performance.
Avoids regulatory burden	<p>There would also be administrative burden on Ofgem to continually review RoRE calculations and make revenue adjustments each year.</p> <p>Even if this is completed after the end of the price control there would be a huge assessment to be carried out, and would be onerous on Ofgem.</p>

46. Is RoRE a suitable metric to base return adjustments on?

- Are there other metrics that we should consider, and if so, why?

RoRE is a well-established regulatory measure which has been used across multiple price controls and allows customers, stakeholders and regulators to compare performance across networks. It covers Totex and Output incentive performance which are the main network controlled within-period variables that impact upon customer bills. Therefore this is a suitable metric to base return adjustments on.

During RIIO-1 there has been some confusion over the levels of network returns, particularly the difference between base and performance related returns. As such, it may aid customer and stakeholder understanding and comparability of returns if RoRE is expressed without the cost of equity for RIIO-2. The cost of equity represents the base return and is the fixed cost of financing the networks. It is not performance related and does not drive changes to customers' bills within the price control.

Next steps on the RIIO-2 framework and developing our sector-specific proposals

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

The key interlinkages that will need to be maintained during the sector-specific stage of the RIIO-2 price control review will relate to delivering the whole system outcomes required by current and future consumers.

Ofgem must consider the interactions between sectors on outputs, incentives and innovation both where there are existing interfaces and where there will need to be to deliver these whole system outcomes. More details are outlined in our response to question 5.

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

We agree with the sector-specific issues highlighted and have no specific views at this time.

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

In addition to the issues highlighted by Ofgem in the RIIO-2 framework consultation we would also propose that the following two topics be considered as the sector-specific proposals are developed:

- *The approach to closing the RIIO-1 price controls and how this will feed in to setting the RIIO-2 controls; and*
- *How networks will support customers in vulnerable situations, including tackling fuel poverty, in RIIO-2.*

We will continue to work with Ofgem to identify and discuss further sector-specific issues through the various bilaterals, stakeholder workshops and working groups over the coming months.

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

The timetable for the gas distribution sectoral price control appears very tight and we are concerned that this may limit the value that networks can deliver through the enhanced engagement process. It is important that the customer engagement carried out by networks influences the sector specific proposals shaping the conversation and outcome and so this should be factored into Ofgem's thinking.

Learning from the RIIO-1 process we would also recommend that Final Determinations and Licence Modifications take place earlier than indicated in the timetable.