

Cadent Response

Frameworks for future systems and network regulation: enabling an energy system for the future

19th May 2023

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Contents

Executive Summary	3
Archetypes for future network regulation	7
Q1. What should the role of the ‘consumer voice’ be and through what institutions and processes should it be channelled?	7
Archetype 1: ‘Plan and Deliver’	9
Q2. How detailed could an independent, cross vector view become to determine future plans for periods beyond RIIO-2 and support effective use of the ‘Plan and Deliver’ model?	9
Q3. Under what circumstances would competition, or other procurement models such as open book contracting, have benefits over ex ante incentives as a cost control mechanism?	12
Archetype 2: ‘Ex ante Incentive Regulation’	13
Q4. What is your view on the options identified for simplification of incentive regulation? What would be the benefits and costs by comparison to the approaches used in RIIO-2?	13
Archetype 3: ‘Freedom and Accountability’	21
Q5. What are the network activities where there would be benefits for a move to an ex-post monitoring regime, and what would be the associated costs?	21
Designing future network regulations	24
Q6. What are the benefits and costs of this approach for Electricity Transmission by comparison to an evolution of the approach in RIIO-2, and what are the implementation barriers?	24
Q7. What is the potential for Electricity Distribution planning and commissioning to move to an alternative model by the end of RIIO-2, and what might be the benefits and costs of doing so?	24
Q8. What is your view on the most effective approach to regulation of Gas Distribution and Transmission beyond RIIO-2? What would be the benefits and costs of moving to a simpler approach to regulation of the ongoing costs of operating and maintaining the network?	24
Q9. Should there be a shorter-term price control in gas distribution and/or gas transmission, and how could this work in practice?	24
Q10. Would there need to be any changes to maintain a stable and consistent financial framework if we were to make greater use of different regulatory archetypes, and if so, what would those changes need to be?	27
Analytical framework and next steps	27
Q11. Do you have any views on our proposed analytical approach?	27

Executive Summary

In Cadent's response to the Future Systems and Network Regulation Open Letter, we stated that we believe significant evolution of the current regulatory framework is needed so that we can deliver the energy transition and ensure we are focused on the most value-added services to our customers. The natural gas network plays a critical role in heating millions of homes and fuelling businesses, key public services, and industry, and under any scenario will continue to fulfil this role for decades to come. The gas networks will also be an essential part of the transition to Net Zero creating the option to transport hydrogen to deliver decarbonised solutions for power, industry, transport, and a likely role in domestic heat. Hence the regulatory frameworks will be key enablers to ensure all these services can be delivered. Ofgem has asked in this consultation whether a large-scale change in our price control framework is warranted, or whether an evolutionary change is better. In considering the required regulatory frameworks for gas distribution we have adopted Ofgem's categorisation of two different elements of activities:

- (a) "Business as Usual" natural gas requirements and
- (b) Gas network requirements for the transition to Net Zero for hydrogen and natural gas for domestic heat, industry, power, and transport.

The challenge for the gas distribution sector is that the transitional activities are yet to be fully defined, as strategic energy planning and Government policy evolves on hydrogen, clean heat, power, and transport. Hence it is difficult to consider all the archetypes for the range of future scenarios at this stage. However, under any scenario the existing natural gas network is likely to play a vital role in continuing to heat homes and fuel industry, transport, and the power sector hence it is important to ensure the right frameworks are in place to deliver for customers.

"Business as usual" requirements should build on the successes of RIIO

For the "business as usual" natural gas requirements, we continue to believe that we need to build on the strengths of the RIIO framework in defining clear, consistent, and robust output and efficiency targets. This will continue to be important given the critical role the natural gas network provides for customers today and for the medium term. However, practical experience suggests there are several aspects of the RIIO framework that have become too complex to administer for the companies and regulator alike and instead of focusing on the areas of maximum value to the customers, a significant ongoing regulatory burden has been created for all parties to administer. The process to set the price control was also more resource intensive than ideal and the business guidelines and requirements continue to expand and hence we believe there is significant simplification that can be made to the setting and subsequent administration of the regime that will benefit customers.

Gas networks have a key role to play in whole system strategic planning

For the transition activities and our customers in the longer term, we believe the regulatory framework will need significant evolution given the scale of the transformation that will be required to deliver Net Zero and develop much more integrated whole system plans across gas (both natural gas and hydrogen) and electricity. The framework will need to provide a more agile response to requirements and provide more certainty of investment. The framework will need to enable the whole system planning of the decarbonisation of heat, industry and power sectors and the gas network will be an integral part of this.

For the gas sector, there are important developments that are still evolving which raise important considerations for the future network regulation. Whilst we note the consultation is treating hydrogen as being out of scope, we need to ensure a robust regulatory framework for networks is in place for the currently progressing industrial clusters, which are crucial to the delivery of the Government's 10GW of hydrogen production target. In addition, the ongoing work with Government on the network implications of hydrogen blending and the use of hydrogen for domestic and I&C heat will be important considerations in what the next price controls will need to cover as they interact both with the existing natural gas network and customer bills more generally.

The regulatory framework will need to deliver greater confidence to investors through a stable and predictable regulatory regime. This is critical to encourage the significant capital required to underpin Net Zero delivery. We have seen the development of the Accelerated Strategic Transmission Investment arrangements to enable more flexible and timely electricity infrastructure investments to deliver Net Zero targets and we believe these types of arrangements will be needed for the decarbonisation of heat.

We see value in a two-year rollover of the existing RIIO-GD2 control if done simply, but a proper assessment and framework would need to be in place for a control which lasts longer

We see there may be value in the proposed two-year rollover of the Gas Distribution price control to enable the strategic energy planning processes to become more mature and ensure greater integration between gas and electricity plans to minimise risks for customers.

A two-year rollover would create an ability to coordinate assumptions between gas and electricity distribution ready for a 2028 aligned price control, further considerations can be made around how national and regional strategic planning will incorporate natural gas and hydrogen solutions by the Future System Operator and any Regional Strategic Planner, and it allows more time to consider the regulatory framework changes needed to manage the future gas pathways for heat decarbonisation. We agree that this will not be in place for the end of 2024 when business plans for a 2026 price control would be required. Whilst it is not certain that this will be fully mature by the end of 2026 when the business plans for a price control in 2028 would be required; it would create the ability to build the strategic planning process into that price control setting process. It would also enable the new enduring hydrogen transportation framework that is being designed by the Government for 2026 to be considered in terms of any interactions with the RIIO framework for natural gas assets.

The benefits of a two-year rollover would be predicated on a simple and fair process being defined that does not require running something similar to a normal price control for such a short period of time.

We have explored how a two-year rollover could be delivered simply and fairly to protect and sustain RIIO-GD2 consumer benefits (whilst minimising the need for reforecasting, reassessment, and recalibration), provide forward certainty and confidence to investors (by keeping some stability in the framework), to provide confidence and assurance to Ofgem that the proposed approach balances risk and reward, and enables the benefits of undertaking a rollover to be achieved. Our proposed approach would be to:

- Set cost allowances for the rollover period which are grounded in the RIIO-GD2 allowances, updated to ensure a fair and consistent industry benchmark (by correcting errors identified through the CMA process) and with updates focused only on material exceptions to the work or cost profile seen over RIIO-GD2;
- Preserve existing outputs, incentives, and uncertainty mechanisms, with additions only required for material changes expected in the rollover period;
- Rollover the RIIO-GD2 financeability framework, testing that updated indices deliver financial resilience for two more years;
- Materially tighten the Return Adjustment Measures threshold for the two-year period to protect customers from any risk of outturn performance being materially better than the simplified rolled over targets and protecting networks from the risk of material cost pressures that cannot be controlled; and
- Adopt a simplified approach enabling time and effort to undertake work in parallel to properly design the next more enduring price control.

We do not support a longer simple rollover than two years as we believe that, even for what Ofgem have termed “replacement/BAU” activities; there would be a need to properly refine and rationalise the outputs required from customers, reassess the financial environment and the cost to deliver for such a longer period out to at least 2031. This would miss the opportunity to properly consider and test a significantly more simplified enduring framework that might deliver best value to customers. If a two-year rollover is not undertaken, we believe the only approach would be to consider a new enduring framework which ensures a fair, robust and clear targets for the period that incorporates the reforms we have set out would need to be in

place. We believe in this circumstance that Ofgem could also consider setting a longer control out to 2033 to align with the end of the current iron mains risk reduction programme and to align with the subsequent electricity distribution review.

Simplification of cost assessment needs to be carefully considered, and there should only be a very limited role for ex post methods

Much of the Consultation's focus on simplification is devoted to cost assessment. Whilst we believe the current approach has provided a sound basis historically there are opportunities for simplification in this area. Historically, the majority of GDN costs have been assessed using ex-ante econometric benchmarking approaches. However, setting RIIO-GD2 has shown that all GDNs now operate within a relatively narrow range of performance. Given this, if the scope for material comparative efficiency gains going forward is minimal, there could be benefit in setting simplified network/company-specific efficiency targets. For example, in line with an ex-ante RPI-X type regime (provided outputs are properly accounted for).

Should comparative efficiency continue to be the key objective of Ofgem's cost assessment, however, we believe the ex-ante econometric benchmarking approach to setting allowances for the majority of costs (specifically those we define as "Repeatable Business as Usual" activities - amounting to c.90% of our costs) provides the best incentives and balance of risk and reward for customers and networks. That said, the process administered at RIIO-GD2 could be simplified and made more efficient. At RIIO-GD2 the process was very time consuming and could have operated far more efficiently and effectively if there have been earlier and ongoing engagement on the cost assessment methodology. A more ongoing process to monitor and develop the cost assessment methodology and tools (in a similar way to the process Ofwat follows) would make the existing econometric approach more efficient to administer moving forward.

We do not think that assessing "Repeatable Business as Usual" repeatable activities ex post would be beneficial for customers as it significantly changes the incentive properties in place. Taking away the opportunity to share benefits collectively between networks and customers from efficiency gains or output delivery significantly weakens incentives. As noted in the consultation, we agree also that a regime with the threat of significant penalties or unclear rewards would create significant uncertainty for customers and networks over how performance will be assessed, leading to potential increases in the cost of capital. Moreover, it may not deliver any simplification as an ex-post process may need to be similar to an ex-ante assessment process.

For "One-off or Less Predictable" activities, however, we have tested whether there is a particular form of ex post assessment that might have merit and drive simplification. This is under circumstances where costs: relate to new outputs with no historical comparators, relate to incomparable outputs across companies (i.e., no cross-sectional comparators), or their size/scope is significantly uncertain. Our assessment is that these criteria may apply to around 10% of current natural gas distribution spend hence would not dampen incentives too materially. However, it is noted activities that meet this definition could expand as Net Zero transition activities develop and new work activities appear.

Having reviewed the various options for ex post assessment that have been considered or deployed by Ofgem and other regulators, the only ex-post model we are aware of that has demonstrated a degree of success, and which could be considered for "one off or less predictable" costs, is that currently used within the regimes applied by CAA to NATS and Heathrow Airport and the regime applied to the SONI and NIE Networks in Northern Ireland. Within this, companies are allowed to invest on a 'Cost Plus' basis, with efficiency incentivised by threat of ex-post disallowance for 'Demonstrably Inefficient or Wasteful Expenditure' – DIWE. In this the regulator bears the burden of proof and its assessment is made by exception, based on the decision-making of companies at the time decisions were taken and a predetermined set of factors – significantly reducing the uncertainty of outcomes.

If Ofgem was to consider using this regime for the specific categories of costs we have identified, we would expect the framework to be implemented via GDN licences to ensure certainty of the legal framework.

The price control setting process and ongoing administration can be significantly simplified

We believe material simplifications can be made to how the wider process for setting the price control is undertaken. The process can be seen as three distinct blocks, i) defining the outputs and delivery incentives that customers most value ii) assessing efficient costs to deliver (as discussed in the section above) and iii) ensuring the networks are financeable and a fair risk and reward sharing is in place between networks and customers. It may be useful to consider these processes separately in terms of simplification and to consider what information is required to set a control for them (i.e., what are the key elements needed in a business plan).

In particular, for the first area, we have set out proposals on how a much more focused, rationalised, and collaborative approach could be taken to assessing customer insights to inform and define the critical outputs customers want and appropriately calibrate incentives to deliver. This includes how we believe Ofgem Consumer Challenge Group's terms of reference could be refined to focus on assessing the outputs customers want, and how the use of ongoing collaborative workgroups could simplify and enhance the process. In addition, we are developing our proposals on how we could rationalise to focus on the outputs of the highest value to customers including recommending a reassessment of whether the Guaranteed Standards of Service are fit for a digital age.

A key corollary to the price setting process is to aim to significantly reduce Ofgem's and networks in-period administration by taking a proportionate approach to reporting. We do not believe this is necessarily only facilitated by digitalisation but more about determining what it is important to measure and report through the regulatory framework and what is delivered through other business as usual corporate activities (for example environmental reporting).

[redacted content for commercial sensitivity reasons]

- Clarity over the precise areas where competition for network ownership may be applicable.

We look forward to continuing to support Ofgem in developing the right regulatory frameworks for the gas distribution sector and are actively contributing to the ongoing consultation working groups over the coming months and have provided materials and ideas into the working groups alongside this consultation response.

Archetypes for future network regulation

Q1. What should the role of the ‘consumer voice’ be and through what institutions and processes should it be channelled?

The consumer voice is still essential, but customer engagement should be more coordinated, targeted and proportionate to the areas that matter most to customers and to deliver evidence that will help Ofgem to define the right framework to deliver them. Ofgem should not worry about specifying the precise processes that need to be undertaken to achieve this but outline the outcomes desired. It is important that the process incorporates inputs from key organisations and industry experts that support consumers, as well as end consumers and it is equally vital that all consumer persona needs are met: both domestic and business, as future requirements will be distinct. We think there should be more coordinated engagement, a rationalised and clearly defined role for any Ofgem Consumer challenge group, and freedom for networks on how to use their own Customer Engagement Groups.

What outcomes do we need and the role for coordination and collaboration

Cadent undertook extensive consumer research for RIIO-GD2 and this consumer and stakeholder engagement has now been incorporated into ongoing business as usual processes. The engagement shows that to a large extent, customers have the same priorities for gas: safe, reliable, and affordable supply, a quality experience where the vulnerable are looked after, and tackling climate change. We have continued to engage with customers and their priorities have remained consistent but given the cost-of-living crisis there is a heightened value on safety and reliability and supporting those in vulnerable situations. In the longer term, our experience of the hydrogen village trials indicates there is a significant need to build the consumer voice into the whole system strategic energy planning considerations.

Focus on the consumer voice is essential, but it should also be more targeted and proportionate. Focus should be on the desired common outcomes and ensuring that work done is useful and considered in the final assessment. Ofgem should not focus on specifying the precise processes that need to be undertaken (i.e., how engagement is undertaken) but on the outcomes desired. Ultimately the goal is to ensure the framework and plans are delivering the right customer outcomes and that the value placed on them is proportionate and delivers the right incentives.

Experience of the RIIO-2 frameworks is that they have focused largely on using consumer engagement to define common outputs and incentives where possible and in practice a large amount of the network specific engagement was not utilised in the framework. Hence, we believe more coordination of consumer research and greater targeted prioritisation could be an effective and efficient way to validate and develop the common outputs and allow the network to target specific material bespoke outputs. This should involve the key organisations and industry experts that support customer groups and represent their needs as well as end consumer voices where they have the information to make a judgement on. We should avoid processes where asking customers views will have no impact on the end outcome. For example, if Ofgem have to take a wider view of customer expectations or have their own research which will be used instead of any company-based engagement, then they should indicate they do not expect networks to provide their own research.

We believe the goal is to ensure there is a clear ‘golden thread’ that demonstrates how consumer views (and importantly expert stakeholder), priorities and sentiment have been used to inform our business plan proposals. There are many ways in which companies can do this. As such it should not fall on Ofgem to define how companies demonstrate the ‘golden thread’, but rather to validate that the golden thread exists, is clear and is robust. However, it is likely that the process will benefit from guidelines setting out the outcomes from coordinated or company specific consumer engagement that Ofgem will expect to see to enable outputs to be accepted into the framework. We suggest that the framework should be flexible to different approaches and any assessment focuses on the outcome being clear and robust. We believe that this could be facilitated by Ofgem creating collaborative working groups for each of the main output priority areas and that these

working groups consider customer priorities and engagement evidence and then work collectively to define and calibrate the right outputs and incentives to be delivered.

GDNs can then focus their own bespoke customer engagement on specific local topics or bespoke outputs that warrant a detailed review. These could be fed into the collaborative working group to test that they are bespoke and not more applicable across the industry.

Example of Involving other voices to define consumer needs that is working well

As an example of a successful process for channelling the consumer voice through, we will continue to focus on our partnerships with key industry experts to focus on activities in vulnerability that drive clear social return. We have streamlined the current portfolio through our expert stakeholder and consumer views, and this helps to ensure that funding is spent effectively for those who most need it. This has been demonstrated by our focus on key initiatives like Centres for Warmth and services beyond the meter, which will be delivered via close working relationships with NEA, Citizen's Advice and Ground Works. The aspiration is to scale these flag ship activities with established partners which drives efficiency, reduces overheads, processing time and greatly simplifies the execution of valuable activities. The consumer voice is central to everything that we do, fully embedded into our organisation and is already supporting decision making at all levels of the organisation.

The role of company Customer Engagement Groups

Regarding institutions for channelling the consumer voice through, we believe that critical factors to consider are consistency and clear accountabilities. Our experience of RIIO-GD2 was that the company Customer Engagement Groups took different views on how they were being asked to assess plans (with Cadent's CEG for example taking a much more forensic approach than some other network CEGs). The CEGs provided lots of value in providing an independent voice into the business plan preparation and challenging the outputs that networks were proposing for their customers. Unfortunately, a lot of their views did not get factored into the final RIIO-GD2 framework and hence we believe the focus going forward should be on what outcomes and evidence from company's engagement processes is useful to Ofgem to set the framework rather than Ofgem specifying in detail the means and processes for how to gather it. The companies can be left to determine how they gather the evidence without a need for prescriptive guidance and requirements on Customer Engagement Groups. Ofgem should set out some high-level guidance on what outcomes and evidence it would need to see to support bespoke outputs or input into common outputs and leave the companies to design how they use or gather this information from Customer Engagement Groups. For example, we have well established relationships with the likes of Citizens Advice, NEA, and multiple charities to feed into our customer vulnerability strategy. Likewise, we engage with sustainability experts to inform our environmental planning. Since the success of our Customer Engagement Group in RIIO-GD2 we have tested a Critical Friends Panel approach to develop and challenge our key strategies further. Based on the learning from this, we are also in the process of establishing a refreshed customer challenge group, which will provide independent challenge at a more strategic level across the business. This will continue to challenge us to demonstrate as to how the consumer voice has been considered in key decision making.

The role of Ofgem's Consumer Challenge Group

In addition, Ofgem's Consumer Challenge Group was asked to review all the draft plans from across multiple sectors and different network companies in a constrained timeframe. They were also seemingly asked for views on areas where they did not have adequate information available to them. For example, they were asked to provide views on efficiency without any comparative cost benchmarking analysis, hence they were in an impossible position to comment on the efficiency of the plans and instead were commenting based on historical data which did not reflect the plan data. Our view is that Ofgem would be better placed to assess efficiency rather than expecting the challenge group too. If Ofgem opt to instigate an additional central customer challenge group (as with RIIO-GD2), it is essential that there is a clear terms of reference, and we suggest that the group has a significantly rationalised and refined terms of reference that focuses on assessing and challenging the common and bespoke outputs and output delivery incentives, rather than have a much broader remit into areas such as cost assessment and financeability, where Ofgem themselves

have access to all the companies' data and are best placed to make judgements. This would streamline the process and ensure it is both focused and proportionate.

Ensuring the framework also prioritises industrial and commercial customers

The framework has to date been largely focused on domestic end consumers. The industrial and commercial customers are equally impacted by the rising energy prices and place similar importance on reliability for their supplies as well as having their own transition to Net Zero. We believe there will need to be more of a focus on this sector for future engagement. Using Hydrogen as an example: engagement with industrial customers needs an immediate focus in order to meet the Government 10-point plan through the development of the industrial clusters, whereas ongoing engagement with end customers will continue through the village and town trials as part of a longer-term ongoing plan.

Archetype 1: 'Plan and Deliver'

Q2. How detailed could an independent, cross vector view become to determine future plans for periods beyond RII0-2 and support effective use of the 'Plan and Deliver' model?

Integrating the gas networks fully into whole system energy planning will be critical to developing efficient and coordinated plans for the decarbonisation of power, heat, transport, and industry. The processes needed to deliver this will be broader with significantly more inputs and likely to be iterative with a need to develop new outputs to define what the strategic plan is. It is important to focus on this end point as well as the immediate electricity whole system challenges seen today,

Gas networks have a key role to play in whole system strategic planning

For Net Zero transition activities and our customers in the longer term, we believe the regulatory framework will need significant evolution given the scale of the transformation that will be required to deliver Net Zero and develop much more integrated whole system plans across gas (both natural gas and hydrogen) and electricity. The natural gas network plays a critical role in heating millions of homes and fuelling businesses, key public services, and industry and under any scenario will continue to fulfil this role for decades to come. The gas networks will also be an essential part of the transition to Net Zero creating the option to transport hydrogen to deliver decarbonised solutions for power, industry, transport, and a likely role in domestic heat. Hence the regulatory frameworks will be key enablers to ensure all these services can be delivered

As the consultation notes, to date whole system planning has focused exclusively on electricity only and power decarbonisation. We acknowledge there are significant infrastructure needs and plans to coordinate between electricity transmission and distribution to support connecting cleaner electricity generation. The Holistic Network Design (HND) undertaken by the Electricity System Operator has shown the value in defining a strategic plan which has enabled the creation of a regulatory framework to support its delivery.

As we move into the broader challenges of delivering Net Zero, the definition of whole system will need to become more expansive and fully integrate gas options. A process to establish an effective whole system cross vector view will need to be defined both regionally and nationally for industrial decarbonisation and domestic heat. The scope and scale of interfaces for these plans will be significantly broader than those the HND has done for electricity transmission infrastructure. The outputs of such a process will need clear specification particularly as, unlike the HND, the plans will be a function of, and impact infrastructure both within homes and businesses/industry (for example, repurposing gas infrastructure from natural gas to hydrogen or moving from gas infrastructure to electric infrastructure). Hence, the sequencing and transition planning will also be a feature both at a regional and national level. Given the link to evolving Government policy development on hydrogen and clean heat, planning in the shorter term will inevitably require multiple scenarios to work through different potential pathways and determine least regret investments.

Therefore, we believe the next steps will be to work with the FSO and regional strategic planning institutions to focus on the inputs and outputs required for these whole system strategic plans and to understand the institutions and data sources which will enable a plan to be created. This will enable the resources, capabilities, roles, and responsibilities of the strategic planning institutions to be refined and data requirements determined. This will be a pre-requisite to ensure a common set of assumptions and considerations are built into both Gas Distribution and Electricity Distribution plans for the Net Zero transitional activities.

In addition, and imminently, the critical role that hydrogen could play in the decarbonisation of power also needs to be factored into the whole system planning alongside wind and renewable generation for the 2035 Government targets. Without consideration of the role hydrogen power stations may play and the role of industrial clusters in delivering networks to fuel them, there is a risk that other infrastructure needs are misspecified and valuable options to ensure energy resilience may be lost.

We believe the gas distribution networks and electricity networks will have a key role to play in supporting the development of regional and national strategic energy plans and are keen to support the creation of a coordinated process with the strategic planners which determines a consistent and practicable outcome.

A process for determining the scope of whole system national and regional strategic energy planning wider than power

To support the creation of the wider whole system strategic plans, we have set out a process (figure 1) that could be followed to determine the needs and requirements.



Figure 1 – Proposed model to develop an enduring whole-system strategic planning process

The diagram below (figure 2) sets out some of the inputs and outputs that may need to be considered in step two of the process.

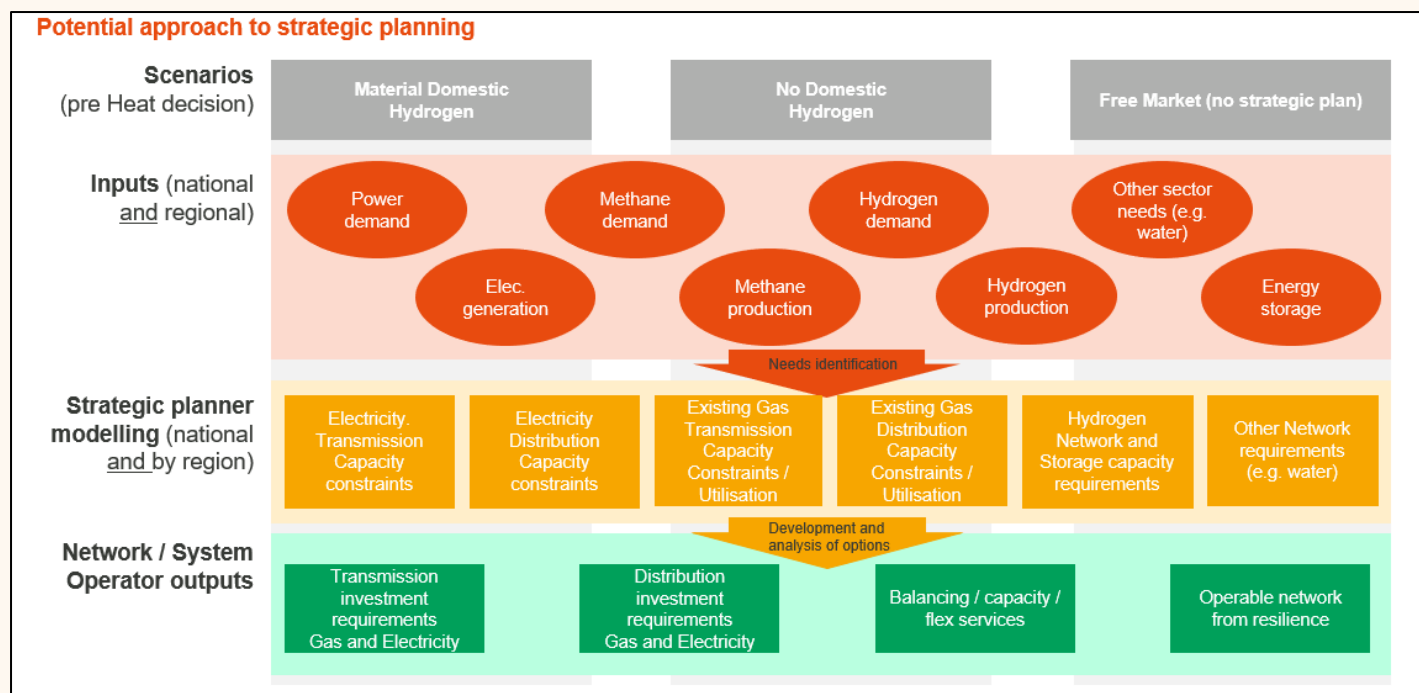


Figure 2 – Inputs and outputs to consider

The FSO will play a fundamental role in shaping any cross-vector view and thus it will need to develop the capabilities, the infrastructure, and the processes necessary to effectively enact a full ‘Plan and Deliver’ model.

With this in mind, we do not currently view it realistic to apply Archetype 1 in the short term for gas distribution activities, but there could be merits in applying it in the medium to longer term. There needs to be a clear delivery roadmap to a defined end vision to guide efficient and effective actions towards it, and there should be ongoing regulatory RII02 and RII03 funding to progress critical enabling activities for GDNs which will form part of that future whole system cross-vector model. If this is not done, we are all (Government, Ofgem, FSO, Licencees) at risk of delaying crucial progress towards Net Zero which may result in trying to do too much too late, at greater costs to consumers.

We do, however, feel it is realistic to apply Archetype 1 for the decarbonisation of industry and power generation. There is a relatively well understood picture of the need for hydrogen as the most viable solution for the industrial and commercial sector, and we also know that a clear and fast road map to Net Zero is vitally important to protect, retain and grow these industries. There is also greater certainty in the area of Net Zero dispatchable power generators. With the challenges of developing the power grid, the conversion or re-planting at existing gas generation sites will play a major role in supporting the electricity system’s Net Zero 2035 ambition. It will be quicker to replant existing sites than to build new electricity infrastructure for greenfield locations.

A strategic planner could start work today to build a clear plan for the conversion of industry and power generation to hydrogen that would then enable infrastructure plans to be brought forward. As they would be part of a progressive conversion programme, building infrastructure once, with longer term future capacity in mind will enable a faster and lower cost conversion process, as well as providing confidence to businesses making the switch, and facilitating an effective hydrogen marketplace. If new infrastructure is initially oversized, then the funding costs cannot be recovered from early users and a separate external support mechanism will be required. With a significant level of subsidy initially, the need for an independent strategic planner in confirming the size and location of infrastructure will be critical. One key learning from the electricity networks transition is that failing to build infrastructure ahead of need will become a major barrier to success. With a strategic plan in place, based on large industrial and commercial demands, the critical infrastructure can be built ahead of need. This ensures it isn’t a barrier to Net Zero but becomes an accelerant instead by the confidence it gives to the sector.

Specifying the outputs to be delivered

There is detailed thinking required around the regulatory model for ways of working under Archetype 1. The consultation proposes that the FSO determines the outputs and identifies an efficient delivery model while Ofgem then undertakes to embed the delivery model and monitor performance. We should highlight that the RII frameworks have been an effective means to drive competition and innovation for the benefit of customers with significant efficiency gains delivered and improved customer satisfaction and hence there may not be a need to change this. Ofgem could continue to determine the outputs (possibly following input from the FSO or other relevant stakeholders if required), and still monitor performance, rather than splitting this up as we foresee more regulatory burden rather than simplification with three parties involved in this space (FSO, Ofgem, Licensee).

Q3. Under what circumstances would competition, or other procurement models such as open book contracting, have benefits over ex ante incentives as a cost control mechanism?

Competition plays a role where there is a healthy market of potential providers and all the risks and opportunities, short and long term, are fully understood. The scale of the infrastructure compared to the size of the supply chain must be a consideration, along with the appropriate conditions for separable ownership and operation. For the gas sector, this suggests that application may not be appropriate for repurposing or modifying existing network assets.

There are elements where competition could be better than ex-ante regulation, for example:

- i) The right circumstances (where there is a healthy market of potential providers, a mature supply chain, etc) to support competitively appointed service providers to allow for an efficient contract with the provider,
- ii) Where the importance of cost savings achieved through competition outweighs the need to deliver at pace (mostly feasible in well thought out in advance strategies where all the risks and opportunities, short and long term, are fully understood),
- iii) Where a competitive process can be done more swiftly (likely with an open book or ex post review) compared to an ex-ante process with the administrative burden and duplicate quality checking – simplification should remain a key outcome. It is worth remembering however, that strong incentives within a simplified ex-ante model can deliver efficiently, unlock value, and drive innovation, but within a framework of lower risk of delivery failure.
- iv) Where an asset is clearly separable and there are no disbenefits in separate ownership and operation. For example, it does not make operating an integrated network more difficult, make 3rd party access harder, or impinge on market operation. An example would be a radial Offshore transmission network.

We should not forget though, an ex-ante incentive is still capable of driving value through competition as large parts of construction will be subject to a commercial tender process under the Utilities Contracts Regulations 2016, albeit with a limited supply chain for what can be highly specialised deliverables (which would be the case regardless of competition or ex ante). Competition was a central aspect to RII-2 price controls and native competition prevalent in gas distribution was a key part of the plans.

The ultimate goal should be to achieve Net Zero in line with the Government's targets in a timely way with the aim of keeping costs down to consumers where practicable – be that through competition or through ex-ante incentives. This needs to be properly considered as a distorted focus on a subset of the overall pros and cons will lead to undesirable consequences including resilience and security of supply issues and higher consumer costs. It would also place at risk the successful delivery of the Net Zero transition as the UK only has time to get infrastructure delivery right first time. We do not have the luxury of sufficient time to fail, learn the lessons, and then deploy an alternative, hopefully more successful approach. Confidence in delivery must therefore be a priority outcome, with its importance amplified by the interactive nature of network infrastructure i.e., a delay to one project will have a cascading effect on many other projects all the way through the transition.

The scale of the infrastructure compared to the size of the supply chain must also be a consideration in the effectiveness of competition. If the known work that will be completed is greater than the available capacity of the supply chain in the short to medium term, then the impact of competition will be much reduced as the scope and desire to win a competitive bid (and sign up to contractual milestones) will be lower until the supply chain has expanded to meet the high workload levels required. The energy network transition to Net Zero over the coming decades will be vast in scale and will run for several decades. With hydrogen playing a significant role, then the challenge will be for production and storage requirements, not for linear infrastructure which is largely already in place. If the full electrification of heat is the selected policy option, then there will need to be a doubling or trebling of the capacity of the 800,000km of existing power grid. Planning effectively for all scenarios now, will allow time to make the right decision regarding competition or ex ante incentives, and more crucially will allow enough time for the administrative process and ultimate delivery. A key issue to consider is the labour shortages in construction where vacancies are 65% higher compared to 2020¹. Moving forward, many large construction programmes will vie for the resource and this highlights why advanced cross vector planning by the FSO will be crucial to ensure that the supply chain can be set up well in advance to deliver what is needed.

The other key condition is the need to define a separable asset which can be competed effectively in terms of ownership and ongoing operation. If this is not the case, then creating a separate owner and operator could have much greater disbenefits in making integrated system operation less effective and creating additional interfaces and inefficiency in market interfaces. Thinking of this condition in terms of the gas sector would suggest that it is very unlikely this condition for competition would be in place for transitional work to repurpose or modify the existing natural gas networks as this is an integrated distribution system with multiple offtakes and input flows. This would also be the case for any developments of integrated hydrogen pipeline networks serving multiple production, demand, and storage operators. It is likely therefore to only be met by dedicated point to point pipelines serving a small set of customers.

An open book approach would be sensible in areas where there is little historical cost information to use as a benchmark, or if there are other cost forecasting uncertainties. This would however be a short-term issue if the activity is repeated regularly, and the open book approach for earlier projects could inform a different incentivised approach for later projects. A good example of this would be with the growth of in-grid compression on the gas networks. Apart from a highly bespoke innovation project, there is no track record for this type of asset being installed and operated, with the technical specifications are still under development.

The application of competition needs to consider all the pros and cons, including short and long-term benefits and constraints. It needs to be clear who the asset owner would be, what property issues and rights will exist, how revenue or licensing arrangements will work, and what incentives they have in the management of lifetime asset risk to name a few – Ofgem are already aware of these considerations through the OFTO arrangements and the initial work that was done for a CATO framework. Seeing as successful, safe, secure delivery and operation is required, having parties that are also fully exposed to the long-term implications of short-term cost savings is highly desirable.

Archetype 2: 'Ex ante Incentive Regulation'

Q4. What is your view on the options identified for simplification of incentive regulation? What would be the benefits and costs by comparison to the approaches used in RIIO-2?

To date, the ex-ante benchmarking approach inherent in the RIIO-2 framework has provided a sound basis to assess comparative efficiency, but we believe there are opportunities for simplification. Whilst there have historically been gaps between the operating efficiency of networks, RIIO-2 has shown that this has largely normalised, with all GDNs now operating within a relatively narrow range of performance for the majority of costs. Given this, there could be opportunities to create more simplified company-specific efficiency targets without the need for comparative assessment. That

¹ [Construction and hospitality shortage review \(accessible\) - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/674442/construction-and-hospitality-shortage-review-accessible.pdf)

said, should Ofgem's primary objective for cost assessment continue to be to drive comparative efficiency, ex-ante benchmarking should continue to be used to ensure any comparison of the majority of GDN costs is fair and robust. Changes, however, to make the process of developing the benchmarking methodology ongoing and more transparent could permit allowances to be set more simply and efficiently. Either of these changes could then be coupled with new and simpler approaches than today to assess a smaller minority of costs which GDNs must incur, and that are difficult to compare against a benchmark or determine ex-ante.

Our response is broken down into three sections:

1. Focus of efforts to simplify incentive regulation
2. Trade-offs inherent in simplifying cost assessment
3. Alternative approaches to cost assessment

1. Focus of efforts to simplify incentive regulation

To achieve simplification, the consultation largely focuses on how this can be achieved through changes in the way Ofgem assesses the efficiency of network costs as part of price controls. Following recent experience in RIIO-GD2 and the subsequent CMA appeals process, we understand why Ofgem is considering simplifying what is a contentious and resource intensive exercise. However, the importance of ensuring a robust assessment means any simplification needs to be carefully considered. In our view we think there are other areas of setting and administering the price control, where there are much 'lower hanging fruit' which could drive significant benefits from simplification.

As set out in our original FSNR Open Letter response and as discussed with Ofgem bilaterally, we believe that there is potential for significant simplification of:

- the process for setting the price control;
- specific areas of the content of the price control; and
- the in-period administration of the price control.

Setting the control

In terms of the process for setting the price control, we suggest focusing on customer engagement with joint research where possible and making the roles of any Ofgem CCG and company CEGs more focused and proportionate (as set out in our answer to Q2). The phases and requirements of the business planning process could be simplified by minimising the business plan guidance and focusing only on elements that matter (financial for example), as ultimately every company would have a business plan regardless of the price control process, but it would not be such an intensive and costly process to meet the Ofgem criteria. We could also leverage cross-network working groups to develop content.

Specific Outputs

In terms of focusing and simplifying the outputs and incentives of the control, we believe there are a number of elements of the framework that work well and can be built upon but we think there is opportunity for some elements too be rationalised and focused on the key customer priority areas.

We set out below some initial thoughts which we are developing further and will share with consultation Working Group 4 (figure 3).

Whilst the RIIO outputs & incentives framework drives positive outcomes, there is an opportunity to streamline and simplify



Figure 3 Areas to consider for focusing and simplifying the output and incentive framework

To highlight some of our emerging thoughts on these areas:

- The concept of NARM is sound, but it has become overly complex and with a significant regulatory burden for Ofgem and networks and it is impossible for customers and stakeholders to understand. We think areas for review are the granularity of the methodology for gas distribution assets, the works covered (particularly whether reactive work should be included), simplifying the links between costs and outputs and considering the timing and incentive impact of normalisations.
- Use It or Lose It (UIOLI) allowances have driven positive outcomes and should continue (e.g., the Vulnerability & Carbon Monoxide Allowance has encouraged innovation and activities beyond BAU and Net Zero UIOLI to support the energy transition in particular).
- Positive output delivery incentivisation has delivered great benefits to customers to date and should continue to be a focus area. Focus areas to consider include incentives on supporting vulnerable customers, reviewing environmental incentives, Net Zero facilitation and continuing and broadening the collaborative streetworks incentive.
- Whilst it is early in the process, Price Control Deliverables could drive greater accountability and transparency.
- Licence obligations can continue for minimum standards (e.g., emergency response and consumer vulnerability), but we suggest the Guaranteed Standards of Performance are reviewed as to fitness for purpose in a digital age (for example, do they reflect modern practices of communication and are they consistent with what customers really value).

Ongoing regulatory reporting burden

The scale of regulatory reporting has progressively grown over the application of the RIIO methodology and RIIO-GD2 reporting has grown significantly from RIIO-GD1 as shown below in figure 4.

The scale of RIIO-GD2 reporting has grown significantly from RIIO-GD1.

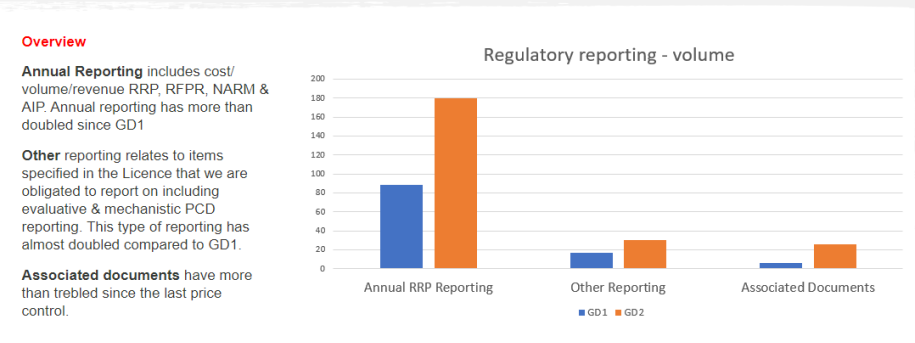


Figure 4 increase in regulatory reporting in RIIO-GD2

As shown above, by our calculation the annual RRP reporting data and additional reporting through the year have both more than doubled. In addition, the associated documents with the control have increased by an order of magnitude. A large amount of the additional burden arises from the Network Asset Risk Methodology mechanism and hence we believe this is a key area to review. More broadly, we believe that there is a significant amount of duplication in the reporting that could be removed; this duplication sits within the reporting framework itself, but also for example between reporting for the RIIO framework and reporting to other regulators such as the HSE for safety outputs. We suggest that there is an opportunity to critically assess which reports are essential to be provided under the regulatory reporting process and what could be left to other normal business reporting. For example, we already produced a sustainability report every year which is similar to the requirements for an Environmental Action report under RIIO.

Uncertainty mechanisms

For RIIO-GD2 there was an aspiration to remove low confidence costs from baseline allowances (reinforced by the business plan incentive), but this resulted in a significant increase in the number of re-opener mechanisms and re-opener windows for Ofgem and licencees to manage during RIIO-GD2 (figure 5).

There was an aspiration to remove low confidence costs from baseline Totex in RIIO-GD2 and this was reinforced by the business plan incentive

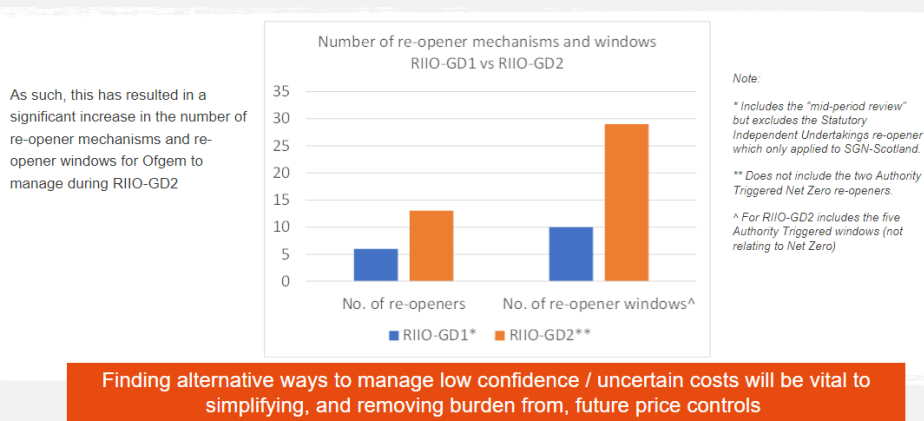


Figure 5 Increase in regulatory operational burden through uncertainty mechanisms

Experience to date has shown that this has been challenging to resource and manage efficiently. Hence, finding alternative ways to manage low confidence or uncertain costs will be vital to simplifying and removing burden from future price controls. We have set out a potential model for how this might be achieved for these types of costs through the DIWE ex post framework below and in our answer Question 5). Alternative options also include increasing the use of Use it or lose it mechanisms for uncertain elements of costs.

2. Trade-offs inherent in simplifying cost assessment

Since privatisation comparative benchmarking has been a key tool which Ofgem has used to drive continued efficiency gains from network companies – effectively through ‘pseudo competition’. However, practically making a fair comparison between companies, has been difficult – even when the companies being compared provide a relatively homogenous service. This has tended to mean more sophisticated tools are utilised and accompanying processes are more involved. Therefore, in considering any simplification to the approach of setting efficiency challenges driven by inter-company comparison, Ofgem must recognise that this is likely to involve a trade-off with the ability to make such a comparison accurately and fairly – and may weaken comparative efficiency incentives. However, if the potential for driving further comparative efficiency gains in future controls is limited there may be net benefits from simplification for customers long-term.

3. Alternative approaches to cost assessment

We have analysed the range of models described in the consultation to consider the potential benefits from simplification and related costs for future price controls, relative to approaches used in RII-GD2. Across these, we believe there are two key choices for Ofgem to make:

- *When Ofgem assesses costs* – should costs be assessed ex-ante, ex-post and/or with recurrent monitoring, and
- *How Ofgem should assess efficiency* – the practical tools/methodologies used to analyse costs.

When Ofgem assesses costs – ex-ante or ex-post

The first choice to consider is whether use of an ex-post approach could achieve any benefits in general through simplification over the ex-ante regime of today. Ex-post approaches put forward in the consultation all involve:

- *the setting of a framework upfront* – ranging from a set of parameters and formulae to perform ex-post comparative benchmarking to setting broad limits for disallowance in a ‘Cost Plus’ type approach;
- *allowing companies to deliver outputs and incur costs over a prescribed period*; and
- *an assessment taking place after the fact* to determine rewards and penalties based on performance.

In doing so, each of these approaches intrinsically introduces greater uncertainty over investor returns than the approach used in RII-GD2 controls, which is likely to significantly cool investor appetite to invest in networks and raise the cost of capital (as described above). This could work against any benefits delivered from simplification, and more likely detrimentally impact customers by raising bills. In addition, it is unclear whether any of the approaches put forward in the consultation would actually reduce complexity or generate benefits through simplifying the process involved anyway. For example, ex-post cost efficiency benchmarking or productivity-based adjustments would arguably involve greater process than today given there would be a need to determine a detailed framework to apply ex-ante as well as a significantly more intensive and contentious close-out phase of the price control.

We have reviewed national and international precedent for use of ex-post-based cost assessment approaches (for more detail on this see our response to Question 5) and have found that in almost all cases these types of approaches have:²

- involved significant resource and time intensive processes to set price controls with annual or frequent reviews needed to provide information to the market/regulator on company performance;
- have seen prolonged and contentious appeals processes brought about by lack of investor certainty and ‘surprises’ resulting from ex-post reviews; and
- have often been repealed in favour of ex-ante price control regulation.

We, therefore, have reached the same conclusion that an Ofgem commissioned study did in 2009, that

² David Black (LECG), 2009, The case for ex post regulation of energy networks, Baldwin, Cave, Lodge, 2011, Understanding regulation: Theory, strategy and practice. Second Edition, Cowan, 2007, Alternative approaches to regulation: an economic analysis of light handed regulation”

Page 18 of 28

The key distinction between these approaches is the use of comparison to estimate efficiency. Either between the costs of one company to another, or between a company's predicted and historical costs. Looking across the activities that GDNs deliver and their associated costs there are a significant portion where these are either non-comparable between companies or are new (and so have no historic comparators). For example, third-party driven diversions projects and streetworks for the former and Cadent's HyNet North-West Pipeline project for the latter. This means only a more limited set of tools can be utilised to assess their efficiency. We therefore believe to determine which alternative approaches could deliver incremental benefits from simplification over RIIO-2 it is therefore appropriate to distinguish between different areas of the cost base.

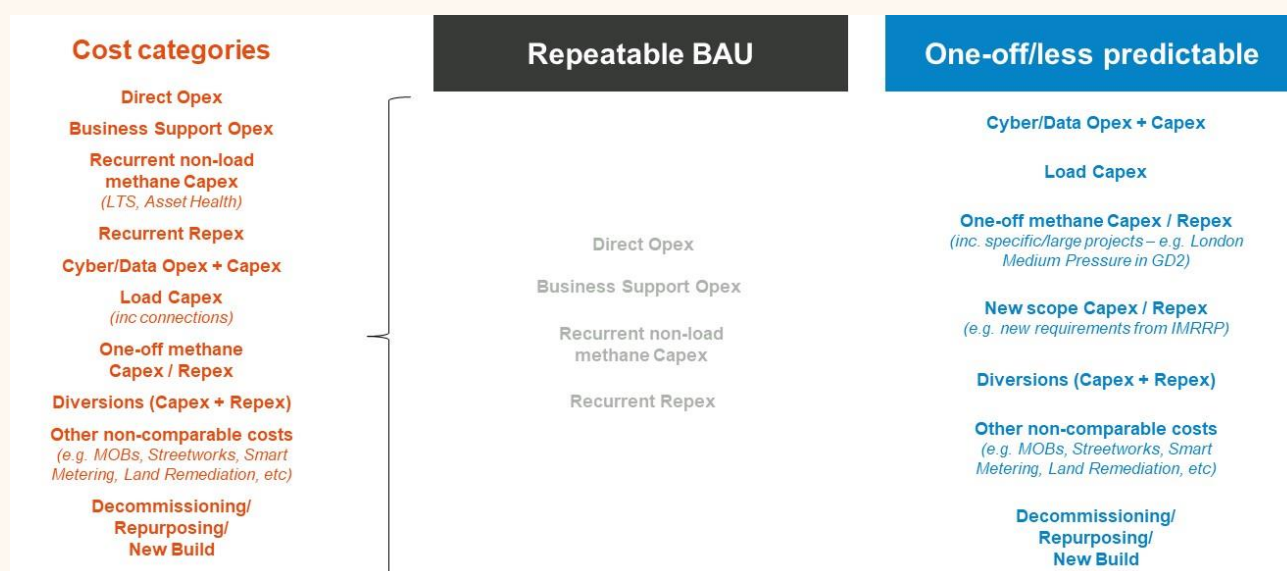
Our view is that this should build on Ofgem's framework established in previous controls where it has segmented costs based on their ability to be compared between companies. For example, Ofgem currently uses ex-ante econometric benchmarking for inter-company comparison and other 'non-regressed' modelling, technical assessment, and pass-through approaches where this is not possible.

We consider that 'Repeatable BAU' costs should represent all activities undertaken by GDNs and their costs, unless they meet one of the below:

- relate to new outputs to be delivered (i.e., there are no historical comparators)
- relate to incomparable outputs across companies (i.e., no inter-company comparators)⁷
- their future size/scope is significantly uncertain.

Of course, such a separation is also subject to practicality constraints. For example, considering costs for delivery of particular outputs at a totex level to avoid distortions from alternative capitalisation policies and treating different types of activities which deliver the same outputs in a consistent and fair way (such as use of pipe lay and governors for reinforcement).

Based on these principles, a high-level potential segmentation of activities we would propose to assess alternative models is shown below⁸ in Figure 7:



Source: Cadent analysis

Figure 7: Potential high-level segmentation of costs to consider alternative cost assessment approaches

This largely reflects the split of activities between those assessed via regression analysis (Repeatable BAU)

⁷ We note that what constitutes 'incomparable' costs requires detailed and robust discussions between networks and Ofgem to determine in practice and will require further consideration in implementing any future framework for costs (including persisting with the current one)

⁸ Note this is likely to be sector-specific with the appropriate segmentation in electricity and transmission setcords expected to be materially different owing to the different outputs they must deliver

and other approaches at RIIO-2 (One-off/less predictable). For completeness we have also included costs related to the net zero transition (re-purposing, decommissioning and new build infrastructure) – but these are not the focus of our analysis of alternative models below and need to be considered separately as part of the assessment of other Archetypes.

Potential approaches for assessing costs for Repeatable BAU activities – Simplified ex-ante company-specific efficiency challenges or continued ex-ante econometric benchmarking

The majority of GDN costs can be classed as 'Repeatable BAU' and historically have been assessed using ex-ante econometric benchmarking between companies. Over time, we have seen the efficiency targets this has set drive a greater harmonisation of performance and moving forward we expect there to be less material potential for further comparative efficiency gains. Given this, there may be significant benefits from reducing burden associated with developing econometric approaches and assessing costs in this way through price controls, meaning alternative simpler ex-ante methods could be considered. The key feature of these being the need to be *company-specific* and not based on any inter-company comparison. For example, this could take the form of an ex-ante RPI-X type regime, where the starting point for costs is determined without econometric cost benchmarking or comparative assessment.

Should Ofgem's overriding objective from the future price control on costs, however, be to continue to drive comparative efficiency between networks, even though gains may be smaller than in the past, we believe that the current approach of ex-ante econometric benchmarking for Repeatable BAU costs should continue. Any simplification in a comparative methodology is likely to bring about imprecision to the disbenefit of customers and investors (potentially artificially setting an unrealistic benchmark to achieve). However, we do believe simplification could be achieved through other means.

Complexity in the RIIO-GD2 process manifested not from the approach employed, but the process to develop the methodology within condensed timelines (due to resource issues and the process being left until late in the timeline) which materially impacted outcomes. The actual modelling and detail if done in an ongoing and timely manner is relatively straightforward. Hence if the process is improved through an ongoing dialogue and assessment of cost models then a lot of the complexity seen will be avoided. In this regard, we believe the approach taken by Ofwat in water provides a good blueprint for how this could be undertaken:

- companies are kept in a constant dialogue on cost assessment approaches, even between setting controls;
- the regulator leverages company resource/experience to iterate modelling and data resulting in less of a build up to when setting the control;
- the regulator sets out a range of detailed models to consider early-on in the price control process (for PR24 Ofwat has already set out a long-list of potential models with data and results for companies to assess over 6 months ahead of when business plans are due); and
- the level of information provided allows for a much clearer line to be drawn between potential options put forward and decisions ultimately taken.

A potential approach for assessing costs for One-off/Less predictable activities – Ex-post DIWE approach

To set cost allowances for One-off/Less Predictable activities (not related to the net zero transition) under the existing ex-ante framework is time intensive and difficult to do. Upfront it requires: (i) development of many engineering justification papers by companies and technical evaluations from experts within Ofgem and (ii) the development of several bespoke models to determine allowances in non-comparable areas (e.g., Multi Occupancy Buildings, streetworks etc). Furthermore, it is often difficult to anticipate the future scope/profile of costs meaning that re-openers are needed within the period to adjust allowances - which have significantly increased the administrative burden for Ofgem and networks within the price control, relative to RIIO-GD1.

Given these difficulties, we believe Ofgem should consider whether the ex-post DIWE approach could be applied to these costs. Whilst it may partially reduce cost efficiency incentives, based on RIIO-GD2 data on base expenditure, costs in this area were in the order of 10% of totex across networks so any weaker incentives would only affect what is a minority of the industry cost base. By contrast it would likely reduce burden significantly for Ofgem and companies in the setting of the control and within the regulatory period

with less need for re-openers (which are currently inevitable in the current framework for some areas). This framework could also be accompanied with a set of outputs and/or incentives to support the monitoring of company performance and to ensure that customers are receiving value for money.

In applying the framework, as described above, it is important that Ofgem seeks to build on the precedent set across aviation and regulation of energy networks in Northern Ireland so that the regime enshrines key principles to support certainty for investors to keep the cost of capital low.

Archetype 3: 'Freedom and Accountability'

Q5. What are the network activities where there would be benefits for a move to an ex-post monitoring regime, and what would be the associated costs?

Within the consultation several alternative forms of ex-post based regulatory approaches are put forward under Archetypes 2 and 3 for consideration for the regulation of energy networks in future price controls. The rationale for their use being twofold:

- (i) as a potential means to simplify the approach to setting price controls ex-ante; and
- (ii) to allow for cost assessment and monitoring when ex-ante approaches are complex or impossible to implement.

In line with our response to Question 4 above, we agree that in some cases ex-post approaches may need to be used where there is high uncertainty over the scope or size of costs and/or outputs to be delivered owing to no historical or other comparators ex-ante. However, use of ex-post approaches needs to be thought through carefully given lessons from national and international precedent and potential impacts their use could have on the cost of capital.

As we have previously set out in our response, ex-post approaches by their nature introduce uncertainty into the regulatory framework, which has the significant potential to significantly weaken investor confidence and raise the cost of capital. This would lead to higher customer bills in the longer term, which is not in the best interest of future customers. Furthermore, under a number of potential ex-post approaches we are not convinced that they will deliver any benefits through simplification of the framework and reductions in regulatory burden – particularly in the case of ex-post cost benchmarking and/or productivity adjustments. Similar conclusions were also reached in an Ofgem-commissioned report as part of the RPI-X@20 review reached in 2009:⁹

- *“There do not appear to be significant benefits to consumers from moving from an ex-ante form of control to an ex-post form of control”*
- *“A shift away from ex-ante regulation would raise the level of uncertainty for investors faced and this may require a higher cost of capital to compensate investors for the additional level of uncertainty”*
- *“We are not convinced that move to ex-post regulation would lead to a lower level of regulatory burden”*

Our review of international and national precedent also confirmed these concerns with several countries who previously sought to introduce some form of ex-post regime, ultimately reverted to an ex-ante approach. For example, in Sweden (2012) and New Zealand (2009) both have now moved away from ex-post approaches due to the complexity involved in implementation and the significant regulatory burden involved (particularly due to prolonged and intense appeals processes).¹⁰ Furthermore, even where ex-post regimes still persist such as in Finland, they tend to involve frequent and intrusive monitoring processes. The Finnish model for instance, requires the regulator to conduct an annual review of company financial performance to determine whether profits need to be adjusted based on its views of a reasonable return.¹¹

⁹ LECCG, (2009), “The case for ex post regulation of energy networks”, P.11 see here: [final-report-ex-post-regulation.pdf \(ofgem.gov.uk\)](#) (Accessed: 27/04/23)

¹⁰ LECCG, (2009), “The case for ex post regulation of energy networks”, P.31 and 44, see here: [final-report-ex-post-regulation.pdf \(ofgem.gov.uk\)](#) (Accessed: 27/04/23)

¹¹ LECCG, (2009), “The case for ex post regulation of energy networks”, P.37

In the UK as well, the DCC (which is currently regulated under a pure ex-post regime) may move to a hybrid approach moving forward, which Ofgem recently consulted on. Under current arrangements the burden of proof is put on the DCC to prove its expenditure was 'economic and efficient'¹², whilst Ofgem have a high degree of freedom in the factors they consider and tools they use each and every time they review spend. In its response to Ofgem's consultation, the DCC supported this move to a hybrid regime, setting out that it found the pure ex-post approach to have increased uncertainty over the ability to recover costs and the need for frequent reviews to have significantly increased regulatory burden, despite providing granular cost information to Ofgem as part of its annual reporting processes.¹³

As described briefly in our response to Question 4, the only ex-post model we are aware of that has demonstrated a degree of success is that which is currently used within the regimes applied by CAA to NATS and Heathrow Airport and the regime applied to the SONI and NIE Networks in Northern Ireland. Within this companies are allowed to invest on a 'Cost Plus' basis, with efficiency incentivised by the threat of ex-post disallowance for 'Demonstrably Inefficient or Wasteful Expenditure – DIWE.

Under the DIWE regime, the onus is on the Regulator to prove any expenditure was inefficient or wasteful. Companies allowed to invest on a 'Cost Plus' basis with the 'bar' set high for any disallowance and a clear procedure set out ex-ante for how the Regulator would undertake any assessment – including the specification of a predetermined set of factors it must consider. The factors the utility regulator in Northern Ireland must consider are set out as an example in Table 1 below¹⁴. Furthermore, the Regulator's assessment must be conducted 'in the round' by considering all relevant information available at the time any investment decision was made and the actions taken by the network company in delivering activities in question. This means that while single analytical tools can be an input to its assessment, expenditure cannot be deemed inefficient "*solely because of a comparative financial analysis of the costs of the Licensee as against those of other companies*".¹⁵

¹² Both terms of which are not defined within its licence

¹³ DCC, (2023), "DCC Review Phase 1 Consultation: DCC Response", Pg. 29, see in Stakeholder Responses here: [DCC review: Phase 1 Consultation | Ofgem](#)

¹⁴ Utility Regulator (NI), (2017), "Guidance on the interpretation and application of the Demonstrably Inefficient or Wasteful Expenditure (DIWE) Provision", see here: [Guidance on the interpretation and application of Demonstrably Inefficient or Wasteful Expenditure.pdf \(uregni.gov.uk\)](#)

¹⁵ Utility Regulator (NI), (2017), "Guidance on the interpretation and application of the Demonstrably Inefficient or Wasteful Expenditure (DIWE) Provision", Pg. 5-6, see here: [Guidance on the interpretation and application of Demonstrably Inefficient or Wasteful Expenditure.pdf \(uregni.gov.uk\)](#)

Example factors which must be considered to prove expenditure is DIWE

For NIE Networks and SONI in Northern Ireland, where the Regulator is assessing the efficiency of expenditure it must take into account, but is not limited to, considering the following factors:

- a) *The extent to which the company identified and utilised appropriate resources*
- b) *The process by which any third party contract was procured*
- c) *The extent to which the company was, or ought to have been, able to control the relevant expenditure, including:*
 - *whether the company had in place appropriate processes to oversee and control its internal costs;*
 - *whether the company had in place appropriate contract management processes to oversee and control third party costs;*
 - *whether any of these processes were applied effectively*
- d) *The information that was reasonably available to the company and/or its third party contractors, at the time that it and/or they made any relevant decisions in relation to expenditure or the control of expenditure*
- e) *The extent to which any expenditure involved an unnecessary duplication of activity on the part of the company and/or its third party contractors.*
- f) *The extent to which any expenditure was increased by any material error or mistake on the part of the company and/or its third party contractors.*
- g) *The extent to which any expenditure was increased by any avoidable delay on the part of the company and/or its third party contractors.*
- h) *The extent to which any expenditure was proportionate to the outputs which that expenditure was intended to, and/or did, deliver.*
- i) *The extent to which those outputs were appropriate outputs to be delivered in the context of the project or other activity for which the company was given an allowance (or other form of approval to recover revenue) in accordance with its price control.*

Table 1 – Example factors which must be considered to prove expenditure is DIWE

This framework, therefore, has the potential to overcome the major issue with ex-post approaches, by minimising any extra uncertainty created from transitioning to ex-post regime. It may also reduce regulatory burden should intervention be kept to a minimum. However, to achieve both these aims the regime must be operated in a very specific way, not dissimilar to how it works in Northern Ireland. Key features including:

- clear guidance set out upfront on the use of DIWE within company licenses establishing:
 - a very specific set of circumstances and scope of costs for where disallowance could apply – to ensure intervention is minimal to maximise benefits from simplification; and
 - clear statements that any DIWE intervention can be challenged under existing CAMA appeals processes to support investor certainty relative to the ex-ante framework today and re-emphasise to use the mechanism sparingly for disallowances
- the burden of proof being on the Regulator to establish whether specific areas of spend are DIWE, consistent with its use in aviation and in energy regulation for networks in Northern Ireland – to establish that absent intervention costs are deemed efficient and regulated under a ‘cost plus’ approach.

Should an alternative application of DIWE be applied where there is a wide scope for intervention and disallowance, or burden of proof put on companies then it is highly likely that a DIWE framework, like other ex-post approaches will raise the cost of capital without any significant benefits from simplification.

In line with our response to Question 4, in general whilst we do not support the use of ex-post approaches for cost assessment we believe Ofgem should consider application of this specific type of DIWE approach for costs that we would define as One-off/Less Predictable. In particular, as for these costs it is difficult if not impossible to assess cost efficiency ex-ante as they typically have either no historical or other comparator to use for assessment. Given these costs account for only around 10% of RIIO-GD2 base expenditure we expect potential gains from reduced burden to outweigh the potential impact of any weaker cost efficiency incentives. However, for the avoidance of doubt we do not believe extending this specific ex-post framework more widely across the cost base or use of an alternative ex-post regime in general would be appropriate as it is likely to raise costs to customers and would be unlikely to reduce current burdens.

Designing future network regulations

Q6. What are the benefits and costs of this approach for Electricity Transmission by comparison to an evolution of the approach in RIIO-2, and what are the implementation barriers?

N/A

Q7. What is the potential for Electricity Distribution planning and commissioning to move to an alternative model by the end of RIIO-2, and what might be the benefits and costs of doing so?

N/A

Q8. What is your view on the most effective approach to regulation of Gas Distribution and Transmission beyond RIIO-2? What would be the benefits and costs of moving to a simpler approach to regulation of the ongoing costs of operating and maintaining the network?

Our view is that it is appropriate to consider future regulation in two parts: the short term, and the medium to long term. In both parts though we are in favour of a simpler approach to regulation as this will benefit all parties as well as consumers (in ensuring the right focus but also in cost), but the balance has to be right between rules based and outcome-based regulation.

The challenge for the Gas Distribution sector is that the transitional activities are yet to be fully defined as strategic energy planning and Government policy evolves on hydrogen, clean heat, power, and transport. Hence it is difficult to consider all the archetypes for the range of future scenarios at this stage. However, under any scenario the existing natural gas network is likely to play a vital role in continuing to heat homes and fuel industry, transport, and the power sector hence it is important to ensure the right frameworks are in place to deliver for customers. We therefore believe it is appropriate to consider future regulation in two parts: the short term, and the medium to long term.

In the short term (specifically in the event of a two-year rollover), Cadent's view is that Archetype 2 (simplified RIIO) is the best approach as the core services to our customers will remain the same. We believe the RIIO model has proven to be a successful way to regulate and over time the refinement of the model has driven competition, innovation, and great work in the customer vulnerability space. The regulatory burden has been the main consequence, but this is rectifiable by agreeing on a way to share the right information in an efficient and proportionate way. Business plan processes (as well as reopener applications for example) could be simplified by simplifying the detailed guidance. Engineering Justification Papers exist to reduce the information asymmetry, but it creates significant regulatory burden for both networks and Ofgem. We refer Ofgem to our response in question 4 regarding simplification.

In the medium to longer term, a combination of Archetypes could work well together once the various unknowns are known and processes are mature (for example the FSO has complete clarity on scope and has matured in processes, digitalisation, and data sharing across the industry, etc). At this point, archetype 1 could have a role to play if strategic energy plans are developed for the decarbonisation of industry, heat and power integrating the gas networks as we discussed in Question 3. Archetype 2 ex ante regulation will continue to be a favoured approach in line with our evidence submitted under Question 4, and lastly ex post under archetype 3 could have a role to play with uncertain (one-off or less predictable) costs (see our response to Question 5). For the avoidance of doubt, we do not believe extending this specific ex-post framework more widely across the cost base or use of an alternative ex-post regime would be appropriate as it is likely to raise costs to customers and would be unlikely to reduce current burdens.

Q9. Should there be a shorter-term price control in gas distribution and/or gas transmission, and how could this work in practice?

We see value in a two-year rollover of the existing RIIO-GD2 control if done simply but a proper assessment and framework would need to be in place for a control which lasts longer

Benefits of a two-year rollover

We see there may be value in the proposed two-year rollover of the Gas Distribution price control to enable the strategic energy planning processes to become more mature and ensure greater integration between gas and electricity plans to minimise risks for customers.

A two-year rollover would create an ability to coordinate assumptions between gas and electricity distribution ready for a 2028 aligned price control, further considerations can be made around how national and regional strategic planning will incorporate natural gas and hydrogen solutions by the Future System Operator and any Regional Strategic Planner, and it allows more time to consider the regulatory framework changes needed to manage the future gas pathways for heat decarbonisation. We agree that this will not be in place for the end of 2024 when business plans for a 2026 price control would be required. Whilst it is not certain that this will be fully mature by the end of 2026 when the business plans for a price control in 2028 would be required; it would create the ability to build the strategic planning process into that price control setting process. It would also enable the new enduring hydrogen transportation framework that is being designed by the Government for 2026 to be considered in terms of any interactions with the RIIO framework for natural gas assets. In addition, it would extend the value from the RIIO-GD2 consumer engagement and considering the main consumer outcomes are still the same, we would be driving better value for the consumer from that initial investment.

The benefits of a two-year rollover would be predicated on a simple and fair process being defined so that the extra time and space it would create is maximised. Any process that would involve a similar level of burden to setting a normal RIIO-2-like price control would work against the objectives of a rollover and indeed could be detrimental as it would mean running two full price controls in short succession (one for the rollover and one for the following control). Below we have set out how a rollover could be set simply and fairly to generate identified benefits.

How a two-year rollover could be delivered simply and fairly

We note the workload challenge that aligned gas and electricity distribution price controls might create for Ofgem leading up to 2028, but we believe that the simplification of the price control setting and monitoring being considered should allow a workable process to be defined and the extra time to consider this by undertaking a rollover of Gas Distribution should allow a lot more work to be done upfront. A two-year rollover would support Ofgem and networks in effectively managing the ongoing requirements of RIIO-GD2, which over 2023-2025 will include the administration and assessment of 15 re-openers. In addition, disconnecting the two reviews creates the challenge of ensuring alignment in assumptions for customer related demand for heat, power and industry which will be very interactive between gas and electricity under any scenario.

We have explored how a two-year rollover could be delivered simply and fairly to protect and sustain RIIO-GD2 consumer benefits (whilst minimising the need for reforecasting, reassessment, and recalibration), provide forward certainty and confidence to investors (by keeping some stability in the framework), to provide confidence and assurance to Ofgem that the proposed approach balances risk and reward, and enables the benefits of undertaking a rollover to be achieved.

Our proposed approach would be to:

- Set cost allowances for the rollover period which are grounded in the RIIO-GD2 allowances, updated to ensure a fair and consistent industry benchmark and with updates focused only on material exceptions to the work or cost profile seen over RIIO-GD2;
- Preserve existing outputs, incentives, and uncertainty mechanisms, with additions only required for material changes expected in the rollover period;
- Rollover the RIIO-GD2 financeability framework, testing that updated indices deliver financial resilience for two more years;

- Materially tighten the Return Adjustment Measures threshold for the two-year period to protect customers from any risk of outturn performance being materially better than the simplified rolled over targets and protecting networks from the risk of material cost pressures that cannot be controlled; and
- Adopt a simplified approach enabling time and effort to undertake work in parallel to properly design the next more enduring price control.

1. *Setting cost allowances*

- Utilise RIIO-GD2 allowances but updated for new information from the CMA appeals to create a fair and consistent benchmark (Specifically, the revised treatment of LTS Rechargeable Diversions for all networks and to recognise the correct level of embedded ongoing efficiency within Cadent's RIIO-2 Business Plan).
- Create an exceptions process for material differences in forecast cost profiles from RIIO-GD2 (volume or price) – similar to when setting PCD's.
- Consider the feasibility of additional ongoing efficiency in light of slow economic growth.
- Roll forward Real Price Effects and Uncertainty Mechanism treatment.

2. *Preserve Outputs, Incentives and Uncertainty Mechanisms*

- Maintain/extend majority of outputs and incentives but update/add new PCD's where needed (e.g., capital projects) – in line with the exceptions process.
- Enable work to progress on less certain areas (Net Zero, HSE related reliability work and cyber/data) by using existing reopeners and creating UIOLI allowances or an ex-post reopener at the end of the extension period.
- Create space to consider new/amended incentives to drive customer value in Net Zero delivery.

3. *Rollover the Financeability Framework*

- Roll forward the cost of capital methodology with updated indices.
- Perform a sector wide debt assessment to check if any adjustment is needed to the index as per RIIO-ED2.
- Notional Gearing maintained.
- Re-test financeability generally post any updates.
- Consider tightening RAM's to protect against material variances (e.g., halving to 150bps).

Our thoughts on 'refresh and recalibrate'

An alternative approach that has been discussed between Ofgem and networks is to 'refresh and recalibrate' the existing GD2 framework. This could involve, for example, re-running cost benchmarking models with updated actual and forecast data for the period being considered and/or considering actual outturn incentive performance to recalibrate targets for the forthcoming two years. Whilst this may sound simple, the complexity of what this involves is significant – and undertaking the analysis required would amount to undertaking most of a full price control process. For example, for costs, while a regression can be run in statistics software fairly quickly, there are over 50 pre-modelling adjustments that would need to be made to costs before they can be compared. This would also need to apply to all the deviations from base allowances arising from uncertainty mechanisms within the RIIO-GD2 control. Refreshing and recalibrating output delivery incentives would require more detailed analysis and assessment and could also impact on the overall risk reward balance underpinning the financial assessment. Therefore, we would not be supportive of refreshing and recalibrating the framework for a short rollover as doing so would eliminate any benefits that could be generated.

Our thoughts on a longer-term rollover

We do not support a longer rollover than two years as we believe that, even for what Ofgem have termed replacement/BAU activities, the outputs required from customers, the financial environment, and the cost to deliver are likely to evolve significantly as we go out to 2031 and hence the basis of the RIIO-2 control would need to be reassessed. If we are not in a position to undertake a two-year rollover, we believe the only approach would be for a full price control reassessment to ensure a fair, robust and clear framework is set

out for the period. We believe in this circumstance that Ofgem could also consider setting this control out to 2033 to align with the end of the current iron mains risk reduction programme and to align with the subsequent electricity distribution review. In all these cases, given the transitional activities will still be being developed as part of the strategic planning process and alongside Government policy on hydrogen and heat, then this will require uncertainty mechanisms or the creation of a new framework within the next control period to determine any impacts (e.g., similar to the creation of the ASTI framework within the current RIIO-T2 controls.

Q10. Would there need to be any changes to maintain a stable and consistent financial framework if we were to make greater use of different regulatory archetypes, and if so, what would those changes need to be?

[Redacted for commercial sensitivity reasons]

Analytical framework and next steps

Q11. Do you have any views on our proposed analytical approach?

Use of the same Archetype in different sectors may mean fundamentally different regimes apply. It is imperative that a robust and objective analytical assessment is undertaken to understand whether new approaches could maintain/grow benefits of the current regulatory framework whilst better meeting wider strategic goals.

Given the significance of the changes the FSNR consultation is considering, it is imperative that a robust and objective analytical assessment is undertaken to understand whether new approaches could maintain/grow benefits of the current regulatory framework whilst better meeting wider strategic goals. However, it is difficult to provide views on the proposed analytical approach set out in the consultation given that both: options to be assessed, and the precise approach to analysing them, are only described at a high-level.

Options and use across sectors – what is being assessed?

Throughout the consultation a range of potential options for future regulatory models are put forward, even within the three Archetypes that are used to structure the document. For example, though Archetype 2 is called “Ex-Ante Incentive Regulation”, this contains a variety of ex-ante *and* ex-post frameworks. Each of these in turn is only described at a high-level with more precision required to sufficiently assess whether they may generate benefits or costs relative to the RIIO-2 framework. This comment also applies to how different Archetypes may be used in different sectors. In principle, use of the same Archetype in different sectors may mean fundamentally different regimes apply – which will need to be considered in detail to ensure they generate value over frameworks of today.

We encourage Ofgem to conduct further detailed design on the potential models it wishes to assess so they can be appropriately scrutinised to ensure any resulting proposals deliver positive outcomes. The risk of an absence of detail, is that any decisions made may result in unintended consequences at a later date.

The analytical approach to assessing options – how is it being assessed?

In addition to *what* is being assessed, further detail needs to be set out to understand the appropriateness of *how* it will be analysed, with further clarity needed across three areas:

1. **The counterfactual:** In the consultation, the counterfactual is described as “RIIO-2 assuming incremental change”, but no other details are provided for what this actually means in practice. This is particularly important as the framework varies significantly across sector for chief areas of interest. For example, approaches to cost assessment vary between transmission and distribution owing to lack of intra-industry comparators and GD and ED have different analytical frameworks

applied when determining catch-up efficiency challenges. Furthermore, it is also important to identify the uncertainties that will be faced in the counterfactual scenario and how the counterfactual will or will not effectively meet the challenges they bring (e.g., how to navigate heat policy outcomes or results of the Iron Mains Replacement Review), taking into account the likely shape and maturity of the FSO and its capabilities as far as relevant.

2. **The scope of assessment across sectors:** In the consultation, Ofgem states that they are considering assessment with a view to reaching a framework decision by early Autumn 2023 at least for those sectors that are “being taken forward after the summer for 2026 implementation”. It is unclear given this whether such an assessment therefore will include ED or GD (should there be an extension to the current RIIO-GD2 control). Given the importance of whole system planning to deliver an effective energy transition it is important that Ofgem consider potential reforms across all sectors so that an optimal framework is established. Only considering a sub-set of sectors may lead to the wrong answer overall.
3. **The criteria used to assess options and how these will be traded-off:** Ofgem proposes to undertake its assessment of different models by assessing how well they deliver on objectives set out in its Consumer Interest Framework. Whilst this is helpful, it is unclear how these translate into a set of detailed criteria for weighing up the benefits and costs of different options. For example, it is unclear whether the criteria will include consideration of how particular models could introduce short-termism in decision-making, which may lead to delay in bringing about net zero. In addition, it is unclear how these criteria will be traded-off against one another. For example, as noted above we expect the majority of ex-post regulatory approaches could raise the cost of capital. We therefore are keen to understand how Ofgem would value any gains from alternative approaches against potential extra costs to consumers long-term through creation of extra risk.

We would welcome further engagement with Ofgem on its analytical framework moving forward and are happy to support its development across these areas.

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