

# RIIO-2 Sector Specific Methodology

## Cadent draft response to Ofgem Gas Distribution Annex

March 2019



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## Chapter 3 - Meets the needs of consumers and Network users

### Key Messages

- Cadent supports the proposed output areas identified under the output category ‘meeting the needs of consumers and network users, however believe there should be more positive incentives in the overall package.
- We are supportive of Ofgem’s proposals for a combined package to support customers in vulnerable situations. We want to stay flexible and ready to act to changing situations of vulnerability, continue to work with partners, share best practice and collaborate to reach those who are hardest to reach in society.
- We believe the stakeholder engagement incentive should be retained and repurposed to focus on the key challenges in RIIO-2 which will require enhanced engagement i.e. vulnerability, fuel poverty and the energy transition.
- An incentive to measure customer satisfaction should be retained but Ofgem should avoid setting relative, zero sum, fixed pot or sectoral annual resets for incentives as this would deliver a poor outcome for customers. This would introduce unnecessary complexity and drive undesired company behaviours where networks would not collaborate or share best practice.
- We are supportive of retaining and enhancing GSOPs, however any changes to payment levels as well as performance standards must be supported by customers to ensure we are targeting the right areas of value.
- We do not believe Ofgem’s proposals for an asymmetric penalty-only incentive measuring average restoration time for unplanned interruptions will deliver the right outcomes for customers. We believe a specific output measure could be established for MOB customers to drive the aim of minimising disconnections and reflect a long term strategy for the changing environment for these customers.
- We believe fuel poverty should be measured beyond just the number of gas connections and should include the delivery of non-network solutions which better address fuel poverty. We propose a flexible volume driver supported by an incentive to encourage better targeting and linking up of funding sources.

## General Output








### GDQ1. What are your views on the overall outputs package considered for this output category?

We believe the outputs proposed for this output category largely focus on the areas customers value and if a GDN performs well against these outputs, we believe it would demonstrate delivery against the outcome, i.e. meeting the needs of consumers and network users. However, any regulatory framework must ensure a balance between risk and reward to provide companies with the right incentives and ensure a fair but profitable package for investors. Across the performance framework for all three output categories the balance is weighted heavily towards risk with limited opportunity for reward.

The following table shows the incentives for the output category ‘meeting the needs of consumers and network users’ with Ofgem’s preferred position in RIIO-2 and the movement from RIIO-1.

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What	Ofgem RIIO-2 signals	Position in RIIO-1	Movement from RIIO-1
<b>Consumer vulnerability incentive</b>	Reputational incentive	No incentive	
<b>Stakeholder engagement incentive</b>	No incentive	Max c. £9m pa reward (0.5% revenue)	
<b>Customer satisfaction</b>	Dynamic targets on average sector performance. Relative and penalty only options being considered.	Max +/- c. £9m pa (0.5% revenue). Absolute incentive.	
<b>Complaints metric</b>	Relative target based on RIIO-1 performance (also considering annual dynamic resets) If above target then penalty up to c. £9m pa (-0.5% revenue)	Absolute incentive. Max c. -£9m pa penalty (-0.5% revenue)	
<b>Unplanned interruptions average response time</b>	Penalty only incentive on average restoration time for total unplanned interruptions. Targets to be set based on combination of network specific GD1 average and sector GD1 average.	Reputational incentive.	
<b>Discretionary reward scheme</b>	No incentive	Max equiv. £1.5m pa (total £12m across all GDNs in RIIO-1)	
<b>Fuel Poor Network Extension Scheme</b>	Penalty only if targets are missed	+/-2.5% reward / penalty for over or under-delivery against targets	

The overall package proposed by Ofgem for this output category will ensure the delivery of minimum standards for customers but will significantly limit network ambition to improve the customer experience. Networks are performing well overall, but there are areas of inconsistency and opportunities for further improvement. In these areas there should be positive reward-based incentives to encourage networks to raise the bar further for customers.

We do not believe setting relative and dynamic incentives will deliver greater value for customers as it reduces collaboration and best practice sharing, which customers have told us they value. It also increases uncertainty and risk in the framework and reduces the overall power of incentives.

We are determined to deliver the best outcomes for our customers in RIIO-2. In order to do this we must ensure any changes to existing outputs or introduction of new outputs are supported by our customers and stakeholders through robust qualitative and quantitative engagement. Ofgem have developed many proposals for this outcome through the customer and social working group, which has largely been dominated by GDNs and a few stakeholders. However, engagement of customers and their representatives appear to be limited. For instance, proposed changes to guaranteed standards of

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performance (GSOP) and customer satisfaction have not been supported by robust customer engagement and willingness to pay analysis.

### **GDQ2 For each potential output considered (where relevant):**

**a) Is it of benefit to consumers, and why?**

**b) How, and at what level should we set targets? (eg should these be relative/absolute)**

**c) What are your views on the design of the incentive? (eg reward/penalty/size of allowance)**

**d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?**

## **Consumer vulnerability**

Keeping homes safe and warm by providing a constant gas supply has a direct impact on the communities we serve. We are proud of the safeguarding services we deliver and recognise that our service is essential to our customers. We continue to positively impact our customers and communities across our regions via the services we offer.

We are often best placed to identify customers who find themselves in situations of vulnerability and may need extra support. Therefore equal and easy access to all of Cadent's products and services is critical and supports Ofgem's vulnerability strategy. For RIIO-2 we want to amplify the strengths we can bring to society as a gas network, going beyond 'the basics' of achieving our regulatory and licence obligations and delivering real positive customer outcomes in the long and short term.

We must remember that raising awareness of vulnerability can be just as important as delivering outcomes for customers. Measures of success for delivery solutions are not necessarily quantifiable in target form e.g. number of referrals made by us or by our partners. Also, we must bear in mind that the customer has a choice whether or not to register on the Priority Services Register (PSR).

The ability to have flexibility is vital in the area of vulnerability, whether it be identifying it, taking action, or collaborating in order to take the best course of action. Customer circumstances change and as networks we need the ability to be able to react to these changes now, in RIIO-2 and beyond. Therefore any outcomes to be delivered or targets to be met need to be tailored by network, depending on the levels and types of vulnerability experienced. Likewise value adding solutions will be developed within sector and also broader across utilities as we all have customers who face similar challenges in interacting with and accessing services.

Our proposals for delivering positive consumer vulnerability outcomes within the RIIO-2 framework will be based on understanding our customers' needs via data, insights and engagement. The framework also needs to establish a collaborative environment to ensure consistent levels of service are delivered, regardless of circumstance.

Any incentive must be aligned to the wants and needs of customers across our regions, with the ability to flex if required as customer needs and situations evolve over time. The framework must allow the trial and test of new initiatives and allow us to make use of existing vulnerability mapping and social return on investment tools to ensure we continue to positively serve our customers.

We are supportive of Ofgem's proposal to include a specific allowance to support customers in vulnerable situations. Across all our RIIO-1 and RIIO-2 engagement, customers and stakeholders have made it very

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clear that they are keen for us to continue our work in this area and raise the bar in order to make our services more accessible to all. It is therefore vital that the size of the allowance is reflective of this customer ambition.

Based on our engagement so far, the proposed allowance of £15-£30m split across all GDNs over the RIIO-2 period does not seem reflective of the customer ambition. The scale of any allowance set by Ofgem must be supported by the views of customers and their representatives. The use it or lose it allowance on its own does not provide GDNs with any incentive to use the money, or use it wisely. However, if the allowance were to be supported with an incentive that measures social return on investment, this would encourage GDNs to really target any spend in this area. This in turn would then drive the right behaviours for networks to raise the bar in how they understand and best serve customers in vulnerable situations.

We are continuing to carry out our customer willingness to pay research and will seek overall acceptability of our plans from our customers therefore we are unable to offer a definitive figure for a vulnerability use it or lose it allowance in RIIO-2. However, we would strongly recommended that Ofgem review this proposed allowance and ensure it is reflective of customer and stakeholder ambitions in RIIO-2.

Further elaboration on Ofgem proposals on vulnerability is provided in our response to question GDQ9

### **Stakeholder Engagement Incentive**

Broad and deep stakeholder engagement allows us to understand and embed positive change, making our services accessible. Engagement allows us to gather informed opinions to help improve current customer outcomes and business plans.

The stakeholder engagement incentive introduced within RIIO-1 has encouraged networks to collaborate and form partnerships to understand the specific needs and expectations of their customers and stakeholders. This needs to be maintained and enhanced within RIIO-2 to continue to encourage networks to address changing customer needs in the most effective ways.

This view is supported by Citizen's Advice in their response to Ofgem's RIIO-2 Framework Consultation in summer 2018: "The stakeholder engagement incentive has improved the responsiveness of networks in RIIO-1 and we encourage Ofgem to be ambitious in strengthening this mechanism for RIIO-2".

We believe that the stakeholder engagement incentive should be repurposed and focus on the key challenges where enhanced engagement will deliver the most benefits to customers. From our RIIO-1 business insights and specific RIIO-GD2 engagement, there are core themes that are becoming ever more important to customers and stakeholders that a stakeholder engagement incentive could target, for instance:

- Supporting vulnerability – broadening and leveraging partnerships to target, identify and support those most in need.
- Fuel Poverty – linking up different sources of funding across the wider industry to ensure the most effective approach in tackling fuel poverty
- Energy transition – helping to ensure that customers and stakeholders are fully engaged in the journey towards decarbonisation

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It is vital that the RIIO-GD2 framework provides the right incentives for GDNs to collaborate and deliver services and positive customer outcomes across regions in these key areas.

Within the RIIO-2 framework, we would not want to restrict collaboration by promoting competition / relative performance, particularly if an evolution of the incentive were to focus on supporting customers in vulnerable situations and the energy transition. These are UK wide challenges that require both targeted and collective approaches, dependent on the customer or stakeholder group, therefore any incentive should be reflective of the overall 'pull' from customers and stakeholders. A relative performance incentive would discourage positive behaviours as networks would need others to lose to ensure they win. Any criteria within the incentive would need to provide GDNs with the flexibility to adapt to changing stakeholder and customer wants and needs throughout the price control period.

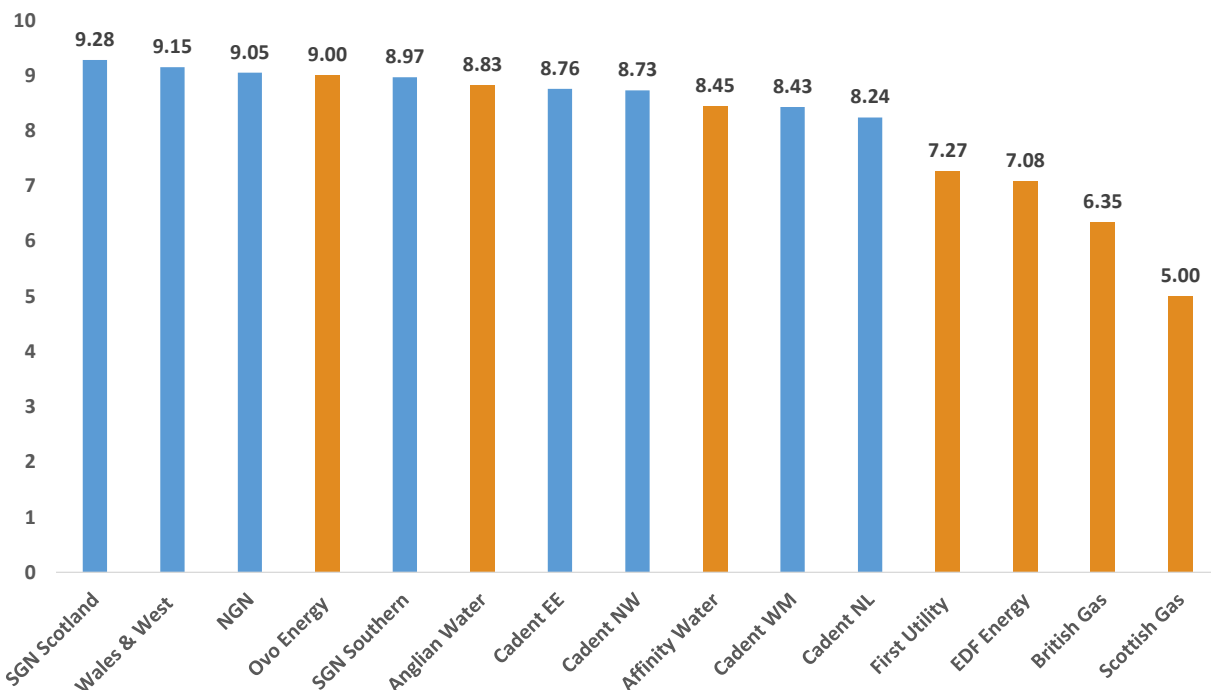
Ofgem have signalled within this consultation that there will be a greater focus on consumer vulnerability and the energy transition in RIIO-2, and there is still work to do in order to change the landscape for customers in vulnerable situations in particular. It is important that the framework retains and enhances the stakeholder engagement incentive in order to ensure the right environment is created for GDNs to deliver positive customer outcomes within key areas such as consumer vulnerability, fuel poverty and the energy transition. Removal of a financial incentive could undo some of the positive work delivered in RIIO-1 and put outcome delivery, and networks going above and beyond for current and future customers, at risk in RIIO-2.

**Customer Satisfaction**

There is an expectation across all areas of society that businesses provide great services to all their customers. There is a demand for availability, responsiveness and flexibility from customers in all sectors and regulated networks are not exempt from this demand.

During RIIO-GD1 we have seen customer satisfaction increase across all services in all networks and our performance can be shown to compare favourably against external benchmarks.

**Overall satisfaction scores by utility companies, Q2 2018/19**



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Source: TTI Global

As such, we believe that Ofgem's focus on customer satisfaction in RIIO-GD1, including the introduction of a reward and penalty incentive, has been successful with the monopoly network companies achieving higher satisfaction scores than businesses within the competitive energy retail market where this metric is particularly important in gaining and retaining customers.

In RIIO-2, the performance framework must continue to encourage networks to maintain high levels of customer service and better target the areas of poor performance. A financial output delivery incentive has driven the right behaviours in RIIO-GD1 and therefore should be continued and enhanced for RIIO-GD2.

The value of the incentive and associated targets should be set according to the service levels customers expect and are willing to pay for. If these do not align with customer needs and expectations there is a risk that performance improvements will not be valued by customers or companies are not encouraged to achieve the higher levels customers expect.

Giving consumers a greater voice and providing transparency is a key objective of RIIO-2 which we support. We do not support the introduction of relative, zero sum, fixed pot or sectoral annual resets for incentives as this would deliver a poor outcome for customers. This would introduce unnecessary complexity and drive undesired company behaviours where networks would not collaborate or share best practice as they need others to lose to ensure they win. Using relative incentives, to force a distribution of performance, or resetting targets at a sector level during the control will not deliver the outcomes that customers want and need. An over-arching principle for any network regulatory framework must be to encourage better service for all customers.

We do not support a zero-sum approach which ranks networks and only rewards the top four networks whilst penalising the bottom four as this would drive perverse behaviours and would not provide the best outcomes for all customers. A zero-sum incentive will have the following adverse impacts:

- Discourages collaboration and sharing of best practice as one network would need other networks to lose (penalised) to ensure they win (rewarded).
- Could create scenarios where companies are rewarded despite providing a poor service to their customers, or companies penalised for when a good service is provided.
- Disadvantage to companies that own multiple networks. For Cadent this means 3 out of our 4 networks must rank in the top half to gain any reward overall.

A defined penalty and reward pot where networks are penalised for performing below targets but can only be rewarded for service levels close to the maximum (i.e. 10/10) would not only add complexity to the incentive but would not deliver the best outcomes for customers. A fixed reward pot which is shared between networks would discourage collaboration as networks would not want other networks to achieve high scores. In addition, this approach could work if there were no changes to the structure and content of the survey methodology (e.g. channels, questions, frequency, etc.), as Ofgem may want to find a way to encourage improvements beyond the current high levels being achieved. However, proposed changes to the survey methodology will increase the scope of the customer base surveyed and unlock further opportunities. This will impact the overall score and require targets to be re-baselined, therefore the

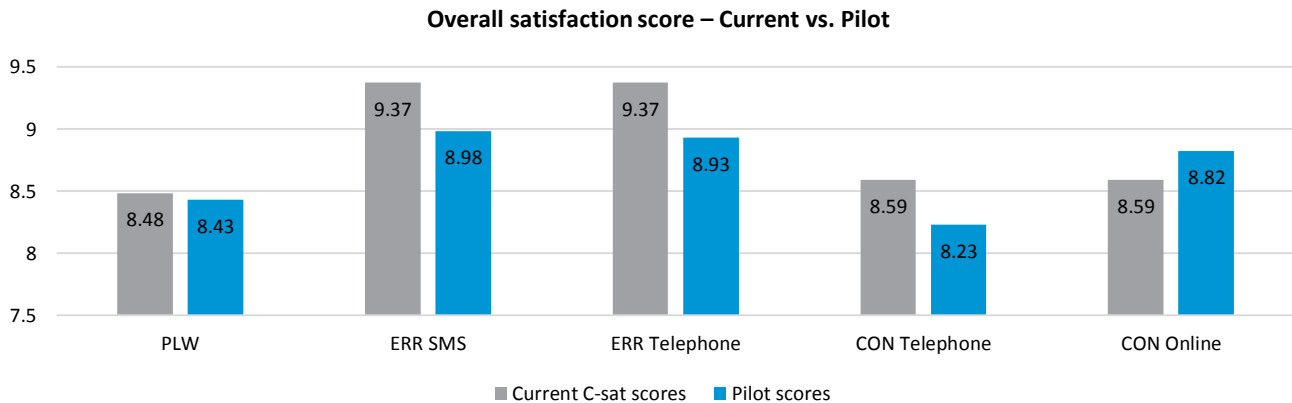


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existing and proven incentive design of a balanced reward and penalty equally available to all networks may be the most appropriate approach.

The joint-GDN trial conducted in 2017/18 demonstrated that a change in survey methodology and questions has an impact on the overall score.



Therefore targets must be re-baselined to consider the impact of reaching a wider customer base.

Output delivery incentives should encourage networks to deliver improvements in service beyond the minimum levels expected from customers. In RIIO-GD1, the reward/penalty based customer satisfaction incentive has encouraged networks to make significant improvements and allowed the gas distribution sector to achieve levels of 8.8/10 which compares favourably against the wider energy industry. It must be noted that this level of performance has been achieved through collaboration and sharing of best practice and therefore any incentive mechanism in RIIO-GD2 must continue to encourage this.

The current reward and penalty mechanism has proven to be an effective approach that provides a balance between risk and reward to encourage networks to achieve and maintain high levels of customer service. Although there is an argument that customers may not be willing to pay for higher levels than the current service, proposed enhancements to the methodology will increase the scope of customers represented and will identify opportunities for improvement. The incentive mechanism must continue to encourage networks to target these areas and respond to the changing expectations of their customer base. A penalty-only incentive will discourage networks to perform beyond the minimum expectation and continue to find ways to improve the customer experience.

Our preferred option to enhance the way in which we measure the customer experience is a customer balanced scorecard which sets tangible measures based on insights from RIIO-GD1 to drive improvements and target the areas which matter most to customers. Further detail of this proposal is provided in our response to question GDQ3.

If the customer survey approach is maintained as the only measure of customer experience, a number of improvements can be made. Ahead of the joint GDN C-Sat trial carried out in 2017/18, the following objectives were agreed:

- Identifying all other survey channels in addition to paper
- Improving the total response rates
- Moving survey time closer to when the work occurs
- Providing more customer choice
- Exploring alternative questions to gauge satisfaction

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These continue to be Cadent's primary objectives for improving the survey and in order to achieve this we propose the following changes.

### Proposal for evolving the customer satisfaction survey

Category	Current state	Proposal for RIIO-GD2	Benefits
Who we survey	<ul style="list-style-type: none"> <li>ER&amp;R,</li> <li>Planned work,</li> <li>Connections</li> </ul>	<ul style="list-style-type: none"> <li>ER&amp;R,</li> <li>Planned work,</li> <li>Connections (inc. paid for disconnections and non-standard connections)</li> </ul>	<ul style="list-style-type: none"> <li>Increased customer representation</li> <li>Increased no. of responses</li> </ul>
How we survey	<ul style="list-style-type: none"> <li>Paper only</li> </ul>	<ul style="list-style-type: none"> <li>Multi-channel (postal, telephone, email, text)</li> </ul>	<ul style="list-style-type: none"> <li>Increased customer choice</li> <li>Increased customer representation</li> <li>Increased no. of responses</li> </ul>
What are we asking	<ul style="list-style-type: none"> <li>Existing question set for GD1 (11-15 questions per survey)</li> </ul>	<ul style="list-style-type: none"> <li>Revised set of questions linked to customer research and focused on the key drivers for customers.</li> <li>Questions to be clearly worded using appropriate reading age guidelines</li> <li>Reduced number of questions (8-10 per survey)</li> </ul>	<ul style="list-style-type: none"> <li>More accessible to customers</li> <li>Increased no. of responses</li> </ul>
How we calculate satisfaction	<ul style="list-style-type: none"> <li>'Killer' question – Overall satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>Average of score-based questions</li> </ul>	<ul style="list-style-type: none"> <li>Better representation of overall customer experience</li> </ul>
Frequency	<ul style="list-style-type: none"> <li>Monthly</li> </ul>	<ul style="list-style-type: none"> <li>As close to real time as possible.</li> <li>Weekly for Emergency and Connections. Minimum monthly for Planned</li> </ul>	<ul style="list-style-type: none"> <li>Better representation of overall customer experience</li> <li>Increased no. of responses</li> <li>A more leading measure</li> </ul>
Volumes	<ul style="list-style-type: none"> <li>Connections – 100 quarterly</li> <li>Replacement – 100 quarterly</li> <li>ER&amp;R – 200 quarterly</li> </ul>	<ul style="list-style-type: none"> <li>As many as possible subject to efficiency.</li> <li>Current minimum volumes to be replaced by a percentage of workload.</li> </ul>	<ul style="list-style-type: none"> <li>Maximise opportunities for feedback/insights</li> <li>Equitable as based on workload volumes</li> </ul>

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We strongly believe that maximising reach and ensuring the voice of all customers (or as many as practical) should be prioritised over comparability because it ensures the right outcomes are delivered for all the customers we serve rather than a narrow segmentation.

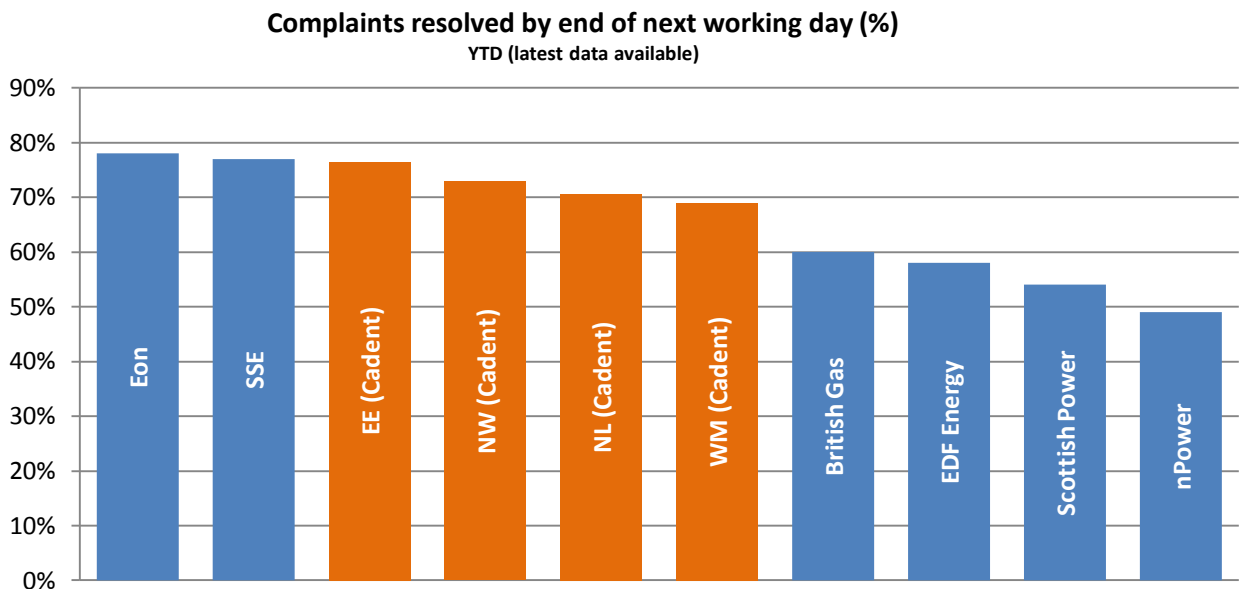
The 2017/18 C-Sat trial was not intended to identify a single channel but rather the benefits of a multiple channel approach and therefore the results of the trial are not sufficiently robust to evidence a move to a different single channel.

Our preference remains with offering customer choice and is supported by our internal engagement approach which encompasses postal, SMS and telephone channels ensuring that customers can engage with us via their preferred medium.

**Complaints Metric**

The introduction of the complaints metric has driven improved complaints handling performance across all GDNs, delivering a more efficient resolution process for all customers. At the start of RIIO-GD1, Cadent networks had a score around 10-11, but the metric has driven significant business improvements and we are now consistently performing around a score of 3-4. This means we are now resolving customers' issues much more efficiently than at the start of the period.

Our benchmarking indicates that Cadent networks are performing above many other industry players. The following graph shows our performance in resolving customer complaints before the end of the next working day (i.e. D+1) compared to the big six suppliers.

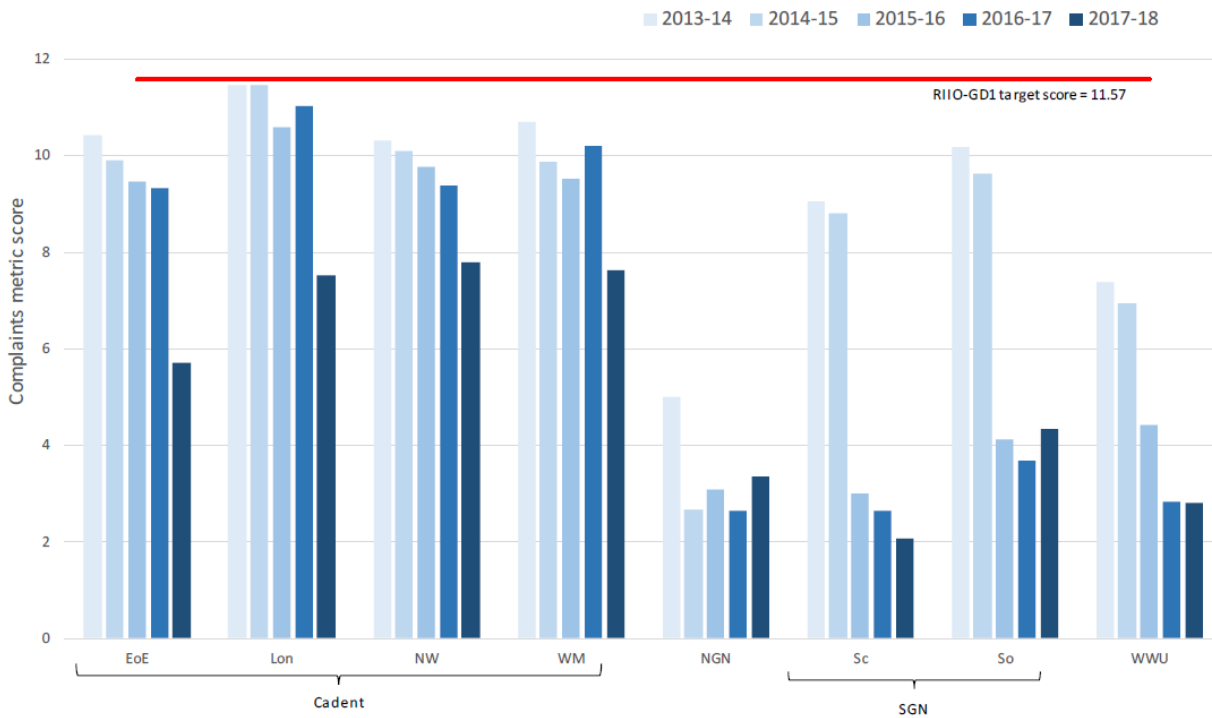


Complaints handling is an area where all GDNs have improved performance which has benefitted all gas distribution customers. In RIIO-GD1, relativity was applied at the start of the control with targets being based on industry upper quartile performance in 2011-12. For RIIO-GD2 we propose a similar approach where a target is set at the start of the control based on RIIO-GD1 performance and maintained throughout the 5 year control to provide certainty to companies and allow implementation of long term strategies that continue to deliver for customers.

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Although companies responded quickly to improve complaints performance in the first few years of RIIO-GD1, this should not be used to justify a move to dynamic targets. Performance data shows that GDNs continued to improve complaints handling performance despite outperforming the regulatory targets. This is highlighted in the graph Ofgem provided in the consultation which shows a downward trajectory (i.e. improved performance) in complaints metric performance in all networks:



Based on this, Ofgem should avoid setting dynamic targets that change year on year as this would encourage short term behaviour and discourage collaboration between GDNs.

Although we are supportive of Ofgem’s principle of capturing good performance, there needs to be some caution in how this is applied. Setting a relative static target based on the industry average in the last year of RIIO-GD1 may be the simplest approach; however this could correspond to a level of service which customers do not expect and are unwilling to pay for. It may be more appropriate to set a target based on average performance across RIIO-GD1.

We are supportive of a continuation of the penalty-based incentive. The value of the penalty should be based on what customers expect as the minimum requirement for how quickly a company resolves a complaint. Networks should be penalised when they deliver below this level but this should be in proportion to the impact. Therefore if Ofgem propose that the maximum penalty is set at 0.5% of revenue, they must ensure the level of service associated with the penalty is proportionate to the impact caused due to poor performance.

## Emergency Telephone Response

The National Gas emergency phone line currently operates at over 99% reliability with systems on a par with the blue light services. This level of reliability has seen us meet our standard for answering all emergency calls within 30 seconds over the course of RIIO-GD1, with our average time to answer being only 8 seconds. We have business continuity in place to manage any outages of the phone lines.

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We are keen to further understand Ofgem's proposal to update Licence Condition Standard Special Condition A8 to include the following wording: "the emergency response phone line should always be operational" and the any additional expectations they have on current service levels. If Ofgem define this as having a 100% reliable emergency telephone service then this may result in us having to request additional funding, at cost to the customer, in order to achieve this level of reliability. It must be noted that the Emergency Service 999 telephone number in the UK does not operate at 100% reliability so it would no doubt be unreasonable to expect UK gas customers to fund a level of reliability that is over and above that of the UK 999 Emergency Services.

### **Emergency Standards of Service (ESOS)**

Safety is a top priority for our customer base and the emergency service we provide is seen as an essential service by customers to keep the public safe. The current measure for emergency response attendance is relatable to customers and provides clear guidance on what to expect from our service.

Based on insights from our customers and stakeholders, we are supportive of Ofgem's proposed approach to maintain the 97% target levels as they remain appropriate levels of service that our customers are willing to pay for.

### **Guaranteed Standards of Performance**

Guaranteed standards relate to the minimum standards of service all customers should receive and were first introduced for gas distribution in 2002, updated again in 2005 and again amended in 2008. GSOPs ensure all customers receive a minimum standard of service. Where this service is not provided customers are compensated.

We are supportive of the continuation of GSOPs as they are a good mechanism to protect consumers and provide compensation when minimum standards customers expect are not met. We are supportive of reviewing these standards as they were last updated in 2008, however we must test any changes with customers to ensure they are targeted (i.e. customers value them) and proportionate. As part of the review it is important to test the performance targets and whether they need amending, removing or indeed new ones applied, compensation amounts, payment caps, and exclusions. For example, guaranteed standards were put in place to provide a minimum level of compensation for customers of monopoly providers. In the larger and I&C connections market, are now marginal players with customers able to select from a number of competitors, it is therefore questionable whether the same connections standards should apply.

Guaranteed Standards should also be proportionate and in doing so should not only consider inconvenience to individual customers, but also reflect the economic impact.

As GSOPs are the minimum levels of service customers expect from GDNs, any changes to targets must reflect this principle and should not be used as a mechanism to encourage networks to perform at levels above the minimum. Other elements of performance framework should do this, namely through the setting of output delivery incentives.

If GSOPs are to be applied nationally with no room for regional differences, Ofgem must ensure comparability and consistency in how performance is measured and that networks are not disadvantaged due to the make-up of their network and aspects beyond their control. In the first instance, increasing

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payment levels in line with inflation makes sense as the standards were last updated in 2008 while others such as GSOS1 haven't changed since 2002 and we would support this.

However, it is important that any changes to the payment levels as well as performance standards are supported by customers to ensure we are targeting the right areas of value. Arbitrarily tightening the standards and increasing the payment levels will potentially increase the cost for networks to achieve and be passed on as higher customer bills even if they are unwilling to pay.

A 90% pass rate and individual performance targets e.g. quotation timescale was applied to Overall connections Standards of Service (OSOPs) as part of Standard Special Licence Condition D10 in 2005. The purpose of this was twofold:

1. To provide a minimum level of protection to customers at an economically efficient level for networks and,
2. Through the timescale to meet each standard, to allow competitive providers to outperform the time taken by to provide a service such as quotation or offering a date for work to commence.

This dual approach was highly successful in fostering competition while providing adequate protection for customers through the standards themselves and at an economical level to customers overall. Now that the connections market is competitive, there should be consideration as to whether some GSOPs should be removed to allow market forces to take effect.

Although the introduction of a pass rate has improved performance in these areas, going beyond this level will significantly increase costs and could drive inefficiency. In order to achieve each overall standard and mitigate any risk of failure, companies will need to recruit additional resources that will be paid for by customers. If the pass rate were to be increased to 95% for instance, companies would have to perform significantly above that level to provide sufficient contingency for failures within year. In many respects GDNs could well be advocates of higher standards of service if Ofgem was willing to provide funds commensurate with such targets. We would be very interested in hearing proposals from Ofgem to that end, but question whether this would be in the economic interests of customers.

Further elaboration on Ofgem proposals for GSOPs is provided in our response to questions GDQ15-22.

## Unplanned Interruptions

Keeping the energy flowing safely and reliably to our customers is the core purpose of Cadent and we do our utmost to maintain high levels of reliability in the supply of gas to our customers. The likelihood of an interruption to a customer's gas supply is one in 270 years, and last year Cadent sustained 99.996% overall network reliability.

Setting measures and targets for all performance areas should be informed by the expectations of our customers and stakeholders. From our research and insight, the duration of our unplanned interruptions performance in residential properties is not an area our customers are calling for us to do more. The area they are feeding back is communication and flexibility of when they will be reconnected rather than the speed at which we reconnect which is on average around 12 hours. We therefore do not believe there is much merit in creating a downside penalty only incentive on this area given this feedback. It will also avoid a situation where there is any incentive to pressurise entry to a customer's premise to reconnect supply or any incentive to reconnect when it is not safe to do so.

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We however recognise that the experience of an unplanned interruption for customers in Multiple Occupancy Buildings can be much more impactful. Given the design of these buildings, with multiple floors and gas risers in different locations within the building, the time to restore supply safely can be significant (often requiring planning consents to be obtained and civil engineering structures developed to access the assets). Hence we believe that a more bespoke solution is required for these buildings. An average duration measure can be unhelpful in showing the true underlying trend in performance given the range of distribution of different building types and the potential for some very long durations if for example a building is listed. The most important measure for these customers is to try to minimise the risk of an unplanned interruption and hence managing or repairing the asset under planned arrangements where supply can be maintained. Hence the availability of MOB's supply may be a more meaningful measure.

We are engaging with our customers who live in MOB's to understand their specific needs when unplanned interruptions occur. These building types are most prevalent in our London network and indeed over 80% of the Multiple Occupancy buildings are located in this network. Hence it may be more appropriate to develop a network specific measure.

We are developing a building by building approach for our high rise population and carrying out significant surveying of our medium rise population over the next two years which will inform an approach for this category for RIIO-2. In addition, we are working with customers through our energy exchange programme to look at where it is in their interests to move to an alternative cooking option where a building has significant infrastructure providing just a small amount of energy for cooking. This is something we want build on further in RIIO-2

We therefore believe that standard residential properties should be treated as a group and multiple occupancy buildings separated out in terms of performance measures. We believe network specific targets are appropriate for MOB'S given the huge differences in populations across the networks and that materially this is likely to be relevant to customers in North London.

It may also be useful to explore whether the welfare services provided should be measured. Our customer and stakeholder engagement informs us that customers want more support during interruptions to minimise the impact on their lives from our works. This is more important to them than additional compensation after the event. We must continue to engage with MOB's customers and stakeholders to understand their needs and use this research to evidence the proposals in our business plan. In addition, during large incidents (impacting more than 250 customers), often caused by damage to our mains pipes by 3rd parties, the activity required to make customers safe and restore their gas supply differs considerably depending on the nature of the damage, the pressure tier of the main and the number of customers. Although these incidents differ case by case there may be an opportunity to set an output which measures our provision of services (i.e. for cooking, heating, and personal hygiene) which minimises the impact the interruption has on customers' lives. It should be noted that in general, Cadent receives very positive feedback on its efforts to look after customers, keep them informed and restore supplies.

Further elaboration on Ofgem proposals on unplanned interruptions is provided in our response to questions GDQ23-25.

## **Fuel Poverty**

Fuel poverty remains a significant problem in Great Britain and NEA (National Energy Action) estimates that 4 million households are affected by fuel poverty across the entire UK (2015 data). These households

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are at greater risk of suffering from cold-related health problems, of not being able to heat their homes or cook hot meals, as well as isolation and mental health issues. Across our four networks, fuel poverty impacts around 2 million households and therefore we have a major role in tackling this societal issue.

There are three factors which influence whether a household falls into fuel poverty; household income, energy efficiency and the cost of fuel. GDNs are able to directly or indirectly impact a household's energy efficiency and fuel costs, and to a lesser extent a household's disposable income. Gas is more affordable in comparison to many other sources of fuel as the table below highlights:

Previous fuel	kwh energy £ as per EST website	Original fuel cost at 12,000kwh input	Cost of gas at 12,000kwh input	Saving
<b>Full Electric</b>	£0.1120	£1,426	£522	£904
<b>LPG</b>	£0.0653	£784	£522	£262
<b>Oil</b>	£0.0406	£487	£522	-£35
<b>Coal</b>	£0.0403	£484	£522	-£38
<b>Wood</b>	£0.0544	£653	£522	£131
<b>Gas</b>	£0.0363	£522	£522	N/A

The Fuel Poverty Network Extension Scheme (FPNES) plays an active role in tackling fuel poverty by providing free or subsidised connections to the gas grid for eligible households which would not be able to incur the costs of this connection. Although the FPNES has benefited customers who have been able to access the scheme, many experiencing fuel poverty have not benefited. If FPNES were to be continued in RIIO-GD2, we would need to ensure alignment with other fuel poverty schemes and the government's fuel poor strategy. In addition, there is an opportunity for the provision of new gas connections to be part of a broader obligation to provide whole-house solutions including improvement of the energy efficiency of the home.

The current proposals do not support our ambition to assist all consumers who are experiencing fuel poverty. The current mechanism has resulted in most fuel poor connections taking place in social housing as funds are available for in-house measures. This is not sustainable into the future where its widely recognised homes most 'at risk' from fuel poverty are private house holders or private tenants. In addition to the challenges around private sector homes, customers in rural locations are most disadvantaged under current GDN obligations as it is highly unlikely that under the current regime support can be provided by GDNs due to the economic unviability to connect properties.

We are supportive of Ofgem's proposal for each GDN to outline bespoke targets as fuel poverty affects different communities in different ways, and therefore targets should be in alignment with the needs of each region/network to ensure the right outcomes are delivered. However as part of a broader measure, targets to be delivered over RIIO-GD2 should not be limited to the number of gas connections but include non-network in-house solutions to make the most effective use of the voucher in addressing fuel poverty. The volume of connections and in-house solutions to be delivered in GD2 would need to be established based on engagement with customers and stakeholders. Closer working with local authorities, housing authorities and private landlords can unlock improved targeting of those most in need.

RIIO-2 provides an opportunity to achieve the following objectives in addressing fuel poverty:

- Deliver defined outcome for households living in fuel poverty – This would allow networks to reduce fuel poverty through delivering the right interventions beyond just a gas connection e.g.



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energy efficiency measures or in-house solutions. This could be enabled through greater collaboration and partnerships and improvements in EPC could be used to measure the outcomes of the whole-house solution delivered.

- Better targeted scheme - Opportunity for the eligibility criteria to be based on data mapping tools if it can be demonstrated that targeting is significantly improved. Sia Partners indicate in their FPNES report for Ofgem that targeting can be improved by linking data mapping tools to the eligibility criteria. (Further detail provided in response to GDQ10).
- Link to other schemes and joined up funding - Substantial benefits can be delivered as a result of aligning schemes and allow a combined approach to tackling fuel poverty. (Further detail provided in response to GDQ11 and GDQ12).
- Drive collaboration – Opportunity to incentivise collaboration and best practice sharing / adoption allowing fuel poverty to be addressed in the most efficient way.
- Drive GDN ambition – The approach should drive GDNs to address fuel poverty in the most effective way and commit to delivering ambitious targets subject to customer willingness to pay.

A fixed allowance with a penalty only incentive mechanism will limit ambition and encourage networks to submit lower commitments in their business plans, especially following the experience in RIIO-1 where Ofgem changed the qualifying criteria during the period. In our response to GDQ11 we propose how the output measure for fuel poverty could be enhanced.

### **GDQ3. What other outputs should we be considering, if any?**

#### **Customer balanced scorecard**

In RIIO-GD1 customer service is measured through the customer satisfaction survey. Whilst this has undoubtedly driven improvements in service provision, RIIO-GD2 presents an opportunity to enhance the way in which we measure customer service which not only better aligns to the insights we have gained in RIIO-GD1 but also removes some of the limitations of only a small percentage of our customer base, from a specific demographic, driving how performance and service is assessed.

We have gathered more than five years of direct feedback from our customers and stakeholders allowing us to gain insight into the drivers of satisfaction and dissatisfaction. Furthermore, customers have informed us through our engagement for RIIO-GD2 that priority areas for customers in relation to service delivery were efficient communication, non-interrupted supply, quick resolution to problems and non-disruptive road works. These correlates with our learnings during this control period and give us a basis to develop a balanced suite of measures which underpin customer experience.

By understanding what is most important to customers' experience, there is an opportunity to set tangible measures to drive improvements and target the areas which matter most to customers. These measures could be brought together into a balanced scorecard and provide a single score for a networks customer service performance. This could supplement improved C-SAT channels and engagement and is consistent with simplifying performance for customers.

We are continuing to undertake customer and stakeholder engagement in specific areas; however we provide some early thinking on why a balanced scorecard would be a good approach in measuring customer experience and how it could be formed:

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### Why a balanced scorecard approach?

Improvement	Insight / feedback	How a balanced scorecard could address this?
Consistent performance	In an industry achieving above 8.5/10, are customers willing to pay for a higher level of service, especially as cost to achieve increases at a higher rate	There are still areas for improvement – setting tangible measures against key drivers of satisfaction/dissatisfaction could allow us to target areas of low performance
Increased scope	The three surveys cover domestic customers only and are based on a sample of customers – Does the measure need to better represent our customer base?	Set wider customer measures which capture performance against services provided to all our customers - both domestic and non-domestic customers
Leading indicators	C-Sat survey is a lagging indicator – are there ways to measure more directly with leading indicators?	Set tangible measures against key steps in the process and record immediately (not at the end of the job)
Based on customer expectations	Data from RIIO-GD1 can be used to understand key areas which cause dissatisfaction / satisfaction i.e. C-Sat comments / complaints / enquiries.	Use GD-1 insights to set the right measures to maintain good levels of service and target areas of poor performance
Avoids duplication/ conflict	There are many customer measures which are interrelated and may conflict i.e. different target levels, or are duplicated	Set a balanced scorecard which brings together all customer related measures to avoid conflict/duplication
Account for regional differences	Customer expectations differ across regions and evolve over time.	Targets set against tangible measures can be based on customer research and insights allowing greater comparisons and/or recognition of differences.

**Insights obtained from a wide range of customer touch points across our business**



Planned work C-Sat insights	
Scores of 10	Scores of 1
Keeping customer informed	Respecting customers
Engineer attitude	Keeping appointments
Minimising disruption	Keeping customer informed

Connections C-Sat insights	
Scores of 10	Scores of 1
Adherence to schedule	Getting things right first time
Good communication	Keeping customer informed
Good customer service	Lead times for completion

Emergency Response & Repair C-Sat insights	
Scores of 10	Scores of 1
Response time	Keeping customer informed
Efficiency completion	Internal communication
Engineer attitude	Make safe

Top 10 complaint reasons	
1	Poor comms/expectation setting
2	Site left untidy
3	Restore gas supply
4	Contractor customer service
5	Customer objection to policy
6	Inappropriate behaviour
7	Workmanship
8	Reinstatement
9	Access Issues
10	Disruption

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**How a customer balanced scorecard could be formed**

Customer insights and engagement can be used to identify the top five areas of satisfaction and dissatisfaction, with targeted measures set to improve the service in each of these areas. A weighting can also apply based on which areas are most important to customers. Bringing all these aspects together will provide an overall score per network and normalised into a metric which is accessible to customers e.g. a score out of 100.



There could be various measures which make up the overall score in the customer experience area. In the table below we provide three possible measures for each area. This detail can be visible to Ofgem and other stakeholders who have an interest:

Customer experience area	Measure	Network (Names concealed)			
		A	B	C	D
Setting expectations	Planned works notification 5 days in advance	84%	82%	78%	86%
	Offering connections commencement/completion dates	100%	94%	99%	98%
	Responding to emergency calls (1/2hrs)	92%	92%	92%	92%
Keeping appointments	Planned works programme adherence	97%	97%	92%	68%
	Connections lead time (acceptance to completion)	88%	60%	78%	70%
	Repair duration within 24 hours	51%	45%	50%	51%
Delivering quality	Complaints ratio	89%	64%	83%	86%
	Gas on before 7pm	80%	92%	83%	90%
	Reinstatement within 3 days	19%	95%	72%	92%
Respecting customers	PW C-Sat professionalism score	85%	86%	83%	87%
	Connections C-Sat professionalism score	90%	81%	85%	89%
	ER&R C-Sat professionalism score	94%	92%	94%	95%
Responding to customer needs	PW Enquiry closure within 24 hours	80%*	60%*	80%*	50%*
	Connections Enquiry closure within 24 hours	80%*	60%*	80%*	50%*
	ER&R Enquiry closure within 24 hours	80%*	60%*	80%*	50%*

\*Dummy data for illustrative purposes

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A minimised version of this could be accessible to customers to provide an understanding of performance in each area by network

	A	B	C	D
Setting expectations	90%	89%	90%	92%
Keeping appointments	73%	67%	73%	63%
Delivering quality	79%	84%	79%	89%
Respecting customers	87%	86%	87%	91%
Responding to customer needs	80%*	60%*	80%*	50%*
	82%	77%	82%	77%

*\*Dummy data for illustrative purposes*

*We are undertaking further research and engagement with customers and stakeholders to understand if any other output measures are required for this outcome.*

### **GDQ4. What are your views on the RIIO-GD1 outputs that we propose to remove?**

We are in agreement with Ofgem in supporting the removal of DRS from the suite of incentives for RIIO-2. However, it is vital that elements of the incentives are appropriately embedded into alternative or new incentives in RIIO-2. For example we would be supportive of the key DRS elements, such as consumer vulnerability including carbon monoxide awareness and development of the Priority Services Register (PSR), being embedded within an evolved stakeholder engagement incentive for RIIO-2 with a continued financial reward based on customer willingness to pay.

## **Customer Vulnerability**

### **GDQ5. What activities beyond those outlined in paragraph 3.12 should we consider when defining the role of the network companies in supporting consumers in vulnerable situations?**

Ultimately the GDN role should not be restricted by the regulatory framework and services that GDNs offer, together with service levels, should be based on what our customers and stakeholders want to see from us.

We are currently engaging with customers and stakeholders on this and identifying where there are any gaps in our strategies and associated services offerings, therefore our thinking is likely to develop after the response to this consultation has been submitted. Thoughts will be captured based on the existing customer's insights we have and more robust options will be presented when we see the RIIO-2 Challenge Group in July.

### **GDQ6. Can you provide any evidence that shows how the boundary we have set out for the networks' role in consumer vulnerability could impact the benefits received by consumers in vulnerable situations?**

As gas distribution networks we are well placed to expand our role when it comes to protecting customers in vulnerable situations. We already enter around 400,000 customers' properties every year, through emergency situations where our workforce are seen as trusted advisors. We must maximise the value of

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these customer interactions and the relationships we have with our customers, and not be restricted when exploring potential new services or solutions to help those most in need.

We continue to explore a broader role for GDNs in the area of consumer vulnerability via our RIIO-2 engagement and will further shape our plans and proposals as per the insights we gain, looking specifically at how we can make our services more accessible for customers within all 27 of the Needs Codes established within the Priority Services Register (PSR) across the industry.

## Consumer vulnerability use-it-or-lose-it allowance

### **GDQ7. What is your preference on the two approaches we have outlined to implement the allowance, and why?**

We would support the use of a flexible strategy to allow networks to remain agile and able to respond to changing needs of customers in vulnerable situations. The ability to remain flexible is reflected within feedback from our customers and stakeholders throughout RIIO-GD1 and specific RIIO-2 engagement.

For a use it or lose it allowance we require clarification on how Ofgem plan to implement the allowance. For example, in a similar way to setting the criteria for the Network Innovation Allowance in RIIO-GD1, could one option be for network companies to submit their strategies for any such spend of funding. Ofgem would then allocate funding based on the strength of individual strategies, using a set of objective criteria. If any funding is not spent, this would be returned to customers.

Networks would be able to showcase societal benefit and cross sector sharing within an evolved stakeholder engagement incentive. As per RIIO-GD1 arrangements, networks would be able to receive financial rewards if positive customer outcomes are delivered in RIIO-2.

### **GDQ8 What examples can you provide of initiatives that could be funded through the allowance, and please explain why these activities would not go ahead without specific price control funding?**

It is important to stress that there is not a one size fits all solution for supporting customers in vulnerable situations. The landscape and challenges faced by customers and communities is ever changing and we as gas distribution networks need to respond appropriately and ensure that services are accessible to all regardless of circumstance. We are already leading on a number of PSR initiatives and the industry has successfully collaborated to deliver significant improvements for customers in vulnerable situations in RIIO-1.

For RIIO-2 we would look to continue a number of our existing RIIO-1 initiatives that have been successful in delivering positive customer outcomes, taking them to the next level of maturity in RIIO-2 using insight from customers and stakeholders to help shape our strategies and target the right areas. Based on customer feedback, we would also look to explore a number of other areas that would benefit from specific funding in order for us to develop, test and implement new services or products that would help make a step change for customers across society. The areas we are focusing on would aim to deliver significant social return on investment, therefore having a positive effect on customers lives and society as a whole.

### **GDQ9. What is your preference on the three potential options we have outlined for a consumer vulnerability package, and why?**

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Based on customer and stakeholder insights from RIIO-1 and specific RIIO-2 engagement, it is evident that supporting customers in vulnerable situations is a priority for customers and communities across our regions. Customers have provided us with a clear message that they would like us to do more in this area and appreciate that making a step change in this area should not be seen as business as usual. We therefore are fully supportive of exploring potential options for a vulnerability package and will look to continually evolve and shape potential strategies and approaches as we move through the business planning process for RIIO-2 and beyond.

We are in agreement with Ofgem that some form of combined package would best reflect the ambitions we have as a GDN to better serve customers in vulnerable situations into RIIO-2 and beyond. Within the combined package, it must incentivise initiatives that are going to deliver significant social benefit but also allow the continuation of safeguarding activities that may only reach small numbers of customers. These smaller activities may be just as vital as those delivering solutions to larger numbers of customers. Evolution of the existing stakeholder engagement incentive to include a stronger role for protecting customers in vulnerable situations would help to ensure that GDNs continue to raise the bar in terms of engagement and developing services and solutions to protect those who are most vulnerable in society for years to come.

We would be supportive of a review of the existing licence condition to ensure that customers in vulnerable situations are receiving consistent, minimum levels of service. And we would be particularly supportive of embedding vulnerability into the innovation criteria for RIIO-2. This will help to enable a pipeline of new ideas and solutions that can evolve over time, allowing us to deliver positive outcomes for both current and future customers.

## Fuel Poor Network Extension Scheme

**GDQ10. What should we include in the FPNES eligibility criteria in RIIO-GD2 to facilitate a well targeted, but effective scheme?**

There is not one agreed definition of fuel poverty across the UK. Both national and devolved governments have defined it in different ways.

In England, the LIHC (Low Income-High Cost) measure is used, which states that a household is fuel poor if its income is below the poverty line (taking into account energy costs) and its energy costs are higher than is typical for their household type. A second measure, the fuel poverty gap, is also used to reflect the extent of fuel poverty experienced by a given household – this is defined as the amount of money needed to meet the fuel poverty threshold.

In the devolved nations of Scotland and Wales, fuel poverty is defined by the 10% threshold, meaning that a household is considered fuel poor if it needs to spend more than 10% of its income on total household fuel costs.

Different definitions in fuel poverty can cause challenges in measuring and targeting fuel poverty. Therefore the eligibility criteria that a customer must meet to receive a fuel poor connection must take into account these definitions and align with different schemes such that if you are eligible for one fuel poor scheme you are automatically eligible for another.

The role that data can play is vital to proactively target fuel poverty. There is an opportunity in RIIO-2 to use data mapping and new targeting tools to identify fuel poverty and be used as a proxy for the eligibility

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criteria. No one source of data is able to be used to effectively determine whether or not a household is in fuel poverty, but using the depth of data available from multiple sources, with machine learning and AI technology the proactive targeting of those most in need is possible.

### Fuel Poverty Identification Model

The fuel poverty identification model uses an algorithm which brings together publicly available data and machine learning to predict household fuel poverty status. We have been working with our community interest company, Affordable Warmth Solutions (AWS), to develop and implement this model. We are using this model for our community schemes and have an ambition to roll out more widely across our regions. It is currently modelled using predominantly English data, but has the potential to include data from all geographical regions and can be adopted across the industry to improve targeting.

Key features of the model:

- Can make predictions of homes in fuel poverty from publically available data such as EPC rating
- Mitigates need to complete costly and intrusive home visits
- Machine learning allows algorithm to become smarter
- Indicates households on or off the gas grid
- Predictions are 50-70% accurate
- Can search for specific properties/addresses and displays list of properties within search radius (can sort by distance from centre, fuel poverty gap, tenure, EPC, confidence, property type, heating type)

### Fuel poverty predictions

Predictions are made using two separate machine learning models:

- 'EPC model' is used for households with EPC ratings
- 'Non-EPC model' is used for all other households

The models are evaluated by splitting datasets that contain information on fuel poverty status into training and testing components. The models are trained on one set of outcome data, and then the models are evaluated by seeing how well they predict fuel poverty status for the 'test' component of the data.

The datasets that contain information regarding whether households are fuel poor or not are split into two parts:

1. Training data, and
2. Testing data

The algorithms are constructed using the training data and separated from the testing data. After the algorithms have been constructed, we use them to make predictions for households using the testing data. We are then able to determine the average accuracy of the algorithm by calculating how often it makes correct predictions in the testing data.

### The Models

	The 'EPC Model'	The 'Non-EPC Model'
Data sources	EPC (e.g., ratings, current	English Housing Survey,



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	heating cost, total floor area), English Housing Survey (e.g., fuel poverty status, on gas grid, lighting cost, region, tenure, property type)	SHS surveys (e.g., fuel poverty status, postcode), house prices, postcode level characteristics
Algorithm	Random forest	k-nearest neighbours, random forest
Geographic reach	All of England	All of England
Accuracy	Average accuracy ranges from 74 to 84% in evaluations (around 60% of fuel poor households are correctly classified as being fuel poor) when evaluated using EHS data, which is representative of all of England	Average accuracy ranges from 70 to 80% (around 50% of fuel poor households are correctly classified as being fuel poor) when evaluated using SHS data from London, accuracy may vary across the country

### A Step-Change?

Current methods used to target fuel poverty interventions are inaccurate. IPPR and Citizens Advice (2018) estimate that only 30% of funds actually reach fuel poor homes. The fuel poverty platform is a low-cost, non-intrusive, and more accurate alternative. But there is substantial scope for improvement and further development.

Following the removal of the IMD, area-based eligibility criteria the scheme is more dependent on individuals sharing personal or sensitive data such as income which some may be reluctant to reveal. There is a need to work closer with local authorities, housing authorities and private landlords to unlock improved targeting of those most in need.

Although the FPNES is making a difference, there is an opportunity to complement subsidised gas connections with other types of support that first-time gas users need. This primarily applies to in-house works (i.e. energy efficiency improvements and central heating solutions), as funding for these is not covered by the FPNES.

There is a direct link between fuel poverty and energy efficiency and therefore improved targeting should be supported with measures to improve energy efficiency. There are a number of ways to achieve this:

- **Targeted and timely interventions** - Evidence shows that the advice on energy efficiency that was most likely to be acted upon was that given at times when households were already making changes – moving home or installing new equipment. Therefore we need to time interventions to minimise hassle.
- **Improve perception of cost/expense** - Messaging to give a better depiction of the total costs and benefits of improving energy efficiency. Specifically, messaging which emphasizes the additional benefits of energy saving measures – for instance, the ability to keep your house warmer for longer.
- **Better targeting households in fuel poverty** - Rather than simple targeting of households in low EPC band dwellings, we are looking at developing a more sophisticated targeting approach. Development of an AI model in targeting households for future interventions.

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- **Improving the efficiency of offered measures** - The most ‘efficient’ way to improve energy efficiency from an engineering perspective may not be the most effective way of doing so when human behaviour is considered. Carefully targeted investments on in home measures using EPC data will directly improve the energy efficiency of a household.
- **Improving messaging** - Understanding take-up of energy efficiency schemes varies with messaging and with household characteristics. Providing more tightly targeted messages with higher conversion rates, and gaining insight into the sort of things that ‘block’ households from saving energy.
- **Incentivising saving** - Incentives need to exist to encourage households and landlords to implement savings and networks to implement household carbon reduction measures
- **Tackling fuel poverty in the rental sector** - Develop messages specifically targeting landlords emphasizing the possibility of translating investment in energy saving measures into higher rents, and higher property prices. Develop messages specifically targeting tenants to unlock apathy in some communities.

Our stakeholders have also informed us that the FPNES eligibility criteria should be broadened to include park homes as evidence indicates that those who live in park homes have more long term health conditions on average compared to those in other property types. Analysis undertaken by NHS Gloucestershire Clinical Commissioning Group showed how park home residents aged above 30 have more long term health conditions on average than the average for Gloucestershire as a whole. Although other factors need to be considered there is a strong case that park home residents should be eligible for fuel poor connections, excluding those who use park homes as holiday homes.

**GDQ11. How should we incentivise the GDNs to improve the targeting of the FPNES?**

As discussed in the fuel poverty section of our response to GDQ2, we believe improved targeting is one aspect of the objectives we need to achieve in RIIO-GD2. The current proposal which essentially maintains the status quo would be a regression and significantly limit GDNs in achieving these objectives and delivering the best outcomes for those experiencing fuel poverty.

As a minimum we believe the following framework should be established in RIIO-GD2 to evolve the fuel poor output measure and deliver better outcomes:

Mechanism	How it could work
Volume driver or use it or lose it allowance	<ul style="list-style-type: none"> <li>• A flexible volume driver or use it or lose it allowance based on a unit cost for each fuel poor solution</li> <li>• GDNs should be able to support those living in fuel poverty by providing a connection to the gas network or energy efficiency measures where it is identified these will be more effective.</li> <li>• An efficient unit cost (fuel poor voucher) should be agreed.</li> <li>• GDNs can then ‘collect’ this value for each ‘intervention’.</li> <li>• Triangulated willingness to pay research could be used to set an upper limit on GDNs expenditure over RIIO-GD2.</li> <li>• This will encourage accuracy and remove any barriers to ambition</li> </ul>
Effectiveness incentive	<ul style="list-style-type: none"> <li>• GDNs rewarded for achieving target levels above a specified percentage or social return on investment (SROI) above a set level. A penalty would apply for performing below the set level.</li> <li>• There should be a small incentive worth +/-20% of a GDNs expenditure on fuel poor interventions.</li> </ul>

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	<ul style="list-style-type: none"><li>• This will drive GDN ambition as the more interventions they deliver the higher the incentive will be.</li><li>• It will also drive improved targeting (&amp; societal benefits) by penalising GDNs if their average intervention does not deliver targeting (or benefits) above an agreed level.</li></ul>
Stakeholder engagement incentive	<ul style="list-style-type: none"><li>• The stakeholder engagement incentive should be retained for RIIO-GD2 and focus on three key areas where increased engagement will drive significant benefits for energy consumers.</li><li>• One of these areas should be fuel poverty. (0.1% of revenue, c. £1.8m?)</li><li>• This area of the SEI should reward GDNs for engaging to join up fuel poor funding regimes.</li><li>• It should also reward GDNs for sharing and adopting best practice.</li></ul>

Under current FPNES arrangements, GDNs agree (Off Gas Grid Working Group) that output measures would reduce on a pro-rata basis by 50% to c30,000 over 5-year period. However, GDNs also agreed that under revised and appropriate arrangements, it is feasible that fuel poverty outputs could deliver greater value to homes most at risk. To facilitate the greater ambition GDNs should engage on a broader consultation with stakeholders to determine whether funding for energy efficient solutions should be funded via GDNs (and ultimately customers) or through an alternative more progressive mechanism.

The provision of a new gas connection is a narrow ‘one size fits all approach’ whereas it is only by identifying and understanding those customers most at risk from fuel poverty when an appropriate and “tailored” sustainable solution can be delivered. For future obligations it is recommended that the provision of new gas connections should be part of a broader GDN obligation to improve the energy efficiency of the home. This broader obligation, aligned to the Government Fuel Poverty Strategy, should be conditional upon an appropriate level of funds being available to support the GDNs in undertaking a more holistic and flexible approach to addressing the issues of fuel poverty.

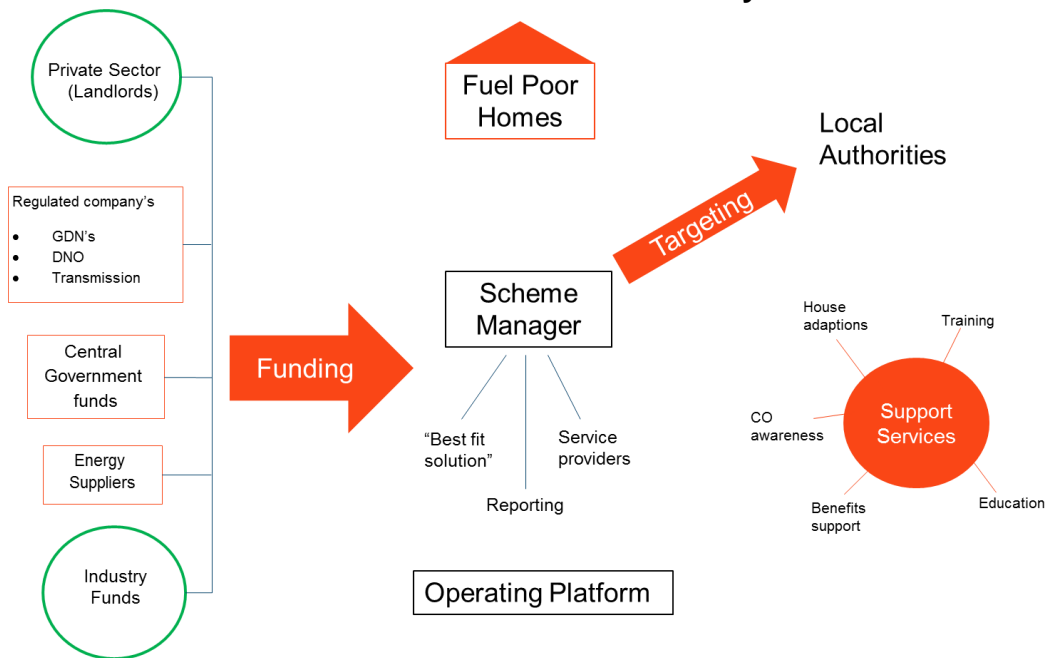
**What could an alternative delivery model look like?**

At the core of an alternative delivery model would be a centrally contracted organisation appointed by Government with the responsibility to work with partners to deliver the Government Fuel Poverty Strategy. Funding for this programme would be a blend of Government funds (National Infrastructure Programme) supplemented by Regulated Funds (GDNs etc.) and Energy Company Funds (ECO or successor scheme). The scale and ambition of such a radical option should be set 15-20% above current RIIO-1 output targets (pro-rated), equivalent to c75-80,000 homes directly assisted by GDNs over the 5-year period. In monetary terms £15-20 million per network would create a funding “pot” of between £75-100 million and enhanced with the additional funding identified above.

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**Alternative customer-centric delivery model**



This customer-centric approach would help eliminate the uncertainty and confusion customers experience when having to deal with individual organisations and provide a “one-stop shop” for identifying a co-ordinating delivery of the best technological solution for individual households. The service could be further enhanced with an online platform e.g. Energy Loop (aka Future Wave) that would realise the value of the historic investment made by GDNs in technology and provide a broader service to non- fuel poor Customers.

We have received support from key stakeholders that this alternative approach of centralising fuel poor funding and interventions will deliver better outcomes for customers and have a greater impact in addressing the societal issue of fuel poverty.

Output volume targets often drive the wrong behaviour. A discretionary incentive could be introduced to reward efficiency in addressing fuel poverty including in house measures, and demonstrating effective targeting through innovation e.g. AI technology. Alternatively, there is an opportunity to measure the social return on investment following a fuel poor solution with networks being rewarded for going beyond an agreed target.

**GDQ12. How can we ensure that the FPNES is better coordinated with other funding sources to provide a whole house solution for the household?**

There is an opportunity to link the FPNES with other government schemes which seek to tackle and reduce fuel poverty. Alignment of eligibility criteria would provide consistency between schemes and ensure that customers who are able to access one scheme are able to automatically access others. This would remove the existing confusion surrounding accessibility of services and enable customers experiencing fuel poverty to pursue whole-house energy solutions.

We support Ofgem’s ambition to collaborate with GDNs and other organisations to best serve its customers, particularly customers in vulnerable situations. However, the very narrow nature of the existing obligations (FPNES) largely contradicts this ambition. There is an opportunity to link up GDN (DNO, Transmission etc.) obligations to Energy Company Obligations (ECO3 and any successor scheme).

An immediate observation is that ambitions should be set around bringing these, and any future, schemes into alignment. To achieve this several issues need to be addressed including:

1. **Timing and dates** – RIIO-2 obligations will come into effect in April 2021 whereas any new Energy Supplier Scheme is not scheduled to commence until 2022. Bringing these dates into line would help provide an opportunity to set ambitious targets.
2. **Home or individual** – as currently designed current programmes are not consistent in their approach to tackling Fuel Poverty, supplier led schemes appear to be focussed on the government Fuel Poverty Strategy (largely the energy efficiency of the home(s)), whereas the FPNES is more specifically aligned to the individual Fuel Poor customer. To best support Government targets both schemes should be aligned to the government Fuel Poverty Strategy and corresponding targets set to improve the energy efficiency of the home and thereby future proofing the housing stock.
3. **Flexibility** – recent changes to the Energy Company Obligation has provided an extended opportunity for suppliers to deliver measures under a ‘flexibility mechanism’. This flexibility mechanism allows Local Authorities to publish its own criteria for determining qualifying private sector homes within its own geographic area and enabling investment through ECO to those most “at risk”. This arrangement should be reviewed, modified and extended to GDN targets whereby the GDN is incentivised to work with local authority partners (and suppliers) to best identify homes at risk leading to investment in new gas infrastructure and heating systems to local homes. Under existing FPNES qualifying criteria those private sector homeowners/tenants living in low-rise flatted developments are unlikely to receive support unless 100% of homes are Fuel Poor.

**GDQ13. What are your views on us requiring or incentivising the GDNs to ensure that households receiving FPNES connections also achieve a target level of energy efficiency?**

We are supportive of enhancing the existing fuel poor measure by linking with improvements in energy efficiency. However, we do not believe it should be a requirement for GDNs to ensure that households receiving an FPNES connection also achieve a target level of energy efficiency without additional funding. A fuel poor connection alone does not necessarily improve the energy efficiency of a home.

In early 2018 Cadent commissioned The Behaviouralist, a company which has an expertise in behavioural science and economics, to provide a report informing Cadent’s efforts to reduce fuel poverty in its networks.

The report found that there is a strong link between EPC ratings and fuel poverty. Even after controlling for a number of factors, households in G-rated properties are 46 times more likely to be fuel poor than households in A-rated properties. Households under a C-rating are, on average, 15 percentage points more likely to be in fuel poverty than households at or above a C rating.

Therefore, the fuel poor output measure could be aligned with, and incentivise, improvements to EPC. However, flexibility needs to be allowed in delivery. If it can be demonstrated that fuel poverty can be addressed through a non-gas connection solution which delivers improvements in energy efficiency then this should be allowed.

**GDQ14. Do you think the value of the FPNES voucher would need to be amended if the targeting of the scheme is increased? Please provide any evidence to support your view.**

Following the removal of the IMD area-based criteria, targeting households in fuel poverty has become more challenging and costly as networks were required to move from an area-based approach to an individual household based approach. Prior to the removal of the IMD criteria, delivery costs for a fuel poor connection could be significantly lowered by identifying groups of households eligible for an FPNES connection. The ability to achieve this has decreased following the change, in addition to increasing search and administrative costs. As a result, the average cost of a fuel poor connection has increased and therefore should be reflected in the value of the FPNES voucher.

As part of a broader GDN obligation to improve the energy efficiency of homes experiencing fuel poverty, an appropriate level of funding should be available to support GDNs in undertaking a more holistic and flexible approach to addressing the issues of fuel poverty. The FPNES voucher should take account of the additional expenditure required to deliver whole-house solutions.

The table below provides an indicative view of how the voucher value could change to take account of increased targeting costs and inclusion of whole-house solutions:

FPNES voucher value (current – connection only)	FPNES voucher value (increased targeting – connection only)	FPNES voucher value (whole-house)
£2300-2800	£3000-3500	£5000-5500

## **Guaranteed Standards of Performance**

**GDQ15. What is your preferred option for revising customer payment caps?**

Guaranteed standards were last updated in 2008 although in some cases not since 2002. We are supportive of reviewing these standards and testing them with customers to ensure they are targeted (i.e. customers value them and they are genuinely needed) and proportionate.

As part of the review it is important to test the payment caps and the levels that they are set with customers, but we would advise against removal of caps as a low risk business as advocated by Ofgem should not be exposed to unlimited liabilities. It could also drive undesirable behaviours from both customers and networks and undermine the concept of fairness in payments.

Any change to the standards should consider relevant exclusions for both Overall and guaranteed standards to ensure GDNs are only held to account for performance within their control. Regulation 13 allows ‘clock stopping’ but we would encourage Ofgem to clarify when this should be used as it is currently being applied inconsistently across GDNs for example this could include being denied access to a property via a third party.

We are undertaking specific research with our customers to understand to what extent each of the existing GSOPs need changing, including the standards and payment levels and whether these should be indexed and adjusted annually for inflation.

**GDQ16 Where, within the consultation ranges, do you think the standard and payment levels should be set?**

We support the need to review the performance standards and payment levels of the GSOPs as they were last updated in 2008 and in some cases 2002.

However, it is important that any changes to the payment levels as well as performance standards are supported by customers to ensure we are targeting the right areas of value. Arbitrarily tightening the standards and increasing the payment levels will potentially increase the cost for networks to achieve and be passed on as higher customer bills even if they are unwilling to pay.

It is important that customers understand that there will be increased costs in order to achieve tighter GSOP standards. Companies must aim to perform higher than the minimum level set due to the potential penalties leading to increased delivery costs.

We are undertaking specific research with our customers to understand to what extent each of the existing GSOPs need changing, including the standards and payment levels and whether these should be indexed and adjusted annually for inflation.

**GDQ17. Should any existing GSOP exemptions be removed or changed and should any additional exemptions be considered?**

If GSOPs are to be applied nationally with no room for regional differences, Ofgem must ensure comparability and consistency in how performance is measured and that networks are not disadvantaged due to the make-up of their network and aspects beyond their control. This should include full (transparent to all) disclosure and comparison of data capture, systems and processes including verification to ensure all reporting is measured on a consistent basis. All GDNs will have variations, with some being more robust than others, but the important point is that inconsistencies are recognised and benchmarking is fair.

We support maintaining the current exemptions allowed for 3<sup>rd</sup> party delays (regulation 13) which acknowledges our inability to work and restore supply under GSOP1

**GDQ18 Do you support the proposal to make all GSOP payments automatic for RIIO-GD2 and why?**

We are supportive of making all GSOPs automatic, including GSOP3 and GSOP13, as customers who have a lack of information with regards to the standards and penalty arrangements should not be discriminated against.

However, there are challenges with data sharing and attaining the required customer information to make compensation payments. For example, if we rely on the industry PSR list in relation to missed payments to those customers who would qualify for alternative heating and cooking under GSOP3, the list must be accurate and therefore updated in real time. If not, payments may be made to a customer who no longer lives at the property or is no longer on the PSR register for whatever reason. In other words practical application must be a consideration in designing a pro-active payment scheme.

GDNs are currently undertaking a joint data sharing project with Xoserve to mitigate some of these issues and should make automatic payments much easier.

**GDQ19. Are new GSOPs (or amendments to existing GSOPs) required and what might these look like?**

We are supportive of exploring the introduction of new GSOPs in the areas customers value and consider a need to set a minimum standard. GDNs are jointly engaging with customers through the joint GDN engagement group to understand the appetite for new GSOPs and how they could be set.

We will be undertaking customer research for new GSOPs in two areas:

- An appointment standard for restoration of gas supply following planned works
- Consumer vulnerability standards – Enhancement of GSOP3 or introduction of new GSOPs

Equally there are some GSOPs and OSOPs, particularly in connections which may no longer be appropriate given the competitive nature of the connections market where with the exception of domestic one off connection customers, there is abundant choice of competitive service provision.

**GDQ20. Should there be a licence condition to prevent standards for the restoration of unplanned interruptions deteriorating (GSOP1)? If so, how should we set the target, and should we take into account geographical differences. Please consider alongside our wider proposed interruptions package.**

An overall standard of service such as that provided for under Standard Special Condition D10 should not be set against GSOP1 as performance would not be comparable between networks due to the different types of interruptions experienced. A high proportion of total unplanned interruptions durations occur in MOBs. Regional differences are a material factor as demonstrated by the data provided to Ofgem under the RRP relating to interruptions and MOBs. The difficulty will be in assessing those differences and to the extent they have a bearing on each GDNs performance.

**GDQ21. Is the existing 90% target pass rate for connections GSOPs still appropriate, if not how should it be revised?**

The current 90% target pass rates for connections Overall Standards of Service are still appropriate. Proposals to increase payments and / or tighten targets (if supported by customers) provide additional protection. If the pass rate is also tightened there is a risk that the cost to achieve will significantly increase.

**GSOP performance 2017/18**

	<b>EoE</b>	<b>Lon</b>	<b>NW</b>	<b>WM</b>
<b>GSOP 4</b>	100%	100%	100%	100%
<b>GSOP 5</b>	95%	97%	97%	97%
<b>GSOP 6</b>	96%	100%	100%	92%
<b>GSOP 9</b>	98%	95%	99%	98%
<b>GSOP 10</b>	97%	93%	100%	100%

Our performance against the connections GSOPs show that we are already trying to perform above the minimum standard. The 10% failure rate provides a sufficient contingency for cases where the minimum standard cannot be met. Going beyond this level will significantly increase costs and could drive inefficiency. In order to achieve these licence conditions, companies will introduce several layers of governance and seek to perform beyond the minimum standard (i.e. 90%) to mitigate any risk of failure. If the pass rate were to be increased to 95% for instance, companies would seek to be performing around 100% to provide sufficient contingency. However this level would be restrictive and would not provide the



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flexibility for the rare cases where the standard cannot be met. Furthermore, in these cases customers are already provided with compensation payments.

**GDQ22 Should licence conditions with target pass rates be introduced for any other GSOPs?**

Target pass rates should not be introduced for non-connections GSOPs. Proposals to increase payments and/or tighten targets (if supported by customers) provide the required protection. Indeed it is arguable that as GSOPs provide sufficient protection for the individual customers affected (being a 100% standard), there is little justification for a corresponding Overall Standard. In the case of connections for example, the only reason overall standards replicated guaranteed standards was because Transco’s customer performance at the time was particularly poor and the overall standards were designed to incentivise improvements. Since then, both competition and performance have been transformed and there is a strong case for reviewing whether mirroring overall and guaranteed standards is appropriate going forward.

**Average restoration time incentive for unplanned interruptions**

**GDQ23. What do you think of the proposed new output based on average restoration time for total unplanned interruptions?**

We do not support the introduction of a penalty incentive on average restoration time for total unplanned interruptions. The likelihood of an interruption to a customer’s gas supply is one in 270 years, and last year Cadent sustained 99.996% overall network reliability. Where customers experience an unplanned interruption on average we restore supply within 11 hours (see table below). This has not been raised as an area of concern for our customers. Instead it is the communication and flexibility of when they are being reconnected.

Network	Average unplanned interruptions including MOBs		Average unplanned interruptions excluding MOBs	
	Hours	Days	Hours	Days
EE	25.5	1.1	13.3	0.6
NL	200.1	8.3	11.2	0.5
NW	11.8	0.5	10.2	0.4
WM	27.1	1.1	9.0	0.4
Cadent			11	

We should also be very mindful of the unintended consequences in setting an incentive in this area as it could impact on behaviours e.g. pressuring to access customers premises at inconvenient times or to take risk compromising safety to avoid penalties. We believe that our customer balanced scorecard approach for these properties would better reflect the issues that customers are concerned about in these types of building and measure the quality of service in terms of communicating and delivering the work required to reconnect supply.

However, we are clear that improvements are required for unplanned interruptions within MOBs and this is a priority for our business. However, in order to deliver the best outcomes for customer living in MOBs we believe a more flexible and bespoke approach is needed. We are engaging with our customers who live in MOBs to understand their specific needs when unplanned interruptions occur. We are developing a wider set of measures of our performance on managing these assets such as the overall availability of supply, the amount of time we are able to repair rather than require an unplanned replacement of a MOB

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and to look at the whole distribution of interruption times. We believe there is merit in exploring different measures for the MOB customers in RIIO-2 and believe these will need to be network specific and potentially only materially required for the North London network and will be proposing these in our business plan.

### **GDQ24. Should any interruption events be excluded from the average restoration time incentive for total unplanned interruptions, and why?**

Large events are rare and unpredictable. The inclusion of large events within the average restoration time incentive would skew performance and impact the ability to achieve targets and/or influence the setting of targets. Ofgem's analysis on large incidents indicates that there is minimal correlation between number of customers affected and average restoration time. We believe this analysis further supports our view that each large event is unique and cannot be compared to enable the setting of appropriate targets.

Furthermore, the data on large events to date indicates that the number of large events year on year between networks vary significantly. Therefore inclusion of large events within the measure will skew performance one way or another depending on the frequency of large events within that year.

Year	EoE	NL	NW	WM	NGN	Sc	So	WWU	Total
2013/14	1					1	2		4
2014/15	1		1				2	2	6
2015/16	1				3	1	1	3	9
2016/17	3				1	2	4	2	12
2017/18	1				2	1			4

### **GDQ25. What are your views on separating interruptions that occur in MOB customers into a specific output?**

For the reasons set out in Q23 and 24 above we believe MOB customers must be separated and specific measures identified for these customers.

## Chapter 4 - Deliver an environmentally sustainable network

### Key Messages

- Reducing the impact of our operations on the environment and supporting decarbonisation and the energy system transition are strong themes in our stakeholder feedback.
- Whilst we welcome the proposals to revise the NIC to support the energy system transition, we do not think the proposals are sufficiently flexible and ambitious, to support critical large scale projects vital in the journey to decarbonise the UK. The proposals also need further detail as a matter of urgency so to ensure there are no delays in bringing forward new proposals, or time is wasted on proposals that do not meet the requirements.
- The framework should be capable of supporting entry gas reinforcement, which will require an enabling commercial framework to remove barriers to new sources of distributed gas.
- As Government develops policy during RIIO2, the framework should support a high level of direct and flexible support, the gas networks will need to provide, advising the BEIS officials.
- Cadent has delivered impressive emissions reductions as a result of our actions during RIIO1, in response to the Shrinkage incentive. This should be built on and not lost going forward.

## General output

### **GDQ26 What are your views on the overall outputs package considered for this output category?**

We broadly support the overall outputs package. Reducing the impact of our operations on the environment and supporting decarbonisation and the energy system transition are strong themes in our stakeholder feedback.

We believe further clarity is provided if the area of decarbonisation and supporting the energy system transition are clearly sub-divided into actions that can be taken to support decarbonisation activities during RIIO2, and those that support the longer term development of policy. Examples of the former are supporting low carbon gas transportation, and facilitating flexible gas power generation to back up intermittent energy sources. An example of the latter is implementing large scale low carbon heating pilot projects to convert existing homes and businesses.

We are concerned that the current proposals do not accommodate the latter as the mechanism cannot accommodate very large scale projects, and do not facilitate socialisation of the cost across all consumers over the lifetime of the installed assets. The HyNet project in the North West of England is an example of this, and the current proposals do not suggest a route to include a large gas network investment into the Regulated Asset Base.

We would request the proposed variation to the NIC mechanism to support decarbonisation is modified to enable large pilot projects to be directed by the appropriate stakeholders, with associated external funding and/or socialisation across all gas consumers.

**GDQ27 For each potential output considered (where relevant):**

**a) Is it of benefit to consumers, and why?**

**b) How, and at what level should we set targets? (eg should these be relative/absolute)**

**c) What are your views on the design of the incentive? (eg reward/penalty/size of allowance)**

**d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?**

**Shrinkage**

Reducing the emissions from our network, which is the vast bulk of shrinkage gas has delivered significant benefits to consumers as well as the wider population during RIIO1. We do not see this benefit reducing during RIIO1. Indeed, with the tightening challenge of meeting the UKs carbon reduction ambitions, the drive to reduce emissions is accelerating.

It is therefore vital that RIIO-GD2 builds on the success of Ofgem's incentive regime in RIIO-GD1, and encourages further improvements going forward. In some areas, the scope for significant additional improvement above an optimum level will be limited e.g. minimising system pressures. There may be merit in the framework supporting specific deliverables which improve e performance above the expected minimum performance levels.

Whilst we understand the discussion of a cap on this incentive, we find this hard to justify if real significant benefits are being realised. If Ofgem disagree and believe a capping mechanism is appropriate, then we'd urge this has some flexibility built into the design. Otherwise, emission reductions over a number of years may be delayed. An example of a flexible cap would be where Ofgem deploy a Gate Review when a network reaches, or expects to reach a capped level. Within practical and sensible timescales, Ofgem can consider the evidence and consult on whether the Gate can be passed at this time. This would provide a safeguard on increasing costs, but enable further reductions to be realised ahead of the next regulatory period if justified. This would need to support investment and implementation timescales e.g. where a network needs to make an investment to deliver the next tranche of emissions reduction.

We will set out our detailed views on targets and baselines in our Business Plan, however, we'd expect account to be taken of our expected mains replacement activity over the period, as we would not expect to receive duplicated remuneration. We would note that since the Business Plan submission for RIIO-GD1, there are now additional factors to take account when considering other leakage reduction incentives such as pressure management. The incentives should enable cost reflective trade-offs between competing outputs. An example of this is the decision to be made between increasing a system pressure to help manage flows to provide entry gas capacity or for exit capacity considerations, versus lower pressures to reduce leakage. It may be necessary to adopt a pragmatic level of simplicity here, as total costs may be hard to derive. The carbon cost of avoided leakage may be relatively easy to estimate, but the equivalent carbon saving from connecting a green gas plant, or flexible gas generation to support intermittent renewables, is much harder to calculate.

The design of a regime must recognise the interactions, and ensure windfall gains are not received. Similarly, networks should not be placed in penalty as a result of actions outside their control, or because they have made the right overall decision, but the interactions were not contemplated in the incentive design. Whatever the final output/incentive approach, the supporting analysis and assumptions must be transparent and consistent.

## **Decarbonisation**

- **Supporting the Energy System Transition**
- **Supporting Decarbonisation Policy**

### **Supporting the Energy System Transition**

This output area is about what we can do now to support the Energy System Transition. This is reacting to the current market, or the emerging market response to new policy. There is of course a whole system element to this, as the gas network may be impacted by policy in other sectors such as transport and power generation. Intermittent renewable power generation will need a reliable back-up e.g. when it is not windy/sunny. New distributed electricity loads may also drive decentralised flexible power generation.

Accommodating low carbon gases is also in this category, which includes biomethane, bioSNG, and potentially hydrogen for blending. We note however that our current regulatory framework prevents discrimination; therefore it may not be possible to create mechanisms that apply to green gas, but not other forms such as Shale gas.

### **Entry Gas**

Finding existing spare capacity to accommodate new sources of entry gas will become harder and harder. To maximise the potential for new gas sources, it will be necessary to start reinforcing the gas networks to efficiently enable additional entry flows. With increasing levels of entry gas, this reinforcement will need to be coordinated, with single actions potentially benefitting multiple parties e.g. the optimum siting of a compressor station.

As Entry reinforcement is a new element to our capital expenditure plans, we believe an associated review of our pricing methodologies will be required. This would ensure our network charges, and connection charges, meet the relevant objectives, which include being cost reflective.

Gas distribution has historically employed an economic test to its load related network investments, with costs borne by the triggering party. This works well when most developments are independent of each other, but can be a barrier to market entry if there is significant interaction. Other energy networks do not apply the same approach with reinforcement costs socialised across all entry and exit users, and with cost reflectivity delivered through mechanisms such as locational differential pricing.

An Entry pricing review would be under licence/Code governance with final acceptance by Ofgem. We would expect the industry discussion to identify and assess all the credible options and make a final recommendation. Cadent intend to initiate this industry debate and consultation later this year so that final proposals can be with Ofgem before the start of RIIO-GD2 in 2021. This discussion is likely to consider access rights and compensation when access is restricted, which would have a bearing on any incentive regime. We therefore propose that the incentive to maximise flows from distributed entry gas is designed as part of the entry pricing review.

In addition to reinforcement and a related pricing consultation, we believe there is a potential gap in measures to incentivise gas entry in the period between a project commissioning, and the completion of the reinforcement works. This period could be very small or non-existent, but could be significant, if for example, there was an issue with planning permission or a delay in the supply of non-standard component.

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The reinforcement could also be larger than an individual customer's works, if it is delivering capacity for multiple entry points.

Under the current arrangements, where the year round entry capacity does not exist, we offer variable terms, with a lower contracted capacity off peak, normally outside of the winter period. An incentive could also be applied to maximise the output from these projects. We would expect the pricing consultation to also consider legacy projects that may consider themselves stuck on the lower variable rate through a quirk of timing. We therefore intend to include in our Business Plans, the reinforcement costs associated with delivering firm capacity to each of these projects.

### **Supporting Decarbonisation Policy**

We support Ofgem's proposal to revise the NIC mechanism to enable direction from a wider panel of stakeholders, and to encourage additional alternative funding sources to be brought to bear. We would ask that clarity is provided on the specifics of this approach as soon as possible to enable proposals to be developed that meet the newly defined requirements.

As noted above, we believe this mechanism needs to be modified/expanded to enable large scale projects to be funded through Regulatory Asset Bases, with the costs socialised across all consumers. As an example, we do not believe a large project in the North West, should be funded by all consumers in the NW, when the benefits of the pilot project are universal. This principle is already well established with the socialisation of RIIO-GD1 NIC funding.

An expansion/modification of the NIC must also be sufficiently flexible to accommodate external funding sources. For example, a large scale pilot project may receive taxation funded support from central Government to manage the impact on consumer bills.

### **GDQ28 What other outputs should we be considering, if any?**

In addition to the areas we have highlighted elsewhere in our response, we are developing a proposal surrounding the purchase of shrinkage gas. We do not think it is consistent to seek to reduce the carbon intensity of the energy we use for our normal business operations, but not for the large quantities of gas we purchase for shrinkage. An output target aimed to support the purchase of renewable gas may be appropriate and we are developing our thinking in this area, and engaging with our customers and stakeholders. As well as the potentially higher cost, we must also consider how any mechanism would impact the market and Government policy. We must also ensure there is no perception of discrimination when it comes to providing and managing network capacity e.g. between a plant we are purchasing shrinkage gas from, and others not involved in shrinkage.

### **GDQ29 What are your views on the RIIO-GD1 outputs that we propose to remove?**

We support the removal of the outputs for biomethane performance and information provision. We would request the continuing information provision under RIGs be reviewed so that information is provided at an appropriate and efficient level. For example, providing detailed information at a site level may provide a distorted and arbitrary view, driven by factors such as when a site is commissioned in the first year. Provision of amalgamated data across a whole network may be sufficient for regulatory purposes.

**GDQ30 What are your views on the priorities we've identified for the gas distribution sector in delivering an environmentally sustainable network? Should measures proposed for electricity and gas transmission, such as BCF reporting and strategies for including in Business Plans, also apply to gas distribution?**

We support the high level priority areas identified, but would note the need to provide further expansion and detail as proposals are developed.

Methane is a greenhouse gas, much more potent than CO<sub>2</sub> and Cadent has outperformed the RIIO-GD1 target performance, significantly reducing GHG emissions. We believe the shrinkage incentive has played an important role in supporting these critical emissions reductions, and care must be taken to ensure the approach in RIIO-GD2 builds on this impressive success, and does not weaken this incentive, and risk lowering GHG emission reductions, or potentially increasing them.

We would support the principle of a reputational ODI to measure and report on our Business Carbon Footprint, in line with the proposals for other networks. We would be surprised if a common approach to managing overall Business Carbon Footprints was not established across all the regulated energy networks, if not wider across Utilities. Having a very different approach for one energy network over another would seem hard to justify. Clearly strong incentives must be applied to areas where there is the most impact/benefit, such as shrinkage gas, but we would expect a broadly consistent approach to managing our BCF across all networks.

## **Decarbonisation of heat**

**GDQ31 Do you agree with our proposed approaches to funding GDN activities over RIIO-GD2 related to Heat decarbonisation?**

We welcome the proposals for the RIIO-GD2 framework to support heat decarbonisation, but we do think there are some key additional features required.

As noted above, we think the framework must be capable of supporting large projects which are funded through the Regulatory Asset Base, with the costs socialised across all gas consumers.

We think the framework must also recognise a level of background support from the gas networks, that is likely to escalate as heat policy nears a key decision point. These activities may not be shared uniformly across the network companies. Examples could be roles on government steering groups and task forces, support for Government tenders, and supporting the successful bidders. It could include advising on legislation and other regulation, as well contributing to impact assessments. This is a more reactive ad-hoc support cost, which is less capable of being accommodated in innovation project mechanisms, which can be planned.

A Use it or Lose it allowance overlaid on a baseline policy support allowance may work well to deal with this type of expenditure, and ensure that resourcing is not a barrier to the Government's development of policy. It could also be a flexible mechanism where unspent allowance headroom could be transferred by agreement between networks. To support this, the cost would need to be recovered across all gas consumers, as with the current NIC, so that gas bills did not change just because a different network undertook the supporting activities.

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We note that in 4.41, Ofgem suggest the gas distribution networks consider the impact of heat policy uncertainty on their Business Plans, consider the use of future scenarios, and consider options to defer investment. Our assessment indicates that very little of our planned expenditure is driven by future demand, and the load related work undertaken has little scope to be deferred, without presenting a safety risk. We must offer terms to connect, and we must deliver a safe and compliant network at the time the customer connects. Longer term uncertainty surrounding the extent of the gas network has very little bearing on our Business Plans.

## Distributed gas connections guide and distributed gas information strategies

### **GDQ32 Are the ' Distributed Gas Connections Guides and distributed gas information strategies helpful and effective? If not, how could they be improved?**

This information is provided for the benefit of our customers and stakeholders, and we would welcome Ofgem sharing with us any specific feedback they receive to this question from these parties. From the feedback we have received we believe our customers and stakeholders are supportive of our information provision. If they identify improvement areas, we will take action. A recent example of this is the provision of our gas entry quality standards documentation.

We interact on a daily basis with distributed gas customers, and where issues are raised, we are responsive to their needs, including the provision of information for distributed gas. Improving the information we provide is an ongoing process.

We are responsive in other areas in addition to information provision. For example, we have led the way in enabling self-lay of connections for higher pressure tiers.

We will set out our planned actions to make further improvements in this area in our Business Plan. In addition, we will respond positively to any feedback on this question that relates to our activities, that Ofgem are able to share with us.



## Chapter 5 - Maintain a safe and resilient network

### Key Messages

- We support the simplifications suggested, the removal of redundant measures
- In setting targets it is important to remember that uncertainty exists in companies investment plans with regards to specific in-period interventions and responses, and as such the use of deadbands or margins is appropriate
- We suggest that it is more appropriate to focus on further development of the NARMS framework rather than development of separate PCDs for specific assets groups such as services (Ofgem option 3)

## General Output

### **GDQ33 What are your views on the overall outputs package considered for this output category?**

We support Ofgem position that it is important to have a target in place that clearly links outputs to cost allowances and also welcome the proposed removals and simplifications set out.

In setting targets it is important to remember that uncertainty exists in companies investment plans with regards to specific in-period interventions. This is relevant for repex investments with regards to how in-period targeting may change output at the margin – for example the number of service pipes replaced or the exact pipes replaced within a diameter band. Whilst we support the move to fixed diameter bands we suggest that a ‘deadband’ or margin will still be required to ensure the target does not drive inefficient behaviour.

We are currently reviewing the pipes which are included in the ‘TIER 2 RAT’ volume driver. This mechanism funds small volumes of interventions on a specific category of pipes with a high safety risk score. We are seeking to assess whether this mechanism could also be applicable to other pipes - Tier 3 or Steel for example. This work has not yet concluded and will require engagement with the HSE.

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### GDQ34: For each potential output considered (where relevant):

Proposed outputs are summarised by Ofgem in the following table:

#### Summary of RIIO-2 proposed outputs

Output name	Output type*	Company driven target**	Comparison to RIIO-1
<b>Common outputs</b> (expected to apply to all companies)			
Repex	PCD	No	Revised RIIO-1 output
NTS exit capacity	ODI(F)	No	Revised RIIO-1 output
GDN record keeping	LO (and/or bespoke PCD)	No	New output
Gas holder demolitions	PCD	Yes	Revised RIIO-1 output
Network Asset Risk Metric	PCD/ODI	Yes	Revised RIIO-1 output
Cyber resilience	PCD	Yes	New output
<b>Bespoke outputs</b> (companies should consider for potential inclusion in their Business Plan; though not just limited to these areas)			
GDN record keeping	PCD	Yes	New output
Physical security	PCD	No	Revised RIIO-1 output

\* ODI(R/F) = Output Delivery Incentive (Reputational/Financial), PCD= Price Control Deliverable, LO= Licence Obligation

\*\* Company driven target signifies an output where we expect to see extensive company-led engagement (including with their CEG) to justify a stretching performance target. This could lead to performance targets varying by company.

Our response to repex is covered in our response to GDQ37-41.

Our response on NTS is given below.

Our response to record keeping is covered in GDQ43.

Cadent do not have any Gas Holders and as such we have not responded on this output.

Our response to the NARMs (CSQ19-36), Cyber resilience (CSQ 32-34) and physical security output (CSQ28-31) are included in our cross sector response.

### NTS Exit Capacity

#### a) Is it of benefit to consumers, and why?

The NTS Exit Capacity incentive has delivered significant benefits to gas customers. As a result of it Cadent has:

- Reduced our bookings;
- Increased the efficiency of the bookings we have made by making them at cheaper offtakes;
- Released capacity enabling the NTS to operate more efficiently; and
- Utilised daily products where there has been capacity available.

All the above has reduced costs to our customers by efficiently planning and operating our networks alongside the NTS. It has also provided efficient investment signals to the NTS, giving them a better view of where they need to invest on their network. Any avoidance of investment on the NTS provides cost savings to all gas customers consistent with the whole system approach advocated by Ofgem.

#### b) How, and at what level should we set targets? (E.g. should these be relative/absolute)

Targets in this area should be set at an absolute, network by network, level.

Whilst Cadent has performed well on the Exit Capacity incentive compared to other GDNs during RIIO-GD1, we agree that there should not be a relative incentive in this area for three main reasons:

1. The performance in this area is not fully comparable between networks for several reasons including their different asset bases, the different NTS assets / capacity challenges by region and different embedded capacity challenges across the GDNs (i.e. variance in regional growth, house building, green gas, shale gas etc.). Indeed, Cadent could not compare its own four networks as they have been built biased towards the different challenges and tasks they face.
2. It is an area where customers will benefit from collaboration and best practice sharing. GDNs sharing best practice at managing the capacity on their networks will reduce the investment required across the energy system and reduce the costs that customers face. This is particularly important against the backdrop of the energy system transition.
3. Performance across all GDNs has been strong, especially compared to external benchmarks (other “competitive” users of the NTS).

These reasons are consistent with why relative incentives should also not be used in other performance areas including shrinkage, interruptions, customer satisfaction and complaints.

**c) What are your views on the design of the incentive? (e.g. reward/penalty/size of allowance)**

The incentive should reward companies for making efficient bookings and cost minimisation. The size of the reward should reflect the value that this incentive can deliver to customers through GDNs’ effective operation of their networks and the avoidance of investment across the gas network.

Furthermore, to simplify the incentive and focus on efficiency and cost minimisation, the reward/penalty and performance could be assessed on the absolute level of bookings at each Local Distribution Zone (LDZ) rather than maximizing bookings at the cheapest offtakes.

The incentive was originally designed for rewards to be based on bookings at each offtake, where prices would provide signals to encourage efficient use of the NTS, i.e. offtakes with lower demand would have a cheaper price to encourage bookings to be made at these offtakes, reducing risks of constraints on the NTS system and avoiding unnecessary investment.

However, the NTS have indicated that the pricing does not signal use of the system in this way and given the uncertainties in the NTS charging regime, there is an opportunity to simplify the incentive by assessing and reporting capacity bookings on the NTS at an LDZ level.

Allowances for target volume bookings should be based on GDN 1 in 20 demand forecast views to remain aligned with our investment plans and our business plan views.

**d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?**

**Dealing with demand uncertainty**

We recognise that the current design of the incentive can lead to swings in rewards or penalties due to the variance between the assumed fixed demand and actual demand. There is inherent difficulty in predicting

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peak demand levels particularly in the face of economic uncertainty and increasingly erratic weather patterns.

During RIIO-GD1 the GDNs have undertaken research that identifies a need to now review the methodology to forecast peak demand. The relationship between annual and peak demand has also been identified as changing and will impact GDNs view of peak demand into the next price control.

As such, we would support the introduction of a mechanism within the incentive which can mitigate the impact of variations in demand during RIIO-GD2 where the target volume bookings are based on GDN 1 in 20 demand forecast views. Rebasing this allowance over RIIO-GD2 should be based on demand forecasts two years out (Y+2) to allow time to make good decisions and is in line with substitution. For these reasons, yearly adjustments would be too volatile and problematic.

### **Use of capacity prices**

There are advantages and disadvantages to this proposal that will require further industry consideration and development.

From a principles perspective networks should be rewarded, or penalized, based on the information they have at the time they make booking decisions. Networks will always need to book capacity in advance and will need to make their decisions based on the pricing signals they have from the NTS, so this feels like the right basis for the incentive to be set. NTS provide prices up to four years out which allows us to estimate the cost of User Commitment for the increase in capacity.

However, we agree that the movement between T-3 and actual prices poses a risk to both GDNs and customers and is out of their control. Also, given the uncertainty in the NTS charging regime we would support basing rewards/penalties on actual prices.

As such, further consideration should be given to how to make the incentive work best and 'fairest' for all parties. To ensure parity, there could be a further option considered which is a hybrid of T-3 and actual prices (50/50), where a sharing mechanism could be applied to the difference between T-3 and actual prices to share the difference in prices with customers.

### **Addition of flexible capacity and the interaction with UNC 0621 / 678**

Ofgem are correct in identifying the impact of flexible capacity upon the efficient use of the NTS. The NTS exit capacity incentive has previously (GDPCR1) included an element for flexible capacity to encourage GDN behaviours that enable the NTS to run as flat, and therefore as efficient, as possible.

We recognise the benefits that re-introducing an element for flexible capacity in the incentive for RIIO-GD2 could deliver; however, to achieve maximum benefits for gas customers this should be coupled with an NTS charging regime which applies charges equitably to the users that drive them.

If users of the NTS, including entry shippers, industrials, power stations and storage users, can continue to access flexible capacity for free with no incentive to encourage them to support the NTS in running flat then the changes in GDN behaviours will make little difference to the operation, and therefore costs, of the NTS.

***Case study: Gas customers subsidising electricity costs due to current flexible capacity arrangements***

In the example of gas power stations, the current arrangements are leading to gas customers, who are picking up the costs of the free flexible capacity, significantly subsidising electricity costs.

Currently, a power station can book off peak capacity (zero priced) and receives no charge for flexible capacity, effectively offtaking gas from the NTS for no charge.

This under-recovery is then retrieved by the NTS via commodity charges, effectively meaning that the electricity generation is being subsidised by gas customers.

As such, any NTS charging review should seek to charge for flexible capacity products as this would incentivise all users to either make the most efficient use of the system or make the business decision to pay for inefficient use.

This approach would drive positive user behaviours leading to flatter flows which would be a better fit to how the NTS was designed to be operated. If the line pack swings were mitigated and the network was used closer to its design, then it should lead to:

- Longer NTS asset lives;
- Lower maintenance costs;
- Lower operational costs through reduced compressor usage; and
- Lower costs for NTS users and gas customers.

A charge for flexible capacity would also enable GDNs to compare the cost of these products versus investment in storage in their network which would create a natural efficiency in how the overall GB gas system is operated.

**Further options for consideration**

There is benefit in exploring whether the existing incentive could be broadened, or a new incentive developed to reward or penalise GDNs for how they manage the capacity on their entire network not just relating to NTS exit capacity.

This could be operating it in a different way to ensure more efficient investment, or in some cases avoiding investment altogether, on their network to enable new entry of exit customers.

We could explore how we make the network available for entry and exit customers for capacity, and how we then operate it to balance the needs of entry customers who require us to run systems at low pressure, in line with the shrinkage and leakage drivers.

We would also need to understand how to most efficiently accommodate exit customers such as large industry users or power generators, who wish to receive higher pressures from our system to operate their

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systems effectively,

We would also need to consider our system interface with the needs of the electricity system, where some of our Combined Heat and Power Systems (CHP) customers are providing grid balancing services to the National Grid or local DNO, and the number of places our gas network provides security of supply – such as District Heat schemes, CHP and grid balancing services.

### **GDQ35 What other outputs should we be considering, if any?**

We have not identified any material omissions.

We are hearing a lot from our customers about the importance of safety and are looking at options for measures around accidents/injuries. If supported these could be Cadent specific or promoted as beneficial for all networks.

### **GDQ36 What are your views on the RIIO-GD1 outputs that we propose to remove?**

We support the removal of these outputs, simplifying the control and removing redundant measures.

## **Repex**

### **GDQ37 What are your thoughts on our proposals for Tier 1 outputs?**

We support the proposed approach. We will set out an optimised work plan by pipe type based on regulatory requirements and customer priorities. Companies require the described +/-% tolerance to allow response to in period network and delivery changes. Ofgem should note the potential interaction between this measure at the NARMS framework, in particular companies may choose to over deliver pipe replacement where this is the most efficient means of addressing total network risk in period.

### **GDQ38 Do you think we should set an output for replacing non-PE services?**

No, we suggest that it will be simpler for activity in this area to stay within the NARMS framework (Ofgem option 3). Options 1 and 2 would lead to duplication with NARMS

### **GDQ39 Do you think we should set outputs for asset maintenance repex activities?**

No, we suggest that it will be simpler for activity in this area to stay within the NARMS framework (Ofgem option 3). Options 1 and 2 would lead to duplication with NARMS.

### **GDQ40 What are your thoughts on not including Mains Replacement Level of Risk Removed, GIBs and fractures as output measures for RIIO-GD2?**

For simplification we suggest that these measures should be removed.

Safety is regulated by the HSE who effectively hold companies to account against these measures.

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For mains replacement the MRPS tool takes account of GIBs and fractures, the highest scoring pipes will be flagged for immediate replacement. The total MRPS risk is still material but much lower than it was - there is much less differentiation between pipes.

### **GDQ41 Do you agree with our proposed approach to repex uncertainty mechanisms?**

Yes, we agree. We suggest that it may be appropriate to widen the range of pipes which could be treated under these mechanisms to capture other materials/diameters which must be addressed on safety grounds.

## NTS exit capacity

### **GDQ42: What are your views on our proposal to use final offtake capacity prices rather than T-3 offtake capacity price estimates in the calculation of incentive rewards and penalties in RIIO-GD2?**

As discussed in our response to part d of question 34 there are advantages and disadvantages to this proposal that will require further industry consideration and development.

From a principles perspective networks should be rewarded, or penalized, based on the information they have at the time they make booking decisions. Networks will always need to book capacity in advance and will need to make their decisions based on the pricing signals they have from the NTS, so this feels like the right basis for the incentive to be set.

However, we agree that the movement between T-3 and actual prices poses a risk to both GDNs and customers and is out of their control. Also, given the uncertainty in the NTS charging regime, we would support basing rewards/penalties on actual prices.

As such, further consideration should be given to how to make the incentive work best and 'fairest' for all parties. To ensure parity, there could be a further option considered which is a hybrid of T-3 and actual prices (50/50), where a sharing mechanism could be applied to the difference between T-3 and actual prices to share the difference in prices with customers.

## GDN Record Keeping

### **GDQ43: Do you consider that an output(s) is necessary:**

Data quality feeds into all aspects of our operation and customer service, our decision making and responses to operational issues. We support the desire to improve the quality of data held by companies as this will benefit customers through better decision making and insight.

We would welcome further discussion on this issue but would raise two points of note:

- A company with good data should perform better – it can make better decisions and is less likely to incur reactive costs. As such a data measure has the potential to duplicate other performance measures.

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- There is also a fundamental difficulty in defining measures for this area - it is not known at the outset what data is 'poor' (an unknown unknown) as such setting an accurate and comparable measure is difficult.

As such we believe that any data quality outputs should be company specific and proposed through the business plan as bespoke ODI's or PCD's as appropriate. This will allow companies to set appropriate and targeted measures that will deliver the best outcomes for their customers.

### **a) for MOB's recording keeping (in the form of a bespoke Price Control Deliverable)?**

Cadent are undertaking a significant programme of work in GD1 to improve the quality of our MOB's data. As such a MOB's specific PCD for GD2 may have a diminished return i.e. this has already been an area of significant focus and improvement and we are uncertain what results a further PCD could deliver. As part of our business plan submission we will be including network specific targets on MOB's that will be tailored to address the specific needs of the customers impacted by any issues.

### **b) for other specific areas of GDN record keeping (if so which areas)?**

This would need to be GDN specific. We have not identified any areas specific to Cadent at this time but will include as bespoke ODIs or PCD's in our business plan where appropriate.

### **c) to cover GDN record keeping requirements as a whole?**

We do believe that funding should be put towards company specific data improvement. It would need to be targeted at initiatives to clean data i.e. data projects. Ofgem would need to accept that the outputs of the studies would be uncertain as until the project is undertaken the extent of opportunity for improvement is unknown. A project may prove that data is robust and fit for purpose but not create any improvement – this confidence is still a valuable output. In other cases material changes and improvements may be identified. Again these areas will be outlined in our business plan and where appropriate we will include bespoke company specific ODIs.



## Chapter 6 - Cost Assessment

### Key Messages

- We support evolution of the GD1 approach and Ofgem’s cost driver principles
- The efficient level of costs is uncertain, given the small sample size of eight GDNs and three / four companies
- The uncertainty needs to be recognised by using a number of different views of efficiency, which may include the “Middle-up” approach, as well as Top Down and Bottom Up
- The Bottom-Up approach provides greater clarity of cost drivers and regional factors, but it suffers from data recording, structural, solution choice, accounting and potential cherry-picking issues, which means that greater weight should be placed on the Top Down approach
- The abolition of totex interpretation and potentially greater weight on the Bottom-Up approach act to reduce the recognition of uncertainty. To counter this may need the use of average, rather than Upper Quartile costs and / or a glide path
- If an Upper Quartile approach is to be used, it should be after the results of all the different approaches are combined – as in ED1
- The evidence suggests that MEAV is a balanced scale driver and does not have an adverse impact on incentives
- We support the application of opposing regional factors where appropriate, such as regional pay, and not symmetrical adjustments. Ofwat uses symmetrical adjustments because it applies them after modelling to avoid customers paying twice, whereas Ofgem applies them before modelling and then reverses them out afterwards, so customers only pay once.

### **GDQ44 Do you agree with our intention to evolve the RIIO-GD1 approach for RIIO-GD2?**

We welcome Ofgem’s intention to evolve the RIIO-GD1 approach to cost assessment for RIIO-GD2, rather than establishing a whole new methodology.

We consider that the RIIO-GD1 methodology was a significant improvement on what had been used previously, as it:

- Introduced totex regressions with appropriate workload and a reasonable scale driver, so overcoming cost allocation, company structural and solution choice issues.
- Applied panel data so that costs for several years could inform Ofgem’s view of efficiency.
- Compared Business Support costs not only among the Gas Distribution companies, but also with electricity networks and non-utility comparators.

However, there is scope for improvement, especially as some of the models used in the Bottom Up approach no longer fit the data as well as they did, potentially because the more time passes since Network Sales in 2005, the more organisation structures and accounting policies between GDNs will diverge.

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We believe that for Gas Distribution, any single approach to cost assessment will be flawed, given the small sample size of eight GDNs and three / four independent companies. At RIIO-GD1 Ofgem recognised the uncertainty by:

- Adopting Top Down and Bottom Up modelling approaches
- Calibrating each approach using historic costs and forecast costs.
- Applying IQI interpolation, under which 25% of any gap between Business Plan and assessed efficient cost was included in allowances.
- Reducing the Totex incentive rate the bigger the gap between Ofgem's assessed efficient level of cost and Business Plans.

Given that the Consultation Paper proposes that the last two features will not be used at RIIO2, it will be especially important that a number of different views of efficiency should be used.

We note that the emphasis in the Consultation is more on the Bottom Up approach, than the Top Down. We agree that the more granular Bottom Up approach is needed to provide a good understanding of cost drivers and regional factors, and to calculate weights for the Top Down approach. However, it also suffers from problems of data recording, structural, solution choice and accounting issues, and can also lead to cherry picking issues across different activities. In recognition of these shortcomings, Ofgem applied a 50% weight to this approach at GD1, with the same weighting applied to the Top Down approach.

Given these shortcomings, we would not agree with any increase in the weight applied to the Bottom Up approach at GD2, unless its associated problems can be overcome, which we believe to be unlikely given their deep-rooted nature. Moreover, applying the reasoning from the blended sharing factor of placing more weight where there is greater confidence, it would be logical to increase the weight applied to the Top Down approach, rather than reduce it, given the better fit of data in the Top Down as opposed to the Bottom Up approaches.

In respect of improving the Bottom Up approach, we have already made suggestions at the Cost Assessment Working Group (CAWG), some of which have been included in the Consultation, and we will submit further ideas at future meetings prior to the summer Consultation.

In addition, while we understand Ofgem's intention to explore alternative benchmarking techniques, we caution that there has been some exploration of these at previous price control reviews, and they were not considered better than the existing regression analysis, largely because they are at least as adversely affected by the same sample size issues.

### **GDQ45 Do you have any comments on our initial views for cost assessment, including appropriate cost categories, cost drivers, analysis toolkit and how we combine the analysis?**

Our response is divided into sections addressing the views and options set out in the Consultation Paper.

#### **Cost categories**

We consider that the approach of assessing costs at different levels is sensible, given that, as Ofgem recognised previously, there is no single "right" answer to the efficient level of costs. At GD1, Ofgem

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averaged the answers from the disaggregated level and the totex level, calibrating each using historic and forecast costs, which provided four views of cost efficiency.

For GD2, we believe that it will be essential to assess costs at the level of disaggregated activities, because this is the best way of providing knowledge of cost drivers and regional factors. However, because this approach suffers from structural, cost allocation and solution choice weaknesses, it will also be essential to adopt a Top Down totex approach, as at GD1 – see answer to GDQ44.

In respect of a potential “middle-up” approach, assessing each of Opex, capex and Repex, we believe that such an approach should be investigated for GD2, to assess its statistical robustness. If it is found to be robust, then it would provide a third view of cost efficiency. Given that Ofgem no longer intends to place much reliance on forecast costs, without using a middle-up approach, there may only be two views of cost efficiency at GD2, which would appear insufficient.

Paragraph 6.18 of the Consultation Paper contains a number of stakeholder suggestions for changes to GD1 disaggregate activities, which we comment on below:

- In general, we are doubtful over the value of combining disaggregated activities, because the advantage of that approach is its granularity which provides a clear view of cost drivers and regional factors. By combining activities, such as Emergency and Repair or Governors and LTS costs, that clarity would be lost, or at least muddied.
- We support assessing IT Opex and capex together: this is one activity, not two, which is divided between Opex and capex depending on accounting policies, the precise reason for expenditure, and solution choices, with “cloud” based activity more likely to be classed as Opex.
- We do not believe that the suggestion of moving non-routine maintenance to capex overcomes the three maintenance related issues set out below:
  - The Routine / Non Routine issue - whether Opex Maintenance costs are classed as routine or non-routine.
  - The capitalisation issue - whether certain Maintenance type costs e.g. asset remediation, is treated as Opex Maintenance or capex
  - The solution choice issue - where different solution choices are classed as Opex or capex e.g. reinforcing a riverbank or moving a pipeline.

We believe that a better approach would be to compare across GDNs how the costs associated with detailed Maintenance type activities are treated. This would not resolve the solution choice issue, but would address the other issues.

### Cost drivers

In this part of our response we address:

- Ofgem’s principles of what forms a good cost driver;
- the use of MEAV as a driver; and

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- the potential alternative drivers described in the Consultation Paper.

We support **Ofgem's principles for what forms a good cost driver**. We agree that they should make economic / engineering sense, be accurately and consistently measurable, have a relatively stable relationship with costs over time and incorporate as much relevant information as possible, and be beyond the control of the network, as far as reasonably possible. We also agree that the choice of cost driver may involve trade-offs between these principles.

The Consultation Paper identified concerns over the **use of gross MEAV of network assets as a driver**, especially in the longer term, as it is partially under companies' control, and provides a potential incentive to invest more in capital solutions than otherwise. We do not believe that the concern over the use of MEAV is justified for three reasons:

- In RIIO-GD1 the Totex incentive rate is over 60%. Therefore, the GDNs have had a strong incentive in this price control period not to spend any additional amounts, on Opex, capex or repex, than they need to.
- Based on the MEAV calculations for RIIO-GD1, only growth related capex would add to MEAV, which is a small proportion, under 10% of total investment for the RIIO-GD1 period. Repex does not add to MEAV, if anything it reduces it through downsizing mains. Any capex spent on replacing network assets is excluded from the calculation, as is any spend on IT, vehicles, tools or offices. In addition, any spend on adding Offtakes, PRSs or District Governors would not affect MEAV unless it was due to growth, because the MEAV unit costs for these assets are throughput adjusted, so with no change to throughput, adding one additional asset merely reduces the average unit cost of all the assets proportionately, leaving the total MEAV unchanged.
- Gross MEAV is very large (£62.4bn at 31/3/13 in 2009/10 prices) in itself, and also in proportion to the amount of growth related capex. Using RRP data on Connections and Reinforcement workloads over the five years of GD1 to date, this adds less than 0.5% to industry MEAV. Even if there was a very large amount of growth related capex, unless this was experienced disproportionately in different GDNs, it would barely affect the results of the regressions for which MEAV is used as a driver.

The table below shows the proportion of industry MEAV accounted for by each GDN at 31/12/13, and at 31/3/18, reflecting Connection and Reinforcement workloads over the five year period.

<b>MEAV proportion</b>	<b>2012/13</b>	<b>2017/18</b>	<b>Delta</b>
EoE	18.06%	18.04%	-0.03%
Lo	8.99%	8.97%	-0.02%
NW	11.91%	11.88%	-0.03%
WM	8.92%	8.90%	-0.02%
NGN	11.31%	11.32%	0.01%
Sc	8.55%	8.59%	0.04%
So	19.07%	19.09%	0.01%
WWU	13.18%	13.22%	0.04%
	<b>100.00%</b>	<b>100.00%</b>	<b>0.00%</b>

The table shows how little each GDNs proportion of industry MEAV has changed over the last five years.

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In addition to showing why the use of MEAV as a driver does not have an adverse impact on incentives, we also consider the positive reason for using MEAV is that it represents a reasonable scale variable, as it includes and takes significant account of network length and customer numbers – high level drivers that Ofgem has previously used - as well as other network assets.

Our views on the **potential alternative drivers** identified in the Consultation paper, and also Business Support costs, are shown below.

- Repair: we have three comments as follows:
  - We share the concern identified in the Consultation that the number of Repairs is not as accurate as the number of Reports, and consequently that it would not make a better driver.
  - We believe that taking account of the diameter band of repairs would be desirable, as some networks have significantly greater population of larger diameter mains than others, which are more costly to repair. Although we note that the RRP does not currently contain the number of Reports by diameter band, only the number of Repairs, the RRP could be amended for future years to require GDNs to provide Reports by diameter band, and for past years, the number could be pro-rated using the ratio of Reports to Repairs.
  - In respect of not using a cost driver which might reward any previous underinvestment, we acknowledge that Repair workloads in the Business Plan need to take account of the continuing mains replacement programme, as well as deterioration of the metal pipes remaining in the ground. In addition, we are puzzled by the statement in the Consultation Paper about past repex underinvestment. Largely due to the 30 year iron mains replacement programme, now more than half way through, GDNs are now spending around £800m p.a. replacing mains and services, consequently, it would not appear that underinvestment is an issue.
- Emergency: we agree that using the maximum number of PREs over a number of years would represent a better driver than 80% customer numbers (reflecting internal Reports), 20% Reports (reflecting the external work on our assets), because the Emergency workforce is scaled to meet the maximum likely number of PREs meeting the 97% response standard. In addition, we believe that the number of PREs is a more robust number than Reports, or customer numbers. In respect of the number of years over which to select the maximum number of PREs, this is a matter of judgement, but we believe that five years is a reasonable time period.
- Mains reinforcement: in principle we agree that a more accurate driver would result, if it were split into diameter bands rather than the present less than 180mm and greater than 180mm bands, presumably using RRP reported costs to scale the synthetic costs. The practical issue would be whether, due to data issues, this led to a better regression than the present bands.
- Connections: we support the inclusion of Fuel Poor connections activity within the Connections regression, with its own synthetic driver, because this reduces the scope for differences in costs and therefore apparent efficiency due purely to cost allocation, between Fuel Poor and Non Fuel Poor Connections. We note Ofgem's concern that changes to the eligibility criteria from June 2018 could mean that historical costs might not be a good guide to the future. However, this would only be a concern if gross unit costs per km of main, or per service connection were to change significantly,

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given that the Connections regression is gross, and uses workload drivers. We suggest that Ofgem review the 2018/19 RRP data when available to check if gross unit costs have altered significantly.

- Repex: we agree that the synthetic unit costs for Tier 1 mains and services should be updated in light of actual costs. However, we also believe that all repex synthetic unit costs need to be updated, given the allocation issues between different diameter bands. To update only some of the unit costs but not others would be less accurate than not updating any.
- MEAV: In principle we agree that Maintenance MEAV would be a better driver if the value of different asset types was weighted according to industry spend, using a run of years. However, we are not clear whether this would lead to a better fit of the cost data. Furthermore, the Maintenance regression is adversely affected because of spikes in maintenance workload needed to maintain or improve asset health. An expert review of material spikes in any GDN's Maintenance spend could be an alternative approach. We have no concerns over the use of MEAV on the grounds of an adverse impact on incentives. We also note that the MEAV from GD1 needs to be updated, not only for growth, but also to include MOB's and embedded entry points.
- Business Support: at GD1 Ofgem applied a composite driver of Revenue, End Users, FTEs and Totex when assessing the efficiency of Business Support across networks, and also with the Hackett Group external comparators. If benchmarking outside of network utilities, we believe that such an approach would be reasonable. If only benchmarking across network utilities, we consider that Ofgem's GD1 scale variable, MEAV, would represent a reasonable driver, as was used for Business Support at ED1.

### Cost assessment toolkit

In respect of the cost assessment toolkit, we agree that the GD1 framework represents a good starting point for the analysis, and that Ofgem should consider which of the Bottom-Up drivers can be improved, as we have suggested above.

We also support the investigation of alternative benchmarking techniques, noting the difficulties caused by the small number of independent companies.

### Combining the analysis

We suggest that Ofgem should apply the ED1, rather than the GD1 approach to calculating the Upper Quartile at GD2. The GD1 approach was to calculate a number of Upper Quartiles at different levels of analysis, for example one from the Top Down approach, one for the Bottom Up regressed costs, another for Business Support etc, which inevitably caused an extra element of cherry-picking. In contrast, at ED1, Ofgem combined the results of its three modelling approaches before calculating the Upper Quartile, an approach which we believe overcame some of the cherry-picking issues and was therefore more robust.

In addition, we believe that the results of alternative, Top Down and middle-up approaches could be spread pro-rata to the results of the Bottom Up approach for individual activities, as carried out at GD1 for the Top Down approaches.

The Consultation mentions that Ofgem will consider the case for using forecast cost data in the analysis, adding that it could inform allowances where the past is not expected to be a good indicator of the future. We believe that the key issue is for GDNs, CEGs and Ofgem to be able to understand why and how future costs are expected to be different from those of the past, and can quantify the expected change robustly.

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If the potential changes are understood and are robust, it does not matter whether only historic costs are benchmarked, with adjustments made to reflect future changes, or forecast costs are benchmarked as well as historic costs.

Finally, we note that the abolition of totex interpolation, and the potential emphasis on Bottom-Up analysis, could act to give insufficient weight to the uncertainty present in any approach to cost assessment. Therefore, depending on how the analysis proceeds, it may be necessary to consider how else that uncertainty could be reflected in cost allowances. There could be a case for using average costs rather than Upper Quartile costs, and / or applying a glide path, both of which have previously been used by Ofgem.

### **GDQ46 Do you have any views on our proposed options for loss of metering work?**

The ongoing loss of traditional metering work and the implementation of Smart metering both affect our Emergency service, and at present, it is not clear whether some form of transitional funding will be required in GD2, subject to clear justification from the GDNs. Consequently, we believe that option two should be applied.

Cadent has led collaboration with Smart meter suppliers (and have received letters of commendation from them), and have had significant success in reducing the potential adverse impacts on customers for whom Smart meters have been installed, which together with the delays to the roll-out, has minimised the adverse impact on our costs to date.

### **GDQ47 Do you agree with our proposal for implementing symmetrical adjustments for regional or company specific factors?**

We do not agree with applying symmetrical adjustments for regional factors.

Ofgem's adjustments for regional factors, whether opposing (positive or negative across all networks) or single direction, do not add to costs paid by customers because the adjustment is made before regression. For example, London costs are reduced for regional pay before regression to make them comparable, the efficient level of "normalised" cost is found for London by regression, then the normalisation is reversed, to reflect the additional cost of working in London.

Ofwat uses a different approach. Ofwat have proposed symmetrical adjustments for claims where the costs are already in industry cost baselines – the adjustments are made after regression, not before. In such circumstances, if Ofwat did not reduce the rest of the industry's allowance for the amount one company received as a regional factor, customers would be paying more than efficient industry cost.

For this reason we do not believe that there is any need to apply regional factors symmetrically, unless Ofgem moves to an approach of making regional factor adjustments post-regression, which is not necessary or desirable, as it would provide models with a worse fit, and a skewed view of efficiency.

In addition, the Consultation paper states that GDNs should bring forward factors that may lead to lower costs than other GDNs. We believe that it will be more difficult for stand-alone GDNs to achieve this than others which are part of larger groups, however, we will engage with these GDNs at CAWG to help in this process.

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Finally while we accept that there should be a high evidential bar for accepting any cost adjustment claims, we would point out that a number of smaller claims together would become material, especially in respect of working in London, and that in these circumstances it would not be reasonable to apply a materiality threshold to each item individually.



## Chapter 7 – Uncertainty mechanisms

### Key Messages

- We support the new areas of uncertainty that have been identified as relevant for RIIO-GD2, with the exception of the cash flow floor proposal.
- We support retaining an uncertainty mechanism for smart meter roll out costs in RIIO-GD2, however we believe a volume driver would be a more suitable mechanism for RIIO-GD2.
- We have identified additional uncertainty mechanisms we believe should be considered for RIIO-GD2: Multi occupancy buildings, entry enablement and obligated reinforcements.
- We do not support the removal of an uncertainty mechanism for Streetworks as we believe there is a need to manage uncertainty around work driven by legislative changes. We foresee work which will incur lane rental costs, however there is uncertainty around volumes of work and where they will need to be carried out.

### General uncertainty mechanism

**GDQ48** What are your views on the proposed uncertainty mechanisms and their design?

The table below summarises our views on the proposed uncertainty mechanisms and their design.

Name	Cadent RIIO-2 Proposal	Ofgem RIIO-2 Proposal	RIIO-1 Mechanism
<b>Cross sector</b>			
Ofgem licence fee	Pass-through	Pass-through	Pass-through
Business rates	Pass-through	Pass-through	Pass-through
Inflation indexation of RAV and allowed return	Indexation	Indexation (Revised for RIIO-GD2)	Indexation
Cost of debt indexations	Indexation	Indexation (Options for change proposed)	Indexation
Tax (trigger and clawback)	Re-opener	Re-opener (options for change proposed)	Re-opener
Pensions (pension scheme established deficits)	Re-opener	Re-opener (Revised for RIIO-GD2 – Triennial review)	Re-opener
Physical security	Re-opener	Baseline allowance and/or re-opener (revised for RIIO-GD2)	Baseline allowance and re-opener
Cost of equity indexation	Indexation	Indexation	New for RIIO-GD2
Tax	Existing re-openers are sufficient	Re-opener	New for RIIO-GD2
Cashflow floor	n/a	Re-opener	New for RIIO-GD2
Real Price Effects	Indexation	Indexation	New for RIIO-GD2
Cyber resilience	Baseline allowance and/or re-opener	Baseline allowance and/or re-opener	New for RIIO-GD2
Whole systems (options under development)	TBC	Re-opener	New for RIIO-GD2

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GD2 Specific			
Pension deficit charge adjustment	Pass-through	Pass-through	Pass-through
Third party damage and water ingress	Pass-through	Pass-through	Pass-through
Miscellaneous pass-through	Pass-through	Pass-through	Pass-through
Cost related to Gas Theft	Pass-through	Pass-through (revised for RIIO-GD2)	Pass-through
Smart Meters rollout costs	Volume Driver (& pass-through for system integration)	Either immaterial, baseline allowance or volume driver	Re-opener
Repex – Tier 2A, ductile iron and non-standard materials	Volume driver (revised for RIIO-GD2)	Volume driver (revised for RIIO-GD2)	Volume driver
Repex – HSE policy changes	Re-opener	Re-opener	New for RIIO-GD2
Heat policy	Re-opener	Re-opener	New for RIIO-GD2

Further details on our views are provided below.

### Cross sector

#### *Ofgem licence fee*

Pass through mechanism is suitable.

#### *Business rates*

Pass through mechanism is suitable.

#### *Inflation indexation of RAV and allowed return*

See our responses to FQ29 and 30.

#### *Cost of debt indexation*

See our responses to FQ1 to 4.

#### *Tax (trigger and clawback)*

See our response to FQ28.

#### *Pensions (pension scheme established deficits)*

Support the pass-through mechanism for NTS recharges (for all GDNs apart from Cadent) and for the allowances to be reviewed following the outcome of the pension triennial reviews.

#### *Physical security*

We agree with a proposal for a reopener mechanism for this. Variance in threat levels may lead to Government changes during the period, which may add costs.

See our responses to CSQ30 and 31.

#### *Cost of equity indexation*

See our responses to FQ5 to 8.

#### *Tax*

See our response to FQ28.

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### *Cashflow floor*

Do not support the cashflow floor proposal.

See our response to FQ24 to 25.

### *Real Price Effects*

See our responses to CSQ35 to 37.

### *Cyber resilience*

See our responses to CSQ33 and 34.

### *Whole systems (options under development)*

A whole system uncertainty mechanism could be the basis of a workable approach to support the identification and implementation of cross sector solutions.

See our response to CSQ11.

## **GD2 specific**

### *Pension deficit charge adjustment*

Agree with a continuation of a pass through for this for the other GDNs.

### *Third party damage and water ingress*

Agree with a continuation of a pass through for this

### *Miscellaneous pass-through*

Agree with a continuation of a pass through for this

### *Cost related to Gas Theft*

We would support widening the scope of the pass-through mechanism to allow for costs associated with investigating gas theft.

### *Smart Meters rollout costs*

We propose use of a volume driver here as following the roll out of smart meters during RIIO-GD1 we are able to determine a cost per intervention as a result of a smart meter installation, but are not able to accurately forecast the number of interventions that will be carried out in RIIO-GD2.

We would also propose any system integration costs relating to Smart Meter roll-out to be passed through using a pass-through mechanism.

### *Repex – Tier 2A, ductile iron and non-standard materials*

We support the continued need for a volume driver for this in RIIO-GD2 as the work is still relevant.

We believe there is a need for an additional volume driver to include replacement of any non-iron mains replacement pipes (risky Steel pipes, Tier 3).

### *Repex – HSE policy changes*

We are in support of a re-opener mechanism here to account for any changes that the HSE make to its policies during RIIO-GD2 which may have cost impacts on Cadent's customers.

### *Heat policy*

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We agree with a re-opener mechanism for this due to the uncertainty around Government's decisions regarding the path to long term heat decarbonisation.

### **GDQ49 Are there any additional uncertainty mechanisms that we should consider across the sector and if so, how should these be designed?**

There are currently four areas where we believe the inclusion of an uncertainty mechanism within RIIO-GD2 would be beneficial for customers and GDNs. They are:

#### *Multiple occupancy buildings (MOBs)*

There may be work required following any independent reviews (e.g. the Independent Review of Building Regulations and Fire Safety, Health and Safety Executive) being carried out which may direct a change in the way we work. This may include changes in thresholds for action which would impact the amount of work we would need to carry out and we would be unable to predict these changes in advance. As such, we propose the use of a re-opener mechanism to manage these risks.

An example of a change that may be directed is the enactment of gas conversions in High Rise MOBs. This would require investment to replace the distribution of gas throughout multi-occupancy buildings with alternative heat sources e.g. CHP or communal heating.

#### *Streetworks*

We do not agree with the complete removal of uncertainty mechanisms relating to streetworks.

Please see our response to GDQ50.

#### *Obligated reinforcements*

A volume driver would enable the facilitation of reinforcements to support delivery of Local Authorities key strategic priorities such as housing, business, industrial or transport developments.

There is uncertainty on the likely workload here so the inclusion of an ex-ante allowance would create risk for customers and GDNs; however the inclusion of a volume driver would address stakeholder concerns on the utility funding process holding up economic growth in their regions.

#### *Entry enablement*

A volume driver in this area would enable the blending of new sources of gas in to the network by allowing GDNs to be more flexible in facilitating new entry connections to the network. These new sources may include green gases such as Biomethane, BioSNG or hydrogen which would provide environmental benefits to customers. They may also include new sources such as Shale which could create jobs in the communities we serve and revenues for the treasury through taxation.

We will continue to assess the requirement for uncertainty mechanisms as we develop our plan so that those listed above may be ruled out and other new mechanisms may be proposed.

### **GDQ50 What are your views on the RIIO-GD1 uncertainty mechanisms we propose to remove?**

We do not agree with the complete removal of uncertainty mechanisms relating to streetworks.

We will be required to comply with all future legislative changes within the Street Works area throughout the RIIO2 period. In December 2018, the Department for Transport (DfT) announced its plans to allow local highway authorities to bid for and set up Lane Rental schemes. This announcement also confirmed

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that the DfT would develop and issue the guidance for the administration of Lane Rental subject to certain parameters which have not yet been defined.

As a result of this, there is uncertainty in lane rental costs around which scheme proposed by the DfT will be utilised, (either Kent or Transport for London) and how many highway authorities will adopt a scheme, and with Cadent operating within 100 highway authorities we would not be able to accurately forecast costs for an allowance. We are also unlikely to have confirmation of this before RIIO-GD2.

For these reasons we cannot accurately forecast the costs and associated workload that will arise from this Street Works element in RIIO-GD2. We could assume that they will apply across our footprint, however this would introduce risk to our customers and the potential for windfall gains or losses. As such, we propose the use of a re-opener mechanism for these costs.

## Review of Agency (Xoserve) costs

### Key Messages

- **We believe a pass-through mechanism would be the most appropriate approach for funding the GT's expenditure for Xoserve.**

### GDQ51 What do you think is the most appropriate approach for funding the GTs' expenditure for Xoserve in RIIO-2 and why?

Funding for Xoserve costs should be through the use of a pass through mechanism, and not through ex ante allowances, for the following reasons:

1. Following the review of Xoserve funding, governance and ownership (FGO) arrangements in 2017, a full co-operative model was established of shared governance and funding for the Central Data Service Provider. As such, all users participate in decision making and because of the new board composition (2 of the 8 Directors) no longer have the ability to control decisions affecting their allowances. This makes it more difficult to be able to accurately forecast costs for an allowance as we have limited control in the decisions made.
2. With reference to para 7.41, a pass through mechanism for Xoserve costs was contemplated by Ofgem, but not opted as it considered there was insufficient evidence of shippers and transporters working co-operatively to deliver industry change, citing Project Nexus and indeed the FGO programme itself as examples. However, the industry has since demonstrated successful delivery of these major co-operative programmes as well as collaborating subsequently on other major changes such as Retail Energy Code development. This is clear evidence that transporters (and shippers) have met and indeed exceeded the pre-requisites established by Ofgem.
3. It is a fundamental principle that financial and operational risk should be placed on those best able to manage it and under FGO, Gas Transporters are no longer able to control the risk they face. This has been demonstrated since FGO was implemented with Xoserve costs exceeding allowances year on year. GDNs have challenged Xoserve's Business Plans to minimise costs, but the decision is ultimately that of Xoserve's Board.

**GDQ52: If Xoserve takes on any services beyond its core Central Data Service Provider role, how should we treat the costs and risks associated with these additional services through the price control?**

According to Standard Special Condition A15A of the gas transporter licence that Ofgem implemented in 2017, Xoserve cannot provide any service beyond its CDSP role without gas transporters first seeking Ofgem consent. If a non CDSP service was contemplated by industry which required funding by gas transporters and Ofgem consented then pass through would more easily facilitate such a change. One of the primary drivers of FGO was to allow shippers to drive service improvements for the market and their customers unhindered by a perception that gas transporters were incentivised to minimise costs through the Totex mechanism and therefore restrict such change. Ofgem originally considered pass through was more consistent with this driver.