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Cadent Independent Customer Engagement Group

**Report to Ofgem on Cadent's
Business Plan 2021 - 2026**

Published: December 2019



Independent
Cadent CEG

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Executive summary



This report outlines the Cadent Customer Engagement Group's independent views on the company's business plan for RIIO-2. The report is intended to support Ofgem's work towards its final determination, but we hope it will also be of use to the RIIO-2 Challenge Group and anyone participating in the Ofgem hearings process. Our views are based on extensive scrutiny between September 2018 and December 2019 including: reviews of versions of the business plan in July, October and December; scrutiny of 122 appendices and associated documents; and observation of 24 engagement activities. The breadth and depth of work reflects Ofgem's requested scope, Cadent's historic relative poor performance, and its position as the UK's largest gas distribution company.

Overview



Cadent has an ambitious vision, prompted by engagement with the CEG, to 'set standards that all of our customers love and that others aspire to'. It is underpinned by four key commitment areas: environment and climate change; resilience and safety; a quality experience for all customers including those in vulnerable situations; and a new outcome, 'trusted to act for our communities'. This is with 'at least' a 10% real reduction in the gas distribution element of the average household bill, bringing it to less than £120 per year.

We welcome the final plan. It is a significant improvement on previous drafts. As late as October, nine of the chapters reviewed did not meet the CEG's 'green' acceptable standard. Since then we have seen a further step change in activity with significant improvements to the reasoning, evidencing and completeness of proposals. Only three areas: engagement, the Consumer Value Proposition, and managing risk and uncertainty now don't meet our 'green bar'.

In making our assessment on engagement we set a high standard, mindful of Ofgem's request for 'robust and high-quality engagement' and with raised expectations following the RIIO-1 Stakeholder Engagement Incentive. We are assured that the business plan is well grounded in customer insight with outcomes that current and future customers value at a price most are willing to pay. High business plan acceptability rates of 82% and 85% for domestic and non-domestic customers support this. However, the quality of engagement and insight was not consistently good across all parts of the business. Cadent acknowledged the weaknesses, sought to address them, and the learnings are reflected in a broadly comprehensive RIIO-2 Stakeholder Engagement Strategy.

The company's new vision reflects a genuine ambition in Cadent to redefine itself as distinct from National Grid and to distance itself (but learn from) its relatively poor performing past. The company has a realistic understanding of its starting point and the challenges it faces, including the need for cultural change. This awareness, coupled with substantial organisational and governance improvements already underway, gives us more confidence in overall deliverability.

There are many strengths to the plan. For example:

- Safety and resilience - the company has set out a generally robust set of proposals underpinned by sophisticated modelling which should deliver significant benefits for customers. Our earlier concerns about the way investment cases were justified have been largely resolved.
- Costs and efficiency - Cadent recognises that it has lagged behind its peers and has embarked on an ambitious transformation plan to reduce costs.
- While Ofgem is best placed to decide on the robustness of the specific figures, Cadent's plan appears to substantially mitigate the risk of windfall gains through a combination of price control structure, Cadent's plan optimisation and the proposed uncertainty mechanisms.
- Competition - the strategy is well articulated and shows good evidence of achievement and ambition.
- We particularly welcome proposals to improve the experience of customers, some of which, following customer feedback, involve no increase in bills. Two-hour timed appointment slots; early GSOP payments; 15-minute connection quotes; a multiple occupancy buildings (MOBs) scorecard; the bespoke ODI measuring responsiveness to enquiries; are among a suite of proposals that are all seemingly either good practice or innovative for the sector. The proposals on inclusive and accessible service will bring the company up to the standards of other good practice GDNs and Cadent aspires to go further.
- Cadent has embraced tackling consumer vulnerability as a flagship area. The CEG supports its proposed whole-house approach in particular, but members have different views on whether the Fuel Poverty Network Extension Scheme (FPNES) targets are ambitious enough. We particularly welcome Cadent's cross-sector fuel poverty funding model pilot, its vision for a pan-utility Priority Services Register including telecoms, and proposals to repair and replace appliances for its poorest customers.
- The focus on 'trusted to act for communities', while not innovative, acknowledges the rising expectations on monopoly energy companies. Its new community fund, the Cadent Foundation, strives to meet best practice.
- Cadent has also developed a comprehensive and seemingly ambitious plan to deliver environmental sustainability, though this will need to be tested by Ofgem against cross sector benchmarks.

Culturally there have been noticeable improvements over the last nine months, clearly led by the Board, driven by leadership changes and prompted and supported by the CEG. Though there is a long way to go, the company is genuinely embracing technical and business/cultural innovation.

Cadent has grasped the importance of playing an active and open-minded role in the delivery of net zero carbon by 2050. This involves more work on whole systems solutions rather than assuming a hydrogen future, and driving forward options for lower-emissions gas. This is a big shift in attitude from the company, which was rather gas-centric in its approach even a year ago.

For MOBs, historically Cadent's worst served customers, and non-MOBs, further scrutiny is needed by Ofgem to ensure interruptions targets are ambitious and proposals adequately consider the longer-term.



Of the areas we graded amber in our RAG ratings:

- **Quality of customer engagement/giving consumers a stronger voice** - see above
- **Risk and uncertainty** - It will be for Ofgem to decide whether the significant cost relating to uncertainty mechanisms is appropriate and if the company has set the right level of unit costs. We question whether proposing low level volume drivers delivers the appropriate set of incentives. There are weaknesses with customer engagement around these mechanisms.
- **On the Consumer Value Proposition** - we recognise that the company's business plan proposals deliver notable value for customers and that Cadent has aimed to include areas in line with Ofgem's guidance on what may constitute part of a CVP (note in assessing this we challenged, and indeed Cadent removed, seven items that were in the draft CVP) . We believe a higher bar should be set for CVP candidates to be included for specific rewards. This is especially the case given the sums Ofgem's methodology implies. For example, we think that outputs linked to monitoring performance, reducing theft of gas, innovation and competition are all things that customers would reasonably expect Cadent to do.



Our report suggests a large number of areas for further scrutiny by Ofgem. Among them, areas suggested for hearings include:

- Cadent-only: its proposed off-gas-grid community trial; governance and assurance for ongoing deliverability of the business plan in RIIO-2; and Cadent's whole-house fuel poverty proposals including targets for the FPNES.
- All-industry areas proposed are: environment and sustainability benchmarking/good practice, in particular on shrinkage; Cadent's proposed common output on enhanced engagement on whole systems thinking; and the CVP - to understand what kinds of elements should be included within the Proposition for reward and the level of the reward.

Cadent's engagement with the CEG

Despite some initial teething problems, Cadent's engagement with the CEG has grown to be positive, open and constructive. The CEG raised 224 formal challenges of which 204 are closed, 13 ongoing and 7 unfulfilled. We view our regular and frank discussions with the Board and senior leaders as particularly important to our effectiveness, and they in turn welcome our independent perspective and have been responsive to issues raised.

We are mindful that Cadent has undergone a lot of change during our period of scrutiny. It has been establishing its identity as a standalone business, undertaking restructuring and transformation programmes and experienced significant leadership change with three separate chief executives. We welcome the new vision, prompted by the CEG challenge. Our sense now is that both Board and directors are determined to deliver the new vision and we commend Cadent for the distance travelled and this promising business plan.

How to read this report

For ease of reference, at the top of each CEG chapter is the Ofgem assessment area it relates to and the relevant Cadent business plan section. As requested by Ofgem, appendix 1 provides our indicative RAG rating of each chapter, with a summary of its strengths and weaknesses. This also includes a list of the scrutiny activity we undertook, which underpins our views and the evidence base for our conclusions. Appendix 6 provides a summary of the topics suggested for consideration for hearings or further scrutiny.

CHAPTER 02

About the independent Customer Engagement Group (CEG)

Context

Cadent's four gas distribution networks (GDNs) transport gas to more than 11m homes, businesses and major industries across the North West, West Midlands, East of England and North London. It employs more than 4500 people.

The energy regulator Ofgem sets price controls¹ to ensure that monopolies such as Cadent act in the best interests of all these customers. The company submits business plans, which include information on its proposed activities, costs and service performance levels. Ofgem then determines what the company is required to deliver over the forthcoming five-year period and how much revenue the company can collect. Cadent submitted its draft business plan for the next price control (RIIO-2),² 1 April 2021 to 31 March 2026, on 9 December 2019.³

CEG role

To strengthen the consumer voice in this process, Ofgem required all GDNs to set up an independent Customer Engagement Group (CEG)⁴ to challenge and scrutinise the plan. The CEG's aims are to:

1. Improve the overall quality of the plan;
2. Ensure it is better aligned to the needs and preferences of current and future consumers and that it considers the diversity of Cadent's stakeholder views.

The CEG's full role and scope is outlined in our terms of reference (appendix 4).

This report outlines the CEG's formal view on Cadent's business plan, as requested by Ofgem. It will be among the evidence the regulator considers when evaluating Cadent's business plan alongside feedback from the RIIO-2 Challenge Group,⁵ hearings and the recent call for evidence,⁶ and its own investigations.

Defining 'consumer'

Our focus is on the interests of domestic and non-domestic customers, including gas entry customers, community and wider societal or public interests, e.g. the environment, and any group or stakeholder with an interest in the plan. We consider both current and future interests. 'Consumer', 'customer' and 'stakeholder' are used largely interchangeably.

Membership

The CEG has 11 members including the Chair. Their biographies are in appendix 5. Members are not representative of particular groups but appointed as independent experts due to their combination of skills, knowledge and experience. The Chair was appointed in June 2018 following a nationwide competitive open recruitment process and was approved by Ofgem. The members were appointed via open recruitment between June and September 2018 by the Chair in collaboration with Cadent. Consideration was given to ensuring they had the right skills and knowledge for the role and collectively reflected a diversity of perspectives. This included consumer and not-for-profit organisations, local and national government, competitive and monopoly businesses across different sectors – the full list of perspectives/skills and knowledge considered is in the terms of reference (TOR) in appendix 4. All vacancies were advertised nationally using social media – and given the complexity of the subject matter, via the BAME engineers network and posted in Utility Week. To ensure an independent perspective the proposed members were discussed with Citizens Advice. More on the role and responsibilities of CEG members can be found in the TOR.

¹ <https://www.ofgem.gov.uk/network-regulation-riio-model>

² <https://www.ofgem.gov.uk/network-regulation-riio-model/network-price-controls-2021-RIIO-2/what-RIIO-2-price-control>

³ <https://cadentgas.com/news-media/news/december-2019/cadent-s-2021-2026-RIIO-2-business-plan>

⁴ <https://www.ofgem.gov.uk/publications-and-updates/RIIO-2-enhanced-stakeholder-engagement-guidance>

⁵ <https://www.ofgem.gov.uk/network-regulation-riio-model/network-price-controls-2021-RIIO-2/RIIO-2-events-seminars-and-working-groups/RIIO-2-policy-enhanced-stakeholder-engagement>

⁶ <https://www.ofgem.gov.uk/publications-and-updates/call-evidence-electricity-transmission-gas-transmission-gas-distribution-and-electricity-system-operator-business-plans-RIIO-2>

How we work

The CEG held its first meeting in September 2018. We started by developing our governance arrangements to maximise efficiency, accountability and independence. Given the size of Cadent and potential scale of the work, to maximise our effectiveness we developed 'principles for prioritisation' and ordered our activity accordingly (see appendix 4 of our TOR for more detail). As Cadent is the largest GDN and historically the worst performing, we were conscious to provide the right balance between a proportionate and practical approach and adequate depth and breadth of scrutiny.

Working groups

We set up four working groups in December 2018/January 2019 to enable deeper dives into:

- Finance and investment (FIWG) – Helen Fleming (chair), Simon Griew, Ian Rowson, Martin Silcock, Janet Wood;
- Research and insight (R&IWG)⁷ – Leslie Sopp (chair) Zoe McLeod, Victoria Pelka, Martin Silcock;
- Consumer vulnerability – John Kolm-Murray (chair), Matt Copeland, Zoe McLeod, Victoria Pelka, Leslie Sopp;
- Future role of gas (FROG WG), which also covered innovation – Janet Wood (chair), Mike Foster, Simon Griew, Kerry Mashford, Tony Diccico (until his departure in August 2019).

The terms of reference and more detail on the work of these groups can be found on our website.⁸

Wider activity

In addition to meetings where we challenged and scrutinised the company's proposals, we observed a selection of Cadent's customer engagement activity to assess its quality of delivery. Our views are documented using observation sheets (OSs) which are available on request. CEG members also: had bilaterals with Cadent as needed; reviewed related research, reports and news, including Cadent in the media; and attended external meetings where they could build understanding. We also liaised with the RIIO-2 Challenge Group to maximise the effectiveness of both groups.

How we influence

In practice, the CEG influenced Cadent's day-to-day decision-making processes and the business plan in a number of ways: at an operational level (questioning and feeding back on the company's activities, drafts of the business plan and appendices); by setting a high bar to meet a green RAG (our acceptable standard); by making direct suggestions for improvements; by signposting Cadent to useful information or new practice; and by formal challenges. Much change was achieved without a formal challenge and this is captured in our annex 1 on impact and costs.

We also fed back formal written reports to Cadent's executive team and CEOs – Chris Train, Steve Hurrell and Steve Fraser in May, July and October 2019 including, in the case of the latter, RAG ratings and steps needed to get to our acceptable standard. We discussed wider culture and strategy and business plan progress with the Sufficiently Independent Directors (SIDs) and shareholder members both at CEG meetings and in smaller groups. The CEG Chair also presented to the whole board in July 2018, January 2019 and July 2019 with the chair of FIWG.

See annex 1 for information about our impact and costs.

The challenge log

A challenge is defined as a recommendation that has the potential to: change the business plan; policy and practice; or the culture of the company. All formal challenges are recorded on the log which is on our website. The nature of the challenges evolved as the business plan developed with more focus on vision, strategy and engagement at the beginning progressing to in-depth challenge on the detail of the plan. Despite a slow start, the company has overall been receptive to feedback. In total the CEG made 224 challenges. 204 are now closed, 13 are ongoing with work on them continuing into 2020, and 7 were unfulfilled – that is, the company did not respond to them. Not all closed challenges, while addressed, have been met to the standard the CEG would have liked, and where this is the case we have documented it.



⁷ The research and insight working group is also referred to as the research and engagement working group in the Cadent business plan

⁸ <https://cadentgas.com/about-us/engagement/customer-engagement-group>



Independence

Working with Cadent but remaining at arm's length is a key part of the CEG process. Our terms of reference, in appendix 4, explain the steps taken to ensure our independence and to ward against company 'capture'.



Transparency and accountability

To ensure transparency we publish information about the CEG's role, activity, evidence base and membership on our web pages.⁹ This includes: the running costs of the CEG and our impact (see annex 1); terms of reference for the main group and working groups; member biographies and attendance record; agendas; minutes of meetings; challenge log; action log; and a summary of the main questions asked in meetings.

Important for noting

As the report is limited to 50 pages, each chapter is inevitably a high-level summary of the scrutiny activity undertaken and conclusions. If you would like further information on any area or more detail on the evidence base that informs our conclusions, get in touch via the enquiry form on our website at <https://cadentgas.com/about-us/engagement/customer-engagement-group>, or send an email to zoe.mcleod@gmail.com. Subject to any commercial confidentiality restrictions, we are happy to discuss any areas of this report in more detail, in particular to support the Ofgem hearings¹⁰ process.



Next steps

The CEG's work will continue. We will support the Ofgem hearings process, and if requested provide a view on the RIIO-2 draft determinations in the summer of 2020. Cadent has outlined an enduring role for the CEG in its RIIO-2 Engagement Strategy.

⁹ <https://cadentgas.com/about-us/engagement/customer-engagement-group>

¹⁰ https://www.ofgem.gov.uk/system/files/docs/2019/12/call_for_evidence_final_pdf_13december2019.pdf

Our
rating

Business plan commitment

Ofgem area: Track-record and business plan commitment

Cadent BP: Ch.4 - Learning from past performance p.12/Ch.12 Assurance p.191

Hearing: Yes

Summary

- ❖ This chapter provides the CEG's views on Cadent's track record, culture, governance and assurance approach.
- ❖ Chapter 4, 'Learning from the past', and Chapter 12, 'Cadent's Assurance', describe how the company's cultural and learning journey since separating from National Grid has underpinned the plan. They inform the level of assurance we can have in its delivery.
- ❖ Taken together, they provide a basis for some confidence that the company will deliver and that it now understands the consequences for customers if it does not.
- ❖ We highlight, as the plan does, that cultural transformation will be an essential part of deliverability and it takes time.
- ❖ We make recommendations for further scrutiny/hearings around assurance in relation to costing and ongoing governance during RIIO-2.

Context

Ofgem's judgement on Cadent's business plan deliverability will be informed by the company's commitment to delivering the outcomes set out in the plan and its track record of delivery.

Interpreting Cadent's commitment needs an understanding of its cultural and organisational journey during its recent transition to independence, having been embedded in the National Grid group of energy networks.

In this light, we comment on:

- How Cadent has presented its track record;
- The company's broader cultural and organisational journey;
- Its level of commitment evidenced in its governance and assurance processes.

Our approach and scrutiny activity

There has been a good level of engagement with the CEG on this topic, in particular from the CEO and board level. The CEG scrutinised strategy and culture in sessions with both CEOs and SIDs. The CEG Chair attended meetings with the Board and its individual members of the Board. The CEG has also held two full sessions on historic performance. The CEG's observations on culture have developed through its wider engagement with the company.

Challenges

- The CEG has raised four challenges on track record,¹¹ four challenges on vision¹² and seven challenges on culture.¹³ One is unfulfilled (CL99)¹⁴ and the remainder are closed.

Track record

Cadent has named the chapter that sets out its track record 'Learning from past performance'. The company recognises that past performance provides an important context for learning and evolution, especially since becoming independent of National Grid (CL102 encouraged this approach). The CEG supports Cadent's focus on describing this learning process as we believe it enriches readers' understanding of how the company will approach RIIO-2.

We originally raised concerns around its presentation of totex variances, the drivers of RoRE performance and how Cadent is

protecting consumers from undue impact on bills from delayed work (CL99). The chapter now substantially meets these challenges and the CEG appreciates the company's responses.

The chapter now sets out a balanced review of Cadent's performance and an insightful description of what it has learned from experience.

However, we draw Ofgem's attention to some limitations:

- Some aspects of performance are presented at a high level, for example in ticks and crosses against targets. But we consider the textual descriptions provide enough information about strengths and weaknesses, and what has been learned, to compensate;
- Section 4.05, on how consumers have been protected from additional or delayed costs, makes no reference to the deferral of more expensive larger diameter repex work in 4.03.01;
- Although Cadent sets out a high-level summary of the factors that contributed to the differences between allowances and expenditure, the company has not responded to the CEG's request for more detail of the factors, especially for repex - the largest area of difference. We suggested that differentiating between those factors covered by new uncertainty mechanisms in RIIO-2, such as RPEs, and other factors would be helpful. This is the subject of an unfulfilled challenge (CL99).

¹¹ CL99, CL101, CL102 and CL151

¹² CL3, CL55, CL64 and CL69

¹³ CL80, CL114, CL116, CL163, CL171, CL180 and CL236

¹⁴ CL99 is 'Cadent needs to tell a clearer and broken-down story on RIIO-1 efficiency performance and what it means for the company and customers, in particular in relation to RIIO-2'

Culture

The price control review is an opportunity for Cadent, newly independent, to frame its relationship with its customers, its vision for the future, its offerings, its culture and its strategy for RIIO-2 (CL55). This is particularly important given that Cadent has been the laggard of the gas distribution network companies.

Cadent has responded positively to challenges in this area – CL3, CL64 and CL69 – improving the articulation of its vision for the company and adopting, in line with stakeholder expectations, a more ambitious approach that goes beyond Ofgem’s minimum requirements. In response to challenge, in April 2019 the company revealed its new vision statement “to set standards that all of our customers love and that others will aspire to”. It was evident to us that the Board played a driving role in redefining the strategy and vision, and providing the foundation for a credible customer-oriented plan.

Since then, the company has experienced several months of potentially disruptive leadership change. We acknowledge that the strength of direction from the Board has been important through this period.

The new vision has been built on the feedback from staff engagement and appears to have good buy-in. We have been impressed at the hard work that has been put in to re-orientate the thinking, engagement, analysis and proposals for the business plan around this new vision.

Our conversations with Cadent’s managers have evolved, moving from culture as something that is built into the company, to the difficult journey of embedding it in practice. The cultural transformation challenges it faces to achieve its vision take time and can be destabilising.

We believe the company leadership correctly recognises the need for cultural transformation, as well as operational transformation, and sees addressing these core challenges as underpinning its RIIO-2 ambitions and a part of its plan. The language the company uses reflects a candid assessment of where it is in its cultural journey, the possibilities that arise and the work required for transformation. It has taken time for the company to recognise this (CL151) and doing so is to its credit.

We sense a level of energy in the company that is consistent with the scale of ambition in its new vision statement, in particular for its relationships with customers. The process of redefining the company has only just started but we see a clear intention not just to break from the company’s poor past performance but to become a leader.

The question of culture cuts across a number of themes in the business plan and our engagement with the company. In particular in relation to performance, engagement, benchmarking, innovation and digitisation.

Governance and assurance

Context

Cadent has to improve performance and efficiency, complete its transition away from National Grid, meet and shape the challenge of the energy systems transition and implement its transformation programme in line with its new strategic vision.

Governance and assurance should give confidence that Cadent’s proposals are robustly developed, efficient, aligned with the interests of customers and stakeholders and can meet these challenges. Assurance should be targeted to those aspects of the plan that represent the greatest risk and include independent scrutiny.

Ofgem expects companies to provide assurance about the accuracy, efficiency and ambition of submitted business plans. The RIIO-2 Business Plan Guidance refers to: compliance with Ofgem’s data assurance guidance; the role of the Board and its SIDs; and auditable quality assurance processes to prevent inaccuracies and mistakes.

Our approach and scrutiny activity

The CEG reviewed Cadent’s assurance processes and procedures in three full CEG sessions, two deep dives and review of third-party reports (see appendix 1).

Challenges

The CEG raised four challenges¹⁵ in relation to assurance, all of which have been closed. There has been a good level of engagement with the CEG on this topic.

Stakeholder engagement

Assurance on business plan development is a relatively technical subject and Cadent chose not to engage with customers on it,

although CEG understands the views of customers and stakeholders have informed the risk assessments that have driven its assurance plan.

Initially it was apparent that Cadent had focussed its assessment on risks to it as a business. CEG challenged it to consider the risks to customers and stakeholders and Cadent now includes this in the risk assessment framework for its business plan. It also now explicitly considers customer and stakeholder impacts in its business-as-usual risk management.

During Cadent’s engagement in relation to its “trusted to act for communities” ambitions,¹⁶ issues of governance were explored in deliberative workshops with domestic customers and small

¹⁵ CL71, 183, 184, 185

¹⁶ See chapter 11 of this report.

and medium-sized businesses as well as in-depth interviews with selected large businesses and stakeholders.¹⁷ Customers expect high standards of governance and transparency, in particular in relation to financial matters such as profit, tax and executive pay.

Independent assurance

Cadent engaged with expert stakeholders in constructing and implementing its assurance programme. PwC advised Cadent on the overall construction of its assurance programme and provided second-line assurance during delivery. The CEG has gained confidence from PwC's involvement, having engaged directly with it as part of its review. A benchmarking review by Enzen reports that Cadent has potentially gone further than its peers in best-practice corporate governance.¹⁸

Views on the business plan and associated documents: assurance

The CEG understands and recognises the assurance model and the risk-based approach being used. Assurance activities, in line with good practice, follow a standard "three lines of defence" model which ensures there are additional checks, balances and independent scrutiny in respect of areas that require secondary and tertiary review.

The Board has defined the scope and scale of assurance activities and overseen the assurance undertaken via its audit and risk committee. A statement signed on behalf of the full Board endorses the business plan and states that it has suitable assurance processes.

Cadent shared its thinking on its proposed risk-based approach with the CEG ahead of its July submission. The CEG challenged Cadent to expose explicitly its evaluation of risk and consequent impact on its assurance activities in the plan itself, and in particular how this has led to the use of independent third parties to provide assurance in high-risk areas (the third line of defence, CL71). Deep-dive sessions allowed the CEG to explore and challenge the outcomes of its risk assessment. Cadent developed an assurance plan which appears to address key risk areas.

Cadent has gone some way towards explaining its approach in the business plan, articulating the process and criteria by which it judges risks. It is disappointing that the plan lacks specifics about the actual risks and its consequent decisions on assurance.

The CEG challenged Cadent to explain how it assured itself that its plan would meet Ofgem's requirements (CL183). Cadent responded by including specific mapping (appendix 01.00 Navigating our plan) to where requirements have been met in the plan and also by undertaking specific assurance activity on this point, performed by PwC.

Specific reviews by consultants have provided third-line assurance on asset management processes, costing, stakeholder engagement, cost-benefit analysis, asset risk modelling and financeability. The business plan summarises the

scope, activities and assurance delivered from these reviews. We would like more clarity about how third-party assurance combines with first-line and second-line assurance activities to build up the level of assurance required, particularly over the efficiency and ambition of the business plan.

PwC also provided oversight and assistance across the whole of the assurance programme, undertaking a key role in the second line of defence. It focused on ensuring that controls and processes were implemented as intended, on ensuring complete and accurate business plan data tables and on project management. Cadent has addressed most of its recommendations.

The CEG has not sought to make a judgement on the extent to which third-party providers of assurance are fully independent of Cadent, nor where these parties believe their duty of care lies in respect of their reports. This applies to all assurance processes that are not subject to specific legislation or regulation.

The CEG challenged Cadent to link the assurance it has obtained about costs to the level of confidence it ascribes to those costs (CL184). We reviewed the report by Costain, which provides assurance on costs used to develop the business plan. Its intended scope and coverage (circa 67% of totex) are encouraging and Costain has provided welcome independent validation of sources of cost estimates and the level of confidence Cadent has ascribed to most key investment lines (which is important to support Cadent's view on the confidence of its cost estimates). Cadent has responded fully to interim recommendations. However:

- the extent of detailed audit work is not very clear in Costain's report and it is difficult for us to know what weight to apply to it. It is not clear whether the reports provide assurance about key cost drivers in the plan, e.g. the sensitivity of repex to the assumed rate of insertion is described, but no clear opinion offered on whether the assumed rate is reasonable;
- we have no reason to suppose there are hidden biases in the detailed cost estimates, but we recommend that the quality of evidence in the company's assurance over costs, and in particular that from Costain's work, is considered for further scrutiny to help Ofgem form a view, including evidence from Costain on the level of assurance that it offers.

Risk assessment of the business plan data tables is a core part of Cadent's assurance - evaluating the gross risk; taking into account various factors; and assessing the impact and probability factors. PwC provided assurance over all critical and high-risk data tables and a selection of medium and low-risk data tables. A steering group oversaw a framework to hold accountable the key roles.

In answer to the CEG questions over assuring deliverability Cadent responded with details of its approach, including a senior individual dedicated to evaluating the deliverability of the plan and a structured approach to doing so. This is helpful. We have seen evidence this process has had impact as some of its draft proposals have been adjusted on deliverability grounds.

¹⁷ Research conducted by Britain Thinks July and August 2019.

¹⁸ For example, a report by Enzen in 2019 concluded that amongst the 4 GDNs, Cadent has gone the farthest in terms of seeking best practice based on the UK CGC.

PwC also reported on the deliverability of business plan commitments. The Board has concerned itself with challenging the deliverability of its plan and its proposals, spending time with the management team to evaluate and test its proposals. Further detail on Cadent's approach to deliverability has been included in the plan to address this point.

The CEG challenged Cadent to consider in more depth how it will seek to maintain ongoing assurance over deliverability during RIIO-2 (CL185). Cadent has started to expose its thinking about how such assurance will be organised, including governance arrangements and accountable roles. These arrangements are yet to be finalised and are not fully articulated in the business plan. We think it would be helpful if the Board's ongoing role in this were strengthened and explained, and we recommend this is considered for hearings.

Views on the business plan and associated documents: governance and Board sign-off

Although the CEG does not have a formal role in challenging Cadent's governance processes, we have sought to understand them since good governance is critical to the quality of its plan and ultimately customer outcomes.

The governance feedback, reporting and challenge processes have been presented in the business plan (figure 12.02) and the role of the Board is described. There appear to be appropriate lines of reporting and accountability.

We have attended a number of Board meetings and have been encouraged by the nature of the discussions and the attention given to our views and findings. We have been told about various board-level challenges to the business plan. They appear to enable effective and sufficiently detailed level of challenge. We are encouraged that in some key areas the Board has demonstrated similar concerns to our own. The plan would be enhanced with greater detail about the Board's specific focus in challenging it.

From our analysis, the assurance statements signed by the Board in relation to the business plan appear to be founded on effective governance.



Areas recommended for hearing/further scrutiny

- Scrutinise the assurance provided in relation to costing, including that provided by Costain.
- Cadent to explain its governance arrangements and accountable roles for ongoing delivery of the plan during RIIO-2.



For wider strengths and weaknesses on this chapter see appendix 1.

Our
rating

Giving consumers a stronger voice - quality of engagement

Ofgem area: Giving consumers a stronger voice

Cadent BP: Chapter 5, pages 25-39

Context

The importance of effective engagement is well-recognised and 'improving communication' is a priority for Cadent's customers. We set a high bar for assessing the company's engagement on its business plan and its RIIO-2 strategy,

mindful of Ofgem's request for 'good quality engagement' and higher expectations following stakeholder engagement incentives in RIIO-1. We developed a framework for assessing the company's approach which was based on Ofgem's good practice principles and available best practice (annex 3).

Our approach and scrutiny activity

The CEG undertook a significant amount of review and scrutiny in this area in line with our Principles for Prioritisation. Most of the work was undertaken by our Research and Insight Working Group alongside whole CEG sessions. For detail on our activity see appendix 1.

Challenges made

A total of 38 challenges¹⁹ have been made on engagement, of which 36 are closed, 1 is ongoing (CL93) and 1 is unfulfilled (CL92).

Quality of Cadent's engagement on its business plan

We set out below our principal observations about the quality of Cadent's engagement on its business plan. The impact of these various elements of the plan, together with any specific observations, are set out in the relevant chapter of our report. In addition, annex 3 includes technical reports on Cadent's qualitative and quantitative testing. These assess how the research was managed and inherent issues (qualitative) used and how the findings have influenced the plan.

Cadent's engagement on the business plan

We are assured that the business plan is well-grounded in customer insight with outcomes that current and future customers value at a price most are willing to pay. High business plan acceptability rates from both domestic and non-domestic customers support this.

However, lack of in-house skills, and poor planning from the start of the company's business plan engagement programme meant that there was not consistently high-quality engagement across all business plan areas, nor was engagement as effective as it could have been.

The structured six-phase process for engagement was not applied systematically until spring 2019. Likewise, the use of Maslow's hierarchy of needs as the foundation for its strategic engagement approach was effectively 'retrofitted' in line with the company's new vision, (influenced by the CEG challenge).

Weaknesses in approach have impacted in particular, network resilience, whole systems, fuel poverty, the future role of gas, and risk and uncertainty. Specific details of these weaknesses are included in the relevant chapter.

Cadent acknowledged the weaknesses that the CEG identified and sought to address them. This resulted in substantial improvements to the structure and robustness of its approach.

'Golden thread'

Although early engagement activity was influential in developing this new approach, the insight was not initially well documented. For example, the company did not have a structured or complete engagement log.

As a result, while much improved in the final plan, Cadent has struggled to demonstrate the 'golden thread' - that is, the link between exactly who it engaged with, on what issues, what they said, and how their views influenced subsequent engagement activity and ultimately the final plan.

The CEG was therefore concerned about whether engagement was well-targeted. Furthermore, planning for engagement was sometimes poor, with insufficient time allocated to properly analyse and build on findings or for CEG scrutiny. There was no ongoing feedback loop or effective playback for those who have contributed to the engagement programme.

Research methods and quality

Overall the company adopted a suitably wide range of research methods (16 discrete approaches) with nearly 200 engagement activities, alongside operational insights. Following challenge, it also drew upon good practice and a wider range of third-party insights.

The CEG raised concerns about the robustness of some of the qualitative engagement, which appeared poorly framed, and with customers having insufficient information to give an informed view. We have flagged in our report where this has been material.

Large scale quantitative research including willingness to pay (WTP), business options testing (BOT) and acceptability testing followed best practice and provided robust, influential insight, with some approaches potentially innovative. WTP was used for the calculation of benefits, which has strengthened a number of the company's investment cases, not only for new proposals but also in optimising ongoing asset maintenance and renewal expenditure. This has enabled it to go beyond current accepted gas industry practice. Cadent has also used Social Return on Investment techniques to support its estimates of benefits for some of its proposals, again to a standard that appears to be good practice.

¹⁹ CL4, CL5, CL6, CL7, CL8, CL10, CL16, CL17, CL19, CL24, CL25, CL26, CL27, CL28, CL29, CL30, CL34, CL35, CL37, CL38, CL39, CL42, CL43, CL44, CL45, CL51, CL54, CL56, CL63, CL65, CL66, CL67, CL74, CL78, CL92, CL93, CL94, CL103

There were some weaknesses in implementation of quantitative work (see annex 3): WTP options may have been better-targeted and BOT suffered to an extent from design and framing issues. Where the CEG reviewed its approaches in advance, Cadent generally responded well to challenge. We welcome Cadent's reviews with suppliers and the CEG specialists to ensure that the most significant individual engagement approaches and activities were fit for purpose.

A final quality assurance report was written by Savanta (see appendix 05.06). However, it should be noted this report did not cover the qualitative research on which some decisions are partially based.

Representation and inclusion

Cadent involved 30,000 customers across all four regions, and all socio-demographic groups: a proportionate number and reflective range of customers and staff for the UK's largest GDN. Significant efforts have been made to try to engage a wide range of audiences, although some groups were less effectively involved or engaged than others (future consumers; harder to reach audiences; BAME).

We have challenged the company to strategically map its stakeholders in each region in line with good practice but it has not yet fully done this. Regional preferences were also not always reflected in decision-making though we expect this to change with Cadent's new regional model. The company said it actively looked for regional differences but did not find many.

Ambitious and well-evidenced performance commitments

Initially, quality of evidence supporting the performance commitments was variable making it difficult to judge its ambition. Following challenge, however, most are much improved. The company has more clearly set out its rationale and evidence base for each performance commitment. This includes customer insight and wider research, social return on investment figures, good practice benchmarking, a brief summary of how findings were triangulated, including any conflicting views or tensions. This is welcome. We have flagged in our report chapters where we query the assumptions or interpretations or cannot see if a target is ambitious. However, despite challenge there was little engagement on the choice of performance commitment 'measure', or with expert stakeholders on performance targets to ensure they were stretching.

Quality of insights and triangulation

Cadent has developed a very detailed Engagement Decision Tracker which includes a Robustness Assessment Score and RAG rating. This has been heavily used in the output cases. We also welcome it setting up its Insights Forum, to share and discuss learning across the business and undertake triangulation (CL24). This was observed to be effective in action by the CEG members.

Quality of Cadent's RIIO-2 Engagement Strategy

The CEG reviewed the RIIO-2 Stakeholder Engagement Strategy and Cadent was receptive to feedback. As engagement is not yet embedded in the business and the company has a vision to 'deliver standards customers love', this Strategy is particularly important.

We are broadly comfortable that the approach meets Ofgem's good practice principles. It is particularly positive to see the strategy framed within the company's overarching vision with clear aims and ambition reflecting lessons learned from RIIO-2 business plan engagement. Its "centrally defined, regionally delivered" framing will help it gain the community perspective that has been hard to demonstrate.

A strong governance structure and new roles (Customer Services Director, Regional External Affairs Managers) build confidence it will be delivered. It acknowledges it is on its journey from being 'enthusiastic amateurs' and will need to invest in significant training and bring in new expertise to deliver its strategy. The approach supports the delivery of the business plan commitments so is in practice responding to customer needs and the outcomes they value.

Improved staff engagement incentives, sharing of good practice, encouraging friendly competition between regions is all positive. But performance measures need to be properly developed. Cadent still needs to demonstrate it has systematically mapped its stakeholders. Proactive horizon-scanning to identify future trends needs strengthening. There is potential for more joint company working and more creative use of partnerships. We welcome Cadent's recognition of the importance of data and its intent to maximise its potential but it needs the skills to turn data into meaningful insights.

Quality of Cadent's engagement with the CEG

Overall Cadent's engagement with the CEG was positive, responsive and open. There's no point at which we have felt our independence to be fettered. The CEG chair was able to select CEG members and the CEG has set its own agenda and work programme.

Throughout the process we particularly welcomed frank engagement with the Board who seemed to value our independent perspective on its transforming business. Several Board members, including SIDs attended CEG meetings, and we had opportunities to engage with Board members one-to-one or in small groups meetings, as well as at Board meetings.

We have had good access to staff and consultants at all levels, something we requested to get a better feel for the culture. Cadent has been transparent about its good and bad performance and honest about the challenges it faces. The "no surprises" policy has been effective in practice.

We did experience a number of initial teething problems: insufficient support resourcing, materials not of sufficient quality or appropriately targeted, sessions seemingly focussed more on 'show and tell' engagement rather than discursive scrutiny. However, this improved markedly as our work progressed.

Cadent has generally been responsive to CEG feedback and this is reflected in the high number of challenges closed. Its response to challenges could have been more rapid early in the programme but it took our views seriously and enabled constructive debate about the points we raised.

Our
rating

Net Zero and a whole system approach (incorporating energy system transition and future role of gas)

Ofgem area: Enabling whole system solutions, a consistent view of the future

Cadent BP: Ch.6 -Net Zero and a whole system approach p.40 /Ch.7 (7.4) - Tackling Climate Change - Facilitating the Low Emission Energy System Transition p.96/Ch.9 p.130

Hearing: Recommended

Summary

- ❖ Whole systems thinking is being embraced and embedded across the business with the RII0-2 business plan development process itself providing a stimulus to this. The mutually-reinforcing attention from Ofgem, CEG challenge and scrutiny and the company's own focus have all worked together to improve the quality of reach of whole systems thinking now evidenced throughout the plan.
- ❖ Cadent's stakeholder engagement at national and industry level has been extensive and extending back several years. The company is deeply knowledgeable about the current and future whole systems challenges for its business and for the whole energy system, how to tackle them and which stakeholders to seek to work with to effect whole system changes, be they at local planning; cross-network management; national regulation and policy; technological enablement or on cross-utilities collaboration on street-works.
- ❖ Many of Cadent's activities, partnerships and approaches concerning whole systems are rightly focused on achieving structural change to the contractual, regulatory and practical operation of the whole energy system including improving the information, contractual frameworks and connection methodology for green gas suppliers and removing barriers to timely reinforcement by enabling third parties to underwrite reinforcement. The CEG applauds the company's involvement, partnership approach and appropriate leadership in these areas.
- ❖ Engagement with end consumers on whole systems has been too general, especially in developing and testing options.
- ❖ It has plans to deliver whole systems initiatives as a dedicated area of focus and through its other business areas.
- ❖ Cadent has proposed two outputs 'Enhanced Engagement on whole systems thinking' and 'Off-gas-grid communities trial', the first of which needs further definition to ensure it meets its intended purpose and the second of which needs further scrutiny regarding its scope and validity as a no or low regrets output.
- ❖ Cadent initially struggled with how to bring together the topics covered in this section and which to cover in which areas of its business plan. This is a much improved articulation.

Context

- In this CEG report we address the energy systems transition (placed in the business plan with plans to deliver an environmentally sustainable network in Chapter 7, Our Commitments) alongside future role of gas, whole systems and Net Zero.
- National decarbonisation policy could see the gas network repurposed or (in some views) even decommissioned, in whole or part. But it is not clear when major heat policy decisions affecting investment in and beyond GD2 will be made. At the same time, new user groups have high expectations of Cadent. Meeting their needs requires fundamental changes in operation and financial frameworks. Cadent, like other businesses, is required to prepare for a 'net zero' world.
- This will be transformative, and it may be difficult to assign a cost to specific changes.
- The CEG's broad and deep scrutiny has highlighted work strands on these issues across Cadent and we have encouraged Cadent to ensure it has visibility of them, understands their short- and long-term impact and has brought them together into a coherent strategy.
- These issues have grown in significance and progressively had greater priority from Ofgem in its business plan guidance documents. Cadent's Board has responded to this by taking a direct monitoring role. It has had regular exchanges of views with the CEG through direct contact with the Chair and other CEG members.
- As a result, Cadent has restructured its business plan to bring together (Chapter 6) its whole systems and Net Zero sections, including the future role of gas and potential for hydrogen.
- The CEG has provided consistent pressure to ensure all these themes are implicit in Cadent's plans, even where they may not have immediate implications. In accordance with this, Cadent now discusses many whole systems activities and commitments in other sections of the business plan. The CEG considers this to be positive, helping embed whole systems and Net Zero thinking, as well as long-term future role of gas issues, across the company.

Our approach and scrutiny activity

Scrutiny of these activities and issues has been broad and included deep dives on specific issues, cross-cutting discussions and directed questioning in sessions on other topics (e.g. innovation). It included two full CEG meetings and six FROG meetings, one jointly with FIWG, and a deep dive on environment as well as external meetings. Documentation reviewed alongside business plan drafts included nine appendices and proposed uncertainty mechanisms (UMs), and a suite of external documents. See appendix 1 for details.

Challenges

- 36 challenges²⁰ have been raised and one remains ongoing.

Engagement informing the plan

Energy systems transition

Cadent's stakeholder engagement at national and industry level has been extensive, demonstrating a long-term whole systems approach to the energy systems transition and future role of gas. A golden thread exists from this engagement to RIIO-2 activities, which are overall well-reasoned and justified.

In response to CEG feedback, Cadent made a step change in how it works with new and emerging customer groups, re-examining the customer journey and building in continued engagement over RIIO-2. The CEG has seen a fundamental change in Cadent's wish to respond to these business customers but this is still work in progress. Cadent has committed to develop baseline measures for customer experience and to establish a new governance forum for this customer sector, which is expected to be in place by early RIIO-2.

Cadent has responded positively to CEG challenges on mapping future decision points and strengthening its internal network on the energy systems transition. This should increase assurance over the strength and deliverability of its business plan as decarbonisation policy develops.

In contrast, engagement with domestic customers on the energy systems transition and hydrogen has been limited as Cadent has not wanted to pre-judge government policy decisions and believes practical trials are necessary before customers will be sufficiently informed to comment. The CEG believes that more can be done despite these restrictions.

We have challenged the company to explain these issues to customers and to seek quality feedback on potential solutions. Important issues include managing costs, for example of hydrogen pilot schemes where Cadent favours socialisation. The CEG has urged Cadent to test this with customers. In response to the CEG, it has agreed to explore more deliberative methods used in other industries to capture customer insights.

Whole systems and Net Zero

A clear majority of customers and stakeholders supports whole systems thinking in areas as diverse as improving energy efficiency and minimising disruption from street works.

In our view, the engagement undertaken on whole systems with domestic customers is less insightful than for other customer

groups. Support for individual initiatives has not always been tested or verified.

The CEG has encouraged Cadent to continue to develop industry initiatives on whole systems and energy systems transition and to make use of insight via new customer forums and new relationship managers, discussed at the FROG WG. The CEG is comfortable that the vast majority of the proposed initiatives and commitments have reflected what industry and government stakeholders (local and national) want and need.

The CEG has seen evidence of support from domestic customers for a whole systems approach to fuel poverty and energy efficiency (addressed elsewhere in this report). We are less comfortable with Cadent's proposal for a trial to connect one or two off-gas-grid communities to the gas network (see below).

Views on the business plan and associated documents

Energy systems transition

In response to the CEG challenges, Cadent's mapping of coming milestones in policy development and how they interact (in section 6.3.2) now shows a much more comprehensive and sophisticated understanding.

Cadent, fully supported by the CEG, has developed a customer-led approach to new business customer groups, including anaerobic digestion and peaking plant for electricity generation, and has put in place regular engagement responding to their needs (including reputational ODI on entry-capacity enablement). The CEG welcomes the proposal to establish an entry gas customer and stakeholder forum.

The CEG has encouraged Cadent to be proactive in releasing market information (e.g. redundant tees), and this is now available to customer groups as part of the application process.

Cadent has committed to opening a re-examination of the charging regime and providing a route for third parties to initiate changes in the regime. The CEG has welcomed this response to customer needs.

Cadent has referred to the need for smarter networks (appendix 09.20), with regard both to opportunities (using pressure data to make more capacity available without reinforcement) and requirements (new industry-wide 'smart' standards and frameworks). The CEG would like to see a clearer description of how Cadent will incorporate such 'low and no regrets' actions into nearer-term planning.

Future role of gas

Cadent has been an active participant in policymaking on heat decarbonisation, especially on the potential for hydrogen.

The CEG expressed concern at an earlier stage that Cadent's overwhelming focus on hydrogen as "the solution" meant it was not approaching this challenge in a sufficiently open-minded way. Since then, we have seen Cadent's approach to the future role of gas evolve from 'showcasing the role of the gas networks, and ensuring alternative options are rigorously assessed' (in an

²⁰ CL1, CL2, CL11, CL22, CL31, CL32, CL33, CL40, CL57, CL58, CL59, CL60, CL70, CL76, CL77, CL78, CL79, CL104, CL105, CL109, CL124, CL130, CL133, CL134, CL144, CL154, CL155, CL157, CL158, CL159, CL160, CL164, CL167, CL169, CL202 and CL204

early response to questions), into a holistic approach in accordance with evolving scenarios, including the needs of industrial and transport users and working with Local Enterprise Partnerships.

In the December business plan, following CEG feedback, Cadent has strengthened its analysis of different potential 'end states' for gas and has structured its discussion around Navigant's pathways work, which provided welcome cross-industry consistency. A post-gas heating future for domestic customers is touched on at several points, including the Energy Exchange programme and replacing gas with district heating schemes.

Cadent has also committed to developing a decommissioning plan built on any confirmed comprehensive delivery programme for non-gas alternatives aside from considering volume requirements.

Cadent's discussions with customers about the profound changes this may bring has been limited (see above). Engagement since the July plan suggests customers expect Cadent to take forward hydrogen blending and HyNet without a premium. There is potential for a big gap between company/industry views and those of customers. The CEG has challenged on some specific areas where Cadent could engage but has sympathy for Cadent's view that this is a public debate that needs to be opened up urgently to enable it and other GDNs to move forward.

Under the commitments area 'tackling climate change and improving the environment', Cadent proposes bespoke outputs to facilitate the energy systems transition – entry capacity enablement, flexible reinforcement, connections standardisation (07.04.08), two hydrogen related projects, HyNet North West scale demonstration project and hydrogen blending roll-out to be delivered using SICs or UMs.

Whole systems and Net Zero

The CEG has experienced increasing openness to challenge in whole systems in the course of its engagement with Cadent staff and Board. At board level, the company fully accepts that the future energy system in the UK will be significantly different to the one we have today and that a whole systems approach must be applied at all levels. The mutually reinforcing attention from Ofgem's strengthening focus on whole systems in its guidance, CEG challenge and board-level response has improved the reach of whole systems thinking, as evidenced throughout the plan.

A coherent whole systems strategy now connects this theme to activities across all aspects of the business. Chapter 6 now demonstrates much clearer thinking on an inclusive and comprehensive whole systems approach across business areas and specific initiatives and outputs.

In testing its proposed RII0-2 plans robustly against four potential 'end state' scenarios from BEIS and discussing activities with the CEG and its working groups, Cadent has brought together its own activity, industry-wide initiatives and its approach to working beyond the gas sector, to structure a set of proposals representing a true whole systems approach.

The CEG believes the company now strikes a good balance between strategic industry changes and immediate changes to BAU.

The CEG is encouraged to see Cadent expand the scope of its initiatives on common network planning, building on experience of working with LEPs to create a joint planning office and standardise information sought by networks.

In seeking to establish common data methodologies for utilities and local authorities, the CEG recommends framing work within Cadent's digitalisation strategy, now in its first iteration, and drawing learning for its open data plans.

The CEG challenged Cadent to be proactive in offering information for new customers on network entry and exit capacity and we have seen such information being offered.

Among other outputs:

- A proposal for third parties to underwrite network investments and enable timely reinforcement would benefit society at large. The CEG considers it could have been included in Cadent's CVP.
- We consider that a proposal to extend the scope of the existing incentive governing GDNs booking National Transmission System capacity to include flex capacity should be considered by Ofgem. It has been supported by National Grid (NTS) and the other GDNs. The CEG considers that it is seeking to create an appropriate set of incentives.

The CEG has sought more clarity on other potential outputs:

- We would like to see further work on Cadent's proposal for a common financial ODI for enhanced engagement. Such an incentive could drive desirable behaviours in terms of companies working with external stakeholders, but further clarity and scrutiny is needed to ensure it is scoped and sized appropriately to the benefits it is expected to deliver.
- For the bespoke output 'off-gas-grid communities' trial, presented in appendix 07.04.09, options explored with stakeholders have been framed very narrowly. Based on the material presented in the output case the CEG is not convinced that either engagement in the context of this proposal, or the proposal itself, has adequately taken into account the whole system – either from the perspective of the consumer or through having considered a sufficiently 'whole life' time period during which the move to Net Zero will be required.

Overall, the CEG now finds extensive cross-referencing and evidence of whole systems thinking being embedded throughout the business plan. In discussion with the CEG, Cadent has described whole systems as a consistent 'gateway' across all business activities, for example in assessing innovation proposals.

'Energy Exchange' for multi-occupancy buildings, fuel poverty interventions and support for those in vulnerable situations are wider whole systems commitments included elsewhere in the business plan.

Costs

Energy systems transition

Costs in the energy system transition are uncertain and subject to policy change. Cadent presents a range of costs up to £300m, but that depends on directions from Ofgem and government, and bill impacts could be zero in RIIO-2.

With support from major customers, Cadent has investigated the use of hydrogen but expects that within RIIO-2 the next steps will be funded once government policy decisions have been taken. These may include (in Chapter 7, Our Commitments) £25m for hydrogen blending (HyDeploy phase 2) and £250m as part of a CCUS/hydrogen cluster (HyNet NW), or a more comprehensive reopener including these two projects (£162m).

The CEG considers the cross-cutting issues highlighted by Cadent to be well-chosen and its choice of projects (HyNet) to respond to business customer concerns. It also welcomes Cadent's response to the CEG on a broader exploration of its role in later stages (see chapter 12 on competition).

Most foreseeable costs are volume driven and Cadent proposes a flexible revenue driver for reinforcement required by peaking gas generation and volume drivers to accommodate changing requirements for reinforcement.

Smart systems were presented in the October plan in the GD2 period but this potential 'low regrets' step has not been further explored. The largest associated cost identified is installing sensors and smart devices, where Cadent proposes to part-fund (£5.67m of £26.46m) to test the applicability of technology being applied elsewhere. It plans to fully fund (£2.99m) a 'digital twin' of its network as part of the digitalisation strategy. The CEG has not seen engagement over this step towards the energy system transition and Cadent should set out its plans in this area, including how it can use its new customer engagement routes while ensuring that trials are designed in co-ordination with customers.

Whole systems and Net Zero

Relatively small costs are associated with the strategic whole systems activities, 'Whole systems solutions – network related' output (£0.5m p.a.). The cost for the proposed trial to connect off-gas-grid communities (07.04.09) is relatively small (£2.9m, of which £2.3m is being sought from innovation allowances with the remainder from opex cost).

Deliverability

In light of the uncertainty regarding heat policy in the UK, and its potential distributional impact, the CEG has challenged Cadent to strengthen its internal network holding a 'watching brief' on the future of gas so it can fully understand how any proposals affect aspects of its plan such as the need for reinforcement.

Cadent's Board has taken strategic ownership of Net Zero commitments and whole systems thinking. The CEG believes this is partly in response to the feedback it has provided through its Chair to Cadent's Board.

A new Board sub-committee will monitor progress, assess and refine engagement and Net Zero action plans, while published reports (annual safety and sustainability report, environmental action plan report) will provide further scrutiny and delivery assurance.

CVP

Our detailed comments on Cadent's CVP and the assessment of whole system components are in appendix 2. In brief: CEG believes the CVP for connecting off-gas-grid communities requires broader assessment of costs and benefits.

Disagreements and areas recommended for hearing or further scrutiny



- The costs upon which the justification for the off-gas-grid community trial is based do not take full account of capital costs that would be borne by consumers in switching their heating systems to gas. It is also not clear that this would result in a no- or low-regrets outcome for customers.
- It would be useful to consider for hearings how far Cadent should engage with customers in advance of policy decisions on the future of heat and has it struck the right balance in getting consumer support for current programmes, while maintaining a 'no regrets' approach and one that acknowledges a range of different network futures.
- The proposed common financial ODI on enhanced engagement on whole systems is not presented as incurring any costs. However, a proposed incentive of up to £9.6m p.a. warrants further scrutiny on the level of reward, impact on customers and ability to promote collaboration.

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating

Cadent's Consumer Value Proposition

Ofgem area: Consumer Value Proposition

Cadent BP: Our commitments Ch.7 p.57

Hearing: Recommended for all companies – see appendix 6

Summary

- ❖ The CEG's view on the CVP is somewhat more nuanced than the 'strong support' for Cadent's approach stated in the company's business plan.
- ❖ While we disagree with a number of proposed outputs suggested for inclusion in the CVP, we recognise that the company has authentically sought to identify and find ways to unlock value for consumers in what it understood was the spirit of the CVP initiative and in line with its vision to deliver 'standards that all of our customers love and that others aspire to'.
- ❖ We consider Cadent's understanding of how to approach this was reasonable in light of Ofgem's guidance and that its attempt to reframe the scope of its activities and its responsibilities to secure real value for consumers is credible.
- ❖ This chapter should be read alongside appendix 2 which evaluates each CVP element.

Our approach and scrutiny activity

In October/November the CEG looked at Cadent's overall approach to the CVP and the methodology adopted to calculate the current and future value to consumers and society. This included deep dives into each of the elements that made up the CVP, a short session on CVP bill impacts and interactions with other incentives, and a review of appendix 07.01.

Challenges

- There were no formal challenges recorded on the log given the late publication of the CVP guidance but feedback was provided to the company and the impact recorded in annex 1. With more time we suspect Cadent would have further refined its approach.

Context

The CVP is part of Ofgem's business plan incentive (BPI), identified as Stage 2 for those companies that passed the Stage 1 minimum requirements test. The CVP is intended to reward more ambitious and innovative plans and relates to additional value offered by the plan beyond the minimum requirements and beyond the functions typically undertaken as BAU. It is an invitation to companies to identify and unlock new value for the consumer. Ofgem's guidance provided some examples of such value.

Interpretation issues

In developing its CVP, it emerged that Cadent had some difficulty interpreting how the incentive would work. In this, we have some sympathy with the company. The energy network regulatory regime has a long tradition of strong incentives for cost savings but a less well-developed tradition of appreciating what customers actually value. Given this, it would not be surprising to find substantial additional value that companies can deliver by going beyond the functions they typically undertake. We understand the general principle that input and output incentives should be aligned for outperformance against ex-ante expectations. The novel feature of the CVP is that Ofgem's

stated methodology for calculating the CVP reward²¹ is structured to reward those ex ante expectations in the same way.

If Ofgem's stated methodology were to be used, the overall cap for the BPI would not accommodate the reward that would be available for the level of consumer value that Cadent believes it can unlock.

The Cadent team explained to us it does not believe Ofgem is intending to apply a systematic percentage of the proposed CVP as a reward in this way. Cadent has assumed that Ofgem will take a view of the overall quality of the plan alongside reviewing the CVP to determine what quality reward they wish to propose that consumers should fund. Hence Cadent has included elements in the plan which it believes meet the criteria for inclusion in the CVP and set out a best view of customer value (through social return or willingness to pay) without assumption of how the BPI reward will be determined.

The CEG considers Cadent's response is understandable and appropriate.

To support the intention of the CVP we have developed our own assessment criteria which in some respects go beyond those described by Ofgem. It should be noted that given the relatively recent publication of the CVP guidance, discussions with Cadent were still underway when the company finalised its business plan and we had not shared and had the opportunity to discuss our full evaluation criteria.

Commentary on the approach

Cadent's outlined CVP has an estimated monetised consumer benefit of £829m in RIIO-2. Its projected cost to achieve this benefit is £236m, resulting in an NPV benefit in RIIO-2 of £536.8m. This is based on its calculations of the social return on investment (SROI) delivered (£403.8m) and more traditional cost benefit analysis (£421.3m) using customers' willingness to pay values to determine benefits.

²¹ Paragraph 5.22 of the RIIO-2 Business Plan Guidance

Cadent has identified but not included in its headline amount the value arising in RIIO-3 and value it associates with its uncertainty mechanisms.²² We have also expressed concerns about the evaluation of consumer value in uncertainty mechanisms since we do not consider they highlight risks to consumers of which Ofgem would not otherwise have been aware (consistent with the example in Ofgem's guidance).

The CVP includes components that have been quantified in monetary terms and some that haven't. The net value of those that have can be summarised as follows:

CEG review of CVP components

The CEG considers that Cadent has undertaken a systematic

	£m	
CO awareness	22.5	education initiative
Fuel poverty	61.3	advice and interventions
Community fund	27.2	donations out of profits to Cadent foundation
Time bound appointments	109.1	4/2-hr slots for restoration or connection of gas
Personalised welfare	120.8	welfare services for customers in vulnerable situations during supply interruptions
Entry capacity enablement	51.9	promote regulatory change to facilitate new sources of green gas on the network
Strategic efficiency initiatives	155.0	
Other	-11.0	
Total	536.8	

process to draw from its customer research and SROI analysis areas that promise the potential for consumer benefits and to identify initiatives that could start to unlock that value. These include a number of relatively innovative and ambitious proposals that warrant recognition.

Following challenge, before finalising the plan, the company removed seven outputs that were originally included in the CVP: Fuel Poverty Network Extension Scheme; volunteering; matched giving; charitable partnership; zero waste; non-MOBs interruptions; and inclusive service. We considered that these commitments did not go beyond minimum requirements or functions typically undertaken an energy network company.

There are 26 component parts to Cadent's CVP, of which 16 are monetised. For clarity, we do not support any of these elements receiving a reward at the level Ofgem's methodology implies.

However in total we:

- support the inclusion of seven of the monetised (valued at £99.4m) and two non-monetised elements (one of which Cadent included in its monetised list);
- recognise there may be consumer value added in four further monetised (valued at £140.5m) and two non-monetised elements, but recommend these should be subject to further benchmarking or scrutiny;
- acknowledge Cadent's intentions in including two monetised (valued at £136.3m) and two non-monetised elements as part

of its wider value-adding package, although our support for explicit rewards would be qualified;

- disagree with three monetised (valued at £160.7m) and five non-monetised elements.

Our evaluation of each CVP element is in appendix 2.

We have also not seen evidence of how Treasury Green Book criteria on distributional impacts has been fully applied in the SROI calculations. The company has outlined the impact on vulnerable and future consumers in its output CBAs, consistent with Ofgem's guidance, but not wider customer segments or different regions.

In deciding what is appropriate to include, the CEG has built on Ofgem's suggestions and considered the following additional criteria for excluding activities that:

1. Are effectively complying with regulatory or policy requirements or expectations e.g. improving compliance with disability legislation on access or fuel poverty network extension scheme – unless the target or activity goes significantly beyond expectations;
2. Deliver service quality levels that fall below industry benchmarks for what good looks like, even if the service levels are significantly higher than the company's existing levels and delivered at the same or lower cost;
3. Are already BAU for Cadent or other utilities even if they go beyond statutory minimums;
4. Are activities consumers would expect from any efficient modern company e.g. stakeholder engagement, innovation and data strategies (especially when customer money has already been spent to catalyse change in these areas and this is practice that it is expected to be embedded);
5. Are activities where the company has commercial or reputational drivers to deliver them;
6. Where it could result in the company being rewarded twice, e.g. if they will receive a reward under a proposed bespoke financial ODI or if the company has already been funded by innovation funding;
7. Are not supported by customers, unless there is a wider public interest argument for their delivery.

The CEG is also aware of the inevitable limitations of research methods. We have no reason to doubt that methodologies have been adopted or that the data acquired has been processed in ways that are consistent with good market research practice. We are, however, unclear whether such practice is robust enough to impose upon customers the obligation to pay a sizeable percentage of the implied value.

Areas of disagreement

Cadent does not agree with all aspects of the CEG's CVP assessment. See appendix 2.



For wider strengths and weaknesses on this chapter see appendix 1.



²² Cadent has sought to follow Ofgem's guidance in relation to uncertainty mechanisms

Our
rating

Providing a quality experience for all (includes customers in vulnerable situations)

Ofgem area: Meeting the needs of consumers and network users

Cadent BP: Our commitments Ch.7 p.70

Hearing: Recommended – PSR conversations and fuel poverty proposals

Summary

- ❖ Overall this is a very welcome set of proposals which responds to current and future customer need and delivers notable SROI.
 - Two-hour timed appointment slots; early GSOP payments; 15-minute connection quotes; a multiple occupancy buildings (MOBs) scorecard; a bespoke ODI measuring responsiveness to enquiries; and proposals to repair and replace appliances, are all among a suite of proposals that are seemingly either good practice or innovative for the sector.
 - The proposals on inclusive and accessible service will bring the company up to the standards of other GDNs and there is an aspiration to go further.
 - The company is demonstrating leadership and collaboration with its cross-sector fuel poverty funding pilot and its aspiration to create a common Priority Service Register (PSR) for not just water and energy but also telecoms.
 - On multiple occupancy buildings (MOBs) there has been an improved commitment, however, for both MOBs and non-MOBs, further scrutiny by Ofgem is needed of interruptions targets.
- ❖ On consumer vulnerability proposals, there is strong support from expert stakeholders but customer support for ambition in some areas is less certain.
- ❖ Subject to confirmation of the CBA, we see merit in a targeted whole-house approach to tackling fuel poverty which reportedly results in a 70% increase in households helped p.a., at lower cost than in RIIO-1. But the CEG has mixed views on whether the FPNES target is high enough – some think this is appropriately low given the low carbon agenda and value for money of other measures; others feel this is not justified.
- ❖ The proposal for 2m direct conversations represents a four-fold increase but there are again mixed views on whether this is the most effective approach. We encourage Ofgem to explore whether the ambition is supported by customers or the SROI is well-founded given it is based on a 60% registration rate onto the PSR.
- ❖ The CEG has confidence in the deliverability including strong Board commitment reflected in nomination of Board vulnerability champions and a commitment to undertake engagement to hear first-hand from Cadent's customers.
- ❖ Cadent recognises that there is more work to be done on non-domestic vulnerability.

Context

- Of Cadent's 11m domestic and business customers c.1.5m households are in fuel poverty (58% of the UK's fuel poor) and 6.2m are eligible for the (PSR). Customers don't tend to have much contact with their GDN but when they do the impact can be critical especially when it is linked to gas safety or interruptions.
- Cadent has performed worse than other GDNs on customer service, household connections, fuel poverty network connections and interruptions for customers in MOBs. These were consequently priority areas for the CEG.
- Over the last year we have seen a step change in ambition and, with the new Customer Strategy Director role, a more 'can do' attitude. Its new vision to deliver standards customers love and others aspire to is part of a genuine desire to improve performance and become more consumer-centric. Cadent acknowledges past failings and has a realistic understanding of how far it needs to go to deliver its ambition. Rising customer satisfaction ratings, a new Insights Team, improved governance, increased staff incentivisation on customer service, embedded mechanisms to capture and respond to customer insights, and organisational restructuring, all give us greater confidence in the deliverability of these proposals and trajectory generally.
- Supported by CEG challenge, Cadent has adopted consumer vulnerability as a flagship area and we welcome the focus on service 'for all' recognising that any customer can become vulnerable, especially when without supply. Cadent has started to move from an organic approach to safeguarding and fuel poverty led by passionate individuals, to a systematic and strategic approach reflected in its new strategy including accessibility and wider affordability.
- Our comments on the CVP elements related to this chapter are in appendix 2.

CEG scrutiny and approach

We prioritised this area under our principles of prioritisation. On customer service we had a particular focus on areas of historic poor performance including MOBs, given in recent years, the drop in service levels, public focus following Grenfell,²³ and HSE enforcement action. On consumer vulnerability, before drafts of the business plan were available, we reviewed and fed back on the company's current practice and early thinking against our consumer vulnerability good practice framework (available on request). Later we scrutinised the three business plan drafts, with deep dives into all the associated output cases and reviewed the consumer vulnerability and customer strategies. We also had a MOBs site visit where we met the Network Director of the London network and visited two MOBs sites where work was underway to better understand the issues and challenges. Further detail of our scrutiny activity for this area is in appendix 1. Encouraged by CEG challenge we have seen the company adopt an increasingly robust strategic approach over the last 18 months, with much better articulated and justified proposals.

Challenges

- 34 challenges were made on consumer vulnerability related issues of which 31 are now closed, 1 ongoing²⁴ and 2 unfulfilled.
- 51 challenges on wider customer service issues (including 15 on MOBs²⁵) of which 3 are ongoing and 2 are unfulfilled.
- CEG impact in this area is outlined in annex 1.

The company has been receptive to feedback. For example, we commend Cadent for making immediate improvements where they could to CSAT, improving the accessibility of its website, monitoring complaints and satisfaction broken down by additional needs codes.

Stakeholder engagement informing the plan

- Overall, with a few exceptions which are highlighted, the CEG believes the proposals reflect a customer need or specific feedback and insight, and have considered customers willingness to pay. Cadent has a robust evidence base.
- The exceptions include FPNES connections, as more ambitious targets do not appear to have been tested and the proposal for 2m direct conversations on the PSR and partnerships.
- A wide range of insight has been used to understand customer needs and preferences: excellent use of operational data and learning; bespoke quantitative (willingness to pay (WTP), business options testing (BOT) and accessibility testing) and qualitative research; use of cross-sector benchmarking, including in retail markets; and expert consultation. The company has also used third-party insights and commissioned new analysis.
- Through discussions with Cadent, we are comfortable that the approach captures views from a relevant cross-section of

domestic and non-domestic customers, staff and key community stakeholders, as well as from non-domestic customers, utilities, generators, building owners, and wider stakeholders (local authorities, HSE and subject experts).

- The initial lack of strategic approach to engagement means Cadent suffers from not being able to tell its story well. Without engagement logs from the start we are aware it has mapped customers and stakeholders but the business plan does not clearly outline who it has engaged with, on what issues, what they said and how it has responded. This is better, though not fully articulated, in the output cases.
- A reasonable list of stakeholders engaged with has been shared with the CEG but we have had weak visibility of what was asked, what customers thought or how issues were addressed.
- The company appears to have good relationships with those groups it engages with but needs a more strategic view and we have no evidence of systematic mapping in practice, including regional differences. It will be important for the proposed partnership strategy to address this weakness.
- We have less confidence in the quality of insights from customer workshops on consumer vulnerability, based on six sessions we observed. Sessions were poorly framed. Customers had insufficient time and information to give informed views – we advise caution in using the insights (See annex 3 – observation sheets available on request).
- BOT testing showed a substantial proportion of customers were against investing in improved performance, even if on average they may have been willing to pay. This is reflected in changes to Cadent's approach e.g. on interruptions (see below).

Views on the business plan and associated documents

Overall, we acknowledge the improvements made over the last year and welcome the customer strategy. Cadent's understanding that 'there is no such thing as an average customer' and steps to embed the needs of different customers into customer service are particularly positive. The work was done, but the business plan does not clearly map its domestic and non-domestic customer segments, customers' journeys and experiences and how proposals will improve this. We feel it undersells the thinking that has taken place.

Cadent is proposing a large number of bespoke ODIs – on the basis that what gets measured gets done. These fit within a strategic programme of organisational improvements.

Setting standards that all customers and stakeholders love

We support the proposals under this theme which are well grounded in customer insight, with feedback from experts and benchmarking considered. In many areas proposals will simply bring Cadent up to current GDN good practice (e.g. inclusivity measured against an independent standard, stakeholder

²³ Service levels for MOBs customers dropped significantly in the aftermath of the Grenfell tower tragedy, with volumes and durations of supply interruptions increasing sharply. Total interruption minutes in North London MOBs nearly doubled between 2016/17 and 2017/18.

²⁴ Vulnerability only challenges: CL11, CL15, CL18, CL21, CL50, CL68, CL89, CL90, CL91, CL92, CL95, CL96, CL186, CL228, CL229, CL230, CL231, CL231, CL232, CL233, CL234, CL235, CL236, CL237, CL239, CL238, CL240, CL241. Cross cutting challenges: CL25, CL29, CL39, CL70, CL103, CL159

²⁵ Quality service for all challenges excluding vulnerability: CL9, CL12, CL14, CL20, CL41, CL47, CL48, CL49, CL52, CL53, CL87, CL117, CL118, CL119, CL120, CL121, CL122, CL125, CL126, CL127, CL128, CL129, CL130, CL131, CL132, CL142, CL143, CL153, CL189, CL190, CL191, CL192, CL206, CL207, CL208, CL209, CL210, CL212, CL213, CL214, CL215, CL216, CL217, CL218, CL219, CL220, CL221, CL222, CL224, CL225, CL244

satisfaction surveys, monitoring complaints and satisfaction broken down by PSR categories). However, in some areas it appears it may go beyond current standards e.g.

- The approach to connections has a focus on industrial and commercial users which is a gap under CSAT (and is an area identified as low satisfaction)
- Proposals have a strong focus on improving the process at the start, rather than after a problem has emerged e.g. a quote within 15 minutes when the current average is three days.
- Cadent's bespoke output to establish and report on a measure for responsiveness to enquiries – which mirrors the complaints ODI
- MOBs balanced scorecard

We cannot comment on the ambition of the target levels for CSAT, complaints and enquiries handling as they are not set yet.

Domestic connections

A strong focus on this area is welcome. Cadent connects around 30k customers a year. Insight shows this is an area of historical underperformance, with regional variation; one of relatively low customer satisfaction, especially for non-domestic customers including IGTs and UIPs; and one that a staggering 92% of staff felt could be improved. Cadent led a review of its end-to-end process in 2017 and business plan proposals outlined have been tested by pilots rather than through BOT.

The CEG challenged Cadent on whether the chosen outputs would drive the right behaviours, would improve the whole customer journey or could be delivered earlier. Cadent's responses give us confidence that they are thinking holistically about the connections experience. Customer satisfaction has increased significantly in pilot areas.

Cadent proposes two new outputs on connections: 15-minute quotes (on-line or over the phone) and a site manager visit within three working days. We challenged Cadent to explain the 15-minute quotes when the main areas of customer dissatisfaction were time to schedule work, reinstatement and excavations, and overall communication during work.

Following discussions with Cadent, we are satisfied the approach fits within an end-to-end process of improvements. The London pilot indicates the new approach is improving customer satisfaction.

Keeping the energy flowing

Unplanned interruptions

Feedback indicates customers want Cadent to focus on minimising incidents, reducing the time off supply and improving communication and support when it happens. Cadent's networks are either on par or behind other GDNs for the average duration of unplanned interruptions.

- Cadent has complied with Ofgem's preferred interruption measure by proposing minimum standard average durations for unplanned interruptions in RIIO-2, with all categories aggregated (other than London MOBs). In doing this, it has taken account of reported performance in all of the GDNs. It

has also outlined a proposal for a reputational ODI on "likely" average durations, disaggregated between MOBs and non-MOBs. It is difficult to assess Cadent's proposed minimum standard targets since it is clear that they have been constructed with a view to mitigating the potential perverse impacts of this measure. So while the CEG feels that these minimum targets may be too cautious (as they compound cautious assumptions), we understand that this is in large part driven by the design of the incentive. We agree with Cadent that this proposed measure does not "deliver the outcomes required by customers" and would encourage Ofgem to explore this further.²⁶

- We welcome the package of measures for customers off supply and in particular automatic and early payment of GSOP money which acknowledges the challenges many customers face with additional costs
- There was WTP for reduction in interruptions but the appetite for this was less clear via BOT. As a result Cadent opted for a lower target, a 10% reduction in duration at no extra cost.

Non-MOBs

- Cadent's proposed "likely" average duration targets for non-MOBs customers equate to a 10% reduction over RIIO-2, starting at a point equal to the best of the most recent four years. Cadent consulted customers on these targets (WTP, BOT). There was no conclusive evidence that customers wanted Cadent to go much beyond current performance levels and spend extra on reducing average interruption durations, so the company set a level it believes is achievable without additional funding. However, we have some concerns about the robustness of the BOT insight. Proposals to reduce interruptions length were tested over a narrow range and framed against differing current performance levels. Cadent says this is due to delivery limitations. Analysis lacks nuance and it is not always obvious evidence of different types has been appropriately weighted. There appears to have been little exploration of whether substantially better performance on interruptions would be cost beneficial.
- Cadent's target number of non-MOBs interruptions represents a 17% reduction by the end of RIIO-2 from the average in 2015/16 to 2018/19. The number is primarily driven by Cadent's iron mains replacement programme (IMRRP). We are not in a position to provide assurance over Cadent's ability to deliver its expected outputs on the basis of its IMRRP modelling, but its asset investment model should be well calibrated given the detailed asset data and years of operational experience that underpins it.

Multiple Occupancy Buildings (MOBs)

- We have seen a focus and commitment from Cadent to 'transform' performance in this area, especially following the Grenfell tragedy, both in managing MOBs and serving the needs of MOBs customers.
- After several rounds of challenge (CL87, CL125 & 126), we are satisfied that Cadent has developed a multi-pronged strategy that aims to reduce interruptions for MOBs residents and their

²⁶ Cadent has suggested that a measure along the lines of that used in electricity distribution may be applicable in gas distribution. This measure has the benefit of identifying the likelihood and average duration of an interruption separately, and could avoid the difficulties caused by aggregation across MOBs and non-MOBs (and potentially major incidents). It seems to us that this is worthy of further exploration, whether in time for RIIO-2, or potentially for introduction on a trial basis during RIIO-2.

impact, and that this is underpinned by a structured stakeholder engagement plan. Following challenge by the CEG (CL192), Cadent has set out in appendix 09.04 how it is innovating to improve MOBs customer service, identifying developments in information systems, organisation and culture, stakeholder engagement, technology and regulation.

- The CEG challenged Cadent to reframe the challenges it faced through a customer lens and to develop an engagement strategy around MOBs as this was a key barrier to improved performance (CL131). Appendix 9.04 identifies a number of planned engagement activities for RIIO-2 (under the heading of "Maintaining strong stakeholder management"). We are pleased Cadent has adopted a more structured, strategic approach, including a dedicated MOBs management team.
- In relation to MOBs, in West Midlands and East of England the basis for the average interruption duration targets is the same as for non-MOBs, whereas in North West, the proposed target is flat since Cadent considers its performance to be relatively strong with less opportunity to improve further.
- For London MOBs, Cadent is aiming to restore the average interruption duration to its 2015/16 level by the beginning of RIIO-2 (a 40% reduction from 2018/19) and then reduce this by 1% per annum. We have challenged Cadent to demonstrate why this is an ambitious target, given the ongoing work on London MOBs such as innovative techniques to allow risers to be repaired rather than replaced, and developing building-specific plans in conjunction with owners. This may be an area that would benefit from further Ofgem scrutiny.
- Cadent's forecasts of *interruption numbers* for MOBs are a product of its modelling, in this case of major riser interventions. Appendix 09.04 clearly sets out the options considered with a robust case for an approach which strikes a fair balance between safety, reliability and affordability. This option also reduces by 10% the expected number of interruptions during RIIO-2.
- However, the extent of engagement with MOBs customers on interruption targets was limited, so it may be a stretch for Cadent to claim that its proposal is backed by customer views.
- Cadent's proposal for a MOBs balanced scorecard is possibly unique amongst GDNs but is also needed given historic performance. We therefore support this reputational ODI.
- We draw confidence that Cadent's proposals are achievable from the deliverability plan (appendix 9.04 and appendix 7.00) and the company's action (a dedicated MOBs team and expanded surveys). Cadent thinks its MOBs targets for interruption *durations* are ambitious given the problems encountered over the last few years, which would imply delivery risk. However, Cadent needs to do more to explain why this is the case.

Minimising disruption proposals

Cadent's engagement and third party insight shows that customers strongly support minimising roadwork disruption. The length of time that reinstatement takes is also a major source of complaints.

Private reinstatement

- The three day target for private reinstatement strikes a good balance between speed and quality of work, both of which were important to customers. It goes beyond the regulatory requirement of five days, has been tested with customers in WTP, BOT and acceptability testing, and was seen as stretching. Cadent also picked up related feedback points about improving communication around reinstatement, which customers stressed.

Two-hour time-bound appointments

- We welcome proposals for two-hour time-bound appointments. This is supported by customers. We understand that while it is being proposed by NGN, no GDN currently offers this (though some electricity network companies do). We acknowledge that certain companies charge for one-hour slots. Cadent says that a target beyond 90% is challenging due to operational constraints resulting from its emergency response responsibilities.

Street works

- We strongly welcome the focus on streetworks given the public interest in this area. But Cadent has to develop ways to measure progress against its outputs for: **coordinating with other utilities, and providing better roadworks information**, which are appreciated and expected by customers.
- Following CEG challenge it has explicitly committed to do a 'bronze, silver, gold' tiered type response on interruptions which draws on its award-winning approaches to roadworks. This recognises that the impact can be more substantive in some areas than others e.g. commercial centres, tourist sites. However, there is still potential to be more innovative in this area. We'd encourage further exploration of the level of commitment to this.
- Plans for exactly how Cadent will collaborate with other utilities to reduce roadworks disruption are not clear. It will vary by geographical location and other parties' willingness. During a workshop, Cadent employees pointed out barriers to achieving this which we have not seen addressed.
- We have seen little evidence of a focus on high-street retailers and those with disabilities who can be particularly negatively impacted and have encouraged Cadent to address these groups' needs more fully in the future.

Our
rating

Supporting customers in vulnerable situations

Cadent's approach covers the three main areas of consumer vulnerability - access, protection, and affordability - and builds on lessons learned in RIIO-1 and good practice. It also responds to customers' desire that Cadent offer support to all fuel poor customers, not just those off the gas network.

Identify and recording additional needs – mixed CEG views

- We support the focus on raising awareness of the PSR – this responds to stakeholder concerns and customer need - but have mixed views on whether this is the right approach.
- Cadent's two million conversations are intended to be dedicated face to face interactions in addition to its regular PSR awareness activities, for which it will absorb the costs. It would be helpful to get explicit commitments on these BAU baseline activities which we understand already include more innovative approaches e.g. billboard campaigns.
- Customer support for the initiative was mixed with some support in deliberative work but the main BOT survey suggested less ambition. The net benefit is positive but marginal (8p per £ spent) based on a WTP study conducted for DNOs. RIIO-3 benefits increase this (£1.45 per £). Values may be below this estimate as the basis of 60% conversion to PSR registration sounds ambitious.
- The target is stretching – a four-fold increase over five rather than eight years. The company has a welcome vision to ensure everyone who should be on the PSR is registered within two price controls (allowing for transient vulnerability). However we query the 60% referral rate on which the SROI is based. If accurate it would result in an impressive c. 1.1m households being referred onto the PSR.
- The CEG had mixed views on whether a 'PSR conversation' was the right approach. Some members preferred a more outcomes-based commitment such as referrals onto the PSR which they believe incentivises the most cost effective approaches. We considered whether a measure that reported the number of customers that received services in practice would be better but wider research indicated customers liked being on the PSR 'just in case'. Those who supported the proposal said it is hard to track registrations and a focus on registrations can have unintended consequences, recording the wrong people on the PSR. They cited the advantages such as sufficient time to have deeper conversations that can also focus on wider advice. One member suggested a combination approach. We challenged Cadent to demonstrate how it would monitor if the approach was cost effective. This is an 'ongoing' challenge and worth further scrutiny.
- We challenged the company to consider whether it should set up its own PSR. It has convinced us that it is better to strive for a single PSR database (or one-stop-shop for vulnerable customers). In RIIO-1 it took commendable leadership in aligning PSR codes across energy and water. In RIIO-2 we

praise the company for continuing this role with an ambition to work cross-sector to align PSRs in energy, water and telecoms.

Training – all support

- The CEG strongly welcomes vulnerability training as a standard module for all frontline staff. This has high support from customers and brings Cadent in line with GDN standard practice. The company has a reputational ODI to train around 2,700 of its 3,000 frontline staff each year. We particularly welcome that following a review of good practice (CL68) this will be tailored to staff roles and delivered face-to-face in workshops. All staff also receive desktop training and meeting different customer needs forms part of staff induction. Following challenge the CEG was assured that all contractors and third parties also have to meet vulnerability training standards.

Fuel poverty – mixed views on FPNES target

- Cadent has proposed a whole-house solution to tackle fuel poverty comprising 6,250 FPNES connections, 25,250 income and energy efficiency advice conversations and 5,000 in-home interventions alongside a funding pilot. This approach clearly builds on learning from RIIO-1.
- All CEG members see merit in this holistic approach which is supported by many stakeholders and is in line with fuel poverty good practice. Customers had mixed views in quantitative research, and consequently Cadent modified its ambitions. We have reservations over the quality of customer workshops.
- Importantly this responds to customers' desire that all Cadent customers in fuel poverty should be able to receive support, not just those without a gas connection.
- We challenged Cadent to demonstrate why this was the right approach especially as it is pushing against Ofgem's regulatory framework. It says that it will result in a 70% increase in the number of households helped each year, with the intention that 36,500 will be lifted out of fuel poverty over the price control period (which the FPNES did not guarantee) delivered at a £0.46m p.a. lower cost.
- The CEG questioned the quality and £250 cost attributed to advice provision. The calculations are based on an existing trial with Citizens Advice and Affordable Warmth Solutions. We are assured that this is end-to-end face-to-face advice, including energy efficiency and benefits entitlement checks, which follows good practice and not tick-box advice. However, the SROI is based on 60% of customers acting on advice, which we query. In practice, there will be overlap between PSR awareness and fuel poverty.
- There are mixed views in the CEG regarding whether the FPNES connections target is high enough. The number of FPNES connections proposed for RIIO-2 is significantly less at 6,250. While we acknowledge the impact of change of eligibility criteria, and future policy uncertainties, given the 2.2m households off the gas network in its region, of which the company says half a million are eligible for FPNES, some members think this is unambitious, especially as in-home

works will enable more households to access the scheme. Others believe that a lower FPNES connection target is appropriate given the low carbon agenda and the availability of more cost effective measures. We flag that the move away from gas connections to lower carbon solutions is also at odds with the rationale proposed for off-gas-grid communities.

- It is worth noting that the number of FPNES connections does not appear to be in isolation by BOT and there is willingness to pay more. The company said it modified its target down due to deliverability constraints. We encourage Ofgem to explore this further.
- Cadent has proposed a 'Targeting customers in Fuel Poverty' bespoke ODI to encourage better targeting of support to those most in need (a clear customer concern). The baseline and practice have to be developed and we will scrutinise these during 2020.
- We support the company's approach to not provide less support in the West Midlands due to lower willingness to pay as this would result in a postcode lottery for provision.

Innovation and leadership

- In addition to the fuel poverty whole-house approach and Cadent's ambition to align PSR needs-codes across water and telecoms, we highly commend the pilot to pioneer a new approach to fuel poverty funding in England, which will help to inform government policy. This is innovative, collaborative, proactive, responds to a clear need, demonstrates leadership and is cross-sector. It is also at no additional cost to customers (bar any CVP reward).

Carbon monoxide awareness

- In the absence of government action, there is very strong support from customers and stakeholders for Cadent having a key role in this area.
- Proposals to deliver 3m alarms are around a 3000% increase on its RIIO-1 delivery target (105k) and this will be delivered in five rather than eight years.
- The approach builds on experience and innovation from RIIO-1 and reflects the need identified by current delivery where Cadent had to 'throttle back demand'.
- We note that the net benefits attributed to the proposal (based on SROI) are negative in RIIO-2 (50p per £ invested), although they become positive (20p per £) if benefits in RIIO-3 are included.
- The CEG raised concerns that CO alarms would be unused but the company says that the majority are installed.
- We are comfortable with the reasons for Cadent dropping appliance isolation proposals against substantial customer support.
- We particularly welcome the company piloting more accessible alarms for customers with additional needs and smart CO monitors for multiple occupancy buildings. E.g. care homes and student residences.

Going beyond the meter

- We strongly support proposals to repair or replace unsafe appliances for the most vulnerable – this has been a historic

gap in consumer protections and a problem raised by consumer groups for many years. However, the approach focuses on Cadent emergency and CO visits only. We ask whether Cadent can support the 6% of appliances that the company says are condemned following a smart meter installation.

- This goes above and beyond industry standard practice. A relatively strong net benefit (based on SROI) is attributed to the proposal in RIIO-2 (£3.30 per £ invested). There is a strong need and it has positive stakeholder and customers support.
- BOT indicated strong customer support though testing was at a slightly lower cost than that outlined in the business plan.
- While we were surprised that customers were against proactive safety checks given the clear benefits, we recognise the findings and decision not to progress this.
- We challenged the company to consider 'the timeliness of response' as this was a key factor for all including small businesses. This is an 'ongoing challenge'.
- Cadent needs a clear mechanism to select additional services e.g. the Locking Cooker Valve, which appears to have limited take-up despite wide promotion.

Costs

The CEG commends Cadent for making all customer service, interruption and disruption commitments without adding any additional cost to bills. We therefore did not challenge the cost of the proposals in detail (£4.9m for improving accessibility and inclusivity; £1.5m to achieve likely levels of interruption; £11.1m to improve disruption), as we have with other cost areas.

For MOBs, appendix 09.04 contains a very clear build-up of forecast costs, identifying the individual areas of planned work and the associated unit costs. The basis for the unit costs is RIIO-1 with an efficiency overlay. Overall, Cadent forecasts a 7.5% efficiency improvement (assuming constant workload) in RIIO-2 compared with RIIO-1.

Cadent has been out to tender for contractors to undertake fault rectification work. We are pleased to see that, despite not obtaining favourable rates, Cadent has decided to assume that it will be able to undertake this work 15% more cheaply than at present, believing that the significantly increased workload will allow lower prices to be obtained.

Cadent has proposed a bespoke Uncertainty Mechanism for additional work on MOBs arising from post-Hackitt review legislative change or mandatory programmes or notices from the HSE. We think this is sensible given the uncertainty. Cadent's proposals for the operation of the re-opener are vague: "we would demonstrate costs incurred or expected to be incurred in response to new requirements for MOBs" – the definition of the re-opener in the licence should clarify how this would work. If new activity is additional building surveys, Ofgem may wish to consider putting a volume driver in place following the re-opener (akin to Cadent's proposals for entry charging) as this would retain efficiency incentives on Cadent.

Cadent's proposals on consumer vulnerability include £15.9m for BAU activities, including regulatory requirements, £92.6 for

beyond BAU and a Social Return On Investment (SROI)/WTP of £223.7. In total this would amount to £1.24 on the average domestic customer bill. Costs were built bottom-up with the detail of the calculations made clear to us and we have been able to probe these. The assumptions and estimation seem reasonable. They are generally linked to verifiable sources of external evidence or Cadent's actual figures. Ultimately the RIIO-2 Challenge Group, with its cross-company visibility, and Ofgem will be better placed to benchmark and take a view on this.

Deliverability

We have no reason to doubt that Cadent will deliver against customer service plans and targets. Following restructuring there appears to be good leadership support and staff commitment to genuinely embed customer views into decision-making and culture e.g. the creation of the Customer Performance Directorate; the setting up of an insights team and mechanisms to capture and act on ongoing engagement findings, the business transformation programme; senior leaders pay linked to customer service improvements etc.

Following CEG challenge the approach to customers with additional needs is underpinned by a separate coherent vulnerability strategy which includes: improved mapping of fuel poverty and vulnerability (Fuel Poor Data Predictor Model and CSE vulnerability needs mapping too, CO hotspot analysis) to ensure effective targeting of support (customers have concerns over gaming the system); its partnership strategy (we would still like confirmation that systematic stakeholder mapping has taken place); pilots to trial innovative ideas; improved training; exploration of more app-based technology to help with decision-making. That coupled with a dedicated and passionate team; genuine leadership commitment in this area and transparent governance support this view. However, if Cadent installs energy efficiency measures it must learn lessons from ECO on customer experience and ensuring high standards. There are also mechanisms proposed to return money to customers in the case of non-delivery.

Disagreements between CEG members

There are mixed views among CEG members as to:

- Whether two million face-to-face conversations are the best approach to identify vulnerability and raise awareness of the PSR.

- Whether the proposed level of FPNES connections is too low/unambitious
- Whether the community fund should be included in the CVP.

Disagreements with Cadent

- Inclusion of certain elements within the CVP – see appendix 2

Recommendations for hearings/further areas of scrutiny

- Cadent's whole-house approach to tackling fuel poverty – in particular to explore if its FPNES target is sufficiently stretching.
- Interruptions targets for MOBs and non-MOBs. Ofgem should scrutinise Cadent's interruption targets, and in particular the likely duration of interruptions for MOBs, with the specific question of whether they are sufficiently stretching and reflect the level of ongoing work that should lead to improvements.
- We suggest that Cadent's proposal to explore a measure for interruptions along the lines of that used in electricity distribution is worthy of further development, whether in time for RIIO-2, or potentially for introduction on a trial basis during RIIO-2.
- Interruptions - We have not seen evidence that Cadent thinks longer-term about its interruptions performance, despite us challenging on this point (CL153). In particular, we would have liked to have heard more about how the end of the mains replacement programme and potential hydrogen conversion may impact reported escapes and reliability in the future so these may be areas in particular worth further scrutiny.
- The 60% conversation rate from PSR conversation to registration outlined in the business case, and levels of customer support for the proposed ambition. It will be important to understand the most cost effective ways to identify vulnerability and raise awareness.
- We encourage Ofgem to explore further the face-to-face advice SROI calculation that cites 64% of customers receiving face-to-face advice acting on it and the detail of how that is calculated.

For wider strengths and weaknesses on Cadent's Consumer Vulnerability Strategy proposals see appendix 1.



Maintaining a safe and resilient network

Ofgem area: Maintaining a safe and resilient network

Cadent BP: Our commitments - Ch. 7 p.59

Hearing: No

Summary

- ❖ This is a generally robust set of proposals, underpinned by sophisticated modelling and delivering significant benefits to customers. Our earlier concerns over the way in which investment cases were justified have been largely resolved.
- ❖ Cadent has mostly engaged an appropriate set of external parties in developing its network resilience proposals. While the plan sought to reflect customer preferences, Cadent has missed an opportunity to research these deeply to facilitate regional variations.
- ❖ There is significantly lower risk of windfall gains arising in RIIO-2 than in RIIO-1 through a combination of price control structure, plan optimisation and proposed uncertainty mechanisms.
- ❖ We note that some of the proposed steel pipes to be replaced in the RIIO-2 period may have deteriorated as a result of inadequate cathodic protection maintenance. We recommend that Ofgem looks into this.
- ❖ Ofgem may wish to consider how payback periods are used to analyse the risk of stranded assets.
- ❖ We have challenged Cadent on its approach to cyber security and noted that it could beneficially engage customers in this area. We also question the lack of quantified cost-benefit analysis in its options appraisal.
- ❖ In respect of workforce planning, the quality of Cadent's plan has become much richer and better reasoned and backed-up by evidence, as it has developed its thinking in response to engagement with the CEG and cross-linking with other areas of its plan.
- ❖ Cadent has justified its current- to medium-term focus to address projected critical areas of workforce shortages during the RIIO-2 period, improving diversity and inclusion. It acknowledges the key external factors in the future and, in its workforce strategy, has set out its process for identifying and addressing emerging needs.

Context

Network resilience is highly material in cost terms, with 45% of Cadent's totex spent in this area. The great majority of this is accounted for by mains and services replacement where the HSE-mandated Iron Mains Risk Reduction Programme (IMRRP) continues to require replacement of 1550km annually.

The IMRRP is safety-driven – reducing the risk of leaks from pipes (particularly those close to buildings) and danger to life and property. Replacing iron mains and services has the benefit of increasing reliability and reducing greenhouse gas emissions.

Network resilience also incorporates Cadent's investment in asset health (primarily capex but some repex) – ensuring that network assets are in an appropriate condition to maintain safety and network reliability.

Cadent has delivered all of its required regulatory outputs in this area to date in RIIO-1, reducing the risk associated with iron mains and other assets, and exceeding the emergency response standards.

In RIIO-1, the mains and services replacement programme has been delivered by two large strategic partners. While successful in cost terms these arrangements did not deliver required levels of customer service. Cadent is seeking to learn lessons from this approach for RIIO-2, contracting with

a greater number of providers and bringing some previously delegated responsibilities back in-house.

Cadent underspent on repex against allowances by 25% in the first four years of RIIO-1, with a projected 18% total underspend for RIIO-1. This was achieved in a variety of ways including capturing competitive prices via its contracting strategy and targeting a higher proportion of smaller (higher risk and generally cheaper) pipes for replacement. While Cadent underspent on capex by 17% in the first four years of RIIO-1, it forecasts that spend will roughly match allowances over the full RIIO-1 period.

Given the materiality of the repex programme, the CEG has focused on this area, to ensure that Cadent's assumptions are reasonable and that the scope for windfall gains in RIIO-2 will be limited.

This commitment area also includes cyber resilience, workforce resilience and physical security, of which the CEG has scrutinised the first two.

The cyber security threat landscape is evolving and new standards are being set in the form of the Network and Information Systems Regulations 2018 (NISR). This is a priority area and one with significant implications for service delivery and Cadent's reputation if a breach takes place.

Cadent has to ensure it is an employer of choice in the face of a projected 220,000 job vacancies over the next 10 years across the energy sector, to ensure skills shortages do not impair the delivery of its commitments.

Cadent acknowledges it has been slow to appreciate and react to a change in context: it is now an independent company, with different values and ambitions, both as perceived and in terms and conditions of employment. The company has a range of established initiatives to develop the talent pipeline, also to increase diversity and inclusion, and has a good retention and progression record across all its programmes when benchmarked against industry norms. We have encouraged it to think about what is an optimum retention rate, to get the right balance between continuity of expertise and new people with potentially fresh perspectives and new ideas.

Our approach and scrutiny activity

In relation to network resilience (mains and service replacement, and asset health), the full CEG undertook scrutiny meetings of four business plan drafts prior to the December plan. It undertook two FIWG deep dives, reviewed five external reports, had detailed discussions in FIWG and CEG meetings, reviewed 15 business plan appendices and observed five customer engagement meetings (see appendix 1 for details)

In relation to non-network resilience, the full CEG has had detailed scrutiny sessions on workforce resilience and cyber security, examining draft strategy documents and draft business plan material (see appendix 1).

Challenges

- CEG raised 11 challenges to the company specifically on network resilience,²⁷ all of which have been closed.
- Three challenges have been raised on cyber security (CL111, 112 and 113) of which two are closed and one is unfulfilled.
- On workforce resilience CEG raised eight²⁸ challenges in total, all of which have been closed.

Stakeholder engagement

Overall comment

Cadent engages regularly and in detail with the HSE, its safety regulator, on network resilience. Detailed discussions have been held with the HSE in general and about various proposals, such as steel pipe replacement.

External consultants have been employed, for example, for the development of Cadent's modelling capability (ICS), methodological advice (DNV GL), assurance (Costains, Lloyds, NERA) and cost-benefit analysis (ICS). Cadent has also engaged its supply chain in relation to deliverability of the replacement programme and referred to relevant external reports (CEPA/AESL, KPMG).

Domestic and business customers have been engaged, qualitatively and quantitatively, to help shape the extent and balance of the mains replacement programme. Broadly, the areas on which customers were consulted which have had an impact on Cadent's proposals were:

- high-level priorities – quantitative, qualitative and deliberative engagement consistently showed customers' highest priority to be safety, followed by reliability of supply;
- willingness to pay for improvements – there is willingness to pay for reduction in the level of interruptions;
- appetite for investment in mains replacement beyond the

- safety-mandated level – customers had mixed views and Cadent have proposed a moderate level of additional spend;
- preferences as to how Cadent should make investment choices driven by evaluating benefits against costs – customers preferred a balance of safety, reliability and environmental concerns;
- the acceptability of Cadent's overarching network resilience proposals – customers found them broadly acceptable;
- specific factors, such as use of robotic technology (CISBOT), and investment at Cadent's operational sites.

The bulk of customer engagement has focussed on pipe replacement, the largest area of investment. Customer views have, where possible, also been taken to apply to other areas of investment in asset health, for example the highest priority being given to safety, and the acceptability of overarching proposals. There was also a limited amount of engagement with customers in relation to their views about investment in assets other than pipes at Cadent's sites.

We have challenged Cadent to be more imaginative in how they engage customers on issues of safety (CL83), to consider and engage on how they could go "above and beyond" in delivering to the expectations of customers (CL81) and to better consider the opportunities to take a regional perspective (CL86). Cadent's general approach has been to engage at a high level in order to establish broad priorities, while seeing the HSE as its primary stakeholder in this area. Cadent has explored options with customers in the development of this plan as set out above (in particular using its business options testing to seek customers' views on how to trade-off benefits associated with safety, reliability, disruption and the environment, to the extent achievable whilst meeting safety obligations, and on the rate of replacement of iron mains). Cadent has explained how it has used such feedback in shaping its programme of investment. We understand the key safety driver that underpins this investment and do not underestimate the impact on Cadent's thinking. There has been some response to the challenges above but more could have been done: a more imaginative approach to customers in this area could have revealed greater levels of insight and potentially helped to unlock customer value.

We encourage Cadent to be more ambitious and imaginative in how it engages customers on safety issues during RIIO-2, and to articulate new areas where stakeholder and customer engagement could, and will, shape its approach to network resilience.

²⁷ CL81, CL82, CL83, CL84, CL85, CL86, CL88, CL168, CL180, CL211, CL242

²⁸ CL136, CL137, CL193, CL194, CL195, CL196, CL197, CL198

We have a number of more specific observations about the conduct of customer engagement in relation to network resilience.

Engagement with other stakeholders

We have found very little mention of engagement with gas shippers or suppliers on network resilience issues, which we find surprising since shippers are Cadent's direct customers. We note that shippers were consulted in relation to the reliability of offtake metering, although little detail is provided in relation to this engagement.

The London Medium Pressure scheme is the continuation of a significant project started in RIIO-1 to deliver essential network capacity to central London. Cadent has highlighted the difficulties of planning for delivery of this scheme, in part due to the varying demands of local authorities in relation to undertaking work which would have high impact on people and businesses. Given that the project is ongoing and there are existing relationships with such stakeholders, we are surprised there is not more detail about how such engagement has shaped future plans (although there is some discussion of recent engagement and also some detail about proposed approaches to future engagement).

We have addressed these points with Cadent and while it would have been preferable for there to be more in the plan, our view is for the most part that Cadent has engaged an appropriate set of external parties in the development of its network resilience proposals.

Insight from business options testing (BOT)

We scrutinised the results of BOT and had a particular concern over the way in which customer insight had been taken into account in Cadent's modelling and presented in previous drafts of the plan. We challenged Cadent to clarify the steps that had been followed to link the output from customer engagement to the choice of modelling inputs and to describe more fully the way in which contradictory feedback has been handled and trade-offs made. We also challenged it to ensure it was clear about the weight attached to qualitative work with small numbers of customers. Cadent has now included a better explanation of how its research has supported its conclusions. The improved presentation of its conclusions and judgement from this research has given us more comfort about Cadent's understanding of its customers' preferences.

In particular it is now clear the preference toward a balanced approach between, safety, reliability and environment in its use of CBA for optimisation of investment results from a relatively small sample of customers and is based on a national-level picture. There were regional variations, although the samples were too small for these findings to be used with any confidence and so were largely disregarded. We remain of the view, however, that more might have been done to explore these regional variations once they were identified. It is possible the opportunity for a more regionally-focussed approach has been missed.

Acceptability testing

There were high levels of acceptance of Cadent's proposal for network resilience among most groups (83% of domestic customers surveyed, for example) and this was consistent in quantitative and qualitative research. However, the CEG is concerned that in a minority of cases customers expressed difficulty in understanding and gauging the ambition of its proposals: in general, the framing material did not include information which would have allowed a comparison with historic or benchmark performance. This suggests a degree of caution is needed in interpreting positive acceptability results.

Engagement on cyber resilience

The CEG is content that Cadent engages the appropriate expert stakeholders in this area, although it notes the need for ongoing review of which organisations Cadent should talk to. Our primary challenge (CL111) has been that it has not engaged customers.

We accept it is not an obvious area for engagement with domestic customers, but we have encouraged Cadent to consider whether engagement with certain business and industrial customers could help to inform its approach.

Engagement on workforce resilience

Cadent has engaged with its current workforce through its externally run 2017 employee opinion survey and then its 2018 Pulse survey (both confidential and anonymous), with response encouraged by staff champions. In line with the context described above, during our September 2019 scrutiny session Cadent acknowledged its staff survey feedback highlighted there was a lot of work to be done to improve employee satisfaction while going through a significant period of change.

Employee engagement using (often self-) nominated employees representing different work groups, structured feedback from recent new starters and survey results have been used alongside external benchmarking to inform and test the employee value proposition.

Engagement has also taken place with trade unions, based on mutual understanding of the key workforce challenges, and with educational establishments.

Cadent's participation with other stakeholders in EU Skills provides engagement on skills challenges and also opportunity for partnering on initiatives.

It has committed to expanding future engagement, particularly in relation to diversity and inclusion (e.g. establishing a focus group to explore ways in which it can ensure Cadent is an inclusive workplace for employees of all sexual orientations).

Views on the business plan and associated documents

The CEG, primarily via FIWG, has explored Cadent's approach to investment planning (as documented in its EJDs) in detail. We were particularly interested to understand how Cadent chose and assessed alternative investment options (CL85), and how customers' preferences were taken into account in the development of its proposals (CL83). We challenged Cadent to explain how it was mitigating the risk of stranded assets (CL242)

and to demonstrate the assumptions underpinning its mains replacement programme were reasonable and could not lead to a material level of windfall gains (CL180). The following sections outline our main findings.

Modelling capability

Cadent's asset investment model (developed and run for Cadent by ICS) seeks to optimise the mains replacement programme, taking account of work that is mandated for safety reasons and work that is otherwise beneficial as a result of reductions in repair costs, lower greenhouse gas emissions and reduced disruption for customers. This model is also used to optimise selected other asset classes including MOB's and pre-heaters.

Cadent has noted recent developments to its model: for example to incorporate the Spackman approach to economic analysis; to operate at the level of individual assets; and to facilitate the grouping of neighbouring assets (to form super-strings), thereby generating additional efficiencies.

Cadent claimed this model was industry-leading but accepts other GDNs have now developed similar capabilities. This should not, however, detract from the progress made in this area during RIIO-1.

We consider Cadent's modelling capability to be a strength, providing it with the flexibility and the speed required to analyse a broad range of options in order to derive 'optimal' replacement programmes given appropriate inputs (unit costs, output benefits and constraints).

Optioneering and plan justification

We criticised earlier drafts of the plan for a lack of clarity in how this impressive model capability had been utilised. Those concerns were partially addressed in the October draft plan and further improvements have been made in the December plan such that we now consider the general standard of Cadent's investment cases to be satisfactory.

Cadent's choice of options to assess seems generally to be reasonable, although we have challenged this in some cases – for example, where it appears potential options may have been pre-filtered without explanation. We note that Cadent has chosen not to present a "do nothing" option where this would be inconsistent with an HSE mandate, and has instead used a baseline representing the minimum feasible level of intervention. This seems to us to be a reasonable approach.

Residual reservations with the justification of Cadent's investment cases relate to a lack of clarity over:

- the constraints imposed on the model during the optimisation and the rationale for those constraints. For example, there is an apparent concern over mains replacement workload, which we sense lies behind some of Cadent's investment choices, although it does not appear that this has been adopted as a constraint explicitly;
- the outputs that would be delivered under the various options. Previous versions of appendix 09.02 (distribution mains and associated services) showed the extent to which the options improved safety and reliability and reduced leakage. We

challenged Cadent to present this information more clearly but it is missing completely from the December plan, other than through a table of NPV benefits;

- the rationale for some assumptions used in modelling. We understand many such factors derive from the NARMS methodology and are thus "industry-standard" which is reasonable, but more information about this would aid understanding. In addition some other assumptions are not clearly justified within the plan. CEG has in many cases challenged the derivation of assumptions in the detailed investment cases that we have reviewed and has generally received acceptable answers;
- how expert judgement is supported or evidenced where this is used as a substitute for robust data.

Managing the risk of stranded assets

Cadent has noted that there is relatively little discretionary spend within its proposed mains replacement programme since the bulk of it is either mandated under the IMRRP, to be completed by 2032, or triggered by the safety risk associated with the existing main.

For assets where replacement is not required for safety reasons, and is therefore driven by broader benefits, Cadent has sought to minimise stranding risk by ensuring relatively short payback periods. We challenged Cadent to explain its approach, noting that its definition of payback period was not clear and that it was presenting payback periods across a portfolio, thereby masking lengthier periods within an overall average. In response, Cadent has set out its approach more fully in the December plan (appendix 4 of appendix 09.02), including an analysis of payback periods at an asset level across the mains replacement programme.

Of particular interest for us was enhanced benefit mains, since this is discretionary investment. According to Cadent, the chosen option pays back in 2022 (which seems highly implausible), although some assets would not pay back for significantly longer periods of time. Cadent notes that the choice of certain mains with relatively long payback periods can be driven by the fact they are attached to mains whose replacement is mandatory and the combined scheme creates additional efficiencies.

An apparent one-year payback period is a consequence of the methodology that has been used in the calculation. Cadent has followed Ofgem guidance in relation to the CBA methodology, within which upfront capital costs are spread over the life of the investment and payback periods are derived from this. It has also run a sensitivity, using the Ofgem approach, in which investment costs are taken as incurred, and this derived a payback date of 2035 for the company-wide programme. We understand the bar chart shown on page 112 of appendix 09.02 is based on that sensitivity: this illustrates the analysis at a more disaggregated level in order to unpack the average payback period. Since a very low proportion of the programme pays back beyond 25 years, we tend to agree with Cadent that the probability of material asset stranding in this asset class is low.

While we are content with the conclusions emerging from Cadent's analysis, Ofgem may wish to consider more generally the question of how payback periods should be used to assess the risk of stranded assets. We note that NERA, in its assurance report for Cadent, had similar observations over whether an approach that followed Ofgem's guidance on CBA was appropriate for an analysis of stranding risk.

Compliance with Ofgem guidance

Ofgem requires companies' views on asset health, criticality and replacement priorities at the start of the period and at the end of the period – with and without intervention. From what we have reviewed this requirement appears to have been met for the RIIO-2 period. However, it is less clear whether the business plan has, in relation to all types of asset, "explained their long-term risk objectives and strategy as well as the long-term benefits delivered". There is little in the plan which relates asset health investment to the challenges facing the gas network from the energy systems transition.

Ofgem states a number of requirements for the justification of new investment (of all categories, not just network resilience). These include that there should be an explanation of options, which should include "do nothing" and "deferral" options. There should also be a discussion of the rationale for options discounted. Reasons for timing of investment and the risks of stranding should be addressed. Subject to our comments, above, these requirements appear to have been substantially met.

Finally, Ofgem specifies requirements for the use of CBA and engineering justification. We have not reviewed compliance with these requirements in detail but we encouraged Cadent to take a structured approach to compliance with requirements generally and note that this has been addressed in the assurance programme.

Cyber security

In the area of cyber security, Cadent has responded to our challenge (CL112) to more clearly articulate its current and future cyber-risks and threats, and the potential customer impact. However, when analysing the options open to it for mitigating these threats, we have not seen evidence that the benefits of the alternatives have been taken into account in a structured or quantified way in order to compare them against the costs. We raised this at the November scrutiny session and, while the description of the options and their benefits has been amended in the December plan, there is still no clear basis for us to assess the robustness of Cadent's proposals. In particular, we cannot judge whether it would be worth incurring a relatively small incremental cost for a greater level of security, which is a question that arises in relation to business IT security, implementation of the NISR regulations and operational technology security.

Workforce resilience

In response to CEG feedback on early business plan drafts, Cadent introduced an executive summary to the workforce strategy appendix of its final plan (07.02.03) which better

presents the framing, context and creation of its workforce resilience strategy. In this, Cadent provides a consolidated workforce SWOT table, leading to the definition of seven problem statements, also listed in the main business plan. Setting these against five strategic objectives for workforce resilience has enabled the company to build a clear picture of its workforce resilience landscape which it has used and is continuing to use to evolve specific actions as uncertainty in the sector is resolved. However, Cadent argues that the current high level of uncertainty regarding the future heat strategy and the future of gas, means it is not feasible to develop a detailed workforce strategy that goes significantly beyond RIIO-2 to support the energy systems transition.

Cadent explains its current initiatives and future plans to progress via its five strategic objectives, demonstrating how the infrastructure for workforce resilience can be put in place in parallel with clarifying and quantifying workforce needs.

In comparison with earlier drafts and addressing CEG feedback, Cadent's workforce resilience strategy is now more outward looking, giving us confidence that Cadent has given further consideration to future trends and increasing employee/stakeholder expectations. There is greater evidence of benchmarking with frequent references, key facts and figures cited.

In developing its strategy, Cadent has identified rapidly changing skill set requirements in certain parts of the organisation from technological advancements as a key challenge (page 4, workforce resilience appendix 07.02.03). This responds in part to CEG's questions posed in the September scrutiny session as to whether Cadent's plans gave sufficient consideration to creating a workforce fit for the future, not only technically but also in terms of the culture of work and the workplace. Cadent has also responded to this in its plan by taking into consideration new locally-focussed 'eco system' partnerships that are replacing traditional supply chain relationships, alongside insights from external sources and staff. It has recognised scarcity in IT and data skills, also raised by CEG in our discussion over digitalisation, and responded by developing a mixed approach with third-party contracts alongside internal staff development.

There were good examples of proposals around disability and wider inclusivity in Cadent's October draft plan (e.g. the EmployAbility scheme, and unconscious bias training). However, the more detailed draft proposals, measures and targets scrutinised in the September CEG meeting did not have enough emphasis.

We fed back to Cadent that its diversity ambitions and reporting should include disability and wider inclusivity in addition to gender and BAME targets, and that its proposals should support this (CL196). Cadent responded in its December plan by expanding the narrative on current activities in this space and its future proposals and aspirations. In cases where it is not currently measuring progress Cadent says it will explore ways to establish measures.

Cadent lists as one of its strategic objectives that its workforce should reflect the diversity of the communities and customers it serves and a gap analysis in the workforce resilience appendix (p14) provides a basis for tracking progress.

Cadent has not highlighted the need for skills in engagement and insight as an area of need. Considering CEG's views on Cadent's engagement and insight activity during the business plan development and its own assessment that it was trying to move quickly from being enthusiastic amateurs to competent professionals, and that ongoing engagement is an essential aspect of delivery across all commitment areas, it would have been reassuring to have this acknowledged as an area where in-house specialist skills were needed.

Costs

Cadent forecast 'like-for-like' repex increasing from £432m to £478m p.a. (a 10.6% increase) from RIIO-1 to RIIO-2. This is the net effect of increases associated with work mix and the addition of high-risk steel, and reductions arising from a lower volume of non-mandatory work and efficiencies arising from Cadent's transformation programme. Cadent had reduced planned repex between its July and October draft plans by £94m p.a. and planned capex by £10m p.a. after CEG challenged the underlying justification for the plan. These reductions have been partially eroded in the December plan.

The CEG is not best placed to comment on unit costs – Ofgem and its consultants are better-placed – although comments on Cadent's contract strategy and approach to benchmarking are included in Chapter 13 on costs and efficiency. The CEG (via FIWG) has focused on the risk to customers in relation to windfall gains, given the value accrued to Cadent through the mains replacement programme in RIIO-1. We note that Ofgem has sought to reduce the scope for such gains through the structure of the PCD, with revenues adjusted for the profile of mains replacement programme by diameter and service density.

Cadent provided us with a report by ICS (Cost and FTE Models, May 2019) which analyses the relationship between costs and their key drivers. This report suggests that, with the structure of the control adjusting for distribution zone, diameter and service density, the two remaining variables to which costs are most sensitive are insertion rate and length of project.

We have sought to understand the basis for Cadent's assumptions for these key variables, and the implications if these assumptions are inaccurate. Cadent has sought data from a variety of sources in formulating its assumptions on insertion rates, and we welcome the fact that it increased its assumed average to 86% from 76% in an earlier draft of its plan. It plans to reinforce the network in order to facilitate a greater degree of insertion, which is a good example of totex thinking. Appendix 09.02 of the December plan includes analysis to show that that this plan is cost beneficial, but that additional reinforcement would not be. We understand that insertion rates will be the subject of ongoing Ofgem scrutiny during 2020, which we suggest should include steel as well as iron mains.

Regarding project length, another important assumption, Cadent's optimisation model seeks to amalgamate projects in order to benefit from the efficiencies associated with longer projects. We therefore have no reason to believe that Cadent's assumptions in this regard are not soundly based.

Having received information from Cadent on the sensitivity of its costs to variations in these key assumptions, and considered the associated revenue impacts given Ofgem's planned PCDs for mains and services, we are satisfied the scope for windfall gains to arise in RIIO-2 through mains replacement is limited.

We followed up a discussion that we observed at the RIIO-2 Challenge Group meeting with Cadent on 31 October 2019, where they challenged Cadent on its assumption of relatively flat peak gas demand (CL211), with a potential link to Cadent's proposal to reinforce its network in order to facilitate higher insertion rates. Information provided to us by Cadent about its experience on 1 March 2018 of the 'Beast from the East' notes that gas demand was very close to forecast peak day levels. Furthermore, actual demand that day was higher than suggested by Cadent's day-ahead forecasts. This appears to provide good evidence against the theory that there has been a material decline in 1 in 20 peak demand. Cadent's response also provides assurance that it has been able to validate and update its network design models recently on the basis of operational experience.

We note that Cadent has proposed to stop using the concept of SEEDs, which ensured that the riskiest pipes were replaced earliest, on the basis that the profile of risk is now much flatter than it was at the start of RIIO-1. Cadent's proposal allows a more efficient programme of mains replacement to be constructed. Assuming the HSE is content with this (which will not be known until next year) we consider that Cadent is to be commended for advocating this approach.

Cadent uses a standard cost certainty model to articulate confidence in its costs. Following our initial review of a sample of the October draft EJDs, we had some doubts over the over the application of this approach. We believe that these issues have been addressed in the December plan but we comment further on Cadent's overall assessment of cost confidence in chapter 13.

While costs have been identified in the workforce resilience strategy appendix for some targets and measures under this topic, these are not put forward for separate funding. The whole strategy is considered to be a necessary component of effective business management in a rapidly changing sector and period for the culture of work.

Proposed Uncertainty Mechanisms

Cadent has proposed a number of bespoke UMs in this area of the plan. We comment on them in appendix 3 of our report.

Bespoke outputs

Non-mandated mains replacement (mostly steel)

Cadent has identified the risk associated with 'non-mandated' mains (in particular, steel) has become more prominent and believes it should undertake a programme of selective pipe replacement in order to maintain the safety and reliability of the network. We understand the logic of Cadent's position – that there are a significant number of steel pipes with risks beyond which the replacement of iron mains would be mandatory.

Cadent refers to a review by DNVGL of the MRPS risk scores associated with these assets as evidence that this provides "a valid basis for the risk assessment of steel distribution pipes within 30m of buildings". In addition, Cadent has told the CEG that the HSE is supportive of its plans. Cadent has not elicited customer views in relation to these proposals on steel specifically, relying instead on general feedback about priorities on safety, security and reliability.

Cadent has set out an approach to prioritising steel mains for replacement, using construction standard as a proxy for asset condition, based on advice from its consultants DNV GL.

Cadent proposes that the replacement of the highest-risk steel mains be the subject of a bespoke PCD with a "true up" for length and mix targets at the end of the RIIO-2 period. In addition, as identified above, Cadent has proposed a UM in relation to pipes that move above the safety threshold within the RIIO-2 period (PAST).

We are persuaded by the need for Cadent to undertake selective replacement of steel mains given the deterioration of these assets, and we are comfortable with Cadent's proposed use of a bespoke PCD and a UM in order to ensure that revenues are kept in line with volume of work undertaken. However, approximately 14% of the pipes (circa £3m p.a.) planned for replacement have cathodic protection (CP) systems. There is a risk that the deterioration observed in these pipes is related to earlier failures to properly maintain CP systems, which was the subject of an HSE improvement notice during RIIO-1. We therefore recommend that Ofgem scrutinises this issue further. We also comment on this issue in chapter 14 on managing risk and uncertainty in the context of the proposed UM for pipes that cross the safety threshold within the RIIO-2 period.

London Medium Pressure

Cadent has proposed a bespoke PCD with a ring-fenced 15% totex sharing factor to cover the London Medium Pressure scheme in recognition of the particular challenges it poses and the associated low-confidence costs. Our understanding is that the PCD would operate on length of mains replacement delivered. We note the difficulties faced by Cadent in planning for delivery of this scheme, and despite reservations about the nature of engagement with stakeholders we see the logic of having a mechanism to deal with how the costs and outputs may vary substantially as a result of factors not fully within Cadent's control. We probed whether an output measure based on risk removed could be made workable, rather than length delivered,

but are broadly satisfied this may be difficult given the integrated nature of the scheme and when benefits are realised.

CVP

The only CVP under "Maintaining a safe and resilient network" relates to MOBs, a topic we cover in chapter 7, but see appendix 2 for our comments on this element of the CVP.

Deliverability

Network resilience is an established area of core business for Cadent. Cadent has taken a cautious approach in determining the amount of mains replacement work to undertake, such that the initial RIIO-2 run-rate will be significantly lower than that planned for the final years of RIIO-1.

We note that Cadent is intending to prioritise some of the more difficult aspects of this work in order to build capability and learning, and that it is transforming its contracting strategy – both of which can be expected to bring delivery and cost risk.

Cadent's sophisticated asset investment model should be well calibrated given the detailed asset data and years of operational experience that underpins it, and its use of this model in planning for delivery provides a degree of comfort over the delivery of the plan. Refer to chapter 4 for more discussion about the deliverability of its plans and the related assurance that Cadent has provided.

The area of Cadent's plan that appears to us to be most challenging is the London Medium Pressure scheme, where there are significant difficulties in gaining access to, and working on, the assets. We have commented on this above in the context of the proposed PCD.

Regarding workforce resilience, there are no commitments made in the business plan regarding delivery of or reporting on progress against the resilience workforce strategy action plan, which itself is set out at high level with most initiatives ongoing. As a result of the engagement and scrutiny the CEG has carried out on this topic and Cadent's clear appreciation of this as business critical, we have no concerns that this will be pursued. A regular review to stress-test the programme would be advisable.

Disagreements

None



Areas recommended for hearing/further scrutiny

We recommend Ofgem scrutinises further the question of whether any of Cadent's proposed steel replacement programme has arisen as a result of its earlier failure to properly maintain cathodic protection systems.

Ofgem may wish to consider the way in which payback periods are used in order to assess stranding risk.

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating


Delivering an environmentally sustainable network

Ofgem area: Delivering an environmentally sustainable network, Environmental Action Plan

Cadent BP: Our commitments - Ch. 7 p.96

Hearing: Recommended

NOTE: This chapter reviews the content of Cadent's business plan relating to its own environmental performance – parts 1 and 2 of the Commitments: Delivering an Environmentally Sustainable Network chapter and related documents. All content relating to energy systems transition is reviewed in chapter 5 - Net Zero and a whole-system approach.

Summary

- ❖ This is a comprehensive plan to deliver greater environmental sustainability. Targets have a good level of ambition and there are concrete plans in place to develop stronger targets where these are currently missing (e.g. some supply chain areas, energy use reduction).
- ❖ Additional spending is required to deliver the target. The biggest component is on electric vehicles where we support Cadent's plan to start converting its fleet progressively, learning from pilots. We believe it is worth testing whether Cadent's targets really go beyond the commitments of other networks by benchmarking all GDN plans.
- ❖ The commitments mainly depend on reputational incentives to deliver progress. The annual report on the company's progress will be reviewed by the CEG and regional stakeholder panels before publication. Customers care about this topic, rate it as important, and think it is a key feature of being trusted – so we agree the incentive to perform is strong.

Context

- Cadent has had a sound environmental management structure in place for many years, and its work is embedded in the business with board-level leadership and commitment. It uses recognised tools to measure performance and is accredited under ISO 14001. Its first Safety and Sustainability report was published this year to increase transparency. However, customer reaction to its existing sustainability plan was that it is unambitious.
- Cadent's level of ambition has increased in this business plan, with a wider range of areas covered by commitments and firm targets and measures to improve performance.
- This is a comprehensive and realistic plan and we have confidence the business will focus on its delivery.
- Customers see Cadent's activity relating to sustainability as an essential element of becoming a trusted business, linking to its 'trusted to act' commitment in the business plan. The proposal to publish an annual report on progress will help but we anticipate that it will be important for the company to keep challenging and benchmarking itself in order to meet customer expectations throughout the GD2 period.

Our approach and scrutiny activity

The CEG reviewed Cadent's approach to this area in CEG October 2018, February, May, July and September. There was also a meeting on the EAP commitments (and whole systems activity) in November.

We have referred to Ofgem's Business Plan Guidance and the sector-specific methodology.

In assessing Cadent's plans we have compared them with the publicly available draft RII0-2 business plans of NGN, WWU and SSEN (Transmission). We have also used Sustainability First's Fair for the Future project as a guide (Cadent is a partner in this project – included as appendix 07.04.03). We also reviewed Cadent's Safety and Sustainability Report, published in June 2019 (appendix 07.04.02).

We have reviewed Chapter 7.4 of the business plan, the Environmental Action Plan (App 07.04.00) and all other related appendices plus Cadent's customer engagement evidence. We have also reviewed the ISO14001:2015 surveillance audit report, prepared by ERM Certification and Verification Services, based on an assessment in July 2019.

Twelve challenges have been raised in the areas covered by this set of Cadent commitments, all of which are closed. See appendix on CEG impact for more information.

Stakeholder engagement

General

Cadent has carried out a high volume of different types of customer and stakeholder engagement in this area. This engagement is reported at length in the Environmental Action Plan (EAP) although it is not always possible in every area to see how Cadent has taken customer feedback to create plans, and then consulted on those plans to create a clear line of sight back to the customer.

Both stakeholders and customers support Cadent taking strong action to respond to sustainability challenges, but there are differences between the two groups in their expectation levels on the company. Expert stakeholders (e.g. local authorities, other businesses) expect them to be more ambitious, while customers support varying levels of ambition. Cadent has taken this mixed feedback and decided to pursue the most ambitious package of measures proposed.

The CEG supports Cadent's decision to go further than the expressed preference of many of its customers as this is a way to future-proof themselves against the background of growing expectations on business sustainability performance. What is missing from its work is engagement with the expert groups that would help the company benchmark its performance against its peers and offer constructive challenge on where it could go further (e.g. Greenpeace or WWF). Cadent does not have established relationships with many of these stakeholders so has struggled to get feedback when asking for it.

Continuing stakeholder engagement is essential for Cadent to deliver on what its customers and stakeholders want during RIIO-2. The Stakeholder Engagement Strategy (appendix 05.03) describes the company's plans, which cover all areas of environmental activity and the main stakeholders. We are therefore confident about these future engagement plans.

Sustainability of Cadent's own operations

Engagement on the specific content of Cadent's plans to decarbonise its own operations and reduce its wider environmental impact (parts 1 and 2 of the business plan chapter) has shown there is good support for planned actions on becoming net zero, with waste and landfill reduction. Expert stakeholders are also supportive but generally expect more ambition.

On leakage/shrinkage (overwhelmingly the largest source of Cadent's emissions) customers strongly wanted to see Cadent acting to reduce emissions, but willingness to pay was extremely low/zero. In developing its mains replacement plans, Cadent has adopted a "balanced benefits" approach, which seeks to maximise the net benefit of the programme across safety, reliability and environmental factors. It links this approach back to customer insight, although not in a totally satisfactory way. We comment on this in chapter 8 on maintaining a safe and resilient network.

On reducing the impact of Cadent's business environmental footprint, beneath the headline that customers expect the business to act responsibly, there is not a clear picture of exactly which actions are preferred. Customers rely on the company to determine the right actions to meet goals and give quite confusing feedback on what they prefer. Overall the package of measures is well supported in principle, although willingness to pay does not follow this.

Cadent has included theft of gas under this heading, although any environmental benefits are very marginal. We accept the company's argument that it belongs here as well as anywhere in the business plan. Customer engagement on the specific proposal to incentivise Cadent more to tackle gas theft is limited but supportive.

Views on the business plan and environmental action plan

General

In its 2019 surveillance assessment, independent assessors reported they were 'genuinely impressed' by Cadent's performance across the whole scope of the ISO14001

certification covering its societal, energy transition and operational impact. From the scope of the certification, and Cadent's commitment to delivering against, and in many cases exceeding, its ISO14001 targets, it is clear the company is already taking its environmental commitments seriously and these are embedded in its operations.

This provides the CEG with assurance that Cadent's claim that its EAP and environmental commitments presented in its December business plan are built on the sound foundations of its continued ISO14001 certification. We are confident that, at corporate level, Cadent will pursue both the letter and the spirit of its environmental commitments and these have been formulated from a basis of significant understanding.

Cadent has benchmarked its proposed actions against a broad range of companies (not just utilities). A report commissioned from Enzen has supported the development of the wide-ranging commitments.

Sustainability of Cadent's own operations

In this section, we cover parts 1 and 2 of this part of the business plan ("Decarbonising our own operations" and "Reducing our wider environmental impact"). The measures are explained in more detail in the EAP.

The business plan and EAP set out clearly the sources of Cadent's carbon emissions and the way that its RIIO-2 plans will reduce emissions through the RIIO-2 period. The earlier draft of the business plan did not include this information, making it very difficult to see exactly which emissions were being tackled and how ambitious its plans were. We are now confident Cadent has the plans and structure in place to drive delivery.

Cadent plans to reduce emissions related to shrinkage – which represents 95% of its carbon emissions – by 14% by the end of GD2 measured at peak winter conditions and by 17% measured at seasonal average conditions (average across all regions – individual regional targets are provided). This will occur largely through the IMRRP, which replaces the low pressure mains where the majority of shrinkage occurs. The "balanced benefits" approach seeks to maximise the net benefit of the IMRRP across safety, reliability and environmental factors. Cadent has also included 50km per annum of additional iron mains replacement, which will also be directed towards that creation of balanced benefits.

Cadent has in GD1 also used pressure reduction and the use of MEG to reduce shrinkage. The company's EAP states these tools do not offer scope for further reductions in GD2 so all forecast reduction will be through mains replacement. We have seen no independent assurance this is a genuine restriction. We have no reason to believe Cadent is not correct, but this is worth testing by Ofgem engineering experts.

Cadent proposes that Ofgem's reputational ODI should be measured on a range between peak winter conditions and seasonal average conditions. This followed adverse feedback from CEG on an earlier proposal to measure under peak winter conditions. The CEG would prefer to see the seasonal average used, reflecting more likely conditions, with some mechanism

put in place to allow for or recognise any particularly adverse conditions that occur.

Cadent is proposing that GDNs are funded via an incentive (i.e. no level of base funding) to investigate **theft of gas**, with 60% of the proceeds to be returned to customers and 40% retained by the GDNs. Cadent is projecting a recovery rate double that achieved under the current system. The proposed approach is easy to understand and appears simple to operate. It also makes a clear demarcation between Cadent and supplier respective responsibilities (a concern expressed by the CEG about earlier versions). The CEG supports the proposal.

Cadent has a comprehensive plan to tackle the **carbon emissions associated with its business operations**, committing to action across a range of activities throughout RIIO-2. Cadent has persuaded us its targets for actual reductions are reasonable, although we would like to see continual challenge of these during RIIO-2 in order to achieve more, if possible. The proposed reputational incentive will ensure visibility of progress against targets and a driver to achieve beyond the targets. Any remaining emissions will be offset by a reputable offsetting scheme. The CEG has questioned the use of offsetting as we would prefer to see action taken to reduce emissions in the first place. Cadent argues it will use a UN-approved scheme based in the UK only once all reasonable efforts have been made to reduce emissions at the point they are caused. We believe it is important for Cadent to maintain engagement with its customers on the acceptability of this approach during GD2, and it has committed to do so.

Cadent is proposing to take decisive action to adopt **electric vehicles** in its fleet. This is an ambitious plan, which carries the largest element of cost within this part of the business plan. The CEG supports the change because it allows the company to build the knowledge of the market and to test its own needs, allowing the longer-term shift to fully emissions-free (and air pollution-free) vehicles that will be needed in coming years. The plan sensibly allows piloting and evaluation during the roll-out, with flex to speed up or slow down depending on experience.

Cadent has made a commitment to reducing its **energy usage** by at least 10% by 2024. A review is under way now by external consultants to assess deliverability of this, including whether it can be increased given the changes being made to the company's use of property in the coming years. One member of the CEG, whose specialist area is energy in buildings, is of the view that with respect to energy use in its buildings Cadent could increase its ambition substantially.

Cadent has made strong progress in RIIO-1 to reduce **waste** to landfill to very low levels and to reduce first-use aggregate. Recently it has introduced targets to remove single-use plastic and to reduce waste from offices/depots, etc.

The CEG had expressed concern that early drafts of the business plan did not do enough on broader environmental issues, in particular water use and biodiversity. Following discussion on the company's existing activity and scope for further action in RIIO-2, the business plan is now clear on what the company will do.

Cadent plans to extend the accounting and reporting of Scope 3 emissions in RIIO-2 and to work with suppliers to set targets for reduction. This will tackle, for example, the embedded carbon in plastic pipes. The company will publish its sustainability criteria for procurement, helping to provide transparency on its standards and benchmarking of best-in-class performance. It would be helpful to have further detail on how this will be delivered during RIIO-2.

Costs and CVP

The plan includes £55.6m to deliver carbon neutrality and £1m to deliver support for Cadent staff to reduce emissions. The CEG discussed the way Cadent had built up the costs associated with this package at an Output Case meeting in November. We were satisfied that an appropriate cost base had been used for the different elements. Customers have been consulted on the package and expressed diverse views – see above for more information.

The net benefit associated with carbon neutrality calculated within the CVP is negative (-£36.3m) although there is a positive NPV associated with the Cadent staff measure. This reflects the low £ value customers assign to this activity. We applaud Cadent for maintaining its ambition despite this and would be interested to see what other gas networks have experienced in developing their plans.

We disagree with the proposed approach to include theft of gas in the CVP – see appendix 2 for more detail.

ODIs are proposed for:

- addressing shrinkage (leakage) – a common reputational reporting target (see section on shrinkage above for our views on the use of this target) with a bespoke financial incentive proposed by Ofgem for gas conditioning and average system pressure;
- carbon neutral operations – a bespoke reputational measure.

Areas recommended for hearing/ further scrutiny



- We recommend open hearings review the level of ambition associated with this and other network plans for business sustainability. What one company may regard as ambitious may be BAU for another. This will enable Ofgem to make a judgement on the merits of including this work as part of the CVP.
- This would be particularly helpful for the targets on shrinkage as these have the most significant environmental impact and also because it is hard as an individual CEG to know how ambitious a single network is being. Cadent's assertions on the use of pressure management and MEG in GD2 could be tested at the same time.

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating

Trusted to act for communities

Ofgem area: No specific Ofgem guidance on this topic but there are some regulatory expectations on transparency and reporting.

Cadent BP: p108 of business plan. Appendices: 07.05.00

Hearing: No

Summary

- ❖ We welcome this fourth outcome area which goes beyond minimum requirements.
- ❖ It is a thorough set of proposals that is based on customer feedback and builds on Cadent's existing activity.
- ❖ There is a high level of commitment in the business to deliver the outcome – and it will be supported by publication of progress against targets.

Context

- Cadent has proposed this additional area of commitment, reflecting feedback from stakeholders that it is not a trusted brand or in a trusted industry sector.
- The plan represents a step-change for Cadent, it draws on good practice and includes welcome initiatives like the Cadent Foundation and commitments to tackle workforce diversity.
- Some areas of the Trust Charter are better developed than others, with work still needing to be done to develop SMART targets that can be measured and reported on. Cadent has committed to do this.
- Customers see environmental responsibility as an important part of being trusted, so the proposals in the Environmental Action Plan also contribute to this area. Customers also base trust on the day to day contacts they have with the company, so delivery on its customer service targets also plays into this.

Our approach and scrutiny activity

The CEG reviewed Cadent's work on development of this chapter in April 2019, then gave feedback on the draft business plans chapter in June, July and August 2019. In assessing Cadent's plans we have compared them with the publicly available draft business plans for other GDNs – NGN, SSEN and WWU. We have also used Sustainability First's Fair for the Future project as a guide (Cadent is a partner in this project).

CEG welcomes Cadent's recognition of this area as a priority given customer views. We gave significant feedback on the plans, including recommending development of a clear plan that included targets and measures against which Cadent could be judged. Cadent's response was to develop the Trust Charter which describes its plans, and the actions the company will take to achieve them.

There is also a particularly strong link to the company's Stakeholder Engagement Plan which needs to support continual feedback and refinement of plans.

Challenges

- Seven challenges are recorded on the challenge log.²⁹ Five are closed and two are ongoing. There are also related challenges on workforce planning, engagement, and environment.

Stakeholder engagement

The genesis of this fourth outcome area was customer and wider stakeholder feedback including from the CEG. Cadent responded positively to this by creating a new package of

measures designed to overcome the poor or limited perception of Cadent and wider legitimacy and transparency issues. The CEG recognises that the company has done a lot of work to define its goals, including reframing proposals to 'supporting communities' – the most meaningful concept for customers to grasp.

The feedback demonstrates good support for measures that make a contribution to local communities (the Community Fund), that support staff and encourage young people to join the business, and that have a positive impact on the environment. Measures in all these areas are covered by the Trust Charter or the EAP. Customers are generally untrusting of energy companies, private companies, and companies with overseas ownership. They generally do not want to individually understand exactly what Cadent is doing in these areas but they do want assurance that the company is "playing fair" in terms of, for example, tax, corporate rewards and diversity. Cadent would continue to benefit from customer and expert stakeholder input on issues like this to test whether they have policies in place that meet and exceed those of corporate peers. The Stakeholder Plan includes a commitment to pursue this in RII0-2.

Views on the business plan and associated documents

We welcome Cadent's identification that this issue is important to its business. We have seen genuine commitment from the Board downwards to do the right thing and to improve performance. During the development of the plans we have challenged on the scope of issues that needed to be covered in

²⁹ CL138, CL139, CL140, CL141, CL162, CL163 (Ongoing), CL165 (Ongoing)

a good plan, and we also challenged Cadent to be ambitious. We also suggested it do more to benchmark its plans against other businesses as we were not convinced it was as strong as it could be. Cadent has responded positively to this challenge with a broader set of commitments and more concrete targets in the final Trust Charter. The Charter represents a big step forward for the business.

The Trust Charter (appendix 07.05.00) is a very thorough account of each commitment area, why it has been chosen (including customer and stakeholder feedback), and any specific targets where these have been set. Overall there is a commitment to report annually on progress against the Charter. Cadent says that the report will be developed “through engagement from our Customer Forum, Customer Engagement Group and relevant regional stakeholder groups”. The reporting arrangements will support delivery of the commitment by allowing this challenge.

Cadent commits in the Stakeholder Plan to engage throughout RIIO-2 on its plans and delivery. One key message from customers is that they like clear and simple communications, so we encourage Cadent to make its Charter as clear as possible with key indicators and targets to support delivery. This would aid the understanding of customers and staff and build trust that Cadent understands the problem and is committed to change.

The CEG welcomes establishment of the Cadent Foundation, funded from company profits, with a commitment for the future, which was accelerated by CEG feedback to the Board. The contribution of ‘at least 1%’ of the profits, while not seen as enough by some customers, is deliberately set at the higher end of utility peer benchmarks. The Foundation is at an early stage of development and we will be interested to see how Cadent will use it to help embed its values and new approach to being trusted across the whole business. We believe this could be a strategic vehicle to deliver wider business plan commitments and cultural change.

The detailed commitments in the Trust Charter do include some very clear targets (e.g. on volunteering) but some lack precision (e.g. the targets for increasing BAME participation in the workforce). Following feedback on the October draft, Cadent has committed to creating specific targets which will then be measured and reported on which is welcome. However further

thought is needed as to how the company can effectively target its communications at those most interested e.g. proactively pushing tailored communications to particular stakeholders.

On executive pay and tax, a rather cautious approach has been taken. Customer feedback is used as the reason for this as well as the structure of the company technically meaning they cannot achieve the Fair Tax Mark. We challenge the company to keep benchmarking themselves against other company activity in this area and to assess whether they are doing enough to create trust in particular on tax.

Cadent has set itself challenging commitments and it will require focused delivery and also culture change across the business if it is to succeed. We would also like to see more information on how Cadent will keep up to date/respond to changing values. For example, it mentions a best practice case study of an organisation that reviews its commitments each year but does not say how it will keep this charter live. We welcome that the strategy and its delivery is owned by the Director for Customer Strategy.

Costs

No specific costs are identified for this work.

Bespoke outputs

Two bespoke reputational ODIs have been identified – publishing a report on:

- Delivery of the Stakeholder Engagement Strategy; and
- Delivery of the Trust Charter.

We support these steps which will help improve transparency.

Disagreements

The CEG members disagreed as to whether the community fund should count towards the CVP. See appendix 2.



Areas recommended for hearing/further scrutiny

None

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating

Innovation, data and digitalisation

Ofgem area: Innovation, modernising energy data (digitalisation strategies)

Cadent BP: Ch.7 - Driving performance through innovation and competition - p.54/Ch.8 p112

Hearing: No

Innovation

- The CEG has been impressed with Cadent's level of ambition on innovation, and its recognition that to deliver it requires culture change throughout the organisation.
- We have seen considerable progress throughout the year and a growing ability to use innovative thinking across the business.
- We believe the innovation framework now in place will continue Cadent's evolution; if so, the company will have a powerful engine to drive efficiencies.

Context

- The CEG believes only an innovative company can respond to customer and stakeholder wants and needs at a time of fast industry and societal change. Cadent must respond to changing consumer expectations and innovate to provide a safe network that is resilient to changing needs at an acceptable cost to consumers. Ofgem wants companies to have a strategic focus on innovation, embed it into company culture, fund it from totex and move it quickly into BAU. It wants companies to be able to manage and respond to disruptive change.
- Cadent acknowledges it is on a journey to develop a culture of innovation and has clearly expressed lessons learned from RIIO-1.
- Cadent's initial discussion with the CEG on innovation focused heavily on specific engineering solutions and the CEG gave a strong message that we regarded this as a culture issue and one that should encompass innovation in 'soft' activities as much as technology. Cadent responded with a 'rethink' that brought together disparate innovation strands already adopted across the company. As a result, the next stage of our scrutiny was delayed, but the CEG was able to see an approach that was more strategic and comprehensive.

Our approach and scrutiny activity

- **Review areas include:** culture of innovation; making innovation BAU; use of competition and third parties; data strategy; transition and decarbonisation; whole system thinking; 'soft' innovation (e.g. vulnerability, worst-served customers), discussed at five CEG sessions and a number of working group sessions. For more information on activity and documents reviewed see appendix 1.

Challenges

- The CEG has raised 15 challenges³⁰ directly on innovation or data of which 4 are ongoing.

Stakeholder engagement

- Cadent has tied innovation priorities to the main themes identified during RIIO-2 engagement.
- It has engaged with organisational stakeholders both external and internal (via depots) to identify sources of innovation.
- Cadent has ongoing relationships with a wide variety of other organisations, including local authorities, that take a 'whole systems' approach and have potential for disruptive change.
- It is reviewing engagement with data stakeholders in its evolving digitalisation strategy.

- Cadent has made improving the customer experience, including that of vulnerable customers, a major theme of its innovation strategy. It is less clear in the business plan on the process by which it would consider potential distributional impacts of innovation, but the CEG understands this is embedded in the innovation review process.

Views on the business plan and associated documents

- Cadent first presented its innovation strategy to the CEG in July. There has been progressively more ambition in October and December, with the strategy expanding in scope, clearer processes to progress innovation and more ability to track and benchmark outcomes. Cadent's aim to become an innovative company is now well expressed and seen as a culture change throughout the organisation and its partners.
- Cadent's articulation of its innovation strategy has expanded from an engineering approach to extend throughout the company's functions and involve all its employees. Following discussions with the CEG, Cadent revisited 'lessons learned from RIIO-1' and broadened its scope, with a determined effort to expand innovation from technological change to "innovation in all its forms". It restructured its innovation themes to de-emphasise specific technologies in favour of consumer outcomes.

³⁰ CL46, CL73, CL106, CL114, CL115, CL116, CL154, CL170, CL171, CL172, CL173, CL175, CL181, CL182, CL199

- An introduction characterising Cadent's understanding of different categories of innovation (disruptive, continuous) is a welcome addition in the December plan, which allows it to show clearly its different strategies for each.
- On continuous innovation it has responded to CEG questions over clarity with a clear explanation of the process for initiating, encouraging, communicating and rewarding innovation that includes fast and informal local feedback as well as company-wide formats (e.g. annual showcase) that allow Cadent to fertilise across its new depot-centric structure.
- It has built on the experience from RIIO-1, for example in rolling out a toolkit to understand and map customer journeys.
- It has responded to CEG feedback in benchmarking its innovation culture and outputs. Cadent's early use of the IEC/Baringa framework should be of pan-industry value.
- The CEG supports Cadent's expansion of innovation partnerships, for example plans to expand work with small and medium-sized enterprises, and use the 'innovation laboratory' to adapt external innovation.
- Although the digitalisation strategy is in an early iteration, in the December business plan Cadent has begun identifying touch points with the innovation strategy and the CEG has encouraged it to do so.
- The strategy has implicit opportunities for Cadent to make more use of tools such as competitions (as started with the innovation laboratory), customer feedback loops, using data as a tool, etc, which could be explored more as the strategy matures.
- Continuous improvement clearly encompasses all aspects of Cadent operations but it has not yet been used to address pan-company challenges such as making its operations zero carbon, although its MOB's strategy can be seen as a pathfinder.
- Although it has accepted the value of open data at a high level, Cadent has highlighted internal debates over how and where it can open data and so challenges remain open in this area. The CEG expects Cadent to develop the maturity of its approach through further iterations of its digitalisation strategy (see below).

Costs

- Cadent has noted the value of using a BAU/totex approach to fund continuous innovation, believing it allows for speed and flexibility.
- It has highlighted the use of external funding sources, e.g. InnovateUK, where appropriate.
- It is seeking £40m of NIA funding in RIIO-2 compared with £53m in RIIO-1, on a use-it-or-lose-it basis. It has set out a clear rationale for the use of NIA funding – projects that are long term, with low-technology readiness and likely to deliver in RIIO-3 – and for strategic funding.
- It proposes to use the Community Fund to support local innovation and SMEs. This use of the fund requires justification from consumers, who rated it fifth most popular option in acceptability testing.

CVP

- The CEG questions Cadent's decision to include customer gains of £159 million from its innovation and competition strategies and its business transformation in its customer value proposition. See appendix 2.

Digitalisation strategy

Context

- Digitalisation is expected to change the culture of the utility industry – reducing costs, changing working practices and opening it up to innovators.
- Ofgem expects GDNs to be already considering the opportunities to use data to reduce costs, improve efficiency and aid industry and consumers. It has required companies to produce the first iteration of a digitalisation plan which moves beyond this and draws on the lessons of the Energy Data Task Force to drive cultural change
- Cadent says the cost of opening data is £5.7m for projects it says are "fundamental to our business and the realisation of benefits in the rest of our plan".

Our approach and scrutiny activity

The CEG has aimed from the start of its scrutiny to ensure Cadent considers the value and use of data as fundamental. Data opportunities and needs have been explicitly included in challenges across the CEG's activity and the CEG has pressed Cadent to make the needs of a data-driven organisation a higher priority. In its questioning the CEG encouraged Cadent to view digitalisation as a structural change, affecting frameworks including opex/capex balance and opportunities for competition, and linking it to its outcome areas. For more detail of our scrutiny see appendix 1.

Stakeholder engagement

- Ofgem has not required companies to engage over this iteration of the digitalisation strategy, but there is clear expectation that it will evolve in response to stakeholders.
- Cadent has rightly positioned its strategy as a 'statement of intent'. The CEG understands this is a prelude to engagement over the course of the year, but the programme has not been set out. Cadent has accepted CEG encouragement to engage with technology and data groups such as the Turing Centre to widen its understanding of the needs of potential new stakeholders.

- In three Cadent workshops with staff, business and domestic customers in August 2019 on communications new expectations were set on using digital communications
- Cadent has initiated engagement with other networks through Energy Networks Association (ENA) and with the Energy Systems Catapult and is preparing to participate in Ofgem's proposed digitalisation conference in 2020

Views on the business plan and associated documents including appendix 09.30 IT and telecoms

- Cadent intends to be a digitalisation leader and the CEG has urged it to better define what leadership means in this context.
- The CEG has stressed the need to respond to the different culture of the IT sector, especially the pace of change and its 'try, fail, try' approach to innovation. Cadent has recognised it has to be closer to that pace in IT development and has taken a 'laboratory' approach to allow for faster innovation and 'proof of concepts' in data, and considered how the 'try, fail' approach will affect its spend profile. It aims to have a data-use pilot project.
- Cadent has a clear aim to be an 'open data' company and has reflected that in its IT strategy. It has completed a benchmarked assessment of its own data readiness (in March 2019) and actioned a new data ownership and governance structure with monthly and annual reviews. It has recognised that its own data is not 'discoverable' and aims for transparency in its data openness triage process. It plans to make metadata available during RIIO-1. The CEG has challenged it to provide more detail on when it anticipates releasing data.
- Cadent has responded to consistent CEG pressure to move faster, in 'parallel working' on data readiness in RIIO-1. However, the CEG has concerns that Cadent's wish to make open data 'insightful' may be seen by potential users as an unhelpful level of curation.
- In response to CEG questions on data openness, Cadent shared Board uncertainty about the balance between data

openness and considerations of safety and loss of value to Cadent. It should engage with users and customers to ensure it understands their needs and expectations on these points.

- Cadent has recognised that utilities have traditionally had a culture of risk aversion and isolation and is looking for learning from other sectors such as healthcare and finance. The CEG has encouraged Cadent to be proactive in its own use of external data and challenged it to look more widely for potential sources. This has a minor role in the current strategy.
- Cadent has taken steps towards digitalisation throughout the business plan in response to CEG challenges, but it has not yet linked these directly to the digitalisation strategy. For example, it recognised the need for new skills in its workforce resilience planning and put in place a strategy to accommodate a higher-than-average staff turnover in this group and 'grow' more junior staff. It has also recognised the need for a shift to digital learning and collaboration tools that will develop the background skills base.
- Linking the digitalisation strategy more closely with outputs (e.g. whole systems) will help Cadent to iterate its strategy and give it greater understanding of data customers and more access to external data.
- Cadent will be producing the next iteration of its plan in spring 2020 after participating in an ENA conference on data.

Costs

Cadent expects to spend £5.7m on data cleaning, transformation and other data projects during RIIO-2, within its planned IT transformation programme of £154.68m.

Areas of disagreement

None

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating

Competition

Ofgem area: Competition

Cadent BP: Ch. 8 - Driving performance through innovation and competition - p.112

Hearing: No

Summary

- ❖ Cadent has developed a comprehensive competition plan which displays ambition to expand the potential role of competition from a good base and embed such thinking in its culture. Several aspects of its proposals are strong and encouraging.
- ❖ We have challenged Cadent to fully embed its approach within its overall business strategy.
- ❖ We are encouraged by its intent to explore alternative delivery models for its hydrogen-related projects.
- ❖ Cadent should accelerate and clarify its approach to information provision before and during RIIO-2.

Context

Ofgem has challenged DNOs to set out a competitive strategy dealing with native competition but also to identify specific large projects which may be suitable for late and early competition. Increasing the amount and intensity of competition is seen as critical to delivering the innovation and efficiency underpinning customer outcomes, with substantial opportunities for new modes of competition in delivering the energy systems transition.

Cadent has had a reasonably well-developed approach to native competition focussed on its tier 1 contracts to deliver its RIIO-1 capital and repex programmes. Around 70% is subject to native competition. It can also point to areas where it is unique among GDNs in allowing for competition, such as >7 bar pipeline design and construction. It included a competition plan in its October business plan, albeit not fully developed at that time.

Our approach and scrutiny activity

The CEG has scrutinised the competition strategy both as a whole CEG and in depth in working groups (see appendix 1).

Challenges

The CEG raised four formal challenges related to competition, all of which have been closed.³¹ The engagement with CEG on this topic has been good.

Stakeholder engagement

The CEG raised concerns about how much Cadent had addressed the potential role of competition. Cadent has engaged with its industrial customers about difficulties and barriers faced in connecting new biomethane plants to Cadent's network and this has resulted in proposals which are welcome. Although there has been extensive engagement with customers and stakeholders about trialling and developing hydrogen networks, with strong calls for collaboration, there has been little or no focus on the role of competition so far and the CEG had challenged on this. It is pleasing to see that Cadent is now committing strongly to such engagement in future in its competition plan. This is an engagement gap that the CEG challenged (CL205).

Views on the business plan and associated documents

Cadent developed its competition plan in response to the requirements made clear by Ofgem in June 2019. The CEG was concerned about the extent of further thinking needed at that point in order to meet the requirements and specifically to ensure that its approach was integrated with its new strategic

direction and operational transformation (CL145). Cadent responded positively to this challenge. We reviewed an early draft of the competition plan submitted in October 2019, which in turn enabled us to scrutinise the details of its thinking.

Strengths

The business plan now contains a well-developed detailed competition plan, which contains clear descriptions and good evidence of Cadent's ambition, its current and proposed approaches to competition and its performance and activity to date.

The CEG is encouraged by several aspects of its emerging competitive strategy.

We believe Cadent's new competition assessment framework, including an expanded set of criteria for considering the potential for competition, seems sensible, and there is a logical approach to applying these criteria. The CEG challenged Cadent to be clear about how it made decisions on whether to compete activities and how it might increase the scope of what it competed. Its new approach represents a good response to that challenge. In particular, it appears to have rigorously considered all aspects of its plan and has identified three areas where it will look to apply its "extended native" competition approach.

We have been concerned about whether new competitive initiatives will deliver the benefits claimed (CL205) and we are therefore pleased that Cadent has set out details of its trialling of initiatives aimed at bringing more competitive pressure to its activities including more decentralised accountability (creating

³¹ CL145, CL187, CL188, CL205.

internal rivalry) and its new contracting strategy (involving tier 2 suppliers). We felt comfortable with Cadent's proposals for the latter, having particularly challenged it on plans to bring some activities back in house. More details on our review can be found in chapter 13 on costs and efficiency.

The CEG welcomes Cadent's commitment to its Annual Competition Progress Report.

In relation to early competition, Cadent has considered but discounted the potential for competition for some specific projects. Above-threshold projects to deliver HS2 diversions and the Lower Thames crossing will not be competed because they are required and paid for by third parties. Cadent has also discounted the below-threshold London MP project because it is difficult to separate it from wider replex investment. We have scrutinised the rationale for these exclusions and are comfortable with them. In both cases delivery is via competitively procured main works contracts. Work on diversions has already been subject to a competitive process to identify third parties to conduct the works. While unsuccessful (resulting in Cadent delivering the works), future competitive processes are not discounted.

Areas for development

The company should ensure that it fully integrates its competition plans into its wider strategy, for example to its approach to innovation, industry collaboration and the energy systems transition. It should clearly articulate the strategic rationale for its choices relating to competition (for example in setting "standards customers love") and set out potential benefits for efficiency and service, quantifying them where possible. It should also consider how it can embed the cultural change needed to support a more competitive ethos.

The CEG has consistently encouraged to Cadent to think about how competition can play a bigger role in solving the challenges

it faces, including that of the energy systems transition. Cadent's proposals to better facilitate markets for decentralised gas production, greater information sharing and stakeholder engagement are welcome. However, we continue to urge Cadent to avoid unnecessary delay in rolling out such initiatives. Early proposals envisaged a cautious approach with an extensive period of trialling but we are now encouraged to see the intent to move more quickly.

Further to this we encourage Cadent to be as clear and specific as possible about the type of information it commits to share throughout the price control. This is an Ofgem requirement. References in the competition plan to information on connections and procurement processes are welcome but currently at a high level. If Cadent intends the annual report to be used as a forward-looking document by current and future suppliers it should engage to ensure it includes key information that would be required by future competitive participants.

The CEG has challenged Cadent to think more expansively about options for commercial and regulatory arrangements for delivery of hydrogen networks and projects (CL187). Cadent should consider options beyond the assumption that Cadent will own the network, regulated under RIIO arrangements as an integrated part of the existing network. This would better demonstrate that Cadent promotes competition where it best serves the interests of customers, and efficient, effective delivery of energy systems transition. It is pleasing to see Cadent has committed to exploring such alternative models in its competition plan.

Areas of disagreement

None

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating

Costs and efficiency

Ofgem area: Cost information

Cadent BP: Costs and efficiency Ch. 9 p.130

Hearing: No

Summary

- ❖ Chapter 9 of the business plan sets out Cadent's approach to various categories of spend – repex, opex and capex as well as a totex position – relating RIIO-2 projections clearly to RIIO-1 performance. It explains how Cadent has used the ENA core scenario to develop projections and how Cadent is planning to deliver an ambitious efficiency plan during the rest of RIIO-1 and into RIIO-2.
- ❖ The CEG has reviewed all areas of spend to some extent (see below) and challenged Cadent on how it has built up its costs, the underlying cost drivers and where there is scope for efficiency, Cadent's approach to efficiency and plans to deliver more for less in RIIO-2.
- ❖ We have been given good access to the team, the underlying process for building up the numbers, and the assurance process. We cannot say we agree with the numbers in the plan – much more analysis is needed by Ofgem, in particular of benchmarked information that compares Cadent with other GDNs. However, we have not seen any reason to doubt Cadent has been through a rigorous internal process in preparing these numbers.

Context

- We have made a lot of effort to understand and challenge the way Cadent has costed its business plan. Given outperformance by all GDNs in GD1, we wanted to test the way costs had been built up and ensure that investment plans included good justifications. The FIWG led this work, with regular discussion at full CEG meetings. This chapter records the CEG's overall judgement on cost justification and efficiency. The commitments chapters (5 and 7 to 9) also include our assessment of specific costs.
- Cadent accepts its performance has lagged behind its peers in GD1. It has reflected on this and reviewed its operating model. It has ambitious plans to remedy its performance gap before, and to improve performance during, GD2. We have observed significant management focus on this and the company is already making progress.
- Cadent has demonstrated robust cost assessment processes and good modelling capability for the major cost drivers (repex and most opex). We have also reviewed its assurance process, which includes independent cost assurance. Cadent is determined to build a culture of efficiency, innovation and competition. This is developing, although there is some way to go before the approach is embedded.
- Ofgem's cost confidence BPI approach has a pervasive effect on the company's thinking and analysis. Cadent's analysis depends on its understanding of Ofgem's cost modelling. It has insights through the CAWG, which we do not. But neither Cadent nor we have access to the other GDN forecasts that will form the base for much of that modelling. We cannot say that Cadent's working assumptions are correct, but we assume this will be a focus of Ofgem action in the next phase.

Our approach and scrutiny activity

We undertook three detailed phases of scrutiny (see appendix 1 for details). We reviewed underlying drivers before detailed cost figures were available. Once they were available, we took on deep dives to understand the rationale behind all costs and review all output cases. Finally we reviewed Cadent's cost confidence process.

Cadent has been responsive to our requests for information and has provided access to all documents we asked for, as well as finding time for the relevant experts to talk through plans. The main challenge has been the limited time to discuss the actual

costs and their drivers, because we did not see any firm figures until the June draft business plan and these costs were updated for successive drafts. Given the scale of costs, the complexity of the model behind them and the number of detailed EJDs, we have considered the extent to which costs have been assured by third parties.

This report is based on information we received from: Cadent at meetings; business plan Chapter 9 and Appendices 09.00 - 09.40; output cases where Cadent is proposing going further than core standards; and assurance documents. Cadent has freely shared all documents requested with us.

Challenges

Nine challenges³² have been raised, all of which are closed.

Stakeholder engagement

CEG's views on engagement associated with each area of spend can be found in our review of the business plan commitments chapter, covered in chapters 5, 7, 8 and 9 of this report.

Views on the business plan and associated documents

We have been encouraged that Cadent acknowledges it has lagged behind the industry and that it needs to transform cost efficiency. Its plans in RIIO-1 aim to largely close the gap and are ambitious, with further transformation savings forecast for RIIO-2 (see figure 09.05 in the business plan).

We advised Cadent that it needed to show its assumptions on **efficiency** levels were correct, given the high level of outperformance by Cadent and other GDNs in GD1. It had to demonstrate that an efficiency culture was embedded at all levels within the business, not just a regulatory exercise. Cadent has provided evidence it challenged itself on efficiency before and after the change of ownership. The transformation plan is based on robust analysis and on pilot schemes to try new ways of working and is well-supported at board and executive level. The CEG believes this demonstrates the commitment of the business to delivering efficient outcomes.

We have reviewed the savings assessments in Cadent's **transformation programme**, which include: plans to change its contracting strategy to deliver better value and service levels; changes to ways of working (the depot-centric approach); and assumptions about shifts in major areas of spend (e.g. savings in emergency repair and response created by the mains replacement programme).

We accept Cadent's explanation of why the company is facing genuine challenge in meeting its cost efficiency targets. It has ground to make up to become an upper-quartile (UQ) performer before RIIO-1 ends. We believe this is in itself challenging. Within RIIO-2 Cadent has set itself a 0.94% average annual total efficiency target. We believe that UQ performance by the GDNs will accelerate during RIIO-2, requiring Cadent to step up performance.

Good progress has been made to bring **workforce costs** (the biggest factor in opex) into line with other GDNs and external benchmark companies, working with staff and unions to change terms and conditions. Appendix 09.38 on controllable opex costs gives a good analysis of the factors that drive opex, how Cadent has tackled the largest drivers and how it has made "balanced" decisions on the appropriate level of repx mains replacement vs opex repair and emergency spend to provide the best value outcome. We have discussed this approach with Cadent and feel comfortable it has made reasonable choices, and that the choices are transparently explained in the business plan.

Cadent has justified the reasons for its new approach to **contracting** (less reliance on tier 1 contractors and in-house work selection and data capture) and depot-centric organisation,

and we accept that change is needed to deliver cost-effective and high-quality services. We saw potential risk in this major change but Cadent has set out how it is trialling new approaches to mitigate this. We have seen board-level oversight of this programme so feel assured this will be managed carefully. Cadent has talked us through its general approach to outsourcing work, including back-office functions. We saw a planned approach using outsourcing to deliver value and quality, with regular review of whether it can be extended.

The CEG challenged Cadent to demonstrate it was using a sufficiently broad range of **benchmarks** to measure its performance, addressing concerns that it was focused on regulatory calculation of efficiency. We have seen evidence that benchmarking is now wider and that a culture of benchmarking is becoming established. It included non-utility companies and we have seen evidence that the company looks at best in class examples across different sectors in order to learn lessons.

Appendix 09.21 sets out the **regional cost differentials** that feed into the overall plan. This includes some material costs that we recommend Ofgem reviews, in particular whether the cost differentials identified for London are reasonable.

We have given Cadent significant feedback on making clear in the business plan the underlying **rationale for key investment** proposals, demonstrating that: it is needed; alternative ways of delivering the objective have been considered; and the risk of stranding has been taken into account. Our comments are in the relevant commitment chapters (with the majority by £ value in chapter 8 on maintaining a safe and resilient network).

Chapter 9 of the business plan sets out how Cadent is using the Energy Network Association **core scenario** to plan its costs. We have challenged Cadent on whether changes since these scenarios were prepared (e.g. the new Net Zero target for 2050) affect its plan. We accept Cadent's analysis that impacts during RIIO-2 would have a limited cost. Where there are material uncertainties for RIIO-2 from external factors (such as the Net Zero agenda), Cadent has proposed uncertainty mechanisms rather than baseline funding. Our chapter 14 on managing risk and uncertainty discusses Cadent's approach to uncertainty mechanisms. A significant component of its work in RIIO-2 may end up being carried out under these mechanisms.

We have reviewed material on how Cadent carried out its **confidence assessment** on costs. Cadent has chosen to reference: its view of how readily Ofgem will be able to gain confidence over costs using the tools available to it; and its own "bottom-up" assessment of confidence based largely on stage-of-project lifecycle and its engineering assessment. The CEG is not sure if that is what Ofgem intended and, to be fair, nor is Cadent. It has clearly set out its approach for Ofgem to make a judgement.

There is an incentive for Cadent to assess its costs as high confidence to access a higher incentive sharing rate in the BPI. Cadent's bottom-up method for evaluating its cost confidence appears to the CEG to be reasonable and implemented as planned (judging from our review of selected EJDs and probing

³² CL61, CL62, CL80, CL100, CL107, CL175, CL176, CL178, CL179

Cadent). We have scrutinised Cadent's rationale (against its own methodology) and we find its conclusions generally reasonable. We have some concerns about averaging. We saw an item of low confidence that did not appear in Cadent's overall assessment and when taken together with associated cost items, Cadent assessed the broader group as high confidence. It was not material but we cannot be sure from our limited analysis whether there are other such examples, which taken together could be material. At a higher level of aggregation, Cadent appears to have been open when averaging in this way. We note that 94% of costs are evaluated as high confidence. It is not possible for us to say whether the overall percentage of high confidence costs would have been different if only bottom-up evaluation had been applied.

We have gained comfort from third-party reviews that cost estimates are well-founded and where appropriate based on actual costs incurred, and that there has been good process and quality control in their derivation. We have some residual concerns about assurance over costing.



Areas recommended for hearing/further scrutiny

We anticipate that cost analysis will be at the heart of Ofgem assessment in the next phase of the price control process, with the benefit of being able to compare the planned performance of all GDNs.

Our chapter 8 on maintaining a safe and resilient network describes some of the questions Ofgem might explore on repx. The 'Commitments' chapters (5 and 7 to 10) include discussion of Cadent's output cases and a guide to potential areas of challenge. On opex, we have questioned the level of challenge associated with the efficiency transformation plan and Ofgem may also wish to do this.

As noted above, we have relied on third-party assurance to give us comfort on Cadent's plans. As discussed in chapter 3 on business plan commitment (culture, governance, assurance and deliverability) we have concerns about the weight that can be placed on the review of costing by Costain, as the scale and scope of work supporting its conclusions is not that clear. We suggest that further scrutiny may be useful.

Regional cost differences that underlie the four networks' costs in the business plan are explained in appendix 09.21. These differences appear to be particularly material for London and we recommend that Ofgem reviews Cadent's approach.

The cost confidence assessment is of significance to the final decision on the incentive sharing rate. As described, we recommend that Ofgem reviews Cadent's proposals carefully.



For wider strengths and weaknesses on this chapter see appendix 1.

Our
rating

Managing risk and uncertainty

Ofgem area: Managing uncertainty

Cadent BP: Ch.6 -Net Zero and a whole system approach p.40 /Ch.10 - Managing risk and uncertainty p.163

Hearing: No

Summary

- ❖ Cadent has proposed a set of uncertainty mechanisms – including nine bespoke UMs – justified in terms of managing unknown factors in RIIO-2.
- ❖ All concern genuine uncertainties and help manage the associated costs to the benefit of customers. That is not to say there are no risks to customers from adopting these measures.
- ❖ Customer engagement on these measures has been very limited and does not allow a clear conclusion about what customers want. We recommend that Ofgem looks carefully at the right balance between base plan spend for areas where a UM is proposed and the UM.
- ❖ This should be read alongside appendix 3.

Context

- The RIIO-2 framework incentivises networks to make greater use of UMs. This avoids including uncertain costs in totex, so the customer does not overpay for the outputs that are delivered and that the company does not receive a lower totex sharing rate (and potentially cost disallowance) from including low-confidence costs in its totex submission. It means that more activity and larger costs are included in UMs in RIIO-2.
- The CEG has therefore paid close attention to Cadent's plans for the use of UMs.
- Cadent's approach to risk and the use of UMs has matured during preparation of the business plan. The appendices now include a lot more information on the case for the specific UM and how they will be managed to reduce risk to customers.
- During business plan preparation Cadent revised its approach to managing risks. Cadent brought the risks to customers explicitly into the risk-management system – the CEG welcomes this.

Our approach and scrutiny activity

The CEG, including FIWG, has reviewed Cadent's approach to managing risk and uncertainty. We looked at:

- Cadent's approach to day-to-day risk management from board level downwards, including the systems and processes it has in place and its risk appetite;
- How Cadent assessed what areas of spend it wants to put into UMs (criteria, materiality threshold and incentive effect);
- Cases for the specific bespoke UMs Cadent is planning to use, including rationale, design and impact on customers. We have also looked in detail at some of the non-bespoke cases.

To steer us we used Ofgem's Business Plan Guidance, in particular Table 1, plus general and gas distribution sector-specific methodologies. This issue has been discussed at either CEG or FIWG meetings nearly every month since February 2019 (see annex 1 for detail).

This has been a challenging area to review with Cadent making very limited progress to improve its cases for many months.

Significant feedback was provided on:

- The extent and quality of customer engagement that informed the UMs, and the company's approach to managing risk to the customer;
- The process for developing UMs, including the criteria used to assess the need for a UM, and the extent of internal challenge;
- The design of UMs including their form, how they would be triggered and costs forecasted;

- The management of risk to protect customers during the RIIO-2 period, including behaviours incentivised by the proposed UMs.

The final version of the business plan has seen a marked improvement in quality in the justification cases (appendices 10.01 – 10.15), which have now been prepared in line with the structured process that Cadent designed. All five challenges that were raised have been closed.

However, we have concerns about the customer engagement on this topic and, therefore, the extent to which these proposals can be said to represent what customers want (see below). Because this link has not been made, and given concerns over the incentive properties of some proposed UMs, we rate this chapter as AMBER.

A number of specific issues related to individual UMs would benefit from further review and are mentioned below.

Stakeholder engagement

In our early discussions we challenged the lack of customer engagement on risk. The company cited the difficulty of meaningful engagement as a reason for not doing it and relied on Ofgem's guidance that UMs removed the risk of customers paying too much as the rationale for its proposals. We did not accept this argument and encouraged Cadent to do more to get customer views.

As a result, a very limited form of customer engagement on risk and uncertainty, and the costs associated with the areas included as UMs, was undertaken very late in the business plan development. The CEG believes this is a missed opportunity to understand the interests of customers and involve them in discussions about the trade-offs between who bears the risk on uncertain costs and bill certainty. Our concern was exacerbated because the scale of the UM package increased significantly between the July and October drafts.

We have reviewed the outputs of the engagement that has taken place and have observed sessions. We remain concerned that this area of the plan has not been reviewed with customers in any depth, with the discussion too generic and the link unclear between the risks and customer service and costs. For example, discussions about a “pay now or pay later” option do not appear to reflect the real alternatives for paying for these services. Some engagement was with staff, who were asked to adopt a customer perspective. This is sub-optimal as staff feedback is based on significant knowledge of the business, affecting risk perception. As a result, the evidence of customer views on this part of the business plan is potentially contradictory in terms of overall management of uncertain costs. It also does not address whether customers are comfortable with the specific set of measures Cadent is proposing.

Cadent asked customers whether they wanted to remove the scope for the company to receive windfall gains (i.e. removing items from totex) or whether they preferred stable and predictable bills (i.e. including them within totex). The acceptability testing section says: “When offered the choice between infrequent, unpredictable costs/bills that are cheaper overall, and an up-front regular cost that is slightly more expensive, customers were attracted to any option that was lower cost, but on balance there was a preference for greater certainty and predictability.” That implies a preference for putting costs into the base plan, which could lead to windfall gains and losses. The same message came from the acceptability testing customer forums, where “overall, most customers were supportive of receiving a stable bill from Cadent”, (although they were less concerned by an impact likely to be £1-3 p.a). However, the business plan says: “Ofgem and customer groups are very clear that they want to remove the potential for windfall gains and losses in the price control.”

The potential contradiction between these views is unsurprising. With such limited engagement, it is hard to draw firm conclusions on what customers want. Cadent reports this in section 10.6.5 of the business plan and says it is open to discussing with Ofgem the appropriate balance of the overall price control settlement and alternative approaches.

Views on the business plan and associated documents

Cadent has a good grasp of the risks it faces as a business and it has thorough systems in place to manage risk. Appendix 10.00 sets this out. This information gives us confidence Cadent is actively managing risk, including that associated with UMs.

Inclusion of the risk to customers in the risk management framework will help Cadent become more customer-centric.

Following feedback from the CEG asking for clarity on the process for determining what should be covered by UMs, Cadent produced a process map for developing its UMs (Cadent business plan appendix 10.00). This is sensible and robust (although it was introduced part-way through the business plan development process). The supporting cases for each UM have improved significantly and now include information that the CEG asked for, such as cost assessment and the drivers of variability, how the UM will work in practice and how perverse incentives will be managed.

Overall we are concerned that including potentially significant work on the network in UMs could disincentivise the company from taking more strategic decisions about delivering network capacity, including innovative or no-build solutions. Cadent proposes volume drivers that operate at input level, such as the length of pipe constructed, rather than at output level, such as the quantity of capacity sold. Input drivers increase the accuracy with which revenues reflect costs incurred (thereby increasing cost confidence), while retaining incentives for efficient construction. Output drivers, while inevitably risking some inaccuracy in how costs are reflected in allowed revenues, have stronger incentive properties, encouraging the company to think strategically about how best to deliver the required outputs for customers. We recommend that in designing the UMs for inclusion in the price control, Ofgem considers the risks and benefits to customers carefully.

We have questioned the materiality of some of the UMs identified. Cadent provided a supplementary note to the CEG, explaining its approach on materiality and the reasons for including all measures. Materiality seems debateable for a few of the proposed UMs, in particular because Cadent has taken a network-by-network approach and has adopted a lower threshold because the price control is shorter than RIIO-1. Physical security stood out as being particularly low cost. Cadent’s rationale is that further activity may be needed to meet regulatory requirements (which Ofgem has foreseen by including this UM).

This chapter should be read alongside appendix 3 setting out our commentary on the nine bespoke UMs Cadent proposes (plus smart metering). This table sets out considerations Ofgem might wish to consider on the outstanding risks to customers. Overall, all cases are justified. However, we suggest the following issues be explored:

- The largest area of cost is the pipes above safety threshold (PAST). We accept the case for a UM and the volume-driver approach. Given the scale of potential costs, we recommend careful analysis of the efficient level of unit costs to ensure the cost to customers is appropriate. The same comment applies for reinforcements and connections. Regarding steel PAST, some of the pipes that move into this category may have deteriorated as a result of Cadent’s failure to properly maintain

cathodic protection systems, which was the subject of an HSE improvement notice during RIIO-1. See also chapter 8 on maintaining a safe and resilient network;

- We do not accept that all costs associated with smart metering in GD2 should be pass-through. The cost of being a DCC member is appropriate for pass-through treatment, but costs associated with aligning systems, etc, should be incentivised to be efficient.

We believe it is in the interests of customers for the operation of uncertainty mechanisms to be understood before RIIO-2 begins, so that perverse incentives are avoided. We would like to see robust arrangements in place to benchmark and audit costs so claims are justified.

Costs

The list of areas covered by UMs expanded, in particular between the July and October draft business plans, following Cadent's consideration of cost confidence. Cadent has responded to Ofgem guidance on risk and to the business plan incentives in a way that has put significant activity into UMs. We understand Cadent's arguments over why it has taken this approach and, subject to our detailed comments, we accept the justifications it has made for the UMs.

Earlier we were concerned that the UMs would be overly focused on protecting shareholder interests but Cadent has responded to our feedback by proposing ways to reduce cost risk to customers and manage potential adverse incentives.

The business plan gives a clear view of the bill impacts of this set of proposals. Cadent has assessed the possible maximum impact as £5.20 on an average domestic bill (£3.45 excluding heat policy).

CVP

Cadent has included the UM relating to entry charging enablement in its CVP. We discuss this in appendix 2.

For wider strengths and weaknesses on this chapter see appendix 1.



Our
rating

Affordability and financing

Ofgem area: Financial information

Cadent BP: Affordability and financing our plan. Ch.11 p.17

Hearing: No

Summary

- ❖ Cadent has set out a thoughtful analysis of affordability issues arising from its revenue requirement, and responded positively to our challenges.

Context

Gas distribution is a capital intensive business. The cost of financing Cadent's gas network infrastructure (the 'cost of capital') is a significant component of the customer bill and its remuneration a significant driver of the company's continuing financeability. While customers decidedly have an interest in getting the right balance, Ofgem indicated to us the scope of our work should exclude consideration of the cost of capital. It is better placed than we are to estimate it.

Given the CEG's limited role in relation to Cadent's cost of capital and financeability we have considered it primarily from the perspective of the customer, and in particular whether financeability concerns may have an undue impact on the company's ambitions in preparing its business plan. We see no evidence of this, noting Cadent's statement that "we are confident we will be able to ensure financeability for our actual company in RIIO-2 (assuming a fair settlement on incentives, totex and outputs at final determination)". Our remaining comments should therefore be seen in this light. We have not been alerted to any financeability concerns that might have limited the ambitions set out in the business plan.

Therefore we considered the affordability of Cadent's plan from the perspective of its customers.

Our approach and scrutiny activity

CEG members discussed the scope of this activity with Ofgem and Cadent and reviewed other relevant documents. It was considered at main CEG and FIWG sessions (see appendix 1).

The CEG raised four challenges,³³ all of which are now closed.

Affordability

Cadent rightly emphasises that affordability is at the heart of its plan and informs much of its thinking around its totex requirements.

Cadent provides useful analysis of the change in customer bills from RIIO-1 to RIIO-2, taking the component of the annual gas bill associated with gas distribution for a household with average consumption levels and recognising the range of uncertainties in bill levels in RIIO-2, including the operation of uncertainty mechanisms. Cadent also acknowledges standard metrics for average household bills do not reflect the experience for all households, and some of the more vulnerable households may have higher-than-average gas use due to household size or the quality of home insulation. It characterises the range of indicative bill impacts in table 11.10, which shows a range of £75 to £160 annually for households.

In general, for most plausible scenarios, Cadent forecasts bill reductions in RIIO-2.

Cadent considered affordability as part of its acceptability testing of the plan and found only small proportions of customers considered the plan unaffordable (3% domestic, 6% fuel poor, 5% non-domestic). Respondents had been informed Cadent's share of the gas bill was about 23%, given an indication of the average household bill level and, for businesses, usage-based bill levels, and told bills would be reducing.

However, Cadent recognises that interpreting affordability is complex, with distributional and intergenerational effects.

Distributional effects

Cadent understands that affordability is more acute for customers who are in vulnerable circumstances. Following extensive discussion with the CEG, Cadent has usefully linked the issue of affordability with the need for targeted approaches for supporting vulnerable consumers (section 11.8.2). Recognising that the charging methodology does not allow intervention via the customer bill to support vulnerable user groups, it sets out its vulnerability strategy on page 84 of its plan (appendix 07.03).

³³ CL98, CL148, CL152, CL203

We consider Cadent's proposals for tackling affordability and fuel poverty in chapter 7 on providing a quality experience for all customers.

Intergenerational impacts

Cadent's is a capital-intensive business employing long-lived assets, the costs of which are spread over generations of customers. Totex has a muted short-term effect on customer bills. Reflecting this, Ofgem's guidance only refers to affordability in the context of capitalisation rates, closely linked to depreciation and financeability.

In response to CEG challenges, Cadent provided useful analysis of the longer term (Business Plan figure 11.08). While it calculates sensitivity to growth and decline in customer numbers, it acknowledges the longer-term profile of bill levels depends on policy decisions about the future of gas. It provides no indicative insight into the potential impact of those longer-term uncertainties, but it notes there is headroom from its projected further reductions in bill levels through to the end of RIIO-4 to permit the acceleration of RAV depreciation that might arise from some policy scenarios.

We consider that Cadent has reasonably sought to balance the needs of its existing and future consumers, given the uncertainty in forecasting beyond RIIO-2.

Disagreements

None

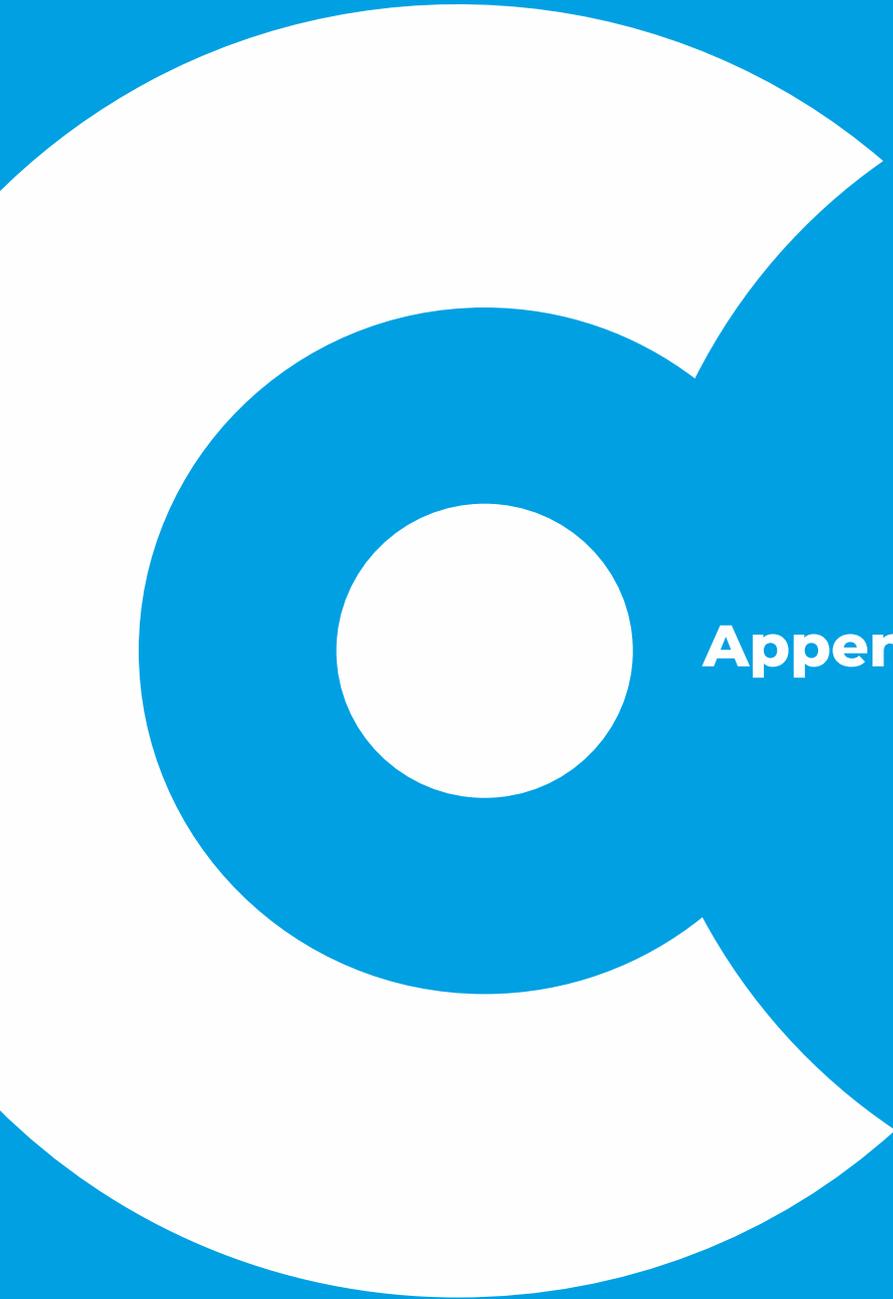


Areas recommended for hearing/further scrutiny

None identified.



For wider strengths and weaknesses on this chapter see appendix 1.



Appendices

RAG ratings, and strengths-and-weaknesses summary for each chapter

Introduction

This appendix provides a summary of:

- The CEG's scrutiny and engagement activity related to each chapter of the business plan, which informed our conclusions¹
- The CEG's views on the strengths and weaknesses of each chapter
- Areas of disagreement either between members of the CEG or with Cadent. More detail on this is also provided in our main report
- Areas where we encourage Ofgem to carry out further scrutiny, with some suggestions for hearings
- An overall RAG rating of each chapter, as requested by Ofgem. It should be noted that this is an **indicative rating only**. There is no common framework for assessing the business plans across different Customer Engagement and User Groups nor with the regulator. Readers should be mindful that we may have applied different criteria and weighting when making our assessment of a 'fair or acceptable' plan. This is not a view on whether the company has or hasn't met Ofgem's minimum standards. Our view is based on the business plan and associated documentation we have reviewed. It is also informed by our discussions with the company and wider observations, including of engagement activity.

¹ CEG scrutiny activity noted here is supplementary to the information already provided in the business plan

RAG Ratings Overview

CEG Report Chapter Title	Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
Business plan commitment (Track-record and culture)				
Business plan commitment (Governance, assurance and deliverability)				
Giving consumers a stronger voice - quality of engagement				N/A
Net Zero and a whole system approach				
Cadent's Consumer Value Proposition				
Providing a quality experience to all (excluding vulnerability)				
Vulnerability				
Maintaining a safe and resilient network				
Delivering an environmentally sustainable network				
Trusted to act for communities				
Innovation, data and digitalisation				
Competition				
Costs and efficiency				N/A
Managing risk and uncertainty				
Affordability and financing (<i>RAG ratings relate to affordability only</i>)				

Business plan commitment (track-record, culture, governance, assurance and deliverability)

Track-record and culture

CEG scrutiny activity (supplementary to main report content)

The CEG had eight main CEG sessions on strategy and culture, including two with CEOs (Chris Train on 9 October 2018 and Steve Hurrell on 9 May 2019) and three with NEDs (Howard Higgins on 14 February 2019, and on 10 April 2019 and Catherine Bell on 9 May 2019). In addition, the CEG Chair attended four meetings with board members and a further eight meetings with individual members of the board. There was a strong focus on strategy and the development of the company's vision in many of these meetings, particularly in the period up to April 2019. The CEG has also held two full sessions on historic performance.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<p>Strong emphasis on learning fits well with company transformation journey</p> <p>Reflections on weaknesses and challenges facing the company are candid and authentic</p> <p>The link between what the company has learned and its plan for the future is well developed</p>	<p>Formal challenges closed, apart from one unfulfilled</p> <p>Chapter iteratively reframed in response to CEG challenges and suggestions.</p> <p>Improved presentation of cost outperformance and drivers of RoRE</p>	<p>Open and responsive discussions and recognition of CEG challenge, particularly at Board level in relation to strategy and vision</p> <p>Significant structural changes made to the chapter</p>	<p>Engagement with stakeholders on developing the strategy and vision seemed appropriate</p> <p>Effective engagement with internal Cadent staff provides foundation for ongoing cultural transformation</p>

Key areas of strength / CEG support

- Bringing out the learning from its past performance is especially pertinent for a company working through its new identify post-NG
- The lessons it highlights reasonably reflect the CEG's on-the-ground experience of working with Cadent people
- The chapter appropriately links learning points with themes within the business plan
- Cadent has generally responded well to the CEG challenges relating to its performance during RIIO-1 where it is on its post-NG transformation journey, in particular in its candid openness.

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- Some aspects of performance are presented at a high level, providing limited information and insight
- Cadent does not explain the customer impacts of deferring more expensive larger diameter repex work
- We consider Cadent could usefully have provided more detailed analysis of its totex variances in RIIO-1

Governance, assurance and deliverability

CEG scrutiny activity (supplementary to main report content)

The CEG reviewed the processes and procedures used by Cadent in developing and implementing its assurance activities to help us become comfortable that internal quality controls are in place relating to data and insights presented and also to help us evaluate the extent to which assurance activities align with Ofgem RIIO-2 business plan guidance. We undertook the following activities:

- Three scrutiny sessions of the full CEG (in June, August and October 2019) in relation to assurance and governance covering planning, implementation and outcome of assurance activities.
- Two deep-dive sessions in September and November 2018 involving Cadent and its advisers (PwC and Complete Strategy) to enable us to scrutinise assurance plans and activities in more detail.
- Reviewed third party assurance reports covering costs (Costain), asset management processes (Lloyds Register), customer engagement (Savanta), second line assurance (PwC) and cost benefit analysis (NERA).

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Recognised 3 lines of defence approach • Risk-based approach • Involvement of expert third parties • Board involvement and oversight of assurance • Structured programme governance 	<ul style="list-style-type: none"> • Formal challenges closed • Work programme adjusted following CEG challenges on customer view of risk, assurance over minimum requirements, deliverability • Improved explanations in business plan although still lack of details on risk assessment 	<ul style="list-style-type: none"> • Open and responsive discussions and recognition of CEG challenge • Access to third party advisers • Good level of engagement with Board members 	<ul style="list-style-type: none"> • Engagement with stakeholders on assurance seemed appropriate • Governance discussed in working groups as part of wider “trust” agenda

Key areas of strength / CEG support

- Recognised three lines of defence approach to assurance delivered using reputable third parties via a structured programme of work
- Risk based approach appears to have led to a sensible and appropriate choice of assurance activities implemented according to plan with good attention to process and quality controls
- Focus on data assurance in line with Data Assurance Guidelines
- Cadent has responded to third-party audit findings
- Board involvement in oversight of assurance and in challenging the business plan culminating in a strong Board statement of assurance
- Strong Board role in reframing the strategy and vision
- Emphasis on learning from the past and recognising the cultural transformation is a journey provides a useful foundation for the business plan

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- How the various assurance activities work together to build up the assurance required could be better described
- Not clear as to the scale and scope of detailed review of third-party assurance on derivation of costing. This could be further scrutinised.
- More detail about the approach to assurance over deliverability in RIIO2 would be useful, particularly in relation to Board involvement - **recommended for hearing**

Giving consumers a stronger voice - quality of engagement

CEG scrutiny activity (supplementary to main report content)

The CEG prioritised engagement under our Principles for Prioritisation. We set up a Research and Insight Working Group (R&IWG) to enable us to deep dive into the quality of the company's engagement and how insights were interpreted and reflected in the business plan. The Group was Chaired by Leslie Sopp research expert and Fellow of the Market Research Society with membership from Zoe McLeod, Victoria Pelka and Martin Silcock. All of whom collectively have significant expertise in reviewing, designing, delivering and reporting on engagement activity. The CEG developed and agreed a Quality of Engagement Assessment Framework to guide our approach and ensure transparency. In total our activity included:

- 5 CEG main sessions where enhanced engagement was scrutinised – topics included, Cadent's approach to customer and stakeholder engagement, its strategy for RIIO-2, and reviewing the findings from quantitative research (including willingness to pay and acceptability testing)
- 5 full day R&IWG meetings covering Cadent's approach and findings in more detail and scrutinising how these translated into its final business plan proposals
- 3 telephone conferences with specialist contractors to ensure robustness of key pieces of quantitative research and triangulation approach
- 4 meetings with Cadent senior staff to discuss emerging issues, triangulation, output cases and golden thread
- 3 observations of the Cadent Customer Insights Forum – including triangulation and trade-offs
- 22 customer engagement events were observed (observation sheets available)

In addition, R&IWG members reviewed and commented on individual pieces of research, notably WtP, BOT and acceptability testing draft survey questionnaires. Insufficient time was made available for us to scrutinise key documents across the whole range of engagement activities, so feedback was provided as and when on an ad hoc basis. There was significant dialogue between R&IWG members and key Cadent staff, including engagement personnel.

Annex 3 contains:

- Cadent CEG's Quality of Engagement Assessment Framework
- Quantitative research and qualitative research technical reports prepared by CEG members.

Further information available on request.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with the CEG
<ul style="list-style-type: none"> • The business plan is well-grounded in insight from a wide variety of customers and stakeholders and delivers outcomes which are valued by stakeholders at a price most think is acceptable. • Cadent has embarked on a significant programme of business data analytics and new engagement across nearly all aspects of its business; its locations, and its different stakeholder groups. • There is not consistently good quality engagement for all business plan areas – weaknesses flagged in relation to network resilience and security, whole systems, fuel poverty and future role of gas. Initial poor planning meant some early engagement was not as effective as could have been. • While much improved, Cadent has struggled to demonstrate the ‘golden thread’ • A lack of strategic approach at the outset has been overcome to a certain extent by framing within a new vision, conceptual underpinning and a differentiated strategy. • Much improved RIIO-2 engagement strategy - vision and ambition clearly articulated. This includes building skills and resources to deliver effectively in future. Have now built engagement and insight toolkits to develop further into RIIO-2. 	<ul style="list-style-type: none"> • Cadent have been responsive to feedback to both the strategic approach and individual pieces of research and engagement activity. Where views haven’t been accommodated this is largely due to time constraints. • There have been differences of opinion along the way, which are noted in our CEG report. • In total 38 challenges made and 36 were addressed, with 1 ongoing and 1 unfulfilled. • Those challenges which are ongoing include the need for Cadent to: <ul style="list-style-type: none"> o Systematically map stakeholders across each region o Playback to customers how their views have informed the BP 	<ul style="list-style-type: none"> • Dedicated team who describe themselves as moving from being ‘enthusiastic amateurs on engagement’ to more informed professionals. • Made relevant staff and contractors accessible to CEG for deep-dives on specific programmes and issues • Engagement with us could have been more strategically focussed esp. at the outset. • Open and constructive discussions and access to events • We had the opportunity (but not necessarily sufficient time) to review and comment on Cadent’s engagement activity and surveys. • Accessing all relevant materials required has sometimes been difficult. • Dedicated Research & Insight (Engagement) Working Group enabled more effective working including with technical specialists including research partners to facilitate review and feedback • Cadent engagement with CEG on Triangulation and Insight Tracking has been effectively managed, with deep dives on conflicted issues, and witnessing the Insight Forum and Director’s Forum consideration

Key areas of strength / CEG support

- Actively 'involved' 30,000 customers across all four regions – a proportionate number for a company of its size.
- Extensive business plan engagement programme in terms of breadth and depth. Suitably wide range of research methods (16 discrete approaches) with nearly 200 engagement activities. Following CEG challenges increasingly good use of operational and third-party insights.
- Large scale quantitative pieces of research which were reviewed by the CEG – WtP, BOT and acceptability testing - followed good practice and built on lessons learned. These provided robust and influential insight. e.g. WTP was used for the calculation of benefits and to inform a number of the company's investment cases. Confidence in the quality of delivery large pieces of quantitative research.
- Reviewed and drew upon good practice following challenge.
- Social Return on Investment methodology used with value calculated by independent consultants and applied.
- Significant effort made to be inclusive and engage a wide range of audiences including different types of business, domestic customers, staff (esp. welcome as often forgotten), rural/urban, MOBs, across all four regions and a wide range of stakeholder groups. Future users of the network were well considered.
- Careful consideration given as to how to engage with hard to reach groups. e.g. face to face interview for customers in vulnerable situations, interpreter-assisted interviews for non-English speakers in the Bengali and Polish communities, tele-depth and face to face interviews for business owners.
- Many performance commitments are ambitious – quality of evidence supporting them much improved
- Good triangulation process observed – use of Engagement Decision Tracker including Robustness Assessment Score and RAG ratings alongside effective Insights Forum.
- Took steps to engagement activity accessible e.g. in terms of materials used, location, but not always by prior design, more through practical changes on the day.
- From spring undertook ongoing reviews with its suppliers to ensure most effective engagement approaches and activities were fit for purpose, also retrofitted strategy
- Acknowledged initial weaknesses of the programme and took steps to remedy them – with reasonable success.
- Final quality assurance report by Savanta (though does not include qualitative research).
- Sound RIIO-2 Stakeholder Engagement Strategy supported by strong governance and leadership. Moves to embed engagement already underway.

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- Lack of in-house skills led to initial poor planning and strategy. Resulted in some research not being as useful or effective as it could have been.
- No initial gap analysis or audit carried out to understand what was already known, meant missed opportunities to gain more targeted insights.
- Only used third party insights after the programme was underway rather than to inform the approach and ensure not 'reinventing the wheel'.
- We have no evidence that the 33 customer segments were in practice applied across the business nor that teams had systematically thought about who they most needed to engage with on what issues at what time. Engagement aims are not always clear.
- While Cadent appears to have good relationships with existing stakeholders, insufficient stakeholder mapping across the different regions. CEG need to be fully convinced of the adequacy and completeness of the stakeholder group mapping and gap analysis.
- Initially there was no mechanism to systematically capture insight and learning. This has made it hard to demonstrate the 'golden thread' e.g. engagement log. Insight Forum was set up following challenge to address this gap but database of insights is unwieldy and needs refining.
- Late to online research options as part of this programme, but have built in some opportunities for consumers to take part online – no online community built (e.g. UKPN's online community – though this is planned), playback while welcome but was not promoted sufficiently to get a good response.
- No specific engagement on the output measures, or with expert groups on the targets to ensure stretching
- Concerns have been raised about the overall representativeness and effectiveness of engagement on some topics with customers in the qualitative programmes, and the relative weight placed on findings
- Representation of some harder to reach groups not as strong - future consumers (excluding future users of the network); harder to reach audiences; BAME – all touched, but not necessarily effectively engaged. Methods to understand the needs of future consumers were limited. Reliance on young people and off-gas customers as a proxy. Qualitative engagement in future needs to cover and engage with all groups more effectively, especially through the development of benchmarks, contextual framing and engaging narrative when conducting research
- Needs to improve playback and communication to all constituencies, and ensure on-going relationships with all stakeholder groups
- Recommend evaluate the efficacy and impact of the engagement programme undertaken for this Plan

Disagree

- On the need and value of engage with customers on a number of issues related to hydrogen and the future role of gas, network resilience including cyber security, risk related issues and uncertainty mechanism and the CVP. See chapter summaries for more informaton.

Net zero and a whole system approach

CEG scrutiny activity (supplementary to main report content)

- Five meetings of the Future Role of Gas (FROG) working group covering innovation, energy system transition and whole systems, with one dedicated session on whole systems, plus a joint meeting in July 2019 of FROG and the Finance and Investment working group (FIWG).
- Review of relevant Uncertainty Mechanisms at the FIWG.
- A dedicated CEG discussion on 12 June that looked at Cadent's aim to lead the low-carbon transition.
- A deep dive meeting on the EAP commitments (and Whole Systems activity) in November.
- Two main CEG sessions (September 2019, and October 2018) on whole systems and net Zero.
- Off-line exchanges with Cadent have also taken place.
- We have reviewed draft chapters covering these areas in Cadent's June, July and October business plans drafts together with associated appendices.
- In the final version of the business plan, we have reviewed the following chapters, sections and appendices: Chapter 6 (Net Zero and a Whole Systems Approach); Chapter 7 (Commitments); parts of Chapters 8 and 9; Appendices 07.02.06 'Optimising Capacity across Transmission and Distribution'; 07.02.07 'Whole Systems Solutions - Network Planning'; 07.03.02 'Enhanced Engagement on Whole Systems Thinking'; 07.04.08 'Entry Capacity Enablement'; UM 10.04 'Heat Policy'; UM10.08 'Reinforcements'; UM 10.09 'Entry charging and access review'; UM 10.10 'MOBs'; UM 10.11 'Connections'.
- We have consulted the following additional documents: 'Net Zero - The UK's contribution to stopping global warming', Committee on Climate Change, May 2019, 'Common RII02 Scenarios' ENA, March 2019; Open Networks Programme and The Future of Gas series of publications by Cadent; Navigant's report 'Pathways to Net Zero: Decarbonising the Gas Networks in Great Britain', October 2019 commissioned by ENA .
- Two CEG members also attended the launch of 'Pathways to Net Zero: Decarbonising the Gas Networks in Great Britain' and the discussion, hosted by Energy Systems Catapult.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<p>Overall, the final version of the net zero and whole systems chapter and commitments on energy system transition and the future role of gas are comprehensive, and the proposals it has positioned under this chapter are now mostly well-reasoned and justified, with the exception of the proposed trial to connect off-gas grid communities.</p> <p>The company struggled at first to reflect the cross-cutting nature of whole systems considerations adequately throughout the business plan. The final version of the plan is much improved with cross referencing to many areas of the plan and whole systems considerations now embedded in outputs and commitments associated with other parts of the plan and the business.</p> <p>The plan shows how a whole systems approach will be adopted across the company in support of short-term benefits for customers and longer-term delivery of the energy systems transition and net zero, with delivery overseen at the highest level in the organisation.</p> <p>The company demonstrates its commitment to working in partnership with others inside and beyond the energy sector on these topic areas.</p>	<p>Initially, Cadent’s response to challenges was weak with answers failing to meet or barely meeting the challenges, or subsequently failing to be incorporated in business plan drafts even when responded to separately.</p> <p>As the plan development progressed, the company more fully responded to CEG challenges and ensured these were addressed both in the business plan and in supporting information.</p> <p>As a result of this improved interaction with the challenge process, there was substantial improvement in output cases under the whole systems area between October and December versions of the plan.</p> <p>36² challenges have been raised relating to EST, Whole Systems, Future Role of Gas and Net Zero. CL104 is ongoing, with two additional challenges (CL155 and CL164) closed with recommendations.</p>	<p>The company has become increasingly open as the CEG/FRoG engagement has progressed, moving from a fairly defensive position to one where the company actively sought feedback and comment.</p> <p>The company responded to the need for a specific focus on whole systems fairly late in the plan development although many parts of the jigsaw were already available. This led to written material, CEG feedback on it and revision being very late and time to respond exceptionally tight.</p> <p>Encouraged by CEG feedback regarding the importance being placed (by Ofgem and society as a whole) on a whole systems approach, Cadent has elevated its corporate responsibility for Net Zero and Whole Systems to a sub-committee of the main board, with processes in place to monitor the progress of activities under this theme and to maintain their currency and relevance in the rapidly changing energy system context.</p>	<p>Cadent has ongoing deep, strategic and practical engagement and collaboration with fellow energy industry participants and with national government, some LAs and LEPS, and had augmented this with collaboratively commissioned studies to inform its plan.</p> <p>Less engagement took place with business customers and only very general engagement with end consumers. The relationship between domestic (and to some extent business) customer engagement, insight and options does not support the proposal for off-gas grid communities trial.</p> <p>Engagement on the energy systems transition and related hydrogen has been limited as Cadent asserts that it has not wanted to pre-judge government policy decisions and also that practical trials are necessary before customers will be sufficiently informed to comment.</p> <p>The company could have usefully adopted methods used by other companies/industries to improve the golden thread between end consumer engagement and business plan/action. However, the time available to act on CEG challenge in respect of the nature of whole systems engagement was too short for this to be pursued.</p>

² CL1, CL2, CL11, CL22, CL31, CL32, CL33, CL40, CL57, CL58, CL59, CL60, CL70, CL76, CL77, CL78, CL79, CL104, CL105, CL109, CL124, CL130, CL133, CL134, CL144, CL154, CL155, CL157, CL158, CL159, CL160, CL164, CL167, CL169, CL202 and CL204

Key areas of strength / CEG support

- The organisation of initiatives and activities recognised as Whole System has improved, and the planned embedding of many of these in existing business areas will reinforce the adoption of whole systems approach throughout the company. For example, some of these wider whole systems solutions are delivered through work to alleviate fuel poverty, network resilience and MOBS.
- Bringing Net Zero and Whole Systems thinking together in the December business plan is a strength and these are mutually supportive, with each requiring and enabling the other. Close connection is also made to commitments under the environmental theme of energy system transition.
- All things taken into consideration the Plan demonstrated a cultural shift to whole systems thinking and a more open approach to energy system transition for which we have already begun to see practical evidence.
- The elevation of responsibility for Net Zero and Whole Systems approach to a sub-committee of the main board signals both externally and internally, the importance now afforded these areas.
- Independent assessment promised for many outputs and commitment to external reporting demonstrates the company's confidence in its convictions and its willingness to be held to account for these - supporting its trusted mission.
- Cadent's leadership role on bringing new sources of gas onto the network is demonstrated through its entry gas and entry and exit capacity commitments; its ongoing role in developing and trialling the use of hydrogen and in addressing the contractual, regulatory and technical context for this.

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- Whilst CEG welcome the proposed common output on enhanced engagement on whole systems thinking (and in principle this is well backed up by historical evidence and energy industry, public sector and sector body stakeholders), the difference between options 2 and 3 is not clear and hence nor is the justification for the chosen option. No costs are identified as associated with the proposal but a financial upside incentive of up to £9.6m p.a. is suggested. It is suggested that any such incentive must demand cost to be incurred in order to deliver the intended outcome. This warrants further investigation and scrutiny to ensure the incentive is appropriate and the costs associated with delivering the outcome are identified. **(note that Cadent may wish to provide assurances through final adjustments of their plan such that some or all of the points here can be removed)**
- While no quantified CVP benefits are claimed for 'timely reinforcement' enabled through underwriting by developers or public sector, the social and economic development benefit that this would unlock justify this being attributed a CVP value.
- We are not convinced by Cadent's justification for, and the scope of, the proposed off gas grid community trial for three reasons: 1) The costs on which the justification is based do not take full account of capital costs that would be borne by consumers in switching their heating systems to gas; 2) The support claimed for such a trial is drawn from more general support given to connecting those in fuel poverty and improving access to greener gases. We are not convinced that these aspects of engagement adequately support the proposal; 3) Elsewhere in the BP, Cadent has decided to put FPNES expenditure into an Uncertainty Mechanism because government policy towards growing the gas network may change in RII02. Similar uncertainties exist in relation to this proposal which may lead to "regrets" investment.

Net zero and whole systems commentary (supplementary to main report)

FROG

- Cadent has been an active participant in policymaking on heat decarbonisation, especially on the potential for hydrogen, and has been an advocate of progressing projects in RIIO2.
- Cadent has commissioned a series of 'Future of Gas' discussion papers aimed at considering how the gas network might be used in future and it plans to continue this role. However Cadent still sees its role in decarbonisation of heat as engaging with policymakers, and CEG has questioned whether it needs to move beyond this, to engage more with customers to help develop customer-led and supported practical proposals for the introduction of hydrogen solutions.
- Cadent's stakeholder engagement at national and industry level has been extensive, with evidence provided extending back several years demonstrating a long-term whole systems approach to the energy system transition and future role of gas, and the uncertainties and impacts for consumers and wider society.
- As Cadent's stakeholder engagement approach has matured, it has helped the gas distribution networks to move from a position of being excluded from energy futures considerations to being a serious player in informing and enabling a future energy system likely to rely to some extent on the gas network for heat and transport and CEG believes this has been valuable across the sector.
- Cadent's discussions with customers about the profound changes this may bring has been limited (in part because they have not wanted to pre-judge Government policy decisions). We have challenged the company to do more to explain these issues to customers and to seek quality feedback on potential solutions. Important issues include managing the costs of e.g. hydrogen pilot schemes where Cadent favour socialising across all customers the costs of this activity, but they have not asked customers their views.
- Engagement since the July plan suggests that customers expect Cadent to take forward hydrogen blending and HyNet without a premium. There is a big gap between company/ industry views and those of customers and this debate needs to be opened up urgently.

Whole systems and Net Zero

- Cadent has been instrumental in initiating discussions on whole systems (gas and electricity) and continuing it in Open Networks WS4.
- A clear majority of customers and stakeholders support whole systems thinking in areas as diverse as improving energy efficiency and minimising disruption from street works. But CEG regards engagement on whole systems thinking as becoming less specific and insightful along the spectrum from national government and industry to domestic consumers. Whilst general support for Cadent's whole systems approach can be traced back to support gained through customer engagement, specific support for individual initiatives has not always be tested or verified.
- Cadent has argued there are difficulties in engaging with lay people on complex technical matters. In response to CEG encouragement, it has agreed to explore methods used in other industries to enable customer insights to be captured.
- The earliest reported stakeholder engagement (in 2017) covered common gas network issues such as regulatory and commercial frameworks to enable green gas injection. CEG has encouraged Cadent to continue to develop industry initiatives regarding the barriers and enablers to whole systems and energy system transition and to make use of insight via new customer forums and new relationship managers, discussed at the FRoG WG.
- Cadent's proposals for RIIO-2 continue with these activities and add further actions that are well supported by stakeholder evidence. CEG is comfortable that the proposed initiatives and commitments are what industry and government stakeholders (local and national) want and need.
- As an example of whole systems solutions more broadly, CEG has seen evidence of support from domestic customers and their representatives for such a whole systems approach to fuel poverty, and to activity by Cadent on energy efficiency (albeit limited to work appropriate to its role). Cadent has responded to this by focussing on addressing fuel poverty in a more holistic way and involving partners experienced in this area (addressed elsewhere in CEG report).
- Encouraged by CEG challenge, and in response to Ofgem guidance, a coherent whole systems strategy has now been shaped connecting this theme to activities across all aspects of the business. This is a dramatic change from earlier treatment of Whole Systems/FRoG/Net Zero that the company displayed at the early stages of CEG involvement and is to be applauded.
- A new introduction to chapter 6 demonstrates much clearer thinking on an inclusive and comprehensive Whole Systems approach across business areas and

specific initiatives and outputs.

- In testing its proposed RIIO-2 plans robustly against four potential ‘end state’ scenarios from BEIS and discussing activities with the CEG and its working groups, Cadent has brought together its own activity, industrywide initiatives and its approach to working beyond the gas sector, to structure a set of proposals representing a true whole systems approach.
- CEG believes the company now strikes a good balance between these more strategic industry changes and immediate changes to business as usual, for example by seeking to establish common data methodologies for utilities and local authorities. CEG recommends framing this within Cadent’s digitalisation strategy, now in its first iteration, and drawing learning for its plans to open industry data.
- In light of the uncertainty regarding heat policy in the UK, and its potential distributional impact, CEG has challenged Cadent to strengthen its internal network holding a ‘watching brief’ on the future of gas so it can fully understand how any proposals affect aspects of its plan such as the need for reinforcement.
- CEG now finds extensive cross referencing and evidence of whole systems thinking being embedded throughout the Business Plan. In discussion with CEG, Cadent has explained how whole systems is a consistent ‘gateway’ across all business activities, for example in assessing innovation proposals. In the commitments chapter (chapter 7), Cadent explains that a whole systems approach has been taken to developing commitments across all four outcome areas, in addition to specific whole systems commitments covered in chapter 6.

Energy Systems Transition

- In response to CEG challenges Cadent’s mapping of coming milestones in policy development and how they interact (in section 6.3.2) now shows a much more comprehensive and sophisticated understanding of this landscape. High level support within the company has been demonstrated both in direct engagement with the CEG and through statements and review arrangements set out in chapter 6 of the business plan.
- On meeting the needs of new network users Cadent, fully supported by CEG, has developed a customer-led approach to new business customer groups, including AD generators and peaking plant for electricity generation, and has put in place regular engagement responding to their needs (including reputational ODI on entry capacity enablement).
- CEG has encouraged Cadent to be proactive in releasing market information (redundant tees), and this is now available to customer groups as part of the application process. Under its proposal for Network Related Whole Systems Solutions, Cadent’s proposal (backed by ENA, WS4) to create a central hub to share spare and scarce entry and exit capacity information takes this a stage further.
- Cadent has committed to opening a re-examination of the charging regime and providing a route for third parties to initiate changes in the regime. CEG has welcomed this initiative which responds to customer needs.
- CEG welcomes the proposal to establish an Entry Gas Customer & Stakeholder Forum.
- Cadent has engaged at political and technical levels on facilitating more variable use of gas and electricity networks, understanding the needs of new customer groups, including commissioned research on the balance between total gas use (declining) and peak use (increasing due to decentralised gas-fired power plant and changing consumer use) and plans to propose a flexibility incentive (see below).
- Cadent has referred to the need for smarter networks (Appendix 09.20), with regard both to opportunities (using pressure data to make more capacity available without reinforcement) and requirements (new industrywide ‘smart’ standards and frameworks). CEG would like to see a clearer description of how Cadent will incorporate such ‘low and no regrets’ actions into nearer term planning. This clearly links to Cadent’s plans to be more proactive in connecting new network users, including biogas injection, small scale gas-fired power generation and transport fuel customers, and its commitments designed to enable timely reinforcement.

Outputs / CVP

- Cadent is proposing a common output entitled ‘whole systems solutions - network planning’ under ENA’s Investment Planning Whole Systems workstream: creating a joint planning office; standardising information sought by networks; and providing network entry and exit capacity information. All are well justified in the chapter and the associated output case (07.02.07). An annual cost of £.5m is envisaged, to be included in base totex and CEG believes the associated

qualitative CVP has been justified (see below).

- A commitment is made (Appendix 07.02.07 and Section 9.4 in the 'Costs and Efficiency' chapter) to seek to change the connection charging methodology to enable third parties to underwrite network investments and enable timely reinforcement thus addressing the drawbacks with the current process, which relies on the triggering customer bearing the costs of reinforcement. No cost has been identified for achieving this change in methodology, with the consequential costs of new connections are proposed to be covered by a volume driver, set out in Uncertainty Mechanisms: Reinforcements (10.08). The benefits of the proposed change would therefore accrue predominantly to society at large and, for this reason, the CEG considers this a valid component of the company's CVP, noting that the company has not included it.
- Cadent proposes that Ofgem consider extending the scope of the existing incentive governing GDNs booking of National Transmission System capacity so that it not only includes flat capacity but also flex capacity. Cadent proposes that this would be an ODI(F) (07.02.06) and the proposal carries no cost although NTS exit capacity charges are a cost-pass through item. Under current arrangements efficient levels of booking are not incentivised leading to inefficient booking and poor visibility of network capacity. Cadent's proposals require development but have been supported by National Grid (NTS) and the other GDNs. The CEG considers that this proposal is seeking to create an appropriate set of incentives and, given the support it has in principle amongst the right stakeholders, we would recommend that Ofgem considers Cadent's ideas as an interim step whilst undertaking its planned consultation on exit capacity incentives.
- Cadent proposes a common upside financial Output Delivery Incentive, to incentivise enhanced engagement. The justification for this draws on the impact of the more general enhanced engagement incentive applied in RIIO-1 and the impact this has had in driving network companies to engage more effectively with customers and stakeholders. Cadent is proposing to carry this enhanced engagement initiative forward into RIIO-2, with a specific focus on whole systems and the areas of transition to net zero and customers facing vulnerable situations. The general case for this is well made in appendix 07.03.02 although the distinction between options 2 and 3 is not sufficiently clear and the value of the incentive has not been tested. No costs have been identified to deliver this output, but it is reasonable to expect that significant costs would need to be incurred in its delivery in order to justify the level of financial incentive suggested, which is up to £9.6m per annum. Whilst the CEG acknowledges that such an incentive could drive desirable behaviours in terms of companies working with external stakeholders, further clarity and scrutiny is needed to ensure that such an incentive is scoped and sized appropriately to the benefits it is expected to deliver.
- For the bespoke output 'off gas grid communities' trial, presented in appendix 07.04.09, options explore with stakeholder have been framed very narrowly. Work undertaken by NERA and commissioned by Cadent to estimate the value of gas network extension is cited in its engagement tracker. Based on the material presented in the output case CEG is not convinced that either engagement in the context of this proposal, or the proposal itself, has adequately taken into account the whole system, either from the perspective of the consumer or through having considered a sufficiently 'whole life' time period during which the move to net zero will be required. Whilst BOT with consumers marginally favoured a small-scale trial, under its phase 3 engagement, only 'a few' of the 504 businesses participating in a survey chose the service option of extending the gas network.
- Cadent lists 'whole systems thinking' among the aspects of its CVP that are unquantifiable in financial terms. CEG therefore supports Cadent's initiatives on identifying broader value for customers, for example the Social Return on Investment framework, that will allow whole systems options to be properly assessed against more limited options.
- CEG suggests that proposals to change the connection charging methodology ('Timely Reinforcement') to enable third parties to underwrite network investments, could also be included in the CVP (see above).
- On the ENA Workstream proposals ('Whole Systems Solutions - network related'), having reviewed the process for their calculation, the CEG has no reason to believe that the costs are inappropriate. Accepting this as a common output would ensure continued focus from across all gas networks (and ideally electricity networks also) to deliver this joined up planning and information approach. We are persuaded that these initiatives can lower costs for all parties, remove repetition, improve data quality, enable green gas connections, improve overall energy network planning and support local development and growth whilst lowering carbon.

Cadent's Consumer Value Proposition

CEG scrutiny activity (supplementary to main report content)

- A webinar to deep dive the CVP approach and calculation
- Main CEG session on CVP bill impacts and interactions with other incentives
- Four deep dive sessions on outputs where CVP also discussed
- Review of the relevant CVP appendix (07.01.00)

Please see appendix 2 for our views on individual elements included within the CVP

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Acknowledge and understand Cadent's approach to the CVP given the lack of clarity about how the CVP will work in practice. Recognise it included all those elements within Ofgem's illustrative list • Could have 'self-regulated' more to reflect the aims of the CVP, consider the potential consumer bill consequences (what is reasonable), set a higher bar, especially given its new ambitious vision and outlined more clearly how money would be returned to customers in the case of non-delivery 	<ul style="list-style-type: none"> • No formal challenges were put on the log given the late discussions on this but seven CVPs were removed following feedback • We encouraged the company to think about the spirit of the CVP in light of its new vision and to frame it accordingly. It therefore created its own more stretching criteria though in practice we can't see what difference this made to the selection • A sense that given that it didn't know how Ofgem was going to approach this, wanted to include everything it did to ensure it got credit for them – this is green as we 'timed out' of a proper discussion and no formal challenges made to close 	<ul style="list-style-type: none"> • Initial good engagement but as came close to business plan submission deadline less desire to engage in any real change to approach • We were only part way through discussions with the company when the business plan was finalised. This RAG rating gives Cadent the benefit of the doubt that the CEG and Cadent would have both further refined their positions following discussions but we 'timed out' 	<ul style="list-style-type: none"> • The evidence base underpinning each individual output varies but the general approach seems reasonable – use of customer research, SROI, wider research and benchmarking • No actual engagement on CVP to ask stakeholders what they think should be in/out, what they reasonably expect of Cadent. We acknowledge the time constraints, but some might have been possible e.g. with Citizens Advice or industry bodies even in the short time frame

Key areas of strength / CEG support

- Independent calculation of the SROI by SIA partners follows standard good practice and SROI used as the primary mechanism to calculate the CVP
- Distributional impacts considered according to HM Treasury green book guidelines – though we have no visibility as to precisely how this was applied
- Many SROI calculations seem cautious – e.g. headline figures calculated on RIIO2 period only, rather than longer-term benefits
- Each monetised element within CVP has its own transparent business case outlining the calculations and assumptions
- Following CEG challenge removed seven CVP elements and acknowledged CVP needed to be measurable and reportable
- There were some attempts to self-regulate and think about the spirit of the CVP – Cadent set its own higher bar for inclusion
- Cadent undertaking other activities that deliver social benefit that are not captured but we think may be worthy of recognition e.g. leadership on the creation of a single PSR across water, energy and telecoms, and its proposals to change the connection charging methodology ('Timely Reinforcement') to enable third parties to underwrite network investments

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

This area is recommended for an all company hearing

- Lack of direct engagement on the CVP, e.g. to ask stakeholders what they think is reasonable to be in or out/where the bar is in terms of standard industry practice
- Lots of discussion and differences of views among CEG members on this topic. On balance, CEG feel that a number of elements included in the CVP are things that customers would expect an efficient company to do anyway. While we acknowledge Cadent have included most things that fall within Ofgem's illustrative list, the regulator was clear that this was not a 'tick box' exercise and it was guidance only. There was scope to self-regulate more in the spirit of the CVP and to set a higher bar that was more in line with the ambitious new vision for the company
- We have questions about the applicability in practice of use of willingness to pay figures for this purpose
- In practice Cadent's new higher bar did not seem to make a difference to elements included within the CVP
- Did not outline how would monitor performance or how money would be returned to customers in the case of non or partial delivery on commitments
- Not considered wider distributional impacts e.g. on different customer segments, communities or regions or networks

Providing a quality experience to all (excluding vulnerability)

CEG scrutiny activity (supplementary to main report content)

MOBs

- One whole CEG session in December 2018, setting out the performance on MOBs and explaining some issues associated with them.
- Reviewed Ofgem's enforcement action against Cadent of May 2019
- One whole CEG deep dive session on MOBs during which we met the Director of the London network and visited two MOBs sites on which Cadent was undertaking work at the time which enabled us to talk to Cadent and contractor staff on the ground.
- Two further discussions at CEG meetings: a brief presentation in August 2019 and a structured Q&A session in September 2019
- Deep dive as part of a more general output case review in November 2019
- 15 challenges on MOBs, all of which are closed apart from CL221, related to MOBs interruptions which is unfulfilled.

Customer service & GSoPs

- Four main CEG scrutiny sessions during which we discussed Cadent's customer strategy, the CSAT survey and Cadent's proposals for a Balanced Scorecard, past CSAT and complaints incentive performance, and the commitments on quicker connection quotes and "establishing and raising the bar". This included data on RIIO-1 CSAT scores and complaints performance from Cadent and benchmarking against other GDNs, as well as analysis of drivers of (dis)satisfaction amongst Cadent customers.
- Two main CEG sessions discussing Cadent's GSoPs performance to date, compensation, and interpreting the results of the time-bound appointments research.
- Two sessions attended by Catherine Bell, SID on Cadent Board with a focus on customers who gave her views on the importance of focusing on customer service for investors
- CEG visit to the national gas emergency helpline run by Cadent for all GDNs
- Evidence from Citizens Advice on Cadent customers that called the Consumer Helpline between November 2017-2018, and what issues they had.
- Evidence from Citizens Advice on Cadent's GSoPs performance between 2015/16 and 2017/18
- GDN-wide research on new GSoPs: research papers.

Disruption

- One main CEG scrutiny session on disruption. Discussions about customer service also featured the drivers of dissatisfaction which often lie in the disruption experience.
- Observed three Customer Forums (London, Manchester, Birmingham) which included discussions on reinstatement and streetworks disruption.

Interruptions

- Four main CEG scrutiny sessions; reviewed unplanned interruption performance data (duration and volume) and planned interruptions data (from 17/18 and previous years) compared with other GDNs. Scrutinised time-bound appointment proposal. Discussions about customer service also featured the drivers of satisfaction which often lie in the interruption experience.
- Observed two revealed preference focus group with domestic customers on unplanned interruptions (London, Bedford) which fed into the WTP surveys; and two (London and Birmingham) Customer Forums on interruptions.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> Proposals generally well formed and reasoned. Minor gaps remain in setting targets and measures for some outputs A number of seemingly good practice and innovative proposals CEG disagrees with several inclusions in the CVP 	<ul style="list-style-type: none"> reasonable although it has sometimes taken some time to receive responses and evidence most challenges on the log have been closed although some remain unfulfilled 51 challenges³, 46 are closed, 3 are ongoing and 2 are unfulfilled. 	<ul style="list-style-type: none"> open to talk about underperformance and analyse reasons why the CEG had been able to put emphasis on priority topics, e.g. deep dives into MOBs performance in parts, difficulty to receive data that is easily interpretable 	<ul style="list-style-type: none"> engaged relevant stakeholders and customer groups through a good range of classic methods issue around weighing off BOT and WTP findings on interruption targets - could have been more nuanced

Key areas of strength / CEG support
<ul style="list-style-type: none"> The number of reputational outputs shows commitment to deliver on their promises and report against them A number of good practice and innovative proposals e.g. two-hour appointments, 15 minute connection quotes, a bespoke ODI for measuring responsiveness to enquiries. Cadent is offering all customer service, interruptions and disruption commitments without adding any additional cost to the consumer bill Cadent has shown great openness to speak about areas of historic underperformance To deliver its customer service ambitions in RIIO-2, Cadent has done significant analysis of BAU data, external benchmarking and learning from experts in the field including other sectors The proposal to make compensation (GSoPs) payments earlier than strictly required to consumers who will foreseeably be off supply for longer to help them cover additional upfront costs to cope with the interruption is very welcome and shows Cadent has really listened to customer feedback in this area Improved commitment on MOBs. Cadent’s proposal for a MOBs balanced scorecard is possibly unique amongst GDNs though is also more needed than anywhere else given Cadent’s past MOBs performance in London. Focus on streetworks is welcome though needs further developing

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

³ CL9, CL12, CL14, CL20, CL41, CL47, CL48, CL49, CL52, CL53, CL87, CL117, CL118, CL119, CL120, CL121, CL122, CL125, CL126, CL127, CL128, CL129, CL130, CL131, CL132, CL142, CL143, CL153, CL189, CL190, CL191, CL192, CL206, CL207, CL208, CL209, CL210, CL212, CL213, CL214, CL215, CL216, CL217, CL218, CL219, CL220, CL221, CL222, CL224, CL225, CL244

- Ofgem should scrutinise Cadent's interruption targets, and in particular the likely duration of interruptions for MOBs, with the specific question of whether they are sufficiently stretching and reflect the level of ongoing work that should lead to improvements.
- The above comment notwithstanding, the CEG believes that Ofgem's decision to incentivise overall average interruption reduction has led to Cadent putting forward very cautious targets. We would welcome a reconsideration of this incentive design, and to explore in particular a move towards measures currently used for electricity distribution companies.
- We disagree/or have caveated response to the inclusion of the following elements in the CVP (please see the Quality Experience chapter for our rationale):
 - Providing time-bound appointments (see CVP above)
 - Establishing and raising the bar
 - Minimising disruption
 - Reducing MOBs interruptions

Consumer Vulnerability

CEG scrutiny activity (supplementary to main report content)

Based on our 'principles for prioritisation' we set up a Consumer Vulnerability Working Group (CVWG) to deep dive his area. This was Chaired by John Kolm-Murray who is the fuel poverty lead at the GLA. It also included Victoria Pelka from Citizens Advice, research expert Leslie Sopp whose background includes with Which? and Age UK, Matt Copeland from NEA, and Zoe McLeod, a consumer vulnerability expert. Members acted in an independent capacity but drew upon their expertise (see biographies in appendix 5 for more information). The Group had seven meetings. The main CEG also had three sessions to scrutinise the business plan proposals at a higher level.

- Prior to the drafting of the business plan, we reviewed the company's approach against our vulnerability good practice framework (framework available on request).
- We also later considered the company's approach against the Ofgem sponsored Sustainability First vulnerability innovation flight path and the Ofgem's Consumer Vulnerability Strategy.
- CVWG plus Martin Silcock (who had deep dived on the willingness to pay and BOT testing) also reviewed and fed back on the business plan proposals and in October/November, the vulnerability strategy (appendix 07.07.00) and the full set of draft output cases for consumer vulnerability – appendices 07.03.01 to 07.03.12.
- We also observed six customer workshops and focus groups covering fuel poverty, safeguarding, carbon monoxide awareness and the priority services register.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Cadent outlines an ambitious innovative set of proposals that demonstrate cross-sector, and cross region collaboration and leadership • Covers three key areas of consumer vulnerability – access, protection and affordability and builds on RIIO-1 learning • Strong link between proposals, customer need and stakeholder views • Support for ambition levels among customers in some areas is mixed but willingness to pay exists in principle • CEG confidence in deliverability due to passionate team, strong leadership and governance, lessons learned – some expertise gaps to fill 	<ul style="list-style-type: none"> • Very good – receptive to feedback though we had to work hard to understand each other at times • Of the 34 challenges made, 31 were closed • Immediate steps were taken to improve things where possible. E.g. following challenges around accessibility the company improved the website accessibility and removed charges from its phone line. Also started to monitor complaints and satisfaction broken down by PSR. 	<ul style="list-style-type: none"> • Committed and enthusiastic team who were very open to engaging • Heard from range of staff and Affordable Warmth Solutions • Quality of written materials presented was at times poor – lacking detail and hard to navigate • Good quality discussions in the consumer vulnerability meetings which gave us much greater confidence than the ‘written word’ on the robustness of the approach 	<ul style="list-style-type: none"> • Wide range of engagement e.g. frontline staff, vulnerable customers themselves, those working with customers with additional needs, some benchmarking and commissioned own research. • Engaged with customers in vulnerable situations and those who had experienced interruptions so really understood how it made them vulnerable and consequences • A number of stakeholder groups were engaged but limited visibility of who said what on what issues nor what they were asked –interpretation and recording weak • Customer engagement workshop on fuel poverty, poorly framed with some inaccurate information – CEG don’t believe customers were able to give an informed view. • Late use of third party insights – could have had more targeted conversations had considered existing learning from the start

Key areas of strength / CEG support

- Development of a Customer Vulnerability Strategy – Cadent has historically had a piecemeal, project by project approach with pockets of good practice but overly regulatory-led rather than by customer need. Strategy will be regularly updated with customers and stakeholders.
- Proposals reflect customer need and strong ambition levels: 2 million PSR conversations is a four-fold increase, fuel poverty proposals reportedly are an increase in 70% of households helped each year, CO installations 3,000% increase.

- Particularly positive engagement to understand what customers need during an interruption (including with customers who have experienced this) – led to decisions for early payment of GSOPs (very welcome) and more tailored package of measures depending on need.
- Proposals to repair and replace appliances very welcome. This plugs a historic gap in protections flagged by stakeholders. There is an aspiration to expand this subject to deliverability.
- Provision of carbon monoxide alarms and awareness has strong support from customers/stakeholders, builds on RIIO-1 learning, includes provision/piloting of accessible alarms for customers with additional needs, and smart alarms for MOBs e.g. care homes and student residences.
- Fuel poverty proposals reflect customers desire that Cadent offer help to all gas customers in fuel poverty not just those off the gas network. Whole house approach recognised as fuel poverty best practice. If CBA accurate will result in better outcomes for customers at lower cost.
- Better mapping to understand both fuel poverty, additional needs and carbon monoxide hotspots across its regions – will support prioritisation and targeting. CSE app and to turn data in to usable insights for frontline operatives.
- Inclusivity and accessibility starting to be embedded into wider customer service (rather than siloed) with immediate improvements made e.g. monitoring of satisfaction and complaints broken down by PSR needs codes
- Commitment to BSI inclusivity standard, and a desire to develop a more innovative inclusivity metric alongside this to address the Standard's limitations.
- BAU activities to identify vulnerability continue at no cost to customers e.g. via engineer visits, hard copy information, social media and even its comparatively innovative billboard campaign will continue
- Examples of leadership, collaboration and innovation:
 - a) Cross-sector fuel poverty pilot already underway, funded at no cost to customers – demonstrates leadership, collaboration and a desire to lead and inform the policy debate in this area
 - b) Cadent has been instrumental in driving a common PSR across energy and water companies and the alignment of PSR needs codes. It is not always given credit for this. We welcome its continued commitment to push for a PSR to also include telecoms.
- Increasingly strong monitoring of customer experience – Customer Insights Team, evidence of ongoing learning from incidents, satisfaction and complaints measures all reported now being monitored and reported according to customers with additional needs.
- Commitment to annual training of all frontline staff has support from stakeholders/customers (with ambition levels modified to reflect views) and will bring Cadent up to GDN good practice – welcome in particular its face to face training (good practice) and also now embedded wider staff vulnerability training (online), included in new staff induction given company's focus on meeting 'all customer needs'.
- Dedicated, passionate team with strong leadership support. Appointment this year of new Customer Strategy Director and following challenge board nominated three vulnerability champions, and agreed to have a board engagement activity programme to hear first-hand from customers with additional needs.

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- Our observation of six consumer vulnerability customer workshops (not those with customers with additional needs) gives us low confidence in the usefulness of insights as we are not convinced that most customers gave informed views – sessions were poorly framed, sometimes inaccurate information, insufficient time to discuss the issues in depth.
- Welcome partnership strategy for RIIO-2, but Cadent were unable to provide evidence of systematic vulnerability stakeholder mapping across its different regions. While a stakeholder list was shared, it was basic, and we had low visibility of who had been engaged on what issues and what they said and how this had been responded to. Gives us low confidence that all views have been effectively reflected. This becomes material for proposals that rely particularly on stakeholder and qualitative customer support.
- The company's proposals on CO (3 million alarms) are considerable increase in activity. They are strongly supported by customers and stakeholders (though the net benefit is negative until RIIO-3) and supported by the CEG given customer support, as Cadent are well placed to provide this useful service and access hard to reach groups, builds on learning from RIIO-2 and stakeholder incentives and Cadent can access economies of scale. But Ofgem may want to consider for hearing the impact of this level of ambition on the CO appliance market and competition before making a decision.
- The CEG welcomes the whole house approach to fuel poverty, which is good practice, but we have different views on whether the FPNES is ambitious enough. Some members think it should be low due to zero carbon agenda, practicalities delivery, customers' desire to provide support to others not just those off the gas network; relative cost effectiveness of other approaches whereas others think it's too low especially given the potential benefits and that Cadent estimated that half a million households are still eligible for the scheme in its area.
- On PSR conversations the CEG has different views on whether this is the right performance commitment. Some prefer a more outcomes-based target such as registrations onto the PSR which incentivises use of the most cost-effective approach, or a combination measure of the conversations and numbers on the PSR. Others believe that a focus on PSR registrations is less practical and has unintended negative consequences. We'd encourage Ofgem to explore if this is the most cost effective/ approach to identifying vulnerability and raising awareness of the PSR taking into consideration wider social benefits e.g. of a deeper conversation to share other advice. Cadent's calculation of the net benefit is positive but marginal - 8p per £1 spent for RIIO-1 though rises to £1.45 in RIIO-2– but based on 60% conversion rate from conversation to registration which seems high to us.
- Some welcome thinking done on non-domestic vulnerability, but more work needed here
- Horizon scanning for good practice and innovation would benefit from being more systematic
- Approach to street works needs greater focus on the needs of customers with disabilities, and non-domestic businesses who support those with additional needs e.g. hospitals, doctor's surgeries, care homes

Maintaining a safe and resilient network

CEG scrutiny activity (supplementary to main report content)

Scrutiny

In relation to network resilience (mains and service replacement, and asset health), the full CEG undertook scrutiny meetings of four business plan drafts prior to the December plan. In addition to these reviews, Cadent's approach to this outcome area was reviewed as follows:

- Two deep dives at Finance and Investment Working Group (FIWG) meetings into mains replacement and a number of follow-up conversations
- FIWG reviewed and challenged Cadent's general approach to investment appraisal at a meeting in February 2019, including its approach to cost benefit analysis
- Following publication of the October draft plan, FIWG and Cadent had two detailed discussions about many of the key points arising from the investment cases. Significant feedback was given to Cadent following these meetings, with a particular focus on Cadent's network resilience proposals at a strategic level, and these points have been follow-up in detail via correspondence and telephone discussions
- We have reviewed relevant reports by Costain, Lloyds, NERA, ICS and DNV GL
- Observed five customer engagement meetings where network resilience has been on the agenda and one internal Cadent meeting where engagement insight has been discussed
- Reviewed in depth a sample of the detailed Appendices provided with the Business Plan submission. Appendices 9.00, 9.01, 9.02, 9.03, 9.05, 9.06, 9.10, 9.26, 9.27, 9.28, 9.34, 9.35. Appendix 9.04 dealing with MOBS is covered under the Quality Experience outcome area. Specific observations made as a result of these reviews may have more generic applicability in other asset categories

In relation to non-network resilience, the full CEG has undertaken:

- Two detailed scrutiny sessions for each of workforce resilience and cyber security. The first of these in each case examined draft strategy documents, while the second involved a discussion of the draft business plan material. For workforce resilience this scrutiny involved examination of Cadent's Trust Charter

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Generally robust set of proposals, underpinned by sophisticated modelling, delivering significant benefits to customers • Explanations of how proposals have been developed are generally satisfactory, although we have some residual reservations • With a more strategic approach to customer engagement the plan could have more clearly reflected customer preferences • The outputs to be delivered by the mains and services replacement programme are missing, other than through a table of NPV benefits • The company has brought its already substantial activity on workforce resilience together into a comprehensive strategy 	<ul style="list-style-type: none"> • Information provided in response to questions and challenges - although not always in a timely way • CEG challenges have tended to have an impact on explanations within the plan but relatively little impact on the approach adopted • 22 challenges⁴, 21 are closed and 1 is unfulfilled (CL111 – relating to cyber security engagement) 	<ul style="list-style-type: none"> • Willing to engage, explain the thinking, debate issues and share information • Time made available even during busiest periods of plan development • Access provided to appropriate business experts as required 	<ul style="list-style-type: none"> • Engagement has generally included an appropriate set of customers (domestic, business, future, CIVs, MOBs) and stakeholders (regulators, experts). Little engagement with shippers/suppliers • General reluctance to engage with customers on safety issues, with HSE used as a proxy • Customer engagement focused on understanding how to prioritise the mains replacement programme, and how much non-mandatory mains replacement to undertake • However, a lack of a strategic approach sufficiently early in the process hampered Cadent's ability to research customers' preferences as effectively as it might have • Engagement at a regional level was insufficient to allow regional variations in Cadent's approach to plan development • Engagement with its workforce and external stakeholders is good and ongoing and has fed through to the workforce resilience strategy

⁴ Network Resilience: CL81, CL82, CL83, CL84, CL85, CL86, CL88, CL168, CL180, CL211, CL242, cyber security: CL111, CL112, CL113, workforce resilience: CL136, CL137, CL193, CL194, CL195, CL196, CL197, CL198

Key areas of strength / CEG support

- Cadent's has used the sophisticated modelling capability that it has developed during RIIO-1 in order to derive replacement programmes that deliver significant benefits for customers
- There is significantly lower risk of windfall gains arising in RIIO-2 than in RIIO-1 through a combination of price control structure, plan optimisation and proposed uncertainty mechanisms
- Cadent has a good grasp of the workforce challenges it will encounter through the remainder of RIIO1, through RIIO2 and beyond and has a sound strategy for addressing these in a timely manner through a range of initiatives, with partners as appropriate and expects to include additional activities to enhance its programme.

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- While the plan has sought to reflect customer preferences, Cadent has missed an opportunity to research these sufficiently deeply in order to facilitate regional variations in its approach
- We have identified the possibility that some of the proposed steel pipes to be replaced in the RIIO-2 period may have deteriorated as a result of inadequate cathodic protection maintenance. We recommend that Ofgem looks into this further
- While we agree with Cadent that the risk of asset stranding of discretionary investment is low, Ofgem may wish to consider the way in which payback periods are used to assess this

Delivering an environmentally sustainable network

CEG scrutiny activity (supplementary to main report content)

Challenges

- 12 challenges⁵, all of which are closed.

Scrutiny

The CEG reviewed Cadent's approach to this issue many times. This included

- discussions at CEG (October 2018, February, May, July and September).
- a meeting on the EAP commitments (and Whole Systems activity) in November.

We have referred to Ofgem's Business Plan guidance and the Sector Specific Methodology.

In assessing Cadent's plans we have compared them with the publicly available draft RII02 BPs of NGN, WWU and SSEN (Transmission).

We have also used Sustainability First's Fair for the Future project as a guide (Cadent is a partner in this project - included as Appendix 07.04.03).

We also reviewed Cadent's Safety and Sustainability Report, published in June 2019 (Appendix 07.04.02).

We have reviewed Chapter 7.4 of the Business Plan, the Environmental Action Plan (App 07.04.00) and all other related appendices plus Cadent's customer engagement evidence.

We have also reviewed the ISO14001:2015 surveillance audit report, prepared by ERM certification and Verification Services, based on an assessment in July 2019.

Twelve challenges⁶ have been raised in the areas covered by this set of Cadent commitments, all of which are closed. See appendix on CEG impact for more information.

⁵ CL36, CL108, CL109, CL110, CL200, CL201, CL156, CL157, CL166, CL174, CL226, CL227

⁶ CL36, CL108, CL109, CL110, CL200, CL201, CL156, CL157, CL166, CL174, CL226, CL227

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Cadent’s plans are comprehensive and based on an existing robust environmental management system • Customer feedback on their plans has been that they should be more ambitious in GD2 and they are • Customer feedback on specific measures is contradictory and Cadent has chosen to adopt the most ambitious of its options, despite unwillingness to pay • We have confidence Cadent will be focused on delivery of its package 	<ul style="list-style-type: none"> • Early on, Cadent were less responsive to challenge in this area compared to some others. The first draft of the EAP was disappointing. • Latterly, Cadent did respond to our challenges and concerns and broadened the scope of the EAP as a result. 	<ul style="list-style-type: none"> • CEG has been given many opportunities to understand and comment on Cadent’s plans. • Supporting material for the plan has been shared with us when we have asked for it. 	<ul style="list-style-type: none"> • Extensive engagement has taken place with customers, including different groups. • Cadent have held to a fairly consistent view of what they are prepared to do, despite some significant feedback that customers and stakeholders wanted to see more ambition (however this is balanced by their unwillingness to pay). • Where insight from engagement with customers was conflicting Cadent looked to national commitments on (net zero) and its own company values to commit to a high ambition plan.

Key areas of strength / CEG support
<ul style="list-style-type: none"> • Board level commitment and ambition • Strong underlying environmental management processes • Extensive engagement on a subject that is important to customers • A strong connection between Cadent’s plans and the Stakeholder Engagement Strategy for RIIO2 - particularly important given rapid changes in public and political views on this issue • A decisive shift to the use of electric vehicles, tackling carbon emissions and air pollution • A broad-based plan with action across all areas of impact. • Concrete plans to work with suppliers and to develop more concrete targets.

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)
<ul style="list-style-type: none"> • Cadent’s claim that further shrinkage reductions are not possible via MEG and pressure management could be subject to additional scrutiny • The proposal to include a new approach to Theft of Gas in the CVP

Trusted to act for communities

CEG scrutiny activity (supplementary to main report content)

Scrutiny

The CEG reviewed Cadent’s work on development of this chapter in April 2019, then gave feedback on the draft Business Plan chapter in June, July and August 2019. In assessing Cadent’s plans we have compared them with the publicly available draft BPs for other GDNs - NGN, SSEN and WWU. We have also used Sustainability First’s Fair for the Future project as a guide (Cadent is a partner in this project).

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> Area identified by Cadent as important for customers so we welcome that they have taken the initiative to include this. The Trust Charter is comprehensive in terms of coverage of issues that it is important to customers. Targets are included, or commitments are made to develop targets - we think this is particularly important for Cadent to demonstrate and build trust with stakeholders The Cadent Foundation is particularly welcome - showing the company giving back. 	<ul style="list-style-type: none"> Cadent listened carefully to our feedback on how to strengthen the commitments and improved the chapter in line with our suggestions We saw real commitment from the Board to act in this area and believe the plan is embedded in the business. 7 challenges⁷, 5 are closed and 2 are ongoing (CL163 and CL165) 	<ul style="list-style-type: none"> This was a relatively small part of overall BP engagement but we had good detailed sessions on the plan and the opportunity to speak directly to staff responsible for it to feed in our concerns and questions. Cadent was very open to hearing CEG views. 	<ul style="list-style-type: none"> Genesis of the commitments lies in customer preference for the company to do more for its communities. Testing was done on the Charter after it was first proposed in June. It was somewhat limited in time and volume because of the late identification of this as a specific part of the plan. Nonetheless we observed good quality discussions that provided feedback that was acted on.

Key areas of strength / CEG support

- That this exists as a standalone theme in the Bp and that it has very good support at Board and Executive level
- The creation of the Cadent Foundation, funded from profits, that can be a source of real benefit to customers and communities
- Strong commitment to improve workforce diversity, also we would like to see concrete plans for this as soon as possible.

⁷ CL138, CL139, CL140, CL141, CL162, CL163, CL165

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)
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- | |
|---|
| <ul style="list-style-type: none">• <i>None</i> |
|---|

Innovation, data and digitalisation

CEG scrutiny activity (supplementary to main report content)

- Scrutiny**
- Review areas include: culture of innovation; making innovation BAU; use of competition and third parties; data strategy; transition and decarbonisation; whole system thinking; ‘soft’ innovation (eg vulnerability, worst-served customers)
 - The main CEG had three sessions on innovation in May, October and November, and two on data
 - Innovation was discussed at FROG sessions on 28 January, 25 February, 21 March, 7 May, including on decarbonisation (see separate section). Innovation and data were topics at Vulnerability WG meetings on 1 Feb, 1 March, 3 April and at the Research WG on 28 March.
 - CEG has had two specific sessions on IT and the digitalisation strategy
 - We have reviewed Appendix 07.02.03 on Workforce Resilience, 07.02.07 on Whole Systems, Appendix 09.30 on Technology, IT and Telecoms

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Cadent’s aim to become an innovative company is now well expressed and clearly seen as a culture change that extends throughout the organisation and beyond, to its work with partners. • It has clearly articulated processes for initiating, encouraging, communicating and rewarding innovation • It has made clear links between innovation outcomes and different groups of customers’ wants and needs 	<ul style="list-style-type: none"> • Cadent has been responsive to CEG’s challenges • It has brought together innovation in all its functions • It has developed its external scanning for innovation • It has better articulated its approach to different types of innovation • It has quickly absorbed CEG’s challenges on benchmarking both its culture and delivery • It has explicitly linked innovation practice and processes with strategies such as whole systems and digitalisation • 15 challenges⁸, 11 of which are closed, and 4 are ongoing (CL46, CL73, CL173 and CL199). 	<ul style="list-style-type: none"> • Cadent has been concerned from the start with becoming a company with a culture of innovation and it has been open about its history and how far it has progressed on its journey • In sessions on the topic it has been open to question and keen to engage • It has provided information and experience as required by CEG and CEG has been able to speak directly to staff members (eg on MOB’s) 	<ul style="list-style-type: none"> • Innovation is tied to themes identified during engagement and able to respond to issues arising • It is an increasingly ‘customer led’ and includes continued engagement with customer groups • It includes engagement with new groups such as data stakeholders

⁸ CL46, CL73, CL106, CL114, CL115, CL116, CL154, CL170, CL171, CL172, CL173, CL175, CL181, CL182, CL199

Key areas of strength / CEG support

- Engineering is a traditional point of strength for Cadent and this remains the case but in its 'entrepreneurial engineer' approach it aims to expand that
- Cadent is complementing its centralised ('centre of excellence') approach with a culture that has as many entry points as possible for innovation, both internally and externally
- It has developed a much fuller sense of what it means to be an industry leader, including benchmarking its own performance
- It has thought hard about how to leverage both its depot-centric model and staff interaction with customers

Key areas of concern/disagreement/challenge that could be further scrutinised (e.g. via open hearing)

- Cadent's proposal to work with local innovators and start-ups is very promising but needs to be more fully thought out, and using the Community Fund to support it requires stronger support from customers.
- Cadent does not have an intention, in its digitalisation strategy, to develop a database of domestic customers connected to its network. This contrasts with other customer initiatives, eg segmenting PSR customers and its more active approach to using other data sources, and with Cadent's view (appendix 09.30) that 'smart' homes may interact more with Cadent. Customer expectations on this have not been explored. The opportunities and costs of Cadent holding this data should be considered more fully as the digitalisation strategy develops, and its consistency with other gas and utility approaches as part of 'whole systems thinking' and 'future of gas work'.

Competition

CEG scrutiny activity (supplementary to main report content)

- Scrutiny:**
- One main CEG scrutiny session on the Competition Strategy in the October plan.
 - FROG working group sessions exploring the potential role of competition in the delivery its hydrogen networks and other aspects of the energy system transition such as enablement of biomethane capacity.
 - The FIWG has scrutinised changes to Cadent’s contracting strategy.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Competition strategy well set out with logical approach and evidence of historic achievement and ambition • Sound assessment criteria developed applied across business plan • New areas for competitive provision identified • Commitment to annual reporting 	<ul style="list-style-type: none"> • Substantial improvements in the December plan following CEG scrutiny • Specific feedback points have been taken on Board • 4 challenges⁹ (all are closed). 	<ul style="list-style-type: none"> • Good level of engagement with CEG • Open and responsive discussions and recognition of CEG challenge • No independence issues 	<ul style="list-style-type: none"> • Good engagement with key stakeholders on some areas eg biomethane entry, and via procurement processes • Commitment to future engagement (but little so far) on competition in other areas such as hydrogen • More detail on information to be shared during RIIO2 would be useful

⁹ CL145, CL187, CL188, CL205

Key areas of strength / CEG support

- The Competition Strategy is well articulated and shows good evidence of achievement and ambition
- Sensible competition assessment criteria (based on Ofgem's) have been developed and applied across the business plan
- New areas for competitive provision ("enhanced native") have been identified for exploration and there is credible commitment to maximise use of competition
- Commitment to explore alternative ownership and regulatory arrangements for provision of hydrogen networks
- Commitment to annual reporting of progress on competition

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- Further scrutiny of Cadent's options in relation to Hynet and other hydrogen network projects could be useful
- More precision about the information that Cadent intends to make available during RII02 would be useful

Costs and efficiency

CEG scrutiny activity (supplementary to main report content)

Before detailed cost figures became available in the July draft BP, we reviewed the underlying drivers of cost including performance in RIIO-GD1, and the assumptions and modelling that drove the content of the RIIO-2 BP. We also reviewed how Cadent would ensure the development of a high-quality Plan, specifically:

- How Cadent makes decisions on its investment programme, including optioneering, modelling, and quality assurance
- How Cadent delivers its investment programme efficiently, including its procurement and contractor management plans
- How Cadent delivers cost efficiency, including how it innovates and how it benchmarks its performance

The second part of our review, once detailed costs were available, included:

- Deep dives to understand the rationale behind all key categories of cost. This included reviewing the drivers of the repex proposals including the key components of cost in GD1 such as the variants that drive different cost estimates (pipe-diameter, insertion rate etc), and work selection and planning including trade offs between repex, capex and opex spend. We also reviewed Cadent's efficiency transformation plan
- Review of the additional costs/ output cases proposed under the Commitments chapter
- A review of the cost assurance Cadent had carried out including review of key documents (see Business plan commitment chapter for detail).

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Our green rating reflects our judgement that Cadent has explained its costs well and justified its plans thoroughly. We cannot say that these are the right costs because Ofgem has much more analysis to do, including the ability to compare all GDN plans (which we do not) • Efficiency has become much more central to Cadent’s thinking in relation to GD2 with a clear appreciation of the existing gap in performance between Cadent and other GDNs. From the Board down, this is now a priority for the business • The cost transformation plan is challenging. Cadent has made ambitious plans that require major change in the way the business operates (new contracting strategy, making the business more depot-centric). We have seen evidence that Cadent understands the risks around these changing and is managing the programme well • Costs have been built up from what appear to be sound foundations, and third party assurance has taken place 	<ul style="list-style-type: none"> • The reason for the amber rating is the short period of time we had to review a large amount of detailed justification material for the actual costs in the BP. It was only once we received the detailed cases that we were able to see exactly how the cases had been built up and the underlying drivers of cost. • We did receive all the information we asked for, but some of this (eg the Output Cases) were very late, meaning we did not have as much time to understand and test the assumptions. • 9 challenges¹⁰ (all are closed). 	<ul style="list-style-type: none"> • Cadent has been very open in terms of: <ul style="list-style-type: none"> ○ access to expert staff members to discuss the background and rationale for the BP contents ○ access to internal material on costs eg spreadsheet setting out the cost confidence calculation ○ access to assurance documents and other supporting material • We have asked probing questions and responses have been given in a spirit of openness 	<ul style="list-style-type: none"> • N/A - all customer engagement related to specific commitments/ areas of cost are reviewed in individual chapters

Key areas of strength / CEG support
<ul style="list-style-type: none"> • We are encouraged that Cadent acknowledges its performance has lagged behind its peers in RIIO1 and that it is implementing a plan to transform its cost efficiency. Its plans for the rest of RIIO-1, aiming to largely close the gap to the GDNs, are ambitious. • Cadent has provided comprehensive and accessible information on its cost plans - in Chapter 9 and in various appendices, allowing their assumptions and drivers of cost to be reviewed. We have found no reason to doubt their plans • Third party audit has been used to review the underlying cost development and give assurance

¹⁰ CL61, CL62, CL80, CL100, CL107, CL175, CL176, CL178, CL179

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- All elements of the cost plan are to a greater of lesser extent worth challenging further. Our comments on repex and capex in the Maintaining a Safe and Resilient Network chapter and in the Managing Uncertainty chapter suggest some areas for review. On opex, the transformation plan is worth testing
- Regional cost differences, especially those for London, could helpfully be tested
- Cadent's cost confidence assessment

Managing risk and uncertainty

CEG scrutiny activity (supplementary to main report content)

Scrutiny

All of the detail on our scrutiny activity is included within the main report (page 46).

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Cadent has set out its approach to the development of its proposed UMs clearly, reflecting the structured approach it adopted. • The Business Plan includes a significant amount of cost relating to UMs. It will be for Ofgem to judge whether this is appropriate • Overall we are comfortable with the set of UMs that Cadent has proposed. This includes the 10 bespoke UMs proposed. Some specific points for further review are highlighted, including ensuring the right incentives are in place for efficient delivery of the work. • However we find the customer engagement on this topic insufficient in particular because customers expressed contradictory views that were not explored further alongside design of the UMs. 	<ul style="list-style-type: none"> • Cadent has had to deal with a large amount of feedback on its proposals from CEG during the whole of this year. • After a very slow start, there was a positive response to feedback, in particular relating to the quality of the justification made in the appendices to Chapter 10. Information was inserted that was not previously included and the overall clarity of the company's plans was improved. • Cadent initially resisted CEG's recommendations to consult customers on this topic. This meant that when the suggestion was taken up, very limited time remained to do this to sufficient quality • 6 challenges¹¹ (all are closed) 	<ul style="list-style-type: none"> • CEG had access to different teams working on these proposals including the regulation team, subject matter experts and the central risk management team • Draft UM supporting cases were shared with CEG very early, allowing constructive feedback to be given (although it took a long time for feedback to be acted on) • Cadent ultimately responded positively to feedback and amended cases or included new information 	<ul style="list-style-type: none"> • Initial reluctance to engage on risk meant that this activity did not take place until late in the BP development process. • A small number of customers were consulted directly. Staff engagement took place with staff being asked to think like customers. We are not convinced this created a meaningful conclusion. • The questions asked related mainly to the overall question about whether to pay for this activity within totex or in UMs. However we doubt that the way this was framed gave customers meaningful alternatives. • The evidence relating to this chapter is therefore very limited, with potentially contradictory attitudes unexplored.

¹¹ CL72, CL97, CL123, CL135, CL161, CL243

Key areas of strength / CEG support

- Cadent's revised risk management framework requires managers to consider and record risks to customers. We believe this is a helpful step towards the company becoming more customer-centric
- Cadent created a logical process for assessing potential risks and identifying UMs that allows all issues to be explored

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- The very limited customer engagement makes it hard to be clear what customers want in this area - certainty and stability of costs vs a reduction in the scope for windfall gains
- For the high cost UMs that are volume drivers, setting the right level of unit cost is important
- The potential inclusion in the PAST UM of steel pipes that may have deteriorated due to earlier failures in cathodic protection
- Clarifying arrangements for auditing the use of UMs
- Whether the general approach of proposing low level volume drivers delivers the appropriate set of incentives, including whether it allows the company scope to innovate

Affordability and Financing

Please note that RAG ratings and commentary only relates to the affordability component of this chapter

CEG scrutiny activity (supplementary to main report content)

Challenges

- At an early stage, representatives of Ofgem attended a main CEG session at which questions about the scope of CEGs work in relation to financing issues were discussed.
- CEG members also attended Ofgem's March 2019 conference call on financeability.
- CEG members with particular expertise in this area have reviewed other relevant documents and engaged with Cadent's RIIO-2 programme team on how it can link affordability, intergenerational issues and vulnerable user groups.
- CEG has considered financeability at one main CEG scrutiny session and one FIWG session.

Overall view on the business plan chapter and approach	Responsiveness to CEG challenge	Quality of engagement with CEG	Quality of customer engagement
<ul style="list-style-type: none"> • Sets out a thoughtful analysis of affordability issues arising from the overall revenue requirement 	<ul style="list-style-type: none"> • 8 challenges¹² all closed 	<ul style="list-style-type: none"> • Open and responsive discussions and recognition of CEG challenge, particularly at Board level in relation to strategy and vision • Significant additional analysis and commentary added to the chapter 	<ul style="list-style-type: none"> • Engagement with stakeholders on affordability seemed appropriate and thoughtfully linked to vulnerability

Key areas of strength / CEG support

- Cadent has responded well to CEG suggestions for broadening the discussion of affordability from RIIO-2 average bill levels to link to the distributional and intergenerational aspects, including its vulnerability strategy and its longer-term bill profile

Key areas of concern/disagreement/challenge that could that be further scrutinised (e.g. via open hearing)

- The chapter provides no indicative insight into the potential impact of longer term policy uncertainties relating to the future of gas

¹² Affordability: CL98, CL148, CL152, CL203, Financeability: CL146, CL147, CL149, CL150.

Consumer Value Proposition assessment table

This appendix supplements Chapter 6 of the main CEG report. It outlines the Group's views on each of the commitments that makes up Cadent's Consumer Value Proposition (CVP).

It is the CEG's view that in addition to Ofgem's suggestions, proposals should be excluded from the CVP, or inclusion qualified, if they meet any of the following criteria:

1. Are effectively complying with regulatory or policy requirements or expectations e.g. improving compliance with disability legislation on access or FPNES - unless the target or activity goes significantly beyond expectations.
2. Deliver service quality levels that fall below industry benchmarks for what good looks like, even if the service levels are significantly higher than the company's existing levels and delivered at the same or lower cost.
3. Are already business as usual for Cadent and other utilities even if they go beyond statutory minimums or are not above what customers would reasonably expect of a company.
4. Are activities consumers would expect from any efficient modern company e.g. stakeholder engagement, innovation and data strategies (especially when customer money has already been spent to catalyse change in these areas and this is practice that it is expected to be embedded
5. Are activities where the company has commercial or reputational drivers to deliver them
6. Where it could result in the company being rewarded twice e.g. if they will receive a reward under a proposed bespoke financial ODI or if the company has already been funded by innovation funding.
7. Are not supported by customers, unless there is a wider public interest argument for their delivery.

CEG has also considered the strength of the case for inclusion, looking more positively on proposals with evidence of strong customer support, substantial positive social return on investment (SROI)/CBA, clear targeting of a need, innovation, demonstrable leadership, and potential cross-sectoral impact.

PLEASE NOTE - Where our commentary on individual proposals below refers to £ values attributed to benefits using WTP or SROI it is as part of our overall assessment of the case for inclusion. It should **not** be taken as support for rewarding the CVP based on the value stated. See the main chapter on CVP for discussion of this.

CEG report chapter title	Cadent CVP commitment	Cadent CVP deliverables (RIIO-2 NPV)	CEG commentary	Support inclusion in principle?
Meeting the needs of consumers and network users including those in vulnerable situations	CO Awareness and Safety Plan	Educate 200k (mainly KS2 children) <i>(minus £0.9m)</i>	<p>Cadent is proposing a CO education programme (targeted mainly at Key Stage 2 children) which is an improvement compared to that delivered in RIIO-1 both in reach (200k in 5 years vs 44k in 8 years) and quality (a large-scale mainly face-to-face programme). It will be complemented by a range of other educational initiatives using a larger number of partners.</p> <p>There is very strong customer support for Cadent's strongest level of ambition on CO initiatives. Expert stakeholders are supportive. We note that the net benefits attributed to the proposal (based on SROI) are negative in RIIO-2 (50p per £ invested), although they become positive (20p per £) if benefits arising in RIIO-3 are included. We do not believe this factor is significant enough to prevent its inclusion as a CVP although it may impact the calculation of any reward.</p>	Yes
		Issue 3m alarms <i>(minus £5.1m)</i>	<p>The number of CO2 alarms Cadent has suggested to provide is significantly beyond the target of 105k for RIIO-1 (and the likely number delivered in practice -125k). Cadent put forward 2.9 alarms to be calculated for the CVP given that it considers 100,000 alarms business as usual so not going above.</p> <p>We see merit in including this given how far it goes beyond BAU, and strong customer and expert stakeholder support. We note that the net benefits attributed to the proposal (based on SROI) are negative in RIIO-2 (23p per £ invested), although they become positive (24p per £) if benefits arising in RIIO-3 are included. We do not believe this factor is significant enough to prevent its inclusion as a CVP although it may impact the calculation of any reward. Cadent also sees this as an opportunity to raise brand awareness so the commercial benefit to the business also needs to be considered in setting any reward.</p>	Yes
		15,000 appliance services, repairs, replacements <i>(£28.5m)</i>	<p>This goes above and beyond industry standard practice. A relatively strong net benefit (based on SROI) has been attributed to the proposal in RIIO-2 (£3.30 per £ invested). There is strong need - it responds to a gap in consumer protections and has positive stakeholder and customers support.</p>	Yes

CEG report chapter title	Cadent CVP commitment	Cadent CVP deliverables (RIIO-2 NPV)	CEG commentary	Support inclusion in principle?
Meeting the needs of consumers and network users including those in vulnerable situations	Fuel Poverty Plan	<p>Take 36,500 customers out of fuel poverty through: providing energy efficiency and income advice to 25,250 customers</p> <p><i>(£48.1m)</i></p>	<p>Cadent says its overall approach to fuel poverty will result in a 70% increase in the number of households helped each year, with an aspiration to lift 36,500 out of fuel poverty over the price control period (which the FPNES did not guarantee) at £0.46m p.a. lower cost.</p> <p>In principle, we support end to end face to face advice provision provided predominantly by expert partners trusted by consumers. The proposal includes a combination of energy efficiency advice, EPC assessments, resilience advice, and income maximisation. It has a very positive SROI (£15.30 per £ invested).</p> <p>During RIIO-1 advice was delivered alongside FPNES connections so c.35,000 households received it. The proposed advice target is substantially lower at 25,250. However we are told that the advice proposed is more comprehensive in that it includes benefits entitlement checks (which we particularly welcome) and resilience advice which it previously didn't. This needs clarification.</p> <p>Unlike in RIIO-1, at least 80% of the advice would need to be delivered independently from FPNES given the proposed FPNES target is 6,250.</p> <p>There is strong support from stakeholders for this proposal, but customer views appear mixed. However, we acknowledge the proposal represents a moderation of initial ambitions as a result.</p> <p>We note that it is assumed that 60% of households would act on advice, a figure that Cadent's partners have suggested. Both the costs and the benefits would fall if the figure were lower. We support output being included in the CVP on the assumption that the quality of the package of advice, is genuinely better quality, includes benefits entitlement checks, goes beyond business as usual practices and delivers a positive SROI.</p>	Yes
		<p>Making 5,000 tailored interventions</p> <p><i>(£13.2m)</i></p>	<p>The approach proposed is in line with fuel poverty good practice and Cadent has calculated positive (although not huge) net benefit (50p per £ invested).</p> <p>Where deployed alongside FPNES connections its proposals should ensure delivery of FPNES is more impactful in taking customers out of fuel poverty with an approach better aligned with the decarbonisation agenda.</p> <p>However, the CEG is mindful of Ofgem's decision in this area in the May RIIO-2 Sector Specific Methodology.¹ Also, despite good stakeholder support, customer views appear mixed. Though the proposals represent a moderation of initial ambitions as a result which seems a reasonable response on Cadent's part.</p> <p>We do note though that some stakeholders question whether GDNs should be involved in non-gas interventions. Nonetheless, we commend Cadent's ambition in seeking to resolve some of the difficulties in current provision and therefore supports its inclusion as a CVP.</p>	Yes
		<p>Piloting and implementing a new cross-industry funding approach</p> <p><i>(not monetised)</i></p>	<p>This is an innovative cross sector approach that goes beyond BAU. Cadent is demonstrating leadership and collaboration in a much needed area. It can be used to inform policy decision making, improve wider funding efficiency. The CVP is not quantified.</p>	Yes
Meeting the needs of consumers and network users including those in vulnerable situations	Going Beyond the Meter	<p>Never leaving a customer vulnerable without gas (Repair/ replacement of appliances)</p> <p><i>(£15.0m)</i></p>	<p>Companies are required to provide heating and cooking facilities to vulnerable customers in the event of an incident which leaves them without gas. However, in practice, most companies, including Cadent, already offer much more than this (vouchers, showers etc). While not a regulatory requirement therefore, the standard which can reasonably be expected of a GDN is already higher than that required.</p> <p>These proposals further enhance provision in these circumstances to include repair and/or replacement of faulty appliances identified during/after a gas interruption, subject to strict eligibility criteria to ensure targeting to customers who are particularly vulnerable.</p> <p>There is strong support from both stakeholders and customers for the most ambitious of Cadent's proposals to assist vulnerable customers suffering from interruption to supply. There is a relatively high calculated net benefit of the proposals (£6.20 per £ invested) based on Cadent's own WTP research.</p>	Yes

¹ <https://www.ofgem.gov.uk/publications-and-updates/riio-2-sector-specific-methodology-decision>

CEG report chapter title	Cadent CVP commitment	Cadent CVP deliverables (RIIO-2 NPV)	CEG commentary	Support inclusion in principle?
Meeting the needs of consumers and network users including those in vulnerable situations	Personalised welfare	Offer personalised welfare for all customers in vulnerable situations (£120.8m)	See above. Cadent proposes a CVP for the provision of welfare facilities (other than the repair/replace activity detailed above and heating and cooking facilities required). There is a strong positive calculated net benefit, based on stated preference in WtP research (£7.40 per £). There is also strong stakeholder support for this. However, there is mixed customer feedback which resulted in Cadent moderating its ambition. We welcome this output, however in practice many networks are already providing these measures, as is Cadent – they are the new de-facto standard. We don't therefore support their inclusion unless Cadent can demonstrate a step change in activity or approaches that are genuinely innovative. Cadent says that it is not aware that other networks are providing the same scale and breadth of welfare services. Indeed this was indicated by the fact that Cadent supplied over 5000 hot seats up to SGN in Scotland in a recent incident as SGN did not have them which suggests the companies may not be all doing the same thing.	Maybe
	Priority Service Register awareness	2m conversations, awareness training and partnerships (£0.6m)	Under Licence Condition 17/Special Condition D13, GDNs have a specific obligation to promote the PSR and refer eligible customers through to their respective DNO PSR registration process. These 2 million conversations are above and beyond Cadent's BAU activities which include events, promoting PSR via online and hard copy communications. The company has already demonstrated some innovation in this area e.g. PSR billboards. These are also expected to be high quality face to face conversations delivered with dedicated time predominantly by trusted third parties. The conversations will be in addition to engineers identifying vulnerability via home visits. One critical distinguishing feature compared to existing programmes of its type is its ambitious scale. The approach has strong stakeholder support. Customer support for the initiative was mixed with some support in deliberative work reportedly supportive but the main BOT survey suggesting a less ambitious option. In addition, the net benefit is positive but marginal (8p per £ spent) based on a WTP study conducted for DNOs. This would increase of RIIO-3 benefits were taken into account (£1.45 per £). However, these estimates are based on a conversion rate (conversation -> PS registration) of 60% which sound highly ambitious. So, the values may be lower than estimated by Cadent. We nonetheless cautiously support this as part of Cadent's CVP but suggest that Ofgem takes a view on the calculation of the value and ensures the ambition level is in line with customer preferences and that conversations are a cost effective approach.	Yes, with caveats
	Carbon neutrality	Reduce carbon footprint from 64k tonnes to zero (minus £36.3m)	We are positive about Cadent's steps to reduce its environmental impact and believe they have made a significant step up in terms of ambition. The package of measures associated with this commitment includes energy consumption reduction, reducing mileage, and moving to the use of low emissions vehicles. The commitment to move to zero covers business emissions and excludes shrinkage. Any business emissions that cannot be reduced through the actions in the Environmental Action Plan will be offset. The CVP value for this commitment is negative, reflecting the lack of customer willingness to pay for these actions. However, we believe there is a positive social benefit from the resulting carbon reductions. The test of whether this should be in the CVP is whether Cadent's plans go beyond that of peers and specifically the other GDNs in RIIO-2. For that reason, we recommend that Ofgem benchmarks the package of commitments to ensure it meets the bar for CVP before making a decision.	Maybe
		Reduce our people's emissions by 5k tonnes (£4.1m)	As above.	Maybe
		Reduce theft of gas (£1.3m)	Cadent has proposed a new approach to managing theft of gas. This would involve Cadent being allowed a greater share of the reward from successfully investigating and prosecuting theft. Cadent argues that both Cadent and customers will benefit from this approach. We are comfortable with the proposal Cadent has made. However we do not agree that Cadent should in addition benefit from being part of the CVP on the grounds that Cadent may receive a reward twice for the same activity and the activity itself is not innovative (this approach to managing theft of gas has been in use elsewhere or discussed during RIIO-1).	No

CEG report chapter title	Cadent CVP commitment	Cadent CVP deliverables (RIIO-2 NPV)	CEG commentary	Support inclusion in principle?
Trusted to act for communities	Supporting our communities	Our community fund worth 1.25% of annual post tax profit (or at least 1%) (£27.2m)	<p>There were mixed views on the inclusion of this in the CVP. Provision of some kind of community fund paid for by company profits has been standard practice for many utilities for a number of years and some members think this proposal just brings Cadent up to the good practice bar. However Cadent says its approach is different as it's linked to profits (though these can go up or down).</p> <p>Customer research indicated that customers expect companies to make a contribution themselves to social support alongside customer cross subsidy. The percentage of profits proposed is we understand at 1.25% at the higher end of the scale. Customers were positive about the idea of a fund and engaged with its potential uses but there are no views on the expected value (except a view anecdotally thinking it was too low).</p> <p>The implications of inclusion with a positive value leading to a business plan incentive reward would appear to be that Cadent's shareholders would recoup some of the money that they have contributed. By itself, this does not, to us, to make much sense. But we acknowledge the intent and design of the proposal is consistent with the underlying consumer value objective.</p>	Qualified Mixed CEG views
Meeting the needs of consumers and network users including those in vulnerable situations	Improved customer service	Time-bound appointments (£109.1)	<p>We welcome proposals for two hour time-bound appointments but the CEG is split on whether it should be included in the CVP. This has support from customers. We understand that while this is being proposed by NGN, no other GDN currently offers this. We also acknowledge that certain companies charge for a one hour slot. However, Citizens Advice tell us this is common practice among electricity companies and wider utilities. It may not therefore go beyond a level of customer service that consumers could reasonably expect.</p> <p>We find it difficult to see as plausible the consumer value ascribed in Cadent's WTP analysis for time-bound appointments. This derives from a willingness to pay of £2 per household per year for the availability of 2-hour appointment slots for the restoration of the gas supply following connection, repair or mains replacement. That is events that can be expected to occur only once every 40 years. We understand that the insights have been checked with Cadent's advisers, Sia Partners.</p> <p>Nevertheless, we acknowledge Cadent's aim of addressing concerns expressed during customer engagement and the benefits this can bring.</p>	Mixed CEG views Qualified
Net Zero and a whole system approach	Whole-system thinking	Entry capacity enablement (£51.9m)	A CVP value of £51.9m is attributed to this output (described in App 07.04.08) which puts in place structural commercial and methodological changes to enable entry gas customers to identify and progress with entry projects more quickly and efficiently. A UM is proposed to address the costs of resulting connections. In the absence of the proposal to better enable entry connections, the progress towards net zero through green entry gas would continue to be slow. Hence there is justification that inclusion in the CVP is appropriate for this output. However we do not accept that that the appropriate CVP values associated with this work is the net benefit predicted for the UM once the volume driver is triggered. The benefit to customers lies in the potential of the regulatory change to facilitate new entry, not the full value of the network investment that may (or may not) follow it.	Maybe
		Supporting off-grid communities (£4.4m)	A CVP value of £4.4m is claimed in respect of this in Cadent's final plan. The CEG questions the proposal to conduct an off-gas grid trial and has raised this as a potential area for hearings for three reasons: 1) The costs on which the justification is based do not take full account of capital costs that would be borne by consumers in switching their heating systems to gas; 2) The support claimed for such a trial is drawn from more general support given to connecting those in fuel poverty and improving access to greener gases. We are not convinced that these aspects of engagement adequately support the proposal 3) Elsewhere in the BP, Cadent has decided to put FPNES expenditure into an Uncertainty Mechanism because government policy towards growing the gas network may change in RIIO-2. Similar uncertainties exist in relation to this proposal which may lead to "regrets".	No

CEG report chapter title	Cadent CVP commitment	Cadent CVP deliverables (RIIO-2 NPV)	CEG commentary	Support inclusion in principle?
Strategic efficiency initiatives	Delivering efficiency through the plan from our innovation strategy, competition Strategy and transformation	Efficiencies from Innovation strategy, competition strategy and transformation (£155.0m)	<p>Cadent has included the combined impact of three significant change programmes as part of its CVP. The value attributed appears to be a calculation of expected future efficiencies, but its Business Plan appendix does not set out how this figure is calculated.</p> <p>While undoubtedly transformational and positive for customers, we note that:</p> <ul style="list-style-type: none"> - some of this activity is BAU or will be by the start of RIIO-2 - continuous improvement, seeking to maximise the benefits from competition and innovation, with occasional transformational change would be expected of any well-run company - all of these activities have strong commercial drivers - any efficiencies baked into the business plan aim to mimic the cost that might be expected to emerge in competitive markets. Inclusion in the CVP would potentially have the impact of increasing those assumed costs - any efficiencies beyond those assumed would be rewarded via the totex incentive mechanism 	No

Bespoke Uncertainty Mechanisms - Summary CEG conclusions

This document should be read alongside Chapter 14 'Managing risk and uncertainty' and sets out our views on the nine bespoke Uncertainty Mechanisms (UM) that Cadent has suggested, plus the common UM for Smart Metering. We have reviewed the UMs from the perspective of the way in which risk will be transferred to the customer by their use. We have given a red/amber/green rating against the following criteria:

- whether there is a good justification for the UM, including the type of UM selected
- the challenges associated with the cost assessment for the UM and whether we agree with Cadent's approach
- whether Cadent has identified and found ways to mitigate risk in operating the UMs
- whether there is a risk to customers in the form of the UM, with observations on how this might be mitigated further following Ofgem review.

Appendix and UM name	Type and pre-sharing cost range (mean) - £m	UM justification	Cost assessment	Mitigating risks and perverse incentives	Remaining risk to customer
Repex Tier 2 and PAST	Volume 6-8 (7) 123-150 (136)	Highly material Identifies the risk that company will be required to invest where pipes move above the safety threshold Builds on accepted volume driver and costing approach for RATs	Granular structure reduces scope for windfall gains Unclear how significant the assumption is of using steel costs for Tier 1 and 2 PAST and weighted average of iron and steel for Tier 3	Assuming Cadent has no control over which pipes go above the safety threshold, we see no perverse incentives	High cost For a potentially significant item of expenditure, establishing efficient unit costs for the volume driver is key Extent to which steel pipes need replacement due to earlier failures on cathodic protection, and any mitigation required, worth exploring
10.06 Smart meter rollout	Pass through 0-13 (5)	Not known whether GDNs will be required to become DCC members so UM appropriate Pass-through of costs gives company least incentive to manage costs	Costs have steadily declined during BP preparation process Appendix lacks explanation of what activity both one-off and enduring costs will cover	Pass-through of costs is only mitigated by Ofgem benchmarking	Low cost Ofgem is unable to set a good benchmark for the work and customer pays too much
10.08 Reinforcements	Volume 42-85 (62)	Cadent has used a scenario whereby costs and volumes are associated with a growth assumption of between 5-10% (dependent on network) from current levels. This leads to a material level of uncertainty but it is not clear how realistic this is	Proposal is for volume driver using unit costs for various pipe diameters, where costs are well understood and therefore likely to be high confidence	Cadent would have incentive to build pipe efficiently However, remuneration based on work delivered does not create incentives to explore innovative/no-build solutions	High cost Clarity would be needed in the licence for how unit costs would be established for solutions where these have not been established previously Cadent is proposing the UM operates for costs in excess of a baseline allowance. The interaction between baseline and UM funding is unclear, and would require clear definition as part of the licence drafting to avoid the potential for trade-offs to be made between the two

Appendix and UM name	Type and pre-sharing cost range (mean) - £m	UM justification	Cost assessment	Mitigating risks and perverse incentives	Remaining risk to customer
10.09 Entry charging and access review	Reopener then Volume 60-108 (84)	<p>Agree this is an appropriate area for a UM: material, highly uncertain and driven by customer requirements</p> <p>Agree that two-pronged approach to form of UM (reopener plus volume driver) is helpful</p>	<p>All GD2 costs for entry enablement are included in the UM, with none in Base Plan - so arrangements for cost control of the UM are important</p> <p>Because unit costs are uncertain, Cadent proposes a review after 10 installations to reset if current assumptions are out of line with experience</p> <p>Costs based on compression solution, although this is not the only option</p> <p>Cost ranges based on uncertainty in volume of biomethane connections - there is no discussion of volume of shale gas connections</p>	<p>Cadent will use stakeholder and customer engagement to build more robust view of future demand for connections</p> <p>Totex sharing mechanism will allow over/under performance against unit cost allowance to be shared</p> <p>Incentive to reinforce is quite strong under these proposals assuming the unit cost rate acts on delivered reinforcement. However, we are not sure the incentive to find solutions that require less reinforcement is particularly strong</p>	<p>High cost</p> <p>The definition of the volume driver will need to be carefully constructed to ensure a reasonable balance is struck between the need to facilitate new sources of green gas and the need to create an appropriate set of incentives on Cadent</p> <p>Given the modular nature of compression, it would have to be established whether the unit cost rate should apply to the total volume of reinforcement or (if less) that required by the customer</p> <p>Once the volume driver is operational, a mechanism would be required by Ofgem to audit Cadent's assessment of the volume of entry capacity reinforcement undertaken</p> <p>Unit costs over GD2 may be lower than expected, despite the review planned - a further review after 25 installations would reduce this risk</p> <p>Helpful for Ofgem to consider how it will audit cost across GDNs and develop a robust methodology. This should include the mix of compression vs new pipeline solutions</p>
10.10 MOBs	Reopener 6-39 (15)	<p>Reopener proposed, triggered by post-Hackitt review legislation or mandatory programmes or notices from the HSE.</p> <p>Overall, this seems sensible given the level of uncertainty about whether any changes will come into effect and what these changes could be</p>	<p>Cadent's proposal that it "would demonstrate costs incurred or expected to be incurred in response to new requirements for MOBs" is rather vague. They say this is because the range of outcomes from the Review is very broad</p>	<p>Cadent has limited ability to influence the recommendations of the review</p>	<p>Low cost</p> <p>Once the Hackitt Review is released and Cadent has assessed the impact on its workload, careful work would be needed to ensure the different types of work are appropriately costed. This might involve putting part of the costs into a volume driver mechanism</p>

Appendix and UM name	Type and pre-sharing cost range (mean) - £m	UM justification	Cost assessment	Mitigating risks and perverse incentives	Remaining risk to customer
10.11 Connections	Volume 26-40 (34)	<p>UM was created in second draft of BP</p> <p>Case for UM reasonable given level of potential uncertainty over volume of new connections. Not a revenue driver at RIIO1 but arguably should have been (connections were 10% < forecast) and perhaps more policy uncertainty (future use of gas)</p> <p>Potential materiality (£33m mean post-sharing cost across all networks) supports a UM</p>	<p>Costs are net (i.e. only those which are socialised across all customers: first 10m of domestic connections on public land). Cost of business connections where Cadent does work should be fully covered by connection charges</p> <p>Unit costs are based on those used for mains and services delivery in the base plan (i.e. repex) and include efficiency assumptions. A base allowance is included in the plan equivalent to lowest annual volume by year and network in RIIO1. The UM will provide for revenues above this level.</p> <p>The plan does not calculate the total costs (pre-sharing) but does set out the underlying growth and unit cost assumptions</p>	<p>The incentives on Cadent seem reasonable. There is an incentive to beat unit costs - which should benefit customers.</p> <p>The volume driver should prevent Cadent avoiding investment at above the level in the base plan - which is set at a "minimum" level</p> <p>Revenue driver is automatic (with one-year lag) so should not prevent required growth investment</p>	<p>Medium cost</p> <p>Customers should benefit from incentive to deliver at lower than unit costs for both base and additional volumes.</p> <p>Theoretical risk that Cadent does not plan efficiencies (i.e. too many km per connection) but in practice nature of investment (first 10m) mean this not likely to be substantial in practice (plus need to resource work)</p> <p>Customer incentives (CSAT) should help ensure quality and timeliness of work</p>
10.12 Diversions	Reopener 15-26 (21)	<p>UM was created in second draft of BP</p> <p>Reopener proposed for costs above those included in baseline, and an anytime trigger</p> <p>Cadent proposes the reopener operates on a per-network basis, but it is unclear why this is appropriate</p> <p>Materiality debateable</p>	<p>Cadent would have to demonstrate the efficiency of the costs incurred</p>	<p>No significant concerns over the incentives that this would create if, as suggested by Cadent, the drivers of diversions are largely outside its control</p>	<p>Low-medium cost</p> <p>Ofgem scrutiny would be required if the reopener was triggered</p>
10.13 Lowestoft	Reopener 14-33 (24)	<p>UM was created in second draft of BP</p> <p>Given the current situation and lack of clarity about solution an anytime reopener seems reasonable. Likely amount of £24m and range of costs up to £33m seems material, especially as it is focussed on a single network (EE)</p> <p>There is little evidence of outcomes of stakeholder engagement to date with customers, landowners or Anglian Water which owns the service tunnel</p>	<p>Costs are estimated at a high level and a number of specific factors make them uncertain such as the need for easements from landowners and specialist engineering. This is clearly unusual work, which has not been estimated with any degree of confidence to date</p>	<p>It is not very clear why it has taken such a long time for Cadent to get to this point (feasibility studies) despite the technical difficulties described. It is possible the lack of a UM in RIIO1 acted as a disincentive to act.</p> <p>Risk of further delay seems mitigated by compliance obligation</p> <p>Given a UM is justified, the reopener is the most appropriate form for it.</p>	<p>Medium cost</p> <p>Reopener would involve Ofgem scrutiny and challenge of chosen solution</p> <p>Potential that chosen option leaves residual risk to customers and/or is lower than would be supported - which may be partially mitigated by Cadent's licence obligation to maintain 1-in-20 resilience.</p>

Appendix and UM name	Type and pre-sharing cost range (mean) - £m	UM justification	Cost assessment	Mitigating risks and perverse incentives	Remaining risk to customer
10.14 Traffic collision protection	Volume 10-20 (15)	UM was created in second draft of BP Volume driver dependent on HSE requirements relating to action to protect governors Materiality debateable	Unit cost will be as used in similar work in the base plan	Placing this work in a UM disincentivises the company from investing beyond the base plan	Low cost Potential for lower investment for safety than customers would support
10.15 High-pressure valves	Volume 17-26 (22)	UM was created in second draft of BP Materiality debateable	Costain's assurance report notes the average cost of four quotations for minor interventions received to date was £26K, whereas Cadent has used £50K as an indicative cost in this appendix. However, Cadent accepts that more work is needed to establish a robust unit cost for this volume driver Would unit costs be sufficiently predictable and stable to be high confidence?	Cadent notes there is no scope for incentivising volumes of work since they will be entirely driven off safety risk assessments Volume driver would retain cost efficiency incentive Need to avoid a perverse incentive for Cadent to create major intervention when minor intervention would suffice - see right hand column	Low-Medium cost Cadent proposing separate unit costs for minor and major interventions. Licence would have to be clear on how the two types of intervention are distinguished and ensure no perverse incentive

TERMS OF REFERENCE

Last updated December 2019

1. INTRODUCTION

These Terms of Reference (TOR) for Cadent's Independent Customer Engagement Group (CEG) have been developed by the CEG, agreed by Cadent, shared with the energy regulator Ofgem, and published on the CEG website. They have been created having considered good practice cross-sector learning on customer challenge groups/panels.

2. BACKGROUND

The next round of RIIO price controls for Gas Distribution (RIIO-GD2) will run from 1 April 2021 - 31 March 2026.

Ofgem's, objective for RIIO-2 is to ensure that regulated energy network companies deliver value for money services that both existing and future stakeholders value. This includes decisions which support the transition to the low carbon energy system and meet the needs of those in vulnerable situations including households on low incomes.

To strengthen the stakeholder voice in the process of setting price controls for monopoly energy network companies, Ofgem has required all gas distribution companies to set up a 'Customer Engagement Group'. These groups are intended to help:

- Put stakeholder needs at the heart of network company's decision-making by improving the quality of their engagement
- Improve the overall quality of the business plan and ensure it is better aligned to current and future customer needs and preferences
- Support Ofgem's assessment of the RIIO-2 business plan
- Enable more flexible regulation and business plans that better reflect local contexts.

Guidance on these groups, their membership and focus is outlined in RIIO-2 Enhanced Stakeholder Engagement Guidance (November 2019).

3. CEG ROLE

The CEG's primary role is to provide independent scrutiny and challenge to Cadent and independent views to Ofgem on Cadent's business plan proposals and the degree to which Cadent's business plan considers and addresses the interests (needs and preferences) of its current and future stakeholders.

These independent views will take the form of a Report that will be submitted to Ofgem alongside Cadent's business plan in December 2019.

While not the Group's primary role:

- The CEG may advise the company where such feedback can help to deliver better outcomes for stakeholders. Where advice is given, to ensure independence, this will be recorded in the minutes.
- The CEG may have an advocacy role e.g. responding to consultations and raising issues with Citizens Advice and Ofgem, where this activity has the potential to deliver better outcomes for stakeholders or result in the more effective working of the CEG.

4. DEFINING 'CONSUMER'

Ofgem in its various guidance documents uses the words 'customer, consumer and stakeholder' largely interchangeably.

For the purpose of the CEG role, the 'customer' reference in the title of the Group is a short-hand for the following current and future stakeholders:

- *Customers* - those who pay for using the gas distribution network. Customers may be businesses, third sector not for profit organisations, or individuals who use the network with whom Cadent has a direct financial relationship. They may also be customers, who pay for the network indirectly as a part of their wider energy bill or service;
- *Consumers* - those who use but may not pay for the energy they benefit from e.g. non-bill payers within a household;
- *Citizens* - members of society who are directly or indirectly impacted by the company's activity;
- *Organisations or communities* that are affected directly or indirectly by Cadent's activities e.g. by road works or its activity as a local employer.
- *Public interest* - collectively citizen and community interests reflect the 'public interest' e.g. reducing carbon emissions, minimising pollution or ensuring safety should benefit all citizens, while ensuring affordability can have wider public benefits such as improving health and social well-being.

5. SCOPE

As a minimum (but not limited to), Ofgem stipulated in its March 2018 Guidance that the CEG will challenge the Company in the following areas:

1. Its overall business plan priorities and approach
2. The quality of Cadent's stakeholder engagement, including views on whether the business plan proposals demonstrate value for money and are acceptable to customers. Also, the degree to which their proposals reflect their research and engagement findings, including on willingness to pay research

3. The range and quality of services including the approach and support provided to households in vulnerable situations, including those who are financially vulnerable.
 4. The company's proposed outputs and associated total expenditure ("totex") budgets (including level of cost efficiency improvements).
 5. Investment options considered - including from parties offering alternative and non-network-based solutions
 6. The company's approach to innovation, including incorporating innovation into business as usual where appropriate, and including relevant innovative approaches and initiatives, including those examples from outside GB
 7. The future of gas including but not limited to the range of scenarios the company has considered to anticipate future stakeholder requirements and the company's approach to managing uncertainty and associated risks and the future energy transition. This includes testing the business plan against more extreme scenarios (both significantly lower and higher) to ensure the business plan remains robust to unforeseen changes and challenges
 8. Any issues of particular relevance to Cadent's local regions including any significant investment choices in their area and provide challenge to decisions made by the company when considering competing interests and perspectives.
- In addition, the Group is able to comment on:
9. The culture of the company including how consumer centric, ambitious and innovative it is
 10. The company's approach to responsible business including but not limited to fairness, the environment and sustainability.
 11. Other areas in line with the Principles for Prioritisation below.
- In addition, Ofgem stipulated in the Business Plan Guidance issued in September 2019 that it will take into account the views of CEGs:
- when carrying out its assessment vs. the Business Plan Incentive criteria
 - when assessing each CVP proposal

6. PRINCIPLES FOR PRIORITISATION

To help prioritise the Group's activity and to maximise its effectiveness the CEG has developed its own high level 'Principles for Prioritisation'. These principles will help guide where the Group will undertake greater scrutiny, or 'deeper dive' into the company business plan activities and will also help to provide transparency around the rationale for it focusing more on some areas than others.

	Principle	Cost assessment
1	Ofgem requirements	The CEG's primary role for 2018/19 is to support Ofgem in setting its final RIIO-2 price determination. It will therefore prioritise those areas that the regulator explicitly requests that it focuses on. There may be times where the CEG disagrees with Ofgem and opts not to focus on certain areas, but it will explain the rationale for this and give Ofgem advance notice wherever possible of our approach. It may go beyond Ofgem's suggested minimum areas if the following principles (2-6) are met.
2	High stakeholder priority	If customer (as defined in section 4 above) insight indicates that an area is a high priority for stakeholders the CEG will consider if it should particularly scrutinise and challenge in that area.
3	Potential impact of Cadent decisions	The CEG will have a strong focus on customer (as defined in section 4 above) outcomes. The Group will prioritise activities that have the largest financial cost, including those that commit to long term expenditure (i.e. beyond the term of RIIO2- GD2). This involves considering the distributional impact of decisions on different stakeholders. It will particularly consider those areas where there is the greatest likelihood of risk and greatest opportunity to deliver benefit to current and future stakeholders. The CEG will consider not just the scale (numbers impacted) but also the depth of impact. For example, a particular decision may disproportionately impact a small group of customers resulting in significant detriment to them. Some impacts may be financial e.g. bill impacts, while others may be non-monetised such as influence how much the company is trusted, its legitimacy, customer convenience, satisfaction and experience.
4	Potential for CEG to influence	The Group will consider where the CEG can most influence the Company decisions and outcomes. For example it will not prioritise areas that are statutory where there is little scope to influence the approach. It may particularly scrutinise where Cadent is weakest relative to other companies in terms of its performance or where the company lacks the skills, experience or understanding so challenge may be particularly valuable. As part of the CEG on-boarding the Group discussed the company's SWOT analysis, and Citizens Advice and the Chair of the Cadent Stakeholder Panel also gave their independent views of the company and its performance to help inform where the CEG should prioritise. This informed our work plan. The CEG is mindful that some areas of weakness or gaps may only become apparent over time.
5	Where CEG is best placed to scrutinise and challenge compared to others	The CEG will consider where it is best placed to challenge and scrutinise the company compared to other organisations such as the RIIO-2 Challenge Group, Citizens Advice, and Ofgem. While the regulator is happy for duplication between the different group's activity, given the time constraints and the need for efficiency, the CEG will endeavour not to duplicate but to complement the relevant activity of other organisations. This will require regular and open communication between the Cadent CEG and these entities.
6	Resourcing required versus likely impact	We will consider the resourcing required including time available relative to the potential benefits of focusing on an area to ensure it is practical to scrutinise an issue in the time available.

7. OUT OF SCOPE

- The CEG will not endorse or jointly own the business plans submitted by Cadent. The ownership of the business plan sits entirely with the Company.
- The Group does not have any decision-making powers. The Gas and Electricity Markets Authority (GEMA) will make the final decision on the price controls. Ofgem will consider views raised by the Group but is under no obligation to accept them.
- Ofgem has indicated that it will not be looking to the CEG to challenge Cadent's assumptions regarding its cost of capital, capital structure and financeability. However, the CEG would be free to comment on related issues if it considered them relevant to its role as described in section 3 above.

8. AUTHORITY AND POWERS

The CEG is an independent Group. Its authority to carry out its duties as outlined in these Terms of Reference is given by the energy regulator Ofgem as part of its RILIO-2 approach and by the Cadent Board.

Cadent is not obliged to respond to all of the challenges and recommendations of the CEG. However, the CEG will document the Company's response and openness to challenge in its Report to Ofgem (see section 9 below).

The CEG may escalate issues to the Board if considered appropriate. Where this is the case, and the Board decides against taking action, it will provide its reasons in writing and these will be captured in the report to Ofgem.

9. REPORT FOR OFGEM

The primary output of the Group will be an independent Report to Ofgem which will be submitted to the regulator alongside Cadent's business plan in December 2019 and published on the CEG website.

The Report will outline the views of the CEG on Cadent's business plan in the areas outlined above in section '5 Scope'.

The Report will be written by the Chair and members of the CEG. It will be predominantly (though not solely) 'regulator-facing' and this will be reflected in the language, style, content and structure of the Report.

All members of the Group are expected to review and comment on CEG reports. Members will be allocated different parts of the Report to draft dependent on their expertise, availability and experience.

The Group will agree the approach to the reports, including the structure, with Cadent and if possible Ofgem. Ofgem is expected to provide formal guidance on the report to the regulator but this is not yet available.

In line with our 'no surprises policy' with Cadent (see section 27) the Company will be given the opportunity to respond to and comment on the draft CEG Report.

The Report will be an honest and balanced commentary, including but not limited to:

- Views on the overall quality of Cadent's engagement assessed against a transparent framework.
- The CEG's views on the degree to which the business plans address the interests (needs and preferences) of its current and future stakeholders, including any differing regional / local perspectives.
- The CEG's views on Cadent's business plan proposals, including any bespoke outputs.
- CEG's views on the choices the Company has made including how trade-offs have been explored and reflected in the development of the business plan.
- How the Company has responded to challenges - any areas of agreement and disagreement with Cadent or outstanding challenges and recommendations.
- The Group's recommendations on where the company is strong, weak, innovative, ambitious/stretching.
- A list of any concerns that may want to be interrogated further by Ofgem or in the public hearings.
- Any areas where CEG members have divergent views - the CEG does not need to have a uniform view.
- Any other areas where Ofgem requests comment.

10. EVIDENCE BASE

The CEG Report to Ofgem will be as far as possible evidenced-based. We will draw on a range of evidence including but not limited to:

- **Minutes**
All meetings will be recorded. Minutes and the agenda will be published on the CEG website.
- **Challenge Log**
The CEG will keep a Challenge Log. A Challenge is defined as a recommendation to Cadent, in line with the role and remit of the CEG, for action that has the potential to result in a:
 - Change to the business plan
 - Change of policy and practice
 - Change to the culture of the Company

The Challenge Log will record among other information:

- The requested challenge
- The Company response, including reference to any evidence of action
- The CEG view of the Company response

The Log will be reviewed on a regular basis. A challenge can be raised, with the agreement of the Chair in or outside of the main CEG meetings including in working group meetings. All challenges will be recorded in a single Challenge Log.

- **Action Log**

The CEG will also keep an Action Log. This records all other requests e.g. for information or administrative requests such as circulating reports.

- **Questions and comments sheets**

CEG members capture and theme questions and comments regarding material shared by Cadent and use these to inform and theme CEG challenge to the company in meetings.

- **Observation sheets**

When CEG members observe Cadent engagement activity they will complete a standardised observation sheet of that activity which will form part of its evidence base on the quality of Cadent's stakeholder engagement.

- **Referencing**

As appropriate the CEG will reference research, engagement materials and other reports, in addition to the Company's business plan and appendices. This includes any external assessment reports.

- **Email correspondence**

The CEG may also capture substantive email correspondence with Cadent or other parties.

11. WAYS OF WORKING

The CEG will carry out its scrutiny and challenge role outlined in section 3 via:

- **Main CEG meetings**

There will be regular meetings of the whole CEG where the Group will scrutinise the Company's approach. The CEG will seek to ensure that it hears from a diverse range of people from Cadent at all levels, and have external speakers where appropriate to ensure independent perspectives. The Group has developed a framework against which Cadent will present its business plan information.

- **Working groups**

The CEG may set up working groups to enable it to provide a higher level of scrutiny or 'deep dive' in certain high-priority areas. The areas will be determined in line with the Principles for Prioritisation in section 6. The role, membership, frequency and working of these groups may vary but will be outlined in their respective Terms of Reference as appropriate.

- **Site visits**

CEG members may undertake site visits organised by Cadent or other parties to better understand key parts of the business, the sector or related whole systems issues.

- **Bi-laterals and independent work**

If a CEG member has particular expertise in an area the Group may ask them to liaise directly with the Company and provide assurance in that area, of the Company's approach.

- **Observation**

Members of the group may observe the Company's engagement activity including events, workshops and focus groups. This is to hear stakeholder views first hand and to

evaluate if the Company's engagement approach is effective in practice. Members will be provided with a forward engagement programme and the Chair will agree and coordinate who will observe which engagement activities to ensure effective coverage of the key pieces of engagement activity and a proportionate approach.

- **Independent research**

Dependent on need, the CEG may undertake its own independent research or commission others to undertake activity.

- **Information requests**

The CEG can request information from Cadent. Individual questions are recorded in the Action Log. Substantive information requests that are likely to influence policy and practice are recorded in the Challenge Log. Both of these logs will be published on the CEG website in December 2019.

- **Review reports and news**

The CEG will review both internal and external communications relevant to its role, including but not limited to, from organisations such as Utility Week, Cornwall Energy, Citizens Advice, Ofgem, Local Enterprise Partnerships and regional energy hubs. Members have a responsibility to share information with each other which could aid the role of the Group.

- **External meetings and events**

With agreement of the Chair, members may attend external meetings and conferences on behalf of the CEG. Members attending events on behalf of the CEG will share any relevant information from the event e.g. slides and produce a concise meeting note for the CEG to support its activity. The Group will keep an Engagement Log to capture events and meetings attended.

- **Engagement with the Board**

To ensure effective communication between the CEG and the Board and to better understand: the vision and culture of the organisation; governance approach; and to press for improvements, board members will regularly attend CEG meetings by invitation. The Chair and members of the Group will also meet with and present to the full Cadent Board, and with individual members to share the CEG views and update them on progress.

12. FORWARD WORK PLAN

The Group will develop a forward work plan to December 2019 in liaison with the Company. This and the schedule of meetings will be agreed by the CEG and published on the CEG website. The Group will agree a new forward workplan at the beginning of 2020 following the publication of Ofgem's Guidance on public hearings.

13. QUORUM

The quorum necessary for the transaction of the business for the main CEG shall be half of all independent members. In the absence of the Chair, the Chair may nominate a deputy to chair a meeting. If the Chair is unable to do so, the members may elect a chair for the meeting.

14. NOTICE OF MEETINGS

Meetings of the CEG, other than those regularly scheduled, shall be summoned by the Secretary of the CEG at the direction of the Chair.

Meeting dates, times and venues shall be advised wherever possible, no less than fourteen days in advance of the meeting. In exceptional circumstances, meetings can be called at shorter notice, at the discretion of the CEG Chair.

Unless otherwise agreed, an agenda of items to be discussed and supporting papers shall be forwarded to each member of the CEG and any other person required to attend, not later than seven days before the date of the meeting.

Any member may request an urgent meeting by contacting the Chair. The request should specify the purpose of the meeting.

15. STYLE AND CONDUCT OF MEETINGS

It is expected that:

- Group discussions will be robust and challenging but should always be conducted with civility and respect.
- All participants, both the Company and the members, contribute fully and candidly to all discussions.
- Members will work collaboratively with each other, listen and be open to challenge.
- Wherever possible the CEG will reach a consensus position. Where this is not possible the divergent views will be captured.

16. ATTENDEES AND OBSERVERS

Members of the Company including Board members will be in attendance at the meetings with agreement of the Chair. The Company will withdraw to allow the CEG to meet in private without any company representatives present.

Organisations other than the Company will attend meetings by invitation where this would facilitate the work of the Group.

In addition, the Group may bring in additional experts for bespoke pieces of work e.g. to support the activity of the working groups, or visitors for particular sessions.

17. MEASURING AND REPORTING CEG IMPACT

It is the aim of the Group to be an exemplar Customer Engagement Group. To help deliver this objective and ensure the CEG is transparent, and as effective and cost efficient as possible, the CEG will:

1. Review the effectiveness of each meeting at the end of each meeting to constantly iterate and improve its approach.
2. Develop a vision of what success looks like and a framework for measuring CEG efficiency and effectiveness.
3. Report on the cost of running the group including but not limited to: members allowances, travel, subsistence, secretariat, recruitment, communication and administration costs.
4. Capture and publish its impact.

This impact assessment framework and reporting information will be reviewed at least every six months from January 2019 and published on the CEG website as appropriate.

18. ROLE OF CADENT

Cadent will be responsible for:

- Recruiting a Chair that acts in an independent capacity (rather than representing a particular organisation or group of stakeholders).
- Ensuring the Group is appropriately resourced including providing the necessary secretariat support, a report writer, training and induction for Group members.
- Ensuring the Group has timely access to the information it needs to carry out its role effectively and efficiently.
- Marking whether any information it shares with the Group is restricted or sensitive and its status as regards to completion.
- Providing the Group with access to comparative data from other network companies and making other background data available to inform the Group's decision-making
- Ensuring timely access to staff at all levels of the organisation including Board members to enable the Group to perform their role.
- Sharing in a timely way substantive good news and bad news about Cadent's performance e.g. any feedback from Ofgem, stakeholders, or performance issues such as sizeable outages.
- Providing regular communications updates so the group are aware of Cadent in the news and issues raised by stakeholders such as Ofgem.
- Sharing information with the CEG from Ofgem and other relevant bodies in a timely way which is relevant to the working of the Group e.g. slides from stakeholder workshops.
- Ensuring the Group is able to review the full business plan in full at least twice before the plan submission to Ofgem in December 2019.

Ofgem has said it will take into account the level of support provided to the CEG in their assessment of the business plan and corresponding Report from each Group.

19. TECHNICAL SECRETARIAT/PROJECT MANAGEMENT

To ensure the efficient operation of the CEG, Ofgem requires that Cadent provide sufficient project management and secretariat resource. Secretariat duties include but are not limited to:

- Development of the agenda in liaison with the Chair.
- Liaison with the Chair to support the development of the forward work plan.
- Organising CEG-related meetings including speakers and papers, room bookings and catering.
- Provision of papers to be circulated at least one week before the CEG meeting.
- Minute the proceedings and resolutions of all meetings of the CEG, including recording the names of all those present and in attendance. Minutes shall be circulated promptly to all members of the CEG for agreement after the meeting.
- Maintaining and updating the website and ensuring papers on the Egress system and online are up to date.
- Ensuring all members can access the documents they need for CEG meetings and the work they are undertaking on behalf of the CEG.
- Maintaining and keeping up to date member biographies, declarations of interest, the Engagement Log and member attendance.
- Supporting the Chair in coordinating attendance at Cadent engagement events.
- Keeping the Challenge Log and Action Log up to date and following up on actions and challenges.
- Other administrative support as required e.g. contract management and updating, processing expenses, booking accommodation and travel.
- Project managing the development of the CEG report and any other reports.

The current Project Manager is Alison Ward with secretariat support provided by Simon Hames.

20. CEG CHAIR

The Chair must be selected according to their expertise and experience.

The Chair of the CEG is independent of all interests of the Company. He or she is not a representative of a particular organisation or group of customers so that they can focus on their role of being a strong and independent chair.

The independent Chair is recruited via open competition using a good practice recruitment and selection process, including national advertising and professional external recruitment.

The Chair will have a strong track record of demonstrating leadership at a senior level, with a record of challenging

opinions, assumptions and vision. The role description is published here.

A shortlist of chairs will be shared with and approved by Ofgem - this is to further ensure their independence and credentials.

To help ensure independence Cadent is not able to dismiss the Chair without first notifying both the members of the CEG and Ofgem. Ofgem will seek information on the reasons for dismissal, including through direct contact with the Chair and other members of the Group before the company proceeds.

If the Chair decides to leave the role they will notify Ofgem outlining the reasons along with complying with the terms of their contract.

Chair's duties

The Chair's duties include but are not limited to:

- Appointment of the CEG members in liaison with Cadent, Ofgem and Citizens Advice.
- The strategic approach of the Group
- Governance arrangements including to ensure transparency and independence
- Effective operation of CEG meetings including but not limited to:
 - Liaising with Cadent and CEG members to shape agendas and set the strategic direction for the Group
 - Facilitating the Group's meetings and discussions to make sure every Group member has a full and fair chance for:
- Communication with CEG members including working group chairs between meetings as needed.
- Liaison with Ofgem and wider decision makers as appropriate to ensure the effective functioning of the Group.
- Liaison with the RIIO-2 Challenge Group and other CEG Chairs
- Acting as a spokesperson for the CEG including providing statements to be included in Cadent's external communications.
- Wider external stakeholder engagement on behalf of the CEG to ensure a diversity of views and challenge are heard. The Chair may speak freely at public events (subject to commercial confidentiality) on the activity of the CEG.
- Liaison with and presentations to the Cadent Board and individual board members.
- Ensuring the timely delivery and submission of the CEG report to Ofgem.
- Other duties as per all members of the CEG.

In between meetings of the Group, the Chair will be the principal link between the Group and the Company but will ensure that all Group members are kept informed and involved.

21. MEMBERSHIP

The CEG has up to 15 independent members including the Chair. The current member names and biographies are published on the website and are available here.

The members are selected according to their expertise and experience and must act in an independent capacity, not as an organisation's representative on the Group.

Appointment and dismissal of members is the responsibility of the Chair in liaison with Cadent and in accordance with member's contracts.

To ensure independence and transparency Citizens Advice and or Ofgem may be invited to join interview panels.

Vacancies are published on the Cadent website and promoted via press and social media, and given the specialist nature of the expertise required, via professional networks. External recruitment consultants will be involved if these methods do not identify appropriately qualified candidates.

Ofgem will be notified as to the reasons for any change in membership. Should members decide to step down from their role, they must do this in accordance with the requirements of their contracts.

Appointments are made for a minimum period of up until at least the Ofgem final determination on the RIIO-2 business plan but allowing time for a post CEG review of the effectiveness of the process.

Composition of the CEG - expertise and experience

The CEG must provide robust scrutiny to Cadent. To achieve this, CCG membership will be carefully constructed to ensure that collectively members have the appropriate range of knowledge, skills, experience, and perspectives needed to perform their role.

The key areas of expertise and knowledge required are:

- Future of gas
- Sustainability and responsible business
- Innovation
- Fuel poverty
- Regulatory finance and price control policy
- Safety and engineering
- Cost assessment
- Infrastructure operation, planning and investment
- Stakeholder engagement
- Consumer research
- Customer service performance

Most members will have a breadth of knowledge relevant to the role, along with a depth of expertise in at least one or two areas.

The Group must include members with experience in the following areas to ensure the diversity of perspectives needed to effectively scrutinise its engagement activity and business plan:

- Shippers and/or wider industry
- Small and large business representation
- Consumers
- Community energy
- Community groups and third sector organisations
- Non-traditional business models
- Local/national government
- Future users
- Affordability and vulnerability
- Experience of different locations across Cadent's regions

All members receive induction training including as appropriate regarding gas distribution, Cadent's performance and approach, and the Ofgem RIIO-2 regulatory process.

22. REMUNERATION

Cadent is responsible for remunerating the Chair and CEG members. The Chair is contracted on a retainer basis (with a fee that is in line with Board Non-Executive Director fees). CEG members are paid a day rate which varies dependent on their skills and experience. The Chair and all members are reimbursed for all reasonable expenses incurred in relation to their membership of the CEG.

23. MEMBER RESPONSIBILITIES

- All members will act in an independent capacity and not represent the views of an organisation.
- CEG members should never substitute their views for stakeholder views.
- Members must comply with all appropriate policies including social media guidelines (see section 26 below), equality and diversity and health and safety policies.
- Members are responsible for undertaking appropriate preparation for each meeting including reading all the pre-read information.
- Members must maintain appropriate commercial, intellectual property and personal property data confidentiality, including in line with requirements specified their contracts. The Company will flag documents and information shared which is sensitive.
- All potential conflicts of interest must be declared as appropriate at the start of a meeting. A Register of Interests will be maintained and published on the website. This will be updated regularly the Secretariat. Members will be invited to declare any specific conflicts of interest arising at each meeting.

- Members of the CEG will be expected to attend the CEG meetings in person - deputies are not permitted.
- The CEG will take responsibility individually and collectively to ensure members have a good understanding of the main obligations, issues and priorities needed to carry out their role on the CEG.
- All members will support the Secretariat and Chair in complying with the Terms of Reference e.g. report attendance at meetings to keep the Engagement Log up to date; fill out observation forms for engagement events and review challenges and actions within timescales required.
- All members will ensure any challenges they have made or advice given to Cadent is captured in the Challenge Log and minutes.
- All members will work collaboratively, proactively sharing relevant learning and information.

24. INDEPENDENCE

It is important that the Chair and Group members are, and are seen to be, independent of Cadent, particularly given the high level of contact between the company and members.

The following arrangements will be put in place to provide assurance that the Group is operating at arm's length from the company. The Group will:

- Have an independent Chair and members operating independently.
- Enact the safeguards around the appointment and removal of the Chair as per section 20.
- Enact the safeguards around the appointment and removal of CEG members as per section 21.
- Hold a private session before and after each main CEG meeting without the Company present and hold private sessions in working group meetings.
- Actively seek outside perspectives to ensure a diversity of voices and seek to hear from a wide variety of staff at all levels across Cadent.
- Ensure members hold each other to account to ensure independence.
- Have, publish and keep up to date, a Conflicts of Interest and Register of Interests policy.
- Capture and record where any direct advice is given to the Company.
- Require that Cadent Board members attend by invitation only.
- Take the steps below in section 25 to ensure transparency and accountability.

25. TRANSPARENCY AND ACCOUNTABILITY

The CEG will publish information on its role, membership and work on its website - <https://cadentgas.com/about-us/regulation/customer-engagement-group>

To ensure transparency, as a minimum but not limited to, the CEG will publish:

- This Terms of Reference
- Member biographies
- A member Register of Interests
- Agendas and minutes of the meetings
- Member attendance records
- CEG impact as per section 17.
- Any CEG reports to Ofgem

The Challenge Log along with themed questions will be published by December 2020 on the CEG website along with the report to Ofgem outlined in section 9. This delay in their publication is to:

- a) Encourage a climate of trust between the CEG and the Company - enabling them to be as open as possible in the sharing of information without worry that this will unduly influence Ofgem's decision.
- b) To facilitate maintaining commercial sensitivity of documents and proposals - particularly important given the competitive nature of the Ofgem assessment process.
- c) Ensure that CEG comments and challenges about Company plans and performance are not taken out of context.

26. COMMUNICATIONS APPROACH

The primary aims of CEG external communications to December 2019 are to provide:

- Transparency and accountability to external stakeholders on the work of the Group.
- Facilitate the sharing of information and good practice between the CEG, the CCG, Ofgem and other parties to support the aims of Ofgem's approach to enhanced engagement.

The CEG does not therefore intend to be proactively customer or consumer facing in 2018/19 and will not have a dedicated social media presence on Twitter, Linked In or Facebook.

The CEG will have a web presence on the Cadent website which will be updated at least monthly and contain the information that this TOR says will be published.

27. RELATIONSHIP BETWEEN THE CEG AND CADENT

The CEG will:

- Operate a 'no surprises policy' openly sharing any concerns with Cadent e.g. about performance or engagement with as much time as possible for the Company to address issues.
- Be constructive in its scrutiny and challenges - listen and be open to feedback.
- Be robust, ambitious for stakeholders, challenging but always conduct itself with civility and respect for each other and for Cadent.

- Respect that many documents provided may be early thinking and reflect that in our approach and any conclusions drawn

Cadent will:

- Be transparent and provide as full and open information as possible to enable the CEG to perform their role.
- Be open to challenge, scrutiny and change.

28. RELATIONSHIP WITH CADENT'S STAKEHOLDER ENGAGEMENT PANEL AND WIDER ENGAGEMENT ACTIVITY

For the avoidance of doubt, the CEG is not a substitute for Cadent engaging with its wider customers, and CEG members must not substitute their views for the views of stakeholders.

A key role of the CEG is to independently scrutinise the company's overall engagement approach and ensure it has taken the diverse views of its different 'customers' and stakeholders (as defined in 4 'Defining Customer') into account in its business plan decision making.

Cadent is responsible for designing and running its own programme of engagement with their stakeholders and demonstrating to the CEG that they have done it well.

The Company will likely need to weigh up and trade off different and sometimes competing views from its engagement and research activity.

There have been questions raised as to how the role of the CEG compares to Cadent's existing Stakeholder Engagement Panel. The Panel is an important vehicle for stakeholders to share their views and input into Cadent's decision making process. It is made up of members who specifically advocate on behalf of their respective organisations and constituency groups.

The CEG's members by contrast are independent. Its role is to scrutinise all of the Company's engagement activity. This will include the extent to which the Panel's views are considered by Cadent, but will also involve the Group looking at the Company's wider engagement activity. The CEG will need to scrutinise how Cadent has balanced and weighed a wide range research and insight e.g. understand how the Panel's views have been balanced against more quantitative research and third party insight and how this has informed their business plan.

To ensure the diverse views of the Panel are reflected in Cadent's business plan alongside the insight from wider research, the independent Chair of the Stakeholder Panel, currently Mike Foster, is a member of CEG.

RELATIONSHIP WITH THE RIIO-2 CHALLENGE GROUP

As part of its enhanced engagement approach Ofgem has established a RIIO-2 Challenge Group (R2CG). This Group will look at the business plans proposed by the companies in transmission and distribution including Cadent and will operate in parallel with the CEG.

There is overlap in the scope of the CEG and RIIO-2 Challenge Group. While Ofgem is comfortable with this duplication of scrutiny activity, given the resource constraints on both the R2CG and the CEG, and Cadent, the CEG will seek to liaise with the R2CG to minimise duplication between the groups and maximise our respective effectiveness. To support this:

- The CEG Chair will meet regularly with the R2CG Chair, and its members as appropriate, to explore the best approach;
- The CEG and R2CG forward work programmes will be shared.

GOVERNANCE

The CEG shall be responsible for periodic reviews of its performance and, at least annually, review its Terms of Reference to ensure it is operating at maximum effectiveness. Changes can be recommended by any CEG member, Cadent or Ofgem and will be agreed by the CEG and Cadent.

CEG member biographies

Zoe McLeod - Independent CEG Chair



Zoe is a leading consumer advocate with more than 20 years' experience championing customer and community concerns. This includes: for the energy watchdog, Citizens Advice and its predecessor Consumer Focus; Friends of the Earth; the fuel poverty charity National Energy Action and as an elected Councillor and Assistant Cabinet Member for Young People and Youth Services. Her background also includes leading on the consumer vulnerability strategy at Ofgem, and as an expert Advisor to Ofwat's Water 2020 Panel. Currently Zoe is the Chair of South East Water's Customer Challenge Group, a member of National Grid's User Group, and an Associate with the charity Sustainability First with a particular focus on innovation and improving customer service and quality of life for those with additional needs and on low incomes. She is also a lay member on the Bar Standards Board.

Rish Chandarana - CEG Member



Rish is a chartered accountant and transaction director at Arup. He has over 14 years of commercial, regulatory, operational and technical due diligence experience specialising in Energy, Utilities, Oil & Gas industries both in the UK and internationally. He has advised on over 70 successful transactions over the past 5 years. As a result he has gained an acute understanding of civil engineering, performance, organisational and business plan drivers, enabling him to affect holistic challenge with senior executives through to operations/engineering managers.

Helen Fleming - Chair of the CEG Finance and Investment Working Group (FIWG) and Member



Helen spent over 20 years as a civil servant working in a wide variety of policy-making roles including at the Treasury, the Office of Science and Technology and the Competition and Markets Authority. Her experience includes as Sustainability and Climate Change Director at Tesco stores, involvement with the evolution of energy policy as key decisions were made on how energy markets should manage the affordability, environmental and security of supply "trilemma" and use of consumer data. Her most recent role was as Director of Corporate Affairs at the Data and Communications Company - with responsibility for its price control, its licence compliance and its stakeholder relationships, in particular with Ofgem. She is now an independent consultant.

Mike Foster - CEG Member



Mike is CEO of Energy and Utilities Alliance, a not-for-profit trade association based in the West Midlands. He holds a degree in economics, a post-graduate certificate in education and is a Chartered Management Accountant. Having started work in the car industry, he taught accountancy, economics and statistics for six years before becoming MP for Worcester (1997-2010). He served as a minister for four years, under both Tony Blair and Gordon Brown, latterly as Minister for International Development. Before heading up EUA, he was head of communications at the international charity WaterAid. Mike is non-exec chair of Affordable Warmth Solutions, a community interest company that delivers Cadent's fuel poor network extension programme and he previously chaired Cadent's stakeholder engagement panel.

Simon Griew - CEG Member



Simon has over 30 years' experience in the energy industry, in a broad range of strategic, commercial and regulatory roles. In the 1990s, Simon developed and negotiated sections of the original GB gas Network Code and led Transco's department responsible for setting gas transportation charges. He subsequently undertook the early preparatory work for the 2002 price control review and negotiated its first set of system operator incentives. At National Grid he led on security of supply and transforming the company's approach to major infrastructure planning. An independent consultant since 2013, his first assignment was interim CEO at the Institution of Gas Engineers & Managers, where he now chairs the Finance Committee. He has subsequently undertaken a wide range of projects, in which gas market liberalisation and future energy systems have been recurring themes.

John Kolm-Murray - Chair of the CEG Consumer Vulnerability Working Group



John has worked on fuel poverty in Glasgow and London and is currently fuel poverty lead at the Greater London Authority. In 2010 he established the Seasonal Health Interventions Network (SHINE) at Islington Council. In 2013 John and SHINE were awarded the European Prize for Innovation in Public Administration by the European Commission. John is also National Chair of the Association of Local Energy Officers, representing colleagues across England and Wales. He has served on several national policy development bodies, including those that developed the private rented sector energy efficiency regulations and the NICE guidelines on excess winter deaths. His main interests are in the prevention of seasonal health inequalities, protecting the most vulnerable energy consumers and addressing the unique challenges of delivering energy efficiency in inner cities.

Dr Kerry Mashford OBE - CEG Member



Kerry is a chartered engineer with experience across manufacturing, innovation, energy and the built environment. Prior to developing her recent portfolio of professional roles she spent over five years as Chief Executive of the National Energy Foundation, being awarded an OBE in 2017 for services to the energy industry. Her passion for innovating to create better performing and more sustainable buildings and communities led to her work as a member of the Each Home Counts Implementation Board and BSI's Retrofit Standards Task Group and in building performance, including as a member of the Industrial Strategy Challenge Fund Advisory Group on Transforming Construction. She is a private sector board member of South East Midlands Local Enterprise Partnership (SEMLEP) where she leads on Energy Strategy for the SEMLEP area.

Victoria Pelka - CEG Member



Victoria is a Senior Policy Researcher for Citizens Advice. Since 2014, Citizens Advice is the official consumer body for energy. The Energy team works to ensure that energy markets and regulation work as well as they can for consumers. In her role, Victoria conducts research with energy consumers, represents consumer interests on a number of working groups and industry panels, and monitors network company performance. Prior to joining Citizens Advice, Victoria worked as a research consultant evaluating charity and Government projects in the UK and abroad.

Ian Rowson - CEG Member



A Chartered Accountant and practising economist, Ian has 25 years' experience in utility regulation, working in government, companies, regulators and in consultancy. He has deep experience of many price control environments and developed the core price control financial models for eight price control reviews in the UK and Ireland. Latterly he has been in the Civil Aviation Authority and Ofgem, holding the position of Associate Partner, RIIO Finance and Investor Relations for four years at Ofgem and chairing the cross-regulator UKRN cost of capital working group. At Ofgem, he led on finance-related issues through the RIIO-ED1 review and subsequent appeals. Prior to joining Ofgem, Ian advised a wide range of UK and non-UK clients on regulatory economics and, among other things, authored the November 2012 RIIO Financeability Study for Ofgem.

Martin Silcock - CEG Member



Martin is an independent consultant specialising in regulation, strategy and utilities with recent experience in the UK Water sector. He spent 10 years with Anglian Water, leading two price control submissions with particular focus on regulatory finance, customer engagement and incentives. Between 2014 and 2017 Martin oversaw implementation of the new non-household retail water market, establishing the new market operating company and was director responsible for market codes, market implementation and industry readiness. Before joining Anglian Water, he worked as a consultant specialising in business strategy, policy and regulation across utility sectors, including electricity, gas, water and transport. Currently working with Ofwat, supporting its work on financial resilience, governance and strategy, Martin is also a chartered accountant with a background in economics.

Leslie Sopp - Chair of the CEG Research and Insight Working Group and Member



Leslie is an Independent research and insight consultant, specialising in regulatory issues in the energy, water and financial services sectors. He was until May 2019 Chief of Market Research at the Financial Conduct Authority (FCA). As well as being a member of Cadent's CEG, Leslie is also a member of South East Water's Customer Challenge Group.

During the course of an extensive career in market, social and policy research, Leslie has been responsible for and overseen a wide variety of research studies, specializing in competition, policy and supervisory market research; communications research and evaluation, and market segmentation. Leslie previously worked in senior research roles at TheCityUK; Age UK; ICAEW, Which? and started his research career at Office of National Statistics. He is a Fellow of the Market Research Society. Until 2018 he chaired the MRS Public Sector Editorial Advisory Board, having previously been a Main Board Director and Chair of the Business Board of MRS (2006-2012). From 2000 to 2009 he was a Director of AURA Insight, the client insight managers and research users and buyers group.

Janet Wood - Chair of the CEG Future Role of Gas and Innovation Working Group and Member



Janet is the editor of New Power, a monthly report on the UK power sector and the evolving energy industry. She has a BSc in Physics and Chemistry and is the author of books on nuclear power and on local heat and power projects in the UK. As a journalist for the past 25 years she has written about the power and energy sector, covering technology, policy and politics for a variety of international and UK magazines. She has a longstanding interest in the future of energy and in 2001 she launched a magazine, Earthed, about small-scale renewable energy (heat and power) in the UK. She is interested in the inter-relation between heat, gas, electricity and water markets and in the future of those markets for UK consumers.

Tony Diccio - CEG Member until August 2019



Tony Diccio has worked in the energy industry for over 25 years, including roles in energy trading, strategy, policy and regulation. Tony has worked for 3 of the 6 largest energy suppliers in Britain and joined the Energy Technologies Institute in 2013. He was transferred over to the Energy Systems Catapult (ESC) in 2015 and has since worked in policy and regulation.

The main areas that Tony deals with are supporting the Smart Systems and Heat programme which is looking at the decarbonisation of the UK's 27 million homes (plus for small non-domestic properties) and helping the ESC to develop positions on energy policy and regulation.

Matt Copeland - Consumer Vulnerability Working Group Member



Matt has worked in the energy industry for eight years, in roles covering generation, distribution and retail. He began working at E.ON as part of an internal consultancy, helping the company to understand key strategic challenges. He then moved to the company's political and regulatory affairs division, where he led on the development of policy surrounding generation, networks and retail markets and was heavily involved in shaping the government's 'Smart Systems and Flexibility Plan'. Matt now works at the fuel poverty charity National Energy Action as Policy Manager. He is focussing on addressing the gap in funding to meet fuel poverty milestones and ensuring that the RIIO-2 process has the interests of vulnerable customers at its heart.

Summary of areas proposed for hearings

This is a summary of the areas the CEG has suggested for hearing. It should be noted that there are a significant number of areas suggested for further scrutiny by Ofgem and we hope that even if they are not selected for hearing they are still probed further. These are outlined at the end of each chapter and throughout the report.

CEG report chapter	Topic	Cadent only/all companies	Description and rationale
Business plan commitment (track record, culture, governance, assurance and deliverability)	Governance / accountability for delivery	Cadent	More detail about the approach to assurance over deliverability in RIIO-2 would be useful, particularly in relation to Board involvement. CEG challenged Cadent to consider in more depth how it will seek to maintain ongoing assurance over deliverability during RIIO-2 (CL185). Cadent has started to expose its thinking about how such assurance will be organised, including governance arrangements and accountable roles. These arrangements are yet to be finalised and are not fully articulated in the business plan. We think it would be helpful if the board's ongoing role in this were strengthened and explained and we recommend this is considered for hearings.
Net Zero and a whole-system approach	Off-gas-grid community trial	Cadent	We are not convinced by Cadent's justification for, and the scope of, the proposed off-gas grid community trial for three reasons: 1) The costs on which the justification is based do not take full account of capital costs that would be borne by consumers in switching their heating systems to gas; 2) The support claimed for such a trial is drawn from more general support given to connecting those in fuel poverty and improving access to greener gases. We are not convinced that these aspects of engagement adequately support the proposal; 3) Elsewhere in the BP, Cadent has decided to put FPNES expenditure into an Uncertainty Mechanism because government policy towards growing the gas network may change in RIIO-2. Similar uncertainties exist in relation to this proposal which may lead to "regrets" investment.
	Enhanced engagement	Cadent	Whilst CEG welcome the proposed common output on enhanced engagement on whole systems thinking (and in principle this is well backed up by historical evidence and energy industry, public sector and sector body stakeholders), the difference between options 2 and 3 is not clear and hence nor is the justification for the chosen option. No costs are identified as associated with the proposal but a financial upside incentive of up to £9.6m p.a. is suggested. It is suggested that any such incentive must demand cost to be incurred in order to deliver the intended outcome. This warrants further investigation and scrutiny to ensure the incentive is appropriate, the costs associated with delivering the outcome are identified and, critically, that it will incentivise engagement amongst energy companies as well as with broader stakeholder (such as LEPs and LAs) rather than create unhelpful tension between energy companies which might be the case if they are competing for a share of a fixed incentive pot.
Cadent's Consumer Value Proposition	CVP	All	The CVP is intended to unlock value for consumers, and reward more innovative and stretching plans. We encourage Ofgem to explore how this is calculated, what kinds of outputs should be rewarded and at what rate.
Providing a quality experience for all customers (includes consumer vulnerability)	PSR conversations	All/Cadent	The CEG thinks this area is worth further exploration. There are differing views as to whether this is the right performance commitment, incentivising the right behaviour and outcomes for customers. We'd encourage Ofgem to explore the value of different performance commitments and the cost effectiveness of different approaches to identifying vulnerability and raising awareness of the PSR. This should take into consideration wider potential social benefits of 'a deeper conversation'. Cadent's SROI calculation shows marginal benefit to start but improving. It is also based on 60% conversion rate from 'conversation' to 'PSR registration' which seems high to us. The approach is also in addition to BAU activities and it would be useful to explore what's an appropriate level of ambition given mixed customer support.
	Fuel poverty proposals	Cadent	The CEG welcomes the whole house approach to fuel poverty, which is good practice but sees value in exploring whether Cadent's ambition level for the FPNES is high enough. There are mixed views on this with some thinking it should be low due to: the low carbon agenda; practicalities around delivery; and customers wanting Cadent to provide help to all customers (not just those off the gas network). Others think it's too low especially given the potential benefits to fuel poor households and as an estimated half a million households are still eligible for the scheme in its area.
Delivering an environmentally sustainable network	Business impact plan ambition levels	All	We recommend open hearings review the level of ambition associated with this and other network plans for business sustainability. What one company may regard as ambitious may be BAU for another. This will enable Ofgem to make a judgement on the merits of including this work as part of the CVP. This would be particularly helpful for the targets on shrinkage as these have the most significant environmental impact and also because it is hard as an individual CEG to know how ambitious a single network is being. Cadent's assertions on the use of pressure management and MEG in GD2 could be tested at the same time.



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