GDQ33: Do you agree with our assessment approach for IT&T?

Summary

At Draft Determination, whilst Ofgem did undertake a bespoke IT&T assessment of proposed projects, they did not exclude IT&T costs from comparative regression analysis, describing these costs in general as not meeting the criteria set out in its SSMD for separate assessment (in response to WWU's proposal for these costs to be excluded)[1]. We agree with Ofgem's decision in line with our views communicated to the RIIO-GD2 Draft Determination and the change Ofgem made to include all IT&T opex and capex in regressed costs for RIIO-GD2 Final Determination. Further detail on our views on cost exclusions is set out within GDQ36. The views which follow relate solely to the bespoke IT&T assessment undertaken by Ofgem.

Ofgem's assessment approach for IT&T investments is a fair one. The use of stage gates is appropriate to triage out investments that do not demonstrate a customer-centric needs case and is consistent with the way Ofgem has assessed reopeners. The calculation of an average score for the 5 remaining criteria is demonstrably fair, and we agree with the notes and exceptions provided. The assessment criteria Ofgem has used for the Needs Case, Economic Case and Cost Assessments are also fair, as are the scorings and weightings to give a combined score and funding percentage.

However we have some specific comments about how Ofgem has applied the criteria for particular parts of the assessment, and the RAG ratings it has arrived at.

Cadent has provided detailed supporting evidence to Ofgem in order to support its assessment in two major tranches:

- As part of the business plan submission in December 2024; and
- In response to a related SQ submitted in March 2025 (SQ72).

We are concerned that some of the evidence provided in response to the SQs in particular has not been taken into account in the assessment.

The remainder of this response sets out our view on why Ofgem should revise its assessment against some criteria for particular investment cases, based on information we have provided plus additional developments since the SQ response where relevant.

Ofgem has provided us with the RAG ratings from its assessment, not the detailed justification for its ratings. Our starting point is the relevant assessment criterion and the rating definitions from Ofgem: based on these, we highlight the evidence we have provided which justifies a different score.

In SQ72 response, we provided an overarching response with embedded versions of the individual documents providing more information on each investment case on p2-3. The page references below refer to the embedded documents not the overarching document.

We have done this separately for the following Investment Cases:

- INV01: Customer engagement transformation

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[1] RIIO-3 Draft Determinations – Wales & West Utilities (WWU), para 5.34

- INV02: Modernising field service management (FSM)
- INV03: P8 network infrastructure
- INV15: Replace meter asset repository/Gas quality information system
- INV17 Identity and Privileged access management
- INV28 ERP clean core

We have also provided general comments on the approach to INV29 and IT Baseline investments.

Our comments on individual investment cases

INV01 – Customer Engagement Transformation

Assessment where Cadent comments provided	Economic Case (Value for Money)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Clearly set out (e.g. using CBA), with logical assumptions and evidence underpinning the analysis. Estimated benefits likely to exceed spend (BCR>1).

The evidence provided meets the description for a Green rating for the following reasons:

The costs and benefits are clearly set out with underlying supporting evidence:

In our SQ72 response on INV01 we identify a wide range of benefits stemming from this investment. On p2-3 we set out how critical improvements to the end-to-end customer journey result in a range of benefits aligning to Cadent Strategic Objectives. On p11-13 we provide more detailed benefits analysis across the different options, together with benefits measures and time to realisation. p9-11 describes how costs are allocated across RIIO-3 and between different cost components (Resources, Licences, Implementation, O&M).

p9-11 of the SQ72 response set out the underpinning assumptions for each of the cost components. The sources for the costs are also provided. Benefits for the different options have been assessed qualitatively. The benefits analysis on p11-13 sets out the justification for the assessment of the relative benefits of each option which were used to identify our preferred option.

We demonstrate how this investment is likely to have a BCR >1:

[redacted]

A significant benefit of the chosen solution is to have a modern foundation to move with the times and leverage benefit from future technologies. The solution is scalable without significant reinvestment, allowing for expansion or increased usage without proportional cost increases, improving cost-efficiency over time. The intention is to continue to sweat the asset in future RIIO periods as well, which speaks to the longevity of the preferred solution. The

risks mitigated and costs avoided, together with the selection of a long-term solution, means that this investment is likely to result in a BCR>1.

Assessment where Cadent comments provided	Cost Assessment (Scope)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Project scope clearly defined. Project at a sufficiently mature stage of development, with well-defined plans.

This meets the criteria for a Green rating for the following reasons:

The project scope is clearly defined:

The SQ72 response clearly articulates the Cadent business processes that utilise the information harvested through the CRM system, and also the customer journey (p2). This sets the scene for the rationale behind the scoping of the Minimum Viable Project (MVP). On p8 the specific MVP scope is provided, and the functionality considered in order of priority.

The project is at a sufficiently mature stage of development with well-defined plans:

On p8-9 of the SQ72 response we set out the enabler work that has been undertaken already to ensure business-readiness for the new solution. The catalyst for the work is naturally the sun-setting of the current solution in 2027. The prescriptive and comprehensive plan evidences the mature understanding of critical milestones and the deliverability of each component.

Our SQ response presented a full, multi-phase rollout plan (page 8), with current period deployment structured around milestone-based implementations. Our clear focus is on fully utilising SAP CX Sales and Service Option 1. Based on resource availability, we aim to deploy SAP standard functionality and minimal development.

The response sets out how the initial implementation will target a low-risk, non-safety-critical Cadent business team. This phased approach will help embed the project, mobilise the team, and ensure readiness for the subsequent rollout to the Emergency Contact Centre Team, which is safety-critical and must not impact current BAU operations.

Our implementation strategy is based around clearly defined milestones as follows:

Milestone 1: will serve as a basic Minimum Viable Product (MVP). It will utilise SAP CX Sales and Service Option 1. The implementation will feature a simple sales process flow, no integrations with other SAP or non-SAP components, and no custom development. We have provided the detailed steps to achieving Milestone 1 as follows:
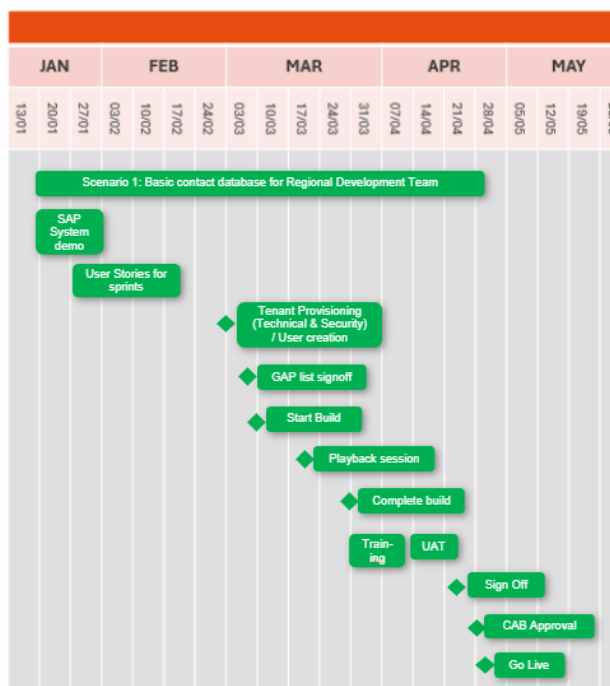
Figure 1: Simple Illustration of Implementation Plan

Milestone 2: we provided details of a project plan outlining a comprehensive set of activities required to support the critical go-live of the Emergency Response Team. A screenshot of the high level project plan is provided for reference here:

[redacted]

Figure 2: High Level Project Plan

Following the submission of the SQ response, the scope work has evolved to also encompass the enablers to be delivered within GD2, ensuring that further milestones are achievable within GD3. To summarise, a Milestone based strategy will provide (in the current GD period):

- **Milestone Drop 1,** which will serve as a basic Minimum Viable Product (MVP). It will utilise SAP CX Sales and Service Option 1. The implementation will feature a simple sales process flow, no integrations with other SAP or non-SAP components, and no custom development.

- The **Milestone Drop 2** Project Plan outlines a comprehensive set of activities required to support the critical go-live of the Emergency Response Team.
  - The scope for Milestone Drop 2 has been clearly defined, with deliverables confirmed through consultation with business stakeholders. This includes validation of current solution integrations to ensure full functionality is available from Day 1 of implementation, without disruption to operations.
  - Future implementation will incorporate the Minimum Viable Product and support the current usage to move away from the end of life platform in a scalable way to allow for future innovations that can be utilised by numerous business functions.

Assessment where Cadent comments provided	Cost Assessment (Certainty)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Delivery Certainty: Resourcing and project planning**	
	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

This meets the criteria for Green for the following reasons:

The project plan provides a clear, granular breakdown of project resources:

As set out in the SQ72 response, we have identified the required resources and skills for the project. This includes an assessment of associated costs based on current rates from both our supplier (onshore and offshore) and internal Cadent resources. Based on this analysis, we have determined the scope that can be delivered while considering the resource cost factors.

The underpinning detail was developed as part of the original investment justification paper (not submitted), where the required resource and skillset has been identified and costs factored into resource costs (for reference an example is shown here):

[redacted]
Figure 3: Breakdown of Resources

The plan draws a clear link between outputs and resources:

As part of project planning, we plan resources using two separate but interrelated processes.

First, we identify the required resources and skills to successfully deliver the outputs. For an illustration of the level of detail at which we undertake this exercise, please see the excerpt from the investment justification paper for INV01 at Figure 3 above. This high level resource planning gives us the confidence that we have the resources in place to deliver.

The second resource planning process reflects the fact that our Delivery Framework is a hybrid approach combining agile and traditional project management. Once the project is underway, the allocated technical resources are aligned to technical teams and will work on the milestones in sprints, rather than a rigid alignment to a particular output.

Sources of uncertainty are clearly identified:

The following risk assessment was developed as part of the original Investment Justification Paper but was not submitted as part of either the December submission or the SQ response. It shows how we have fully identified potential sources of uncertainty.

[redacted]

Table 1: Identified Risks and Mitigations

We explain measures taken to mitigate impact on cost estimates:

See above table (Mitigation/Control column).

Assessment where Cadent comments provided	Cost Assessment (Assurity)
Ofgem assessment	Amber
	Cost assurity: efficiency/cost effectiveness

RAG description consistent with information provided	Green	Robust and comprehensive evidence that costs are at an efficient level
	Cost assurity: benchmarking	
	Green	Sound evidence demonstrates that costs have been benchmarked appropriately, and are towards the lower bound of typical ranges.
	Cost assurity: cost estimation	
	Green	Input data, assumptions, and cost data are robust, traceable, and provide confidence in the validity of estimates. A clear and well-defined estimating methodology with traceable evidence has been used, ensuring logical integrity to calculations and formulae

This meets the criteria for Green for the following reasons:

We have provided detailed evidence to show that costs are at an efficient level with evidence of appropriate benchmarking:

p11-13 of our SQ response provides details of the Gartner benchmarking which shows our costs at the lower end of wider ranges, and how we have internally verified cost drivers for this work.

Our cost data and estimation methodology is transparently presented and links back to robust sources:

The methodology is set out in the document on page 10, and defines the categories considered, from design to service and maintenance.

INV02- FSM

Assessment where Cadent comments provided	Economic Case (Value for Money)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Clearly set out (e.g. using CBA), with logical assumptions and evidence underpinning the analysis. Estimated benefits likely to exceed spend (BCR>1).

This investment case meets the criteria for a Green RAG rating in this area for the following reasons:

The costs and benefits are clearly set out:

p12-13 of the SQ response sets out the costs of each option over the RIIO-GD3 period. p14-15 outlines the expected benefits from the investment.

Logical assumptions and evidence underpin the analysis:

The methodology for estimating costs is clearly set out on p12-13.

We demonstrate how this investment is likely to have a BCR >1:

As set out on p2 of the SQ72 response, Cadent have been advised that the current Field Services Management (FSM) solution will reach End of Life in December 2026. Obsolescence could lead to delays in work allocation and scheduling, which risks Cadent breaching its obligations if our engineers are unable to attend a site as soon as is practicable.

Given this strong driver for action, our chosen hybrid solution strikes the best balance between deliverability, future flexibility and cost to drive benefits (see SQ72 response p6-8 for details of optioneering).

Assessment where Cadent comments provided	Cost Assessment (Scope)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Project scope clearly defined. Project at a sufficiently mature stage of development, with well-defined plans.

The evidence we have provided meets the criteria for a Green rating for the following reasons:

The project scope is clearly defined:

The SQ72 response detailed how the minimum viable product was defined. Since the response was sent, Cadent has completed the RfP process allowing a further refinement of the scope, as more detailed discussions highlight the opportunities and limitations with different vendors' products, and their fit with our architectural landscape.

The project is at a sufficiently mature stage of development:

Integration with the chosen supplier for INV01 is also within scope of this investment, with technical plans and architectural designs having been created.

Project plans are well defined:

A clearly structured project plan demonstrates comprehensive analysis of the functionality that is required on Day 1 of the new FSM. This can be viewed in the next section of this document (Cost Assessment (Certainty)).

Assessment where Cadent comments provided	Cost Assessment (Certainty)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Delivery Certainty: Resourcing and project planning**	
	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

The investment case meets the criteria for Green for the following reasons:

The project plan provides a clear, granular breakdown of project resources:

Since the response to SQ72 was submitted we have completed the RfP process which has facilitated the development of a more detailed project plan. Rather than submitting the plan in its entirety alongside this response we present excerpts from the plan to demonstrate its granularity.

[redacted]

Figure 4: excerpt from FSM project plan

The plan draws a clear link between outputs and resources:

As part of project planning, we plan resources using two separate but interrelated processes.

First, we identify the required resources and skills to successfully deliver the outputs. For an illustration of the level of detail at which we undertake this exercise, please see the excerpt from the investment justification paper for INV01 at Figure 3 above. This high level resource planning gives us the confidence that we have the resources in place to deliver.

The second resource planning process reflects the fact that our Delivery Framework is a hybrid approach combining agile and traditional project management. Once the project is underway, the allocated technical resources are aligned to technical teams and will work on the milestones in sprints, rather than a rigid alignment to a particular output.

Sources of uncertainty are clearly identified:

The following table of risks was developed for the original submission but was not included in Appendix 9 or in the March SQ response. In the table below we have considered all potential areas of uncertainty and mitigations are proposed:

[redated]

Table 2: identified risks and mitigations

We explain measures taken to mitigate impact on cost estimates:

With the vendor now selected, detailed scoping activity was undertaken as described above, which will ensure that cost estimates are as accurate as possible and incorporate contingency for integration complexity.

Assessment where Cadent comments provided	Cost Assessment (Assurity)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Cost assurity: efficiency/cost effectiveness**	
	Green	Robust and comprehensive evidence that costs are at an efficient level
	Cost assurity: benchmarking	
	Green	Sound evidence demonstrates that costs have been benchmarked appropriately, and are towards the lower bound of typical ranges.
	Cost assurity: cost estimation	
	Green	Input data, assumptions, and cost data are robust, traceable, and provide confidence in the validity of estimates. A clear and well-defined estimating methodology with traceable evidence has been used, ensuring logical integrity to calculations and formulae

This investment case meets the criteria for Green for the following reasons:

We have provided detailed evidence to show our costs are at an efficient level and provided evidence of appropriate benchmarking:

In the SQ72 response (p13) we provide details of Gartner benchmarking which shows costs within the appropriate range for an FSM replacement.

All our cost data is transparently presented and links back to robust sources, with a clear estimation methodology:

On p12-13 we explain the cost methodology used.

INV3-P8- Network Infrastructure

Assessment where Cadent comments provided	Needs case	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Strategic rationale**	
	Green	Clear rationale provided, expected project outputs are clear and aligned with strategy/architecture.
	Operational rationale (viability of continuing existing systems in RIIO-3)	
	Green	Highly likely that current systems will need replacing during price control.
	Operational rationale (complementarities)	
	Green	Project generates significant complementarities/trade-offs with other projects.
	Effectiveness	
	Green	Proven solution and compelling evidence provided that spend will meet need

This investment case meets for criteria for Green for the following reasons:

We have presented a clear rationale for this project which aligns to our overall strategy:

p1 of the SQ72 response provides a clear needs case in relation to project optioneering.

The requirement for this investment is clearly defined and dictated by the Ofgem agreed outcomes as part of the Jan'24 eCAF reopener. This investment is the continuation of Initiative 3 Project 8 of eCAF, which commences in GD2 and requires completion within GD3, with all critical sites undertaken and completed prior to December 2027. Therefore the driver for this investment is simply to continue with Ofgem-mandated delivery.

We have made clear current systems are not able to scale to requirements:

[redacted]

Synergies are demonstrated:

This investment is a continuation of the in-flight eCAF work in GD2.

The suitability of our chosen solution is clearly set out:

The options analysis is clearly set out from p3 onwards of the SQ72 response document.

Assessment where Cadent comments provided	Cost Assessment (Certainty)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Delivery Certainty: Resourcing and project planning	
	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

This investment should be Green for Delivery Certainty for these reasons:

The project plan provides a clear, granular breakdown of project resources:

Figure 1 (p7 in the SQ72 response) displays a full breakdown of the project components that are required for delivery. We have built our costings on the anticipated scaling up of the initial deployment that will take place in GD2.

The plan draws a clear link between outputs and resources:

As part of project planning, we plan resources using two separate but interrelated processes.

First, we identify the required resources and skills to successfully deliver the outputs. For an illustration of the level of detail at which we undertake this exercise, please see the excerpt from the investment justification paper for INV01 at Figure 3 above. This high level resource planning gives us the confidence that we have the resources in place to deliver.

The second resource planning process reflects the fact that our Delivery Framework is a hybrid approach combining agile and traditional project management. Once the project is underway, the allocated technical resources are aligned to technical teams and will work on the milestones in sprints, rather than a rigid alignment to a particular output.

Sources of uncertainty are clearly identified:

The deliverability risks were identified as part of the original investment justification but were not submitted as part of Appendix 9 or the SQ response and are provided here:

[redacted]

Table 3: Identified risks and mitigations

We explain measures taken to mitigate impact on cost estimates:

Additional to the SQ response, we have a strong history of rollout of network infrastructure to our sites, and we are conversant with lead times and engineering processes that need to be adhered to for compliance. Currently we have site remediation programmes running and have established delivery partners who will be able to provide us with assurances with respect to deployment costs.

New hardware and software solutions are emerging in this market at an increasing rate, which provides competitive pressure for the vendors. This will result in a favourable commercial opportunity for Cadent. Indicative costs have been obtained for the technology stack and are based on current available technology. [redacted]

Assessment where Cadent comments provided	Cost Assessment (Assurity)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Cost assurity: efficiency/cost effectiveness**	
	Green	Robust and comprehensive evidence that costs are at an efficient level
	Cost assurity: benchmarking	

	Green	Sound evidence demonstrates that costs have been benchmarked appropriately, and are towards the lower bound of typical ranges.
	Cost assurity: cost estimation	
	Green	Input data, assumptions, and cost data are robust, traceable, and provide confidence in the validity of estimates. A clear and well-defined estimating methodology with traceable evidence has been used, ensuring logical integrity to calculations and formulae

This investment case should be Green for Cost Assurity for the following reasons:

We have provided detailed evidence to show that costs are at an efficient level with evidence of appropriate benchmarking:

As stated in the SQ72 response eCAF is new therefore this is the first time GDNs will be undertaking programmes of this magnitude to converge IT and OT. This means that it is not currently possible to carry out formal benchmarking. [redacted] Therefore, our vendor pricing models are based on current pricing per GB of data.

All our cost data is transparently presented and links back to robust sources:

The SQ72 response (p11) sets out how the costs for GD3 are an extrapolation of the costs approved and awarded by Ofgem as part of the GD2 eCAF reopener, and as such have already been through a rigorous assessment by Ofgem.

The estimation methodology is clearly set out and linked to the evidence base:

See previous observation.

INV15- Marquis

Assessment where Cadent comments provided	Needs case	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Strategic rationale**	
	Green	Clear rationale provided, expected project outputs are clear and aligned with strategy/architecture.
	Operational rationale (viability of continuing existing systems in RIIO-3)	
	Green	Highly likely that current systems will need replacing during price control.
	Operational rationale (complementarities)	
	Green	Project generates significant complementarities/trade-offs with other projects.
	Effectiveness	
	Green	Proven solution and compelling evidence provided that spend will meet need

This investment case should be rated as Green for these reasons:

We have presented a clear rationale for this project:

Our SQ72 response to Ofgem's question on optioneering (p1) lays out the needs case for this investment.

[redacted]

Project outputs are identified and alignment to our overall strategy is shown:

p2 of the SQ72 response outlines the alignment with both Cadent Strategic Objectives and Ofgem's Outcomes.

We have made clear current systems are reaching end of life:

As mentioned above and in the SQ response, this system becomes out of support in 2027, and if no investment is planned this will result in operational failure a drop in data quality as upgrades are no longer available.

The suitability of our chosen solution is clearly set out:

p3 of the SQ72 response describes the rigorous optioneering and the criteria upon which each option was assessed.

Assessment where Cadent comments provided	Cost Assessment (Scope)	
Ofgem assessment	Red	
RAG description consistent with information provided	Green	Project scope clearly defined. Project at a sufficiently mature stage of development, with well-defined plans.

We believe the evidence we have provided meets the criteria for an Green rating for the following reasons:

We have provided a defined project scope:

The MVP is scoped to address the most critical pain points (data fragmentation, integration complexity, and user inefficiency) whilst laying the foundation for future scalability. The scope is clearly defined and strategically aligned with Cadent's regulatory, operational, and customer obligations. p6 of the embedded document clearly sets out the five phases and scope of the MVP, describing key activities and outcomes (see Figure 5 below). This is not a gold-plated solution; it is the minimum viable architecture required to meet Cadent's regulatory, operational, and customer obligations.

Furthermore, the scope has been externally validated through Gartner benchmarking and internal optioneering.

[redacted]

Figure 5: Five phase project plan

The project is at a sufficiently mature stage of development:

As evidenced above, the project is ready to proceed, with a defined architecture, validated technical approach, and a clear delivery roadmap.

Assessment where Cadent comments provided	Cost Assessment (Certainty)	
Ofgem assessment	Red	
RAG description consistent with information provided	**Delivery Certainty: Resourcing and project planning**	
	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

This investment case should be Green for the following reasons:

The project plan provides detail around project resources:

The project plan is detailed, phased, and supported by a granular breakdown of resource requirements across labour, software, infrastructure, and recurring costs (see page 9 of SQ72 response).

The plan draws a clear link between outputs and resources:

As part of project planning, we plan resources using two separate but interrelated processes.

First, we identify the required resources and skills to successfully deliver the outputs. For an illustration of the level of detail at which we undertake this exercise, please see the excerpt from the investment justification paper for INV01 at Figure 3 above. This high level resource planning gives us the confidence that we have the resources in place to deliver.

The second resource planning process reflects the fact that our Delivery Framework is a hybrid approach combining agile and traditional project management. Once the project is underway, the allocated technical resources are aligned to technical teams and will work on the milestones in sprints, rather than a rigid alignment to a particular output.

Sources of uncertainty are clearly identified and mitigations set out:

As set out in the SQ72 response, uncertainty has been addressed through:

- Gartner benchmarking of cost and scope.
- Vendor quotations and SAP consultations.
- Historical comparisons with similar Cadent programmes.
- Bottom-up cost modelling with traceable assumptions.

This level of planning approach and validation provides high confidence in delivery certainty, cost control, and benefit realisation. Each phase is structured to de-risk delivery through incremental deployment and validation.

Nonetheless, as part of the original Investment justification paper, risks, and their mitigations) were identified but were not submitted as part of Appendix 9 or the SQ response

document. The following narrative and table will provide reassurance that this solution has been comprehensively planned.

[redacted]
Overall, addressing these risks proactively will be critical to the success of the investment and the achievement of its objectives. The table below highlights the potential risks associated with delivering this investment:

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[redacted]

Table 4: identified risks and mitigations

Assessment where Cadent comments provided	Cost Assessment (Assurity)	
Ofgem assessment	Red	
RAG description consistent with information provided	**Cost assurity: efficiency/cost effectiveness**	
	Green	Robust and comprehensive evidence that costs are at an efficient level
	Cost assurity: benchmarking	
	Green	Sound evidence demonstrates that costs have been benchmarked appropriately, and are towards the lower bound of typical ranges.
	Cost assurity: cost estimation	
	Green	input data, assumptions, and cost data are robust, traceable, and provide confidence in the validity of estimates. A clear and well-defined estimating methodology with traceable evidence has been used, ensuring logical integrity to calculations and formulae

We believe this investment case as Green for Cost Assurity for the following reasons:

We have provided evidence to show that costs are at an efficient level:

p8 onwards of the SQ72 response details the costs involved in each of the 4 Options, with detailed rationale and educated estimations based upon previous projects and an expert understanding of the engineering processes.

We have provided evidence of appropriate benchmarking:

As detailed in the SQ response, the investment was not benchmarked in its entirety by Gartner. However, they have been validated through vendor quotations, and cross-checked against historical programmes.

All our cost data is transparently presented and links back to robust sources:

The cost model is transparent, traceable, and robust, with clear assumptions and a strong evidence base. The benefits ranging from reduced downtime and improved compliance to enhanced customer trust are quantified and time-bound, ensuring value for money and long-term ROI.

INV17- Identity and privileged access management

Assessment where Cadent comments provided	Economic Case (Value for Money)	
Ofgem assessment	Red	
RAG description consistent with information provided	Green	Clearly set out (e.g. using CBA), with logical assumptions and evidence underpinning the analysis. Estimated benefits likely to exceed spend (BCR>1).

We believe this investment case meets the criteria for Green for the following reasons:

The costs and benefits are clearly set out with underlying supporting evidence:

As set out on p14 of the SQ72 response, we provide a detailed breakdown of costs for the preferred option across the RIIO-GD3 period. On p16 we identify the benefits this investment will drive. On p14-15 of the SQ72 response we show the sources we have used to develop our cost estimates.

We demonstrate how this investment is likely to have a BCR >1:

As set out on p1 of the SQ72 response Cadent is making this investment to meet the security outcomes defined in the NCSC's Cyber Assessment Framework as its IT infrastructure becomes increasingly distributed and cloud-centric. Of the identified options that drove regulatory compliance in ED3, our chosen option (Full IGA) was the most cost-effective.

Assessment where Cadent comments provided	Cost Assessment (Scope)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Project scope clearly defined. Project at a sufficiently mature stage of development, with well-defined plans.

We believe this meets the criteria for a Green rating for the following reasons:

The project scope is clearly defined:

On p7 of the SQ72 response we articulate the scope of the MVP. A full IAM/PAM roadmap has since been developed and has been summarised below:

[redacted]

Table 5: IAM/PAM roadmap

The project is at a sufficiently mature stage of development:

We have a comprehensive roadmap and target architectural model to ensure that we develop the capabilities that will bolster our security posture in line with NIS requirements. The progression over GD3 is an evolution of work being undertaken within this current price control period. p9 of the embedded document outlines the objectives over GD2, serving as a foundation for future IAM initiatives.

The IAM Capability Matrix below provides an alternative view to the submitted model in the SQ response:

[redacted]

Figure 6: IAM Capability Matrix

Assessment where Cadent comments provided	Cost Assessment (Certainty)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Delivery Certainty: Resourcing and project planning**	
	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

We believe this investment case as Green for the following reasons:

The project plan provides a clear, granular breakdown of project resources:

A granular breakdown of the project resources is displayed in the SQ response on page 10.

The plan draws a clear link between outputs and resources:

As part of project planning, we plan resources using two separate but interrelated processes.

First, we identify the required resources and skills to successfully deliver the outputs. For an illustration of the level of detail at which we undertake this exercise, please see the excerpt from the investment justification paper for INV01 at Figure 3 above. This high level resource planning gives us the confidence that we have the resources in place to deliver.

The second resource planning process reflects the fact that our Delivery Framework is a hybrid approach combining agile and traditional project management. Once the project is underway, the allocated technical resources are aligned to technical teams and will work on the milestones in sprints, rather than a rigid alignment to a particular output.

Sources of uncertainty and mitigations are clearly identified:

The following risk table was developed for the investment case but not submitted, but demonstrates a comprehensive understanding of the risks and potential mitigations:

[redacted]

Table 6: identified risks and mitigations

Assessment where Cadent comments provided	Cost Assessment (Assurity)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Cost assurity: efficiency/cost effectiveness**	
	Green	Robust and comprehensive evidence that costs are at an efficient level
	Cost assurity: benchmarking	
	Green	Sound evidence demonstrates that costs have been benchmarked appropriately, and are towards the lower bound of typical ranges.
	Cost assurity: cost estimation	
	Green	Input data, assumptions, and cost data are robust, traceable, and provide confidence in the validity of estimates. A clear and well-defined estimating methodology with traceable evidence has been used, ensuring logical integrity to calculations and formulae

This investment case should be assessed as Green for for the following reasons:

We have provided detailed evidence to show that costs are at an efficient level with evidence of benchmarking:

p15-16 of the SQ72 response provides evidence of our Gartner benchmarking, showing within-range costs.

All our cost data is transparently presented and links back to robust sources:

p13-14 of the SQ72 response showcases our investment-specific cost table broken down into the BPDT categories provided by Ofgem. p14-15 explains how cost assumptions were sourced.

The estimation methodology is clearly set out and linked to the evidence base:

The estimation methodology was developed and included in p11 of the SQ72 response, and describes the analysis conducted to ascertain market players offering the capabilities required going forward. [redacted]

INV28 – ERP Clean Core

Assessment where Cadent comments provided	Economic Case (Value for Money)	
Ofgem assessment	Red	
RAG description consistent with information provided	Green	Clearly set out (e.g. using CBA), with logical assumptions and evidence underpinning the analysis. Estimated benefits likely to exceed spend (BCR>1).

We believe this investment case should be rated as Green for the following reasons:

The costs and benefits are clearly set out with logical underpinning assumptions:

A comprehensive CBA is set out in the SQ72 response. p9-11 go into detail on the benefits qualification and quantification, and provide anticipated realisation dates for each benefit.

The critical factors to consider when assessing benefit are the following:

- Whilst there will be upfront costs associated with moving to a clean core approach, the long-term benefits – reduced upgrade costs, faster innovation, and increased agility – leads to a lower overall TCO
- Cadent undertook a brownfield implementation of S/4 Hana, as the business was not ready for a greenfield implementation as it had recently split from National Grid. A clean core approach minimises technical debt and the cost of maintaining outdated customisations
- Keeping the core ERP system relatively unmodified (clean) allows for faster deployment of new features, and better integration with other systems.
- Heavy customisations can introduce errors and make it harder to identify and fix issues. A cleaner core reduces the risk of errors and simplifies troubleshooting, which reduces support costs. By encouraging the use of standard SAP processes, Clean Core helps prevent the creation of redundant data or inconsistencies across different modules and systems, resulting in more robust data for reporting and analysis, as well as improved data quality for business operations.
- High quality data is crucial for the success of Cadent's Data and Digitalisation Strategy. It serves as the foundation for informed decision-making, improved operational efficiency, and enhanced customer experiences. It is also fundamentally important for AI because it's the fuel that powers AI systems, therefore Clean Core is an enabler, that will allow Cadent to readily and successful adopt for Generative AI.
- Inaccurate or unreliable data can significantly hinder the adoption of hydrogen as an energy source by creating barriers related to cost, safety, and infrastructure development. Specifically, flawed data on production costs, leakage rates, and safety profiles can erode public trust, hinder consumer acceptance, discourage investment, and lead to misinformed policy decisions.

To illustrate with an example of a process that heavily relies on S4/Hana data, the Gas Standards of Performance (GSOP) regulatory process of 2015 requires that GDNs meet minimum levels of performance across a range of interactions with customers, such as gas supply interruptions, timely communication and connections work. High quality data and

standard robust SAP operating procedures ensure that any breaches are kept to a minimum, and if they do occur, then they are dealt with in a timely manner and compensation paid automatically within allowed limits, and further fines are avoided. It ensures that the customer receives an overall better service, is kept informed, work is carried out quicker and disruptions to service are kept to a minimum, leading to greater customer satisfaction.

A further point to add regarding Cloud Readiness - A clean core will facilitate an easier migration to SAP Rise by the deadline of 2040. Rise is essentially greenfield SAP systems hosted in SAP data centres. In general, cloud services reduce carbon emissions by consolidating resources that would otherwise require dedicated on-premises equipment. It also reduces emissions by sharing data centres with other organisations. Another benefit from being hosted by SAP data centres is that SAP operates using the latest energy efficient facilities, and the reduction in total CO_2 emissions will assist the government to achieve its net zero target by 2050.

The methodology for identifying and estimating benefits is set out on p12-13 of the SQ72 response. The cost methodology is set out on p10-11.

The evidence is underpinned by significant analysis as a result of tactical workarounds and heavy customisations such as:

- NSP Process - Cadent has a customised form for Non-Standard Payments utilising one-time vendors - this is used for complaints, goodwill, HMRC and various other types of payments that require a one-off payment where a purchase order is not suitable. This was customised to allow these types of payments and during the recent upgrade Cadent had to rebuild the form due to SAP standard code conflicts which resulted in the process no longer working. NSP is a critical process and Cadent must make these payments in a timely manner.
- Dunning Process - we have an historic customised dunning process which has been over complicated with a number of finance checks in place. It adds more risk going forward that large rework will be required during an upgrade.
- Workflows and substitution - some finance workflows have required rework in our recent S4 upgrade including a bespoke substitution rule table. The DoA that some of the workflows look at is also non-standard and heavily bespoke.

We demonstrate how this investment is likely to have a BCR >1:

The SQ72 response sets out the justification for this investment by identifying a series of critical factors driving costs and benefits. Whilst there will be upfront costs associated with moving to a clean core approach, the long-term benefits – reduced upgrade costs, faster innovation, and increased agility – outweigh these. The SQ72 response details measures taken to drive a positive BCR e.g. clean core approach minimises technical debt and the cost of maintaining outdated customisations. As a result the cost is outweighed by the scalable benefits that will be unlocked. These benefits have been built into our business plan totex as avoided costs.

Assessment where Cadent comments provided	Cost Assessment (Scope)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Project scope clearly defined. Project at a sufficiently mature stage of development, with well-defined plans.

The evidence we have provided meets Green rating criteria for the following reasons:

The project scope is clearly defined:

p6 of the SQ72 response describes the scope of the MVP, with a focus on prioritising the critical business to fast track the realisation of benefits in areas where technical debt can cause issues in the short term.

The project is at a sufficiently mature stage of development:

SAP's Clean Core Strategy is mature and has clearly defined plans that include: Software Stack & Core, Business Processes, Custom Code, Integrations, Data and Operations.

Project plans are well defined:

Transitioning to a clean core in an ERP system is a meticulous and multiphase process, structured to incrementally introduce improvements while minimising operational disruption. Each phase plays a critical role in ensuring the successful deployment and optimisation of the ERP system's core functionalities. The project plan below was not submitted as part of the SQ72 response, but was developed as part of the original investment justification paper.
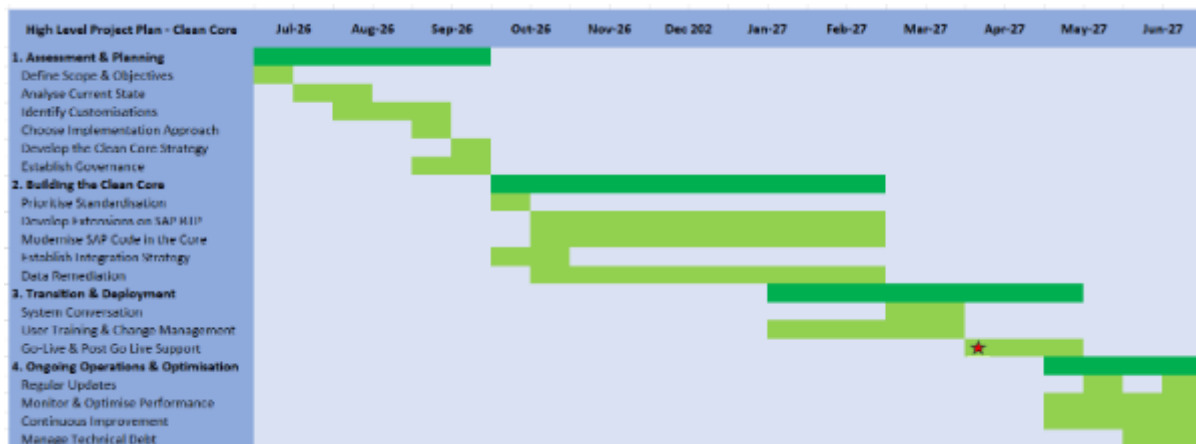

Figure 7: High Level Project Plan

Assessment where Cadent comments provided	Cost Assessment (Certainty)
Ofgem assessment	Amber
	Delivery Certainty: Resourcing and project planning

RAG description consistent with information provided	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

We believe that Ofgem should rate this investment case as Green for Delivery Certainty based on the information we have provided for the following reasons:

The project plan provides a clear, granular breakdown of project resources:

The investment-specific cost components were prepared for the are included on page 7 of the SQ72 response.

The plan draws a clear link between outputs and resources:

In summary of the detail in the SQ72 response, the resources required for delivering clean core are basically people costs, the SAP subject matter experts required to remediate technical debt. There are no licensing costs as Cadent is already migrated to and using SAP S/4 Hana. Signavio (process optimisation software) and HanaSmart (custom code clean up software) licenses are already procured during GD2. Cadent has also purchased sufficient cloud credits to enable the use of Business Technology Platform, which will be used to build any customisations (extensions) that are still required during custom code clean up.

A slight increase in maintenance & support costs have been factored for the hypercare periods after a software release. Ultimately, run costs would significantly reduce due to simplifying and optimising the system, leading to lower maintenance costs, reduced infrastructure costs and improved resource utilisation.

Training costs have been included, as optimising business processes will lead to modifications in many standard operating procedures, necessitating retraining for the business to adapt to the new method.

Sources of uncertainty are clearly identified and measures to mitigate impact on cost estimates are explained:

p12 of the SQ72 response demonstrates a comprehensive consideration of risk and the associated mitigations.

By engaging with a strategic vendor we are drawing upon their subject matter experts to inform the resources and financial planning. SAP has history of undertaking comparable work and is therefore well placed to estimate the professional services costs relating to a migration of this nature for a business of our composition.

INV31- Modernisation of the ECC

Assessment where Cadent comments provided	Needs case	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Strategic rationale**	
	Green	Clear rationale provided, expected project outputs are clear and aligned with strategy/architecture.
	Operational rationale (viability of continuing existing systems in RIIO-3)	
	Green	Highly likely that current systems will need replacing during price control.
	Operational rationale (complementarities)	
	Green	Project generates significant complementarities/trade-offs with other projects.
	Effectiveness	
	Green	Proven solution and compelling evidence provided that spend will meet need

We believe that Ofgem should rate this investment case as Green for Needs Case based on the information we have provided for the following reasons:

We have presented a clear rationale for this project:

p1-2 of the SQ72 response present a clear and compelling rationale for the investment, and outline the impact of underinvesting in this project.
[redacted]

Project outputs are identified and alignment to our overall strategy is shown:

p2-3 of the SQ72 response highlight the alignment with both Cadent strategic objectives and Ofgem's outcomes.

We have made clear current systems are reaching end of life:

As set out in relation to the needs case in the SQ72 response, the current ECC application landscape is based upon technology that is near obsolescence, with several components going out of support over the next few years.

Synergies are demonstrated:

The synergies with other Ofgem overarching pillars are set out very clearly on pages 2 and 3 of the SQ response, and details on the MVP are on page 7. [redacted]

The suitability of our chosen solution is clearly set out:

p3-7 of the SQ response provide full detail on the options considered as well as the business and technical criteria that were used to evaluate each option and arrive at the preferred way forward.

Assessment where Cadent comments provided	Economic Case (Value for Money)	
Ofgem assessment	Amber	
RAG description consistent with information provided	Green	Clearly set out (e.g. using CBA), with logical assumptions and evidence underpinning the analysis. Estimated benefits likely to exceed spend (BCR>1).

We believe this investment case meets the criteria for a Green RAG rating in this area for the following reasons:

The costs and benefits are clearly set out:

 p12 of the SQ72 response details the costs associated with the preferred option, and in the table that follows on p13, we identify in full, the quantification of benefits and anticipated efficiencies.

Logical assumptions and evidence underpin the analysis:

These are detailed in the table on p13-14 of the SQ72 response.

We demonstrate how this investment is likely to have a BCR >1:

[redacted]

Our preferred option for implementation is the one which delivers the cost significant benefits, aligns most closely with Cadent's strategic objectives and facilitates a smoother transition towards modernised operations (see SQ72 response p6-7). The benefits have been built into our RIIO-GD3 plan as avoided costs.

Assessment where Cadent comments provided	Cost Assessment (Certainty)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Delivery Certainty: Resourcing and project planning**	
	Green	Project plan provides a detailed breakdown of resource requirements, demonstrating a sufficient level of granularity and clarity. Clear link between outputs and required resources.
	Delivery Certainty: Risk	
	Green	Sources of uncertainty are identified, with measures are in place to mitigate their impact on cost estimates, ensuring the effectiveness of proposed expenditure and minimising potential cost increases for consumers.

We believe that Ofgem should rate this investment case as Green for Delivery Certainty based on the information we have provided for the following reasons:

The project plan provides a clear, granular breakdown of project resources:

The breakdown of project resources is provided in the SQ72 response on p12, including labour, software, infrastructure, and recurring costs that were mapped across each year of the price control period.

The plan draws a clear link between outputs and resources:

The project plan was developed as part of the investment paper, a high level excerpt is shown here. The plan includes includes detailed cost profiles across all five years of the price control period, with explicit line items for:

- Labour and implementation costs (e.g., contractor days, skillset-specific rates),
- Software licences (e.g., [redacted]),
- Cloud infrastructure ([redacted]),
- Application support and maintenance.

[redacted]

Figure 8: high level excerpt from project plan

Sources of uncertainty are clearly identified:

The risks were comprehensively considered and developed as part of the original investment justification paper, but were not submitted as part of Appendix 9 or the SQ72 response.

[redacted]

Table 7: identified risks and mitigations

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We explain measures taken to mitigate impact on cost estimates:

As well as the risk identification and mitigation exercise above, as set out in the SQ response, we have considered all costs comprehensively and engaged with vendors directly and through detailed discussion of the Cadent-specific landscape and requirements, giving us confidence in our cost estimates.

Assessment where Cadent comments provided	Cost Assessment (Assurity)	
Ofgem assessment	Amber	
RAG description consistent with information provided	**Cost assurity: efficiency/cost effectiveness**	
	Green	Robust and comprehensive evidence that costs are at an efficient level
	Cost assurity: benchmarking	
	Green	Sound evidence demonstrates that costs have been benchmarked appropriately, and are towards the lower bound of typical ranges.
	Cost assurity: cost estimation	
	Green	Input data, assumptions, and cost data are robust, traceable, and provide confidence in the validity of estimates. A clear and well-defined estimating methodology with traceable evidence has been used, ensuring logical integrity to calculations and formulae

This investment case meets the criteria for Green for the following reasons:

We have provided detailed evidence to show that costs are at an efficient level with evidence of appropriate benchmarking:

p9 in the SQ72 response provides the full detail of how costs have been robustly calculated. In summary, [redacted], and the expected timescale for ROI, we believe that the costs are efficient and we will derive benefit within the short term.

p10 of the SQ72 response identifies the relevant extract of the Gartner benchmarking report which confirms that the preferred option's total cost of [redacted] is within the expected range for hybrid modernisation programmes of similar scale and complexity.

All our cost data is transparently presented and links back to robust sources:

All cost data was presented in full in the SQ72 response and fed into the Ofgem IT and Telecoms roll up data table. p9 sets out the various sources used as part of the costing methodology.

INV29- Enterprise Risk Management

Having read the analysis report for IT&Telecoms, we believe that an oversight has occurred with respect to this proposed investment. We understand the need to prioritise the higher value investments for the 3rd party technical evaluation conducted by Atkins and Grant Thornton to ensure a timely release of the Draft Determination on 1st July. That document proposed that for all GDNs the removed "lower value" investments would be dealt with in a different way, for example by applying the average percentage achieved by the operator for their other IT& Telecoms investments.

Although this approach is expedient no award has been made for INV29, and no feedback provided to help us understand Ofgem's rationale. We would like Ofgem to reconsider this position based on the following considerations:

SQ72 response

[redacted]

Architectural review

An architectural review was conducted after Draft Determinations to understand the impact of the disallowance of this investment. The key findings are as follows:

If INV29 does not progress, several key business capabilities across the organisation will be significantly impacted.

Within the **Corporate Strategy, Legal, Governance, Security & Data domain,** sub capabilities such as regulatory, security and data will remain reactive and fragmented. This will limit Cadent's ability to anticipate and respond to emerging threats. The **IT function**, particularly in data management and cyber security, will struggle with siloed system and lack of integrated cyber risk visibility, weaking its ability to safeguard critical infrastructure. The capability **Business and MI reporting** will face challenges producing timely reliable and insightful risk reports, with fragmented and poor data quality. The **Risk and Assurance Framework**, which should serve as the backbone of the enterprise risk oversight, will be outdated and inefficient with risk identification, assessment, response and assurance functions lacking automation and cross functionality visibility. In **Finance & Property Management**, critical areas such as financial controls, audit readiness, and insurance alignment will operate in a compliance-driven manner, without the dynamic risk insights needed for strategic financial decision-making. **Safety, Assurance & Policy** functions will continue to manage safety and regulatory risk in silos, undermining efforts to create a unified view of risk across operations. Additionally, within **Gas Engineering**, the lack of integrated asset risk oversight will expose Cadent to vulnerabilities, particularly in cyber-physical systems.

Overall, failure to modernise the ERM capability will hinder Cadent's ability to proactively manage operational, financial, legal, and cyber risks, resulting in decreased resilience, reduced stakeholder confidence, and increased exposure to regulatory and reputational harm.

IT Baseline capabilities and services delivered by IT

In summary, we acknowledge and support the removal of this investment line from the technical assessment. Upon analysing the econometric model we noted that the baseline capabilities were included in this as opposed to the technical assessment, which is appropriate and consistent with Ofgem's previous treatment of our BAU cost base.

It is important to note the criticality of this line item for GD3 compared to previous price controls:

- It includes ongoing expenditure to support major Ofgem-funded programmes in Data and Cyber Re-openers
- We have witnessed a step-change increase in the cost of SaaS and Software licensing with vendors having to contend with increasing operating costs which in turn changes their commercial and operating models.
- Ever increasing cyber threat has been factored in to ensure we have the necessary capabilities both now and into the future.
- High market demand for technical expertise has seen the cost to employ increase outside normal annual CPI and this continues with the more people now able to work remotely.
- The incorporation of AI within software and hardware platforms has led to an increase in per user cost, irrespective of whether the vendor-preferred AI is suitable for use by Cadent or not.