



GD Question Responses (GQ)

August 2025

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Chapter 1 Summary of responses

#	Question	Agree / disagree	Summary of Response
GDQ1	Do you have any views on our proposed approach for the GD-specific environmental commitments, costs and targets?	Partially agree	In general, SGN does not have any concerns with Ofgem's outlined position.
GDQ2	Do you have any views on our proposed funding for the DPLA and ALD?	Partially Agree	SGN support Ofgem's decision to fund ALD through baseline however, it is important that all networks are funded for comparable levels of work (the distinction is whether PE and metallic mains should be surveyed or just metallic mains) We have set out a more appropriate calculation that provides comparability between networks for the ALD, and an appropriate baseline for any future DPLA reopener. This can be applied to either metallic or all mains on a consistent basis.
GDQ3	Do you agree with our proposed design of the 7 and 28 Day Repair Standards ODI-F, including the proposed performance targets and incentive rate?	Strongly Disagree	SGN strongly disagrees with the penalty only ODI-F on the following grounds: <ul style="list-style-type: none"> • Inefficient for repair prioritisation (SGN has its own repair prioritisation procedure to minimise risk, it does not exclusively focus on time since the reported escape). • Inefficient incentive for delivery (SGN often replaces instead of repairs, this will lead to a delay in the repair but will represent better value for money). • Increase in proportion of larger diameter repairs will invalidate historical actuals used for target setting. • 12 hour working limits will create a structural break in repair duration data, meaning historical actuals will be inappropriate for target setting. • The ODI-F does not represent a 'fair bet' to shareholders (there is only downside financial risk).
GDQ4	Do you agree with our proposal to enable the GDNs to submit RESP coordination and engagement activities through NZARD and NZASP?	Partially agree	SGN agree this will help further the coordination of RESP activities and proposes that this should be extended to local government and LAEP.
GDQ5	Do you have any feedback on our approach to assessing non-mandatory repex workloads?	Strongly disagree	We agree that non-mandatory repex workloads should be checked for engineering need and should be subject to cost benefit analysis. However, we strongly disagree with moving the payback period down from 16 years to 11. It is not appropriate to maintain a 2037 cut-off date, given the materiality of the impact. We note that this 2037 date has never been appropriately considered through an effective impact assessment and is not a robust decision given the heightened materiality.

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GDQ6	Do you have any comments on the proposed design of the Tier 1 Mains Decommissioned PCD, including the position to retain the 3% cap on the upwards Allowance Adjustment Mechanism?	Strongly disagree	We strongly disagree that this PCD should have a cap given the short period of time left to the end of the IMRRP. It is important that networks have the opportunity to de-risk the final years of delivery. We do not believe that the cap is in the interests of customers; we have seen it impact the ability to deliver efficiently in our Scotland network, and it will drive up costs in the future.
GDQ7	Do you have any comments on the proposed design of the Tier 1 Services PCD, including the position to retain the 10% cap on the upwards Allowance Adjustment Mechanism?	Strongly disagree	We strongly disagree with the retention of a CAP for the reasons set out in GDQ6 and given the uncertainty on service numbers, there is a high risk of the cap being breached and networks with the end of the IMRRP so close, networks are unable to mitigate this risk without jeopardising delivery of the IMRRP target.
GDQ8	Do you agree with the proposed design of the Tier 1 Iron Stubs PCD?	Agree	We agree that commitments made under the proposed Tier 1 Iron stubs programmes should be covered by a PCD. This is particularly important as there is an array of different approaches that have been proposed by the GDN's. We feel that this area of high spend with critical outputs should be captured to ensure that customers are seeing the benefits of the programme.
GDQ9	Do you agree with our proposal to update the Emergency Response Time LO to prevent the downward reclassification of gas escapes?	Agree	<p>SGN agrees with Ofgem's proposal to update the Emergency Response Time LO to prevent the downward reclassification of gas escapes. SGN does not reclassify gas escapes, and we support all attempts made to ensure consistent reporting across GDNs.</p> <p>SGN does not reclassify gas escapes under existing policy and procedure, so any licence update in this area does not affect us.</p>
GDQ10	Do you agree with our proposed design of the ERTLO ODI-R?	Agree	<p>SGN agrees in principle, but further engagement will be required with Ofgem to define the exact reporting requirements and ensure industry alignment between GDNs.</p> <p>Ofgem are proposing that GDNs report annually on metrics including:</p> <ul style="list-style-type: none"> the total number of ERTLO failures (with a month-by-month breakdown); the mean, median and mode duration of ERTLO failures; the maximum duration of a ERTLO failure; the number of ERTLO failures within specified time bands (to be decided); a monthly breakdown of the number of ERTLO failures by reason for failure; and an accessible commentary to provide context and insight on cases which exceed the ERTLO's target times. <p>The GDNs will also need to account for consumer vulnerability in their response to emergency gas escapes, especially where this may affect the safety and wellbeing of the consumer. To monitor performance in this area, Ofgem are also proposing</p>

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			that GDNs separately report on the metrics outlined for consumers in vulnerable situations.
GDQ11	Do you agree with our proposed design of the VCMA UIOLI mechanism?	Agree	<p>SGN agrees with the proposed design of the VCMA UIOLI mechanism. The design is in line with the approach we have developed in collaboration with key stakeholders and other GDNs.</p> <p>There are still areas of the proposed design that will require defining under the evolving Vulnerability Package governance criteria including defined metrics and stakeholder input, however we are broadly in agreement with the approach to the overall Vulnerability Package.</p> <p>The approach will enable the continuation of the VCMA at an enhanced level to ensure that the GDNs can continue to deliver impactful and substantial initiatives that go beyond BAU activities to support vulnerable customers maintain a safe and warm home. We agree with ambition to encourage greater opportunity through cross network and cross sector collaboration, maintaining the minimum 25% allowance to be utilised in collaboration with one or more GDNs.</p>
GDQ12	Do you agree with our proposed design of the Customer Satisfaction ODI-F?	Disagree	<p>Whilst SGN agrees with the principle of retaining a Customer Satisfaction (“CSAT”) ODI-F design in RIIO GD3, and we agree with Ofgem’s design regarding two of the three areas: Planned, and Unplanned. SGN disagrees with the design of the connections survey element of the CSAT-ODI-F as it does not take proper account of the connections survey being removed.</p>
GDQ13	Do you agree with our proposed design of the Disconnections Customer Satisfaction ODI-R?	Agree	<p>We agree with the proposed design to introduce two separate disconnection surveys as part of the ODI-R to measure customer satisfaction in GD3. But note that separate reporting for PSR customers may not be possible.</p>
GDQ14	Do you agree with our proposed design of the PSR Customer Satisfaction ODI-R?	Partly agree	<p>We agree in principle. However, we do have concerns in relation to its calibration and the impacts of the removal of the DCLA.</p>
GDQ15	Do you agree with our proposed design of the Complaints Metric ODI-F?	Agree	<p>We agree with Ofgem’s proposal to tighten the Complaints Metric. We are committed to providing high quality service to our customers and intend for both of our networks to be in the top three for fewest complaints per 10,000 customers in every year of GD3. We would like to clarify reporting requirements in their RRs.</p>
GDQ16	Do you agree with our proposed design of the PSR Customer Complaints ODI-R?	Agree	<p>We agree with the proposed design of PSR customer complaints ODI-R, assuming this ODI-R target will have the same definition as in GD2 GSOP 3 with 30 days prior to the start of planned work at the time of the complaint being logged.</p>

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GDQ17	Do you have any views on the proposed approach to setting unplanned interruption targets for both non-MOBs and MOB through the Unplanned Interruptions ODI-F?	Strongly Disagree	<p>We strongly disagree with the proposed approach to Unplanned Interruptions ODI-F in RIIO-GD3. Whilst we agree with the separation of MOB and Non-MOB targets, and the exclusion of major incidents. We fundamentally disagree with the approach to setting non-mob targets which will directly penalise networks for factors outside of their control.</p> <p>A financial penalty incentive that is intended to avoid a deterioration in performance is now looking to provide improvements in performance, and this duplicated significant other financial incentives operating in this area.</p>
GDQ18	Do you have any views on the proposed expansion of the Collaborative Streetworks ODI-F across GB?	Agree	SGN agree with the expansion and the incentive reward for the Collaborative Streetworks ODI-F within RIIO-GD3
GDQ19	Do you have any views on the proposed minimum threshold, the methodology used to set it, and the incentive reward rate for the Collaborative Streetworks ODI-F?	Disagree	SGN disagree with the minimum threshold, the methodology used to set it and the incentive reward for the Collaborative Streetworks ODI-F. The incentive structure is already diluted, and the introduction of a minimum threshold adds to the complexity and dilutes it down further.
GDQ20	Do you agree with the introduction of the proposed Biomethane Connections UIOLI, including with the proposed scope and funding caps?	Disagree	SGN welcomes the introduction of a UIOLI allowance for biomethane connections, however the proposed design raises a number of issues that we need to address. We disagree with the proposal to make projects that already in receipt of an GGSS to be ineligible for accessing funding under the proposed UIOLI structure. We also consider a more flexible approach is required to the proposed £1m cap per project to recognise demonstrable efficient spend associated with individual or linked projects. We would consider an economic test for entry connections to be appropriate using DESNZ Greenbook eCO ₂ emission figures and CO ₂ £values to demonstrate wider societal benefit from these asset investment decisions.
GDQ21	Do you have any views on our proposed design of the Heat Policy Re-opener?	Partially Agree	SGN agrees in principle with Ofgem's decision to Ofgem propose to retain their SSMD position on the scope of the Heat Policy re-opener, including the ability to adjust costs both upwards and downwards.
GDQ22	Do you agree with our proposed scope of the HSE Policy Re-opener?	Strongly disagree	<p>We are concerned that the scope of this re-opener is not effective as we are finding that, while they may be without a formal without regulation or policy change, the expectations of work which SGN are required to deliver differ substantially from the previously widely held interpretation of the regulations and/or policy, and therefore the previous workload activities</p> <p>We have proposed an important change to reflect the uncertainty around MOB costs and volumes going forward given the recent changes in legislation.</p> <p>We disagree with the reasons set out for the exclusion of legacy disconnections (but think that it should be included in</p>

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			the volume driver for disconnections more generally) and the exclusion of complex distribution systems.
GDQ23	Do you agree with our proposed design of the Tier 2A Volume Driver?	Agree	We agree with a Volume Driver for Tier 2A and welcome discussions with Ofgem to finalise the approach. Tier 2a pipes are dynamic in nature, with a risk score that changes over time in response to new information. This change in risk score may require us to intervene to replace the pipe, notably when the risk score exceeds our Risk Action Threshold. In response to this variability, we believe that there remains a strong case for this workload to be encompassed within a volume driver as it has been in GD1, GD2 and outlined in the RIIO3 sector specific methodology decision.
GDQ24	Do you agree with the scope of our Diversions Re-opener?	Partially Agree	We agree that there is a strong need for a re-opener mechanism to cover diverting assets, mitigating environmental incidents and overcoming loss of development claims. However, we also have identified the need to divert assets that have been discovered to have been overbuilt by a property as part of our proactive programme. The costs of this new programme are uncertain as we establish the programme and should be explicitly included in the reopener.
GDQ25	Do you agree with our proposed design and unit rates for the Safety Disconnections Volume Driver?	Partially Agree	In principle we agree with the approach to have a safety disconnections volume driver and greater data collection through the RRP subject to appropriate unit rates being set out. As set out in our response to GDQ 22, this volume driver should also include Legacy Safety Disconnections.
GDQ26	Do you agree with the proposed design of the New Large Load Connections Re-opener, including our proposal to include general reinforcement projects in its scope?	Disagree	<p>SGN disagrees with the proposed design for the New Large Load Connections reopener and the proposal to include general reinforcements within its scope. There are two reasons for this;</p> <p>Firstly, for connections related work, the threshold of the reopener is too high - both individual projects and the materiality thresholds – as a result it needs to be lowered to capture reinforcement work that has been driven by new connections. The threshold needs to be removed for the reopener to be appropriate.</p> <p>Secondly, Non-connection related reinforcement work (both mains and governors) currently falls outside of the reopener, and either needs to be included, or subject to a volume drive or an ex-ante allowance.</p> <p>In our business plan we identified an anticipated cost of £12.58m non-connection general reinforcement work that needs to be included.</p>
GDQ27	Do you agree with our proposal to retain the RIIO-GD2 scope of the Specified Streetworks Costs Re-opener?	Partially Agree	We welcome the retention of the Specified Streetworks re-opener. However, we do not agree with maintaining the existing scope, due to areas of uncertainty relating to materiality of costs, increase scheme application, hazardous waste, behavioural changes by Highway Authorities and period within scope
GDQ28	Do you agree with our proposal to reject Cadent's proposed pass-through to	Disagree	We disagree. We concur with Cadent, that in principle we should be supporting the roll-out of biomethane as rapidly and

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	facilitate biomethane connections?		cost-effectively as possible. We do not believe the Biomethane Connections UIOLI will deliver this in its proposed form.
GDQ29	Do you agree with our proposal to reject SGN's proposed pass-through for Joint Office of Gas Transporters services?	Disagree	We do not support the rejection of pass-through relating to the Joint Office of Gas Transporters.
GDQ30	Do you agree with our proposal to reject WWU's proposed pass-through for plant protection services?	Disagree	We disagree with the proposal to reject WWU's proposed pass-through for plant protection services.
GDQ31	Do you agree with our proposal to not introduce a CDS Re-opener and instead fund any resubmitted workloads through NARM, if approved?	Strongly disagree	We strongly disagree with the draft determination position that CDS should not get a bespoke re-opener and should instead be funded through NARM. The NARM model is not ready for this workload type and is unsuited to modelling this highly variable and atypical workloads. Considerable assessment of the key features of these asset types would need to be undertaken before it could be robustly introduced into the NARM methodology.
GDQ32	Do you agree with our proposed use of a 'top-down' regression model?	Disagree	The use of a single 'top-down' regression approach is inappropriate to fully account for the increasing regional and complexity challenges that were evident during the GD2 period and are further developing within the GD3 period. As such, we disagree with Ofgem's approach of a single 'top-down' regression model and consideration should be had for multiple approaches to determining efficiency that better reflect the differing challenges each network faces within the region in which they operate.
GDQ33	Do you agree with our assessment approach for IT&T?	Disagree	SGN recognises that Ofgem required a pragmatic and consistent assessment methodology for assessing GDN proposals but from the information provided does not have enough detail to understand how the assessment was derived, and this impacts our ability to respond in an appropriate manner to the draft determination. This introduces significant risks for SGN in the successful delivery of the project outcomes.
GDQ34	Do you think we should make any amendments to the assessment framework or the thresholds employed?	Disagree	SGN submits that the subjectivity of the assessment methodology along with the lack of detailed rationale for the ratings given has an undue impact on our overall settlement that introduces significant risks for our business in terms of operational effectiveness, regulatory compliance and customer service. We therefore request that Ofgem reconsiders its assessment
GDQ35	Should any cost categories be included or excluded from the assessment?	Disagree	Details of our proposed amendments are contained within GDQ33
GDQ36	Do you agree with our proposed approach to pre-modelling normalisations and adjustments?	Partly agree	SGN acknowledges the importance of robust pre-modelling normalisations and adjustments to ensure fair and consistent cost benchmarking across networks. While SGN agrees with the general principle of deducting non-comparable costs prior to modelling, there are significant concerns regarding the specifics of certain adjustments and their underlying methodologies. SGN has found notable inconsistencies in

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			efficiency outcomes between its own networks, as well as between regions, suggesting that current normalisation approaches do not sufficiently capture real-world operational differences.
GDQ37	Do you agree with our proposed approach to totex benchmarking?	Disagree	SGN acknowledges the role of totex benchmarking as a foundational tool for benchmarking efficiency across networks and supports the principles of totex benchmarking. As discussed within GDQ32 we have concerns on the over-reliance on a single totex model, and believe multiple models of varying configuration create a more balanced view of efficiency for the regions in which we operate
GDQ38	Do you agree with the proposed level of aggregation, estimation technique and time period for our econometric modelling?	Partly Agree	Ofgem has a vast degree of model options within its econometric toolkit that have precedence within GB and wider regulatory settings. We agree with the estimation technique and principles on time periods that Ofgem have proposed within their GD3 modelling but would welcome a wider approach to the use of model aggregation, both in terms of model type (i.e., mid-models / disaggregation) as well as how multiple models are aggregated (i.e., triangulation) to ensure no single econometric view of efficiency over-powers the setting of totex allowances within GD3.
GDQ39	Do you agree with our proposed cost drivers and approach to weighting drivers in the totex CSV?	Disagree	Cost drivers require updating with latest data and consideration of the appropriateness of management control. We believe there is value in utilising a bottom-up approach to CSV weighting as per some of the ED2 totex models used by Ofgem to present differing views.
GDQ40	What are your views on our proposed workload adjustments to cost drivers?	Disagree	As a principle to adjust workload within the cost drivers in alignment with engineering assessments is valid. We note a key area to ensure comparability are company assumptions around banding mix and abandonment ratios which require normalising so comparable benchmarks can be carried out. To aid Ofgem in ensuring plans can be compared on an equal basis, we have provided as part of our DD response an updated banding mix scenario that is comparable to some of the assumptions put forward by other networks.
GDQ41	Do you agree with our approach to non-regression benchmarking analysis?	Disagree	An appropriate approach to non-regression benchmarking analysis is crucial to ensuring allowances are determined that enable the delivery of safety critical workload.
GDQ42	What are your views on our proposed approach to applying the catch-up efficiency challenge?	Disagree	We recognise catch-up efficiency plays a role to incentivise performance where there is appropriate comparability between companies in the regression model. We have demonstrated multiple errors and provided recommendations to significantly improve the current position on assessing efficiency. Until the suggested actions are implemented, we do not consider an efficiency target of less than 1 to be appropriate.
GDQ43	Do you consider that the efficiency frontier should be set based on historical performance?	Neither agree nor disagree	Reviewing of the historical efficiency scores within the cost assessment models would be a useful cross-check in ensuring models are performing as expected to predict future efficiency positions. For setting allowances consideration should be made for changing workload challenges (i.e. tier 1 repex

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			complexity) as well as increasing macro cost pressures through a more challenging operating environment, therefore utilising historical efficiency scores to set allowances would be inappropriate.
GDQ44	Do you agree with our assessment of technically assessed costs and bespoke outputs?	Disagree	We put forward positions for each of the technical assessment areas to ensure fair assessment of the efficiency of our costs. Further we note some areas of costs that are appropriate for technical assessment and have been omitted within the draft determination modelling.
GDQ45	What are your thoughts on our approach to disaggregating cost allowances?	Neither agree nor disagree	There is a disconnect between the setting of allowances and the disaggregation of these allowances which create material impacts on financeability metrics. Due to the inherent link between methodological choices Ofgem implement within efficiency determination (i.e. bottom-up CSV weighting – GDQ39) we welcome engagement on an appropriate disaggregation approach once approaches are better understood
GDQ46	Do you agree with our proposed TIM sharing factor?	Neither agree nor disagree	The Totex Incentive Mechanism (TIM) is a tool that Ofgem uses to incentivise companies to find and deliver innovations that improve the efficiency of their operations. However, for the TIM to meaningfully reward managerial effort and for the overall price control package to be investable, the price control totex allowances must be set as a 'fair bet'.

Chapter 2 Outputs and incentives

2.1 Infrastructure fit for a low-cost transition to net zero

2.1.1 Environmental Action Plan and Annual Environment Report ODI-R

GDQ1. Do you have any views on our proposed approach for the GD-specific environmental commitments, costs and targets?

- 1 In general, SGN does not have any concerns with Ofgem's outlined position. However, we have specific comments that must be read in conjunction with other parts of the draft determination response, in particular in the following areas and questions responses:
 - For comments on shrinkage target see below.
 - For comments referring to DPLA and ALD, please see GDQ2.
 - For comments on zero emission vehicles, please see OVQ3 and SGNQ4.

Aligned Gas Distribution Network Business Carbon Footprint Reduction Targets for RIIO-GD3:

- 2 The Draft Determination¹ identified the expectation that GDNs to work together to apply a consistent methodology for setting BCF targets and to re-submit targets in their Draft Determination responses due to

¹ RIIO-3 Draft Determination – Gas Distribution, July 25, para 3.14, pg. 16

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difficulties in comparing the targets as presented in the RIIO-GD3 business plan submissions due to varying base years and methodologies.

- 3 In response to this requirement, the four Gas Distribution Networks (GDNs) have worked collaboratively to revise our Scope 1 and 2 Business Carbon Footprint (BCF) targets, so they have a common baseline year, end year and methodology. These targets are presented in Table 1 below, alongside their data coverage and assumptions, and supersede those presented in the individual GDN RIIO-GD3 business plan submissions.
- 4 For SGN the BCF for baseline year 23/24 was 18,215 tCO₂e. SGN's BCF for target year 2030/31 is 14,247 tCO₂e. This is a reduction of 21.8%. This is set out in the Table below alongside other networks.

Table 1: Revised GDN RIIO-GD3 Scope 1 and 2 BCF Reduction Targets

Network	Baseline		Target		% Reduction over period	Market based or Location based methodology
	Year	tCO ₂ e	Year	tCO ₂ e		
Cadent	2023/24	27,181	2030/31	25,833	5.0	Location based
NGN		5,736		2,021	64.8	
SGN		18,215		14,247	21.8	
WWU		12,691		11,905	6.2	

- 5 In discussion with the other GDNs, we have agreed the following assumptions relating to presented targets:
 - Business Carbon Footprint (BCF) = Scope 1 and 2 emissions excluding gas shrinkage. The targets presented here cover all material Scope 1 and 2 emission sources for all GDNs however there may be some minor variability across low materiality items.
 - Each GDN presented bespoke BCF targets within their RIIO-GD3 Environmental Action Plan. Ofgem identified difficulties in comparing these targets due to varying base years and methodologies. The targets presented represent amended targets to aid comparative analysis by Ofgem.
 - Targets are presented under the same assumptions as those presented in the RIIO-GD3 business plan submissions. The exception to this is the target from WWU, which is estimated from their fleet structure provided in their OVQ3 draft determination response.
 - 2023/24 has been selected as the common base year for all networks for the presented aligned RIIO-GD3 BCF targets to minimise any impacts of the COVID-19 period and align with the final data used for the RIIO-GD3 business plan submissions.
 - Variations in baseline emissions between different organisations reflect differences in operating business models.
 - Baseline emissions and target emissions are presented on a location-based methodology for consistency.
 - Baseline emissions are taken from Annual Environmental Report submissions.

- 6 This is based on an aligned scope coverage as set out below in Table 2.

Table 2: Revised GDN RIIO-GD3 Scope 1 and 2 BCF Reduction Targets Data Coverage

Network	Included in baseline and target? Y/N						
	Scope 1 - Shrinkage	Scope 1 - stationary combustion (metered natural gas in premises/infrastructure)	Scope 1 - mobile combustion (vehicles)	Scope 1 - mobile combustion (plant/equipment)	Scope 1 - F gases	Scope 2 - electricity use in premises	Scope 2 - electricity use in electric vehicles
Cadent	N	Y	Y	?	Y	Y	Y
NGN	N	Y	Y	Y	Y	Y	Y
SGN	N	Y	Y	Y	Y	Y	Y

WWU	N	Y	Y	Y	N (de-minimis)	Y	Y (inc in premises)
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Statement Regarding SBTi Certification of Carbon Reduction Targets:

- 7 As gas network operators, we recognise and agree with the need for robust and responsible emissions targets.
- 8 Gas Distribution Network (GDN) greenhouse gas emissions are dominated by shrinkage (>90%) giving our company emissions a unique profile. The Science-Based Targets initiative (SBTi) have developed a series of standard methodologies for carbon reduction pathways to net zero for a range of industries. Such standards stipulate that targets must include all aspects of Scope 1 and 2 emissions, so for GDNs this would include Shrinkage and Business Carbon Footprint emissions.
- 9 SBTi's proposed Oil and Gas Standard aims to establish a responsible pathway to net zero for our sector and has been under development for a number of years. During preparation of the GDN's RIIO-GD3 Business Plans it was assumed that this Standard would become available in the near future and certification by GDNs could be sought. Subsequently, in April 2025 SBTi have stated that development of the Oil and Gas Standard has now been officially paused. This leaves the GDNs in the position of being unable to attain SBTi certification of carbon targets currently or in the near future. If the Oil and Gas Standard is developed and published during the RIIO-GD3 price control period, we will aim to seek validation against this standard, or a suitable alternative should it become available, subject to consideration of cost, appropriate levels of funding to meet costs, and the net benefit to stakeholders.

Biodiversity and natural capital:

- 10 We support the acceptance of GDN's biodiversity targets. Within the draft determination, however, we would like to clarify a statement² on the proposal to collaborate with biodiversity experts, charities and consultants when preparing their AERs. We engage with groups on a case-by-case according to the expertise, insight and, to provide additional value to customers and/ or communities in which we are operating. This needs to be proportionate and without an undue increase in costs to projects. We would not support a blanket requirement and would like to discuss the role and scope of engagement as part of the AER Guidance consultation to clarify purpose and outcomes.

Shrinkage and AER Reporting:

- 11 Ofgem is proposing to accept our shrinkage target. This target is however intrinsically linked to other parts of the Business Plan, like repex, Advanced Leakage Detection, Remote pressure management and Intelligent Gas Grid (which all have associated emissions reductions with them).
- 12 If there are significant changes in the provision of these activities in the final determination we will need to adjust our shrinkage target based on workloads and activities provided for in the Final Determination in December when we will be able to model shrinkage based on Ofgem's final decision.
- 13 We support the proposal that additional shrinkage reduction activities should be facilitated through the net zero Reopener and UIOLI mechanism. As set in our in our response OVQ15, we are concerned that the available allowance will be insufficient if ALD measures are included within the UIOLI given the disparity of funding and deliverables between networks.
- 14 SGN agree that we should be reporting on both modelled and observed data of shrinkage in our Annual Environmental Report once observed data becomes available.

2.1.2 Advanced Leakage Detection (ALD) and the Digital Platform for Leakage Analytics (DPLA)

GDQ2. Do you have any views on our proposed funding for the DPLA and ALD?

- 15 We set out our views separately on the ALD and DPLA funding below.

² RIIO-3 Draft Determination – Gas Distribution, July 25, para 3.16, pg. 16

Advanced Leakage Detection

- 16 SGN agrees with Ofgem's decision to fund its ALD programme to undertake safety driven pipe condition monitoring through the baseline, and to separately assess DPLA, which is currently not proven, through the NZASP Re-Opener. However, our agreement is subject to Ofgem addressing specific technical issues that we have identified in the DD, which we present below. These relate to (i) a potential technical issue with the DD calculation of ALD funding in SGN's baseline totex, and (ii) the need to use the most reliable evidence to determine the likely costs of ALD. We discuss these points in turn below.

(i) Potential technical issue with the DD calculation of ALD funding in SGN's baseline totex

- 17 It is important to recognise that there is a difference between the HSE requirement and the requirement for all pipes to be surveyed. The HSE requirement is to monitor the condition of pipe assets as set out in the HSE Iron Enforcement Policy and more widely to cover metallic pipes such as unprotected steel (10%-20% of network length). This is different from the requirement for all pipes to be surveyed including Polyethylene (PE) (80-90% of network length) in order to satisfy the data required for the yet proven DPLA innovation project.
- 18 As part of the DD, Ofgem have proposed to move the associated SGN funding, £12.4m, from our proposed Use It or Lose It (UIOLI) mechanism into the baseline. We support this approach as this work is required to meet HSE's requirement. The HSE has confirmed that GDNs have a responsibility to intervene where ALD identifies pipe failures and this must be recognised and supported by Ofgem via an appropriate uncertainty mechanism.
- 19 The funding has been determined based on a regression model to fund out ALDs³, however, we note this results in a significant disparity between networks and does not appear to be aligned to the amount of work that needs to be undertaken.
- 20 Whilst SGN has limited its ALD request to condition monitoring of its metallic pipes only, it appears that other networks have requested ALD to cover all network materials including PE which in turn satisfies the requirements of DPLA.
- 21 In principle, there should be a direct correlation between network length and ongoing operational costs of monitoring and leakage and the regression should be based on this correlation.
- 22 Given that Cadent are the most developed in their understanding of the costs of deployment of ALD, it is our view that for consistency it would be better for networks to be aligned to Cadent's ongoing costs based on the length of their network. This would provide consistency between networks in funding requirements. Condition monitoring using ALD, as required by HSE, should primarily be targeted towards failing pipe materials including iron and unprotected steel, typically operating at <=2 bar.
- 23 If Ofgem wishes to implement an approach for ALD (condition monitoring) funding that requires GDNs to survey the entire network length annually, including PE (circa 80%-90%), then this approach should be applied on a consistent basis across all GDNs. Table 3 below, based on proportions of network length, sets out the applicable ongoing operating costs for each network based upon Cadent proposed [unit] cost as a benchmark.

Table 3: Operational cost allocation

Networks	Tier 1 <= 2bar (km)	Tier 2 <= 2bar (km)	Tier 3 <= 2bar (km)	Steel <=2bar (km)	Total length <= 2bar (km)	Network length relative to cadent (%)	Cost allowance (£m)
Cadent	13,062	4,795	1,422	4,242	23,522	100%	27.37 (*)
SGN	7,560	2,414	783	2,889	13,646	58%	15.88
NGN	3,704	1,329	247	1,025	6,304	27%	7.34
WWU	2,838	964	159	1,989	5,950	25%	6.92

(*) Cadent proportion based on draft determination.

Source: SGN internal analysis based on DD, Reopener DD and BPDT

- 24 It can be seen from the Table that SGN's sub 2-bar network is 58% of the combined length of Cadent's sub-2 bar network.

³ RII0-3 Draft Determination – Gas Distribution, July 25, para 3.29, pg. 19

(ii) Use of the most reliable evidence to determine the likely costs of ALD

- 25 We would also note that across their GD2 Net Zero reopener Cadent were awarded a further £20.5m⁴ and £5.1m⁵ for the DPLA platform. This is in addition to the £27.37m set out within the draft determination. As much of the Cadent submission was redacted it is challenging for us to understand the nature of these costs although we believe that they also include all of the AGI sensors required for DPLA. As Cadent is more progressed on the projects than the other networks, it is reasonable to assume that these are upfront investment costs and system costs necessary to implement and operationalise the collation of data. Given that Cadent are the most developed in their understanding of the costs of deployment of ALD, and that Ofgem has subjected the Cadent costs to a detailed review, all networks' ALD costs should be aligned, pro-rata, to Cadent's costs, based on the total length of sub-2 bar mains in their networks. This would provide consistency across GDNs in funding requirements.
- 26 Without making these adjustments, there is a significant risk that there will be a mismatch between funding and deliverable expectations, with some networks receiving a high level of funding based on greater knowledge than other networks, which are less advanced on the commercial aspects of the project.
- 27 In Table 4 below, we set out our calculations of the breakdown of the costs for each network calculated by reference to Cadent's costs for initial set-up and implementation costs.

Table 4: Upfront cost allocation (pro-rata based on Cadent GD2 reopener award)

Networks	network length relative to Cadent (%)	GD2 Award (23/24 £m)	Pro-rated Upfront Costs for GD3 (23/24 £m)
Cadent (GD2 reopener)	100%	20.45	Funded in GD2
Cadent (DPLA platform)	100%	5.14	
Cadent Total		£25.59	
SGN	58%	N/A	14.85
NGN	27%	N/A	6.86
WWU	25%	N/A	6.47

Source: SGN internal analysis based on DD, Reopener DD and BPDT

- 28 Please note that we still have concerns regarding the distinction between ALD and DPLA requirements and remain of the view that, given the uncertainty of the cost estimates, our ALD submission to condition monitor metallic pipes is in the best interest of customers whilst further work is completed to clarify the possible cost benefit of the DPLA innovation project. This DPLA work will enable SGN to confirm whether PE pipes should be included within the scope of ALD.
- 29 If Ofgem decided that ALD (pipe condition monitoring) only needs to be applied to the metallic mains, then the funding structure set out above in Table 4 can be adjusted accordingly. Our submission is based on this approach.
- 30 We have also discussed within GDQ36 and GDQ44 the requirement for ALD to be excluded from regression benchmarking and technically assessed due to the material and unique nature of this program of works.

Digital Platform for Leakage Analytics

- 31 In relation to DPLA funding, SGN has some concerns and seeks clarification from Ofgem. For SGN to successfully implement the DPLA project, annual driving surveys covering 100% of SGN's network are required. This represents a significant scale-up compared to the SGN ALD approach, which spans 20% of the network per year. We recommend adjusting the funding structure as set out in Table 4 above, to ensure appropriate comparability from which DPLA reopener can be adjusted.
- 32 As Table 5 below shows, the cost indications, following chapter 13.5), the cost of the driving surveys constitutes the majority of our estimated £53m DPLA project cost. This can be recalibrated if the approach set out above is taken into account.
- 33 If Ofgem decide not to adjust DPLA in the manner set out above SGN would consider it appropriate that Ofgem would allow GDNs to fund the expanded scope of driving surveys for DPLA can be accessed through the NZASP

⁴ [Net-Zero-Pre-construction-Work-and-Small-Net-Zero-Projects-Re-opener-Cadent-Vehicle-Based-Advanc.pdf](#)

⁵ RIIO-3 Draft Determination – Cadent, July 25, para 5.34, pg. 48

Re-Opener. This would be in line with the other elements of the DPLA project, as the NZARD UIOLI material cap is currently set at £2m and would therefore be insufficient.

Table 5: 5 year project cost summary (blended model)

Asset	Total Number	% Coverage	Installations Required	Technology	Technology Cost (£m)	Operational Cost (£m)	Total Cost (£m)
Mains and Services	N/A	150	N/A	Vehicle Surveys	32.0	13.5	*45.5
District Governors	7447	7.5	560	Fixed Monitors	4.4	1.5	5.9
Offtakes/PRS	287	100	N/A	Handheld Surveys	0.1	1.5	1.6
Totals					36.5	16.5	53.0

Source: SGN Environmental Action Plan (Section: DPLA cost indications, following chapter 13.5)

34 For further Engineering justification, please refer to document SGN-GD3-DD-ENG-SD001.

2.1.3 7 and 28 Day Repair Standards ODI-F

GDQ3. Do you agree with our proposed design of the 7 and 28 Day Repair Standards ODI-F, including the proposed performance targets and incentive rate?

- 35 The Draft Determination introduces a penalty only ODI-F for repairs, focused on the percentage of repairs completed. We note that NGN proposed an ODI-F in RIIO-GD2, with an incentive and penalty. Ofgem declined due to lack of cross GDN data as it was unclear if targets were stretching.
- 36 This will result in material penalties on GDNs, if, in any given financial year, GDNs complete less than 75% of repairs in 7 days, and/or less than 90% within 28 days of the repair being identified. The proposed maximum exposure is 0.17% RoRE; which equates to roughly £1.5m per annum for Scotland and £3.3m per annum for Southern, respectively. The networks have been submitting data annually since the proposal, and cross GDN comparisons can be inferred.
- 37 Tables 6 and 7 below set out SGN's performance against these targets for the GD2 period.

Table 6: SGN Scotland performance against the proposed repairs targets the GD2 period.

Scotland	2022	2023	2024	2025	GD2 average
Repairs completed within 7 days	88%	85%	79%	81%	83%
Repairs completed within 28 days	99%	97%	96%	97%	97%

Source: SGN's 2025 RRP

Table 7: SGN Southern performance against the proposed repairs targets the GD2 period.

Southern	2022	2023	2024	2025	GD2 average
Repairs completed within 7 days	79%	76%	73%	78%	76%
Repairs completed within 28 days	93%	92%	91%	93%	92%

Source: SGN's 2025 RRP

- 38 While we acknowledge historical network performance being within the proposed targets within the DD, we note key operational headwinds that will likely weaken networks ability to deliver to historical performance. We discuss this below but note there is no definitive way to understand how these increased time pressures will impact networks, and to set a challenging target during this period of uncertainty would be inappropriate.

- 39 For RIIO-GD1 period, we did not report on the <7 Days though, only the >28 Days. Reviewing performance levels for <28 days during this period show that our performance was good and met the thresholds, these are shown for Scotland and Southern below.

Table 8: SGN's performance against the proposed repairs targets the GD1 period.

Scotland	2014	2015	2016	2017	2018	2019	2020	2021
Repairs completed within 28 days	99%	98%	97%	98%	98%	98%	98%	99%
Southern	2014	2015	2016	2017	2018	2019	2020	2021
Repairs completed within 28 days	99%	97%	95%	95%	96%	95%	96%	97%

Source: SGN internal data

- 40 In principle, we believe that focusing solely on the number of days taken to complete a repair is an inappropriate point of measurement, as it does not take into account the safety or risk associated with that repair.
- 41 SGN prioritises repairs using a repair management procedure, this prioritises repairs based on the immediate risk they pose to the public and ensure resources are allocated efficiently to minimise overall risk. Delayed repairs are checked frequently to ensure they do not worsen, or pose an undue threat, and the risk is actively managed. SGN therefore deprioritise repairs if there are more immediate risks to attend to.
- 42 There are also cases where a repair would be delayed to facilitate more efficient delivery, and better use of customer money. For example, in cases where we have had repeat repairs on the same main, or if the pipe falls into our Repex program we will plan a replacement instead of doing additional repairs. This saves both money and time. This will often take time to plan (engage with local councils, get required permits, mobilise replacement teams/ contractors etc.), leading to a repair being outstanding for longer – however with the checks we perform on active escapes risk is minimised in the process.

We need to ensure that this incentive structure does not create a perverse incentive to target repairs based on financial penalty rather than safety.

- 43 If the decision is maintained this incentive (which we would strongly disagree with) the targets need to be set at a level that recognises;
- **End of the Tier1 Repex Programme.** As SGN nears the end of the tier 1 Repex program we are seeing a decrease in total repair volumes, paired with an increasing proportion of large diameter repairs, as the majority of low diameter mains have been replaced with Polyethylene. Large diameter repairs are more complex and therefore take longer to complete. Materials have longer lead times; there is often enhanced local council engagement required; and the physical repairs are larger, meaning more engineers are required on site. Given these constraints we would predict average duration from an escape being identified, to repair being completed will increase. This, paired with the reduction of total repairs, will lead to a move volatile distribution of repair durations – meaning that targets set on historical actuals will become increasingly stretching.
 - **Transition to 12 hours.** SGN is also in the process of transitioning to 12 hour working limits; we expect an increase in handover time, which will also drive up total repair times. SGN sees this as an unavoidable consequence of lower working limits. Therefore, using past data to predict the thresholds would not be comparable as there will be a structural break in repair times, which will also be different for every GDN depending on when they plan to be '12 hour compliant'.
 - **Regional aspects of repair.** The regional aspect of repair workload needs to be taken into account. Regional costs are recognised in the cost assessment process to recognise the additional costs associated with working in the Southern region, a substantial proportion of these costs arise due to the increase in time implications of working in that region – i.e., additional permitting requirements, restriction on working hours, and constraints on working practices. These regional characteristics can clearly be seen in the Tables above where Scotland outperforms Southern on a headline basis.
- 44 SGN is uncomfortable being penalised for deprioritising repairs beyond 7 or 28 days in cases where there are more immediate risks to attend to. Applying this ODI would also incentivise a different risk prioritisation structure. Therefore, this would not be in the consumers best interests and could incentivise a delivery mechanism that poses a higher risk to the public.

- 45 We also note a clear point of double jeopardy where a network with high regional barriers to completing repair work in a timely manner will be penalised under the 7 and 28-day financial incentive and under the mean unplanned interruptions incentive (GDQ17).

2.1.4 Regional Energy Strategic Plan (RESP)

GDQ4. Do you agree with our proposal to enable the GDNs to submit RESP coordination and engagement activities through NZARD and NZASP?

- 46 SGN welcomes Ofgem's decision to include RESP-related activities within the scope of the NZARD and NZASP. However, SGN also proposes that local government and LAEP engagement be brought within the scope of the NZARD and NZASP.
- 47 When applying this to the governance document, it is important that this NZARD and NZASP should cover the full costs associated with supporting delivery (operational costs as well as capital costs).

2.2 Secure and resilient supplies

2.2.1 Repex

GDQ5. Do you have any feedback on our approach to assessing non-mandatory repex workloads?

- 48 We agree that non-mandatory repex workloads should be checked for engineering need and should be subject to cost benefit analysis. This is in line with our understanding of the Iron mains enforcement policy for Tier 2 and Tier 3 iron mains. However, we strongly disagree with moving the payback period down from 16 years to 11.
- 49 The Pipeline Safety Regulations 1996 (PSR) sets out the need to intervene on a pipe when there is evidence to show that it is no longer in good repair (regulation 13). For us, this means that we can see multiple instances along a length of pipe where it has failed and needs repair. From this evidence, we can determine that the pipe is not in good repair, which means we need to intervene.
- 50 We are concerned that legitimate safety issues will not meet the investment criteria. This is incompatible with our requirement to undertake condition monitoring and intervention where required in GD3, which will inevitably identify additional workload that will not pass this very tight 11-year payback period⁶.
- 51 This workload has been cut back in line with updated CBA guidance, with a reduction from 16 years to 11 years in GD3 to align with a 2037 cut-off date. This policy was first introduced in RIIO-GD1 where a 24-year assessment was first introduced, to provide a payback by 2037⁷. The concept of 2037 cut-off has never been appropriately assessed in terms of the costs and benefits for future consumers.
- 52 We note that since the introduction of the 2037 cut-off date the financial benefit associated with operational savings, reduced risk and environment improvements has almost double (an increase of 83%) in order to achieve an investable outcome through the CBA. During this same period, the number of customers connected to our network has increased by almost 200k.
- 53 When the concept of a 2037 'cut-off' was first introduced, the operational benefits were discounted back significantly, so the impact of removing 5 years was equivalent to a 13% increase in savings required. As we move forward to a 16-yr payback at the start of GD2⁸, the removal of 5 years was equivalent to a 23% increase in savings. Moving forward again to an 11-yr payback as proposed for the start of GD3, require a further increase in saving by 37%. This now places a significant material constraint on workload and will drive increasing operating costs and associated bill impacts.
- 54 At the time of the policy introduction in GD1, a proper impact assessment was not carried out to assess the impact of maintaining 2037 cut-off date over time and, as such, it is incorrect for Ofgem to maintain this cut-off date given the materially greater financial impacts, that no appropriate impact assessment has been undertaken

⁶ RIIO-3 Draft Determinations – Gas Distribution, July 2025, para 3.69, pg. 29

⁷ RIIO-1: Final Proposals – supporting document – Outputs, Incentives and Innovation, Dec 2012, para 6.15, pg. 34

⁸ RIIO-2: Draft Determinations – GD sector, July 2020, para 3.86, pg. 102

of the cost of maintaining this assumption, that the evidence does not support the notion of customers coming of the network or risk being reduced in any other manner.

- 55 A CBA cut-off date of 2037 is now at a point where there is a risk of a direct conflict between the funding that we receive and our obligations under PSR.
- 56 On this basis the limitation needs to be urgently re-evaluated and for it to be demonstrated why it is still in customers' interests to align payback to an apparently arbitrary date of 2037. We are of a firm belief that a substantial proportion of societal benefit will be missed by setting an arbitrary CBA cut-off date.
- 57 For further Engineering justification please refer to document SGN-GD3-DD-ENG-SD017.

2.2.2 Tier 1 Mains Decommissioned PCD

GDQ6. Do you have any comments on the proposed design of the Tier 1 Mains Decommissioned PCD, including the position to retain the 3% cap on the upwards Allowance Adjustment Mechanism?

- 58 We strongly disagree that this PCD should have a cap. Given the short period of time left to the end of the IMRRP with only a couple of years left in GD4, it is important that networks are given the opportunity to reduce the risk of the final years of delivery and the potential of having to pay retention payments to contractors to finish the programme. The most efficient way to complete this programme is to create the flexibility to de-risk the last 21 months of the programme where practical.
- 59 The draft determination cites that Ofgem see no evidence of networks looking to exceed their cap and only one network forecast to slightly exceed⁹. This should not be considered a relevant argument as to whether lifting the cap is positive or not. The financial penalty of exceeding the cap, with networks having to bear the significant cost of over-runs, and networks are incentivised to manage that to avoid any exposure. The Draft Determination appears to assume that this risk is mitigated because of the TIM¹⁰, so networks will only be exposed to their proportion of sharing, at rates of £260m a 50% sharing leaves network exposed to £1,300/km of over delivery. The potential for exceeding the cap is something that we have seen in our Scotland network during GD2, where in the last year we have had to curtail delivery of Tier 1 mains to remain within the confines of the PCD cap as a result of the financial exposure. The counter-factual to this situation would have been our Scotland network being further along completing the IMRRP, giving us flexibility within the later stages of this program with our delivery partners in solving complexity issues.
- 60 We know the challenges associated with having to attract contractors back into the market from our experience in our southern network. This challenge will be significantly higher as you approach the end of the repex programme.
- 61 The second position put forward in the draft determination is that the programme started in 2002 and there has been plenty of time for networks to plan their workloads¹¹. Again, this position is not valid as the workload is determined by Ofgem. In GD2, SGN presented a higher workload within its business plan, which was supported by customers, in order to realise the environmental benefits of reduced methane leakage and, additionally, because it de-risked the final years of IMRRP. In our GD2 business plan we noted;

"We have secured strong stakeholder support for accelerating the delivery of the repex programme, due to the reduced risk of contractor shortages and elevated prices towards the end of the programme, the clear environmental benefits and our stakeholders' focus on reduced leakage"¹².
- 62 This accelerated programme was rejected by Ofgem in the draft determination¹³, this demonstrates that networks have tried to plan for their workloads and address the risk in a timely manner, however these proposals have been rejected by Ofgem.
- 63 We also note in the draft determination references the comments of an ISG noting that "this may have been influenced by the choices taken by GDNs over time"¹⁴ and then in the reasoning for not extending the cap makes

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¹⁰ RIIO-GD3 Draft Determination – Gas Distribution, July 2025, para 3.76, pg. 30

¹¹ RIIO-GD3 Draft Determination – Gas Distribution, July 2025, para 3.76, pg. 31

¹² SGN RIIO-GD2 Business Plan, Dec 2019 Section 7.5.1, pg. 66

¹³ RIIO-2 Draft Determinations – SGN, July 2020, para 3.21, pg. 41

¹⁴ RIIO-GD3 Draft Determination – Gas Distribution, July 2025, para 3.75, pg. 30

the non-sequitur statement that “We agree with the ISGs comment that much of the complexity and cost of delivery the final years of the IMRRP stems from earlier planning decisions made by GDN”¹⁵. The SGN ISG has confirmed in their response that this was not their conclusion, and they were merely expressing it as an area for review.

- 64 Decisions around pipe selection during the programme period have substantially been influenced by the relevant safety and economic policies in place during each price control period, ensuring high risk pipes were removed first and through the development of larger, more efficient schemes.
- 65 We see substantial societal benefits of freeing up the programme and advancing workload, which would result in a reduction in failures, a corresponding reduction in subsequent mains repairs, and increased emissions reduction. With the cap in place, any potential benefit is highly constrained, and benefits would be left on the Table.
- 66 The scale of network's ability to move their programmes around, beyond GD3, is 21 months' worth of work i.e., the end of 2032. This level of potential movement is negligible, but constraints will still have a material impact. If the networks have the ability to efficiently deliver the programme within the price control, then we strongly believe that it is in the interests of customers to allow that to happen.
- 67 All the networks have realised the risk of contractors leaving the market towards the end of the programme, allowing networks to de-risk this by moving workload around would see a considerable reduction of this risk. Taking into account our experience during the recovery of Tier 1 in southern, we can see that bringing new entrants into the market would come at a considerable cost premium should our incumbent contractors choose to migrate away before the end of the programme. This burden can be mitigated through the removal of the cap and reduce the risk to future customers.
- 68 We do not believe that a cap is necessary, as there will be limited downside risks for customers. A similar approach would also be required for the Tier 1 services PCD as set out below.

2.2.3 Tier 1 Services PCD

GDQ7. Do you have any comments on the proposed design of the Tier 1 Services PCD, including the position to retain the 10% cap on the upwards Allowance Adjustment Mechanism?

- 69 Whilst we agree with the retention of a Mechanistic PCD to cover services relayed or transferred as part of our Tier 1 mains replacement activities, we strongly disagree with the position of retaining the cap.
- 70 The reasons for this are set out in our response to GDQ6 as the rationale for maintaining the cap in the draft determination are duplicated for both questions.
- 71 There is an additional concern for services that the proposed cap introduces a specific risk of unfunded workload for Tier 1 services, which we have little scope to manoeuvre within. If there is a miscalibration of services to length of Tier 1 mains the networks will be in a situation where they are approaching the upper cap and could be required to change their programme away from an optimally balanced one, which delivers the workload most efficiently in the time remaining, to a programme that has fewer services to remain within the cap, but less efficiently designed workload and ultimately at a higher replacement unit cost. This trade-off is not immediately apparent, but the cap could drive this behaviour that is not in the interest of customers.
- 72 We expand on this below;
 - We do not identify Tier 1 mains replacement projects based on the number of services connected to the mains that are to be decommissioned. Instead, we design them around a mains driver. This approach will not change in GD3 and, instead, be exacerbated by a move to a zonal approach. The number of services completed is a consequential output that should not drive behaviours without the risk of it resulting in unwanted consequences.
 - Due to the late stage of the programme, we have little scope to adjust our service volume contained within those projects selected. Attempting to land on a service number within a range may introduce perverse incentives. With the increase in complexity, notably where there is only one main in the street (with properties connected on either side), there is the possibility of needing to complete more service

¹⁵ RIIO-GD3 Draft Determination – Gas Distribution, July 2025, para 3.76, pg. 31

work for a given length of main to be decommissioned, i.e., a higher service density. To combat this, networks may be forced to consider a trade-off where projects and workload is split, moving away from zonal replacement and into areas with lower service density. This trade-off will ultimately push up mains replacement unit costs as projects are smaller and more desperate.

- 73 With the cap in place, this means that our service replacement workloads are at risk of being unfunded. This unnecessary inherent risk and the mitigations against that situation are not accounted for in plans.

2.2.4 Tier 1 Iron Stubs PCD

GDQ8. Do you agree with the proposed design of the Tier 1 Iron Stubs PCD?

- 74 Tier 1 Iron stubs are a remnant of the historic gas industry practices before the HSE enforcement programme modification in 2013. This practice included leaving short lengths of Tier 1, where they were connected to larger parent mains that were due for replacement in later periods. If the Tier 1 main were to have been removed in full, it would have significantly increased the disruption resulting from the Tier 1 mains replacement activities. Instead, the stubs would have been dealt with during later periods when the larger parent main would have been replaced. This consequential replacement of the tier 1 stub would have occurred at almost no cost and only resulted in one period of disruption to stakeholders. It must be noted that this practice was commonplace throughout mains replacement activities, including before the 30/30 programme's inception.
- 75 As such, most of our stub's activities are of a high cost, high disruption nature and it is right that, with high levels of expenditure, GDN's are held to account for the commitments made under their respective programmes. We fully support the establishment of a PCD in this area and welcome scrutiny into our highly focused activities.
- 76 However, we are concerned that some of the defined intervention types are no longer fit for purpose and request that, through the licence drafting that we review to ensure alignment to current practices, which vary across GDN's.
- 77 We discuss within GDQ44 our concerns with the materially differing approaches to delivering the Tier 1 Iron Stubs program and how these impact unit rate setting. This was also discussed within a recent Repex Working Group¹⁶. We explain we are confident that our program of delivery is efficient compared to the sector for our length of network, and therefore it is imperative that any unit rates allowed within a PCD are network specific to reflect the differing approaches carried out by each network.
- 78 Supporting information has been provided within SGN-GD3-ENG-SD026 (Stubs).

2.2.5 Emergency Response Time Licence Obligation (LO) and ODI-R

GDQ9. Do you agree with our proposal to update the Emergency Response Time LO to prevent the downward reclassification of gas escapes?

- 79 SGN agrees with Ofgem's proposal to update the Emergency Response Time LO to prevent the downward reclassification of gas escapes. SGN does not reclassify gas escapes, and we support all attempts made to ensure consistent reporting across GDNs.
- 80 In the draft determination there was reference to the discussion with SGN ISG¹⁷ regarding the opportunities for triaging calls to focus efforts on genuine gas emergencies. Under normal circumstances we will treat every call as an emergency and dispatch an engineer to site within standard to establish the on-site conditions. However, in extreme circumstances, where workloads are exceptionally high, we will consider the use of triage to assist with the prioritisation of calls whilst ensuring they all get an engineer visit.

GDQ10. Do you agree with our proposed design of the ERTLO ODI-R?

- 81 SGN agree with the ODI-R design in principle. We welcome transparency in reporting and are happy to provide additional information to maximise stakeholder confidence. We will engage with Ofgem over the coming months to agree upon an exact list of data required and available to ensure GDN alignment in reporting.

¹⁶ Repex Working Group – 06/08/2025

¹⁷ RIIO-GD3 Draft Determinations, Gas Distribution, July 25, Para 3.99, pg. 36.

- 82 Currently SGN captures data on job notes for any escape that misses standard, and we have a robust review process to identify the root cause. Every failed escape is investigated firstly by the shift team manager in real time who adds their own notes for the failure and then assigns a failure reason out of a pre-defined set of codes. A secondary investigation of every escape loss then takes place by a support officer in the team (senior manager), who reviews the notes of both the controller and the team manager and takes into account if any challenge or feedback has been received by the operational region in relation the failure (i.e., do they believe there was anything more that could be done). Considering all of these points, the support officer will decide if the original failure reason code is correct or if an amendment should be made and they update this on the job accordingly if required. This allows us to report on the loss reason codes, which we are open to sharing.
- 83 It is also important to note that we will have data limitations during extreme workload events. SGN's primary responsibility is on the safety of customers, and we will de-prioritise detailed data collection and note taking. A balance will have to be agreed upon with Ofgem between the detail of reported data and resource availability to support the safety of our customers.
- 84 Please see list of responses for each requested data item below:
- (i) **The total number of ERTLO failures (with a month-by-month breakdown):** We currently report data on total number of ERTLO failures by year and month in the annual RRP, split by controlled and uncontrolled.
 - (ii) **The mean, median and mode duration of ERTLO failures:** This is data we capture internally, we welcome cross GDN reporting on this metric.
 - (iii) **The maximum duration of a ERTLO failure:** This is data we capture internally, we welcome cross GDN reporting on this metric.
 - (iv) **The number of ERTLO failures within specified time bands:** This is data we capture internally, we welcome cross GDN reporting on this metric.
 - (v) **A monthly breakdown of the number of ERTLO failures by reason for failure:** It will be important to have consistency across networks for the reasons for a failure. We capture our own reasons through for our internal process which we can utilise, but reporting on this basis is likely to lead to inconsistencies between networks. We will require appropriate time if additional detail is required.
 - (vi) **An accessible commentary to provide context and insight on cases which exceed the ERTLO's target times:** SGN is happy to provide context and insight for this enhanced reporting, we welcome additional engagement to ensure that GDNs are aligned in their reporting.
- 85 The draft determination also proposes to require separate reporting of the above metrics for consumers in vulnerable situations¹⁸. Items relating to vulnerable customers will require more discussion.
- 86 We request that when any new reporting requirements are introduced, that they are introduced during the spring / early summer so that teams can be notified and trained appropriately. Introducing any process change is very challenging during the winter months and we avoid it as far as possible.
- 87 We also welcome Ofgem acknowledging the response from SGN ISG within the draft determination in relation to more work to be done in terms of gas supplier role in triaging emergency calls. This would allow GDNs to focus effort on genuine emergencies and support the outcome of the ODI-R recognising the risk set out in response to GDQ9.

2.3 High quality of service from regulated firms

2.3.1 Vulnerability and Carbon Monoxide Allowance

GDQ11. Do you agree with our proposed design of the VCMA UIOLI mechanism?

- 88 Over the past four years, the Vulnerability and Carbon Monoxide Allowance as a UIOLI allowance has proven to be a highly valuable longer term funding mechanism across the UK, delivering significant and impactful outcomes for customers, especially those in vulnerable situations while delivering value for customers and stakeholders.

¹⁸ RIIO GD3 Draft Determinations – Gas Distribution, para 3.107 pg. 38

- 89 This has enabled a broad portfolio of impactful projects that has provided tangible support for vulnerable customers, raised carbon monoxide safety awareness, and adapted dynamically to societal needs and doing so through strong partnerships with other utilities, local authorities, and the third sector.
- 90 Throughout the development of our GD3 plan we socialised our ambition for the next price control based on our shared learning and the bill impact with our stakeholders, and this was positively supported by SGNs Vulnerability Steering Group, our ISG as well as our Customer Panel.
- 91 Although our stakeholders had asked for us to advocate for allocating the VCMA funding to be greater in our Scotland region based on customer impact and need we understand that there is not a simple solution to this and that allocation of funding based on customers served.
- 92 We are supportive of the funding levels proposed in the Draft Determination, while noting stakeholder feedback suggesting that even higher funding might be warranted.

2.3.2 Customer Satisfaction ODI-F

GDQ12. Do you agree with our proposed design of the Customer Satisfaction ODI-F?

- 93 We agree with the principle of retaining a Customer Satisfaction (“CSAT”) ODI-F design in RIIO GD3, and we agree with Ofgem’s design regarding two of the three areas: Planned, and Unplanned. However, we do not agree with some of the detailed design points regarding Connections, or how some of the targets in the Draft Determination (“DD”) have been calculated. In particular:

the connections survey minimum thresholds are too strict;

- the ODI-F target does not take proper account of the possibility that the Domestic Load Connections Allowance (“DLCA”) may be removed; and
- there may be some calculation errors in the way the targets in the DD have been calculated, these have been highlighted in blue in the Table below.

- 94 We set out our concerns on these points in turn below.

(a) The connection survey minimum thresholds are too strict

- 95 We agree with Ofgem’s aim to introduce common minimum thresholds to ensure “statistical reliability of CSAT data and protect consumers from paying financial rewards to relatively low volumes of work”.¹⁹
- 96 We believe the criteria set for connections on the minimum of 1000 surveyable jobs with a 24% response rate is too high as the current average survey returns across all GDNs is 21%. This is due to the overall reduction in domestic quotes accepted which directly impacts the number of available surveys returned, and is a trend seen across the industry. We would like to retain the GD2 existing survey methodology and continue to survey 100% of connections customers, with a minimum return of 100 surveys, which is recognised by the Institute of Customer Service as a robust sample²⁰. The reason for our proposal is we have already experienced an average drop of 12% of domestic quotes accepted in Scotland and 9% in Southern since April 2024. Some of the percentage drops are relate to Net Zero and changes to Heat in Buildings Strategy Scotland²¹.
- 97 Ofgem has commented on the statistical reliability around connection surveys when volumes of work are relatively low; however, we think this requires more careful consideration. The Draft Determination suggests a fixed weighting approach is a way to “protect consumers from over-rewarding networks”²², however we would like further considerations for GDNs to agree on parameters to maintain a connection surveys metric.

¹⁹ RIIO-3 Draft Determinations – Gas Distribution, para 3.156

²⁰ The Institute of Customer Service require 100 responses or more but recommend 200 B2C responses as part of their annual business benchmarking processes.

²¹ <https://www.gov.scot/collections/new-build-heatstandard/#?text=Collection%20of%20documents%20relating%20to%20buildings%20warranted%20from%20April%202024>.

²² RIIO-3 Draft Determinations – Gas Distribution, para 3.157

(b) The ODI-F target needs to be recalibrated if the DLCA is removed

98 We disagree with the Draft Determination's CSAT targets as they were developed without considering the GDNs' evidence on the potential effects on CSAT scores if the DLCA is removed²³. We would like Ofgem to consider the following options in recalibrating the ODI-F target in light of the proposed decision around removing DLCA:

- Before any ex-post evidence on the effect of DLCA removal can be collected and analysed, we propose retaining the GD2 connections targets during year one of GD3. This would include maintaining the reward and max reward incentive (8.65-9.33²⁴), whilst removing the penalty criteria as the removal of DLCA can have uncertain effects, which can include reducing sample size and satisfaction scores. From our analysis of our GD2 data, we observe that cost is a key driver of dissatisfaction in both of our networks. The results of the recent pilot survey trialled across all GDNs demonstrated that the removal of DLCA could push GDNs' average CSAT score down to 6.06, which is below the proposed penalty score for GD3 in the Draft Determination.
- Following the first year of GD3, we propose including a reopener mechanism in the Final Determinations. This would allow GDNs to submit additional evidence on the impact of DLCA removal, which could inform a potential recalibration of this ODI-F.

(c) The targets in the Draft Determination may be wrongly calculated

99 We have reviewed the proposed provisional targets set out in Table 11 of the DD in relation to the GD2 and provisional GD3 targets. We have identified instances in the "Penalty score" and "Max. penalty score" columns where we believe the numbers have been transposed, based on the calculations set out in paragraph 3.151 and we would ask Ofgem to review this.

100 We have also identified that the "Max. reward score" for Connections Proposed RIIO-GD3 Target has reduced to 9.22 and we believe that based on the calculations set out at paragraphs 3.150 and 3.151 that this is incorrect. We have recalculated this figure and believe this should be 9.32.

101 Please see below Table 8 where we have replicated Table 11 from the DD and highlighted in blue the numbers that we believe are incorrect, from review the Max Penalty Score and Max Reward Score are in the wrong columns and should be switched.

Table 9: RIIO-3 Draft Determination, Table 11: RIIO-GD2 CSAT and provisional RIIO-GD3 CSAT targets

CSAT survey	Price control			Target score	Reward score	
Planned work	RIIO-GD2 Targets	7.9	8.35	8.51	8.69	9.13
Planned work	Proposed RIIO-GD3 Targets			8.92	9.09	9.17
Unplanned work	RIIO-GD2 Targets	8.85	9	9.37	9.43	9.58
Unplanned work	Proposed RIIO-GD3 Targets	9	9	9.55	9.65	9.71
Connections	RIIO-GD2 Targets	7.43	8.11	8.38	8.65	9.33
Connections	Proposed RIIO-GD3 Targets			9.03	9.18	

Source: RIIO-3 Draft Determination – Gas distribution.²⁵

²³ RIIO-3 Draft Determinations – Gas Distribution, paras 3.154-3.155

²⁴ RIIO-3 Draft determinations - Gas Distribution, pg48, Table 11

²⁵ RIIO GD3 Draft Determination – Gas Distribution, July 2025, p48 Table 11: RIIO-GD2 CSAT targets and provisional RIIO-GD3 CSAT targets

102 We would like to highlight that in our RIIO- GD3 business plan we have committed to delivering CSAT scores of at least 9 out of 10 and to have both networks in the top 3 ranking against all other GDNs. We recognise that in their business plans Cadent have advised of their ambition to be in upper quartile and NGN plan to achieve CSAT scores of above 9.20 out of 10. For SGN to achieve top 3 ranking, we would be outperforming these targets set by the other networks.

2.3.3 Disconnections Customer Satisfaction ODI-R

GDQ13. Do you agree with our proposed design of the Disconnections Customer Satisfaction ODI-R?

- 103 We agree with the proposed design to introduce two separate disconnection surveys as part of the ODI-R to measure customer satisfaction in GD3. As mentioned in 3.163, due to the uncertainty around volumes, potential changes in charging policy in this area and the absence of historical data, we would be unable to set accurate baseline targets at present.
- 104 Ofgem have suggested incorporating the disconnection surveys into CSAT ODI-F in GD3²⁶ should responses reach a statistically reliable level. We would request further discussions with Ofgem around this point to understand how this would be determined.
- 105 Following initial discussions with Ofgem²⁷, all GDNs have been conducting a six-month trial conducting surveys for both customer-led, paid disconnections and safety-driven, socialised disconnections since April 25 and ending September 25. We will share all our outputs with Ofgem at this time.
- 106 We agree with Ofgem it is beneficial to analyse the level of service to all customers, especially those in vulnerable situations²⁸. However, we would like to highlight this may not be possible for safety-driven, socialised disconnections PSR customers. As the MPRN and gas meter have been removed, the PSR data will not be visible, meaning we will be unable to access this dataset to ascertain whether they are customers in vulnerable situation or not. We will however be able to provide analysis for all customer-led, paid-for disconnection customers.

2.3.4 PSR Customer Satisfaction ODI-R

GDQ14. Do you agree with our proposed design of the PSR Customer Satisfaction ODI-R?

- 107 We agree with Ofgem's overall proposed design of the ODI-R for PSR Customer Satisfaction in the Draft Determination, but we have concerns regarding to its calibration. In particular, if the Domestic Load Connections Allowance ("DLCA") were to be removed, that would impact affordability, especially for customers on the PSR and/or on lower incomes. In turn, this will negatively affect the PSR CSAT score. If the DLCA were to be removed, then the ODI-R targets will need to be recalibrated accordingly.
- 108 Ofgem have decided to introduce a PSR Customer Satisfaction ODI-R with the PSR CSAT targets set at the same level as CSAT ODI-F to ensure consistent high level of customer service across as the general customer base. The targets will be updated once 24/25 EOY scores are reviewed by Ofgem.
- 109 The PSR CSAT performance will be reported via the annual vulnerability reports and will include an informed commentary to explain the differences in performance, comparing PSR and Non PSR performance.
- 110 We also request support from Ofgem in relation to providing GDNs with better visibility of customer contact data from PSR sign-ups. There is no obligation to suppliers to provide the phone contact alongside the registration address and need code. Retail Energy Code (REC) only stipulates that a Supplier must maintain a PSR and to share PSR data via a relevant mechanism. The challenge with information prevents GDNs from offering the bespoke and tailored service that PSR customers require and deserve. Having greater visibility of this data will ensure that everyone who is entitled to PSR support is identified quickly and provided the service they require.

²⁶ RIIO GD3 Draft Determination – Gas Distribution, July 2025, para 3.161, pg. 54

²⁷ RIIO GD3 Draft Determination – Gas Distribution, July 2025, para 3.165, pg. 53

²⁸ RIIO GD3 Draft Determination – Gas Distribution, July 2025, para 3.166, pg. 54

2.3.5 Complaints Metric ODI-F

GDQ15. Do you agree with our proposed design of the Complaints Metric ODI-F?

- 111 We accept Ofgem's proposal to tighten the Complaints Metric minimum performance level from 5 in GD2 to 3.5 in GD3 and for additional reporting requirements in Regulatory Reporting Packs ("RRP") to drive improvements in the management of our complaint handling across our networks.
- 112 As explained in our business plan, we are committed to providing high quality service to our customers and intend for both of our networks to be in the top three for fewest complaints per 10,000 customers in every year of GD3. We note that both our networks have improved their complaint handling performance across GD2. We are pleased Ofgem have committed to engage with GDNs around the definition and management of a complaint, as defined in the RIGs.
- 113 For the FD, it would be helpful if clarity could be provided on what GDNs should report in their RRP. In particular:
- regarding *"the volume of complaints received as a percentage of the total number of customers served"*²⁹ – is that this is the total number of customers across our networks we have provided a service to in that year recorded through our RRP, in relation to emergency, repair, connections and Planned Work Customers?; and
 - regarding the *"monthly breakdown of [GDNs'] Complaints Metric ODI-F performance"*³⁰ is this similar to Customer Satisfaction we will report up to two months behind due to the resolution of complaints up to 31 days

2.3.6 PSR Customer Complaints ODI-R

GDQ16. Do you agree with our proposed design of the PSR Customer Complaints ODI-R?

- 114 We agree with the proposed design of PSR customer complaints ODI-R, assuming this ODI-R target will have the same definition as in GD2 GSOP 3, i.e., customers registered on the PSR at least 30 days prior to the start of planned work (as recorded on Xoserve) at the time of the complaint being logged.
- 115 We will engage with Ofgem and the other GDN's in the format of the reporting when we prepare for the publication of our VCMA Governance Document.

2.3.7 Unplanned Interruptions ODI-F

GDQ17. Do you have any views on the proposed approach to setting unplanned interruption targets for both non-MOBs and MOB through the Unplanned Interruptions ODI-F?

- 116 We strongly disagree with the proposed approach to Unplanned Interruptions ODI-F in RIIO-GD3. We agree with the separation of MOB and Non-MOB targets, and the continuation to exclude major incidents from it. However, we fundamentally disagree with the approach to setting non-mob targets which will directly penalise networks for factors outside of their control.
- 117 We are very concerned that a financial penalty incentive, originally intended to avoid deterioration in performance,³¹ is now being leveraged to drive performance improvements. Additionally, multiple penalty structures - either implemented or proposed - target the same customer outcomes. These include: (i) Failure to Supply Gas (FSG) GSOPs has a compensation payment of £75/day (ii) 7 and 28 day repair standards has a financial penalty of up to 0.17% of RoRE (£4.8m/yr) and (iii) mean unplanned interruptions financial penalty of up to 0.17% of RoRE (£4.8m/yr).

Non MOB Mean Unplanned Interruptions

- 118 We do not agree with the proposed Minimum Performance Levels ("MPLs"), or the Excessive Deterioration Levels ("EDLs") set out in the Draft Determination ("DD"). Specifically, we are concerned with the proposal to set targets using the highest annual average duration recorded by the GDNs in the first three years of RIIO-GD2.

²⁹ RIIO GD3 Draft Determination – Gas Distribution, July 2025, para 3.172, pg. 56

³⁰ RIIO GD3 Draft Determination – Gas Distribution, July 2025, para 3.172, pg. 56

³¹ RIIO-3 Sector Specific Methodology Consultation – GD Annex, para 4.83, pg. 60

This takes no account of network specific characteristics or local conditions, and is, by definition, an outlier. It is not, therefore, an appropriate metric to adopt.

- 119 With respect to this, we note Ofgem’s comment on SGN’s business plan that “SGN proposed targets for its two networks based on the duration of a single incident that occurred on its Scotland network. We do not consider this to be an appropriate target setting methodology as it unreasonably skews the target”.³²
- 120 It is unreasonable for the draft determination to recognise that adjustments are made in the assessment of costs when operating on a regional basis for urbanity³³ and streetworks³⁴ and not to recognise the regional differences for the time it takes to complete the repair work that are the cause of these cost differences.
- 121 The application of a cost adjustment recognises specific time and associated costs of operating in the southern regions that differ from the notional company. These adjustments ensure adequate funding to work within environments that increase the time it takes to complete repairs but do not address or take adequate account of the underlying exogenous pressures which impact the duration within the regions in which we operate.
- 122 Examples of factors that impact the time for undertaking a repair and therefore have an impact on mean unplanned interruption duration include:
- **Type of repair to be undertaken:** As we progress through the IMRRP the repair workload is increasingly being focused on higher diameter mains, tier 2 and tier 3. As set out in our business plan³⁵ these typically take longer to repair and are placed in more challenging locations with additional constraints such as deep excavation permitting requirements and mobilisation of specialist services. As tier 1 mains repair workload reduces with the replacement of iron with polyethylene mains a greater proportion of the repair workload will be tier 2 and tier 3 with associated increased repair duration times and challenges. This will increase the time taken to undertake a repair and will disproportionately impact the south due to the increased incidence of complexity factors in the southern regions as set out in our response to GDQ39.
 - **Prioritising Emergency Response:** The safety and well-being of our customers is our highest priority. While we understand the importance of reconnecting gas services to homes and businesses as quickly as possible, this must never come at the expense of safety. We may prioritise urgent gas escapes requiring an emergency response over the work needed to reconnect a supply that was disconnected on the grounds of safety. This can result in increased interruption duration due to reprogramming disconnected services.
 - **Temporary Traffic Regulation Order (TTRO):** A legal requirement to close or restrict roads for utility works. Securing a TTRO involves application fees, advertising costs, and potential charges for amendments or urgent requests, all of which can build time into project delivery and will have a disproportionate impact on the southern regions.
 - **Lane Rental Schemes:** Lane rental schemes have expanded across the south-east and introduce a direct cost of working in the road space, particularly during peak travel times, to maintain the social benefit of smoother traffic flows. In doing so however, this increases the time it takes for us to undertake a repair and brings the financial cost of the mean unplanned interruptions incentive into direct conflict with the aims of the local authority.
 - **Permit Schemes:** Local authorities have increased permit requirements on completing work, restricting the hours of operation. Whilst there is an increase in direct cost associated with permitting there is also the time it takes to secure necessary permits and time constraints on working that will impact work time and mean unplanned interruptions.
 - **Scottish legislation:** Authorities in Scotland operate under different legislative requirements and are not directly comparable to regions operating in England which have consistent legislative expectations.
- 123 In their independent assessment of streetwork costs Deecon³⁶ note that the increasing streetworks requirements will have an impact on mean unplanned interruptions incentive. Figure 1 below shows the impact

³² RIIO-3 Draft Determinations – Gas distribution, Para 3.201.

³³ RIIO-3 Draft Determinations – Gas Distribution, para 5.96, pg. 115

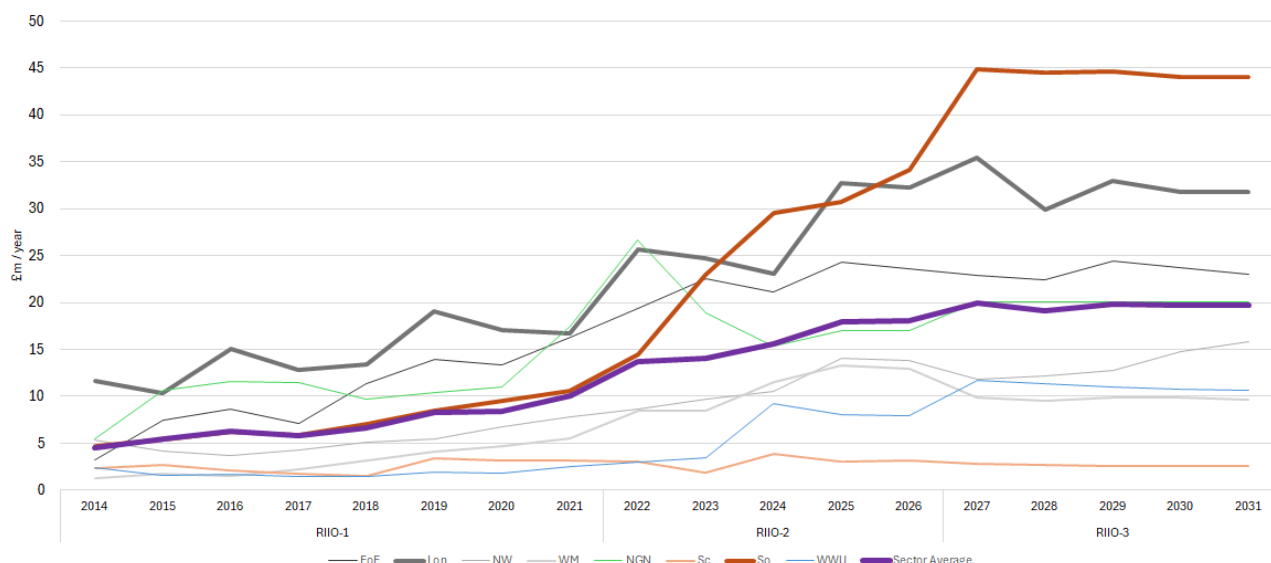
³⁴ RIIO-3 Draft Determinations – Gas Distribution, para 5.136, pg. 123

³⁵ SGN Business Plan, Dec 2024, Section 5.2.2, pg. 41

³⁶ SGN-GD3-DD-ECR-06 Deecon – Cost Validation Streetworks Report, July 25, pg. 31

of streetworks on difference regions and clearly shows that streetworks costs are significantly higher for both Southern and London regions.

Figure 1: Streetwork Costs by region.



Source: SGN analysis of submitted GD3 Business Plans

- 124 For the Final Determination, the time for undertaking a repair that is associated with these streetworks costs must be factored into the mean unplanned interruption duration for both MPLs and EDLs. It is unreasonable to expect that all regions in the UK can perform to the same standard. We also note differing reporting practices across GDNs, reducing the direct comparability across networks and the legitimacy of a single standard even if the regional factors were accounted for.
- 125 The SSMD.³⁷ requested the GDNs work alongside their ISG to propose reasonable common industry targets for non-MOBs minimum performance levels (MPLs) and excessive deterioration levels (EDLs) and that the Ofgem will consider proposed targets and consult on common targets at Draft Determination.
- 126 This was discussed with our ISG and was considered inappropriate given the above: that a common target would be either non-binding in Scotland, or unachievable in Southern. Our ISG, have challenged our targets whilst also acknowledging the risks that we have with tighter targets in GD3. We note that the only other network to operate in multiple regions, Cadent, made a similar proposal³⁸. Additionally, Ofgem also noted that the majority of respondents to the SSMC agreed that targets should be based on regional network specific data to account for regional differences³⁹ and chose to discard that feedback.
- 127 On this basis of the evidence set out above we fundamentally disagree that a common unplanned interruptions target across the UK is either desirable or in customers' interests. Incentives may be stretching but should be achievable for a network given its specific local circumstances. It is important that networks are not unfairly penalised as a nature of the geographic region in which they operate, and a single target will introduce. The proposed non-MOB MPL target of 13 hours and EDL of 19 hours will be unachievable in Southern which will be above the EDL target through factors that networks cannot control.
- 128 In addition to the error in introducing a national target which does not account for geographical characteristics that are outside of the networks control. We note that the purpose of the average restoration times during unplanned interruptions was to ensure that the GDN's performance does not deteriorate in this area⁴⁰, at no time has the use of a penalty incentive mechanism to drive improvements in performance been consulted upon. The application of a common standard at the proposed levels would clearly require an improvement in performance.

³⁷ RIIIO-3 Sector Specific Methodology Decision -GD Annex, para 4.169, pg. 80

³⁸ Cadent RIIIO GD3 business plan, Dec 2025, pg. 62

³⁹ RIIIO-3 Sector Specific Methodology Decision -GD Annex, para 4.166, pg. 79

⁴⁰ RIIIO-3 Sector Specific Methodology Consultation – GD Annex, para 4.83, pg. 60

- 129 The MPLs and EDLs need to be revised to a more reasonable and achievable level that takes account of the characteristics of individual networks. For SGN, this requires the targets to be set broadly at the level presented in Table 8h of our business plan submission, as these take proper account for our network characteristics and specific local circumstances.
- 130 We note that this as an area in which we were penalised⁴¹ and other networks who presented similar arguments were not. Presumably on the basis that Ofgem stated that a common target should be set at Southern's level but did not discuss the impact that this would have on the main objective of such an incentive or the adverse impact this on network behaviour. This would not be in customer's interests and would not have achieved Ofgem's stated objective *"to provide the GDNs with a strong financial incentive to focus on average restoration times for unplanned interruptions and to ensure that performance in this area does not deteriorate."*⁴². The targets that we proposed were based on the expectation that we would not deteriorate in either region and, therefore, delivers this objective. Given the above, it is important that the business plan incentive penalty is also removed.

MOBs Unplanned interruptions.

- 131 We also have concerns with the approach to setting MOBs unplanned interruptions. Given that the incentive is to ensure the network performance does not deteriorate, it is appropriate to establish the EDL on the basis of a well-managed outcome for a representative large multi-occupancy building as set out in our business plan. This recognises that these incidents happen, that they cannot be planned for, and it is highly uncertain as to whether the MOB that requires a repair will be easily resolved or require significant planning impacts.
- 132 Firstly, with the introduction of new legislative change around MOBs⁴³ and as described in our overall response document⁴⁴, the challenge associated with repairing MOBs in a timely manner increases and levels delivered in GD2 will become increasingly challenging to sustain in GD3.
- 133 Secondly, given the financial cost of failure to supply gas at £75 per customer per day, there is already a very strong incentive to progress a MOB interruption as rapidly as possible. For a 40-household occupancy MOB, the failure to supply gas charge is £3,000 a day. If it takes 3 months to obtain planning permission and complete the work then the cost in FSG payments alone will be £279,000, which equates to nearly £7000 per household.
- 134 There are very strong financial incentives in place. By applying further penalties through the mean unplanned interruption incentive, wrongly penalises networks and is inappropriate. The MPLs and EDLs need to be revised to a more reasonable and achievable level that takes account of the characteristics and specific local circumstances of individual networks. For SGN, this requires the targets to be set broadly at the level presented in Table 8h of our business plan submission, as these take proper account for our network characteristics and specific local circumstances.

2.3.8 Collaborative Streetworks ODI-F

GDQ18. Do you have any views on the proposed expansion of the Collaborative Streetworks ODI-F across GB?

- 135 Ofgem have proposed to expand to and incentivise all GDNs to collaborate with other utilities for the delivery of street works projects, reduce the frequency and duration of street works by coordinating projects between the GDNs, other utilities and local authorities and also promote knowledge sharing.
- 136 A key area of concern will be the engagement with local authorities and their role of being the central coordinator. This role is of utmost importance in the process which can be seen by the engagement and sponsorship of the process by the Greater London Authority (GLA) within GD2 for SGN and Cadent. The GLA have been strong advocates for the incentive across GD2 and have streamlined the process for GDNs. If we do not get this sort of engagement and commitment from the local authorities then the process will be challenging.

⁴¹ RIIO-3 Draft Determinations – SGN, para 3.26

⁴² RIIO-3 Sector Specific Methodology Consultation – GD Annex, para 4.83, pg. 60

⁴³ SGN-GD3-DD-ECR-03 - Decon - REPEX Cost Validation - MOBs & Risers

⁴⁴ SGN-GD3-DD-OD - SGN Draft Determination Overall Response Section 3.2

137 SGN agree with the expansion and the incentive reward for the Collaborative Streetworks ODI-F within RIIO-GD3.

GDQ19. Do you have any views on the proposed minimum threshold, the methodology used to set it, and the incentive reward rate for the Collaborative Streetworks ODI-F?

138 SGN do not agree with the setting of a minimum threshold which networks need to deliver and a reduction in incentive rates.

139 The incentive reward was £381k in GD2 (23/24) prices, the current proposal is for an incentive of approximately a fifth value £75k for a minimum project (which is most comparable to the work undertaken in GD2) and a third of the value £125k for a strategic project.

140 Currently our London Regional Network aim to complete 10 projects per year earning a maximum reward through this incentive mechanism of £1.5m (18/19 prices) an effective incentive value of £187.5k (23/24 prices).

141 Under the proposed incentive structure, the value for delivering an equivalent consumer benefit would be reduced to £375k for delivering 10 equivalent projects. This effectively removes the incentive properties from the scheme.

142 We recognise the uplift for strategic collaboration projects as these are more challenging to deliver, whilst in theory this could increase the value to £1m, it would also increase the time and effort to develop these schemes makes it very challenging to deliver 10 within a year.

143 We therefore propose that the minimum threshold should be removed to maintain the incentive properties of the scheme.

144 We anticipate that there will be opportunities to meet the minimum threshold across the Scotland Network. However, further analysis is required to fully assess the cost and resource implications associated with enabling and incentivising effective collaboration with key stakeholders, including local authorities, other utilities and the Scottish Road Works Commissioner.

145 The incentive values as they stand, do not provide an incentive to expand the scheme to new areas given the amount of work that needs to be undertaken to establish a scheme given the upfront costs of establishment. The Streetworks Output Delivery Incentive (ODI) has been operated in London since the outset of GD2, where only SGN and Cadent qualified for the associated incentives. This has subsequently been extended so other undertakers, such as Thames Water (currently regulated via Ofwat) and UK Power Networks (regulated via Ofgem) now benefit from similar regulatory incentives.

146 The broader effectiveness of this ODI may be constrained unless additional undertakers are similarly incentivised, either through their respective regulatory frameworks, local government mechanisms, or through SGN deploying a portion of its financial incentive to stimulate wider collaborative participation.

147 We foresee the need for a dedicated full-time equivalent resource to manage this process across the Scotland Network. This role would likely focus on planning, direct engagement with third party organisations, and regional coordination of works, working closely with local delivery teams to implement operational projects as and when appropriate opportunities are identified and agreed by relevant parties.

148 Currently our London Regional Network aim to complete 10 projects per year earning a maximum reward through this incentive mechanism of £1.5m. We would expect that similar incentives would be required in Scotland to deliver value to the business.

Chapter 3 Managing uncertainty

3.1 Infrastructure fit for a low-cost transition to net zero

3.1.1 Biomethane Connections UIOLI

GDQ20. Do you agree with the introduction of the proposed Biomethane Connections UIOLI, including with the proposed scope and funding caps?

- 149 SGN welcomes the introduction of a UIOLI allowance for biomethane connections, however the proposed design raises a number of issues that need to be addressed. We disagree with the proposal to make projects that are already in receipt of an GGSS to be ineligible for accessing funding under the proposed UIOLI structure. We also consider a more flexible approach is required to the proposed £1m cap per project to recognise demonstrable efficient spend associated with individual or linked projects. We would consider an economic test for entry connections to be appropriate using DESNZ Greenbook eCO₂ emission figures and CO₂ Evalues to demonstrate wider societal benefit from these asset investment decisions.
- 150 The 'Biomethane Connections UIOLI' proposal sets out a proposed allowance of up to £20m per GDN and a £1m per biomethane connection project cap, limited to biomethane connections which have not already benefited from any government subsidy scheme such as the Green Gas Support Scheme (GGSS).
- 151 The RIIO-3 Draft Determinations⁴⁵ specifies the proposed UIOLI allowance of £20m per GDN in section 4.11, however, the Summary of the Consultation Position states £15m per GDN. It is our view that at least £20m per network is considered the most appropriate funding amount based on the forecast biomethane connections' workload over the remainder of the GGSS subsidy scheme period and also the potential for increased biomethane connections following the replacement scheme for GGSS still to be announced by DESNZ from 1st April 2028 onwards.
- 152 Secondly, we note that the minded to position on this UIOLI funding mechanism is that it should exclude producers that are in receipt of the Green Gas Support Scheme (GGSS) or alternate government subsidy arrangements⁴⁶. This creates a number of practical considerations as to how this would work in practice that could increase the cost of administration. This is in part due to networks not being direct recipients of participation in government mechanisms, this will place a high dependency on the information provided by the producer and raise questions regarding responsibility for validating the producer's response (which we understand is often held confidential). It also introduces complexities such as the timing of response and cost recovery should a producer receive alternative financial support later in the process.
- 153 Aside from the practical elements which need to be resolved, in reality the number of biomethane sites currently connecting to the SGN network which do not participate specifically in the GGSS (or previously the Renewable Heat Incentive subsidy) is null based on bilateral discussions we hold with the biomethane producers. SGN currently does not have any sites connected or planning to connect which will not have a GGSS/RHI related subsidy application. To our knowledge there is currently only one connected biomethane site in GB which does not operate under such a government subsidy scheme.
- 154 The Ofgem rationale for restricting the UIOLI funding to biomethane sites not participating in the GGSS (or receiving any other government funding) is to avoid consumers paying twice to facilitate biomethane connections. The DD4F⁴⁷ sets out that the GGSS subsidy includes an element for GDN connections costs. It is our understanding that this component of the GGSS, represents a fixed financial value per biomethane connection based on an average connection cost calculated as £0.25m for the original DECC RHI tariff calculation⁴⁸ and did not include any network reinforcement costs.
- 155 These reinforcement costs are linked to the bespoke nature of each individual project and as such are not included in the associated GGSS rate. These additional non-minimum connection works should be allowed for under this UIOLI mechanism whether the connection has applied for GGSS registration or not.
- 156 The DD also proposes that individual project funding should be capped at £1m cap per biomethane connection⁴⁹. This will impose an unnecessarily restrictive cap on specific projects as additional non-minimum connection costs required to facilitate the connection and to ensure the necessary capacity is available at the point of connection will be bespoke to the specific biomethane project. Investment over the £1m cap may also be

⁴⁵ RIIO-3 Draft Determinations – Gas Distribution, July 2025, para 4.11, pg. 73

⁴⁶ RIIO-3 Draft Determinations – Gas Distribution, July 2025, para 4.5, pg. 72

⁴⁷ RIIO-3 Draft Determinations – Gas Distribution, July 2025, para 4.5, pg. 72

⁴⁸ [Bioenergy heat pathways to 2050: rapid evidence assessment - technical annex](#), pg. 79

⁴⁹ RIIO-3 Draft Determinations – Gas Distribution, July 2025, para 4.11, pg. 73

required to facilitate the most efficient solution for multiple projects connecting to the network at different time intervals and as such the most economical solution may require more than £1m investment.

- 157 The DD proposes that the £20m UIOLI allowance should be applied to all GDNs.⁵⁰ We would like to confirm that the intention is that the £20m should be per network area (i.e. Scotland, Southern, London, West Midlands etc). We then propose that, rather than a fixed £20m per network area, the UIOLI allowance should be flexible to each GDN's prevailing connections workload across the RIIO GD3 period. This will recognise where biomethane development is most likely to be deployed and will prevent the UIOLI becoming an artificial constraint in high resource areas (such as Scotland) and under-utilised in low-resource regions (such as London).
- 158 To ensure that all entry reinforcement costs for a UIOLI mechanism are economic and efficient, we propose that an economic test be implemented by the GDNs jointly through the 4B Statement Connections Charging Methodology for entry reinforcement projects to ensure that connections' costs deliver value to the consumer. This would instinctively negate the requirement for a £1m cap per project as the 'allowed' UIOLI costs would be restricted based on a CBA/economic test output. An economic test based on the eCO₂ savings and CO₂ savings value would also benefit biomethane connections over and above non-biomethane /fossil gas connections.
- 159 Overall, we welcome the inclusion of a UIOLI mechanism to fund and grow biomethane connections across RIIO GD3, however as we describe, we believe there needs to be structural change in the rules underpinning the release of these UIOLI funds to ensure biomethane connections are not unnecessarily disadvantaged whilst maintaining the necessary consumer protections.

3.1.2 Heat Policy Re-opener

GDQ21. Do you have any views on our proposed design of the Heat Policy Re-opener?

- 160 In principle, there is agreement with this position, as it is understood that the intention is to address uncertainties related to the Hydrogen for heat decision. It is also recognised that this represents an important point in determining the long-term strategy for the gas industry, where considerable funding will be needed to fulfil any future commitments regarding hydrogen adoption.
- 161 Within the overall proposal, Ofgem has included under the scope of the re-opener potential changes to "connection charging arrangements for distributed entry connections or domestic premises; and changes to requirements on the quality and composition of gas." These provisions are not exclusive to heat policy decisions, although they will be affected by them. Changes to Gas Safety (Management) Regulations (GS(M)R) are underway and may be implemented regardless of the outcome of hydrogen-for-heating decisions.
- 162 The specifics are important to how the proposed re-opener could be applied; the Heat policy decision affects all gas customers, including domestic, industrial, and commercial (I&C) users.
- 163 The re-opener does not reference I&C customers who are supplied from the same grid as domestic consumers and who may be more sensitive to gas compositional modifications. For instance, if the UK adopts the European Association for Streamlining of Energy Exchange (EASEE) specification to reduce processing and enrichment costs and increase environmental benefits (as per GS(M)R changes), domestic appliances are already compatible with EASEE specification gas. Conversely, Industrial & Commercial customers, depending on their type of load demand and usage, may experience greater impacts.
- 164 It is acknowledged that Cadent has referenced its own property portfolio because such changes—as with I&C customers—could also affect other property portfolios, particularly gas pre-heat processes required for gas flow continuity.
- 165 It is accepted that this is a procedural process (Uncertainty Mechanism) requiring a detailed needs case and correct timing to trigger the re-opener. However, the range of factors involved in this trigger process (not limited to the heat policy decision) may have broader impacts than those indicated in Ofgem's draft response.

3.2 Secure and resilient supplies

GDQ22. Do you agree with our proposed scope of the HSE Policy Re-opener?

⁵⁰ RIIO-3 Draft Determinations – Gas Distribution, July 2025, para 4.11, pg. 73

166 We agree with Ofgem's decision to retain an HSE Policy Re-opener. However, we consider the proposed scope of the HSE Policy Re-opener in the Draft Determination to be too narrow. Specifically:

- We agree with Ofgem's proposed inclusion of (i) changes to the HSE IMRRP Enforcement Policy, specifically in relation to Tier 2A Risk Action Thresholds and (ii) Multiple Occupancy Buildings (MOBs) in the HSE Policy Re-opener; and
- We agree with Ofgem's decision to exclude certain issues, e.g., mains in gardens and time allowed to repair all leaks within 12 hours, from the HSE Policy Re-opener as these issues may be more appropriately addressed elsewhere in the price control; but
- We disagree with the DD's exclusion of Complex Distribution Systems (CDSs) and Legacy Safety Disconnections from the HSE Policy Reopener.

167 We summarise our view in Table 10 below.

Table 10: Summary of SGN's view on the DD's proposed HSE Policy Reopener

Issue	Included or excluded in the DD's proposed HSE Policy Reopener?	SGN's view
Changes to HSE IMRRP Enforcement Policy, specifically in relation to Tier 2A Risk Action Thresholds	Included	Agrees with inclusion
Multiple Occupancy Buildings (MOBs)	Included	Agrees with inclusion, but with concerns with design
Complex Distribution Systems (CDSs)	Excluded	Disagrees with exclusion, this should be included
Legacy Safety Disconnections	Excluded	Disagrees with exclusion, this should be included
Mains in Gardens	Excluded	Agrees with exclusion
Time allowed to repair all leaks within 12 hours	Excluded	Agrees with exclusion

Source: SGN Analysis

168 We set out our more detailed analyses below on the following:

- Changes to the HSE IMRRP Enforcement Policy, specifically in relation to Tier 2A Risk Action Thresholds;
- MOBs;
- CDSs; and
- Legacy Safety Disconnections.

Changes to the HSE IMRRP Enforcement Policy, specifically in relation to Tier 2A Risk Action Thresholds

169 We, along with the other networks, have adapted our Risk Action Thresholds (RAT), in response to the challenges laid out, specifically; (i) the HSE's review into the iron mains programme (RR1216 2024) including the subsequent changes to the iron mains enforcement policy and (ii) Ofgem's request to provide workloads to be included within baseline allowances.

170 As such, we agree that the re-opener will no longer require modification on this specific point.

171 Additionally, please see our response to GDQ23 for our view on the proposed funding mechanism for Tier 2a.

Multiple Occupancy Buildings (MOBs)

172 We note and agree that future changes to MOBs regulations will be within scope of this re-opener.

173 However, we are concerned that the implications of the recent changes are not yet fully understood, and this is exacerbated by the number of parties involved in the new regulations.

174 We are particularly concerned that costs have not been fully understood across all networks and that allowances could be set incorrectly. We discuss this in both GDQ41, below, and in the Overall Response Document.

- 175 Given the uncertainty in costs and the uplift in workload that is required to be undertaken in, we propose an alternative approach to the HSE Reopener for MOBs
- 176 We propose a fixed workload for the first two years of GD3, funded through baseline totex allowance, and a reopener to determine final costs and volumes and to correct for significant variations in costs in the first two years.
- 177 This two year period will allow us to confirm both costs and workloads expected for the final 3 years to then be submitted under this reopener mechanism, and providing time to:
- (i) Fully establish the work necessary to undertake to comply with the revised standards;
 - (ii) align with the expectations of the building safety regulator and engage with the 'Accountable Person' appropriately;
 - (iii) incorporate any policy impact and changes being proposed by the RESP or local authorities for the transition to net zero;
 - (iv) give more time for innovative technologies and practices to come forward (this is an important area of innovation for SGN as set out in our response to SGNQ17); and
 - (v) improve data collection through and updated RRP that should capture more detailed cost information on factors that impact the cost of completing a project – such as scaffolding, riser height, riser length, lateral length, whether internal or external replacement, fire-proofing, ventilation costs, internal remediation costs, external mains lay, and listed status.
- 178 This proposed approach is in customer and networks interests given the uncertainty in costs and workload to which we are exposed.
- 179 There is precedent for this approach, such as the management of uncertainty around Tier 1 Stubs in GD2, and it balances the mitigation of the uncertainty along with ensuring consumers are protected in terms of both workload and cost.
- 180 This also supports our recent engagement with RESP and local authorities within our licence areas in terms of local area energy planning. Our priorities for stakeholder engagement are firmly focused on safety and keeping the gas flowing, as well as doing more to understand policy uncertainty and how we start to develop our plans for decarbonisation of the network.
- 181 As such, we are of the view that this reopener will need to be designed to address MOBs uncertainty more explicitly, and with a reopener window that allows uncertainties in the latter portion of the GD3 price control period to be accounted for. Clarity on the timing and trigger would be required to enable submission.

Complex Distribution Systems (CDSs)

- 182 We disagree with the DD's proposal that CDSs will not be included in either this HSE Policy Re-opener, nor in a bespoke re-opener (see our response to GDQ31).⁵¹ While we acknowledge that we need to provide further evidence around our CDS workload, we maintain that CDS will require a re-opener structure to allow us to present a proposal when volumes and costs are better understood. If CDS is outside of the scope of this re-opener, then a bespoke reopener mechanism will be required.
- 183 As we set out in our response to GDQ31 in more detail, the alternative approach of using NARMS to capture this workload is not possible, as CDS workloads are not included within the NARMS model and are highly atypical. As such, it will not be possible to build this kind of model due to the lack of information available and therefore driving statistical conclusions for consequences would be challenging.
- 184 Please see SGN-GD3-DD-ENG-SD004 for more information on our engineering response.

Legacy safety disconnections

- 185 The current process for safe disconnections from gas distribution networks safe has been in place for around 40 years. Previous activities, and previous cost allowances have been made on this basis. We note, however, that the HSE is reviewing this area, and this may require different processes to be used in future, with different cost implications.

⁵¹ RIIO-3 Draft Determination, GD Annex, paragraph 4.75.

186 Ofgem committed to a review of the disconnection process within the SSMD, followed by two Calls for Input asking for information and views – one in March 2025, and a subsequent Call which is currently still live (closing on 1st October 2025). As disconnections are very much in live discussion, we do not expect to implement changes to the gas disconnections framework before the start of RIIO-GD3.

187 We have identified this as an area of concern as there is so much uncertainty around policy decisions, therefore as part of our business plan submission in December we proposed the following as an HSE reopener:

“An HSE reopener for GSIUR legacy disconnections due to: Anticipated changes to HSE guidance for legacy GSIUR cut-offs will require GDNs to go back to disconnected sites and cut off at the main rather than the meter. We proposed a reopener given the potential volume of disconnections, as well as consideration of overheads required to manage this scale of workload for cost of individual project delivery.”⁵²

188 Within the DD Ofgem have proposed to introduce a volume driver to fund new disconnections that are safety-related under Regulation 14 of the Pipeline Safety Regulations. We agree with this approach as using a volume driver will enable the networks to manage the uncertain workload around the volume of disconnections, ensuring consumers only pay for safety-related disconnections work that is delivered. The volume driver mechanism has the advantage of being sufficiently flexible to adjust for cost changes if the outcome of the disconnections framework review leads to any change in the volume of new disconnections required.

189 However, at present, this mechanism will not provide funding for legacy disconnections currently being reviewed by the HSE, as stated in the GD Annex which states that:

“HSE has indicated that it is not satisfied with the standard of delivery of some legacy safety disconnections. GDNs suggested that the cost of remediating improperly undertaken disconnections, if mandated by HSE, should be included in this re-opener. We disagree. Customers have previously paid for the GDNs to carry out these disconnections through the price control. It is the GDNs' responsibility to perform these disconnections to the standard set by the HSE, and we do not consider that consumers should pay inefficient costs to remediate work that the GDNs have not delivered to an appropriate standard. We are therefore not proposing to include these costs within the scope of this reopener, or anywhere else.”⁵³

190 SGN strongly disagrees with this due to the following:

- The Health and Safety Executive (HSE) are currently working jointly with GDNs on the policy and process of disconnections, in which there is a pending decision in regard to interpretation of Gas Safety (Installation and Use) Regulations (GS(IU)R).
- This work started in 2021 when the HSE communicated their concerns surrounding this practice and requested that Networks provide details on their approach.
- GDNs are currently awaiting a decision from the HSE which could mandate that all Polyethylene services terminating externally are to be disconnected at the main, rather than the emergency control valve (ECV), in the event that a service isolation valve does not exist.
- This practice stemmed from the 1984 Gas Safety (installation and Use) Regulations which had been accepted practice by all parties concerned until reviewed by HSE in 2021 and has been accepted practice for nearly 40 years. A part of the rationale for this was that a new occupant may ask for the gas connection to be reinstated and this would minimise the cost. We accept that this is now less likely should heat pumps or alternative heating method be the preferred upgrade.
- In previous years, the cost of disconnections has been explicitly called out in RRP or cost reporting, and as such networks have been funded to the average price of disconnections, which has been assessed for efficiency through regression modelling of the costs embedded within the maintenance expenditure category. As all networks have been consistent in their approach of capping off the ECV where appropriate to do so, it cannot be the case that networks were funded to complete the more expensive practice of isolating at the mains (which costs approximately £1,000 more per job).

⁵² SGN RIIO GD3 Business Plan, Dec 2025, pg. 73

⁵³ RIIO-3 Draft Determination, GD Annex, paragraph 4.29.

- Historical funding does not, therefore reflected a future requirement to excavate in the public highway to affect a disconnection as near as practicable to the main which has a significantly higher unit cost which has never been funded in the past.
- This could materially impact the current process and required workloads, in terms of the specific activity required at each disconnection, while also potentially creating a backlog of works on historic disconnections which have been capped at the ECV. The disconnections regulations were last reviewed in 1998, therefore there is potentially a significant number of disconnections in this position.

191 In summary, SGN agrees with Ofgem that a volume driver is the appropriate funding mechanism. However, this must cover increased volumes that may be required as Net Zero policy emerges and consumers potentially accelerate a move to alternate fuels as well as safety related interventions on legacy disconnections.

3.2.1 Tier 2A Mains and Services Replacement Volume Driver

GDQ23. Do you agree with our proposed design of the Tier 2A Volume Driver?

192 We agree with a Volume Driver for Tier 2A and welcome discussions with Ofgem to finalise the approach.

193 Tier 2a pipes are dynamic in nature, with a risk score that changes over time in response to new information. This information comes in the form of re-surveys, where the current situation of the pipe is updated within the Mains Risk Prioritisation System (MRPS). Additionally, failure information is updated, where the model reflects the performance of the pipe over history, including consideration of the performance of other similar pipes in the surrounding area.

194 This change in risk score may require us to intervene to replace the pipe, notably when the risk score exceeds our Risk Action Threshold (RAT). In response to this variability, we believe that there remains a strong case for this workload to be encompassed within a volume driver as it has been in GD1, GD2 and outlined in the RII03 sector specific methodology decision.

3.2.2 Diversions and Loss of Development Claims Re-opener

GDQ24. Do you agree with the scope of our Diversions Re-opener?

195 The diversions re-opener has worked well within the GD2 period, enabling us to recover costs for diverting assets, mitigating environmental incidents and, where necessary, recouping costs for loss of development claims. These costs would not have been forecastable at the point that the business plan was submitted.

196 However, we are aware of one project in Brechin, Scotland, where we will have to divert a pipe that has been exposed following soil/cover removal after Storm Barbet. This pipe has been temporarily remediated to reduce the risk of supply loss in GD2, but it will require a full diversion, as there is no economic solution to leave it in its current position.

197 As this project is now known, we would request that the costs be added to baseline funding, a total of £2.55m. Further information can be found in 'SGN-GD3-DD-ENG-SD007'. Alternatively, we can progress this funding request through the GD3 re-opener window.

198 The diversions re-opener has worked well within the GD2 period, enabling us to recover costs for diverting assets, mitigating environmental incidents and, where necessary, recouping costs for loss of development claims. These costs would not have been forecastable at the point that the business plan was submitted.

199 However, we have been able to identify a further use for this re-opener, which is for mitigating the cost of diverting assets that have been discovered to have been overbuilt. The uncertainty in this area has been introduced by our new innovative proactive programme using modern geospatial technologies and information (GIS) that, due to information availability, was not available before.

200 The details of our proposal were included in the EJP with reference 'SGN-GD3-EJP-DST-003 – Overbuilds'. In response to this proposal in the draft determination, the volumes have been amended down such that only surveys remain following engineering assessment. We have provided a full response to the challenges posed by the engineering team and is included within the response to question SGNQ16 and the associated Appendix with reference 'SGN-GD3-DD-ENG-SD003'.

201 This new programme builds on the legacy programme of reactive intervention following the discovery of an overbuild, which usually, but not always, results in a diversion. Our new programme, and its predecessor, tackle

key safety concerns when a gas pipe has been overbuilt. Mains are not designed to be built over; the building creates the potential for load stresses to be applied to the pipe, which may result in failure and additionally increases the risk of gas entering the property and building up to explosive concentrations.

202 With the new programme, which has been pioneered by us over the last couple of years, comes the need to address uncertain volumes and costs which cannot be accurately forecasted. As such, within our GD3 business plan we requested some upfront funding and a bespoke re-opener which has been rejected. However, the current diversions re-opener should be expanded to cover this new programme and mitigate the uncertainties that exist in the forecast.

203 When we compare our new proactive programme to our existing approach, we are concerned that the type of work that would be identified would be built up of a different work mix and therefore a substantially different cost. Historically, overbuilds have been dominated by service volumes and smaller-scale mains diversions. However, our new approach identified far more mains than we have seen in the past, the costs of which are not comparable. A simple unit cost approach does not seem appropriate when the scale of variance in the diversion is significant, and we do not have evidence to support a viable forecast currently. Given time for this new programme to start, we believe that we would have evidence to support a more robust forecast going forward and requested seed funding on that basis.

204 It is important that overbuilds are explicitly referenced as being eligible for this reopener.

205 For further Engineering justification, please refer to document #SGN-GD3-DD-ENG-SD003.

3.3 High quality of service from regulated firms

3.3.1 Safety Disconnections Volume Driver

GDQ25. Do you agree with our proposed design and unit rates for the Safety Disconnections Volume Driver?

Design of the Safety Disconnection Volume Driver

206 In principle, we agree with this approach subject to our position on legacy disconnections, as set out in GDQ22 being accepted by Ofgem. If this is not the case then, for the reasons set out in GDQ22, this legacy activity must also be funded through the Safety Disconnections Volume Driver. We are content with either one or the other but legacy safety disconnections must be funded.

Unit rates of the Safety Disconnection Volume Driver

207 Using unit rates are required for the volume driver, however, until the RFI is completed and unit rates are published by Ofgem we are unable to comment on them.

208 If volumes of disconnections increase to the level anticipated within the NESO FES scenarios, it is important that there is an opportunity to recalibrate the unit costs of the volume driver to take account of any economies of scale that may or may not arise. We would propose a simple trigger for recalibration according to the number of disconnections that take place.

Reporting through the RRP

209 We agree that more detailed reporting of costs and delivery is important and will continue to work with Ofgem to deliver this appropriately.

3.3.2 New Large Load Connections Re-opener

GDQ26. Do you agree with the proposed design of the New Large Load Connections Re-opener, including our proposal to include general reinforcement projects in its scope?

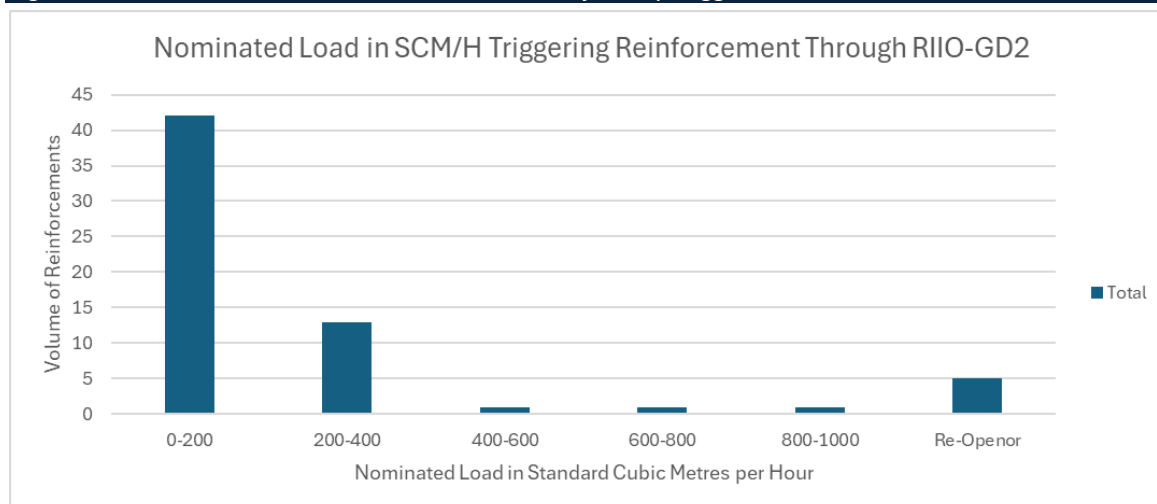
210 We believe that under the cited conditions, the proposed Large Loads Re-Opener does not fully encompass the requirements for General Reinforcement. We have divided our response into a 1) general reinforcement associated with new connections, and 2) general reinforcement that is not related to new connections.

Table 11: Breakdown of forecast costs inclusive of overheads from Table 8 of Section 10.2 in the General Reinforcement EJP

SGN						
RIIO-GD3	Year1	Year2	Year 3	Year 4	Year 5	Total
Gen Rein Total (vol)	10.30	9.59	8.95	8.37	7.85	45.06
General - Connections (m)	7.14	6.42	5.78	5.20	4.68	29.23
General - Non-Connections (m)	3.17	3.17	3.17	3.17	3.17	15.83
Reinforcement Governors	5	7	8	7	5	32
Gen Rein Total (£) inc OH	£6.17	£5.88	£5.54	£5.21	£4.93	£27.73
General - Connections (£)	£3.79	£3.30	£2.89	£2.65	£2.52	£15.16
General - Non-Connections (£)	£1.65	£1.59	£1.55	£1.58	£1.67	£8.03
Reinforcement Governors (£)	£0.73	£0.99	£1.10	£0.99	£0.74	£4.55

General reinforcement: New connections

- 211 General reinforcement is predominantly a new connection driven programme, and the proposed re-opener mechanism would facilitate this element of the programme. However, to achieve its stated objectives the threshold for the Maximum Offtake Capacity (MOC) will need to be reduced to '0' scm/h.
- 212 SGN must ensure security of supply (SOS) as a core requirement of running a safe and reliable network, the overall network capacity inherent to the 'trunk' mains that carry gas throughout the network, cannot be attributed to network extremities where pipe diameters are smaller and capacity is low. As a result, any new connection has the potential to trigger reinforcement depending on the requested location for connection and there is not a direct relationship between the MOC and the required reinforcement.
- 213 Most of the new connection driven reinforcement is for comparatively small loads connecting to sections of the network where the existing capacity is insufficient to facilitate that demand without reinforcement. This is shown in Figure 2, below, which shows the number of reinforcement project by size. This shows that 92% of the new-connections reinforcement is below the 1500 scm/h threshold.

Figure 2: Distribution of RIIO-GD2 Reinforcement Projects by Trigger Load Size

Source: SGN Data

- 214 In RIIO-GD2 the total expenditure associated with the general reinforcements that meet the 1500scm/h threshold fell short of the materiality threshold for submitting a re-opener claim in both Scotland and Southern. In our business plan submission, we anticipated £15.16m would be required for funding general reinforcement due to new connections.

General reinforcement: Non-connections

- 215 In addition to the new connections driven workload General Reinforcement also encompasses projects that are related to network performance. These would include projects whose drivers are network change, localised capacity issues associated with network reconfiguration or unforeseen network issues.
- 216 Non-Connections driven reinforcements can vary in scale and may be relatively simple – for example, replacing governor components to allow a system to operate at a higher pressure (uprating projects) – many require more complex system reconfigurations. These complex projects can often require the introduction of a new energising source for a system and underpins SGN's requirement for new governors.
- 217 We do not consider this non-connections driven workload and the associated new governor requirements would fit the proposed re-opener model. The main-laying general reinforcement workload associated with non-connections drivers equates to approximately one third of all SGN's general reinforcement volume.
- 218 This type of investment in the SGN Network, to provide engineering solutions that resolve identified issues whilst offering system benefits that impact other programmes outside of the General Reinforcement programme, are considered best practice by SGN however they would not meet the criteria of the existing New Connection large Loads Re-opener.
- 219 SGN would require that non-connections driven falls within the Ex-Ante mechanism.
- 220 In our business plan submission, we anticipated £8.03m would be required for funding general reinforcement due to non-connections driver.
- 221 For further Engineering justification please refer to document SGN-GD3-DD-ENG-SD005

General Reinforcement: Governors

- 222 Throughout RIIO-GD1 and RIIO-GD2 SGN have introduced capacity to the SGN network through the installation of new governors. Historical volumes suggest that over the course of RIIO-GD3 it can be expected that SGN would install 25 new governors in Southern and 17 new governors in Scotland, however this volume has been rationalised to reduce the volume of new governors required for new connections driven reinforcement. As such the revised forecast volumes that underpin the EJP are 20 for Southern and 12 for Scotland (32 total).
- 223 An example of a general reinforcement governor is SGN's RIIO-GD2 project in Wareham Common. SGN identified a requirement to repair a 12" Medium Pressure (MP) main that was located on the side of a national railway bridge. The repair was not possible, and the project would have required the main to be diverted. However, the immediate vicinity (Wareham Common) was prone to flooding and did not offer a suitable route for a new main to be constructed. An alternative option (that was approved and delivered) was to utilise the available capacity of a neighbouring Intermediate Pressure (IP) system and install a new IP to MP regulator, introducing a new source that allowed the problem main to be decommissioned whilst maintaining security of supply. This option was deemed optimal from an engineering perspective and provided efficiencies out with the scope of the immediate project, namely nominal open-cut main-laying, and the option to operate the newly configured system at a reduced pressure facilitating a downstream bio-methane plants injection rates during off-peak periods.
- 224 The majority on new governor installation through RIIO-GD1 and RIIO-GD2 were mostly driven by network change or network reconfiguration and not by new-connections. For RIIO-GD3 network drivers are again expected to underpin this required workload.
- 225 In our business plan submission, we anticipated £4.55m would be required for funding general reinforcement governors.
- 226 For further Engineering justification please refer to document #SGN-GD3-DD-ENG-SD005
- 227 **Conclusion:**
Through exercising a 'just in time' approach SGN ensure that only the minimum required general reinforcement workload is delivered. Although it is not possible to say where and when general reinforcement will be required, SGN's forecast general reinforcement volumes for RIIO-GD3 are based on historical trends including a robust profile of pipe sizes, and as such are not expected to deviate significantly from those outlined in section 10.2 of the EJP.
- 228 However, there remains an uncertainty over whether a large general reinforcement, one that would fall out with the trends that underpin the forecast, could be required. As such SGN maintain that a Volume Driver is the correct funding mechanism for the General Reinforcement programme.

229 SGN believes that New Large Load Connections Re-opener would not be an appropriate funding mechanism for SGN's full General Reinforcement programme, however with an agreement over the qualifying criteria, it could be suitable for General Reinforcement driven by new connections.

230 In the scenario, where a New Large Loads Re-opener is put in place, SGN would request that non-connections driven General Reinforcement would need to be funded through an Ex-Ante funding mechanism. This workload would equate to approximately one third of SGN's requested General Reinforcement main-laying volume, and SGN's full new governor volume.

3.3.3 Specified Streetworks Costs Re-opener

GDQ27. Do you agree with our proposal to retain the RII0-GD2 scope of the Specified Streetworks Costs Re-opener?

231 We welcome the retention of the Specified Streetworks re-opener. However, we do not agree with maintaining the existing scope, due to the following areas of uncertainty;

Materiality of Costs

232 GDNs expect to incur a significant increase in Streetworks costs in GD3 compared to GD2, as a result of legislative changes, additional schemes, or behavioural changes by Highways Authorities. As such, the scope of the Specified Streetworks re-opener should explicitly accommodate all areas in order to provide GDNs with a level of confidence that costs which are demonstrably outside of their control will be recovered.

Increase in Scheme Application

233 The Lane Rental Guidance states that "authorities must already have in place a permit scheme and will need to provide evidence, including data about its network, to demonstrate that the permit scheme has been operating effectively"^{8F.54}. This guidance specified that, provided a highway authority has been running a permit scheme for a minimum of 6 months, they may then apply to implement lane rental charges. However, whether lane rental charges are subsequently applied, and the implementation timing, are unknown until the authority confirms.

234 All 36 highway authorities within SGN's network footprint have completed the required permitting period and, therefore in theory, could begin implementing lane rental. While it is a reasonable assumption that many, if not all, authorities may ultimately implement lane rental, SGN does not have the visibility or certainty to be able to accurately forecast high confidence costs in relation to upcoming schemes, and as such while the implementation of such schemes is likely, it is also currently unfunded in GD3, and therefore the flexibility is required to claim for such costs as they arise.

Hazardous Waste

235 Following withdrawal of RPS211 by the Environment Agency in 2024^{9F.55}, and confirmation of the new protocols by Street Works UK in 2025^{10F.56}, GDNs will incur a significant increase in costs due to the requirement to test excavated materials – an activity which from which utilities were previously exempt.

236 At the Cost Assessment Working Group 21 (CAWG21), all GDNs confirmed that no costs had been included in baseline business plan submission, due to the unexpected withdrawal of RPS211 and the timing in new protocols being confirmed by Street Works UK. This led to the exclusion of Hazardous Waste costs within the GD2 re-opener, and also in the GD3 business plan.

Behavioural Changes by Highway Authorities

237 As discussed in SGN's GD2 Specified Streetworks re-opener, a demonstrable behavioural change on the part of highway authorities has been observed in their increasing requests for manually operated traffic lights as a permit condition. Table 10 below demonstrates this trend.

⁵⁴ [Lane rental schemes: guidance for English highway authorities - GOV.UK](#)

⁵⁵ [\[Withdrawn\] Excavated waste from utilities installation and repair: RPS 211 - GOV.UK](#)

⁵⁶ [Street Works UK: Material Classification Protocol - Streetworks](#)

Table 12: Proportion of Permits requiring Manual Traffic Light Attendance

Proportion of Permits requiring Manual Traffic Light Attendance					
Permit Details	Metric	21/22	22/23	23/24	Total
All Applications	Total number	32,359	31,222	31,685	95,266
Applications requiring manual attendance	Total number	1,757	2,091	2,153	6,001
	%	5.40%	6.70%	6.80%	6.30%

238 SGN is taking significant effort to minimise this trend, by building relationships with crucial stakeholders in a view to mitigate the incremental costs. This has delivered tangible benefits; for example, in our East region, a c.65% reduction in requests was delivered across four months of GD2 year 3 (23/24). However, despite our efforts, requests for manual traffic management are ultimately trending upwards.

239 While this is not necessarily a policy or legislative change, it is an observable change in approach which is demonstrably outside of the GDNs' control. As such, we are of the view that incremental costs should be within the scope of the streetworks re-opener.

240 To better understand the drivers behind these behavioural changes by authorities, SGN commissioned Decon⁵⁷ to review legislative changes within the Streetworks space. Decon conclude that both our Scotland and Southern networks are incurring greater regulatory scrutiny, tighter operational constraints and increased cost exposure.

Period within Scope

241 As observed in the example of hazardous waste, and as also experienced by SGN in relation to the timing of new scheme implementation, there is a timing challenge in relation to sufficient information being confirmed to develop high confidence costs, and that information and costs being available at the right point for inclusion in business plans, re-openers, or both.

242 As such, SGN is of the view that the GD3 re-opener should have an applicable period pre-dated to September 2024 as a minimum, to account for the point at which GD3 business plans were defined and working through internal approvals and therefore could not be amended to accommodate any subsequent changes.

3.4 GD specific pass-through costs

GDQ28. Do you agree with our proposal to reject Cadent's proposed pass-through to facilitate biomethane connections?

243 We disagree. We concur with agree with Cadent, that in principle that we should be supporting the roll-out of biomethane as rapidly and cost-effectively as possible. We do not believe the Biomethane Connections UIOLI will deliver this in its proposed form.

244 We fully support any measures that support the roll-out of biomethane as rapidly and cost-effectively as possible and that networks should have the funding and the mechanisms in place to support this roll out as cost effectively as possible.

245 As we set out in our response to GDQ20 we do not believe the Biomethane Connections UIOLI will deliver this in its proposed form, and any mechanism should be applied consistently across all networks. Secondly, given that deployment potential is closely determined by local availability of feedstock, funding available should be scaled according to regional need in order to maximise deployment and to mitigate the risk of regional constraints being applied.

GDQ29. Do you agree with our proposal to reject SGN's proposed pass-through for Joint Office of Gas Transporters services?

246 We do not support the rejection of pass-through relating to the Joint Office of Gas Transporters.

247 Ofgem's Code Reform programme, specifically the implementation of Code Managers, will necessitate a change in operations and resourcing for the Joint Office -for which preparatory work has already begun on a glide path.

⁵⁷ SGN-GD3-DD-ECR-06 - Decon - Cost Validation Streetworks Report (2025) – Section 2

As such, Joint Office's workplan is becoming increasingly driven by the Regulatory model and is becoming less within the control of the GTs, meaning a fixed allowance becomes less appropriate. We note that pass-through as a principle was recently favoured for NESO, in acknowledgement of the flexibility it provides in relation to enabling dynamic and evolving activities, in addition to more quickly being able to respond to wider energy sector developments. Similarly, a pass-through model is most appropriate to support the Joint Office's organisational future.

GDQ30. Do you agree with our proposal to reject WWU's proposed pass-through for plant protection services?

248 We disagree with the proposal to reject WWU's proposed pass-through for plant protection services. WWU were correct to identify the annual fees of a legislative requirement should be provided as a pass-through cost. Networks currently participate in Line Search Before you Dig, (LSBUD - <https://lsbud.co.uk/>). It is therefore unreasonable to assume that the National Underground Asset Register (NUAR) will provide a significant reduction in accidental strikes.

3.5 UMs we propose to reject

3.5.1 CDS's

GDQ31. Do you agree with our proposal to not introduce a CDS Re-opener and instead fund any resubmitted workloads through NARM, if approved?

249 We strongly disagree with the draft determination position that CDS should not get a bespoke re-opener and should instead be funded through NARM. This highly variable asset type is not necessarily suited to being modelled through NARM as the number of variables will make linking failures to consequences difficult. Additionally, the number of assets to be modelled is also fairly low, making statistical conclusions less reliable.

250 As the model is not ready for this workload type and is unsuited, we still see CDS being most appropriately funded through a re-opener mechanism. Our business plan originally requested some upfront (seed) funding and a re-opener at a mid-point during the price control to allow us to collect survey information and intervention cost data to allow us to submit on a reasonable basis. We still see this approach as being appropriate.

251 We believe that there is a sufficient level of justification, under the pipeline safety regulations, to justify the workload, but we have yet to define a programme as the surveys of this asset base are still being undertaken. Additionally, the cost of this workload may suit a technical assessment, rather than a unit cost assessment, and therefore lends itself to a re-opener submission.

252 Our findings to date indicate the volume of actual complex distribution systems will be much lower than initially expected and instead, there will be high volumes of interventions required on large complex services. However, where an intervention is required, there remains a great deal of uncertainty on the cost of any intervention, as it is not work that has been undertaken previously and is anticipated to be highly variable.

253 For further Engineering justification please refer to document SGN-GD3-DD-ENG-SD004

Chapter 4 Cost of Service

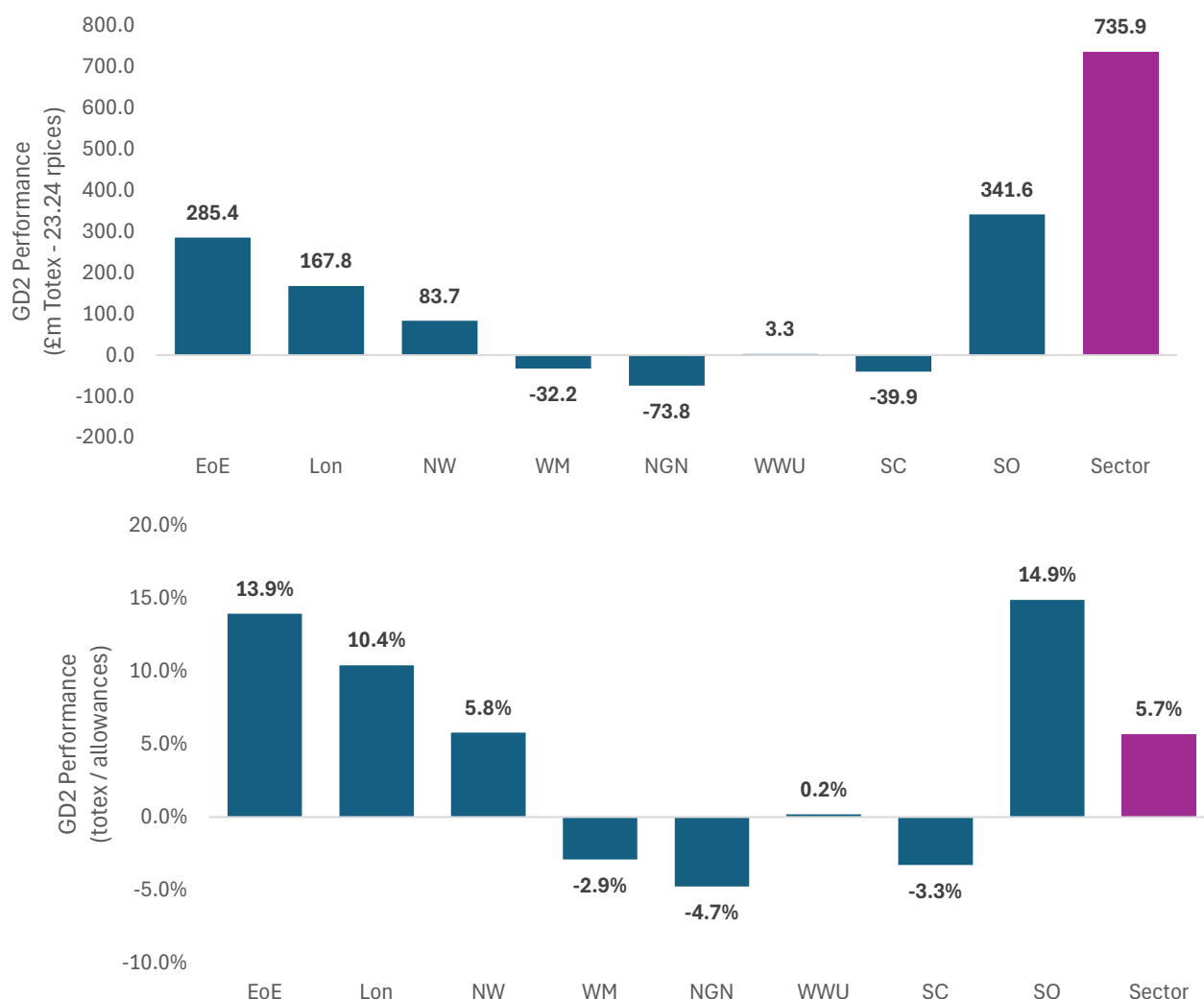
GDQ32. Do you agree with our proposed use of a 'top-down' regression model?

254 The use of a single 'top-down' regression approach is inappropriate to fully account for the increasing regional and complexity challenges that were evident during the GD2 period and are further developing within the GD3 period. As such, we disagree with Ofgem's approach of a single 'top-down' regression model and consideration should be had for multiple approaches to determining efficiency that better reflect the differing challenges each network faces within the region in which they operate.

- 255 Within this question we put forward SGNs overall position on the forecasting performance with the models that are proposed for GD3 totex allowance determination, highlighting the regional challenges of GD2 totex performance along with SGNs overall Action recommendations to enable econometric models to better reflect operational reality.
- 256 We recognise that econometric models serve as a foundational tool for benchmarking efficiency across Gas Distribution Networks (GDNs). Our aim, in alignment with Ofgem, is to ensure a fair and appropriate allowance settlement that enables us to deliver our required safety and resilience workloads. However, we recognise the concerns set out in the Independent Water Commission's findings that Ofwat has recognised that whilst it is necessary to have an objective benchmarking approach over reliance has led to sub-optimal outcomes⁵⁸. Relying solely on a 'top-down' regression model, as currently applied, presents limitations that will lead to an inaccurate assessment of efficient costs in GD3 and is an example of the over-reliance raised as concern in the Commission's findings.
- 257 The single model utilised to determine allowances within GD3 is fundamentally the same as the single model used for the GD2 allowance set. The rationale raised for utilising a single 'top-down' regression model is due to the view that the model is grounded in economic and engineering rationale, demonstrating a strong explanatory power and statistical robustness⁵⁹. While the model does demonstrate a high statistical performance, we note a clear lack of recognition to the reality of the market in which we operate.
- 258 It is clear through the operational performance of networks across GD2 that this model has not adequately captured the cost challenges of operating within the GB macro-environment. We present below the latest performance against allowances across networks for GD2:

⁵⁸ Independent Water Commission Final Report, July 2019, para 417, pg. 193

⁵⁹ RIIIO-3 Draft Determinations – Gas Distribution, para5.33

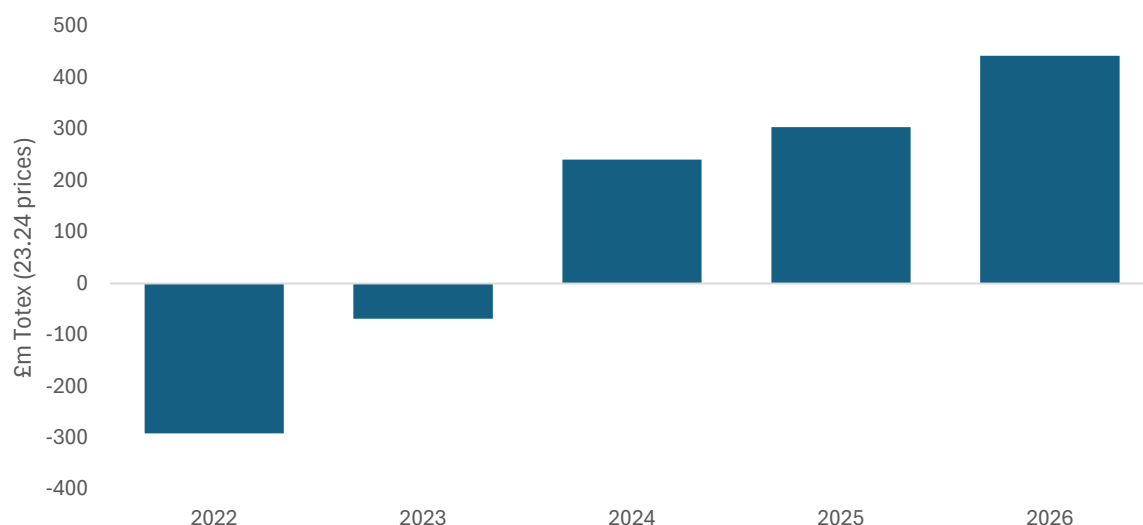
Figure 3 - Latest GD2 Totex Performance (24/25 RRP submission)

Source: SGN analysis of 24/25 GD2 RRP submission and July 25 re-opener determinations

259 The sector is projected to under-perform against allowances by £736m / 5.7% across the GD2 period. Further there is clear evidence of a lack of appropriate regional consideration within the GD2 allowance set, with those networks southern based incurring the greatest cost challenges compared to allowances (EoE, Lon and SO – equating to a £795m overspend) compared to those networks northern based seemingly outperforming (NGN and SC – equating to a £114m underspend). The range of performance across networks is from 14.9% overspend to an underspend of 4.7% - reflecting a nearly 200 basis point range of totex performance which is a significant range.

260 We demonstrated this clear imbalance within the GD2 modelling approach within our business plan.⁶⁰ and note such challenges between regions have increased with the latest cost information. Below we present the total over / underspend across all networks and how cost overspends for the sector have developed across the years.

⁶⁰ SGN-GD3-SD-08 Cost assessment and Benchmarking Approach – pg., para 92-96

Figure 4 - Latest GD2 Totex over/underspend (24/25 RRP submission)

Source: SGN analysis of 24/25 GD2 RRP submission and July 25 re-opener determinations

261 All networks started the GD2 price control slowly, underspending allowances due to timing of major capital projects due partly to Covid-19 disruptions, which was mostly caught up by year two. What is clear within the phasing of spend performance against allowances are the increasing cost pressures compared to set allowances, and for the 2026 year all networks are forecasting to overspend their allowances (range from 1% - 37%) highlighting increasing macro-environment cost pressures that were not captured in the allowance setting process.

262 Performance outturn for GD2 across networks is indicating increasing cost pressures that are not captured within the econometric models that were used to set allowances. All networks have clearly indicated increasing cost pressures within their GD3 business plans due to a challenging macro-environment around competition of labour with other sectors and an aging workforce, as well as the increasing complexity of T1 Iron workload due to the completion of the IMRRP. These cost challenges are real for all networks and demonstrate clear regional aspects that are not appropriately considered within the existing econometric cost modelling suite.

As such, the use of a single 'top-down' regression approach is inappropriate to fully account for the increasing regional and complexity challenges that are developing within the GD3 period. We present below in our responses to the Cost of Service chapter the changes required to the GD3 cost modelling suite that are reflective of Action 2 and Action 3 implementations discussed in our Overall Response⁶¹.

SGN Robust Business Planning – GD2 Repex example

Within GD2 we put forward a robust business plan for both networks we operate, with the cost forecasts deemed to be efficient for Scotland yet was challenged as inefficient for Southern, resulting in a large allowance reduction particularly amongst our Repex costs. We demonstrate below how our long term repex cost forecasts have evolved in both regions (orange line), the cost forecasts we put forward for GD2 (blue line) and the GD2 allowances awarded (dashed line) and the linear tend (dotted line).

Figure 5: SGN Scotland Long Term Cost Trend vs GD2 Plan and GD2 Allowances

⁶¹ SGN-GD3-DD-OD - SGN Draft Determination Overall Response

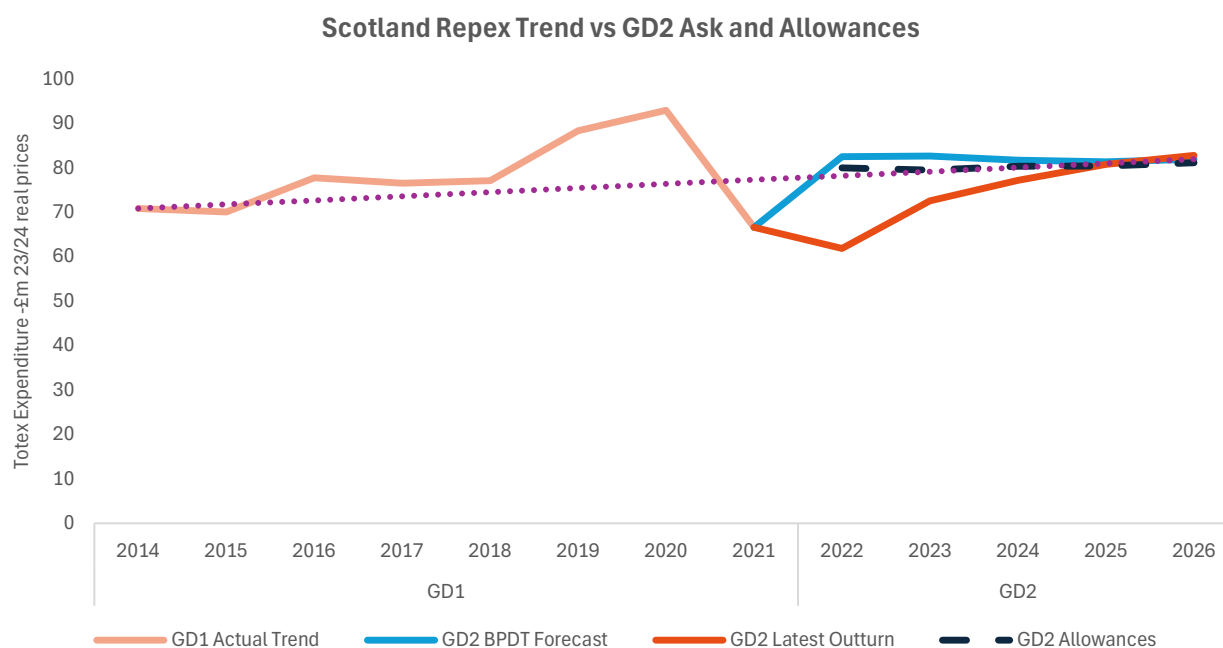
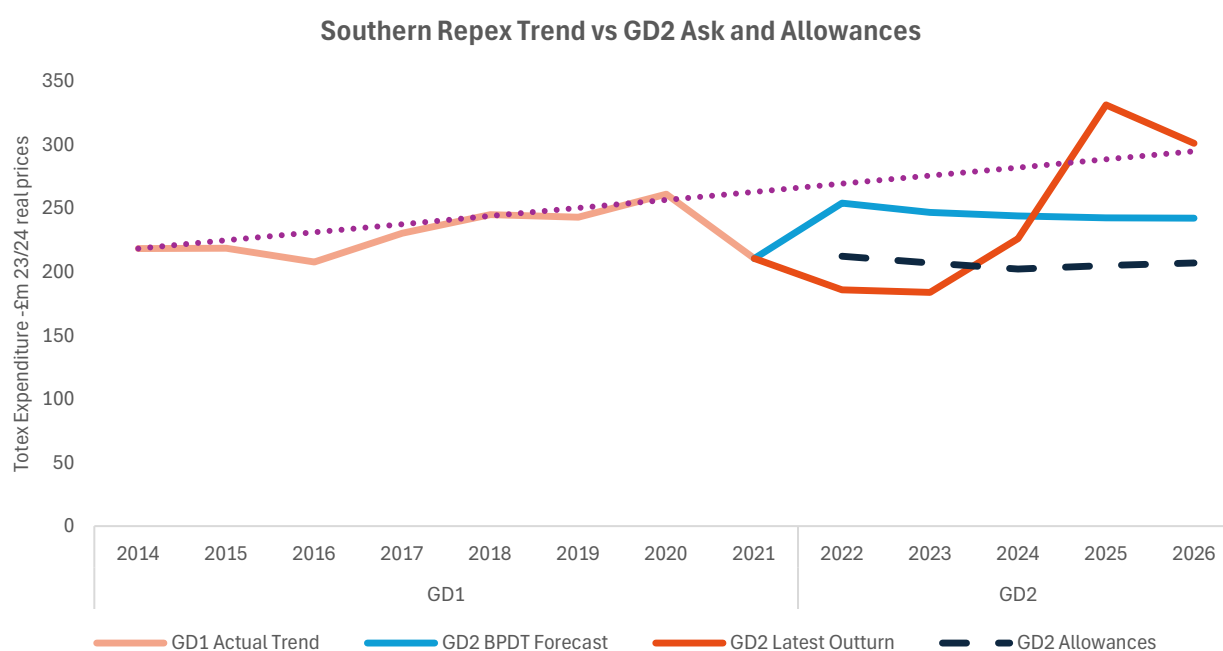


Figure 6: SGN Southern Long Term Cost Trend vs GD2 Plan and GD2 Allowances



Source: SGN analysis of 24/25 RRP and submitted GD2 BPDT

There is a clear difference in determined allowances between each network compared to the actual trend of costs, and fundamentally a clear misalignment between the allowances awarded through the GD2 cost modelling approach and the actual costs we experienced for our Southern network. In contrast, while the allowances set for Scotland were stretching, we have worked hard to find efficiencies relative to allowances while delivering all our required outputs - these efficiencies are now baked in to our GD3 forecasts, benefiting consumers.

Our GD2 forecasts proved to be remarkably accurate. In Scotland we forecast that we would spend £409m, were awarded allowances for £401m and we are on track to deliver for £374m. In Southern we forecast that we spend £1,230m by the end of GD2 we are on track to deliver for £1,229m, however, our allowances were only awarded for £1,034m.

Within our Scotland network we were funded within 2% of our BPDT ask and have delivered within this allowance. Comparatively for Southern the allowances were a 16% reduction compared to the BPDT ask.

As both networks are under operation from the same senior management and ownership structure, the modelling approach utilised within GD2 has failed to appropriately recognise the regional challenges that we had included within our business plan for GD2, which have been realised as expected within our cost outturn.

It is clear from the Draft Determination allowances that lessons have not been learned from the errors in the GD2 cost assessment methodology and the Draft Determination imposes a challenging setting of Repex allowances, with a 15% cut to our business plan request for Scotland and a 21% cut to our business plan request for Southern. As the GD3 cost modelling suite is fundamentally the same as GD2, the inappropriate allowance setting from the GD2 period is also flowing to GD3 which is experiencing increasing regional and wider macro-environment challenges.

Key areas of concern

263 **Lack of consideration to the reality of the markets in which we operate.** We have discussed above the challenges with allowance determination that a single 'top-down' regression model has incurred for GD2.

264 The GD3 allowance determination utilising a similar model has produced an efficiency cut that is inappropriate to enable networks, particularly those southern based ones, to deliver their safety critical workload.

265 In our Overall Response we put forward two Actions that had specific to implications for the cost assessment process (Action 2 – Correct the suite of errors in Repex unit costs and Action 3 – Correct allowance to reflect operational Reality) which incorporate changes that would improve the intuitiveness of the econometric modelling, ensuring a more robust recognition of cost efficiency across networks. Required improvements to modelling include:

- (i) Ensuring submitted business plans are comparable, with normalisations required between assumptions for banding mix and abandonment ratio (Action2c: discussed in detail in GDQ40)
- (ii) Recognition that the contractor labour we utilise has differing regional parameters to that of direct labour that is not within the control of management (Action 2a: discussed in detail in GDQ36)
- (iii) Recognition that complexity has a regional component, that those networks within greater urban environments will incur increased costs to deliver the mandatory remaining T1 IMRRP (Action 2a: discussed in detail in GDQ39)
- (iv) Recognition that Riser unit costs have a greater range of variability then is currently captured within the storey band based analysis (Action 2b: discussed in detail in GDQ41)
- (v) Utilising a truly exogenous driver to determine the efficiency of repair expenditure, such as metallic length (Action 3a: discussed in detail in GDQ36)
- (vi) That the cost of Streetworks is appropriately allowed for with a recognition of the rapid legislation and changes implement by Local Authorities (Action 3b: discussed in detail in GDQ41)
- (vii) The CSV weighting is appropriate to each network, to ensure the drivers chosen to determine the efficiency of expenditure is actually capturing the true relationship within the regression modelling (Action 3b: discussed in detail in GDQ39)
- (viii) Ongoing Efficiency is based on real evidence and reflective of the opportunity for continuous improvement that is true to gas networks (Action 3c: discussed in detail in OVQ19)

266 Only with these changes implemented can we agree that models would be grounded in economic and engineering rationale that would enable them to determine the efficient costs of delivering our safety-critical workloads.

267 We discuss within the following GDQ responses under the Cost of Service chapter these changes in more detail, and alongside our submission have provided two updated model suites on how we anticipate such Actions are implemented with a supporting technical annex on what changes have been made. We continue to engage with Ofgem and the sector in ensuring the econometric models used to determine allowances reflect the reality of the markets in which we operate.

- 268 A mis-calibrated single ‘top-down’ model could disallow investment that drives value to customers or provide insufficient funding for the delivery of essential outputs efficiently, potentially undermining network safety, resilience, and investor confidence.
- 269 A singular model to assume the complexities of our workload delivery factors, regional differences and macroeconomic changes creates a high burden of risk that the model is able to determine appropriate efficiency scores for all networks.
- 270 **Unbalanced interpretation of statistical tests.** We recognise that statistical rigour is essential in model selection, and that measures such as adjusted R^2 play a key role in assessing model fit. However, it is important that these metrics are considered within the broader context of sector-specific characteristics and modelling objectives.

Table 11: Good measures of R^2 by Research fields

Field	Typical R^2 Range	Interpretation
Economics	0.3 – 0.6	Moderate R^2 is common due to complex human behaviour and external influences [1].
Education	0.2 – 0.5	Often lower due to variability in student performance and contextual factors [1].
Health Sciences	0.1 – 0.4	Low R^2 is acceptable if predictors are statistically significant [1].
Engineering	0.7 – 0.9+	High R^2 expected due to controlled environments and physical laws [1].
Marketing	0.2 – 0.6	Varies widely; consumer behaviour introduces noise [2].
Psychology	0.1 – 0.3	Low R^2 is common; focus is often on significance rather than prediction [1].
Finance	0.3 – 0.7	Depends on model type; asset pricing models often fall in this range [2].
Environmental Science	0.5 – 0.8	Moderate to high R^2 due to measurable physical variables [2].

Sources: [1] Frost, J. (2017). *Regression Analysis: An Intuitive Guide for Using and Interpreting Linear Models*. Statistics By Jim Publishing. [2] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis (8th ed.)*. Cengage Learning.

- 271 As shown in Table 11 above, typical R^2 values vary significantly across research fields. In sectors such as health sciences, psychology, and education, lower R^2 values are common and accepted due to inherent complexity and variability. Even in engineering, where higher R^2 values are expected, the range is broad and context-dependent.
- 272 These examples demonstrate that models with lower R^2 values can still provide valuable insights, particularly when used alongside other metrics.
- 273 For example, we have tested alternative Totex models (on post-error fixed data) with R^2 values ranging from 0.74 to 0.879. While these are not as high as the candidate model in the draft determination, they fall well within the expected range for engineering models and offer alternative, intuitive perspectives on efficiency.
- 274 There is a risk that models offering such perspectives are discounted solely due to lower R^2 values. Ofgem should consider what constitutes a typical and appropriate R^2 for the sector, and evaluate models in light of their explanatory power, interpretability, and alignment with operational realities.

Recommendations

- 275 For econometric modelling to be grounded in reality, our proposed Action 2 and Action 3 as discussed above and within our Overall Response document must be implemented to ensure the current single totex model utilised for calculating efficient totex allowances in GD3.
- 276 While it is understood to strive for the highest views of statistical performance, we must ensure that this focus is not at the expense of clear modelling that is understood and can be demonstrated to reflect reality. A single model that is targeted on statistical quality will in reality be weaker to explain cost pressures than multiple models that still have a sufficient statistical performance and will only serve those networks for which the single model is inherently biased to reflect.
- 277 We have further investigated the use of a three-model approach, similar to Ofgem's approach for RIIO-ED2 for providing plausible alternative views of efficiency:
- (i) **Totex Model 1:** A view similar to the existing GD3 model but with recognition of our suggested Action 2 and Action 3 implementations, which incorporates the current 'top-down' CSV approach which weights the drivers on industry average cost forecasts.
 - (ii) **Totex Model 2:** A view similar to the existing GD3 model but with recognition of our suggested Action 2 and Action 3 implementations but incorporates a 'bottom-up' CSV weighting, similar in approach to ED2.
 - (iii) **Totex Model 3:** Due to the materiality of repex activity to the GD3 price control and the material changes in complexity factors as we come to the end of the IMRRP, a dedicated Totex model that incorporates considerations for complexity directly within the repex synthetic driver.
- 278 This three-model approach to determining efficiency would strike a fair balance between consideration of an industry average of activity mix, a fair consideration of the activity mix networks encounter within their unique regions and room for repex to be appropriately considered by utilising a model that is dedicated to determining the efficiency of this mandated and increasingly challenging cost area.
- 279 As discussed previously, the goal is not to maximise a statistical 'goodness of fit', and instead we believe having a varied view the efficiency of networks will ensure customers across GB are not over- or under-paying for the management for the safety of networks.
- 280 Below is an alternative view of efficiency across the three models suggested above, to highlight how a multiple model approach can be useful to present differing views of efficiency:

Table 1213: Efficiency scores of alternative models suggested by SGN

Network	Totex Model 1		Totex Model 2		Totex Model 3		Aggregation	
	(Top Down CSV) Eff Score	Rank	(Bottom Up CSV) Eff Score	Rank	(Repex Complexity) Eff Score	Rank	Eff Score	Rank
EoE	0.976	5	0.974	5	0.980	5	0.974	6
Lon	1.050	7	1.055	7	0.969	3	0.969	5
NW	1.003	6	1.009	6	1.020	7	1.003	7
WM	0.956	2	0.963	4	0.969	4	0.956	3
NGN	0.965	4	0.959	2	0.989	6	0.959	4
WWU	1.121	8	1.121	8	1.149	8	1.121	8
SC	0.941	1	0.939	1	0.963	2	0.939	1
SO	0.962	3	0.961	3	0.947	1	0.947	2

Source: SGN analysis of alternative GD3 Draft Determination models

- 281 Each model above provides a plausible view of efficiency performance across networks, with each view representing the unique factors of each network companies operate. Evident within these models are situations where networks can be ranked between frontier and laggard, highlighting the high risk of relying on a single model to determine efficiency.
- 282 The suggested aggregation of the multiple model efficiency scores above is carried out by selecting the efficiency score of the model that is most representative of efficiency of each network. This approach ensures a much tighter range of determined efficiency which would intuitively be expected across companies that have

been working within the RIIO framework to drive efficiency within their operations. We discuss approaches to aggregation of multiple models within GDQ38.

- 283 Overall, we disagree with the current approach of a single ‘top-down’ regression model. We have provided valid and intuitive corrections that ensure modelling better reflects the reality in which networks operate, while still demonstrating a strong statistical result. Utilisation of multiple models can ensure a more balanced setting of allowances for the GD3 period and prevent any single network from overly benefiting from the econometric modelling choice.
- 284 Utilising multiple models which have alternative views of efficiency based on sound economic and engineering intuition would add value to determining allowances for networks and provide a more balanced view of efficiency that could better reflect the regions in which our networks operate. We note multiple models could contain different configurations of totex models, some dedicated mid-models for key cost challenge areas or disaggregated models of varying design. So long as models are reasonably statistically robust, have intuitive links between drivers and costs, and reflect appropriate engineering and economic rationale, the results should be considered and factored in. Models should not be discounted purely because they have weaker R-squared.
- 285 We have provided as part of our supporting paper on cost modelling changes (SGN-GD3-DD-TechSupp-01) the approaches we believe are required to implement the above changes, and welcome engagement both bilaterally and through working groups on evolving the thinking on this area.

4.1 Pre-modelling normalisations and adjustments

4.1.1 Cost and workload adjustments following technical reviews

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

- 286 Ofgem’s 3rd party consultants carried out an assessment of 10 out of the 12 projects submitted by SGN for IT & Telecoms projects under its RIIO-3 submission. Based on the methodology applied, four projects were rated such that a 75% allowable expenditure was awarded, resulting in an overall 86% Totex across all 12 proposals.
- 287 SGN recognises that Ofgem required a pragmatic and consistent assessment methodology for assessing GDN proposals but argues that a degree of subjectivity in the interpretation and rating of the four projects has unduly impacted our draft allowances and introduces significant risks for SGN in the successful delivery of the project outcomes.
- 288 SGN therefore requests Ofgem to reconsider the proposed allowances for these projects and sets out our rationale for each below.

BACKGROUND

- 289 Ofgem carried out an assessment of GDN IT & Telecoms Strategies and accompanying submissions, supported by its 3rd party consultants.
- 290 The assessment methodology was built upon the approach followed in RIIO-2 and focused on three key dimensions:
- The validity of the needs case, considering IT strategy, linkage to technology architecture (current and proposed), appropriateness of proposal, as well as any potential complementarities or trade-offs with other costs.
 - The strength and robustness of the economic case (further broken down into ‘value for money’ and ‘optioneering’)
 - The appropriateness of cost levels associated with the proposed work plans (further broken down into ‘scope definition’, ‘delivery certainty’ and ‘cost assurity’).
- 291 Each dimension (or, where relevant, its components) was scored using an ordinal ‘Red-Amber-Green’ (RAG) rating. These scores were then combined into a composite rating and mapped onto % funding allowance thresholds, with a minimum of an Amber rating on Needs Case being a pass/fail criteria.
- 292 Ofgem assessed 10 out of SGN’s 12 proposals, finding that six were above the threshold for an aggregated Green rating (receiving 100% allocation of funding) and four were assessed as an aggregated Amber rating and

GDN Question Responses (GDQ)

were therefore allocated 75% of the requested funding. Overall, this has led to an 86% TOTEX allocation for IT & Telecoms for SGN.

OUTCOME

293



Table 14: Summary Table of Assessment

Code	Name	Needs case	Economic case		Cost assessment			Allowable expenditure
			Value for money	Optioneering	Scope	Certainty	Assurity	
SGN-GD3-EJP-IT-012	Customer and Stakeholder	Green	Amber	Green	Green	Amber	Green	100%
SGN-GD3-EJP-IT-008	Data and Telecoms Refresh	Green	Green	Green	Amber	Amber	Green	100%
SGN-GD3-EJP-IT-002	Enterprise Asset Management (EAM)	Green	Green	Green	Amber	Amber	Green	100%
SGN-GD3-EJP-IT-003	Enterprise Resource Planning (ERP)	Amber	Amber	Amber	Amber	Amber	Green	75%
SGN-GD3-EJP-IT-001	Field Service Replacement	Green	Green	Green	Green	Amber	Green	100%
SGN-GD3-EJP-IT-006	Hardware Devices	Green	Amber	Amber	Green	Amber	Green	75%
SGN-GD3-EJP-IT-007	Software Platforms	Green	Green	Green	Green	Amber	Green	100%
SGN-GD3-EJP-IT-004	Specialist Applications	Amber	Amber	Amber	Green	Amber	Green	75%
SGN-GD3-EJP-IT-011	Xoserve	Green	Green	Green	Amber	Amber	Green	75%
SGN-GD3-EJP-IT-009	Mandatory IT System change	Green	Green	Green	Amber	Amber	Green	100%

294 Overall SGN recognises the need for a pragmatic and consistent approach to assessing proposals across the GDNs.

295 SGN also notes the limitations set out in the methodology documents, in particular that it involved an element of subjectivity and expert judgement in producing ratings and mapping them to corresponding funding allowances. The summary report that was provided notes that the assessment framework was not consulted on as part of the RIIO-3 method statement and therefore asserts the importance of GDNs being allowed the opportunity to respond with feedback and further evidence.

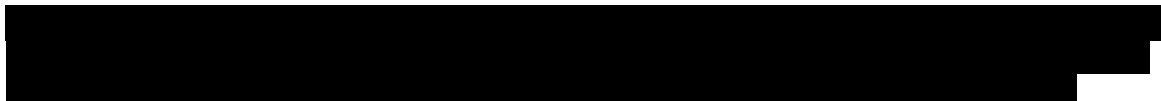
296 SGN notes that while the report set-out the assessment methodology and a summary of the outcomes against the assessed projects, it provided no detailed feedback in terms of how the ratings were arrived at for each assessment question, making it difficult to understand the rationale for the ratings. Without a clear understanding as to how the ratings were determined, it is not possible to respond directly to factors that lead the conclusions reached and when reviewing our own EJPs there are no clear characteristics that lead to different ratings between EJPs. As a result, the conclusions appear to be somewhat arbitrary. Furthermore, the results do not appear to account of the potential risks and impacts of not appropriately funding these projects.

297 There is a specific concern regarding the categorisation of 'Cost Assessment: Certainty', which is amber for all SGN projects. This clearly points to a systematic challenge that applies to all SGN documents that means that two further amber scores in any assessment will reduce funding available to 75%. Without greater detail it is very difficult to respond with additional evidence.

298 Below we set out our rationale for challenging the assessment outcomes for each of the projects that received a reduction in allowable expenditure.

SGN-GD3-EJP-IT-003 Enterprise Resource Planning (ERP)

299



300 **Needs Case:** Enterprise Resource Planning is a core enabling capability for any organisation, facilitating the effective management of people and financial resources. In our Engineering Justification Paper SGN recommends investment in our existing ERP implementation in order to keep it supportable and secure throughout the RIIO – 3 period. We also highlight the dependency between our ability to manage people resources and the successful implementation of our Field Service Management system as critical to enabling operational effectiveness, and the requirement for supporting a move to 12-hour working and the appropriate management of fatigue.

- 301 The proposed option of migration to Software as a Service (SaaS) is aligned with SGN's architectural direction as set out in our IT & Telecoms Strategy. As such SGN argues that it has set out a clear justification for the investment as required to maintain our ability to deliver critical services.
- 302 **Value for Money:** SGN recognise that it is seeking a significant investment for its preferred option of migration to Oracle Fusion Software as a Service and that there is a significant difference between this and the discounted option of carrying out several point upgrades of our existing Oracle EBS platform. SGN argues that the proposed investment offers better value for money as it avoids the need for repeated upgrades of a legacy platform and deferral of spending into a subsequent price control period, as well as facilitating the greatest overall benefits in terms of operational effectiveness when taken alongside our planned investment in Field Service Management.
- 303 **Cost Assessment:** The cost assessment for our preferred option is robust and proportionate for the scale of the project and this was externally benchmarked by Deloitte and Gartner. Moreover, the project was assessed as Green for cost assurity, suggesting that Ofgem's consultants concur with the robustness of our costing.
- 304 **Optioneering:** SGN set out three options in our EJP: Point upgrades of our existing EBS platform, the preferred option to migrate to Fusion SaaS and a common counterfactual option of moving to a monolithic platform across ERP, Field Service replacement and Enterprise Asset Management that demonstrates that our architectural strategy of selecting "best of breed" SaaS platforms offers the best overall value for money, agility and fit for business needs.
- 305 Our EJP sets out the boundaries of the proposed project, dependencies on other projects, expected project activities and proposed delivery plan for the project.
- 306 We further argue that given the complexity and risk involved with ERP projects, our cost estimate is reasonable and proportionate and has been benchmarked externally. A reduced settlement would introduce a large element of risk in terms of our ability to deliver the expected outcomes for this project.
- 307 In conclusion, SGN argues that it has set out a clear needs case and scope for the proposed project, and demonstrated how our preferred option aligns with our other proposed investments in Field Service and Enterprise Asset Management, is aligned with our architectural strategy and provides the best overall value for money by migrating to a supported, evergreen SaaS platform during the RIIO – 3 period, rather than continuing to invest in a legacy platform and deferring spend to a later period.
- 308 Given the reasons set out above, SGN requests that the full funding for SGN-GD3-EJP-IT-003 Enterprise Resource Planning (ERP) should be reinstated.

SGN-GD3-EJP-IT-006 Hardware Devices

- 309 [REDACTED]
- 310 Usable, performant and supportable end user devices are essential to enable SGNs employees to be operationally effective, particularly in the field. Our changing application landscape, as well as the evolving cyber threat landscape mean that ensuring our devices are capable of supporting the latest vendor-supported operating systems is critical. It is therefore necessary to replace devices periodically.
- 311 **Economic Case:** Value for money. SGN regularly go out to market in order to secure the best terms for the replacement of hardware devices. In this we have to take a balance approach across upfront capital costs, the operational service costs and operational benefits of consistency between device types. Without a detailed rationale for how this assessment was derived it is impossible for us to address and respond appropriately.
- 312 **Economic Case:** Optioneering. SGN set out two options, the difference in the more expensive, being the inclusion of higher specification devices for certain roles. However, in assessing the needs of users against the standard device specifications available we concluded that the additional cost was not warranted. Without a detailed rationale for how this assessment was derived it is impossible for us to address and respond appropriately.
- 313 SGN has sought to take a balanced approach aligned with industry best practices regarding device lifecycles and based on sound pricing assumptions tested with the market against known volumes and argues that our

proposed option represents the minimum viable investment to keep our device fleet in a supportable state throughout the price control period.

314

315 SGN request that the full funding for SGN-GD3-EJP-IT-006 Hardware Devices should be reinstated.

SGN-GD3-EJP-IT-004 Specialist Applications

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317 In our EJP, we set out the list of Specialist Applications to be upgraded under the projects and the purpose of each. We set out the rationale for upgrading the applications in order to keep them in support and mitigate the risks of operational failure or cyber compromise.

318

SGN-GD3-EJP-IT-0011 Xoserve

319

320 Economic Case Optioneering: This assessment of 'no score' for lack of alternative is inappropriate as Xoserve is the central service provider for the gas industry and essential for running the gas retail market and billing. They have a designated role that is set out under our gas transporter licence.

321 Xoserve serves a critical function coordinating the sharing of data across the industry and is essential in ensuring the smooth running of the entire gas network. As such SGN are obligated to connect into Xoserve's platform. Xoserve are currently at the Strategic Outline Case stage for replacing their platform by 2030 when their current SAP-based solution goes out of support. When a new solution is delivered SGN will be required to integrate with it. Our cost estimates for this project are based on previous effort needed to integrate with the current Xoserve platform refactored to current cost bases and the fact that our cost assurance for this project has been rated as Green indicates that Ofgem's consultants agree that it is a robust and proportionate estimate.

322 It is SGN's view that given that this is a mandatory regulatory change, imposed upon us externally, no reasonable counterfactual option exists and the reduction in funding is therefore unreasonable and does not enable us to deliver the mandated change.

323 Given that this was inadvertently mis-assessed SGN requests that the full funding for SGN-GD3-EJP-IT-0011 Xoserve should be reinstated.

GDQ34. Do you think we should make any amendments to the assessment framework, or the thresholds employed?

324 Details of our proposed amendments are contained within GDQ33.

325 SGN submits that the subjectivity of the assessment methodology along with the lack of detailed rationale for the ratings given has an undue impact on our overall settlement that introduces significant risks for our business in terms of operational effectiveness, regulatory compliance and customer service. We therefore request that Ofgem reconsiders its assessment.

GDQ35. Should any cost categories be included or excluded from the assessment?

- 326 There is a specific concern regarding the categorisation of 'Cost Assessment: Certainty', which is amber for all SGN projects. This clearly points to a systematic challenge that applies to all SGN documents that means that two further amber scores in any assessment will reduce funding available to 75%.
- 327 We have a specific concern regarding the inclusion of 'cost assessment – risk' which looks to assess whether mitigating actions are in place to manage cost risk. Our concern is based on the rationale it is actually very difficult to mitigate this risk without entering into contract. Whilst entering into a contract prematurely the risk is still present, however, it will be passed onto networks through the cost of the contract.
- 328 Given that this is an ex-ante allowance award, and therefore networks bear that cost risk, through the delivery of the projects during the price control period, we do not think that it is appropriate for this to be an assessment category.
- 329 We would also question how 'cost assessment – risk' differs from 'cost assessment-assurity'. The two appear to have significant overlaps in their assessment criteria.

4.1.2 Questions**GDQ36. Do you agree with our proposed approach to pre-modelling normalisations and adjustments?**

- 330 SGN acknowledges the importance of robust pre-modelling normalisations and adjustments to ensure fair and consistent cost benchmarking across networks. While SGN agrees with the general principle of deducting non-comparable costs prior to modelling, there are significant concerns regarding the specifics of certain adjustments and their underlying methodologies. SGN has found notable inconsistencies in efficiency outcomes between its own networks, as well as between regions, suggesting that current normalisation approaches do not sufficiently capture real-world operational differences.
- 331 Within this question we put forward SGNs position on pre-modelling normalisations and adjustments, with corrections required to:
- (i) Regional Labour Adjustment (RLA): Ensure the Regional Labour Adjustment (RLA) considers the economic use of contractor labour,
 - (ii) Urban productivity regional productivity challenges for both working in highly urban areas as well as T1 replex complexity,
 - (iii) Sparsity,
 - (iv) Company Specific Factors other key normalisations covering adjustments for company specific factors and approaches to separate assessment and non-regression analysis,
 - (v) Exclusions for non-regression benchmarking, and
 - (vi) Exclusions for technically assessed projects and bespoke outputs.
- 332 Given that this question response is long and covers a lot of material we then conclude with a summary of recommended actions made in the sections above.

Regional Labour Adjustments (RLA)

- 333 We discussed within our business plan.⁶² and since within engagement with Ofgem and the sector.⁶³ the inappropriateness of the Regional Labour Adjustment (RLA) within Ofgem's cost modelling suite in its current form.
- 334 The application of RLA within Ofgem's modelling suite utilises the ASHE ONS indices to determine the labour cost differences between networks. The dataset that produces these regional factors is based on a survey of PAYE workers (directly employed) only. The indices for London and South East are deemed to be materially different to the remaining regions of GB, and therefore the approach to apply RLA is only applied to three regions, the London, South East and Elsewhere which is default to a factor of 1.00, with the other two regions deemed to be a factor above Elsewhere.

⁶² SGN-GD3-SD-08 Cost assessment and benchmarking approach, Dec 25, para 244 - 279, pg. 37 - 43

⁶³ CAWG18 4th March 2025 , Cost Bilateral 27th March 2025

335 The approach used to determine the RLA is flawed in both (i) the lack of recognition that Scotland should have a RLA and (ii) the assumption that the RLA can only be determined through utilising directly employed labour, where this is a clear economic value in utilising contractor labour which itself has a high proportion of self-employed labour. Both errors in the determination of the RLA pre-modelling normalisation are required to be corrected in order to have an econometric model that reflects the reality of the regions in which we operate. We talk through each issue below.

336 In this section we discuss:

- Direct Labour – Scotland RLA,
- Contractor labour premium,
- Increased SOC Code granularity,
- Regional wage indices - Period of historical data used,
- Cost categories adjustment, and
- Employers National Insurance adjustment

Direct Labour – Scotland RLA

337 The current application of RLA assumes the regional wage indices calculated only impact South East and London, with all other regions assumed to be materially similar in terms of regional wage differences and therefore marked as “elsewhere”.

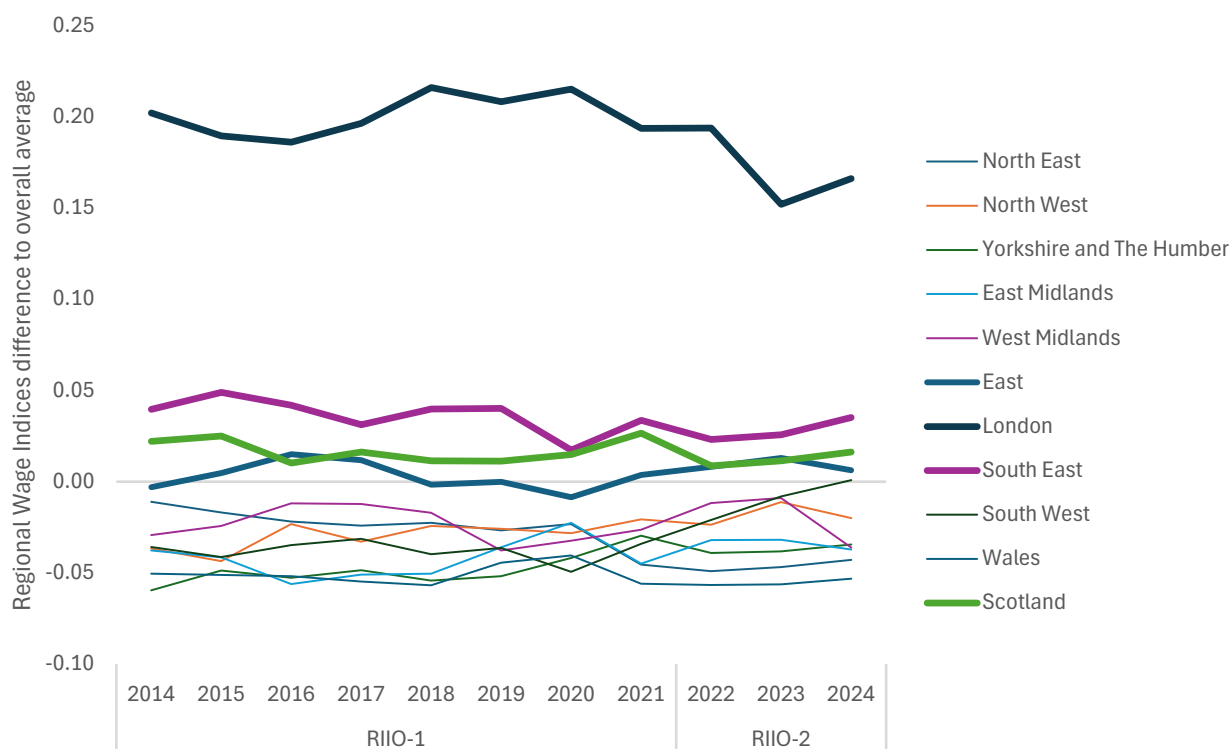
338 Within our business plan we suggested that due to the regional wage indices for Scotland trending similar to South East it would be appropriate to introduce a 4 region approach to setting the RLA, including Scotland within the determination of adjustment.

339 Ofgem responded that evidence put forward by SGN showed a weak case for a Scotland labour⁶⁴ adjustment, and that they believed only the South East region had tracked above the national average over the last five year average (apart from London)⁶⁵.

340 We present below the regional wage indices that are determined through the GD3 model suite.

⁶⁴ Ofgem RIIO-3 Draft Determinations – Gas Distribution, para 5.76

⁶⁵ Ofgem RIIO-3 Draft Determinations – Gas Distribution, para 5.77

Figure 6 - Regional Wage Indices difference to Overall Average for Direct Labour utilising ASHE indices

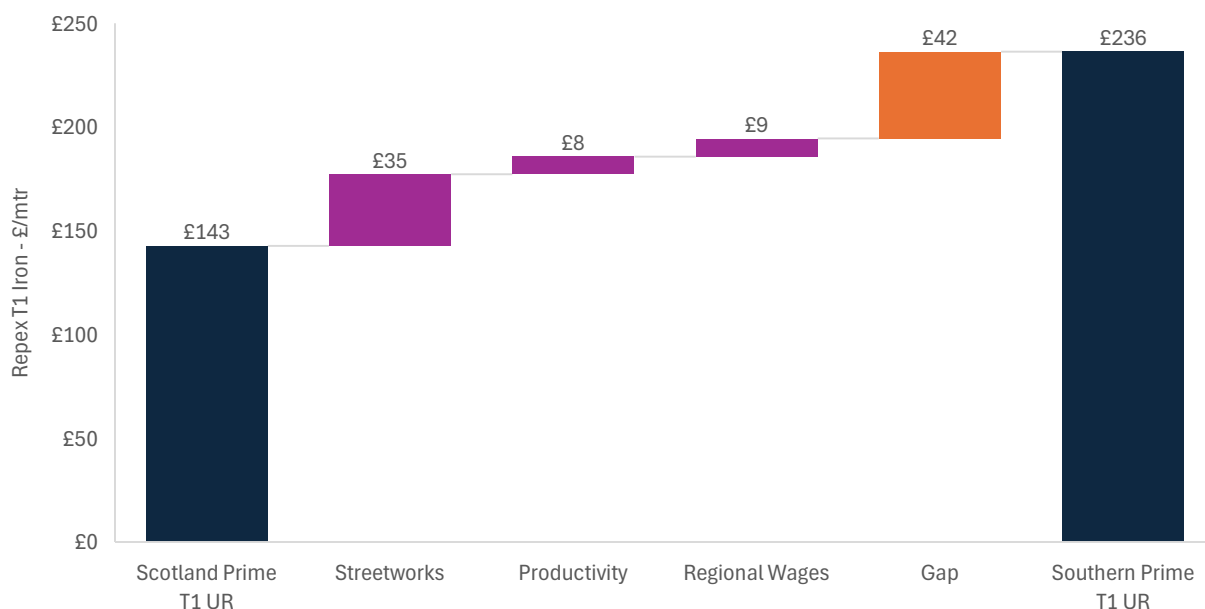
Source: SGN analysis of Ofgem RIIO-3 GD ICM Modelling Suite – (GD3_RegionalCostIndices.xlsx)

- 341 As expected, London is clearly above the GB average for direct labour averaging 0.19 above the overall average. Next is the South East region which across the 10 year of actual data shows 0.03 above the overall average, with Scotland modestly behind at 0.02 above the overall average. Further, what is clear is all other 'Elsewhere' networks (apart from East) are on average 0.04 below the base average point.
- 342 We put forward that the index data that Ofgem utilises to determine the RLA demonstrates that Scotland has a materially similar premium compared to GB average as South East which is 0.07 above the 'Elsewhere' networks, and considered within the model suite adjustment, whilst the Scotland regional wage index is 0.06 above the 'Elsewhere' networks and is currently unadjusted in the modelling suite. The Ofgem normalisations fail to reflect that running a network in Scotland incurs a material cost pressure to maintain operational performance over and above the other 'elsewhere' networks that is not considered within Ofgem's normalisations.
- 343 We acknowledge that the East region is slightly below Scotland, but still exceeds the "elsewhere", with the long term average of East at 0.00 to the GB average and therefore 0.04 above the "elsewhere", but note that as a proportion of the GDN East network falls within London there is an adjustment already made within the RLA.
- 344 Scotland does not have such a bleed effect from the higher wages of London, so the recognised higher regional wages compared to the industry average demonstrated through the ONS data across the presented 10-year time period above must be a valid position. We note some unique aspects of Scotland that would contribute to a higher regional wage such as differing taxation due to the devolved government of Scotland as well as a large element of gas and electric engineering investment within Scotland that drives increased demand for workers in this sparse region.
- 345 Given this clear distinction between regions, Ofgem should ensure that the RLA is corrected to include 4 regions for normalisation, being London, South East, Scotland and "elsewhere".
- 346 Contractor Labour Premium – self-employed workers within South East and London
- 347 We utilise both direct and contractor labour to deliver our safety critical workload to ensure we have suitable workforce resilience and due to the labour preferences within the region in which we operate. The use of

contractor labour is consistent with most networks' delivery plans and is demonstrably efficient compared to a 100% direct labour approach.

348 We have identified a clear gap between our Southern and Scotland network T1 repex unit rates, we present below a trace of the Scotland T1 GD2 last two year unit rates to the Southern T1 GD2 last two year unit rate.

Figure 77 - GD2 last two year T1 Iron Scotland to Southern Unit Rate Trace



Source: SGN analysis of 24/25 submitted RRP and GD3 normalisation data

349 There is a significant difference of £94 / meter between the two regions in which we operate for the delivery of tier 1 Repex which is explained through streetworks activity that is unique to Southern, productivity challenges for both complexity and the highly urban environment we operate within our Southern network plus regional wage differences.

350 With Ofgem's current normalisations implemented, we still have a gap of £42 / meter unfunded or 18% of our delivery cost. This gap in normalisations between Scotland and Southern is explained by differing complexity factors between networks and the RLA not appropriately accounting for contractor labour which incurs an increased regional premium compared to a direct labour only adjustment.

351 Since the submission of our Business Plan, we have commissioned Economic Insight⁶⁶ to explore the difference between the contractor and the direct labour workforce in more detail. In particular, they assessed:

- (i) whether it was reasonable for contractor labour (CL) costs to differ from direct labour costs (DL);
- (ii) whether the conditions in London and the South East of England are consistent with a premium arising in the contractor market;
- (iii) if there is a contractor premium, are companies operating in these regions appropriately remunerated through the existing regulatory framework; and
- (iv) whether a contractor premium is outside of the control of an efficient GDN.

352 In its report, Economic Insight show that there is an economic basis on which CL and DL can differ as they are not considered perfect substitutes and that based on economic theory it is reasonable to anticipate that contract labour will command a premium in a tight labour market, an observation that is clearly established in academic studies of other markets and regular media headlines.

353 The report then looks to establish whether the conditions in London and the south east of England are consistent with the conditions necessary to support a contractor premium. It finds that there is evidence of a construction skills shortage across the UK, however, these shortages are particularly pronounced in London and

⁶⁶ SGN-GD3-DD-ECR-01 - Economic Insight - Regional contractor costs

the south east. It concludes that this supports evidence that GDNs face a regional premium for employing contracted labour in London and the south east that is over and above the premium faced for direct labour in the same region.

- 354 This report outlines evidence that this regional premium is not picked up in the current regulatory model and that the reliance on the ASHE data for regional labour adjustment is not appropriate. ASHE does not include self-employed workers, so therefore cannot represent where the regional costs of those self-employed workers vary. The report also identifies strong evidence to support an increasing premium for self-employed workers in London and the South East. Furthermore, the report identifies that the ASHE data misassigns non-London workers to the London regions, artificially dampening the real labour adjustment. This impact is exacerbated by the fact that contract labour should always price its services at the 'marginal price', whilst direct labour is more likely to price its services at the 'average price' due to friction in the market.
- 355 The report then assesses whether it is reasonable to expect a network operating in the Southern region to be able to adopt an alternative strategy and employ more direct labour. They identify that, as a 'price taker', SGN is not able to avoid the high contractor costs. Economic Insight concludes that this contractor premium represents efficiently incurred costs that are not reflected in Ofgem's cost assessment approach.⁶⁷
- 356 In our GD3 Business Plan, we assessed that, using our Repex unit rates, the regional contractor premium equated to c.10%. We have since updated our assessment to undertake more detailed statistical analysis, reviewed by Decon, to remove the risk of overlap between regional complexity premiums. This updated analysis determines a more robust Southern regional contractor premium of 6%.⁶⁸ once isolating complexity factors.
- 357 Economic Insight⁶⁹ reviewed this premium within the broader economic characteristics of the labour and contractor market and suggest that this is likely to be a conservative estimate of the impact of contract labour premium as using Scotland as the basis from which to estimate the premium could be adjusted to recognise that Scotland has a higher wage than average, and secondly the evidence that year-on-year differences in contract labour have been increasing in recent years.
- 358 The Draft Determination raises the concern that applying a contractor uplift could reward GDNs for an inefficient labour model.⁷⁰ The Economic Insight report demonstrates that the choice of contractor compared to direct labour is determined by market dynamics, of which the individual company has limited control. In a tight labour market, particularly as tight as the labour market in London and the South of England, there will be a premium and a dependency on the contractor market that networks operating in that region cannot avoid.
- 359 Through applying the RLA with consideration of the type of labour we are required to utilise within the regions we operate, we find a reduction of the unit rate gap between Scotland and Southern networks as identified in Figure 7 above. Within GDQ39 we present further information on this gap relating to regional complexity factor differences.
- 360 Through clear regional evidence that the London and Southern networks are most exposed to self-employed labour as presented in both our business plan.⁷¹ and within Economic Insights latest review of evidence.⁷², the RLA should be adjusted to ensure a 6% uplift is applied to the current regional indices for the self-employed element of contractor labour for the London and Southern GDNs.
- 361 We have provided in the supporting technical annex (SGN_DD_TechSupp_01) the approach for implementing a regional contractor premium within the Final Determination cost modelling suite to ensure appropriate assessment of efficiency for the areas in which we operate.

Increased SOC granularity

- 362 We acknowledge WWU considerations to utilise the 3-digit SOC information to support the calculation of regional wage indices. While we agree with the principle to use the most robust data available, we note a significant reduction in quality of data when utilising the more granular SOC information.

⁶⁷ SGN-GD3-DD-ECR-01- Economic Insights – Regional contractor costs, July 2025.

⁶⁸ SGN-GD3-DD-TechSupp-02 - Assessment of Contractor Premia

⁶⁹ SGN-GD3-DD-ECR-01 Economic Insights – Regional contractor costs, July 2025, para 1.17, pg. 9

⁷⁰ RIIIO-3 Draft Determinations – Gas Distribution, July 25, para 5.87, pg. 113

⁷¹ SGN-GD3-SD-08 Cost assessment and benchmarking approach, Dec 25, pg. 39 - 43

⁷² SGN-GD3-DD-ECR-01 Economic Insights – Regional contractor costs, July 2025, pg52 – 53, para 5.15-5.18

363 We note particularly linkage to a CMA decision which fundamentally concluded that while using 2-digit SOC was “not wrong” and accepted it as a reasonable balance between accuracy and relevance.⁷³ This CMA decision was a comparison between 2-digit SOC and 4-digit SOC, a level of granularity further than suggested by WWU, and concluded that on the coefficient of variation (CV) c.67% of the SOC information could be deemed to be ‘reasonably precise’.⁷⁴

364 While the use of 3-digit SOC information does have a greater CV up to the ‘reasonably precise’ mark, there is still clear evidence to support the greater volatility of regional indices at the 3-digit level which creates noise and fundamentally do not follow the reality of the region in which we operate. As discussed during a recent sector working group, significant variations appear when utilising the 3-digit information, with one example showing the London regional wage drop by over 20% in one year and then correct, highlighting volatility.

365 The use of 3-digit SOC information goes against the principles of ensuring econometric modelling is reflective of reality, and while it is always useful to investigate the most granular data that is available, there is clear evidence and precedence to support the use of more granular SOC information does not add value to the assessment of efficiency within cost models. Further, with our internal testing of moving to a 3-digit SOC granularity there was a relatively immaterial impact to allowances across GD3.

Regional wage indices - Period of historical data used

366 We agree with Ofgem that a five-year average of regional wage indices to determine the future forecast is appropriate to ensure any short-term fluctuations in the determination of the regional wage indices are not overtly influencing the factors.

367 We acknowledge the data from 2021 suggests a small decline in the London network adjustment, though also point to a similar cycle of decline and uplift between the 2014 to 2018 year and note that the 2024 factor shows an increase compared to the prior year.

Cost categories adjustment

368 SGN is unique amongst the Great Britain GD sector due to owning the only truly non-contiguous networks, with clear physical distance between the GDNs we operate as well as differing governments due to the devolved nature of the Scottish government.

369 The cost models include the assumption that back-office labour is not fully required to be based within the same authorities as make up our populations (which is used to determine the regional labour indices), as such Ofgem only applies a RLA to 44% of work management costs and does not apply an RLA for the business support costs.

370 We understand for those networks which are contiguous in nature there can be a mobility of support labour across networks, however, we have limited opportunities compared to other companies to place our labour away from the core areas of our operations without incurring significant additional travel and accommodation costs.

371 Furthermore, even if it was possible to effectively locate business support in Scotland, the wage benefits as set out in the section on Direct Labour – Scotland RLA shows that the benefits of doing so would be marginal at best and the lack of local knowledge would undermine productivity ability to engage with the local councils’ stakeholders effectively, reducing the overall level of customer service.

372 The work management activities we undertake cannot feasibly be placed at different parts of the country away from the activity we undertake. Equally, a large proportion of our business support costs (HR, finance, property and other support functions) are required to be placed in the regions in which they operate. We do acknowledge there are roles within the business support area that can be remote based, which is why we suggest only 50% of this labour cost have a RLA applied.

373 Given the limited opportunities to relocate staff, the RLA should be applied to 100% of our work management labour cost, and to 50% of our business support costs.

Employers National Insurance adjustment

⁷³ CMA Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc v the Gas and Electricity Markets Authority (Sept 15) Pg 108, para 6.73

⁷⁴ CMA Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc v the Gas and Electricity Markets Authority (Sept 15) Pg 101, Fig 8

- 374 In the 2024 Autumn budget the chancellor announced a reduction in the threshold and increase in the rate of employers' national insurance (NI), a tax for which we are exposed to for our labour that is employed through PAYE schemes.
- 375 This increase in cost burden to companies was announced too late to be included within company business plan proposals⁷⁵ so it is required to be adjusted post determination of efficient allowances by a common methodology to ensure companies are funded appropriately for this cost which is outside the control of management.
- 376 We note a proposal discussed within the Cost Assessment Working Group (CAWG) 22 by Cadent to implement an ex-post adjustment to ensure this tax burden is appropriately funded through a common exogenous calculation and agree with this approach.
- 377 We note a further error correction required in how the burden of employers NI impacts the RLA, and alongside updating the arithmetic to determine the appropriate RLA consideration should be had for correcting how the employers NI impact the regional wage indices.
- 378 For both areas we welcome further discussion within future CAWGs.

Urbanity Productivity

- 379 We welcome Ofgem's conclusion that productivity and reinstatement factors are still relevant drivers of additional costs for GDNs operating in urban areas⁷⁶. We also agree that a pre-modelling adjustment approach is the most appropriate method of accounting for this normalisation.
- 380 We have identified the factors used to determine the urbanity productivity adjustment have not been reviewed since GD1, and reference information that was provided by SGN to Ofgem for activities dating back to 2009.
- 381 Due to the length of period this productivity factor was developed from, we investigated and presented within our business plan⁷⁷ analysis basing the implied productivity due to travel times in Scotland compared to that in Southern. We found that the productivity impact within Southern compared to Scotland was a 1.08 increase compared to a 1.04 that is utilised within Ofgem's cost modelling suite.
- 382 The latest information suggests a productivity impact of working in highly urban environments that is double that what was currently utilised, and as such the factor should be adjusted to ensure pre-modelling normalisations are suitable. We have presented this evidence to support the current factor does not fully capture the challenges we face when working in the highly urban south east region.
- 383 We note Cadent have suggested Ofgem utilise a similar approach to that within ED2, named 'Nature of Streets'. This approach relies on special factors that are claimed for by the GDNs instead of the specific productivity factor adjustment that was made within GD2. We have investigated the impact of such an approach on a comparative basis as the claim suggested by Cadent and note a materially similar output as our evidenced urbanity productivity factor increase to 1.08 for the Southern network.
- 384 We believe this cross-check is strong evidence to support the requirement to change the approach from GD2, either to an increased factor as suggested by our latest data or through the use of pre-modelling special factors akin to the 'Nature of Streets' approach utilised within the ED2 price control period.
- 385 To support the testing of a 'Nature of Streets' approach, SGN will submit to Ofgem claims that would enable this alternative pre-modelling normalisation technique to be tested.
- 386 The modelling suite currently applies the Urbanity Productivity factor to only the Emergency, Connections, Reinforcement and Repex cost categories. We put forward within our business plan that this adjustment should be also applied to Repair and Maintenance cost categories, as our labour within these cost categories are equally as exposed to the challenges of working within highly urban areas as that within where the adjustment is currently applied. It is unexplained why it would be expected that our Repair and Maintenance workforce would not have equal exogenous pressures to operating within highly urban areas as our Emergency, Connections, Reinforcement and Repex workforce.
- 387 We note NGN's position that there is a risk of 'double counting' the impact of urbanity due to a separate adjustment made within the cost modelling suite for regional labour. We have discussed within recent working

⁷⁵ Agreed with Ofgem within CAWG 14 – 29/10/2024

⁷⁶ Ofgem RIIO-3 Draft Determinations – Gas Distribution pg. 114, para 5.95

⁷⁷ SGN-GD3-SD-08 Cost assessment and benchmarking approach, Dec 25, pg. 43-45 para 280-291

groups the clear delineation between these normalisation adjustments, with the urbanity adjustment relating to the increased time it takes for networks operating within highly urban areas to deliver comparable activity to other networks, whereas the regional labour adjustments normalise for the recognised differing labour cost of operating within regions, independent of the length of time it takes to complete an activity. It is clear that the adjustments are separate, and both independently required to ensure a fair and comparable cost between networks.

Sparsity

388 SGN are concerned that Ofgem has chosen not to reconsider the sparsity adjustment, as this overlooks the operational challenges faced in many of our service areas—particularly in Scotland. Due to the dispersed nature of rural communities, we are required to maintain a greater number of depots and sub-depots per capita in comparison to our southern network. The longer travel distances mean that to meet Health and Safety Executive (HSE) mandates—such as attending emergencies within one hour—we must strategically locate staff in more remote locations.

389 This challenge will become even more pronounced when the maximum shift length is reduced from 16 hours to 12 hours. Under the new pattern, not only will travel time need to be absorbed within the shorter shifts, but the time required for staff handovers will also increase our resource needs.

Sparsity 12-hour stylised example

Current Situation (16-hour shift):

A rural depot covers a large geographic area with two engineers per 16-hour shift. Each engineer spends 2 hours traveling and 14 hours responding to incidents. The long shift allows for efficient coverage, as fewer staff changes are needed and travel time is proportionally less significant.

After Shift Reduction (12-hour shift):

With a 12-hour shift limit, the same engineers now only have 10 hours for emergencies after accounting for travel. To maintain the same level of coverage and guarantee that response times remain compliant, the depot would either need to increase staffing (adding an extra shift or more engineers per shift) or open additional satellite depots closer to dispersed communities.

Impact:

The shorter shift means travel and handover times take up a larger proportion of each engineer's working day. As a result, more engineers are required for the same level of coverage, increasing operational costs and complicating scheduling logistics—especially in remote areas where distances are significant.

390 The GD3 cost modelling approaches have not been adapted to reflect the impacts of 12-hour ways of working to those networks that exhibit the most extreme elements of sparsity, such as the Scotland network. If the increasing cost challenges are not appropriately considered within the econometric modelling through appropriate normalisation the relative risk for those networks that are the sparsest will significantly increase.

391 We analysed within our business plan an incremental cost pressure of £4m p.a.⁷⁸ within Emergency, Repair and Maintenance activities due to the impact of sparsity for delivering the mandated 12-hour ways of working within the Scotland network. To ensure suitable pre-modelling normalisations, this claim should be applied as a special normalisation factor.

Company Specific Factors

392 Company Specific Factors (CSF) are an important element to normalisation due to the material impact to the calculation of efficiency that can occur if these costs are not removed ahead of modelling. In the section below we review;

- Materiality Thresholds
- Network Specific Factors
- Isle of Wight

⁷⁸ SGN-GD3-SD-08 Cost assessment and benchmarking approach, Dec 25, pg. 48 para 309 - 313

Materiality Thresholds

393 We agree mostly with Ofgem's framework for determining the validity of company specific factor claims but believe the materiality threshold should be considered within a grouping of cost claims as opposed to individual claims.

394 Further we disagree with the setting of a 0.5% materiality threshold. This is set too high and as a result the impact of not effectively representing company-specific factors is disproportionately impacting the determination of allowances. We present below the impact of a 0.5% and 0.2% materiality threshold level adjustment on Southern utilising the DD model suite to demonstrate the impact to allowances.

Table 14 - Impact of Company Specific Factor materiality threshold levels of SGN Southern within GD3

	DD Efficiency Score	Updated Efficiency Score	Allowance Impact £m
0.5% CSF Adjustment	1.040	1.034	(14.8)
0.2% CSF Adjustment	1.040	1.037	(5.9)

Source: SGN analysis utilising the GD3 DD Model Suite

395 In the example for the Southern network, a 0.5% materiality threshold would leave costs within Ofgem's cost modelling suite of up to £16m which would have no appropriate driver to explain expenditure. If these costs were unique to the network, as demonstrated above, the efficiency score determined through the current DD modelling suite would be dampened by 0.006 which would have an adverse allowance impact of £14.8m, for cost activities that not appropriately reflected in the model and are outside the control of an efficient GDN.

396 This is an inappropriate level of risk, considering there could be multiple claims which could lead to a material value of CSFs that are being omitted. A more practical materiality threshold of 0.2% of gross unnormalised totex is more appropriate, and while there is still a material risk of individual CSFs being omitted this is limited to a £5.9m impact to allowances.

Network Specific Factors

397 We understand that Cadent's claim for "Network Specific Factors" as a CSF in in alignment with their approach to "Nature of Streets" which has correlation to the adjustments that were made within Ofgem's ED2 cost modelling for UKPN. As such, we believe that if this alternative approach of specific factors to represent the impacts of urbanity productivity are applied then it would be appropriate for "Network Specific Factors" also to be considered for normalisation.

398 These claims are clearly as a group, and they should be assessed as such for compliance with materiality thresholds. We further note that Ofgem's ED2 approach to "Network Specific Factors" was to allow the claim as a group for the purposes of the materiality threshold, and not as individual claims. As this adjustment is the same concept as what was applied for UKPN within the ED2 cost modelling approach, it would be incorrect to follow a different approach.

399 To support Ofgem with their approach to testing the impact of implementing a "Network Specific Factors" CSF adjustment, we will submit a view of SGNs claims to enable consistency in normalisation approaches due to a quarter of our Southern network operating within the London area.

Isle of Wight

400 We discussed within our business plan the unique nature of operating and maintaining our gas network within the Isle of Wight, an Island disconnected from the mainland by sea in the English Channel. There are unique challenges that are outside the control of our management team due to a physical disconnection between our mainland operational depots that increase both travel costs (*use of ferries*) and staffing costs due to the lack of opportunity to flex safety response staff between regions.

401 The Isle of Wight can be viewed as a unique mini GDN, with its own challenges related to relative sparsity that, while we actively try to minimise the cost impact of, are limited in what we can do to ensure the residents of the Isle of Wight are afforded the same level of risk management as elsewhere within GB.

402 A key example of cost pressures will be the adoption of 12-hour ways of working. Costs will increase in all networks due to the need to ensure a response emergency and repair team, but as explained above regarding the sparsity impacts of Scotland, the Isle of Wight will incur equally unique challenges as the opportunities to

manage a wider pool of resources to attempt to minimise the impact of this new way of working will be significantly limited, causing costs to increase more so relatively to the notional GDN.

- 403 We calculated within our business plan an impact of £9.9m of incremental cost pressures compared to our mainland Southern operations, primarily due to the incremental labour cost we are exposed to compared to the SGN Southern (excluding London) density of operational labour. We believe this claim to be based on the reality of how we are required to operate and modest in nature due to excluding the material impact of one-off event costs that can occur.
- 404 Such examples have increased in recent times with changes in shipping lane practices causing non-network events of publicly reported escapes, which impacts the Isle of Wight relatively greater than other parts of the south of England.
- 405 The claim was primarily rejected due to not meeting the materiality threshold of 0.5% of gross unnormalised totex, which for the Southern network is £16m. We have demonstrated within the above section on materiality threshold that this arbitrary setting of a 0.5% threshold causes material impacts to the setting of allowances which for Southern is unduly increasing the risk of delivery as we are not appropriately funded to manage the operational running of the Isle of Wight Island.
- 406 The impact of not accepting our CSF claim for the Isle of Wight is to reduce allowances by £8.9m across the 5 years, fundamentally disallowing the majority of the costs we are exposed to for areas that are outside of our control. This is a clear example of how the setting of a 0.5% materiality threshold is inappropriate in ensuring the reality of operating our network is within econometric model setting.

Exclusions for non-regression benchmarking

- 407 We agree with Ofgem on the areas that have been excluded for non-regression benchmarking due to a lack of clear explanatory factor within the drivers used within the regression benchmarking approach. We note a strong link to GDQ41 for the non-regression approaches and discuss more on these matters within that question response.

Exclusions for technically assessed projects and bespoke outputs

- 408 The framework for ensuring costs that are unique in scope to networks or have a bespoke output for networks is appropriate to ensuring normalisations are applied ahead of cost efficiency assessment. We note a strong link to GDQ44 for the technical assessment approaches to determining efficiency and discuss more on these matters within that question response.
- 409 We agree with the proposed projects and activities that are normalised ahead of regression benchmarking listed within Ofgem's GD annex para 5.141, but do note some further activities that are required to be included below:
- (i) **Remote Pressure Management (SGNQ9) and Biomethane Access Roll Out (SGNQ11):** These projects were originally proposed within our business plan as NZARD UIOLI expenditure due to their unique characteristics but have been accepted and moved to baseline. Due to the unique nature of these projects within the SGN networks, there is no appropriate comparator of costs within other networks nor a driver to explain the efficiency of cost; therefore, these projects require exclusion and technical assessment.
 - (ii) **Glenmavis, Isle of Grain and Full Site and Systems Rebuilds (SGNQ1):** We acknowledge Ofgem's intention to set up a PCD for "Full Site and Systems Rebuilds" alongside our proposed Glenmavis (*we note Ofgem has adjusted the Glenmavis project for technical assessment*) and Isle of Grain projects. These projects are material in expenditure (c.£65m) and as they are within a PCD require to be technically assessed within engineering rationale, as such should be normalised from regression analysis. Within SGNQ1 we also discuss our Welling PRS project which has atypical NARMS risk, and as such should be included within technical assessment.
 - (iii) **LTS Diversions and Projects >£5m:** Within GD2 there was an appeal by Cadent to ensure the costs LTS diversions, which can be material in value were excluded from regression analysis to be technically assessed. We believe the appeal position to exclude these costs is valid and consideration of this should be had within the GD3 cost modelling. Further, LTS projects by their design are bespoke, and in particular projects of higher value exceeding £5m do not have a valid activity driver to capture the investment requirement within a regression approach. As such, we propose any LTS projects in excess of £5m should be technically assessed.

- (iv) **South London Mains PCD (SGNQ3):** We agree with Ofgem that the South London MP project is unique and as such requires a PCD. Similarly, due to the unique nature of delivery, the cost impacts of South London MP are non-comparable to other projects due to the unique nature of operating within South London. As such, a technical assessment of costs is required.
- (v) **Connection costs overheads:** As determined within Ofgem's SSMD, Connections activity within GD3 is to be fully customer-funded with the removal of the domestic connection load allowance (DCLA). Ofgem's modelling suite utilises gross costs, which remove elements of customer funding which enables Connections costs to be included within regression benchmarking. This customer funding element is adjusted later in the process as part of a 'net / gross' adjustment factor, and the CSV driver to explain expenditure includes a Connections element within the Capex Synthetic driver. In the past this was appropriate as connections activity was part-totex and part-customer funded, and Ofgem's base assumption is to include elements within regression modelling where it is able. With no Connection activity being totex funded, a reducing element of connections activity and differences between networks in assumptions for allocating overheads (the risk of stranded overheads) it would be more appropriate for this cost area to be excluded from regression benchmarking and reviewed as part of a technical assessment.
- (vi) **Reinforcement costs (GDQ26):** Equally, reinforcement costs are highly variable across companies and Ofgem's GD3 DD position is for all base activity of reinforcement to be funded through variant allowances, with specific elements of reinforcement funded ex-ante on an engineering assessed basis. Due to the reducing data points within the cost driver reducing the effectiveness of embedding this cost area within the CSV driver and the increasingly bespoke nature of reinforcement it would seem appropriate to exclude this cost area from regression benchmarking and perform a review as part of an engineering led technical assessment. This will enable appropriate funding for those elements of engineering judgement.
- (vii) **VCMA (GDQ 11).** VCMA is a critical element of our business plan, ensuring our operatives who are uniquely placed within our customers' homes, to provide support to some of the most vulnerable within society. Given the nature of the activities involve and that it is directly linked to supporting the most vulnerable we do not consider it appropriate for catch-up efficiency to be applied to these costs, and we propose this cost to be excluded for technical assessment to ensure adequate funding is provided to support our customers.

Summary of Recommendations

410 The normalisation of labour cost is a fundamental adjustment required to ensure costs can be compared between networks appropriately. To ensure normalisation is carried out suitably the following is required to be adjusted within the normalisation approach:

- (i) A four-region approach is used which includes London, South East, Scotland and "elsewhere" for determining the RLA adjustments.
- (ii) The RLA includes a 6% uplift to the existing ASHE derived indices to reflect the exogenous contractor labour cost pressures London and South East experience.
- (iii) To retain the use of 2-digit SOC granularity
- (iv) To utilise a five-year period to determine the ongoing regional labour indices
- (v) The cost categories that the regional wage adjustment is extended to include 100% of Work Management and 50% of Business Support Costs for SGN networks due to the non-contiguous nature of our networks.
- (vi) That both (i) recent employers National Insurance updates due to government budget changes are appropriately funded for through allowances and (ii) the impact of regional wages on employers National Insurance is updated within the formulae to determine appropriate regional wage indices.

411 Ofgem have recognised that urbanity productivity impacts costs and therefore there needs to be a pre-modelling normalisation to ensure costs are on a comparable basis ahead of efficiency determination. The productivity factor used to normalise costs is based on data from 2009 and therefore warrants updating to reflect the latest realities of productivity impacts within the highly urban areas in which we operate.

- (i) To update the urbanity productivity factor for Southern to at least 1.08 to reflect the latest available information

- (ii) To extend the urbanity productivity normalisation to the Repairs and Maintenance cost categories
- (iii) SGN will provide to Ofgem the 'Nature of Streets' claims that we believe are appropriate to ensure suitable cost normalisations.

412 Due to changing legislative requirements for ways of working, those networks that are the most extremely sparse will incur increased labour costs to ensure an emergency response program can be maintained. We have calculated that the incremental cost for Scotland over and above our Southern network will be £4m p.a which should be included as a pre-modelling special factor claim.

413 The arbitrary setting of a 0.5% materiality threshold for Company Specific Factor (CSF) claims should be reduced to 0.2%, as the impact of CSF claims not being accepted on the grounds only of materiality is significant to the setting of allowances for areas of expenditure that would be outside the control of an efficiently ran GDN. This 0.5% threshold penalises those networks that are exposed to factors outside of their control. Further adjustments required within CSF are:

- (i) Ofgem to utilise SGNs submitted "Network Specific Factors" CSF alongside any testing carried out for a CSF approach to productivity normalisation, and consideration of these factors to be assessed as a group of claims as opposed to individual claims to ensure alignment within the ED2 assessment approach.
- (ii) Ofgem to accept the Southern network Isle of Wight CSF which is a unique cost pressure to Southern due to geographical factors that is outside the control of management.

414 Adjustments for non-regression benchmarking are understood by SGN and agreed with.

415 Adjustments for technical assessment and bespoke outputs require some updating to include:

- (i) Remote Pressure Management and Biomethane projects for technical assessment
- (ii) The costs within the proposed "Full Site and Systems Rebuild" which include the Glenmavis and Isle of Grain projects for technical assessment.
- (iii) LTS Diversions and projects >£5m.
- (iv) The South London MP PCD for technical assessment
- (v) Connections for technical assessment (or alternative non-regression benchmarking)
- (vi) Reinforcement for technical assessment
- (vii) VCMA costs within baseline for technical assessment due to their unique and material impact to society.

4.2 Totex Benchmarking

4.2.1 Econometric model results

GDQ37. Do you agree with our proposed approach to totex benchmarking?

416 SGN acknowledges the role of totex benchmarking as a foundational tool for benchmarking efficiency across networks and supports the principles of totex benchmarking. However, as recognised by the Independent Water Commission, it is important not to rely too heavily on a data driven approach, econometric approach and to ensure sufficient consideration of company specific conditions and challenges.⁷⁹ As discussed within GDQ32, SGN has concerns regarding Ofgem's the over-reliance on a single totex model and believe multiple models of varying configurations create a more balanced view of efficiency for the regions in which we operate.

417 We believe the GDQ32 question has high overlap with this question and note we have covered in detail within that question our position on alternative totex models as well as the benefits of more granular modelling for key areas such as repx expenditure.

⁷⁹ Independent Water Commission Final Report, July 2025, Para 417.

- 418 We also note the strong overlap between normalisations and driver choice which we discuss in GDQ36 and GDQ39 respectively have an impact on the approach to totex to be carried out, and the subsequent impact with setting an appropriate catch-up efficiency target within GDQ42.
- 419 Fundamentally we identify that utilising multiple models, at both a totex and more granular approach produce markedly differing views of efficiency which are all plausible and therefore should be considered in setting allowances either directly through implementation or indirectly through consideration of the target of efficiency set.
- 420 We reference regulators regularly utilising multiple models to ensure a more varied and robust assessment of efficiency, with Ofgem itself utilising multiple models of differing aggregation in:
- **GD1** - recognising the challenges of forecasting by introducing multiple models of varying time period coverage and
 - **ED2** - recognising forecast scenario challenges of network Low Carbon Technology (LCT) impacts to costs.
- 421 There are similarities between the reasons for implementation above to utilise multiple models within their totex benchmarking as well as within the GD3 period, with networks entering a challenging forecasting period of time due to the upcoming completion of the Tier 1 IMRRP as well as a vastly challenging macro-environment with particular headwinds for the gas industry in the labour market.

Recommendation

- 422 Well calibrated totex models have a strong role within the benchmarking of efficiency across networks, but we recommend utilising both multiple models to ensure allowances are not determined on one single view of efficiency, and more granular model techniques to enable a more robust view of efficiency, particularly noting such differing regional factors that are not all captured through pre-modelling normalisations.

GDQ38. Do you agree with the proposed level of aggregation, estimation technique and time period for our econometric modelling?

- 423 Ofgem has a vast degree of model options within its econometric toolkit that have precedence within GB and wider regulatory settings. We agree with the estimation technique and principles on time periods that Ofgem have proposed within their GD3 modelling but would welcome a wider approach to the use of model aggregation, both in terms of model type (i.e., mid-models / disaggregation) as well as how multiple models are aggregated (i.e., triangulation) to ensure no single econometric view of efficiency over-powers the setting of totex allowances within GD3.
- 424 We respond to Ofgem's positions within their DD GD annex paras 5.184 to 5.198 within this question response and also include positions on the aggregation of differing models (aka triangulation) which is not referenced in Ofgem's DD response.

Level of Aggregation

- 425 We have considered aggregation in both the use of totex, mid and disaggregated models as well as the potential aggregation of multiple models within this section of the question response.

Model type aggregation

- 426 Ofgem has at its disposal a large number of options within its econometric toolkit and a great deal of information collected through reporting to enable the testing of multiple types of modelling approaches, such as mid-models and disaggregated models at specific cost component area.
- 427 We discussed within our business plan submission the potential benefits of utilising disaggregated models to produce a more intuitive view of performance at the unit rate level, akin to approaches carried out within Ofgem's ED2 assessment, which utilised disaggregated models that provided a plausible alternative view of efficiency.
- 428 We note Ofgem have tested alternative bottom-up models, but these have been primarily replication of previous GD1 and GD2 models which were proven to have poor statistical quality at the time. We suggested within our business plan the use of unit rate and simple ratio type models would present a plausible alternative view of efficiency, as well as providing a more intuitive view of performance at a granular level. We

acknowledge the challenges of cost allocation practice differences between networks impacting the determination of efficiency at a disaggregated level but note a lower efficiency target within each disaggregated model can be utilised to minimise this risk. This approach is carried out within ED2, with the use of a median efficiency target for unit rate comparisons between networks within their disaggregation model suite.

- 429 Given the point of the process that we are at, with a short window before final determination, we recognise that there is limited opportunity to develop, test and share disaggregated modelling for a suitable review and consultation. It was a missed opportunity to not have examined the disaggregated modelling options earlier in the process as we requested. In the absence of an effective disaggregated model, it becomes more important to ensure the calibration of allowances is robust to external data sources and the intuitiveness of allowance setting.
- 430 A key example of this is around the appropriate setting of Tier 1 unit rates to support the delivery of our IMRRP, due to be completed by 2032. It is of paramount importance that the unit rates we are set are intuitive and understood, particularly as they are incorporated into a PCD which flexes allowances as well as the link to the real market rates that we are exposed to within the regions in which we operate.

Example Southern GDN Tier 1 Repex comparison of allowances and market data

The workload required to replace the remaining Tier 1 mains, so we meet the mandatory Iron Main Risk Reduction Programme (IMRRP) target by 2032 has been included in the Draft Determination. However, there is a significant gap between the unit costs used in the Draft Determination and those we put forward in our Business Plan, which were reflective of actual market rates. If the Draft Determination unit costs are maintained, it will result in us being underfunded by £213m in GD3.

Underfunding of the IMRRP in our Southern network also occurred in GD2. Table 15 below shows the allowed costs in GD2 and the actual unit costs that have been realised. Both are then weighted to the actual workload delivered to given a workload adjusted average unit costs.

Table 15: GD2 experience - Tier 1 Repex allowed unit costs vs actual unit costs (£ 23/24 price base)

	Scotland: 1,021km 5yr target		Southern: 3,001km 5yr target	
	Allowed unit cost £/m ⁸⁰	Actual unit costs £/m	Allowed unit cost £/m ⁸¹	Actual unit costs £/m
≤3"	£138.63	£128.43	£129.79	£171.86
4"-5"	£153.46	£150.25	£143.67	£174.37
6"-7"	£223.47	£193.84	£209.21	£259.97
8"	£334.64	£249.93	£313.29	£357.61
Workload-adjusted average unit costs	£194.48	£174.28	£178.21	£215.36

Source: SGN analysis of licence conditions and latest 24/25 RRP submission

The workload adjusted average unit costs show that Scotland was able to deliver at a unit cost of approximately £20/m less than the GD2 allowed unit cost, while in Southern our costs were £37/m more than the GD2 allowed unit cost. However, the workload for Southern is three times greater than in Scotland. This led to a total saving of £25m in Scotland compared with a £187m over-spend in Southern. It is not credible to attribute an overspend of this magnitude to assumed inefficiency, not least given the common ownership and management of the two networks.

Table 15 also shows a £41/m premium in the market rates for delivering Repex in the South compared to Scotland in GD2. Both Scotland and Southern networks operate under the same corporate governance structure and have consistent executive and procurement approaches and are therefore directly comparable.

In Scotland, our GD2 Business Plan forecast Repex expenditure of £409m. We were awarded £401m and we have delivered for an anticipated £375m. In Southern, in our GD2 Business Plan we forecast £1,230m for Repex

⁸⁰ Scotland Gas Networks Plc, Gas Transporter Licence Special Conditions, 1st April 2022, pg. 87, inflated to reflected 23/24 values from 18/19 values cited in the licence condition for comparison purposes.

⁸¹ Southern Gas Networks Plc, Gas Transporter Licence Special Conditions, 1st April 2022, pg. 84, inflated to reflected 23/24 values from 18/19 values cited in the licence condition for comparison purposes.

expenditure and we expect to spend £1,229m in GD2. However, our allowances were 19% less than our forecast, totalling £1,034m.⁸² This was because the cost assessment modelling determined a unit rate which did not reflect the cost of delivery in the south. We attempted to operate within our allowances, however this constrained delivery and by the end of year 1 of GD2 we were 14km behind our annual target, which increased to a 130km annual shortfall by the end of year 3.

This shortfall in southern delivery was due to an exodus in contractors from the market. By the end of year 2, 35% of our Southern Repex contractor teams (70-80 teams)⁸³ had moved to other markets, such as water, telecoms and electricity, where they could achieve better rates.

We recognised in year two that our allowances were not sufficient to deliver our targets, so we took action to transform our procurement approach. This started a challenging two-year journey of engagement and transformation to ensure that all aspects of our business were operating efficiently in service of the frontline. This led to a fundamental turnaround in our Southern network, with us increasing delivery of tier 1 iron replacement from 470km/year in year 3 to 658 km/year in year 4 and starting to make up the shortfall in delivery.⁸⁴

This higher rate of delivery will be sustained into the final year of GD2, with our procurement team ratifying the supply chain to bring down unit rates from the peak 2024/25 level of expenditure. However, rebuilding our supply chain and restoring delivery came at a cost, with us paying the market rates that significantly exceed the GD2 unit cost for Repex delivery, with the total investment in GD2 forecast to outturn at £196m (19%) more than allowances.

Looking forward to GD3, market evidence shows that the unit costs to deliver Repex will continue to be significantly higher than the unit rates in the Draft Determination. The Table below provides a comparison of the unit costs in the Draft Determination with the unit costs realised in the last two years of GD2 and our GD3 forecast.

Table 16: GD3 Draft Determination – Tier 1 Repex proposed allowance vs GD2 actual unit costs and GD3 forecast.

	Workload-Adjusted Average unit costs	
	Scotland	Southern
Length Decommissioned (5yr target)	1,075 km	3,200km
GD3 Allowed	£149.96	£203.61
GD2 average last two years	£179.68(*)	£262.26(*)
GD3 Business Plan forecast	£179.14	£260.39

(*) NB In order to provide appropriate comparability the figures differ from the GD2 allowance comparison above as workload mix reflects GD3 forecast workload rather than GD2 delivered workload and is focused on costs of delivery in the last two years.

Source: SGN analysis of 24/25 RRP, SGN GD3 business plan and Ofgem GD3 Draft Determination

This Table shows that the unit costs derived from the GD3 cost modelling and used in the Draft Determination are £150/m compared to a forecast of £179/m in Scotland, and £204/m compared to a forecast of £260/m in Southern. The Draft Determination costs are also below the rates we incurred at GD2 for both networks.

Our GD3 forecasts were developed following a detailed assessment of the rate cards used in the tender exercises undertaken in GD2 to restore our Repex delivery by independent consultants Deecon, a leading UK-based consultancy that works extensively across the utility sector, specialising in supply chain optimisation. Deecon's analysis provided a robust point of evidence based on actual market experience at the time.

Since the Business Plan submission, Deecon has updated its analysis to validate the cost of delivering the Tier 1 Repex programme. This second phase of analysis included eight months of additional rate card data with detailed analysis of 9,627 projects across Southern and Scotland with an associated £1.57bn investment and several methodological improvements.⁸⁵ In its updated report, Deecon⁸⁶ find that the total Tier 1 cost forecasts fall within 3% of the estimate that was used to forecast GD3 costs, validating our Business Plan submission.

Finally, we have triangulated our GD3 forecast with the latest rates from our GD3 tender exercise carried out for Southern. This tender process employed a standardised methodology for evaluating recent contract performance

⁸² SGN GD2 BPD, Dec 2019, RIIO GD2 final determination Dec 2020, RRP July 2025

⁸³ SGN-GD3-SD-03 Workforce and supply chain resilience strategy, Dec 2025, pg46, para 226

⁸⁴ SGN-GD3-BPD-02, Dec 2024, CV6.01 – tier 1 iron

⁸⁵ Deecon Consulting, Repex Cost Modelling – Mains Lay, July 2025, the improvements and their impact are set out in appendix 12.1

⁸⁶ Deecon Consulting, Repex Cost Modelling – Mains Lay, July 2025

across contractors, Repex delivery rate recovery and benchmarking against projected costs. The comparison between the latest market tender rates and our GD3 forecast unit costs are presented in the Table below.

The Table above shows that our forecast GD3 unit rates are within the range of the latest market evidence we have received through our tender process. The tender rates for Southern are currently still within a range of outcomes due to assumptions surrounding which delivery partners will be awarded workload, but what is clear is market data for the regions in which we operate show the forecast unit rates within our Business Plan is robust.

In addition, the number of contractors responding to this tender process is sufficient to cover the GD3 workload expectations. However, the unit costs are up to [REDACTED] than those derived from the GD3 cost modelling, which informed the Draft Determination. If this is not changed, the errors of the past will be repeated meaning we will continue to overspend our allowances as it is clear from the market evidence that our mandatory Repex programme cannot be delivered at the Draft Determination modelled rates.

- 431 Utilising different market type aggregations are still beneficial within the GD3 final determination to support a more intuitive approach to understanding allowance setting, as well as supporting an appropriate disaggregation of allowances (discussed further GDQ45) which is highly challenging when utilising only totex models for allowance setting.

Multiple Model aggregation

- 432 We discuss within GDQ32 and GDQ37 our concerns with the use of a single totex model to determine efficiency across vastly different regions across Great Britain. We note changes in regional factors driven both through the work we need to complete (regional repex complexity) as well as increasing market factors driving a widening in regional challenges for southern networks, particularly as consideration of differing regionality of contractor labour is not considered within the Regional Labour Adjustment (discussed in GDQ36).
- 433 As such, we strongly advocate for a multiple model approach to help determine a balanced determination of efficiency and ensure no singular model design determines allowances on how networks operate, which is inappropriate due to external factors that influence how we operate across differing regions.
- 434 Within GDQ32 we suggest a three-model approach utilising three totex models of differing plausible driver configuration to ensure no single model design is influencing the calculation of efficiency across networks.
- 435 Ofgem have historically considered an even weighting approach to aggregation which has merits in ensuring the determination of efficiency is balanced across all plausible permutations of model design.
- 436 Different aggregation of multiple models could be adopted, and we suggested within our business plan consideration could be made of the German regulator approach⁸⁷ to utilise the model for each network that determines where they are the most efficient. This approach recognises that no individual econometric model will reflect the true efficiency of all networks due to regional differences.
- 437 We will continue to engage with Ofgem ahead of the Final Determination of multiple model aggregation approaches to support a final determination of allowances that is not overly reliant on one econometric approach to what is efficient.

Estimation Technique

- 438 We agree with the use of an Ordinary Least Squares (OLS) technique as the estimation technique within regression analysis.

⁸⁷ SGN-GD3-SD-08 Cost assessment and Benchmarking Approach – para 457

439 In the case of alternative drivers such as density being included within modelling, there could be the case to move away from OLS – as it primarily models linear relationships. Even with log transformations some driver cost relationships may not be linear. So non-linear least squares may be appropriate. However, this may be most relevant at middle up or disaggregated level, where statistical outcomes in linear models appear weaker. At the totex level, linear models, using OLS seem appropriate in most cases.

440 We have assessed the use of Stochastic Frontier Analysis models and find them inappropriate to use at this price control. They do not meet the initial checks to allow for noise and inefficiency to be separated.

Model Specification

441 We agree with the use of the Cobb-Douglas function as the functional form of regression analysis and agree the estimated coefficients can be useful in determining the relationship between drivers, assisting with analysis on suitability of models.

442 We understand the approach to utilise a Composite Scale Variable (CSV) driver within Ofgem's totex model but do express caution that such a driver approach does incorporate risks of scale if individual drivers within the composite are not appropriately balanced. We discuss within GDQ39 further on the CSV driver and overall agree with the approach with some improvements to weighting approach.

Time Trends

443 We agree with the premise that time trends help to control for those exogenous changes in costs across the sector for networks, which if not controlled for could weaken the explanatory power of the model, particularly at either ends of the time period points.

444 We note within GDQ36 the increasing productivity challenges of complexity factors across both Southern and Scotland which will influence costs towards the end of the T1 IMRRP. Complexity will impact all networks, as all networks comply with HSE's mandated risk profile assumptions which is a clear exogenous driver of costs across all networks, which would be captured through a t2 time trend variable.

445 While a t2 time trend would capture the average impact of complexity across all networks, as the time trend is applied equally across all networks there is still a requirement for the clear regional factors of complexity.

446 A further element of increasing costs within the GD3 period compared to driver movement will be related to repair costs. We discussed within our business plan the changing mix of repair workload as we complete the T1 IMRRP, with an increasing unit rate occurring due to increasing T2 and T3 repairs compared to T1 which is converted to PE. As the driver used within the CSV is based on total reports (recommended in GDQ39 to be metallic length which will have the same issue) and not split down to banding level, there will be no control of mix changes directly within the driver. The inclusion of a t2 time trend variable will help to capture this changing mix across time, improving the quality of models.

447 Due to increasing cost pressures compared to historic through changing workload requirements, some of which is not captured within reporting, we would anticipate the t2 trend to capture these increasing cost movements when utilising the forecasted efficiency score outputs and therefore is intuitive to include within the model configuration if such a time trend is reflecting a positive position on allowance determination.

Time Periods

448 We agree where there is no clear structural break that cannot be controlled through alternative methods, it is appropriate to use the most available observations.

449 As the totex model incorporates time trends and seeks to mostly capture workload movements through the use of synthetic repex drivers we believe to use the full available GD1 to GD3 data is correct.

Recommendations

450 We believe aggregation should be suitably considered alongside a multiple model approach to determining efficiency and believe there is a useful approach to be investigated within the Germany approach to regulation.

451 The estimation technique of OLS seems appropriate but note Ofgem should not be restricted to this approach when modelling alternative ways to understand efficiency, in particular the use of non-linear least squares could be useful with incorporating the impact of density within models.

452 Time trends are important within the modelling approach due to the time periods utilised and help to capture some exogenous cost movements that are not able to be fully captured within the defined cost drivers.

453 It is appropriate to utilise the most available observations to improve model robustness, but not the importance of appropriate controlling for changes in regional factors and activity requirements across this time period to ensure there is no clear structural break in data.

GDQ39. Do you agree with our proposed cost drivers and approach to weighting drivers in the totex CSV?

454 Cost drivers require updating to reflect the latest information available and for consideration of latest understanding of what drives the metrics used to set these explanatory areas of expenditure. We note changes in GD3 within relative regional complexity that should be considered within the repex synthetic and suggest a solution to account for this within our response. The weighting of drivers within the totex CSV should be more appropriately considered to the costs of the regions in which we operate, and as such we have suggested an alternative approach akin to that Ofgem have adopted within ED2.

455 We discuss within this question response our concerns with cost drivers and how they are aggregated to a single explanatory driver within the totex regression model. We include solutions on how to consider the increasing regional repex T1 complexity within cost drivers.

456 For Ofgem's draft determination approach to a single totex regression approach we discuss below the proposed cost drivers and weighting applied to determine a single Composite Scale Variable (CSV) driver. These include:

- Repex cost driver: Needs to be adjusted to account for different regional impacts of complexity.
- CSV Weighting: The comparison against the notional company does not recognise that workload is a product of geography and legacy and should be changed to recognise actual workload.
- Total External Condition Reports: It has now been clearly established that this is not the exogenous driver that it was considered to be, and it needs to be changed to km of metallic main or repair workloads.
- MEAV: The MEAV has not been updated since the start of GD1 and this is now an increasing point of distortion within the model.
- Capex synthetic driver: With the reduced volume of connections and reinforcement costs we recommend that this should be removed.
- Emergency CSV: we are comfortable with the proposals presented.

Repex Synthetic Cost Driver

457 The use of the repex synthetic driver within its current state is not an acceptable approach, in principle, to measuring the repex activity due primarily to the lack of consideration of complexity factors when determining the network specific unit rates. As complexity is not able to be normalised as a pre-modelling adjustment, consideration of relative complexity differences between networks should be made within the setting of the repex synthetic cost driver. Below we address (i) whether repex is an appropriate cost driver, (ii) accounting for complexity and (iii) unit cost calculations.

Complexity within the Tier 1 Repex programme

In our Business Plan submission⁸⁸, we identified eight complexity factors that that are increasing the time and resources needed to deliver Repex, which reduce the productivity of contractors leading to higher unit costs. These are road crossings, stranded assets, stubs, service density, long services, riser proximity, cross road services and ductile iron. For both Scotland and Southern, we were able to establish the asset count and the length of each complexity factor in the remaining workload⁸⁹. From this assessment, we were able to evidence:

⁸⁸ SGN-GD3-SD-06 Network Asset Management Strategy. Dec 2025 Section B2 and SGN-GD3-SD-08 Cost Assessment and Benchmarking Approach, Section F5, Dec 2025

⁸⁹ SGN-GD3-SD-06 Network Asset Management Strategy. Dec 2025, Table 51, para 100-104

- 1) The increasing prevalence of complexity factors in general, with complexity having an increasing impact on productivity over the workload as we progress to the final stages of the Tier 1 Repex programme; and
- 2) A significant regional impact, with projects in the south of England having significantly more complexity factors than those in Scotland. Analysis by MJM identified that 70% of projects in the South had one or more complexity factors impacting productivity compared to 49% of projects in Scotland. Furthermore, we identified that 14% of projects in the South had three or more complexity issues in a single project, compared to 6% in Scotland.⁹⁰ Of the workload remaining in GD3, productivity will decrease c.6% in Scotland and decrease by c.14% in Southern.⁹¹ compared to GD2 due to the complexity of our remaining workload.

This assessment clearly demonstrates that, under a common methodology and definition of workload, complexity has a significant regional characteristic that will have a material impact on the productivity of delivering workload and, as a result, will impact the cost of completing work in the GD3 period. This regional difference in complexity is not currently considered within Ofgem's cost efficiency determination or the regional adjustments that feed into it, highlighting an omission in ensuring Repex costs across networks are comparable.

Following submission of the GD3 Business Plan, we have engaged Decon to carry out two detailed reviews of complexity and independently assess the relationship between the costs we incur and complexity. This included:

- Detailed statistical analysis.⁹² of our historical cost data to identify if there is a statistically robust alignment between the complexity factors identified within the GD3 Business Plan, and the observed costs of delivering projects with these characteristics in the past; and
- A survey of contractors and engineering managers to understand the impact of complexity based on their practical experience.⁹³ This was a replication of an interview that we originally completed internally as a part of our GD3 plan; Decon undertook a separate assessment to provide additional independent rigour.

Combined, these two exercises provide compelling evidence regarding the regional impact of complexity on costs, how these can vary by region and build on the evidence base presented as part of our GD3 Business Plan submission.

In their statistical analysis, Decon reviewed the detailed characteristics of over 9,000 historical projects to assess whether there was a relationship between observable complexity characteristics and realised cost, and whether this relationship was statistically robust. Decon's analysis.⁹⁴ identifies that all complexity factors positively impact cost, with particular consistent statistical significance for Ductile Iron, Cross Road Services and Road Crossings.

From the assessment of the prevalence of complexity in projects and the greater incidence of complexity in the South.⁹⁵ it follows that there is a strong regional aspect to the impact of complexity on productivity and, hence, costs. We demonstrated this within our business plan.⁹⁶ showing the trend of productivity against a baseline of a 'standard job'.⁹⁷ clearly showing a historical 10% difference between the Scotland and Southern networks which is increasing within GD3 to over 20% regional differences between networks for productivity.

The second assessment undertaken by Decon was analysed the impact of complexity factors on productivity. As a part of their contractor engagement, Decon carried out interviews of our contractors and building managers to establish the time impact of different complexity factors.

The Table below shows the minimum, maximum and mean response of those surveyed. It compared the time to undertake a project (meters per week delivered) under different project characteristics with the time to complete a standard base project (i.e. where the mains run down each side of the street and there are standard service lengths to each), to establish a percentage change in productivity.

⁹⁰ SGN-GD3-ECR-01 MJM Historical review of REPEX, Dec 2025, figure 4 and figure 5, pg. 15

⁹¹ SGN-GD3-SD-08 Cost assessment and Benchmarking Approach, para 648-658, Ofgem cost bilateral 27/03/2025, CAWG 18 04/03/2025

⁹² SGN-GD3-DD-ECR-05 - Decon - REPEX Mains Lay Cost Modelling Report, July 2025, section 6

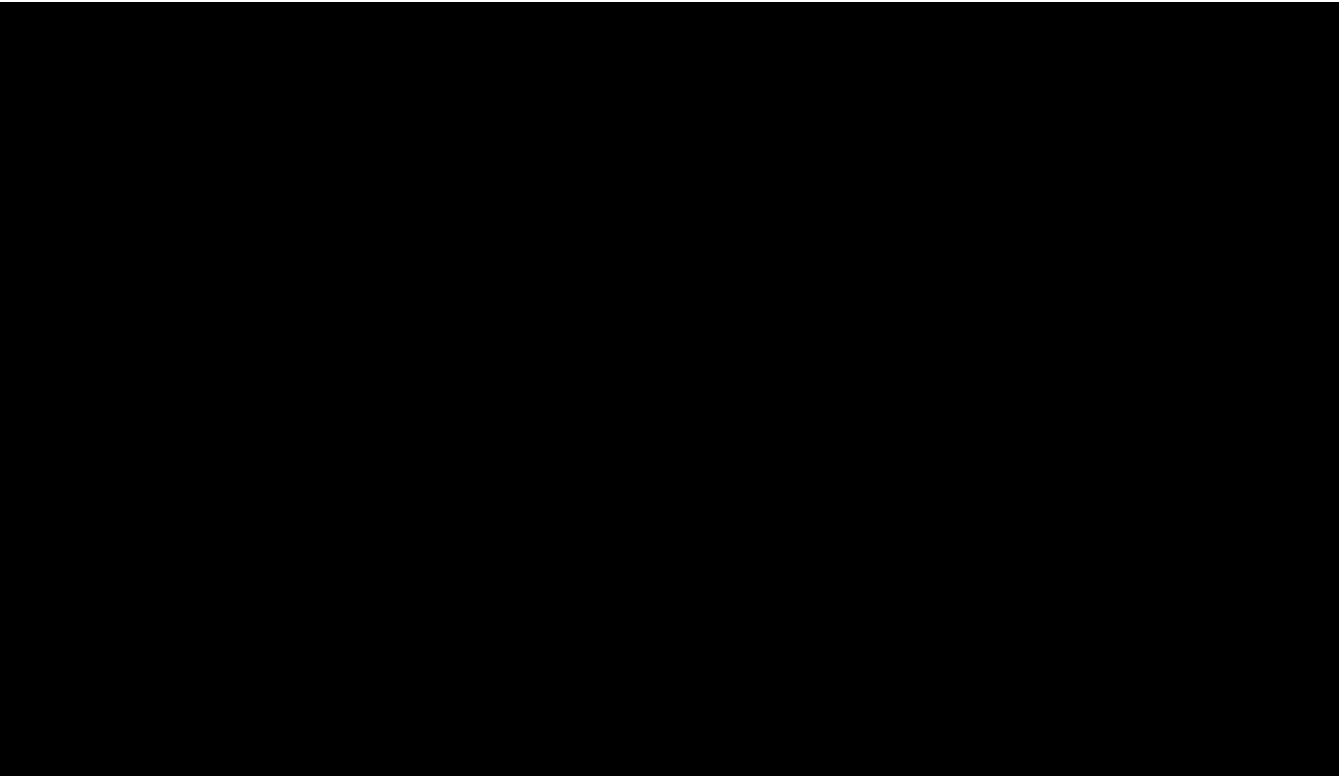
⁹³ SGN-GD3-DD-ECR-04 - Decon REPEX Cost Validation - Productivity Assessment Survey, July 2025.

⁹⁴ SGN-GD3-DD-ECR-05 - Decon - REPEX Mains Lay Cost Modelling Report, July 2025, section 6.6.1

⁹⁵ SGN-GD3-SD-06 Network Asset Management Strategy, Dec 2025, Table 51, para 100-104

⁹⁶ SGN-GD3-SD-08 Cost assessment and Benchmarking Approach, pg. 93, figure 50

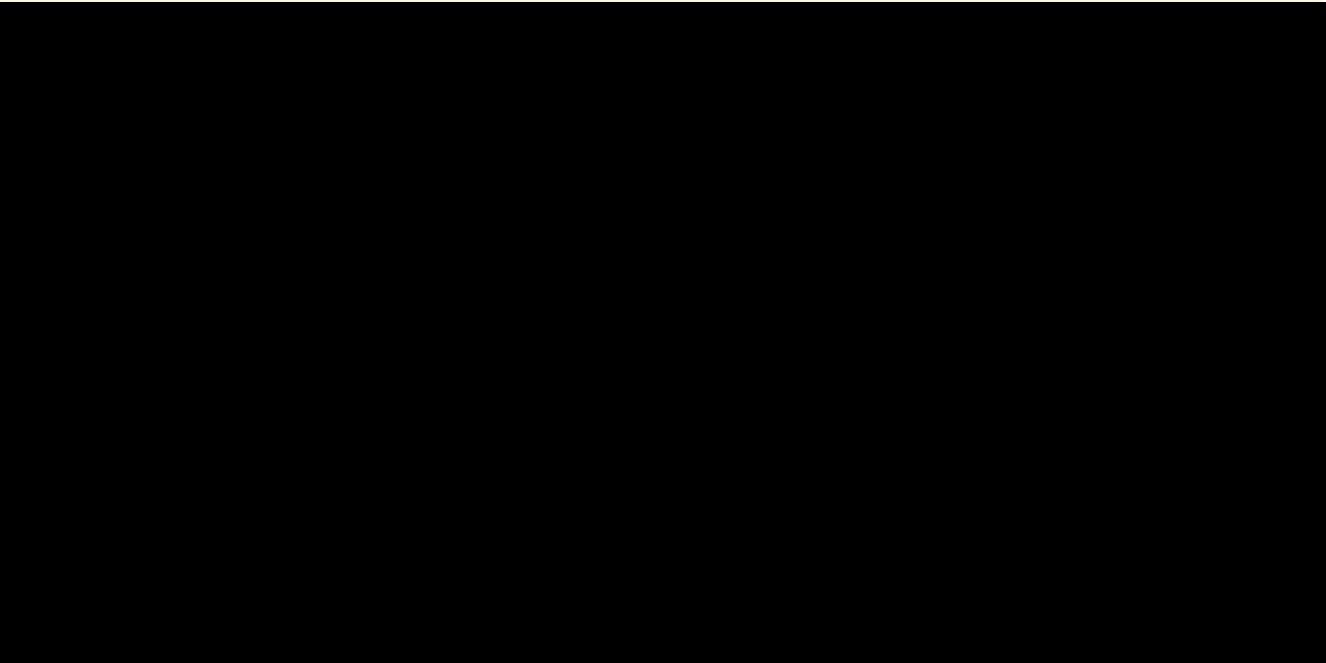
⁹⁷ Assumed to be a dual sided main of cast iron material with no other network configuration challenges.



Source: Deecon REPEX Cost Validation - Productivity Assessment Survey, Table 3

The survey highlighted that complexity factors identified were consistent with the experience of operatives, and they all had a negative impact on productivity, measured as meters per week, some by up to 40%. The impact of complexity factors on productivity was aligned with the internal analysis SGN had conducted to support our business plan positions.

The survey also compared the difference between respondents in Scotland and Southern as set out in the Table below.



() the percentage difference is measured as the percentage change around a mid-point.
Source: Deecon REPEX Cost Validation - Productivity Assessment Survey, Table 20*

Table 15 demonstrates that an elevated impact for each aspect of complexity was reported by Southern respondents, with complexity in Southern being 31% higher on average, compared to Scotland. The survey therefore supported the notion that the productivity impact of complexity factors on Southern was greater than the productivity impact on Scotland.

With all the evidence available, we can state that networks have an increasing cost challenge towards the completion of the Tier 1 IMRRP through increasing aspects of complexity. SGN have identified 8 complexity factors that materially impact the productivity of our delivery partners, and each factor exhibits differing productivity impacts against a 'standard job' of between 4% to 41% by the mean impact. These complexity factors will impact networks differently due to differing network configurations, meaning the impact of complexity will be highly regional. We can identify for Scotland and Southern a significantly differing impact of these complexity factors on our networks, causing a relative 20% gap between the networks in productivity. We have also proven that there is statistical (as well as intuitive) relationship between complexity factors and costs networks incur.

Within Figure 7 above, we discussed a gap of £41 / meter within the tier 1 unit rates between the Scotland and Southern networks that was unexplained between the latest view of unit rates. The relative gap between Scotland and Southern (alongside the lack of consideration of contractor wage premia and latest urbanity productivity factors) is a large contributing factor to this currently unfunded gap.

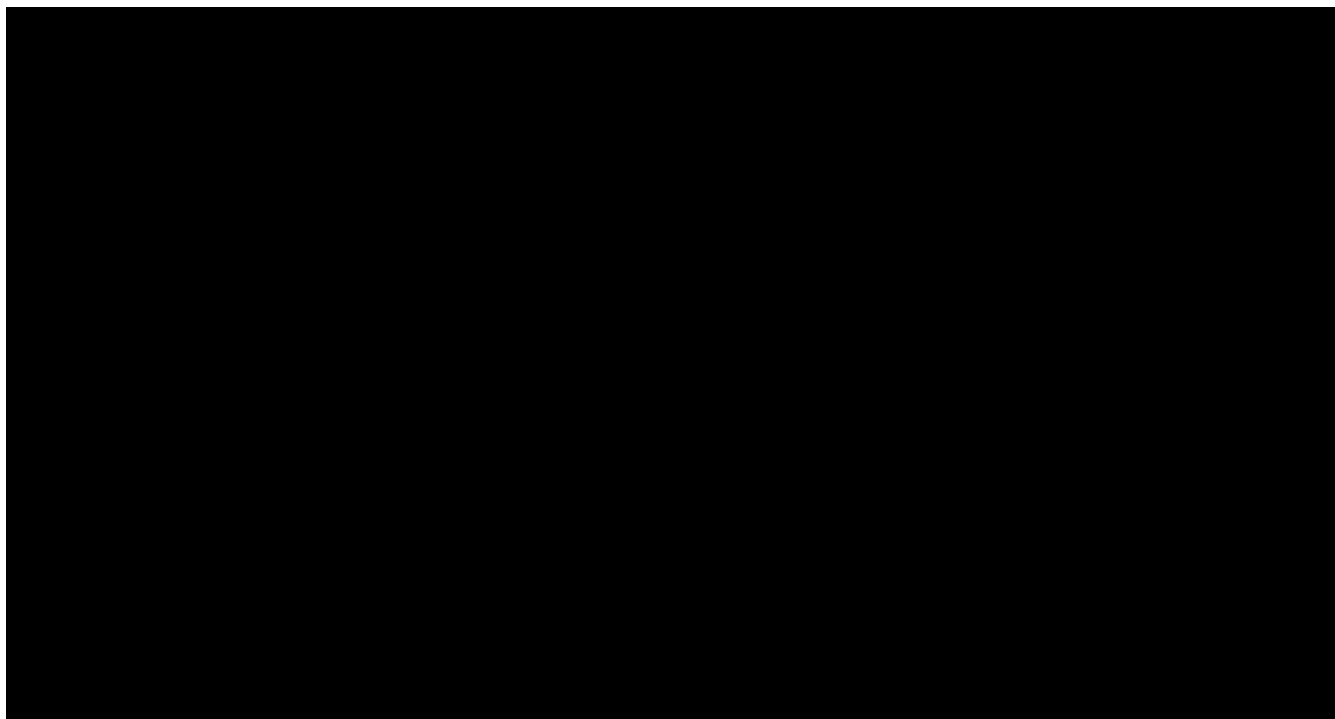
Is the Repex Synthetic an appropriate driver

- 458 The repex synthetic driver is determined through the multiplication of submitted workload and an industry average unit rate by differing disaggregation of cost component (band type and activity type). We discuss within GDQ40 challenges relating to the workload that is utilised within the repex synthetic calculation. For the determination of unit rate, a rule-based approach is utilised to omit any outliers before an industry average unit rate is derived for each disaggregated level.
- 459 We presented within our business plan⁹⁸ and engagement with the sector since submission an alternative of this rule-based approach which could utilise regression analysis to help determine the appropriate unit rates ahead of determining the driver figure for each network. A benefit of this approach would be an increased statistically robust approach compared to a qualitative rule-based approach as well as the ability to build alternative drivers within a regression to help capture other cost drivers. We presented to Ofgem this approach utilising the GD2 final determination data which resulted in materially the same output as the GD2 rule-based approach, validating the solution to be as robust as the current process in place.
- 460 One way to assess this is to perform a regression of Repex synthetic cost against the repex cost. While one might do this to advocate for utilising a middle up model for Repex, at this point, it is only to validate the use of the driver within a totex model.
- 461 For the GD3 dataset, we have analysed the repex synthetic driver utilising this alternative regression approach. Using updated data after error corrections have been applied, provides both encouraging and concerning insights. On the one hand, there is a clear statistical relationship between Repex Synthetic and Repex cost (with an R^2 of 0.85 and a highly significant coefficient p-value). On the other hand, the model does not pass the heteroscedasticity, RESET, or normality tests. We also observed a high RMSE and a Mean Absolute Percentage Error of 61%.
- 462 Taken together, these results suggest there are patterns in the residuals that indicate underlying issues with the model or missing explanatory variables. In particular, it appears that the current rule-based formulation of the Repex synthetic driver may be introducing skewed observations or failing to fully capture the factors influencing costs. Addressing these inconsistencies is essential to ensure the robustness and reliability of the modelling approach.
- 463 If these errors are, in effect, carried through to allowances (via the use of the repex synthetic as a driver in the totex model), there is a significant risk that some of the networks are underfunded for their Repex workload.
- 464 As such, the detail of the Repex synthetic calculations warrants scrutiny with a statistical approach to determine unit rates useful. The areas of note are unit cost calculations and accounting for complexity.

Unit Cost Calculations

⁹⁸ SGN-GD3-SD-08 Cost assessment and Benchmarking Approach, pg53 – 55, para 354-364.

- 465 The filtering rules that are applied to the unit costs to generate the industry average unit cost should be updated from a rule-based approach to a more statistically robust approach. We have some concerns over the rules-based approach outputs and the resulting trends.
- 466 Firstly, the model error associated with a simple middle up model is excessive at over 60% (the Mean Absolute Percentage Error). We are concerned that the filtering of unit costs using the +/- 40% rule may be generating industry averages that are eliminating too many valid unit costs and thus generating too low a repex synthetic driver for many networks, which might be driving the resulting large model error.
- 467 Secondly, this understated unit cost is illustrated by the trends within the unit costs submitted by networks. Take for example the tier 1 iron band B unit costs presented below:



Source: SGN analysis of GD3 DD model suite – GD3_Repex_SyntheticUnitCosts.xlsx

- 468 The chart displays the submitted unit costs by network and year, with the derived industry average unit cost overlaid via the dotted line which is the input for the current rule-based approach to determining the repex synthetic driver.
- 469 There is an upward drift in costs that the industry average is not accounting for within the industry average unit cost which would suggest a time element within the submitted unit rates from networks. This has the impact that the industry average unit cost in 2014 is higher than all, but one network submitted. By the GD3 time period, the industry average is well below what nearly every network forecasts the unit cost output, showing a clear omitting of costs relating to complexity cost pressures which are forecast for all networks to be within the GD3 period.
- 470 Further, for those networks like Southern where there is a clear regional aspect to complexity (as described within the “Complexity within the Tier 1 Repex programme” case study above), valid data points are being omitted from the calculation of the industry average.
- 471 While this is only for one band, it does question whether the industry average methodology is working well. It may be the indexation (via CPIH) is insufficient. Or it may be that other factors are affecting this tier that are not adequately accounted for, like complexity.
- 472 It may be that some tiers require a time dependent variable added. The easiest, and most robust, way to apply that would be via a regression model approach.

Accounting for Complexity

- 473 For complexity we agree that without sufficient definition and identification of the complexity factors within reporting there is a risk of incorrect assumptions made. We have been able to demonstrate between Scotland

and Southern by using common definition of network configuration factors you would expect to have an increased productivity impact through 'complexity' then in Scotland network – which makes clear there is an element of regional complexity impact within the cost forecasts of network and a consideration of this is required within modelling.

474 We welcome Ofgem's points within para 5.219 on the considerations required to include 'complexity' within the repex csv driver and will work with other companies in order to determine a common definition. Despite this, with the period of time remaining before final determination there is a high chance that commonality of definitions across networks will not be able to be achieved.

475 Even if a common position on the definition complexity factors is eventually reached, there may still be elements that are overlooked. Adjusting the modelling suite to fully account for these will be demanding and increases the likelihood of unintended consequences. It might, therefore, be more practical to pursue a simpler approach that could yield nearly the same results without significant additional effort or complexity.

476 Arguably, it might be better to find a proxy to account for the regional aspects of complexity amongst networks. As indicated within Decon's analysis of the statistical alignment between costs and complexity factors.⁹⁹,

477 *"As expected, the Southern network has a greater occurrence of complexity per PON than Scotland. A greater level of Service Density, Long Services, and Road Crossing complexity factors in Southern primarily drive the difference. This highlights the density of the Southern network as the urban environment necessitates a greater density and quantity of services."*

478 As such, a suitable proxy for the regional aspect of complexity factors would be network density. We have discussed this within subsequent engagement with Ofgem post our business plan submission at both bilateral and working group level.

479 An initial test, adding it to a middle up model of:

$$\log \text{RepexCost} = \beta_1 + \beta_2 \text{RepexSynthetic} + \beta_3 \text{Density} + \beta_4 T1 + \beta_5 T2 + \epsilon$$

480 While the inclusion of a density variable demonstrates significant promise, it will prove most effective when applied directly at the unit cost level. This would enable more accurate differentiation in unit costs across varying density areas, reflecting the real-world variation encountered by networks.

481 We acknowledge that Ofgem may have reservations regarding such an approach, as there may be concerns about potentially endorsing a wide spectrum of differentiated unit costs, thereby reducing the incentive for networks to pursue greater repex operational efficiency. However, it is important to highlight that SGN has previously recommended the adoption of regression modelling at the Tier level to determine the industry's efficient Repex unit costs. This methodology can be readily adapted to include a density variable. Further, as discussed within GDQ32 by incorporating this alternative plausible model approach view as part of a multiple model aggregation, a more balanced view of determining cost efficiency can be had.

482 By incorporating density into the regression approach, the resulting line of best fit would serve as a density-adjusted industry average, providing fair recognition of regional differences while maintaining robust constraints. This ensures that while a density adjustment is introduced, the model does not accept all unit costs indiscriminately. Instead, it continues to incentivise efficiencies by limiting outcomes to those consistent with the industry's overall performance benchmark.

483 Such an approach offers a balanced pathway: it accounts for legitimate regional variations, preserves the integrity of the efficiency challenge, and ensures that the calculation of industry average unit cost remains both representative and appropriately challenging.

484 SGN believe that the Repex Synthetic costs approach is required to be re-examined. We believe that a regression approach to calculating industry level unit costs should be utilised, to correct for time trend issues which reflect the notional impact of complexity factors as well as the ability to build in a proxy (*suggested network density*) for complexity that accounts for the regional aspects of complexity. As part of our submission, we have provided a model that incorporates an alternative approach to determining the repex synthetic unit rates as well as a supporting technical paper (SGN-GD3-DD-TechSupp-01) to explain our approach to adopting these changes.

⁹⁹ SGN-GD3-DD-ECR-05 - Decon - REPEX Mains Lay Cost Modelling Report, July 2025, section 10.3, pg53

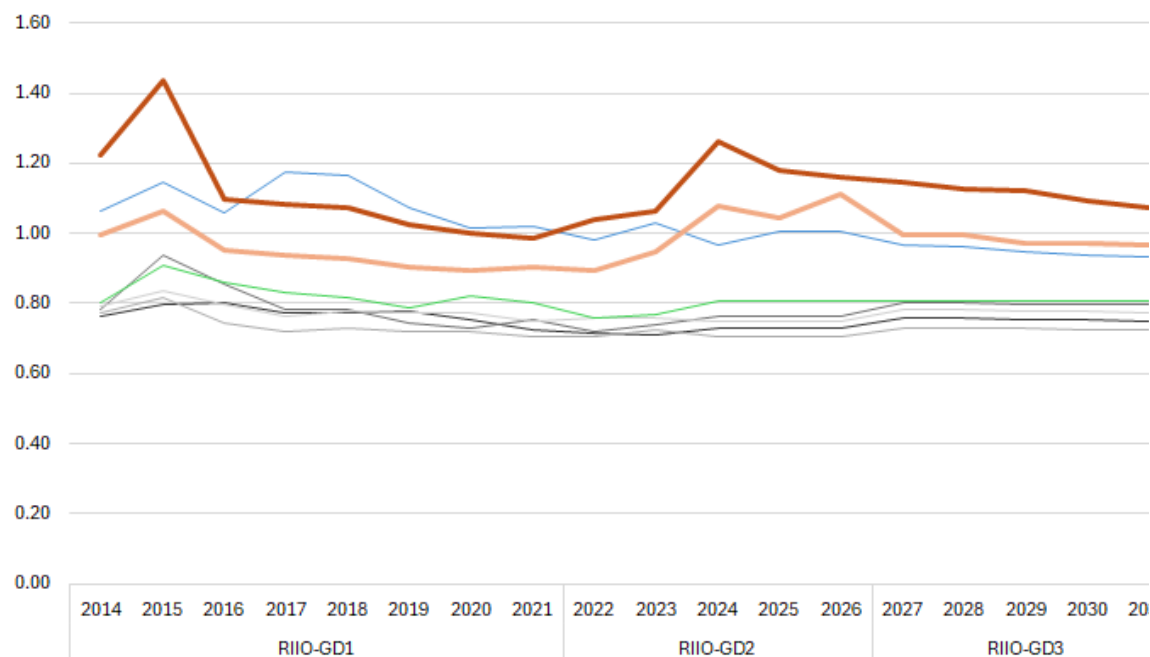
CSV Weighting

- 485 The method by which cost driver components are combined within a Composite Scale Variable (CSV) can materially influence the assessment of efficiency. As referenced in our response to question GDQ32, we have demonstrated that alternative modelling—delivering virtually identical statistical metrics to Ofgem’s current candidate model—can nonetheless produce markedly different allowance outcomes. This highlights the importance of scrutinising model assumptions and ensuring they accurately reflect operational realities.
- 486 Ofgem’s current efficiency assessment benchmarks each company against a notional company, and we note that the Cadent proposal for a bottom-up CSV, which employs bottom-up regressions and subsequent reweighting, was rejected partly on the grounds that it undermines the notional company concept.
- 487 Evidence from the Cunliffe review of the Water sector is particularly relevant here. Cunliffe criticises notional company benchmarking for its failure to fully account for the regional differences networks face—a position we share. SGN has consistently raised concerns about the significantly different efficiency outcomes for our two networks, which are rooted in unique regional contexts.
- 488 It is important to acknowledge that much of the current network configuration is a legacy of nationalised predecessors, and therefore, activity levels are not solely within management’s discretion. Furthermore, many obligations are statutory and not readily alterable.
- 489 Moreover, Cunliffe questions whether the notional benchmark and efficiency frontier give so-called “laggard” companies a fair opportunity to improve. Achieving efficiency gains in such cases may be particularly challenging within a single price control period, especially given regional circumstances. While improvements may be realised, they can appear minimal when judged against a moving notional benchmark, which itself can shift in subsequent controls. Cunliffe raises doubts as to whether companies making genuine progress are sufficiently recognised and rewarded.
- 490 Further, we observe inconsistency with the approach to notional company benchmarking across sectors. In the Electricity Distribution sector, the ED2 model employs a bottom-up CSV approach, weighting each network’s expenditure shares by activity area within one of their multiple model totex approaches. This method, while less sophisticated than the Cadent proposal, better addresses the regional activity differences that we are exposed to than the current top-down approach to weighting. Thus, Ofgem already has a ready-made approach to address the concerns raised by Cunliffe which has not been adopted in Gas Distribution.
- 491 The bottom-up CSV approach also facilitates a transparent allocation of allowances aligned to activities required within each region, ensuring that unique operational needs are reflected in the benchmarking process. This directly links to the discussion in GDQ45 and would provide support to determining the disaggregation of totex allowances.
- 492 Ofgem should move away from the exclusive use of the notional company benchmark in Gas Distribution and adopt a bottom-up CSV approach, as successfully implemented in Electricity Distribution. As discussed within GDQ32, this can be implemented as part of a multiple-model approach to assessing the appropriate efficiency of networks, enabling econometric models that reflect the realities of the areas in which we operate.
- 493 We have shared updated Stata code and model suites to support this methodology, which ensures driver allocation is consistent with actual and forecast costs from network business plans. We have further embedded this approach within the cost model suite and provide alongside this submission.

Total External Condition Reports

- 494 The total External Condition Reports driver is used to explain the efficiency of repair costs across networks and is worth 6% of the overall CSV driver used by Ofgem.
- 495 We have highlighted since the GD2 price control period, the ratio of Reports to Repairs across company seems to indicate an endogenous nature of External Condition Reports, which can be influenced by company policy as to when a further new report is phoned into the 0800 emergency number.
- 496 We present below the ratio of Repairs to Reports which highlights the clear company differential across this ratio.

Figure 9: GDN Repairs to Report ratio across time



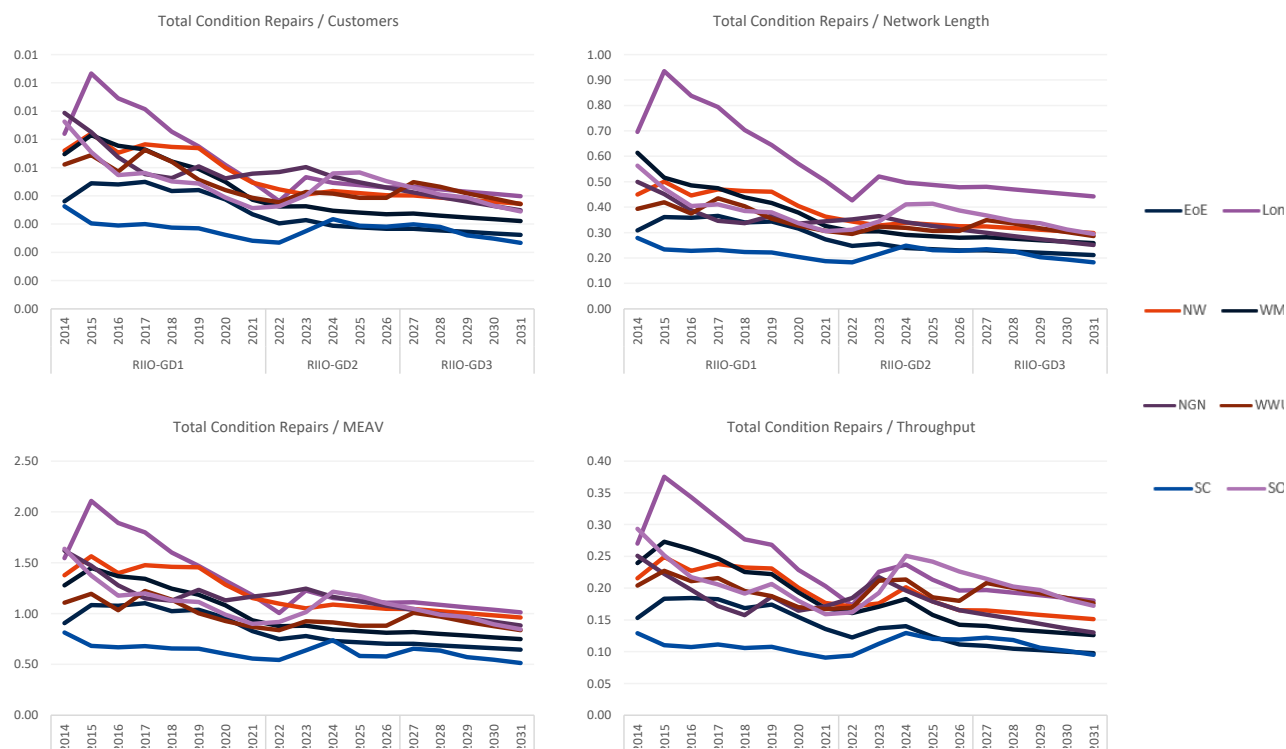
Source: SGN analysis December 2024 submitted GD3 Business Plans

- 497 The figure above shows that there is a consistent differential between the number of repairs carried out per report. Scotland, Southern and WWU have consistently higher repair-to-report ratios compared to the four Cadent networks and NGN. It also shows there is a clear disparity in networks' total conditional repairs undertaken per external condition report, and there is no engineering rationale for why a network should have a higher or lower number of repairs per report.
- 498 Gas networks have different internal policies for when a repair should be reported as a new report. When an engineer attends a site following a public report of a gas escape, they will first identify whether a repair is required or not. They will also do a sweep of the broader area to identify if there are any more gas escapes that require repair in the local vicinity. Given that escaped natural gas may migrate a significant distance through ducts and corrosion tends to impact the same part of the network, an initial excavation may require extending to include more than one repair. Alternatively, multiple excavations and repairs may be required to fix all the leaks in a given area. If all these repairs are in the initial sweep area, some networks will attach all the repairs required to the same initial public report. Other networks will require the engineer to call in a new report for each additional repair identified. This explains how company policy (an endogenous factor) is creating a disparity in the repair to report ratio.
- 499 Within CAWG 22 the GDNs discussed their internal policies as to when to report to the 0800 emergency number after the initial report was responding to. It was clearly discussed that NGN have a different policy as to when to phone in a new 0800 emergency report. This would explain why there is a different ratio across companies and highlights the endogenous nature of External Condition Reports.
- 500 The ratio between the repair activity to reports is therefore impacting the cost assessment determination of networks' operating efficiency. As there is clear evidence to support company policies impacting the condition reports presented, it is difficult to see the basis on which the Draft Determination concludes that using the total condition reports to explain repair costs within the CSV continues to meet the criteria for being a robust driver.
- 501 As explained above, the process through which an extra report is called into the gas emergency number cannot be considered 'outside of management control' or 'consistently reported' as suggested within the Draft Determination. Attempting to use such a flawed metric will inevitably result in an incorrect allowance at GD3, as they were in GD2. We note there is no formal definition within the Ofgem Regulatory Instructions and Guidance (RIGs) that would enable a common approach as to when a report was phoned in from a GDN colleague, and genuine reasons as to why this would happen.

GDN Question Responses (GDQ)

502 In selecting an appropriate driver, the ideal driver is exogenous (i.e. there is limited impact that an individual network can have on driver). The figures below show four alternative approaches to removing 'human' or endogenous aspects of the process and how this generates very different outputs. The graphs presented below are (i) repairs per customer, (ii) repairs per network length, (iii) repairs per MEAV (modern equivalent asset value) and (iv) repairs per throughput.

Figure 10: Alternative repair to report ratios



Source: SGN analysis December 2024 submitted GD3 Business Plans

503 These figures show that when the endogenous aspect is removed, then the respective ratios become less determined by ownership group and less uniform. All of these alternative configurations have less risk of alternative company specific practices and processes distorting the repair-to-report ratio set.

504 The driver must also be justified by a strong engineering rationale as to why there is a link between the driver and the cost incurred. We do not think that this exists for the four graphs presented above.

505 An appropriate cost driver parameter needs to be both (a) exogenous, in that there is little or no impact that company policy would have on the numerical value of the driver for any given set of repairs, and (b) justified by a strong engineering rationale as to why there is a link between the driver and the cost incurred. The only parameter we have identified that meets these criteria is repairs on metallic mains, on the basis that it accounts for approximately 90% of total repairs undertaken (PE accounts for approximately 80% of total network length and only 10% of repairs).

506 Within CAWG 22 the GDNs discussed their internal policies as to when to report to the 0800 emergency number after the initial report was responding to. It was clearly discussed that NGN have a different policy as to when to phone in a new 0800 emergency report. This would explain why there is a different ratio across companies and highlights the endogenous nature of External Condition Reports.

507 As such, it would be inappropriate to utilise External Condition Reports as a driver to determine the efficiency of repair expenditure. SGN recommends the metallic length¹⁰⁰ as a more exogenous driver and provide a more suitable determination of efficiency of cost submissions. As an alternative for testing, repair workloads can be utilised after an engineering review utilising a driver such as metallic length to determine company assumptions on network degradation are consistent and comply with engineering expectations.

¹⁰⁰ Note that metallic length within the current cost model suite has not been updated for latest information

MEAV

- 508 Modern Equivalent Asset Value (MEAV) has a 38% weighting within the totex model CSV driver, so is significant in determining the efficiency of costs across networks. We agree that this scale driver has a strong ability to represent the networks we operate, reflecting the unique build-up of assets within our networks and shows mostly consistent behaviour across time which is what would be expected.
- 509 We do note though, that while the number of assets within our networks do stay mostly static across time, the relevant complexity of undertaking different activities does change across time with a key example being reflected within repex synthetic unit rates evolving over time.
- 510 The unit rates to determine the MEAV have not been updated since the GD1 period, and as such would be prudent to update the relative weights between assets with the latest available data.
- 511 We presented within CAWG 21 an initial view of this unit rate updating, and there was a material impact to the relative scale of MEAV across companies. As this data is available to Ofgem it would be correct to update based on the latest positions.

Capex Synthetic Driver

- 512 We present within GDQ36 above that both Connections and Reinforcement costs should be excluded from regression analysis due to policy changes greatly reducing this cost activity, and for reinforcement the remaining critical workload supporting efficient delivery of repex is increasingly bespoke, which requires technical assessment to ensure appropriate funding in alignment with engineering assessment.
- 513 The current model suite utilises the 18-year average of normalised gross totex to determine the appropriate weightings for the top-down CSV, which is providing too much weight to the capex synthetic driver for the GD3 period causing a misalignment between cost and driver. While the recommendation previously to move to a bottom-up CSV approach will partly remedy this issue, there will still be a logical misalignment for Connections between determined efficiency and totex allowances, plus the increasingly bespoke nature of Reinforcement activity that is better assessed through engineering expert analysis.
- 514 As such we suggest the Capex Synthetic driver is removed from the Totex CSV as it is increasingly minor within cost assessment, with Connections not linked to totex allowances and Reinforcement requiring technical assessment.

Emergency CSV

- 515 We are comfortable with the driver definition for emergency CSV despite there being still clear issues with the exogenous nature of reports as discussed within the above section on repair cost drivers.
- 516 We note that the Emergency CSV is made up of 80% customer numbers (a truly exogenous driver) and 20% external condition reports, as such the exposure to the endogenous external condition report driver is minimal, though still to note not entirely appropriate.
- 517 Within GD3 cost modelling we are comfortable with this driver and note this as an area that highlights the lack of appropriateness of a challenging 85% stretching catch-up efficiency target, due to the imperfect nature of driver selection (discussed further GDQ42).

Recommendations

- 518 The Repex Synthetic Cost driver is determined through a statistical approach which better captures an appropriate unit rate for determining the weight of each repex cost area and enables the introduction of a proxy driver to capture the regional differences between networks relating to complexity cost pressures for tier 1.
- 519 The CSV weighting is updated to utilise a bottom-up approach similar to Ofgem's adaptation within ED2.¹⁰¹
- 520 The driver for repair expenditure is updated to metallic length, or as an alternative an engineering review is undertaken on repair workloads utilising metallic length as the driver to determine consistency on underlying assumptions, and therefore the repair workloads are utilised as a driver.

¹⁰¹ SGN provided an updated Stata code and supporting technical document for how to implement this adjustment on 5th August 2025

521 The MEAV driver weightings are updated to reflect the latest unit rate information and provide more intuitive regional splits in areas such as governor MEAV factors.

522 The Capex Synthetic cost driver is removed as:

- (i) Connection costs are proposed to be normalised ahead of regression analysis due to the change in Ofgem policy for no connection activity to be totex funded within GD3.
- (ii) Due to Ofgem's position within DD to fund reinforcement through a volume driver, with only minor specific network positions on ex-ante funding would be more appropriate for a technical assessment.

523 The driver for repair expenditure is updated to metallic length, or as an alternative an engineering review is undertaken on repair workloads utilising metallic length as the driver to determine consistency on underlying assumptions, and therefore the repair workloads are utilised as a driver.

524 The Emergency CSV is continued to be used in its current form, though consideration of the endogenous nature of the 20% element of 'external condition reports' should be had for setting an appropriate catch-up efficiency challenge.

525 The Repex Synthetic Cost driver is determined through a statistical approach which better captures an appropriate unit rate for determining the weight of each repex cost area and enables the introduction of a proxy driver to capture the regional differences between networks relating to complexity cost pressures for tier 1.

526 The Capex Synthetic cost driver is removed as:

- (i) Connection costs are proposed to be normalised ahead of regression analysis due to the change in Ofgem policy for no connection activity to be totex funded within GD3.
- (ii) Due to Ofgem's position within DD to fund reinforcement through a volume driver, with only minor specific network positions on ex-ante funding would be more appropriate for a technical assessment.

527 The CSV weighting is updated to utilise a bottom-up approach similar to Ofgem's adaptation within ED2.

GDQ40. What are your views on our proposed workload adjustments to cost drivers?

528 We agree with the principle that cost drivers should be aligned to costs, which undergo an engineering review and therefore workloads may be adjusted, both up and down, compared to network business plan submissions. We therefore agree with adjustments on an alignment engineering review of workload. One area that requires robust engineering review is the banding mix and abandonment ratio assumptions within network business plans. There are clear and unintuitive assumption differences between network business plans within the tier 1 Repex activity causing material impacts to the cost modelling determination of efficiency across networks. This must be corrected.

529 We discuss within this question the general principal of workload adjustments to cost drivers and the Ofgem position within para 5.220 – 5.224 regarding Ofgem's concerns around Tier 1 mains workload forecasts.

530 Some cost drivers such as the Repex and Capex synthetic utilise workload to determine the driver value, and as such any qualitative engineering adjustments to submitted workloads should also be adjusted for determining the cost driver.

531 We disagree with some engineering adjustments and have provided further evidence to support the cost value of carrying out such workload, explained further with our responses within the SGN specific annex.

532 One area of workload adjustment that Ofgem has not adjusted for in the Draft Determination is the clear differences in assumptions between network banding mix and abandonment ratios for their T1 programs.

T1 Lay Banding Mix

533 The repex synthetic cost driver utilises the lay (*primarily PE pipe that is installed*) workload at band level with industry average unit rates to determine the relative size of workload each network has to complete.

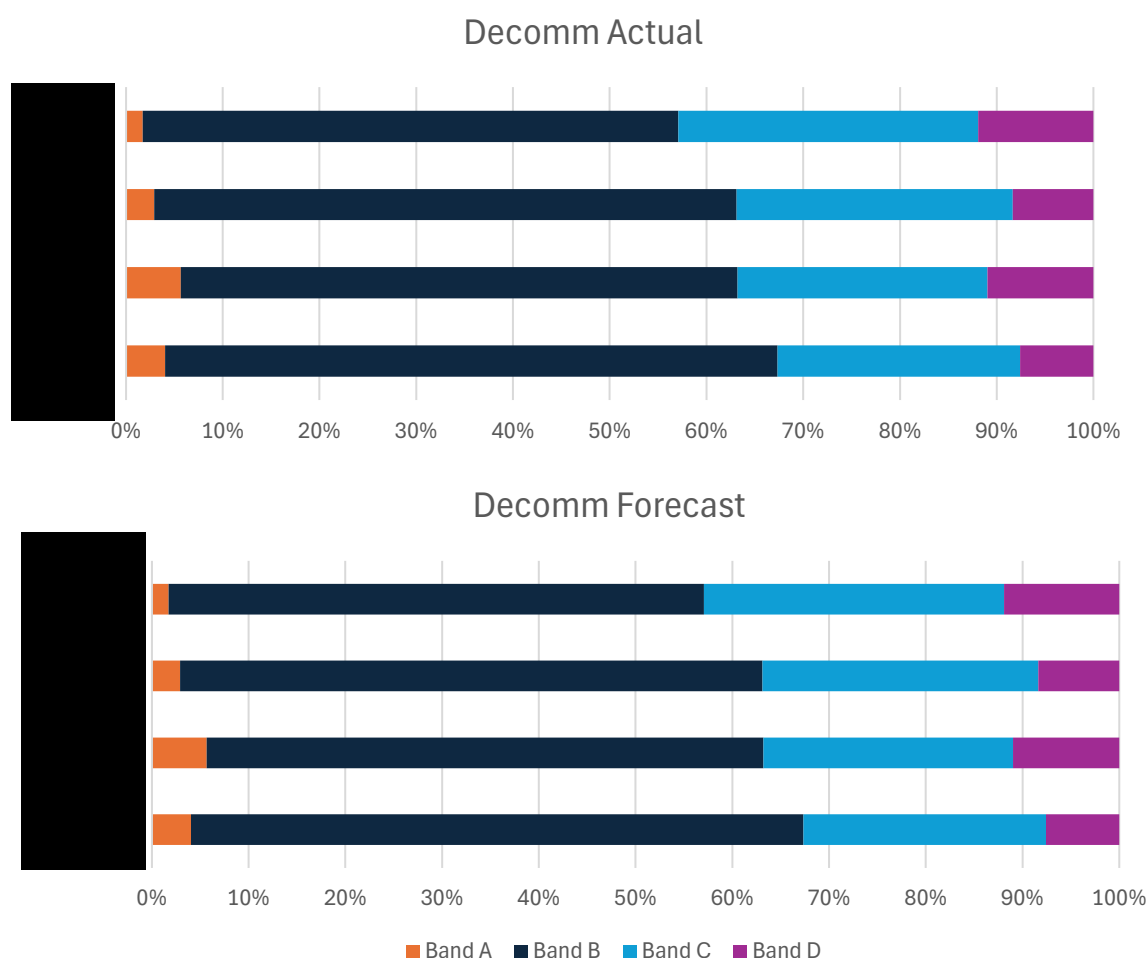
534 By utilising the forecast lay workload at banding level, the cost model embeds this view as being mix of activity that will be delivered in the GD3 period. While there is a Price Control Deliverable (PCD) in place for T1 mains

activity, this is set at the decommissioned (*the metallic pipe that is removed*) workload by bands which has a differing mix to what networks are forecasting for what they will lay.

535 Effectively, the forecast mix of lay activity will be crystallised within the unit rates that are determined within the decommissioning T1 PCD, meaning any potential efficiency improvement in delivery of lay bands (i.e. to be able to install a cheaper band A pipe for a decommissioned band C pipe) would not be adjusted for within the PCD. Equally, if a network has proposed an ambitious plan but is found that there are external factors that impact the ability to deliver the lay bands they had forecast, the PCD would not appropriately adjust to reflect this change in scenario.

536 We present below the mix of T1 decommission workload across all companies for actual (2014 – 2024) and forecast (2025 – 2031) as reported in business plan submissions:

Figure 11: T1 decommission workload mix for GD companies across actual and forecast period

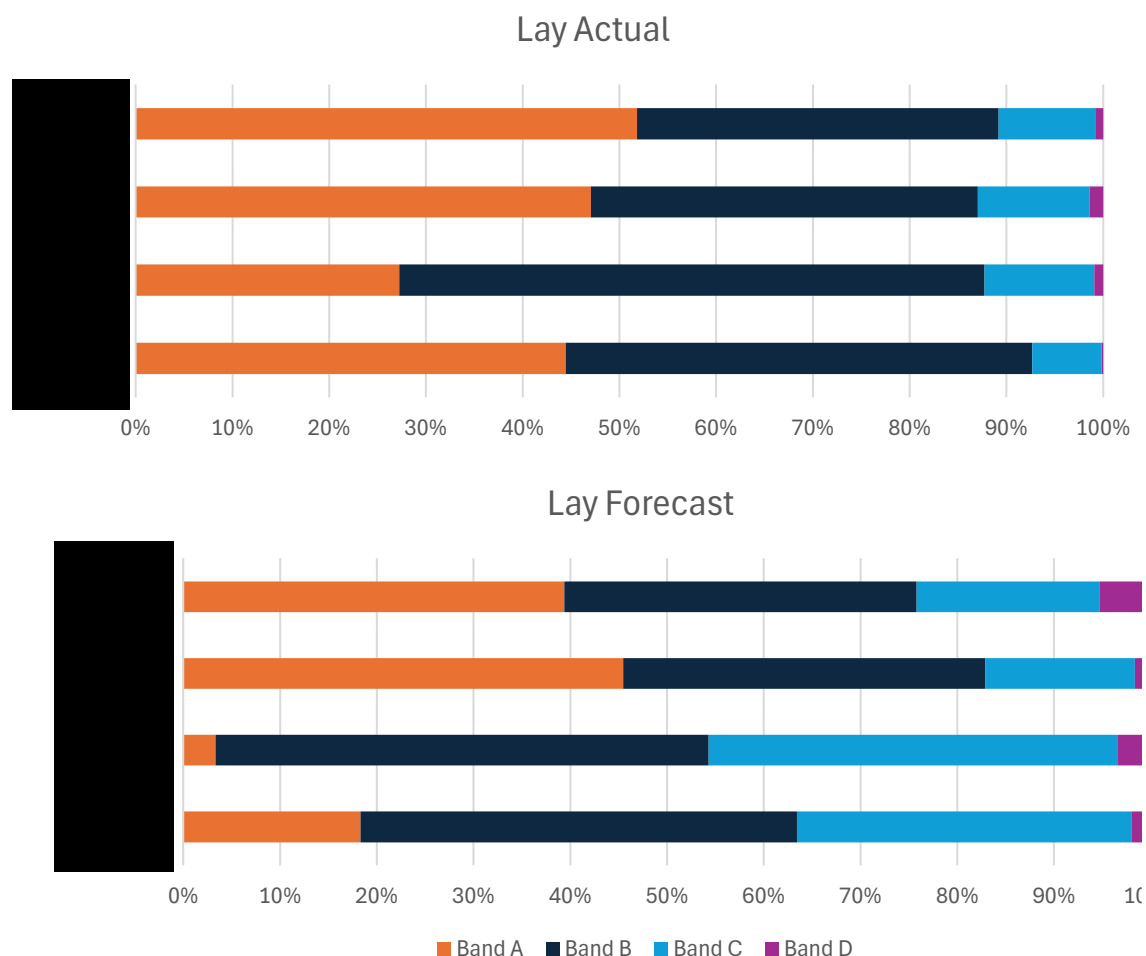


Source: SGN analysis December 2024 submitted GD3 Business Plans

537 We see a materially similar proportion of workload that is required to be decommissioned across all companies.

538 Next we present below the mix of T1 lay workload across all companies for actual (2014 – 2024) and forecast (2025 – 2031) as reported in business plan submissions:

Figure X: T1 decommission workload mix for GD companies across actual and forecast period.



Source: SGN analysis December 2024 submitted GD3 Business Plans

- 539 For [REDACTED] we can see a modest reduction in band A mix of workload within forecast lay activity with corresponding increases in band C workload which recognises the potential increases in complex workload within GD3.
- 540 For [REDACTED] the assumptions within their workload planning suggest a significant reduction in their ability to lay band A workload with nearly all activity moving to the band C workload category. We note in particular for [REDACTED] there was a forecast expectation that this would occur from the 24/25 year within their GD3 business plan forecasts, which has not materialised in the latest RRP reporting.
- 541 While there will likely be differences in workload required to be complete across networks, the significant change in mix of workload at company level presents clear evidence that underlying assumptions for determining the lay mix of workload in [REDACTED] forecasts are inconsistent with the approach taking by [REDACTED]
- 542 Ofgem acknowledge within para 5.220 that such differences in assumptions can have material impact to the outcomes of benchmarking. To determine the materiality impact, we have tested the lay forecast mix to be set at the same mix as historically achieved for all networks. The outcome showed relatively materially improvement in efficiency score for the [REDACTED] networks, recognising the efficiency of their submissions and resulting in a c.£150m increase in allowances. Below are the relative efficiency and rank movements:

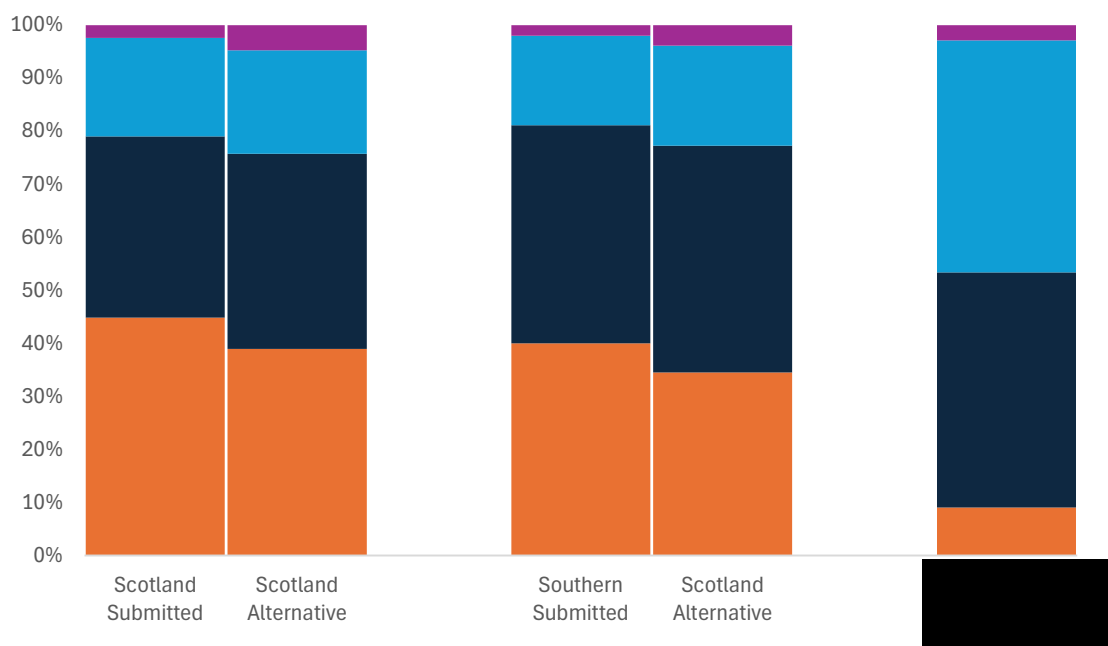
Table 18: Efficiency model outputs of lay band set as historical mix

	DD Base Model		Forecast lay banding mix as per historical	
	Eff Score	Rank	Eff Score	Rank
	0.968	3	0.983	3
	1.022	5	1.039	6
	1.028	6	1.043	7
	0.944	2	0.961	2
	0.910	1	0.915	1
	1.153	8	1.148	8
	1.010	4	0.990	4
	1.040	7	1.019	5

Source: SGN re-run of GD3 Draft Determination cost model suite

- 543 While we recognise there have been significant improvements in model quality due to the identification of technical errors, the materiality of the lay forecast assumption differences will remain in all versions of models as the underlying driver is being impacted by these assumption differences.
- 544 We acknowledge with some complexities there is a direct link to banding mix but propose an efficient business plan to maximise opportunities to downsize pipe diameter and reduce network length through a robust abandonment ratio.
- 545 The complexity factors we identify within GDQXX will have a limited impact on lay banding mix we implement, with the key impact of the complexity factors being the time it takes to manage excavations, planning and the risk our contractors associate with carrying out an increasingly complex work.
- 546 Further, we have reviewed the assumptions of increased open cut % amongst other network business plans, identified as a key driver within CAWG 22, impacting banding mix, resulting in a materially increased proportion of band C lay workload. Below we present the differences within SGN's lay mix that will incur if we utilise the other network open cut % alongside the simple average of [REDACTED] submitted banding mix.

Figure 12: T1 decommission workload mix for GD companies across actual and forecast period.



Source: SGN analysis December 2024 submitted GD3 Business Plans

547 As expected, we see a decline in band A lay workload of between 5-6 p.c points and a corresponding increase within band B and C workload. When comparing to the [REDACTED] mix ratio we are unable to replicate assumptions to match to their business plan proposals within an efficient and understood way. For clarity, we are confident that our submitted banding mix is efficient and deliverable within the GD3 period, and do not recognise a situation where band A workload will reduce so significantly across the full five-year period of GD3.

Abandonment Ratio

548 As previously discussed, the repex synthetic utilises the lay workload to determine the efficiency of our replacement program.

549 Networks have the ability to lay a pipe in a different design to the pipe that is being decommissioned, with such examples being:

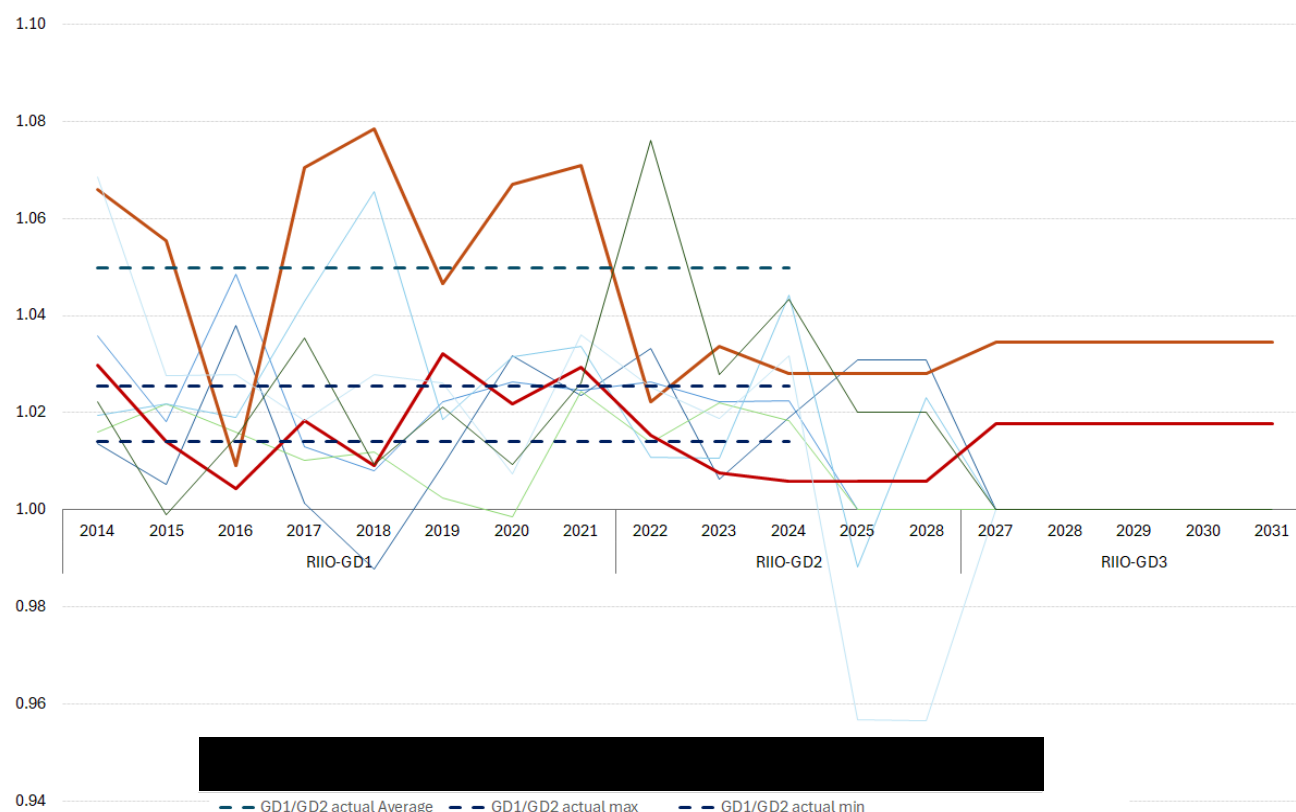
550 Converting a dual main to a single main, reducing the overall network length and driving cost efficiency through laying a lesser length of mains then decommissioning

551 Through efficient design opportunities removal length of network – it is in networks interests to outperform this ratio to reduce costs.

552 To avoid road junctions which would have productivity implications – while a greater length of pipe is laid this increase in cost would be assessed to be less than the counter-factual of following the existing track.

553 Networks have many different opportunities to differ the length of pipe that is laid to that which is decommissioned and historically have mostly achieved an abandonment ratio (the decommissioned / lay pipe) of over 1.0 showing efficiency in design of networks. The simple average across the sector for all actual periods (2014 to 2024) has been 1.026 indicating a 2.6% reduction in the amount of pipe installed, driving savings to customers.

554 Below we present the long term trend of abandonment ratio for T1 iron pipe.

Figure 13: T1 Iron long term abandonment ratio

Source: SGN analysis December 2024 submitted GD3 Business Plans

555 We can see on only minor occasions (██████ in 2018) has there been occasions where networks have delivered an abandonment ratio of lower than 1.00 within the actual periods. Further if we take the average of sector performance across 2014 to 2024, we see a very minor decrease 0.0001 on ratio each year.

556 All networks except SGN have assumed an abandonment ratio of 1.00 within the GD3 period, which is an assumption within their forecasts they will have no efficiency of design. The practical impact of this assumption is either:

- (i) Other networks have not embedded this cost efficiency within their plans, and when they deliver within the price control, they will outperform the embedded forecast assumption OR
- (ii) The cost efficiency is embedded within network forecasts, but due to the lay being utilised as the workload driver to determine efficiency this is causing other networks to have their cost driver to be overstated in comparison to SGN, causing an incompatibility in forecast assumptions to determining efficiency.

557 SGN have not appropriately considered the impacts of complexity to the abandonment ratio and our business plan is too ambitious. As there is no control for this assumption within the T1 PCD design the forecast for SGN will disadvantage their ability to deliver to the allowances.

558 As discussed in para 85 above, we acknowledge occasions where complexity factors can reduce the opportunity to maximise the abandonment ratio, and do acknowledge that these opportunities will increase within the GD3 period as we complete the T1 IMRRP, but there is also clear evidence of opportunities that networks can still abandon more pipe than they lay.

559 We are confident that we have presented a robust business plan which shows efficiency for our customers embedded within our workload assumptions.

Recommendation

560 Within GDQ38, we identify that the allowances at Draft Determination are insufficient for SGN when comparison against our latest tender market data. We identify the differences in assumptions and the lack of

the econometric modelling technique to control for this as a key driver for insufficient allowances to deliver our repex program.

561 The current forecast scenarios across networks are incompatible to enable fair efficiency benchmarking, with [REDACTED] putting forward commitments of delivery that drive value to customers. To enable a fair comparison of business plans a normalisation will be required.

562 Within our cost bilateral in March 2025, we identified three potential solutions to enable comparative benchmarking which would be applicable for both the banding mix and abandonment ratio issues:

- (i) A single level of design efficiency based on historical averages should be applied consistently to all networks, providing an incentive to networks that are able to implement a more efficient design and penalising networks that are not, or
- (ii) Networks that have maintained a high level of design efficiency (SGN and WWU) should be allowed to recalibrate to align with less efficient networks, or
- (iii) Networks should be required to restate their forecasts in line with good engineering design efficiency and provide an engineering rationale as to the variation.
- (iv) A single level of design efficiency based on historical averages should be applied consistently to all networks, providing an incentive to networks that are able to implement a more efficient design and penalising networks that are not, or

563 We agree with the principle if there are valid engineering adjustments to network workload forecasts, these adjustments should be made within the cost driver assumptions.

4.3 Non-regression analysis

4.3.1 Overview

GDQ41. Do you agree with our approach to non-regression benchmarking analysis?

564 An appropriate approach to non-regression benchmarking analysis is crucial to ensuring allowances are determined that enable the delivery of safety critical workload. Costs that have been marked for assessment through non-regression techniques have higher degrees of complications for the relationship between cost and recorded driver. As such, great care is required to ensure an appropriate determination of efficiency is calculated, with econometric techniques needing to be aligned with engineering judgement.

565 Within this question we discuss the differing approaches Ofgem utilise to determine efficiency as discussed within DD GD annex para 5.243 to 5.275.

566 As discussed within GDQ36 we agree with the principle of non-regression benchmarking to determine the efficiency of activities that are not directly comparable due to either uniqueness of cost within region network or lack of available data to enable suitable benchmarking approaches.

MOBs

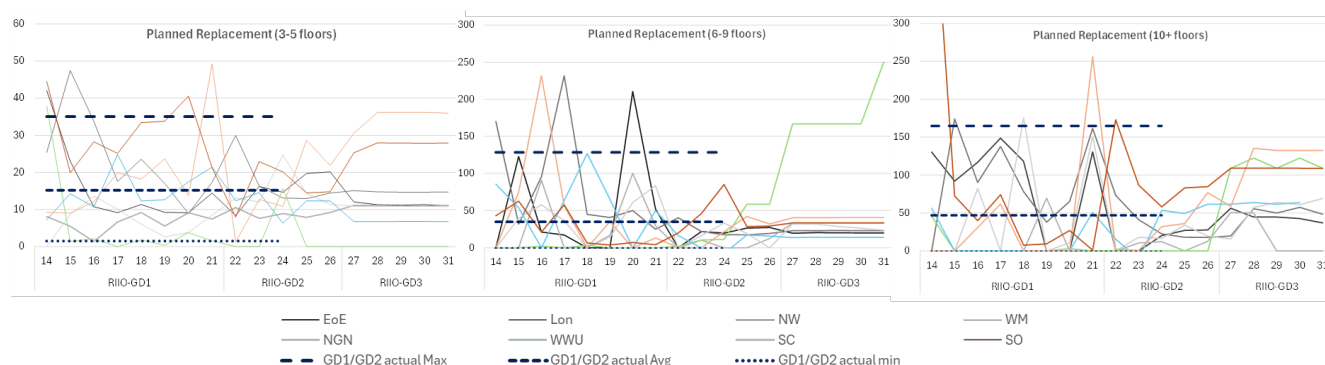
567 We have responded to Ofgem's engineering review within SGNQ16 noting our commitment to providing requested information to support an engineering acceptance of our workload program and our interpretation of HSE guidance relating to activities that are appropriate for us to consider with these high risk assets.

568 As the majority of workload was removed through engineering review which is expected to be returned, we note a lack of workload data to support a cost assessment review for the draft determination process. Our below comments have been made on the assumption the workload will be accepted through ex ante allowances, though please note due to concerns on cost confidence we are suggesting an alternative mechanism to manage this risk for GD3 within GDQ22.

569 There is a clear requirement to undertake MOB workload, however, the nature of the workload and the costs that will be incurred are highly uncertain. MOB costs have always been poorly reflected in the data that is collected and the drivers that are used in cost assessment (the number of floors in a building). This uncertainty is then magnified by changing standards and expectations that impact both the total workload and the design and cost of any repair or replacement.

570 The graphs below show the high volatility in the historical unit cost of replacing riser in the three categories of buildings collected within the annual RRP.

Figure 14: Planned replacement rate by number of floors (£000/riser) for all networks

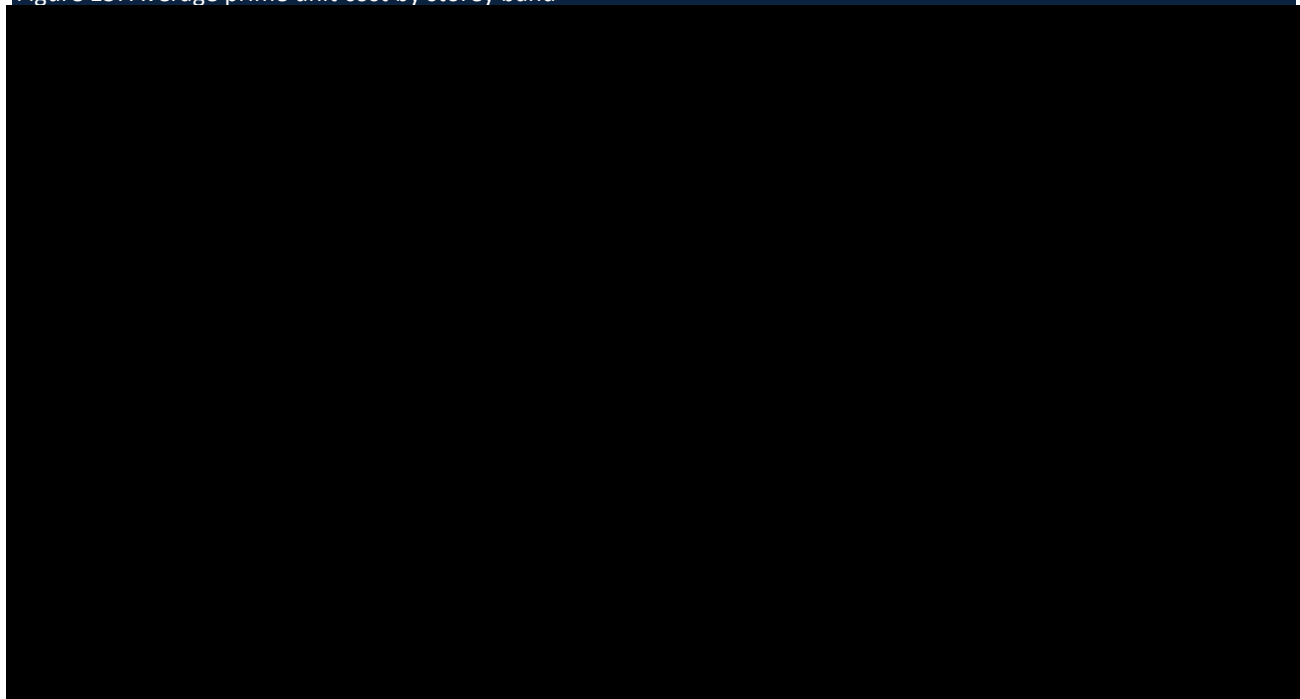


Source: SGN analysis BPD

571 Each graph presents three lines: the average, the maximum, and the minimum unit cost historically reported by each network. In the 3-5 floor category, average unit costs for buildings range from the low thousands to £50k. In the 6-9 floors category, the volatility in observed costs ranges from low thousands to over £200k per/riser. Whilst in buildings greater than 10 floors, the volatility is increased further with values greater than £250k per riser. This masks an additional layer of volatility surrounding individual data points of actual jobs undertaken in that year. This clearly demonstrates a very high level of volatility in observed network costs, and that the current driver, the height of the building, used within the Ofgem cost assessment pack, is not an appropriate basis on which to reflect costs.

572 Given the increase in workload, legislative changes and the volatility in costs, we asked Decon to undertake an extensive study into the cost drivers of MOB workload. This work builds on the analysis that they completed to inform our Business Plan submission and incorporates the most recent data, updated sampling and improved data completeness. Decon's review included a deep dive into a representative sample of delivered projects setting out the prime costs (costs directly incurred by the project and excluding corporate costs that are necessary for project delivery) from a randomly selected sample of 25 projects that completed in the years 2023-25 (a time period selected to provide closer alignment to the implementation of the BSR building regulations). Decon's also reviewed a purposive sample - five high-cost projects specifically identified to explore cost dynamics. The results are shown in the figure below.

Figure 15: Average prime unit cost by storey band



Source: SGN-GD3-DD-ECR-03 - Figure 2: RUC Distribution by Storey Band – Random Sample

- 573 The updated analysis¹⁰² showed the average riser unit cost (all buildings) was [REDACTED]. However as shown in Figure 5, there is a significant range, and from a random sample of 10+ storey MOBs, prime costs have a mean cost of [REDACTED] with an upper quartile of range of [REDACTED] between the lowest and the highest cost projects. With 3-5 storeys the mean cost is [REDACTED] with a range [REDACTED] and for 6-9 storeys the mean cost is [REDACTED] and the range is [REDACTED].
- 574 The analysis also used a purposive sample of high cost sites, to explore cost drivers. This sample had a mean cost of [REDACTED] and a range of [REDACTED] between the lowest and highest cost projects, it was identified that for the body of sites that had extremely high costs, the major cost drivers being scaffolding, and contractor costs. There are several factors that influence scaffolding requirements including height, the nature of the building, the structure of the building and whether the riser can be replaced internally or externally. For example, a lower rise building with a greater proportion of laterals (horizontal mains being fed by the vertical riser that run along the side of the building), is likely to have higher scaffolding costs than a taller building with single or multiple risers running up the side of the building to supply customers.
- 575 Decon's review identified that the Building Safety Regulator (BSR) is driving stricter oversight of work on high-rise buildings, mandatory approvals and safety documentation that risks delays, increased scaffolding time and administrative overheads. It also highlighted a growing shortage of scaffolders and the costs of new compliance criteria driven by Public Procurement Reform. Together, these regulatory, labour and procurement changes are increasing the cost of riser work.
- 576 There is also a strong regional element associated with some of these characteristics. For example, in Scotland the MOBs housing stock is uniquely dominated by tenements, which are historical low-rise MOBs that often have extensive laterals built into the building fabric and can be particularly challenging to address. Furthermore, Scottish legislation places onerous requirements that differ to those in England and the high threshold for high-risk building is lower than England (>11m rather than >18m).
- 577 As set out within section 2 of our overall response, our MOBs workload needs to be delivered, however the cost drivers currently in the cost assessment model are inadequate. Furthermore, as the workload was disallowed in the Draft Determination there has been no appropriate opportunity to explore differences in costs exists. It is our view that important cost drivers which must be considered are:
- (i) regional standards for building and fire (Scotland vs England);

¹⁰² SGN-GD3-DD-ECR-03 DEECON – Repex Cost Validation – MOBs and Risers, July 2025, pg. 3

- (ii) whether the intervention is pro-active or reactive;
- (iii) the length of vertical riser, horizontal risers and laterals;
- (iv) whether the replacement is internal or external;
- (v) whether replacements are external – scaffolding, local planning requirements/listed status, associated mains lay, and internal remediation work costs; and
- (vi) whether replacements are internal – fire proofing, ventilation, building modification and internal remediation work costs.

578 Each of these factors will have a significant impact on costs, however, while the legislation is in place, there is significant uncertainty in how it will be implemented in practice, which drives further cost uncertainty.

579 Due to cost confidence concerns, lack of data collated to explain cost movements and the seeming lack of consistency in cost forecasts across networks, we have proposed within our response a rolling two year re-opener mechanism to enable better understanding and reporting of data to support the robust and high confidence understanding of costs that support this highly safety critical workload.

580 We must still complete this workload for the first two years of GD3 and propose the initial two years of workload to be funded ex-ante. As there is no low confidence in the ability of non-regression model approaches to capture cost forecasts, due to inappropriate data to support such assessment, we have put forward an altered TIM for MOB's activity that instead of over/underspends being shared on a 50:50 basis between customers and the network, it is shared on a 90:10 basis, with customers taking 90% of the cost of under or over performance and networks taking 10%.

581 To facilitate improved reporting to capture the true cost drivers of MOB's activity we will submit an alternate reporting template for GD3 regulatory reporting and propose to engage within the GD3 RRP working groups to ensure the template is robust in supporting the reporting of the true cost drivers of MOB's activity. This template should collect information regarding:

- (i) scaffolding costs within bespoke and standard references,
- (ii) the length of vertical riser, horizontal risers and laterals, and
- (iii) whether the replacement is internal or external
- (iv) local planning costs
- (v) associated mains lay,
- (vi) internal remediation work costs; and
- (vii) fire proofing, ventilation, building modification costs.

582 To summarise, the approach carried out for non-regression benchmarking for GD3 final determination will be unsuitable to fully capture the cost pressures of MOB's activity due to changing risk and legislation within this area, and therefore we propose an alternative approach to minimise unnecessary funding risk for networks within the GD3 period of utilising a re-opener approach once more robust cost driver data can be captured.

Streetworks

Period of assessment

583 Due to a large proportion of our network being amongst carriageways, we incur Streetwork costs through Local Authorities (LA). We note LA's have been increasing the costs that we incur to carry out our safety critical workload, and across GD2 have experienced the largest increase of costs than any other network through the regions in which we operate.

584 Streetwork costs is an expenditure area that have clear regional factors, and the directly incurred as well as productivity cost of working within Streetwork compliance is increasingly material.

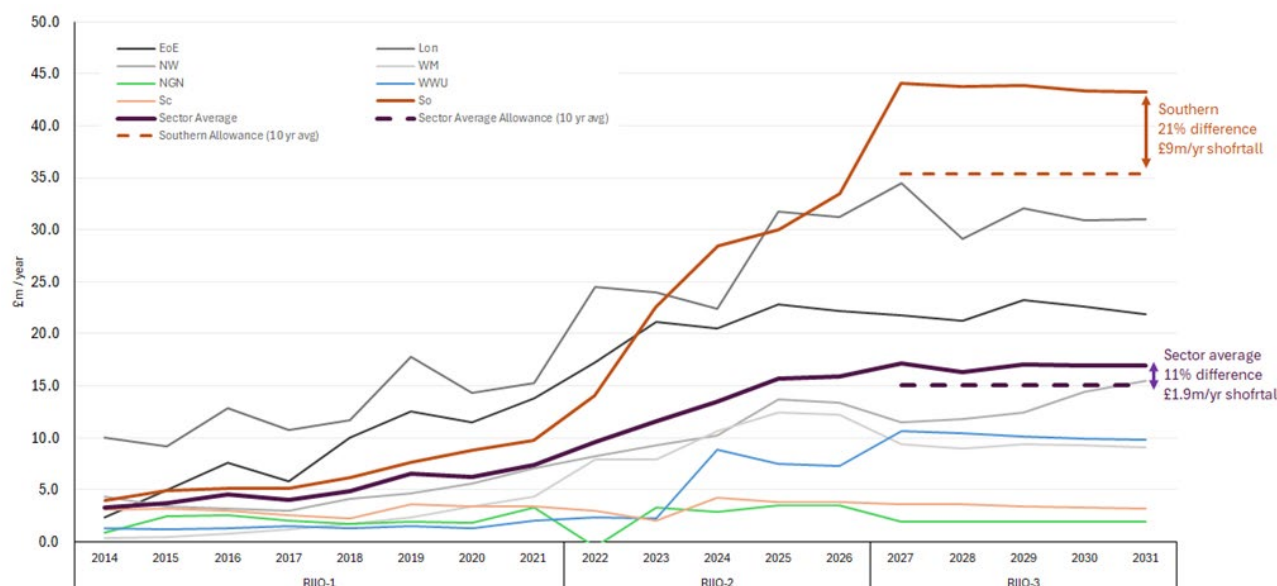
585 We note Ofgem have proposed to utilise a 10-year network specific average of costs to determine the efficiency of our submitted costs, assuming that both actual and forecast data are reflective of current conditions.

586 This approach would be inappropriate as within the 5 year forecast of GD2 we have seen an increase of charges due to external legislative changes, with key examples including the introduction of 5 new lane rental schemes

(compared to 4 lane rental schemes up to 23/24), a widening enforcement of parking bay suspension requirements and the widening requirement of manually operated traffic light enforcement. These cost pressures are incremental compared to GD2, showing a clear growing trend which highlights the average cost of the 2022-26 GD2 period is not reflective of the cost pressures we will face within the GD3 period.

587 Below we present the trend of Streetworks expenditure over time:

Figure 16 - Streetwork costs long-term trends.



Source: SGN analysis of GD3 Business Plan Data Templates.

588 This demonstrates clearly that the costs of Streetworks are increasing and that once schemes have been introduced both the costs of permitting and lane rental increase, the permit conditions become more exacting, and the cost of contraventions become more expensive. For local authorities who otherwise face tight constraints on their budgets this becomes a revenue raising opportunity to support road maintenance budgets.¹⁰³

589 Figure 10 shows that for the sector average, utilising a 10-year average will understate forecast costs by £1.9m per year (11%). For networks with steep increases in Streetwork costs, such as in the southern region, using the 10-year average will understate streetworks by £21m per year (21%).¹⁰⁴

590 Streetwork costs are outside of networks' control and have been increasing rapidly in certain regions as councils recognise the potential to generate revenue. The forecasts need to be maintained; this will also support alignment with GD3 reopener.

591 We propose Ofgem carry out a qualitative analysis on the drivers of expenditure change in GD3 to then enable an acceptance of our cost forecasts. To support such an assessment, we have commissioned Decon to consolidate the legislative changes that have occurred within the Streetworks space and how this relates to our business plan, in supporting document SGN-GD3-DD-ECR-06 - Decon - Cost Validation Streetworks Report.

Penalties and Charges

592 We note Ofgem have disallowed all costs relating to penalties and charges as they are deemed to be within GDNs' control. While we agree we must do all we can to in order to reduce any costs, a majority of the penalties and charges we receive can be deemed to be an efficient expenditure through varying scenarios such as:

- (viii) the counter-factual costs would to de-mobilise and re-mobilise our staff would be significantly greater than the incurred penalty / charge.

¹⁰³ <https://www.gov.uk/government/consultations/street-works-fines-and-lane-rental-surplus-funds/outcome/bbed3de3-6c4a-4ccc-8b1c-30cae3b69e1d>

¹⁰⁴ It should be noted that this understated cost will not be picked up in the streetworks reopener, which limits costs eligible for submission to costs associated with new schemes.

- (ix) penalties can be incurred when responding to an emergency which is safety critical.
- (x) a repair job is not always able to be clearly defined within a time-period, and the cost of any penalties/charges would likely be lesser than the societal impact of not repairing a leaking asset.

593 We acknowledge there will be occasions where a penalty or charge would be within the control of management, it should also be acknowledged that not ALL penalty or charges will be so, and there are clear examples of GDNs incurring charges / penalties when it is the right thing to do both through financial and non-financial reasoning.

594 To strictly follow an approach of not incurring charges / penalties as they are deemed to be within management control would lead to the incorrect decisions being made by GDNs, with clear safety and environmental impacts that could occur if we strictly avoided all charges / penalties.

595 As such we believe it prudent for at least 50% of charges / penalties to be considered to be efficient compared to a counter-factual and therefore accepted through ex-ante allowances.

Land Remediation

596 We welcome Ofgem's assessment of our land remediation program through external validation and the accepting of our cost forecasts.

Statutory Independent Undertakings (SIU)

597 We welcome Ofgem's assessment of our Statutory Independent Undertakings (SIUs) to accept our submitted forecast costs for this activity.

Recommendation

598 Due to inadequate information on the cost drivers that explain expenditure within MOB's, to fund utilising the existing network average unit methodology with an adjusted TIM the initial two years of workload and to implement a rolling two year re-opener approach which will consider updated information within RRP reporting.

599 Streetworks to perform a qualitative assessment of costs utilising independent expert data to determine efficient cost of Streetworks, and to recognise not all FPNs incurred are inefficient and avoidable, so to fund for 50% of FPN activity in order to avoid networks being led to avoid FPNs when it is in the customer interest to continue operating to manage safety.

4.4 Catch-up efficiency challenge

4.4.1 Questions

GDQ42. What are your views on our proposed approach to applying the catch-up efficiency challenge?

600 We recognise catch-up efficiency plays a role to incentivise performance where there is appropriate comparability between companies in the regression model. We have demonstrated multiple errors and provided recommendations to significantly improve the current position on assessing efficiency. Until the suggested actions are implemented, we do not consider an efficiency target of less than 1 to be appropriate.

601 We discuss Ofgem's catch-up efficiency challenge of up to the 85th percentile of modelled costs as within DD GD annex para 5.276 to 5.282.

602 SGN recognises that catch-up efficiency challenge plays a role in incentivising higher performance where there is true comparability between in the regression analysis. However, based on our analysis and the wide-ranging feedback provided on related topics, we have substantive reservations regarding the current model's suitability. An overly ambitious target will therefore have a high risk of cause harm to consumers due to placing undue pressure on companies to deliver to levels of performance that are not appropriately aligned for the regions in which we operate.

603 Firstly, while the proposed model may demonstrate statistical adequacy on surface-level tests, our research shows that alternative models—which are equally robust by statistical standards—can produce markedly different outcomes for companies' allowances.

- 604 Secondly, we have demonstrated that the model has significant variations from observed market prices for important packages of work such as the repex programme that cannot be adequately explained under the current model structure.
- 605 Thirdly, the cost assessment model is largely the same as that used in GD2, and that has been demonstrated to be inaccurate.
- 606 Finally, we have demonstrated that the forecasts that we put forward within our GD2 business plan considerably were more accurate for the southern network, which had the greatest catch up efficiency of our two networks, than the forecasts from the cost assessment model.
- 607 To base a significantly stretching efficiency target on a single model, when plausible alternatives exist, unfairly disadvantages certain companies that lose out from one or other of the models. By extension, the customers of those networks that are deemed to be efficient by a single model approach could overpay for similar levels of performance compared to those customers within networks.
- 608 This divergence between models introduces a fundamental layer of uncertainty. When each model tells a different story about network efficiency, there is an inherent risk of adopting the wrong benchmark, which could have lasting impacts. With such uncertainty, if Ofgem opts for a single totex model without implementing improved regional and scenario controls, we strongly advocate for removing the catch-up efficiency challenge to enable model outputs (efficiency score of 1.00) to determine allowances.
- 609 Our concerns with the current model are rooted less in the statistical outputs, and more in issues surrounding its theoretical underpinnings, assumptions, and the data that inform it. A number of core elements simply do not align with operational reality, casting doubt on the model's real-world applicability.
- 610 To summarise our key concerns:
- (i) The use of report volumes as a driver for repairs lacks a demonstrable causal relationship with repair costs; more credible measures exist that would better reflect true cost drivers. (GDQ39)
 - (ii) There are questions regarding the lay-to-abandonment ratio and the banding mix as submitted by some companies, which impact the model's accuracy. (GDQ40)
 - (iii) The composition of the repex synthetic driver raises validity concerns. (GDQ39)
 - (iv) Cost impacts of regional complexity factors are not adequately considered in the model, despite its clear influence on operational costs and outcomes as demonstrated by SGN. (GDQ39)
 - (v) The model does not adjust for Southern regional variations in contractor wages, which can materially impact network costs. (GDQ36)
 - (vi) The ongoing efficiency assumption is unrealistically high for Great Britain, failing to reflect the genuine productivity trends observed in recent years. (OVQ19)
- 611 Should the model remain unchanged, or amendments are elsewhere, these concerns would persist—rendering the model insufficient to accurately represent network companies' operational realities, regardless of how well it fits the data statistically.
- 612 Statistically, this opens the door to a real risk of a Type I error: accepting a model as valid when, in practice, it misrepresents the sector (a false positive model). Prudence therefore dictates that, given these concerns, the efficiency challenge should be set at a less stretching level.
- 613 Additionally, we note perspectives such as Cunliffe's, which highlight that the notional benchmark approach does not adequately reward companies for their improvements —especially as the notional target may continue to advance, potentially leaving companies perpetually behind despite real progress.

Recommendation

- 614 Throughout our submitted business plan, ongoing engagement and this response we have recommended changes to model approach which would enable a robust, transparent and accurate determination of allowances. If such recommendations are applied, we believe a challenging catch-up efficiency score to the 75th percentile of efficiency scores is robust to ensure customers pay for high-quality forecasted investment.
- 615 In a scenario where determining totex allowances do not demonstrate a robust balance of risk, it would be inappropriate to set a challenging catch-up efficiency target as the models could not be relied upon to produce

efficiency scores that are reflective for the regions in which networks operate. As such, the removal of the catch-up efficiency target and to utilise simply model cost outputs (effectively setting catch-up target to 1.00) would seem most appropriate to reflect challenges within econometric models.

GDQ43. Do you consider that the efficiency frontier should be set based on historical performance?

- 616 Reviewing of the historical efficiency scores within the cost assessment models would be a useful cross-check in ensuring models are performing as expected to predict future efficiency positions. For setting allowances consideration should be made for changing workload challenges (i.e. tier 1 repex complexity) as well as increasing macro cost pressures through a more challenging operating environment, therefore utilising historical efficiency scores to set allowances would be inappropriate. Though, it is important that changes of efficiency scores throughout time are understood, as differences are useful to indicate either forecast assumption changes or macro cost changes that are potentially not captured within modelling parameters.
- 617 We discuss within this questions Ofgem's position within DD GD annex para 5.281 to 5.282 around utilising historical efficiency score performance to set the efficiency frontier challenge of networks.
- 618 While the category of activities we are required to undertake within GD3 are similar as previous price controls, we demonstrate within GDQ36 that cost pressures on our repex program will materially change with a clear regional impact likely to occur. Further, we identify changes in legislation for areas such as our T2a program due to HSE requested improvements to our Risk Action Thresholds as well as changes in legislation that reflect to changes in activity and unit costs for MOBs. For the Gas Distribution sector our repex program in particular has increased risk and challenge.
- 619 We have identified within GDQ39 that there are clear scenario differences across networks for key assumptions of repex such as banding mix and abandonment ratio, with two companies forecasting a material change expected in how they manage their replacement program and two companies forecasting a more muted effect (including SGN) to help mitigate cost pressures to customers. These forecasting assumption differences cause material output differences in the determination of efficiency scores as they are not controlled through econometric modelling and require engineering oversight to determine consistency.
- 620 One option of utilising historical performance to setting the efficiency frontier would be to neutralise company forecast assumption differences, with a greater reflection of how networks have historically achieved their repex program. As discussed in para 58 above there will be clear reasons why such parameters as banding mix and abandonment ratio will change in GD3 due to complexity, so a single model approach of utilising historical performance would be inappropriate which requires a balanced view utilising multiple models.
- 621 It is important to recognise no single approach will fully identify the challenges of operating our highly complex networks which have clearly increasing regional pressures. We firmly believe that pre-modelling normalisation and driver choices should be corrected at source, but the use of historical performance and how efficiency scores evolve over time is useful in understanding if models are performing suitably.
- 622 By understanding how efficiency scores are evolving over time, there can be increased understanding if regional factors are changing, such as an increase in regional repex complexity which is not currently captured within pre-modelling normalisation.
- 623 It could be advantageous to conduct out-of-sample testing on the regression model—using historic data for training and forecast data for validation—to assess how robust the models are prior to their adoption. Taking this step might build further confidence in whichever model is selected. We acknowledge that Ofgem may raise concerns about the dataset being too limited for such testing but highlight any historic dataset would be almost as extensive as the full dataset used during GD2.
- 624 We are also considering the type of model in use. When a notional company benchmark is applied, the efficiency of other networks (whether based on historic or forecast data) affects the assessment. Relying solely on historic activity could lead to benchmarks based on combinations of activities that no network has actually delivered or plans to deliver. The introduction of a bottom-up CSV model might address some of these concerns, as it would better account for changing workload compositions across years.

Recommendation

- 625 Utilising historical performance as a cross-check in determining the suitability of the models, with changes in performance over time requiring to be understood and not assumed to be solely down to forecast changes (i.e. changes in regional replex complexity)
- 626 Within a multiple model approach, weighting could be applied to a model that utilises historical performance to setting the efficiency frontier to help produce a more balanced view of network efficiency performance over time.
- 627 It would not be appropriate to solely utilise models which have historical performance as there have been clear changes in requirements for networks in the GD3 period as well as increasing external macro-environment cost pressures.

4.5 Technically assessed costs

4.5.1 Bespoke outputs

GDQ44. Do you agree with our assessment of technically assessed costs and bespoke outputs?

- 628 As discussed within GDQ36 we agree with the principle of separately assessing technical and bespoke output projects due to the unique nature of their costs. We discuss each area Ofgem has assessed below and some further projects which we believe should be within technical assessment.
- 629 This question discusses our views to Ofgem's assessment of technically assessed and bespoke output costs.

Cyber

- 630 We agree that Cyber costs, due to their unique nature and differing stage points between companies should be technically assessed through expert analysis. We put forward our views on the technical assessment carried out further within our Cyber response.¹⁰⁵

Advanced Leakage Detection

- 631 As we set out in our response to GDQ2 we think that ALD costs can be subject to simple regression techniques either outside of or within the cost assessment model by comparing the cost of delivery to the length of the network. This would be appropriate as the main cost driver is surveying for methane emissions, as such there should be a high level of consistency across networks according to the length of their network.
- 632 In the first instance, we recommend keep it as a separate regression analysis as Cadent are the furthest in terms of establishing a cost for implementing ALD, and as such they will have the strongest comprehension of costs incurred.
- 633 As costs become established for all networks then it should be incorporated within the main cost assessment methodology.

Digital Platform for Leakage Analytics (DPLA)

- 634 As set out in our response to GDQ2 we do not think that DPLA should be a technically assessed cost. The costs should be included in the net zero reopener once there is a clearer basis for both the costs and the benefits that are derived from this early stage project.

Iron Stubs

- 635 Due to the relatively short and unique nature of Iron Stubs we welcome a technical assessment approach to determining allowances.
- 636 What is apparent within company business plans is the differing approaches being adopted to carry out iron stubs workload. With some networks adopting a full onsite analysis of all possible iron stub locations compared to SGNs approach where we have carried out a robust desktop exercise to identify our iron stub locations and have very little occurrence of "iron stub not found" events.
- 637 The differing approaches incur costs in different ways, with the actual intervention unit rates for SGN seemingly higher than other networks. We note on a total program scale against an engineering intuitive driver such as the 10-year total metallic length population, the cost to manage the iron stubs of our network is amongst the most

¹⁰⁵ Cyber DD Response - All CRIDS SGN-GD3-DD-CYB-ALL-CRIDS

efficient of all networks and reflects the long-term steady approach we have carried out across GD2 to manage these challenging assets.

638 We suggest a unit rate approach to determining efficient costs would be inappropriate for the assessment of iron stubs cost, instead the use of a ratio analysis approach with consideration of an exogenous engineering intuitive driver, such as the 10 yr total metallic length would be the most appropriate as there will be an econometric assessment of both the approach undertaken to manage this activity as well the cost of such approach.

639 We are confident that our approach to managing iron stubs is efficient, and we have engaged extensively within the GD2 period through the re-opener process to justify the efficiency of our strategy to manage these assets.

Major Projects

640 We agree major project activities are appropriate for technical assessment due to their relatively lumpy nature of expenditure which would not be appropriately within the drivers utilised within the regression analysis.

641 The use of independent engineering expert review is appropriate, and we have provided associated feedback through engineering review within SGNQ16.

642 We also discussed in GDQ36 that we have engaged within the technical error process that we do not recognise within the draft determination where appropriate normalisations have been applied for the 'Full Site and Systems Rebuilds' project, so further engagement will be required to ensure the cost suite models adequately reflect the setting of PCDs.

South London Medium Pressure PCD

643 We welcome Ofgem's approach to allow funding ex ante for our South London Medium Pressure project and note Ofgem's intention to set this within a PCD as a Technical Assessment.

644 We discuss in GDQ36 that therefore the South London Medium Pressure project should be included as a Technical Assessment within the cost modelling suite to enable a technical assessment of costs to be carried out.

645 We discuss within SGNQ3 that within the original business plan, we had submitted costs on a basis of low cost-confidence which is the reason for suggesting a re-opener in order to increase our cost certainty. Since our business plan submission, we have carried out further analysis on the cost of carrying out the South London Medium Pressure project and put forward within our response updated cost forecasts to support this improved cost position.

646 As costs are assessed should be assessed within technical assessment, we believe this updated cost data will support an engineering expert review into the suitability of our cost forecast.

647 For further Engineering justification please refer to document SGN-GD3-DD-ENG-SD001.

Other Areas of Technical Assessment requirements

648 Within GDQ36 we discussed a further 7 areas that require a technical assessment approach, listed out below with suggested approach to perform technical assessment:

- (i) Remote Pressure Management – to have independent engineering expert review (discussed in more detail in SGNQ9)
- (ii) Biomethane Access Rollout – to have independent engineering expert review (discussed in more detail in SGNQ10)
- (iii) Full Site and Systems Rebuilds / Glenmavis / Isle of Grain – to have independent engineering expert review.
- (iv) LTS Diversions and projects >£5m – to have independent engineering expert review.
- (v) Connections – As there is no totex funding within policy this would be marked as £0m funding for GD3.
- (vi) Reinforcement – to have independent engineering expert review.
- (vii) VCMA – to have independent expert review of the value brought through the VCMA investment.

Recommendations

- 649 We agree with the approaches to technically assess Cyber activities.
- 650 For ALD and DPLA, a simplified regression analysis should take place based on Cadent's greater cost certainty, until costs can be established for all networks and it can be included within the main regression assessment.
- 651 Iron Stubs are a clear area of differences in approach across networks, as such the use of simple unit rate comparison would not be appropriate. A scale ratio type analysis would be more appropriate, using a common driver with engineering intuition would be appropriate, such as utilising metallic length value across a 10-year period.
- 652 New technical assessed recommendations to be implemented to ensure suitable funding for these projects which are non-comparable to other networks.

4.6 Disaggregation of allowances

4.6.1 Questions

GDQ45. What are your thoughts on our approach to disaggregating cost allowances?

- 653 There is a disconnect between the setting of allowances and the disaggregation of these allowances which create material impacts on financeability metrics. Due to the inherent link between methodological choices Ofgem implement within efficiency determination (i.e. bottom-up CSV weighting – GDQ39) we welcome engagement on an appropriate disaggregation approach once approaches are better understood.
- 654 Through the use of industry average weightings in determining the CSV driver proportions, the totex allowances determined through Ofgem's cost assessment process are set on an effective notional basis of cost proportions, which we have highlighted in GDQ32.
- 655 Ofgem utilise the company submitted cost share to disaggregate these determined allowances which shows a disconnect in the approach to determine allowances originally on a notional company basis of activity.
- 656 This causes material impacts, both positive and negative to financing areas (through the fast / slow money split) as well as potential future challenges with explaining variations within the GD3 period. Further we note challenges within the GD2 period for explaining variances within commentary against allowances which will continue to be challenging in the GD3 period without a change to the approach used to disaggregate cost allowances.
- 657 SGN presented in the CAWG22 the materiality of two different approaches to disaggregate cost allowances and discussed that a single choice of approach would likely be too constrained. This approach is consistent with the Northern Powergrid (NPG) ED2 CMA appeal which concluded that networks and regulator should not resort to a single approach and come to a qualitative assessment on the appropriate approach to disaggregating determined cost allowances.

Recommendation

- 658 We propose to engage within Cost Assessment Working Groups ahead of the Final Determination in setting key principles that have to be considered when disaggregating cost allowances.
- 659 The inclusion of multiple models utilising a bottom-up CSV weighting approach would support a more robust approach to determining the disaggregation of allowances.

4.7 Totex Incentive Mechanism (TIM)

4.7.1 Background

GDQ46. Do you agree with our proposed TIM sharing factor?

- 660 The Totex Incentive Mechanism (TIM) is a tool that Ofgem uses to incentivise companies to find and deliver innovations that improve the efficiency of their operations. However, for the TIM to meaningfully reward managerial effort and for the overall price control package to be investable, the price control totex allowances must be set as a 'fair bet'.

661 As such, there should be a strong consideration of a robust balance of risk assessment.

662 For the Draft Determination position we have undertaken a balance of risk assessment through KPMG¹⁰⁶ which clearly indicates on the notional company a negative balance of risk. This must be corrected through changes to model components and allowance setting.

663 Further, KPMG identify a clear regional element of imbalance of risk, with a conclusion that a notional company operating within the Southern region are currently experiencing a [REDACTED] increased totex driver RoRE risk compared to the notional GDN¹⁰⁷. As with the overall notional imbalance of risk for totex areas, we firmly believe regional issues with determining efficiency should be corrected at source, and we have provided actions on how to implement this throughout our response.

664 For Final Determination, we have proposed technical error corrections through engagement with Ofgem as well as methodological changes to the model approach which helps to ensure a balanced totex settlement, which if implemented would enable the TIM to function as intended, ensuring customers and companies can share in both upside and downside.

665 Within GDQ41 we demonstrate the increasing cost uncertainty and risk surrounding MOB's activity. We propose to minimise this uncertainty by implementing a rolling two-year re-opener approach but note that there will still be a high risk of underfunding of networks due to legislative changes for the initial two year of allowed workload under this ex-ante approach. As such, we put forward a 90:10 sharing factor for the cost proportion that is related to MOB's activity.

Recommendation

666 A robust balance of risk assessment is necessary to ensure the TIM is operating as intended, incorporating true analysis of potential upside and downside totex performance of a notional company within each region.

667 When setting the TIM sharing factor, the risk of poor cost confidence due to recent legislative changes within the MOB's expenditure area should be considered, with a suggested 90:10 sharing factor applied on the proportion of allowances for MOB's activity.

¹⁰⁶ KPMG Risk analysis SGN-GD3-DD-ECR-10

¹⁰⁷ KPMG Risk analysis SGN-GD3-DD-ECR-10, pg.10, table 1