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To: RIIO3@ofgem.gov.uk

RIIO3 Call for Evidence on GD3 Business Plans

Dear Ofgem,

Sustainability First is a charity and think tank focussed on social and environmental issues in the energy and water sectors with a track record of engagement on regulatory issues, including as past members of Ofgem's RIIO-2 Challenge Group.

In this response to Ofgem's Call for Evidence we provide our views on some key aspects of the RIIO-3 gas distribution (GDN) Business Plans. First, their approach to the range of issues raised by the need to transition away from the use of fossil fuels – which we badge "Future of Gas" issues. Second, nearer term actions to reduce emissions – both through supporting biomethane and also how they propose to deal with methane leakage from their networks. Sustainability First has a strong interest in these issues and has contributed to the relevant Ofgem GD3 working groups. Finally, we offer some comments on other aspects of the Plans (including, in particular, vulnerability).

This response is only about gas distribution. We recognise that there are significant differences with gas transmission which, as Ofgem acknowledge, is more likely to have a role on hydrogen and which is also key in terms of any back-up gas-fired generation required. That said there is read across which Ofgem will wish to consider.

PART ONE: FUTURE OF GAS

Just over a year ago we published a paper[1] "Looking Through the FOG - the Future of Gas Networks" which set out the range of issues that need to be considered in thinking through the ramifications of a move away from conventional gas in line with GB's net zero targets. We highlighted a number of aspects that we saw as key for GD3 and argued for a focused programme of stakeholder discussions to help inform thinking in this space. Our review of the GD3 Business Plans reinforces the need for this debate. We would encourage relevant Ofgem colleagues to view our earlier paper as helpful context for key decisions that they must take in GD3.

In particular, in our FOG paper we highlighted a number of GD3 themes – and we further explore four of these major topics in sections 1.3 – 1.6 below. We look at how each GDN addresses the four topics in their GD3 Business Plans – and conclude each section with suggested 'next steps' for Ofgem. The **four topics** are: **base cost allowances (totex); accelerated depreciation; disconnections;**

[1] https://sustainabilityfirst.org.uk/wp-content/uploads/2023/12/Sustainability_First_-_V2_Viewpoint_-_Gas_Network_Decline_and_Stranding_in_RIIO-3_-_v_041223_final.pdf

and innovation on decommissioning / repurposing. Inevitably there are important interplays between these issues and they should not be considered in isolation.

In particular, before this, we highlight **two contextual themes** that come through strongly from the Plans and which we believe Ofgem must face head on **– the uncertainty around heat decarbonisation and the critical role of the Health and Safety Executive (HSE).**

Finally, we recap on what we see as the key next steps.

1.1 The significant uncertainty around the pace and direction of heat decarbonisation (for households and I&C including process heat)

There is a general expectation that to meet net zero targets we will see a wholesale switch from gas-fired home heating to electric heat & district heat. Yet there is no detailed understanding, realistic modelling or planning on the likely timing, pattern or geography of this seismic shift.

The National Energy System Operator (NESO) already produces the Future Energy Scenarios (FES) and is charged with the production of a Strategic Spatial Energy Plan[2], but at this stage this excludes natural gas. Its Regional Energy Strategic Planners are charged with producing regional energy plans which will set a framework for network investment, including for gas distribution - but these will not be available in time to inform GD3. Moreover, if they are to be robust, the NESO plans are in turn dependent on having clarity around future government policy on heat, which is currently lacking.

Key policy uncertainties on heat

While there is much talk about the decision on hydrogen for heating (on which government have said they will consult in 2025 to inform a decision in 2026[3]), there is now no serious expectation of a wide-spread role for hydrogen in domestic heat, though hydrogen could still be material for industrial process-heat. Perhaps more important are the decisions that are still outstanding on when exactly we will see an end to gas connections in new-build property, and critically, whether we will see an end to new gas boilers being installed from 2035. The government seem to be leaning away from any sort of outright ban as they reiterate their manifesto pledge that people will not be forced to rip out gas boilers[4] (albeit this is not directly relevant to the 2035 decision). Rather than mandates, there is a focus on encouraging the market in heat pumps through easing planning restrictions for smaller devices (space, noise) plus increased financial incentives through the Warm Homes Plan.

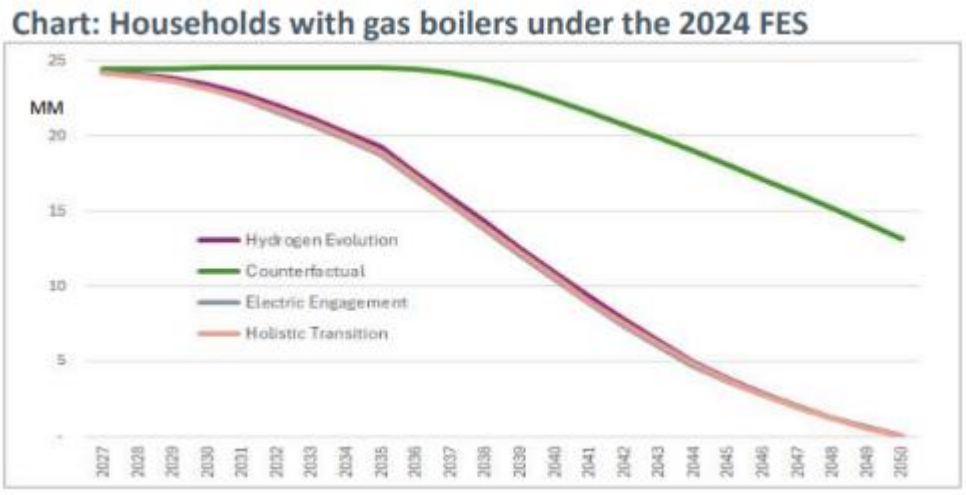
With biomethane a prominent theme in some GDN business plans, another source of uncertainty is the lack of clarity around longer-term priority uses for bioenergy – and hence its long term role for heat. And with heat (but not energy) a devolved matter in Scotland – and a 2045 net zero deadline - there is scope for different decisions and priorities there, including for example, on district heat.

The use of FES as context for the Plans

For their GD3 Business Plans, the networks were, in principle, required by Ofgem to adopt the FES Holistic Transition scenario, but the assumptions on heat are widely seen as unrealistic – at least in the near term given today's rate of heat-pump uptake. We also have a concern that all three of the

[2] https://assets.publishing.service.gov.uk/media/67168359d100972c0f4c9b41/strategic-spatial-energy-plan-ssep-neso-commission.pdf
[3] See the December 2024 Government response to the CCC Progress report Annex 1
[4] As per FN 3

2024 net zero FES pathways have the same profile of gas boilers through to 2050 as shown in the chart below (taken from an Ofgem presentation at their working group). The FES crucially fails to capture the inherent uncertainty that exists in a consumer-led heat transition.



By contrast, the FES Counterfactual, which the GDNs tend to rely on, (and which maintains current levels of migration through to 2035) feels to us unduly cautious given that government is already taking some steps to encourage heat pump take-up. Given its commitment to meeting the near-term carbon budgets it seems reasonable to expect that government will do more during the GD3 period to encourage uptake of heat-pumps and / or district heat.

What is lacking is a credible scenario (or "sensitivity") somewhere between these two extremes in the near term reflecting the current high levels of uncertainty (but which could still be consistent with reaching net zero by 2050 if there were an acceleration in the 2040s).

Implications for the Business Plans and Ofgem decisions on GD3

The major uncertainties on heat-policy have implications for Ofgem and GDN decisions right across the company Business Plans:

- For the assumptions about **the pace and volume of new connections and disconnections and the associated costs** GDNs can expect in GD3;
- **On the different cost-profiles that would result from a choice-led versus a planned area-based move to heat pumps / district heat.** We highlight this policy choice in our FOG paper as a critical uncertainty (flagged by the NIC) that will affect how long it is before the networks can start decommissioning - and hence the need for ongoing investment in the network to keep networks safe in the interim (as well as the payback periods that should be assumed in CBAs);
- **On longer-term profiles of customer demand, including I&C customers** - and what this, together with the associated profile of future costs, means for **accelerated depreciation** (which aims to ensure inter-generational equity and also to minimise network stranding risk);
- **On the future role in heat for both hydrogen and biomethane** - and what this might mean for future network investment as well as any potential for **residual value** in the gas networks that should be factored-in when considering different approaches to accelerated depreciation;

- **On the cost of capital and the arguments that the companies are making regarding the impact of uncertainty** (especially regarding the time-frames in which the switch away from natural gas for heat may take place);
- **On the raft of regulatory 'uncertainty mechanisms' that the companies seek** to manage these risks (which reduce transparency around the overall bill impact and likely leave customers carrying the risks).

The urgent need for greater policy clarity from Government

Government could of course settle at least some of this uncertainty around gas network futures (especially for gas distribution) by clarifying its overall policy approach to heat decarbonisation as part of the consultation promised this year. In an ideal world this raft of critical heat-related decisions would be made as soon as possible to inform the difficult decisions that Ofgem will have to take for its Final Determinations in December 2025.

The Business Plans highlight the importance of reducing this heat-related uncertainty – and also the higher longer-term costs associated with an approach to heat policy that is "choice-led" on an enduring basis. Ofgem should stress to government how ongoing uncertainty over critical heat decisions risks adding needlessly to GDN costs and consumer bills. At the very least, Ofgem should encourage government to resolve some of the major open-ended uncertainties by clear signalling of its expected time-frames for key decisions on heat.

At the same time, we regard it as crucial that gas network companies do not simply use a mantra of "uncertainty" to kick the can down the road in an unjustified hope that either government will somehow either under-write the bill for unfunded / stranded network assets or that the costs can be unduly back-end loaded onto a declining base of future customers (likely weighted to those who are more vulnerable).

To inform Ofgem's GD3 decisions on the Plans, and assuming no further clarification from government**,** Ofgem, NESO and the companies must work very hard in the next few months to find acceptable ways to begin to address some of the basic uncertainties noted above. In particular, this must involve **improvements in the modelling assumptions on the likely rate of future gas network disconnections** (near and longer term, ideally by geography) and **clarifying how these revised assumptions impact on the range of GD3 decisions** highlighted above.

We would stress that this must not simply be a technical debate held behind closed doors. There is no monopoly on insight or "right answers" to these significant long-term issues and therefore this discussion must include **active sharing of analysis with stakeholders**. Above all, it is not just the gas networks who need a clearer line-of-sight from GD3 onwards, but also consumers, consumer bodies and the supply chain[5]. This highlights the importance of the Sustainability First call for a wider debate on issues around the future of the gas networks.

[5] In our paper on Future of the Gas Networks we looked in some detail at how to set about creating a clearer line-of-sight for consumers, consumer bodies and the supply chain. We continue to regard these issues as vital, but do not address them in detail in this response.

1.2 The central role of the HSE in regulating for safety in the shift away from natural gas and how to bring HSE into the strategic debate

As safety regulator, the Health and Safety Executive (HSE) is the main actor in shaping policy on asset health and therefore drives which gas network assets must be retained, repaired, maintained and / or replaced. As is clear from the GD3 Business Plans these safety considerations go far beyond core decisions on the future of the Iron Mains Risk Reduction Programme (IMRRP). Across a raft of areas, there is a sense that HSE is tightening safety requirements, but at the same time seemingly without expressing a transparent and strategic view of how best to safely manage the long-term future of the gas distribution networks, including ultimate decommissioning.

For the avoidance of doubt, we absolutely share the GDNs' position that the networks must be kept safe while there is still gas in the pipes and that this will require ongoing investment.

How HSE decisions impact future investment

The range of topics where **the GDNs flag HSE pressures driving higher costs** include**:**

- **Completion of the IMRRP** (even where some of the remaining work may be costly short sections of pipe with potentially lower risk);
- **The potential inclusion of larger tier 2 pipes in the IMRRP** (which were previously included then dropped);
- **A range of new requirements on high rise buildings** post-Grenfell with this potentially extending to all **MOBs** (multi-occupancy buildings);
- **The rules around safe disconnection of individual properties** which may be tightened to include PE services (ie plastic pipes);
- **Present rules around decommissioning** which seem to limit the options open to GDNs to adopt more innovative solutions;
- **Employee fatigue rules** (which limit shift lengths).

There is also uncertainty as to how the HSE views the use of more advanced sensors and monitoring in managing safety-risk. HSE is said to be supportive of Advanced Methane Detection (being proposed by all GDNs) but it is unclear how far HSE might accept the use of sensors as enabling savings to be made in how leaks are managed as discussed in 2.2 below. Ofgem noted in SSMD the importance of the HSE stance on monitoring technologies and committed to engage with them on it, which we would welcome.

The need for a strategic debate

At present the main direct interactions seem to be between the GDNs and the HSE. For the GDNs a clear and specific safety requirement makes it easier for them to demand funding from Ofgem for that work. In most of the areas identified above, even absent the potential changes, the GDNs would still have a general duty under the Pipeline Safety Regulations (1996), and other legislation, to keep the network safe. However, there is then more judgment involved in terms of what particular actions are required and hence more room for Ofgem to challenge the levels of expenditure proposed. Given this regulatory context, the GDNs are not necessarily going to push back against additional, more tightly specified, HSE requirements.

As we see it, **HSE must take part in a far more open conversation** across the board – and help clarify how it sees **ongoing safety requirements for the many different types of gas network asset and what impact (if any) plans for ultimate network decommissioning might have on HSE's longer-term approach.**

As part of SSMD Ofgem confirmed DESNZ's support for the continuation of the IMRRP given the strong CBA linked to reducing methane leakage. However, as discussed below, that assessment was based on the *average costs* for the IMRRP (not the final more costly elements) and did not look at the range of new additional obligations from HSE that now seem to be coming through.

Relevant to ongoing uncertainty about the HSE approach towards GDN assets, and coming to a view on the 'reasonable' lives of different network assets, **we see improved sensor technology and analytics including the use of AI / Machine Learning as a critical management tool for the companies** (as, for example, with the Digital Platform for Leakage Analytics - DPLA)**.** In particular, more sensor-generated information should help both the networks and HSE to better understand the health of network assets and to better manage the associated risks, including important decisions on repair vs replace etc. The **GDNs must use the GD3 period to develop a far more granular understanding of the characteristics and health of their different network assets** and components. This should be with the clear aim of achieving an agreed consensus by the end of GD3 on the long-term future cost-profile of different gas distribution assets. For GD4 this better understanding should help address company concerns about adequacy of their ongoing totex funding. HSE involvement will be vital.

HSE must also help shape both Ofgem and network decisions about which AI / digital innovation projects warrant specific funding.

As a priority we want to see Ofgem and DESNZ engage with the HSE on how safety can be securely maintained at a least whole-system cost for the customer as we proceed through the energy transition. Given the criticality of gas network safety issues, this should again be part of a wider dialogue with consumer groups and other stakeholders.

HSE issues headlined in this section are discussed in more detail in sections 1.3, 1.5,1.6 and 2.2 below.

1.3 Base cost allowances (totex)

A crucial element in setting the price controls is the level of totex (total expenditure i.e. capital expenditure – including repex - and operating costs) that Ofgem considers is necessary to run the network efficiently and safely.

Rising totex

We highlighted in our FOG paper that most expenditure by the gas networks is driven by safety considerations and as such will not be impacted by projections of future demand. This basic message is strongly reinforced by all the GDNs in their Business Plans. We understood this and had therefore anticipated a continuing level of expenditure comparable to GD2.

We had not anticipated **the circa 20% increase in totex that the GDNs are arguing is required in GD3.** This seems to reflect increases across repex (pipe replacement), capex (on other asset categories) and opex (eg emergency repairs). Some of this reflects inflationary pressures linked to the increase in infrastructure investment across a number of sectors. But the GDNs argue it also relates to the aging and deteriorating nature of their GD infrastructure, much of which was installed in response to the boom in gas central heating in the 1970s and which may now be approaching end of life. While safety must be paramount and parts of the gas network will still be needed for decades to

come, from a cost-standpoint it feels instinctively wrong to be replacing assets with new ones that may only have a life of 20 years compared to the 40-50 year design life of the assets they replace.

Ofgem will want to test the arguments for increased expenditure in GD3 but it also creates a major challenge longer-term as these costs will be recouped over a progressively shrinking customer base. As SGN highlight in their response, the problem going forward is not just about recovery of the *existing* RAV (which Ofgem looks at in its SSMD and we discuss below in terms of accelerated depreciation) but also **recovery of the *ongoing costs* of safely running the network from a declining customer base**. While this might point to the need for alternative sources of funding longer term it also highlights the imperative to find innovative, strategic ways of reducing long-term costs while maintaining safety on an ging network.

Assessing investment options in the face of net zero

GDNs are experienced in judging the trade-offs between, for example, **replacing an asset versus an active programme of monitoring and repair**. However, there is **little evidence that the way they approach these basic trade-offs is changing as the net zero deadline approaches** or that they are actively considering the likely future life of different asset categories in different locations as they take those decisions.

In its SSMD Ofgem said "*As part of our business plan assessment, we will consider what payback cut-off period to apply to asset management investment. This could be shorter than in RIIO-GD2 to reflect uncertainty in the future of gas.*". In GD2 (2021-26) Ofgem applied a simple rule-of-thumb for investment appraisal, requiring a payback by 2036. In their Business Plans all the GDNs say they have tested their non-mandatory investments (which may involve a choice between, for example, remediation and full replacement) against **a 16 year payback** which they say is in line with Ofgem CBA guidance, although we have been unable to find the source. **Ofgem's final decision on an acceptable payback period will be key and should depend on assumptions around the timeframes for ultimate decommissioning / repurposing under different scenarios.** There is nothing in the GD3 Business Plans that would help inform this important Ofgem decision. A wider debate is needed to give stakeholders an opportunity to engage with Ofgem thinking on this key issue.

Moreover, in an ideal world we would have hoped that for GD3 Ofgem might have moved beyond a simple payback applied equally to every asset class and geography. We note that in the context of their South London High Pressure Mains project SGN talk about this being a part of their network that is likely to be needed longest. This is possibly correct – and if so, should be taken into account in setting an acceptable payback period – but the opposite argument should apply to other parts of their network which might be expected to have a shorter than average life.

As we flagged in our FOG report, and now seems to be acknowledged by Ofgem, the network cannot be decommissioned until every customer on that particular part of the network has moved away from gas. As a result, the higher-pressure network which serves more customers is more likely to have a longer-term role than parts of the low-pressure networks. Moreover, on the low-pressure network the timescales will be highly dependent on **whether a choice-led model for home-heat is maintained or whether a more planned approach to local area decommissioning is adopted** (as highlighted in our report). In either model, the individual services (ie the pipes from the mains to individual properties) will no longer be needed once a customer moves off gas.

Another example is the issue of removing gas from high rise **multi-occupancy buildings (MOBs)**, which we discuss further below, where decommissioning would likely make most sense in the relative near term from a whole system perspective (given the significant additional costs that would

otherwise be required to maintain safety including expensive riser replacements) – but where there are challenges in making that transition. More generally a planned approach to heat decarbonisation should help contain ongoing totex and ultimately allow the option of switching customers away from gas to be properly considered as an alternative to costly maintenance.

A wider debate around **the inherent differences across asset class, property type and geography** would help inform **a more nuanced view of the appropriate payback period** for ongoing safety-related asset investment.

In conclusion, the discussion about stranded assets in the gas network sector has evolved into a debate about how far investors can be guaranteed to recover their full investment in the RAV and hence the Ofgem focus on accelerated depreciation. However, there is also a need for Ofgem to consider **the physical stranding risk** and think about **how robust the case is for ongoing repex and capex funding for a range of assets that are unlikely to be utilised for their full physical design life.** The impact may be relatively small for GD3 but the lack of that mindset in the GDN Business Plans, reflecting the lack of a longer-term view from government / Ofgem on the future of these networks and the lack of a clear line-of-sight for consumers, is a real concern and may mean missed opportunities on alternative approaches which may be more cost-effective.

The HSE Role

Directly related to all this is the question of the **HSE's role** as statutory safety regulator and how far it is able in its decisions to take account of the likely future scaling back of the gas networks, as discussed at 1.2 above. We were pleased that in the SSMD Ofgem made clear DESNZ's support for the continuation of the Iron Mains Risk Reduction Programme (IMRRP) noting the significant environmental benefits delivered (on methane leakage) that gave the programme a rapid payback. However, this was based on looking across the IMRRP as a whole. What is clear from the GD3 Business Plans is that the last tranche of the IMRRP involves more complex and costly sections of the network (short stubs, road crossings etc). A conversation is needed between DESNZ and the HSE about whether there could be any flexibility in the final stages of the IMRRP to allow some more costly but lower risk Tier 1 assets to be excluded from replacement, perhaps supported by increased monitoring and perhaps as part of the ongoing discussion about potentially mandating more Tier 2 replacement (originally part of the programme, then removed).

As discussed in 1.2 above, **the HSE are supportive of enhanced monitoring using sensors and analytics. However, more clarity is needed from HSE on how far this can be used as an alternative approach to maintaining safety** (rather than in addition to existing actions). Ofgem must ensure that the investment proposed in advanced methane detection / DPLA (discussed in Part 2 below) delivers its full potential benefit in terms of helping deliver a more cost-effective long-term approach to minimising unnecessary investment while retaining full commitment to network safety.

In summary, on base cost allowances (totex), Ofgem needs to:

- **Totex expectations**: set out a clear and more granular basis by which it will assess GDN totex proposals in terms of the expected payback periods for different asset classes. This will involve likely in-service life for different types of gas network asset, reflecting the uncertainties involved;
- **Totex scrutiny**: scrutinise carefully the company totex proposals – as we are sure Ofgem will - noting the wide range of different patterns of capex and opex spend envisaged across each distribution network;

- **HSE dialogue**: continue close dialogue with the HSE around where there might be alternative strategies or more flexibility in relation to replacement of high cost / lower risk assets and the role of advanced methane detection in delivering a more cost-effective safety programme going forward – and make this transparent;
- **Totex trajectory line-of-sight**: working with DESNZ, model and develop a clear longer-term view of what the likely totex trajectory will be over price controls through to 2050 under both planned and consumer-choice models for home heat. This will also be important in reflecting on the inter-generational issues discussed below.

1.4 Accelerated Depreciation

Accelerated depreciation raises important fairnesss issue for consumers

In our FOG paper we called for action by Ofgem in GD3 on accelerated depreciation given the inter-generational issues raised, alongside the potential risk of asset stranding - which we saw as having wider impacts for infrastructure investment (reliant on the RAV model) unless investors were assured of the recovery of their investment. We therefore warmly welcomed the fact that Ofgem opened up this debate as a part of SSMC.

A main aim of accelerated depreciation must be to safeguard future consumers against paying more than their fair share towards the cost of past network investments (as reflected in the RAV). As set out in 1.1, there is high uncertainty on future gas demand and on the pace and geography of customer disconnections from the gas networks. Yet, under any scenario, the 2040's will see far fewer gas customers than today. This points to Ofgem taking active steps now to avoid undue back-loading of network depreciation charges onto future customers (who are more likely to be vulnerable) resulting in untenable bill increases.

However, we are equally aware that accelerated depreciation means putting up bills for today's consumers, many of whom are struggling to afford bills today given the ongoing cost of living crisis (as we discuss in 3.1 below).

On inter-generational fairness grounds, Sustainability First continues to look to Ofgem to move forward with at least some element of accelerated depreciation. However in terms of maintaining fairness for today's consumers we would encourage Ofgem to continue to press DESNZ on the need for social tariffs (or other forms of targeted support) and to provide the full level of VCMA funding in GD3 to enable GDNs to maintain their work with partners to help vulnerable customers who are struggling

Sustainability First has previously worked on principles for intergenerational fairness in energy policy[6] which shows that there is no simple formula for judging inter-generational fairness. However, based on our work in this area, we would support Ofgem's principle set out in SSMD that "the rate of depreciation should be set so that different generations and types of consumers pay network charges broadly in proportion to the value of network services they receive". While this is not practical as a basis for actually setting depreciation rates, it has secured broad support as a concept and suggests that a fairly constant per capita depreciation charge over time would be seen as desirable and the impact of different options should be looked at through that lens.

[6] https://sustainabilityfirst.org.uk/wp-content/uploads/2021/06/And_what_about_your_grandchildren.pdf

It is also important that the impacts of accelerated depreciation are looked at in the context of all the other factors that will affect future gas network charges (and arguably gas bills overall) through the transition. This is what actually matters to customers and will determine whether the arrangements are seen as fair. We highlight below the impact of ongoing totex which will need to be recovered over a declining customer base (but also the prospect of falling RAV returns as the RAV declines). We also discuss the impacts of rising numbers of disconnections, the costs of which are currently socialised and will be paid for by the customers who remain on the gas network. Finally, there will ultimately be decommissioning costs for parts of the network which are no longer required. While there is very significant uncertainty about the scale of these impacts on future consumer bills, they are only heading in one direction. On fairness grounds this broader context is another reason for moving ahead now on some level of accelerated depreciation.

Company arguments on depreciation policy

From the network standpoint there are big questions about the different policy approaches to asset depreciation which could be adopted. We have participated in a number of the Ofgem working group sessions on this issue but these were limited in value as the networks were not forthcoming at that stage. However, having now reviewed the individual company Plans in detail we summarise below which of their arguments we feel warrant further consideration and where we take issue. We then consider some of these points in more detail before setting out our initial reactions on their proposed approaches.

Uncertainty on the pace of shift away from natural gas home-heating: As noted in section 1.1, we fully share GDN concerns about **the level of uncertainty** around the pace of future migration to heat pumps We have also highlighted the uncertainty around I&C decarbonisation noting that these customers account for 30-40% of gas demand (for example, 40% on SGN's network), [7] with very different decarbonisation prospects for different industry sectors. These future demand projections are central when Ofgem is modelling the bill impacts of different options for accelerated depreciation. In thinking about the options for accelerated depreciation Ofgem should think about **how flexibility can be built into the arrangements** to allow them to adapt as we get more clarity.

The use of FES scenarios: In policy terms, we accept that it makes sense to maintain a basic assumption that the 2050 net-zero goals will be met. However, we share the GDNs' concern about the use of the Holistic Transition FES scenario. Indeed, we have highlighted above that the FES scenarios do not at present capture the extent of uncertainty around heat decarbonisation, with all net zero scenarios having essentially the same profile of gas boilers through time. The FES scenarios also vary significantly from year to year and have consistently shown a steady winding back in expectations around early heat decarbonisation. With today's slower than expected rate of heat-pump uptake and no clear line-of-sight on heat policy, we would question whether the rate of heat-pump uptake / rate of gas network disconnections assumed in the FES is sufficiently realistic to inform Ofgem's decision-making in GD3. On the other hand, the use by the networks of the Counterfactual is far too cautious. Ofgem, NESO and the companies **need to revisit these basic modelling inputs and assumptions** on the rate of customer migration**. With an alternative "sensitivity" that sees people moving away from gas later than assumed in FES (but with a**

[7] https://assets.publishing.service.gov.uk/media/65b12dfff2718c000dfb1c9b/subnational-electricity-and-gas-consumption-summary-report-2022.pdf

concerted programme in the 2040s to meet the 2050 target) there would likely still be a case for accelerated depreciation but at a gentler rate.

Repurposing: We also agree with the networks that there is significant uncertainty about the potential for re-purposing of the gas distribution networks and hence the extent of **residual value that should be factored into the thinking on accelerated depreciation.** Rather than assuming there is no value (and then adjusting later if there is), Ofgem could assume a potential residual value (say 10% of today's RAV) and then accelerate faster if it subsequently becomes clear that there isn't. This would give today's consumers a share of that value and might create a stronger incentive for GDNs to explore wider options.

Linked to repurposing, we would suggest that in assessing options at this stage Ofgem looks at the 2050 residual RAV rather than focussing on the final zero RAV date (which, for example Ofgem have quoted as 2070 for their option 4). With the sum-of-digits model of depreciation which Ofgem uses there is a long "tail" over which the last tranche of the RAV is recovered (but which could be dealt with differently when the time comes). In our FOG paper we included a chart that showed that with the current 45-year asset life, an asset installed in 2025 would be 80% depreciated by 2050 – but that it would take another 20 years to 2070 for the remaining 20% to be depreciated. How these alternative depreciation models work is complex and Ofgem needs to find ways to present the options that will allow stakeholders to engage effectively (and that is not simply the output of a black box model).

Government assurance: We note the **GDN call for some form of assurance from government that the RAV should not be stranded** – so that an alternative (e.g taxation) will be found if recovery through gas bills becomes untenable. **We see this as a difficult commitment for government to make** and hence, for now at least, the responsibility sits with Ofgem to address this risk of a possible shortfall in RAV-recovery through accelerated depreciation. However, we do see it as crucial that government addresses present uncertainties on heat policy as soon as possible to avoid higher financing costs than otherwise for the gas networks and also to enable a more realistic view of the likely timescales against which the networks should be planning their investments.

Totex recovery: We concur with SGN's point (albeit not its absolute numbers) that to keep the network safe long-term, ongoing expenditure will be needed ie the affordability challenge is **not confined to RAV recovery but also extends to totex recovery more generally.** This is clear from our reflections in 1.2 on ongoing safety requirements as well as our review in 1.3 of future totex proposals across all the Business Plans**. Ofgem's SSMD modelling on accelerated depreciation assumed radically reduced capex/repex from GD4 (and ignored opex). This is clearly wrong.**

***Long term financeability*:** Several GDNs stress the point that in looking at accelerated depreciation Ofgem must not look simply at the short term GD3 metrics on financeability but must look at the longer-term implications as well. We would support the need for this longer term view and also highlight below some wider questions around what Ofgem is assuming in this space. These are not arguments against accelerated depreciation per se but may impact the pace.

In sum, while the GDNs raise a number of very valid concerns around Ofgem's proposals on accelerated depreciation, this is not a reason to do nothing in the GD3 period. The direction of travel is clear and action taken now will help reduce the scale of the problem. However there are a range of valid issues that Ofgem will need to consider carefully as it decides on its preferred model.

Ofgem must look at the overall bill impact

As highlighted above, in thinking about inter-generational fairness Ofgem must think about accelerated depreciation in the context of all the other factors that will impact on gas network charges as a result of the transition. As a minimum, Ofgem's modelling should include a long-term picture of all the building blocks of RIIO allowed revenues / customer bills (depreciation, return on the RAV and fast money ie opex). As things stand, we have struggled to find even a basic figures on how much each of these three elements contributes to the network element of bills today though our understanding is that they are all material. According to Ofgem working group slides depreciation only accounts for £33 out of £115 pa which confirms the importance of also looking at the other elements .

Our earlier point on totex recovery reinforces the need to have a realistic view on the long term repex/capex requirements (which will be adding to the RAV going forward – to be recovered through depreciation) and ongoing opex requirements (which flow through into revenue allowances in the year they are incurred as "fast money"). As noted above, gas customer numbers will fall significantly through to 2050, but the costs of running the network will not fall by anything like the same amount (until all customers have moved away). Significant safety-related elements (repex/capex and some opex) will be ongoing. For GD3 it is important that a realistic view of these costs is built into Ofgem's modelling of long-term bill impacts.

Looking forward, major long-term questions arise for Ofgem and DESNZ as to how these continuing safety-related costs are best recovered with a reducing customer base – and what can be done to minimise these costs, while maintaining safety. A part of the answer will likely be a radically different way of thinking about network investment and the role of technology in maintaining safety in assets that will have progressively shorter remaining lives. This will need the engagement of the HSE as set out in 1.2. Equally, a planned rather than choice-led approach to heat decarbonisation would ultimately allow migration away from gas in an area to be actively considered as an alternative to costly investment. Greater regulatory clarity on these fundamental questions will be needed by the start of GD4.

The third of the RIIO building blocks of allowed revenues is the **return on the RAV** (ie the return debt and equity investors earn for having "loaned" money to be repaid, currently, over 45 years). With accelerated depreciation the RAV will decline more rapidly and hence the returns that investors will earn **will fall in absolute terms**. None of the Plans touch on this but in terms of allowed revenues and hence customer bill impact it **will offset to some degree the effect of the higher depreciation charge**. It is **essential that Ofgem includes this in modelling** the impacts of accelerated depreciation Ofgem and sets out clearly how material this is.

Accelerated depreciation: longer-term financing issues

Having this overall long-term picture of all the building blocks of allowed revenues / customer bills is also important in thinking about the **longer term financeability** issues that SGN (and NGN) raise. We can understand SGN's position that the current regulatory model is probably not capable of dealing with a future situation in which there is a network that needs to be maintained for safety reasons but that has a significantly diminished RAV where future depreciation and RAV returns do not reflect the full future costs and risks of keeping that network safe. **While not a priority for GD3 provided the accelerated depreciation changes made are relatively limited, reflecting on the right regulatory**

model for a declining network is a major piece of work that will need an early focus by Ofgem / DESNZ.

Another matter for concern, even in GD3, is how under some of the models proposed, **accelerated depreciation would result in higher cash flows into the companies and Ofgem must address what it expects the companies to do with this cashflow**. Does Ofgem still expect the notional gearing to be maintained (and hence some debt to be paid down where that is possible)? What would be the optics of increased dividends to shareholders in GD3? At what point does the cashflow position switch to becoming inadequate to cover the ongoing costs of running the business? Understanding the impact of these wider financing and financeability questions is crucial to Ofgem's decision on accelerated depreciation and, more generally, for consumers

In our view, accelerated depreciation should provide assurance to investors around the risk of asset stranding but it is clear that different investors have different ambitions and interests. While a very aggressive approach to accelerated depreciation might raise wider concerns for investors (as SGN suggest), we take the view that a measured approach should not. We assume that through discussions with investors, Ofgem will be getting some sense of how different types of investor view these issues, which is then reflected in the very different positions the companies seem to be taking. Having this understanding will help Ofgem to navigate through the decisions it has to take.

Debt inflation adjustment

Although none of the GDNs raise it, we note that the **debt inflation adjustment** which Ofgem is proposing, is used in some countries as an approach to the inter-generational problems with gas network decline[8]. By not indexing the full RAV in line with inflation but instead using a nominal interest rate Ofgem is bringing forward RAV repayment compared to the status quo. How this decision (which seems settled policy) feeds across into Ofgem's work on the accelerated depreciation merits more explanation given the real question Ofgem is grappling with is *how much more* should RAV recovery be accelerated at this stage. To answer this **Ofgem needs a clear view of the scale of the impact** of the debt inflation adjustment and this **needs to be built into Ofgem's modelling** of different options for accelerated depreciation.

Accelerated depreciation: the alternative approaches proposed

From the network standpoint there are big questions about different policy approaches to asset depreciation which could be adopted, including the time-period over which network costs are best recovered, different asset profiles and how the different depreciation models might impact both network investors and also gas customers. We note that in their Business Plans **the companies all advocate different approaches / solutions** to accelerated depreciation and asset life (although WWU say relatively little beyond offering broad support and saying that Ofgem is best placed to take the decision on different options).

We do not have the resources to carry out the detailed modelling needed to compare or reach a firm view on the different options for accelerated depreciation put forward by Ofgem and the networks but our initial thinking is that:

[s] As set out in the SSMD Finance Annex where the example of the Netherlands is cited

- **Reducing asset life**: NGN's proposal for a 35-year across the board asset life feels pragmatic but almost inevitably the asset life would need to be shortened again in GD4 as the net zero deadline approaches (which then creates the continued uncertainty that the GDNs are seemingly concerned about);
- **Accelerate depreciation of new assets only**: This idea of focussing on new assets only – Ofgem's Option 4 (and Cadent's preferred model if there is to be accelerated depreciation) - seems to have some common-sense merit. It would still leave an element of RAV unrecovered in 2050 but this could be viewed as potential residual value (assuming that some part of the networks could be repurposed). However, we are concerned, as NGN flag, that this approach would have little impact on the level of depreciation until later in GD3;
- **Acceleration factor**: we had initially been drawn to the idea of an acceleration factor (as used in other countries) to provide flexibility to manage the high levels of uncertainty in this space. We recognise NGN's concern if this could be changed annually at Ofgem's discretion. However, we do not see why reviewing the factor at each price control should create any more uncertainty than exists currently when Ofgem can review the whole approach.
- **Rule-based approach to acceleration factor**: while SGN's model of a "rule based" approach to the acceleration factor addresses the uncertainty concern, their specific formulation effectively delays any acceleration of depreciation until beyond GD3 even under the Holistic Transition scenario and bakes in a cautious view of future customer migration (by assuming that, at any time, the prevailing rate of migration will be maintained). As such we do not support their specific proposal.

We expect that Ofgem will carry out further analysis on the options put forward by the GDNs in their Business Plans and taking account of the points made around uncertainty levels. This analysis should then be shared with wider stakeholders to secure their input through a **reconvened Ofgem working group** ahead of Draft Determinations. Given the significant impacts for current and future consumers it is important that these are not simply regarded as 'technical' finance questions with discussions held behind closed doors.

We have also stressed, based on our past work in this area[9], that decisions around inter-generational fairness are difficult and cannot be made on a formulaic basis. We would therefore again urge Ofgem to carry out **deliberative research** with consumers to explore these complex trade-offs which could have potentially significant impacts on customer bills.

In summary, on accelerated depreciation, Ofgem need to:

- **Commission deliberative consumer research** to help in judging the trade-offs between current and future consumers.
- Through **dialogue with investors** seek to understand the rationale behind the very different stances taken the companies on accelerated depreciation and asset life
- **Signal serious intent around accelerated depreciation to address inter-generational fairness and move ahead with some modest action at this stage**, recognising the significant uncertainties around the pace of heat decarbonisation (both domestic and I&C) as well as some assumed potential for future repurposing of the gas distribution networks.

[9] See https://sustainabilityfirst.org.uk/wp-content/uploads/2021/06/And_what_about_your_grandchildren.pdf

- **Reconvene the Ofgem working group** to reflect on the different options for accelerated depreciation put forward by the companies and also to ensure proper stakeholder engagement on these options.
- **Look at ongoing future totex costs and the full long-term bill impact**– and not just the depreciation element
- **Look at the effect of a declining RAV** as a direct result of accelerated depreciation and which will lead in turn to **declining absolute returns**.
- Reflect on the **longer term financeability questions** as well as painting a clearer picture of what accelerated depreciation means for **near term company cashflows and gearing, including Ofgem expectation on increased dividends;**
- Consider in-the-round what accelerated depreciation, ongoing totex and a declining RAV may mean for **the regulatory model longer term;**
- **Inflation indexation**: set out more clearly how the change to inflation indexation affects the decision on accelerated depreciation.
- **Heat policy uncertainty**: urge DESNZ to put an end to the policy uncertainty on home heat which may lead to a higher cost of capital than otherwise (as well as potentially higher levels of investment) which ultimately consumers will pay for.
- **Set out clearly the current gas network charging arrangements and how relative costs are recovered as between business and domestic customers** (and consider the need for a formal review).

1.5 Disconnections

While full scale decommissioning is not likely until the 2040's and beyond, the costs of safely disconnecting individual properties from the gas network as they move to heat pumps or district heating, is a current issue for GD3.

Opaqueness in current arrangements

As we highlighted in our FOG report there is **significant opaqueness around current GDN arrangements**, **no scrutiny by Ofgem of the charges levied on individuals for network disconnection and an open question about how, going forward, these costs should be recovered and from whom.** The obvious (cost reflective) solution of charging the relevant customer could put a further barrier in the way of heat pump take-up but socialising disconnection charges across remaining gas customers does not feel fair and would exacerbate the existing totex cost recovery challenge referred to in section 1.3.

Ofgem has very recently published a **Call for Input** on Disconnection but this sheds little light on the issue and **completely ignores the crucial role of suppliers in the process**. Moreover, the Business Plans had to be developed in the context of continuing uncertainty in this area. The GDNs propose a reopener to deal with any policy changes which is understandable but instead we would urge Ofgem to move forward swiftly with its review to provide clarity ahead of Final Determinations.

Linked to this we welcome Cadent's commitment to "*Preparing for transition by ….working with the HSE and Ofgem to determine the policy framework and a low cost, safe and effective means to disconnect services*". As a part of that they identify a number of questions that need answering which we endorse and which again highlight the need for a wider debate. The questions, which we hope Ofgem will pick up in its Call for Input are:

a) What common / property specific works are required to disconnect a service safely and efficiently, if there is no prospect of it being used again?
b) Who might carry out that work (including authorised / accredited third parties)?
c) Who should request and meet the costs of disconnection (considering how the current supplier-led and customer-led processes should evolve)?
d) Should individual customers leaving the gas network pay some form of contribution / exit charge to mitigate against any stranded costs falling to remaining gas network customers?

Again the **HSE has a key role** here and it is important that they are effectively engaged in the debate. The requirements around making a service pipe safe after the customer has disconnected is an HSE requirement through the Gas Safety (Installation and Use) Regulations. Moreover, there is a suggestion in the SGN Plan that the HSE requirements might tighten, requiring them to revisit all previously disconnected sites.

Assumed rate of disconnections

Ofgem's requirement that the GDNs use the **Holistic Pathway** as the basis for their Business Plans highlights the potential scale of this issue and the urgent need for more policy thinking. Under the Holistic Pathway around 3 million households would be expected to move to heat pumps in GD3. If most of these disconnect from the gas network (with 85% of these requested by suppliers and hence socialised, in line with Cadent figures) this could equate to an additional cost of **c £2-3bn** in the GD3 period. While we see this as very unlikely to materialise it highlights the importance of the issue.

In their Plans the GDNs have made the case for a departure from assumed rates of network migration in the Holistic Pathway, and instead based their projected costs on a very much lower level of disconnections. The precise assumptions are not always clear but would appear to be a continuation of current levels (c 100k pa at GB level). In all cases the GDNs propose an uncertainty mechanism (a volume driver) to cover any increase in migration rates (with a reopener if that rate escalates significantly).

As noted above in the context of accelerated depreciation, we share the GDNs' view that the Holistic Pathway level of customer migration is unrealistic given government's limited focus so far on heat decarbonisation relative to delivery of the 2030 Clean Power Action Plan, and as evidenced by the disappointingly low level of heat pump take-up to date against the 600k pa 2028 target. As such **we support the calls for a volume driver in this area.**

That said we consider the **very low migration rates assumed by the GDNs** to be unduly pessimistic. While we recognise the challenges, we would expect government in the course of this Parliament to take additional steps to encourage district heat schemes and to support heat pump take-up – as with the proposed easing of planning permission requirements for smaller heat pumps and a commitment to increased levels of funding. Growing customer awareness will also help build demand. The CCC have highlighted heat pump take-up as an area where the UK is significantly off track for meeting carbon targets and government is required to respond. While we still need greater government clarity, we think it would send a stronger signal to the GDNs about the need to plan for increased levels of customer migration if Ofgem were to use a somewhat higher forecast for its baseline than simply rolling forward current levels of heat-pump installations as proposed by the GDNs. As discussed in the context of accelerated depreciation there is a need for a more realistic central "sensitivity" that could be used to inform key decisions in GD3 and thereby provide a more realistic baseline for any gas network volume driver on disconnection costs.

Unit costs

In terms of **unit cost** we note that SGN are quoting a cost of £1300 per disconnection. None of the other GDNs include a figure in their main Plans although the Arup work for NIC estimated a cost of £1150 per household *at scale* based on a 20% reduction as against the GDN weighted-average publicly quoted cost of £1450. Historically, we are not aware of Ofgem applying any scrutiny to these costs. While we note that cost is one topic picked up in the Disconnections Call for Input this cites an average price of £1950[10], which seems radically out of step with these other figures. A robust view on unit costs will be needed as a priority for Ofgem to design an effective volume driver. Presently we seem a long way from having that.

Customer service – company proposals

One element of the Business Plans which does reflect a recognition by the GDNs of the growing importance of disconnections is the inclusion of **actions to improve customer service** in this area, building on the work Ofgem have set in train to measure customer satisfaction. Cadent make a commitment to lead work with other GDNs to establish the survey – proposing an ODI-R initially - evolving to an ODI-F in due course. NGN refer to making service improvements for disconnections - "using baseline results from Ofgem's new disconnections survey, we will continuously improve the service for our customers" - and commit on a voluntary basis to including them in their overall 9.2/10 target for customer satisfaction. WWU propose to introduce self-serve disconnections plus an app to track engineer arrival on the day. SGN is unique in not proposing any action in this space (and simply raising concerns about Ofgem's proposed survey). We welcome the proposals that GDNs have put forward and would expect Ofgem to make clear at Draft Determinations that any new customer service standards for disconnection from the network would apply across all GDNs.

In summary on gas network disconnections Ofgem should:

- In discussion with DESNZ, **urgently pursue its wider policy thinking on how best to recover the costs of disconnections** - and provide more transparency to consumers who are thinking of having a heat pump installed - as set out in the Ofgem recent Call for Input;
- **Engage with the HSE** - to understand where there may be flexibility in the requirements which would allow for a more cost-effective set of arrangements for disconnections that maintains safety but that acknowledges the future trajectory for the gas networks;
- Include **volume drivers** to accommodate the uncertainty around disconnection volumes in GD3 but using **a more realistic level of disconnections as the baseline** than GDNs are proposing;
- **Recognise disconnection as a regulated activity and establish a robust view on current unit costs** together with a future trend that encourages a strong focus on improving the overall efficiency of this process (which has not been a focus to date given the scale), including through innovation;
- Encourage GDNs to develop a **good practice gas disconnections customer journey**, alongside **common** requirements across GDNs for **customer service metrics** for disconnections;

[10] It is completely unclear how the Ofgem figure relates to any of the other publicly quoted figures and the crude assumption that these costs will continue to rise going forward runs totally counter to what has always been a goal of RIIO in terms of driving increased efficiency.

- **Ensure that the work being done through the Ofgem Call for Input on disconnections looks at all aspects (including the supplier role) and is properly joined up with the thinking on GD3 and the timescales required.**

1.6 Innovation on decommissioning / repurposing

We recognise that the gas networks cannot be decommissioned until all customers on a particular part of the network have moved away from using gas, which will not be for some time. As noted above whether we have a planned transition (area based) or a consumer choice-led approach will be an important factor in determining the timelines.

However, as we set out in our FOG paper there is a need *now* to **use innovation funding to start exploring how decommissioning might be done most cost effectively** given the significant sums that the NIC estimated would be required (£79bn including £54bn of disconnection costs). This could be important in identifying preparatory steps that should be undertaken earlier. We also advocated a need to kick-start innovation work to look at **options for repurposing** the gas networks for uses other than hydrogen / biomethane such as carrying fibre, cables, water, heat or indeed simply understanding what value might attach to the physical connection into almost eight out of ten homes.

We are pleased that Ofgem has included this as one of the themes for SIF funding in the most recent round with a few projects being initiated at Discovery stage (NGN's GNES project modelling the socio-economic impacts of decommissioning and two projects at transmission level – one looking at the use of AI to help with decommissioning of large-scale assets and Alt Pipe looking at repurposing of redundant pipework).

Company proposals on decommissioning innovation

Responding to Ofgem guidance, all the GDNs give a nod to innovation linked to decommissioning in their Business Plans but in most cases, there is limited detail (either in the main Plans or in their innovation strategies). We note below our reactions to some of the specific project proposals around decommissioning some of which are clearer than others:

- **Cadent**: talk about using innovation funding for "optimising disconnections and decommissioning – exploring the regulatory, safety and cost implications of disconnections as well as optimisation opportunities for decommissioning". This interplay between disconnections and decommissioning would appear to us to be an important issue.
- Cadent also talk about having identified areas where they can leverage SIF for example in working with DNOs to further explore the practical implications of customers switching from gas to electrified heat and how such a transition would take place and ensure their peak requirements can be securely met. Again we welcome any genuinely collaborative work with DNOs and the NESO / RESPs which we see as vital to developing a proper whole system view;
- **SGN** propose a project to look at options for taking gas out of high-rise MOBs (multi-occupancy buildings) given these require particularly costly work where risers need replacing. We note that NGN also state an intention to remove gas from the small number of MOBs on their network in GD3 and have an innovation project to look at disconnection and decommissioning across various building types including MOBs. We welcome work in this area as it was an example that we raised in our FOG paper. However, we would hope that

learning can be shared across these two projects (with DNOs/heat networks involved as appropriate);

- SGN also propose innovation funding to "develop credible plans for a viable and safe decommissioning pathway, ….with outcomes that focus on network decommissioning safety; the minimum viable network; operational planning methodology and asset reconfiguration assessment". While these are important themes we are less clear what exactly SGN are proposing in this area (and how far they are focussed on future cost reduction);
- **NGN** say that "whatever policies emerge we intend to invest in new low regrets projects which can support repurposing to low carbon gas as well as a network decommissioning project to look at sectorising the network for hydrogen which would also consider evidence from industrial and power customers".
- NGN also propose to monitor interruption performance and asset resilience surveys to further inform their decommissioning strategy (which is one of the important areas that we highlight in 1.3 above). This would help them determine the minimum viable network structure needed for a resilient energy system and plan subsequent removal of obsolete equipment. They envisage using the findings to trigger an Ofgem reopener for a net zero trial including testing a fully electric community as methane supply is rolled back.
- NGN also talk about specific aspects of the decommissioning process that they intend to explore eg removing the need for nitrogen purge, capturing purged gas, robotics / technology that can cover longer distances and hence requires fewer holes. Overall, our sense is that NGN are most open to genuinely looking at ways to decommission the network more cost effectively and seem to be looking at a number of practical ideas for doing this;
- **WWU** talk about preliminary work (in preparation for reopeners) including strategically placed valves that would enable them to separate areas of the network to either switch to hydrogen or away from gas. Their innovation strategy also makes a brief reference to potential projects on gas purging and handling of assets that are no longer needed.

In all these projects, if funding is provided, we hope that Ofgem will stress the importance of **collaborative working across the GDNs**. With a number of these proposed projects looking at similar issues there would appear to be savings from a more collaborative approach

Finally, while not linked to the technical challenges of decommissioning we support work proposed by both SGN and NGN to better understand the future requirements of their **industrial and commercial customers**, although again we would stress the importance of collaboration, including with DESNZ colleagues leading policy work in this space.

Oversight, governance and policy input

We are also aware that there is an element of a conflict of interest in asking the GDNs to look at more cost-effective ways to manage their decline and a risk that this innovation work will simply be used either to prove how costly decommissioning is or to highlight the inadequacies with alternative technologies. While there are a range of practical questions on which the GDNs are best placed to lead we would suggest that Ofgem may wish to take a more active role in scoping some of these projects where the potential conflict of interest is more of an issue. From the standpoint of delivering customer benefit there is also a clear need to develop a common understanding and common approaches across the GDNs. For projects looking at transition to alternative heating (or with other whole system implications) it is also clearly essential that **DNOs, together with the NESO / RESPs** and, where appropriate, **heat networks** are involved.

It is also clear that there are **policy questions** that arise in relation to decommissioning which we would hope that Ofgem and DESNZ are starting to engage with. For example, SGN already offer to "buy out" customers in MOBs, offering electric appliances as an alternative where risers need to be replaced at significant cost. However, they argue, the obligation to provide a gas connection limits the number of cases where this can be done. This is a policy issue that needs to be urgently addressed if we are to limit unnecessary investment going forward – and is a key strand of future heat policy that needs to be clarified if costs are to be contained.

Elsewhere SGN highlight the Pipeline Safety Regulations which provide the legal framework for decommissioning which reinforces the importance, yet again, of HSE engagement in this work.

We found the **sources of funding** the GDNs proposed to use for these various innovation projects somewhat confusing with a mix of NIA, CNIA, NZARD UIOLI and NZASP reopeners (for more significant implementation projects). We understand why SIF funding may not have been referred to in the Plans as the scope of the Challenges varies from year to year and it is not counted as part of RIIO funding but equally it is intended to be Ofgem's flagship source of innovation funding. We do not have a particular preference on the funding routes used provided there is adequate funding for this important area. However, we would stress the importance of **ensuring that the core elements of governance around collaborative work with parters, dissemination, stakeholder engagement, openness to third party ideas etc are included in any innovation funding mechanism.** SIF offers this governance and Ofgem should look across the issues raised in the Business Plans to inform their own and UKRI thinking on future SIF Challenges.

Repurposing

In terms of **repurposing**, the focus across all GDNs was on biomethane, hydrogen and hydrogen blending which we see as important in terms of the overall move to decarbonise heat (including for industrial and commercial customers where there has been less attention to date).

SGN in their innovation strategy do refer to uncovering what they can productively and sustainably do with their assets in the future if they aren't required, noting that this could be routing for fibre network connections, heat network support, or even as storm drainage for water networks. This is welcome albeit that it is clearly early thinking. We have not identified any proposals from other GDNs to explore wider repurposing options.

We remain extremely supportive of work looking at the **wider options for GDN repurposing.** Not least, having a better feel for the potential for GD residual value is crucial to being able to refine the approach to accelerated depreciation as set out in 1.4 above We also note that the Arup report identified some possible legal and regulatory challenges that will need exploring. It may be that initial work on this aspect is best commissioned by Ofgem / DESNZ (to inform policy questions around the long-term stranding risk).

In summary on innovation around decommissioning / repurposing Ofgem needs to:

- **Ensure adequate funding** for innovation to deliver **a step change in efficiency in** repurposing and decommissioning and **clarify the potential for residual value;**
- **Reinforce the need for collaborative working (across GDNs and with DNOs, RESPS and heat networks);**
- Ensure **suitable governance** whatever the funding mechanism used**;**

- **Develop a strategic overview** of these innovation projects as they progress and **widely disseminate the lessons to inform ongoing policy thinking** in government and for RIIO-4 on the future of the gas networks**.**

1.7 Conclusion and Next Steps on Future of Gas

As highlighted at the start of this response there is significant uncertainty around heat decarbonisation and the future of the gas distribution networks – but under any scenario, the gas networks will play a smaller role as we move away from the use of natural gas.

We urgently await government to bring an end current to uncertainty for heat policy. In our Future of Gas paper[11] we stressed how a clearer line-of-sight is critical – for consumers, for consumer bodies and the heat supply chain alike. For the GDNs ending the uncertainty on heat policy will ensure a lower cost of capital than otherwise, and allow more robust decisions to be taken across multiple areas of the Business Plans, reducing long-term costs.

The GD3 Business Plans and Ofgem SSMD – raise some very technical issues (on accelerated depreciation, future totex requirements and the approach to disconnections and decommissioning / repurposing) – all with very major consumer implications. A light needs shining on these if we are to be confident that Ofgem's decisions are in the consumer interest.

This is a complex landscape – the issues involve many actors with many agendas at play. Issues are currently being taken forward in disparate work streams (across / within organisations).

Looking across the Plans there is a strong role for government on heat policy, for NESO (on RESPs and how the high level heat policy is reflected in regional plans with local democratic input) ; the HSE role in setting safety standards; Ofgem's role in determining cost allowances and how these will be recovered from customers over time – with inputs from consumer research and from consumer bodies; and finally the gas networks role in maintaining a safe, sustainable, resilient and efficient network that will evolve over time as part of the energy transition.

Orchestration of a considered debate on the future evolution of our gas GB networks is a large and complex exercise. **Sustainability First therefore wishes to see these key actors, together with consumer bodies and other key stakeholders, around the table in a focused year-long programme of deep-dives to**:

- Develop a common understanding of key issues
- Recognise broad areas of agreement / disagreement
- Identify priorities for further work / major gaps
- Agree who leads on what
- Create a better line-of-sight – ie policy options, timelines, network plans, choreography – especially in terms of what these alternatives might mean for gas consumers.

A well-designed scoping conversation is urgently needed. Sustainability First continues to explore options for such a programme and we remain open to conversations with interested parties.

[11] https://sustainabilityfirst.org.uk/wp-content/uploads/2023/12/Sustainability_First_-_V2_Viewpoint_-_Gas_Network_Decline_and_Stranding_in_RIIO-3_-_v_041223_final.pdf

PART TWO: REDUCING EMISSIONS IN GD3

2.1 Biomethane

Our support for biomethane

We continue to support gas distribution network investment aimed at facilitating biomethane given that this offers an opportunity to make progress in the near term on heat decarbonisation, reducing GB GHG emissions. From a **consumer** perspective it has **appeal** as a green solution that is available now, requires no changes in the home and offers a similar heat experience. **Under a choice-led approach to heat where we are seeing a slower than hoped for uptake in heat pumps this offers a valuable interim solution that could help in meeting near term carbon budgets**.

An increase in biomethane capability and volumes, could also potentially form part of a longer-term transition, repurposing parts of the gas networks (and hence avoiding decommissioning costs). However, we recognise that **decisions on the longer terms role for biomethane will need to be taken by government, reflecting on potential alternative uses for bioenergy** in hard to decarbonise sectors or solutions that would involve negative emissions through BECCS.[12]

In the meantime, we note the positive comments on the role of biomethane made by the DESNZ minister in a speech at the ADBA Conference at the end of last year and we hope to see this confirmed as part of Government clarifying its heat policy later this year.

The Company Plans

In their Business Plans the GDNs vary quite a lot in the level of their ambition level on biomethane. In part this is likely to reflect their local geographies and the appetite of local biogas producers to connect to their network – as well as their view on the prospects for hydrogen.

SGN would seem to have the most ambitious and best thought through approach, perhaps reflecting the rural nature of Scotland and their long-standing interest in this area. They have an ambition to provide capacity to deliver gas to the equivalent of 1 million homes (with a commitment also to develop a metric that reflects the actual level of gas injected not just capacity). They also want to use local bioCNG in their independent SIUs which are currently dependent on gas brought by road from the Isle of Grain.

Their EAP and Innovation Strategy set out detailed practical steps that they intend to take to facilitate connections and increase the injection rate, building on input from biogas producers. These include a simpler standardised approach to connections, reduced requirements for propane blending, funding for reinforcement, and resolution of technical issues around flow rates, with the creation of dedicated support teams in Scotland and the South. They are looking for funding through NZARD for Improved Biomethane Access (which looks to improve flow rates and reduce propanation[13]) building on the successful rollout to initial sites in GD2. More strategically they are looking at a proactive approach that looks to allow biomethane to be prioritised over natural gas and to establish standards to allow biomethane to count towards security of supply obligations.

Cadent also appear to have a high level of ambition "working to ensure that the total UK potential for biomethane is realised" which REA set at 30TWh across the UK by 2032. Cadent also set out some

[12] Scottish government consulted last year on a BioEnergy Policy for Scotland which broadly reflects the position we set out above.

[13] Propanation entails adding propane to the biomethane so it meets gas quality standards but which then creates additional carbon emissions

steps (on the connections process and socialising reinforcement costs where they have been working with other networks and Ofgem to amend charging rules).

NGN support biomethane but note that continued barriers to entry and operation exist which they say they will work with the Future Energy Networks Green Gas Taskforce to address. Rather than biomethane they put more emphasis on I&C hydrogen (with East Coast Hydrogen also including power generation which they see as key for Clean Power 2030)) and hydrogen blending.

WWU's Plan includes lots of references to biomethane but no real sense of ambition. They reference smart pressure control and reverse compression which could allow more biomethane to be connected.

Based on this review, on biomethane Ofgem should:

- **Support the (relatively limited) funding requests from the companies to facilitate biomethane connections and increase injection**;
- Demand the **sharing of learning** across GDNs;
- Require **reporting** of both **capacity** provided **and the actual amount of gas injected**;
- Encourage DESNZ and Scottish **government to provide further clarity on the role they expect biomethane to play in the shorter and longer term**;
- Engage internally with the Ofgem team responsible for administering the Green Gas Support Scheme for any additional insights they may be able to provide.

2.2 Methane Reduction

Why methane reduction matters

The IEA has identified reducing methane leakage from the oil and gas sector as "among the most cost-effective and impactful actions that governments can take to achieve global climate goals"[14]. In its most recent report[15] "The Imperative of Cutting Methane from Fossil Fuels" it calls for decisive, far-reaching efforts to reduce methane emissions alongside decarbonisation of our energy systems. In particular it highlights that because methane is a short-lived gas, **reducing methane emissions actually has the potential to reduce the stock of emissions in the atmosphere and hence could avert temperature increases that otherwise risk creating irreversible climate tipping points**. It was for these reasons that at COP26 in Glasgow the UK government endorsed the Methane Pledge committing to reduce methane emissions by 30% below 2020 levels by 2030.

Building on the Methane Pledge, the **UN's International Methane Emissions Observatory** has been putting **a strong emphasis on collecting data through satellite, drone and other technologies.** The associated Oil and Gas Methane Partnership[16] is working on ways to improve methane leak detection and reporting, recognising "If you can't measure it, you can't fix it".

[14] https://www.iea.org/reports/driving-down-methane-leaks-from-the-oil-and-gas-industry
[15] https://www.iea.org/news/urgent-action-to-cut-methane-emissions-from-fossil-fuel-operations-essential-to-achieve-global-climate-targets
[16] https://www.unep.org/explore-topics/energy/what-we-do/methane/oil-gas-methane-partnership-20-ogmp-20

In November 2023, the **EU** introduced a Regulation[17] on methane emissions reduction in the energy sector which sets **tighter standards for measurement, reporting and verification** in line with the OGMP methodology and sets requirements for leak detection and repair. It also introduces a ban on venting and flaring, other than in exceptional circumstances. With the potential for this to extend to imports to the EU it is important to the GB context even post Brexit.

DPLA and the Company Plans

Given this context, which we highlighted in our response to the SSMC, we were very pleased that Ofgem put a strong emphasis in SSMD on reducing leakage and on the use of modern technology and data analytics to speed up the detection and repair of leaks and to support more accurate reporting. As such it made clear that the proposed Digital Platform for Leakage Analytics (DPLA) should be included in the company Plans:

"..we think the DPLA will provide substantial benefits, allowing a move from an outdated modelled view of leakage to an observed view of leakage. We expect that observed reporting will help provide enough data to establish a robust incentive in RIIO-GD4.

As the GDNs are expected to have more information on the forecast costs and timelines of the DPLA shortly, we think that the GDNs should include individual plans for the rollout of the DPLA onto their networks within their business plans. These plans should .. include costs (and the certainty of these), timescales and cost benefit analysis. "

Given this emphasis in the SSMD it is disappointing that, **aside from Cadent, the GDNs feel some way off being ready to implement this step up in how emissions are detected and dealt with**. We see the proposals for Advanced Methane Detection (using vehicles with sensors to identify the most leaky pipes) as a valuable first step but would urge further action on elements of DPLA which would, for example, help **start to tackle leakage from above ground installations (AGIs)** which account for close to 20% of GDN emissions in the shrinkage model but which are essentially treated as a fixed amount and hence have been neglected to date in terms of actions to manage leakage.

In terms of the individual company plans:

Cadent are clearly the leaders in this space and talk about "bringing innovations from across the world to deploy and stimulate the UK market through our technology led Advanced Leakage Management Approach (ALMA)." Their approach has three prongs, building on lessons from innovation trials in GD2 and delivering 10% leakage reduction over GD3:

Advanced Leakage Detection – Use of the Picarro vehicle trialled in GD2 providing condition monitoring of their network and an actual measure of the leakage rate, noting that they have found that 50% of emissions originate from c5% of their network.

Digital Platform for Leakage Analytics (DPLA) – creating a dynamic leakage model that will provide asset specific leakage measures allowing interventions to be both measured and targeted. Proposals will see DPLA fully operational by 2027, working alongside ALD and enabling replacement of the Shrinkage and Leakage model.

Advanced Leakage Intervention Programme – targeting interventions on their leakiest assets, and using the better information to propose 750km of CBA driven mains replacement.

[17] https://energy.ec.europa.eu/topics/oil-gas-and-coal/methane-emissions_en#regulation-on-methane-emissions-reduction-in-the-energy-sector

SGN have made a firm commitment to Advanced Methane Detection: like Cadent they would be using Picarro vehicles to detect leaks and should be ready to start to roll this out early in GD3. On DPLA they have not yet done enough work to identify what elements they would want to take forward or to get a firm view of costs and hence are proposing a reopener.

SGN also have other initiatives to help tackle leakage including Remote Pressure Management (building on the initial rollout in GD2) and potentially Intelligent Gas Grid – which is an ongoing SIF project using AI to help manage pressure.

NGN include a baseline funding request for the utilisation of leakage detection technology, focussing again on vehicle mounted equipment. They say they will also continue to support the development and rollout of DPLA and have included the associated potential costs under an uncertainty mechanism.

That said their primary focus has been on speedier repairs of leaks. Specifically they propose new common targets, which they want to see applied to all GDNs, to close methane leaks (new 7 day and 28 day repair targets) which they have been tracking since GD2. There are already standards for dealing with leaks where there are safety issues but this wider metric would seem to be an important element in driving reduced emission.

WWU are very defensive of the shrinkage model arguing it is updated each year to give an accurate reflection of methane emissions (which we would challenge). However, they say they will progress DPLA with other GDNs to further improve the model and deliver more insights. Their data and digitalisation strategy is more forward leaning and references AGIs and employing sensors, data recorders and comms to better understand condition and performance – plus investment in methane detection technology. They also talk about replacing legacy venting controllers on pressure reduction installations with a non-venting solution, continuing from GD2.

Conclusion on methane detection

Across the GDN Plans there are three themes on improved methane detection that need further exploration.

First the GDNs raise concerns around how improved methane detection **will increase the volume of escapes** they have to deal with and in some cases they are looking for these **additional costs** to be covered through an uncertainty mechanism (or embedded in their Plans). In Cadent's case this would appear to be significant. We would question whether better leak detection really results in an increased workload or whether this is more about bringing forward repairs that will be needed at some point in future and about better prioritisation (and indeed, hopefully, a more managed and efficient approach to repair). This would seem to be the direction of Ofgem's thinking in SSMD. That said we sense that the GDNs are genuinely concerned about the risks they might face given the need to meet certain safety standards in dealing with gas escapes and hence there would be value in Ofgem and the GDNs working together on ensuring clarity around how this would be treated from a regulatory point of view. It is important that there are no disincentives on the GDNs to detect leaks (but also that customers are not over-paying).

This links to the second point which is about the **HSE role** as discussed in 1.2 above. Cadent talk about the DPLA enabling them to meet new requirements for annual asset monitoring. SGN note that remote monitoring is supported by the HSE as a way of managing safety. NGN talk about correspondence with HSE noting that this offers potentially significant safety as well as environmental benefits. As in other areas there is a need for a strategic discussion with the HSE on

the role these technologies can play and whether, in particular, this might facilitate savings in other areas.

Finally, there is a link with the wider concerns we raised above around the need for smarter ways of **tracking asset health** to help in managing an aging network while avoiding unnecessary investment. NGN talk about using the data as leading indicators of gas main condition to prioritise repex / refurbishment. All the successful methods for leakage detection – including those that involve new approaches to digital monitoring and predictive risk assessment - must also be actively applied to management of asset health and to help in managing down future totex (as well as informing wider policy decisions on issues like accelerated depreciation).

In summary, on methane detection, in our view:

- Ofgem should **fund the costs of advanced methane detection and have an early discussion around the treatment of increased escapes**;
- **Ofgem should be pressing GDNs to accelerate progress on this and also DPLA**, prioritising any additional early wins (such as fixed sensors on AGIs) and potentially including an incentive for timely delivery;
- Ofgem should require a period of **parallel reporting of new more accurate emissions data** in GD3, so that by GD4 Ofgem can use this as the basis for a more robust financial incentive on leakage (as envisaged in SSMD);
- Ofgem should continue to support **the need to replace the Shrinkage and Leakage Model** but also recognise that this plays a different role (in allocating costs between suppliers) which may make progress slow. **In the interim GDNs should be able to rely on DPLA outputs for reporting their emissions** as part of their progress against their science-based targets;
- Ofgem should **engage with the HSE** to understand how better monitoring could help in meeting safety obligations and hence reduce costs in other areas;
- Ofgem should consider **how the improved data on asset health could be used to inform longer term plans around asset management** and help contain longer term totex requirements.

PART THREE: OTHER ISSUES

3.1 Vulnerability

Maintaining the level of funding

In our response to the SSMC we made clear that we are strong advocates of the Vulnerable Customer and Carbon Monoxide UIOLI Allowance (VCMA) which we see as giving the networks the space to work closely with stakeholders on the ground to identify the best ways to support vulnerable customers. We said we were concerned about Ofgem's default position to restrict the VCMA funding to the original GD2 level despite the demise of the FPNES[18] (with that funding redirected in the latter part of GD2 to increase the VCMA pot) and despite the continuing cost of living crisis which we see no signs of abating for vulnerable customers in the GD3 period. Rather than make a firm decision at that point we suggested Ofgem wait until it had the evidence from the

[18] Fuel Poor Network Extension Scheme - which at the start of GD2 was used to offer free gas connections to those on low incomes

company Business Plans on what the networks saw as the future need in their areas and on consumer attitudes. This was the approach Ofgem set out in SSMD.

Although it is not always clear in the Plans, our understanding is that **all the GDNs are looking to maintain a high level of VCMA support. We support this.** It is well recognised that levels of vulnerability are projected to increase, in particular with an aging and disabled population; social change such as an increase in people living alone without support networks; climate change leading to increased resilience issues and the transition to net zero. This collectively, alongside financial uncertainty, will result in **a step change in affordability, access and safety needs over the RIIO-3 period** alongside new vulnerabilities and challenges.

In the short term, the financial picture continues to worsen for many. For example, in terms of customer expectations of their own financial situation in the short-term, just over one-third (36%) of bill payers in Ofwat's cost of living tracker in October 2024 reported that they expect their financial situation to get worse over the next year.

It is in this context that it is recognised that the VCMA is delivering significant value both directly to consumers and indirectly through its funding of support services. The network companies all have clear plans for how that funding would be used including with an increased emphasis on collaboration which we support. There is also good evidence that **customers (despite the ongoing cost of living crisis) and relevant stakeholder groups see this as a priority area for funding**. Given the high levels of need and seemingly public support, we urge Ofgem to adopt a degree of pragmatism at this time and not cut something that is clearly working, supported and needed.

In addition, we would note that the wider context of the Plans, and the potentially significant bill increases discussed above, reinforces the need for this support. In particular, in looking at action to address inter-generational fairness, which we support (as set out at 1.4 above), Ofgem will need to increase bills for today's consumers. As part of ensuring that this is fair from the perspective of today's consumers, providing additional support for those vulnerable customers who are already struggling to afford their bills would seem to be vital.

While VCMA funding is vital, Sustainability First's rapid review of consumer insight for National Grid identified that public willingness to pay for the energy transition is at least in part dependent on companies/shareholders playing their part. We therefore particularly welcome cases where companies have committed to make a **shareholder contribution** to vulnerability.

SROI a useful tool to be used with caution

Accountability for VCMA funding is clearly important. We **welcome steps** by network companies **to develop a common approach to SROI**, but more transparency is needed on the assumptions that underpin some of the calculations. **We also urge caution against an over reliance on that metric** as a way to direct funding as such metrics are never perfect and can lead to an over-focus on particular initiatives where benefits are more readily quantified. That said, we note that the GDNs welcomely have a range of success criteria. As two expert stakeholders (from some recent research we have undertaken) said:

"SROI is a useful measure but it's not useful if it's the only measure you use. It will steer you to a future for certain projects not necessarily all the right projects."

" [With SROI] There are no weighting for things like how difficult it is to help people who don't speak English. It doesn't feel like weightings are great in that space. .. How you measure stuff that's more than simple money. How you measure those things that are worthwhile in life – that is something

that can be missed out. Weightings for things like novelty. Learning is something in itself and should be valued"

Areas of focus for the GDNs

We understand Ofgem's desire that "GDNs should continue to address consumer vulnerability within their existing areas of competence, activity and consumer interaction". Indeed our stakeholder research found that some are concerned about GDNs straying too much into delivering social welfare. The focus has therefore been on providing support within their core role as a gas distributor, not duplicating support that other agencies are providing. However, we urge some flexibility here and make the following points on **GDNs' future role** on vulnerability:

- Ofgem says GDNs' role should include "**supporting a just transition to net zero**, where they are best placed to do so." Overall, GDNs' proposals to support a just transition seem rather underwhelming. While we recognise initiatives will be developed over RIIO-3 there could be value in an early debate on what this might most usefully look like.
- We have seen little recognition in the strategies of the impact Regional Energy Strategic Plans (**RESPs**), and their associated regional fora, will have on GDNs' engagement approaches, partnership working and prioritisations. While the RESP role on gas is not yet established this is something GDNs will need to be alive to with a shift to more place-based energy decision making.
- No consumer should be left vulnerable without supply. We strongly support proposals for '**services beyond the meter'** such as repairing/replace appliances following emergency work. There is a need here and a gap in support without the GDNs taking action. In the words of one stakeholder from our research:
  "If they don't replace or fix the appliance they condemned, who is going to do that?.. They [the householder] could be left for days, if not longer without heat or cooking. This is the problem we've heard of with the installation of smart meters when they do the purge and relight and find a problem, as suppliers don't provide this service…"
- We welcome the rolling out of core RIIO-2 initiatives and embedding them as BAU. It is also good to see that 'developing our services' is a theme for joint GDN activity. We would have liked to see **more focus on inclusive customer journeys and service design** in the Business Plans. E.g. the home visit customer journey has not changed for years despite new technology being available to support those who are anxious about home visits; we are unclear what GDNs' commitments are on telephone pick-ups times and freephone numbers – key areas that matter to consumers.
- Our stakeholder research found strong support for ensuring GDNs **leverage every touch point** with consumers in vulnerable situations– this includes when already in situ in someone's home, or in the community doing works. For example, when in someone's home the suggestion was made that they could deliver some quick services (such as help with boiler controls or installing low-cost energy efficiency measures such as foil behind radiators) to low-income households and those with additional needs, noting the high level of trust in network engineers. We recognise that GDNs will need to think carefully about how they best use their specialist engineering resources but would encourage them to explore what may be possible in this space, given that the challenge is often getting into the home.

Finally, as a general point, we note that while GDNs mention their **vulnerability mapping and use of data** to better understand and identify vulnerability, not all appear to use this data to inform their strategies. i.e. they use UK figures for vulnerability and fuel poverty and don't demonstrate they have

gained real insight and understanding of how their area differs from national averages and what that means for how they prioritise activity and design services.

3.2 Other elements of the Plans

In terms of other elements that we raised in our response to the SSMC we would highlight:

- We were pleased to see in the Plans a much greater emphasis on **resilience to climate change** and a growing understanding of the risks posed. The energy sector was singled out in the last Climate Change Risk Assessment as being severely behind what was needed in this area and we would encourage Ofgem to look favourably on funding initiatives that the networks put forward. It can be hard to make a business case for projects to deal with low probability, high impact events and we would encourage Ofgem to be mindful of this in judging the merits of particular proposals. We would also suggest that a stronger emphasis is needed on cross-sectoral engagement (with DNOs and with water and communications) which does not feature strongly in the Plans.

- Related to this we would reiterate the benefits of adopting an **adaptive planning**[19] approach to the long term: which might help with planning for heat scenarios as well as for managing the uncertainties around climate change and technological change. This would be consistent also with the latest version of the Green Book.

- The importance of restoring and protecting **biodiversity and nature** which is increasingly being recognised at a global level as key to a sustainable future (and as reflected in, for example, the Environment Improvement Plan for England) – but which also has a particular resonance at local, community level. Our sense is that the Plans are relatively unambitious in this area – perhaps reflecting that customers and stakeholders have supported other priorities more strongly. However, at a UK policy level this remains important and Ofgem should, as a minimum, support the initiatives that the companies are proposing in this space (and ensure there is flexibility to accommodate any new policy requirements in GD3). We note the introduction by Ofwat of a financial incentive on biodiversity which reflects, in our view, a proper recognition of the importance of this agenda.

- The importance of **transparency**, given the complex regulatory requirements and the range of issues that are important to stakeholders. As on previous occasions we found it very hard to properly compare across Plans given the companies present numbers on different bases and inevitably look to present the most positive picture. We have flagged on numerous occasions **the important role that Ofgem should be playing in presenting comparative information (which has been properly scrutinised) – reintroducing the annual reports** it used to produce under RIIO2 and also in relation to the Annual Environmental Reports. This is vital to enable stakeholders like ourselves (and also, for example, the ISGs) to play our part in holding the networks to account.

[19] As described in this Sustainability First blog

We hope that our observations in this response are helpful and would be happy to explain our thinking further at working groups or bilaterally with Ofgem.

Yours faithfully,

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