RIIO-3 Call for Evidence Summary of Responses

We received c530 responses to the RIIO-3 Call for Evidence consultation. This document sets out the responses that came in via email. Where respondents provided separate documents, these are published alongside this document. Responses, or elements of responses, where respondents have not provided their permission to publish have been excluded.

We received c380 responses from households and community groups impacted by National Grid's (NGET) overground pylon projects. In the main, respondents expressed concerns about the impacts of pylon projects on local scenery, house values, wildlife, and the environment. The majority of respondents in this group expressed the view that alternative options, including underground cabling and offshore grid, are not being thoroughly studied or considered. Respondents raised concerns with the transparency of NGET's public consultation process. Respondents considered that information from the company was sometimes inconsistent and that their public engagement process can exacerbate local communities' distrust. Several specific projects were named, including the Norwich to Tilbury project and the Chesterfield to Willington project.

Contents

Richard Meredith

Organisation - none

Comments apply to all networks

Response not confidential

Summary - local community representation out with the Local Planning Authority system. The network plans are all silent on the role of local communities in early identification of issues for network plans. The planning application stage is much too late in the process. Below is one suggestion that rectify the problem - board membership of NESO.

Evidence - the installation of 4g/5G infrastructure over the last two years provides empirical evidence of the need for early and meaningful community consultation.

Dr Richard Meredith

Patrick Naughton

Dear Sir/Madam,

Please find below my feedback on the Nation Grid RIIO-T3 plan

a. State your organisation if responding in an official capacity;

None/local resident.

b. State which network company/companies and which section(s) of the

BP(s) you are commenting on;

National Grid/ RIIO-T3 plan – proposal for each region.

c. State if your response is confidential and, if so, on what basis (see

Appendix 1 and 2);

Not confidential.

d. Include a concise summary of the issue identified; and e. Include

evidence or a justification for your view.

The RIIO-T3 plan fails to meet the stated ambitions, specifically in

regards to the intention to extend the use of Overhead Power Lines.

- Deliver the grid of tomorrow, today
- Do the right thing for consumers, communities and stakeholders
- Transform the way we work.

Whilst there is a commitment to convert some of the Overhead Power Lines

to a more efficient material, the amount of energy lost by these lines

will remain significant, probably in the region of 5% which could

otherwise meet the energy needs of more than a million homes.

These power lines generally operate at high temperatures, anything up

to 90 degrees centigrade and beyond. As such, they emit infrared

radiation at the very wavelengths which are precisely the most

susceptible to absorption by some of our most dangerous greenhouse

gases, including methane, nitrous oxide, ozone and sulphur dioxide.

The table below shows the temperature at which peak radiation emission occurs to match some of the peak absorption wavelengths for some common greenhouse gases calculated using Wein's law;-

GAS	Absorption wavelength λ (metres)	T = Kwein/λ (Kelvin)	T(centigrade)
Ozone	9.60E-06	299.79	26.63
SO2	8.70E-06	330.80	57.64
N2O	7.80E-06	368.97	95.81
Methane	7.66E-06	375.72	102.56

Current overhead powerline systems are neither thermally insulated nor optimized to minimize their environmental footprint. Quite the contrary. They rely on ambient air for cooling and insulation, leading to energy losses. In light of global warming where extreme temperatures are becoming more frequent, these inefficiencies exacerbate the problem rather than mitigate it. Rather than continuing to invest in outdated and environmentally harmful infrastructure, we should prioritize sustainable alternatives such as underground insulated powerlines. These systems, while potentially more expensive upfront, provide greater efficiency, reduced energy loss, and significantly lower environmental impact. By addressing these issues proactively, we can ensure that

renewable energy projects, like wind and solar farms, achieve their full potential without inadvertently contributing to the problem they aim to solve.

Whilst the authorities are promoting schemes to insulate homes, they should also insulate the National Power Grid upon which we all increasingly depend for our energy supply. This is important if efficient investment and proper judicious use of consumer funding is to be achieved. The authorities must reconsider the construction of overhead high voltage powerlines and invest in modern, efficient, and environmentally responsible energy transmission systems that align with the urgent need to combat climate change.

Yours faithfully,

Patrick Naughton

Zero Waste Scotland

Dear Madam / Sir,

Please accept Zero Waste Scotland's official response below on Scottish Power Transmission's RIIO-T3 business plan, and annexed Environmental Action Plan (particularly *Section 6 – Sustainable Resource Use and Waste Reduction)*.

Our response is not confidential.

How do Circular Economy Practices feature in SPEN's RIIO-T3 plan for 2026-2031.

Summary

In order to explore the extent to which circularity has been featured in Scottish Power Energy Network's (SPEN's) RIIO-T3 plan, the summary below chose to evaluate the plans' commitment to address the approach taken in the procurement, maintenance and decommissioning of assets used by SPEN. This approach is broken down into the three sub-questions below. By breaking down the research question the summary response aims to more clearly show how circularity is considered across the entire life cycle of assets, with attention to the waste hierarchy framework- prioritising waste prevention above waste management.

Sub questions:

1. How is circularity being considered in the procurement of materials, equipment and services?
2. How is circularity being considered for waste management and the end-of-life of assets?
3. What materials and components are being added to- and decommissioned from- SPEN's asset base through RIIOT-3?

Circularity is considered within both the procurement of materials and components and the end-of-life management of existing assets in SPEN's RIIO-T3 plan. SPEN have set ambitious targets relating to the procurement of non-virgin materials for the expansion of their network and for the diversion of decommissioned components and material from low-value routes i.e. landfill.

While the targets set and the ambition to ingrain heightened circularity throughout the plan is ambitious, the structure of some targets could be adapted to ensure that circular economy outcomes are not conflated and that success or failure in achieving targets can be accurately measured and communicated. For example, SPEN commit to "reuse or

recycle" 100% of waste by the end of RIIO-T3. The wording of this target means it could be delivered exclusively by focusing on recycling rather than reuse. Alternative wording to separate the two outcomes by stating something along the lines of "*SPEN commit to reuse 30% of their waste within developments with the rest being diverted to recycling by the end of RIIO-T3"* would ensure that reuse options are being explored and delivered alongside recycling.

This target would create a clearer steer to identify and overcome any challenges relating to the reuse of material rather than resorting to outcomes lower in the waste hierarchy (recycling) if any issues with the reuse pathway for materials or components are identified. This issue is further highlighted on page 75 of the report as the target is worded differently on two different sections of the same page. It is referenced both as "We will reuse or recycle 100% of our waste by 2030" and "Long term targets: Recycle 100% of our waste by 2030".

By separately addressing reuse, interventions could be designed to deliver outcomes higher up the waste hierarchy, leading to less emissions and value loss through the RIIO-T3 period. It is possible however that the ambition to reuse materials has not been committed to due to an unmentioned barrier or challenge that inhibits delivery. If this is the case, SPEN could make clear that they have considered this change and outline the barriers that they have identified. This would allow further work by SPEN and partners to address identified challenges and move towards incorporating more circular economy practices in future iterations of their planning.

Central points:

- The circular economy clearly plays a key role in both the "RIIO-T3 Business Plan: 2026-2031" and the "Sustainable Business Strategy".
- Targets within the plan seek to address both downstream handling of waste and upstream avoidance of waste and environmentally damaging procurement.
- Some Targets outlined in the plan combine circular economy outcomes meaning successful delivery of the target could be achieved without aiming for the most effective CE outcome according to the waste hierarchy.
- One central target "To become a totally zero waste business by 2040" could benefit from the mention of metrics or indicators used to assess progress. This would provide a clearer understanding of the changes involved in this transformation and how success will be achieved.

Sub-Questions

This section will break the full plan into sub-sections in order to clearly show where the plan has considered circularity at different stages in the procurement, use and decommissioning of SPEN infrastructure.

1. *How is circularity being considered in the procurement of materials, equipment and services?*

Targets relating to the procurement practices and supply chain used in delivering the aims of RIIO-T3:

- 30% of aggregate, steel or concrete inputs will come from recycled or reused material by 2030.
- To become a Zero Waste business by 2040.
- To utilise low-carbon materials in construction activities including low-carbon steel and concrete, and Hydrotreated Vegetable Oil (HVO) bio-diesel.
- Require all suppliers on new contracts sign up to the Supply Chain Sustainability School
- Continue to revise and publish an environmental Supplier Code
- Require 80% (by value) of SPEN's supply chain set their own validated GHG reduction targets
- Buy and use 50% low emission steel by around 2030

SPEN are facing dual challenges within their supply chain. RIIO-T3 features a "step change" in delivery, requiring a significant increase in the need for materials, products and services in line with increased deployment. At the same time, global demand is placing constraints on the availability of equipment and lengthening manufacturing lead times.

"Since 2020, we are seeing lead times increasing by between 50 to 300%. For some equipment this is a delay of more than a year. Insights provided by Original Equipment Manufacturers (OEMs) suggest that these times will be moving out further in the next 3-4 years due to the quantity of orders and factory capacity being reserved by transmission companies in other jurisdictions and countries who have similar expansion plans to facilitate a transition to renewable energy and away from fossil fuels."

In order to combat the increased lead times and material/product scarcity suggested by OEMs, SPEN commit to creating long-term capacity through the advanced procurement of key assets into the 2030s. This is anticipated to deliver increased supply chain certainty, allowing for strategic planning of supply chain actors to prepare for confirmed

future demand. Another impact not mentioned could be the increased scope for engagement with the supply chain concerning the material demand and design of components and infrastructure. Longer term procurement forecasts could create the space and time necessary to engage with the supply chain to imbed greater circularity through the use of secondary markets, the use of recycled materials or modular design. These changes however will not be achieved by extended procurement forecasts alone, SPEN may need to consider ways to deliver their service with less new material inputs. Significant supply chain engagement will be also required to ensure that SPEN's suppliers are able to deliver any materials and components that are required in a more circular manner.

All SPEN suppliers are currently required to meet environmental compliance standards enforced by SPEN. In both the sustainable business strategy and RIIOT-3 plan SPEN commit to ensure 80% of suppliers (by value) meet "enhanced environmental standards". Neither document, however, describes exactly what is expected to be included in those enhanced standards. More detailed reference to these, perhaps from previous Action Plans would bring about further clarity. SPEN commit to address GHG emissions and by extension circular economy outcomes in their supply chain sustainability. They aim to achieve this by requiring that all suppliers for new contracts sign up to the "Supply Chain Sustainability School"; revise and publish an environmental supplier code; and require that 80% (by value) of the supply chain set their own GHG reduction targets.

Further work could investigate circularity in SPEN's procurement framework and seek to determine if the added time permitted by their extended order book, as well as through raising their supply chain's capacity to deliver sustainable practices is being used to deliver circular outcomes.

2. *How is circularity being considered for waste management and the end-of-life of assets?*

Circularity is central to SPEN's sustainable business strategy, featuring both in the strategy's mission statement and in the 7 priorities underwriting the strategy.

In 2024, SPEN established circular economy targets,

- Reuse or recycle 100% of waste by 2030
- Become a totally zero waste business by 2040

SPEN do not define exact metrics or indicators they will use to assess if they have become a "zero waste business" within the report but do highlight that achieving this

target will involve addressing material use up-stream rather than solely focussing on waste once it arises. This involves looking at the design, construction, and management of assets to prevent waste arisings. This commitment is echoed in SPEN's Sustainable Business Strategy but again the definition of a "Zero Waste Business" is not clearly outlined. SPEN do however define "Zero waste" in their glossary as:

"A step further than diversion from landfill through a focus on waste minimisation, reuse, and the implementation of circular economy principles."

This description provides some information of what is meant by a "zero waste business". It is encouraging to note that waste prevention and reuse- two outcomes prioritised by the waste hierarchy- will be key to the delivery of this target. It would be beneficial however to provide a clearer idea of this target through the commitment to achieve specific and measurable interim targets. A target for material input (possibly presented as a ratio, showing that increased service and delivery to customers is being provided with less material inputs and land disruption) and for the reuse of material would bolster this target and make assessment of progress much clearer.

3. *What materials and components are being added to- and decommissioned from- SPEN's asset base through RIIOT-3?*

Table 1 below presents information taken from project descriptions on pages 17-27 of the RIIO-T3 document. The information presented for each project differs, with some clearly outlining how the project will minimise land use change (column 4) and the infrastructure that will be decommissioned (column 3) alongside assets and material installed (column 2). This table, whilst reflecting the content of the RIIO-T3 report may not represent the realised land use change and decommissioning that will be necessary to deliver each project. It is understandable that the description of some projects may have featured less extensive detail on these activities for the sake of brevity.

Table 1Forecasted project and materials

Project	Infrastructure to be installed	Infrastructure to be decommissioned	Land use
Currie GSP Transformer replacement	two 90MVA 132/33kV grid transformers	two nonstandard 30MVA 132/11kV grid transformers	new grid transformers to be installed in the same location as the existing 132/11kV GTs and

			using the same 132kV bays and cables.
Braco West to Denny Uprating (BDUP)	Extension of existing circuits and upgrading of the circuit from 275kw-400kw	Unclear	Unclear
Transmission Upgrade – DRZs	Additional switching and controlling equipment will be installed at strategic SPT locations	Unclear	Unclear
T3 Restoration	Installation of new relays and disconnectors	Decommissioning of existing relays and disconnectors	Unclear
Glenmuckloch to ZV Route 400kV Reinforcement	new Glenmuckloch 400kV substation circa 25km of 400kV double circuit OHL between Glenmuckloch substation and ZV route	Unclear	unclear
New Cumnock North substation	A new 400kV substation	None	Unclear
Killoch 400kV Substation	400kV and 275V substation Re-routing and uprating of existing XY and WA Routes between Kilmarnock South and Coylton to 400kV with HTLS conductor	Unclear	Unclear

Wyseby 400kV Substation	new 400kV substation double circuit OHL, circa 1.85km,	None	Unclear
Dumfries North 400kV Substation	400/132kV substation	None	Connected using existing overheard line
Carrick 275KV Substation	275kV substation 275/33kV transformers and associated circuit breakers and disconnectors	None	Unclear
Harmonic Filters	harmonic filters will be installed on multiple locations: at new Glenshimmeroch, new Redshaw, Arecleoch Extension and Coalburn 132kV substations	Unclear	Unclear
Glenshimmeroch Reinforcement	132kV substation. Uprating 7.3km of existing 132kV underground cable and OHL conductors. Installation of a new 132/33kV 120MVA transformer Installation of a	circa 1km of 132kV underground cable circa 6.3km of 132kV OHL conductor (installed on wood poles) OHL circuit conductor	Unclear jssks

	20MVAr harmonic filter.		
Glenglass to Glenmuckloch Substation	Glenmuckloch 132kV substation. circa 9.3km of 132kV OHL between the Glenglass and Glenmuckloch 132kV substations	None	Unclear
Holmhill 132kV Substation	132kV substation (Consisting of a 132kV single busbar and two 132kV circuit breakers) underground cable, circa 250m	None	Unclear
Coylton to Maybole 132kV	HTLS conductor Rebuilding existing 132kV circuits	132kV conductor on X route Existing 132kV circuits	Unclear
Windyhill – Lambhill – Denny North Reinforcement (DLUP)	Uprating of the existing 275kV circuit between Denny North, Lambhill and Windyhill to 400kV operation. 400kV substation	None	The new 400kV substation at Windyhill can be accommodated within the existing substation boundary
Redshaw Cluster Reinforcement	400kV substation 132kV substation two 20MVAr harmonic filters.	None	Unclear

	four new 400/132kV 360MVA super grid transformers three new 400kV towers		
Strathaven to Harker 400kV Reinforcements	Reconductoring of c.126km of existing 400kV OHL between Strathaven and NGET's Harker substation with HTLS conductor	replace the conductors on the existing circuits between the Strathaven and NGET's Harker 400kV substations, also known as ZV Route which is circa 126km in route length, with an HTLS conductor system	Unclear
High Temperature Low Sag conductor	install HTLS conductor in strategic locations on our overhead line circuits	Replace circa 116km of conventional conductor on ZV Route with HTLS	Unclear
PROJECT PHOENIX	installing a number of synchronous compensators or hybrid synchronous compensators across the network.	Unclear	Unclear
Gala North substation	400/132kV substation	Unclear	Lay out site to accommodate two new 400kV double circuits identified as required as wider system reinforcements
Teviot 400/132kV Substation	400/132kV substation 400kV double circuit to	None	Unclear

	the proposed Gala North substation, and to a new substation in NGET's area. Two new 132kV boards will be established at the location, fed by two 360MVA 400/132kV transformers each		
U & T Routes 132kV Replacement	A new 132kV circuit, circa 29km in length (The new line will be of increased capacity, using twin upas conductors)	The existing line will then be decommissioned and removed. The condition of the assets along the routes, including insulators, wood poles and towers indicate that the routes are approaching the end of their useful lives	Unclear

Projects labelled within the report as "Baseline projects" are in the blue boxes in the above table, "Projects with uncertain costs" are in the orange boxes. Baseline projects are those for which SPEN have deemed the needs, scope and costs as "certain". These are followed in the report by "projects with uncertain costs" for which they have determined a clear need, but SPEN still consider there to be uncertainty around details such as the cost, timing or scope. Across the full suite of the projects, SPEN are proposing to install 15 new substations in total including: 9x 400kV; 4x 132kV; and 2x 275kv.

Alongside the new substations SPEN commit to installing new cabling and new harmonic filters in 4 locations. The majority of decommissioning activity will be focused on cabling, including; 29km of 132kV circuit, 116km of conventional conductor, 126km of circuits, 6.3km of 132kV Overhead lines and 1km of 132kV underground cable.

A further breakdown of the total activity proposed in the RIIO-T3 period is presented below.

Overhead lines:

- 60.2km 132kv conductor replacement
- 26.8km 275kV conductor replacement
- 287 fitting interventions across 132kV asset base
- 96 fitting interventions across 275kV asset base

Underground cables

- 28.56km replacement across 132kv circuit base
- 28.69km replacement of PFT tagging across 132kv circuit base
- 3.63km replacement of PFT tagging across 275kv circuit base

Circuit breakers

- 14 132kv circuit breakers
- 16 275kV circuit breakers
- 3 400kv circuit breakers

Transformers

- Replacing 15 transformers
- Refurbishing 13 transformers

In conclusion

Undefined waste hierarchy decision making for the decommissioning activity (predominantly reuse or recycled), outlined above, makes it more difficult to determine emissions associated, and any prevailing measures of value (including externalities) associated with asset life extension. For example, what materials and products can be utilised through the proposed internal resource exchange mechanisms, outlined in the Environment Plan? It is important to demonstrate where the specific actions identified are delivering the value that the plan aims to achieve. Many of the potential benefits arising need to be linked across the outlined themes of the Plan.

Yours faithfully,

Kenny

CEL Energy Solutions

Dear Ofgem,

My name is Michael Smith, Operations Manager for CEL Energy Solutions Ltd. As a business, we have discussed the matter internally and unanimously agreed to provide supporting evidence regarding SGN Chapter 5.

We currently operate in the Greater Aberdeen area, with additional smaller works through the north east of Scotland.

I can confirm that our response need not be marked as confidential.

I have been consulted during the development of this plan, having participated in SGN's stakeholder engagement programme.

From my review of the plan, I am supportive of the proposals and the plan put forward by SGN. Points that I would like to draw to your attention are set out below:

1. As the mandatory mains replacement programme enters its final phase, we agree with the expectation that the remaining projects are becoming more complex and expensive, and we expect this to increase time requiredto deliver the projects. This will have a financial impact on the cost of delivery that should be reflected.

2. We support the view that the competition for skilled labour in southern England is particularly acute, and that this will increase the cost of attracting contractors and direct labour into the market and undermining deliverability. These regional costs pressures must be allowed for.

3. The changes and scale of workforce and labour requirements in GD3, due to labour shortages and new working practices being introduced, must be managed to mitigate any risks. Notably, areas of particular focus include Fatigue Management Requirements, recruiting and training more than 150 early career routes (including more than 50 apprentices each year), and increasingly reflecting the communities that are served.

4. With SGN operating across different regions of the UK, there must be a well-calibrated cost assessment that recognises the differences in the efficient cost of doing business between regions and aligns efficiency expectations with the wider economy.

Thank you for your consideration of my response. Should you wish to discuss anything included in more detail please contact me using the details below.

Kind Regards,

Mike Smith

Hydrogen South West

Good afternoon

I understand that OFGEM is calling for evidence in relation to its electricity transmission, gas transmission and gas distribution plans – RIIO-GD3. In this regard I wish to record Hydrogen South West's (HSW) formal support for W&WU Business Plan 2026-31, specifically its ambitions to blend 20% hydrogen/biomethane into the gas distribution network by 2035 and use hydrogen as a fuel for its commercial vehicle fleet (P24-26).

HSW has no objection to this response being made public.

HSW comprises a consortium of business ranging from large corporates such as Airbus, Costain and EDF Hynamics, through bodies such as Wessex Water and W&WU, to modest sized SMEs operating within the hydrogen supply chain. Our aim is to accelerate the creation of a hydrogen ecosystem in the South West and to use this as a tested within which new policies, systems and technologies can be piloted at relatively small scale initially. W&WU are a key member of our Board and are one of the driving forces in the steady build up of momentum with regards to the adoption of hydrogen where it is appropriate within the clean energy transition process. In particular, their lead in trialling hydrogen as a clean fuel for the sizeable proportion of their vehicle fleet whose operational role cannot be met by new BEV technologies, is exemplary and provides considerable evidence that generates real value across the entire country.

A number HSW Members are contracted to W&WU under NIA and/or SIF funded projects to demonstrate the commercial viability of emerging hydrogen technology under RIIO - GD3 priority projects 1, 2 and 3. There is significant further opportunities to develop hydrogen technology partnerships with HSW Members and WWU, subject to access to project funding. Funding in the area of zero emission commercial vehicles is critical for W&WU to continue to support the development of a net zero energy system across Wales and South West England and specifically to address the technology gaps in zero-emission vehicle capability for their own fleet. They have been ambitious in their approach in RIIO-GD3, taking their role as a network seriously on how they can best enable a sustainable future energy system for their consumers, recognising the time critical nature required to support a net zero emission vehicle mandate and government targets within this price control (2026-2031).

Therefore HSW supports W&WU ambitions in this regard in the strongest possible terms and amplifies the call for government funding to develop their plans at pace.

Regards

David Eccles

Surrey County Council

Dear Ofgem,

RE: Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3

State your organisation if responding in an official capacity – Surrey County Council

State which network company/companies and which section(s) of the BP(s) you are commenting on – SGN, Chapter 4, Chapter 6

State if your response is confidential and, if so, on what basis – No

We have been consulted during the of the development of this plan, having participated in SGN's stakeholder engagement programme.

From our review of the plan, we are supportive of the proposals and the plan put forward by SGN. Points that we would like to draw to your attention are set out below:

SGN have helped more than 400,000 vulnerable households since the start of GD2 and have highlighted the unprecedented levels of hardships faced by customers. In Surrey, we have seen a year-on-year increase in the number of residents needing our support services; to date we have seen over 90,000 residents attend our Warm Welcome venues to avail of a safe and warm space, with access to hot drinks, food and energy support and this is likely to continue in the coming years. The agility of SGN's approach to supporting vulnerable households has meant that we can respond to urgent trends in a timely and cost-effective manner. Vulnerable customers need high quality and targeted support, and the plans laid out by SGN allow us to work with more organisations to target support where needed. This has proved successful so far with over 13,000 residents receiving personalised energy and debt advice through our funding since our partnership with SGN began in 2022.

The proposals in SGN's bid highlight the importance of a customer-led approach to the energy transition to net zero. We have carried out research in conjunction with the Institute for Sustainability, University of Surrey, and feel that the approach put forward by SGN will be key to ensuring vulnerable households are not left behind by the transition to net zero. One of the key conclusions of this research was that understanding the complexity of people's everyday lives and designing interventions which fit into existing practices makes them more attractive and likely to be taken up. This involves targeted marketing and engagement, which the business plan also puts forward through its focus on consumer engagement and the delivery of credible information for consumers.

Thank you for your consideration of my response. Should you wish to discuss anything included in more detail please contact me using the details below.

Kind Regards,

Annette Slattery

Anonymous

See below my comment as stakeholder indiividual member of the public responding to call for evidence Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3

General Comment

Flawed Business Plan: The business plan submitted by Scottish electtricity transmission network Scottish Hydro Electric TRansmission and Scottish and Southern Electtricity Networks SSEN is flawed on inadequacy of its up-to-date costing basis of its Pathway to 2030 proposals.

I ask that OFGEM must require the transmission networks to provide evidenced contemporary costings comparisons for alternative options for transmission, ie comparison costs of overhead cables, undergrounding, and offshore electricity tranmission cables. I ask OFGEM to consider these carefully and take into account that cheapest option financially, economically might not be the preferred option if causing outweighing damaging impacts on the UK's wider interests of sustaining a safe healthy productive and bio-diverse environment for Uk residents, especially mindful of communities in locations of utility-scale electricity infrastructure

SSEN's claims that its proposal to build bylons and OHL: transmission along hundreds of miles through Highland Scotland in order to export offshore generate electricity south is at the cheapest cost financially and on this basis is SSEN's preferred method to deliver power nearer to its intended destinations of population centres south in England.

SSEN has not published evidence to support what is only an unsubstantiated claim. Any costings should also take into account

- the detrimental socio-economic costs to Scotland's impacting on tourism, agriculture and natural environments, loss of bio-diversity and impacts on human health and well-being.

- the costs in terms of CO2 emissions of steel manufacture in other parts of the world to make the pylons - there is no at-scale steel production in Scotland, the costs of shipping across the world the steel materials with shipping costs and emissions, the costs of manufacturing concerete with all the emissions involved , and the costs of digging out the soils to lay foundations disrupting agriculture with irreversible damage to the natural environment and likely damage to food production, especially the valuable crops of see potato production in areas where SSEN propose pulons and cables.

Evidence /Justification of my comment above: SSEN has not demonstrated an up-to-date or recent source of information on which its costing are based. The UK Government was asked in mid 2024 in a closing debate of Parliament to review and investigate up to date costings.

The most recent information is this: The UK Govt has stated that it has not yet made an estimate of the relative costs of cabling in the past year.

see evid Department for Energy Security and Net Zero provided the following answer to a written parliamentary question (28063):

Question:

To ask the Secretary of State for Energy Security and Net Zero, what recent estimate he has made of the relative costs per km of (a) overhead, (b) underground and (c) offshore electricity transmission cables in the last 12 months. (28063)

Tabled on: 03 February 2025

Answer:

Michael Shanks:

The Government keeps abreast of the various technologies that can be used to help us achieve clean power by 2030, including the various means of laying cable, but has not yet made an estimate of the relative costs of cabling in the last 12 months.

Anonymous

Dear Ofgem

I am responding to the consultation as a resident of Thanet, and a member of Sandwich Bay Bird Observatory and Kent Wildlife Trust. My response is not confidential although I would like you to redact my name if you publish this publicly.

I have read NGET's business plan carefully in light of my experience of their 'consultation process'. The consultation process has been very opaque and if it weren't for local residents raising the profile of their Sea Link plans, I suspect they would have got away with riding roughshod over our economy and landscape like they did with NEMO. I think everyone in Thanet trusted them to do the right thing with NEMO but they didn't. The giant bund left right across the nature reserve at Pegwell Bay is an ugly eyesore and incredibly dangerous in winter when it is slippery and steep sided. It prevents access to the coastal path from the parking area and is a huge eyesore. The seating area by the Salty Seal Cafe used to have beautiful views across the bay but now all you see is an ugly white lump.

In addition, what locals call the 'garage pool' was a freshwater lagoon which occasionally filled with salt water during exceptionally high tides which meant this was a unique habitat. The work that NGET did in installing the NEMO cable right through the middle of this lagoon has wrecked it. They promised it would not be affected and they would repair it if it were but they didn't. The salt marsh between it and the sea has never recovered, meaning that this fragile ecosystem has been destroyed forever.

On the basis of this experience, I do not trust a single word NGET say.

I am also at a loss to understand how on earth a majority US-owned business which has been given such enormous power over the UK's energy infrastructure has such a poor strategy that they did not forecast additional capacity needed and plan for the future in their last infrastructure project. Their plans for the great grid upgrade are haphazard and there appears to be no long term strategy to enable them to reinforce existing infrastructure. They should not be permitted to destroy our environment over and over again because they planned so poorly. Where is the accountability? Why are you not demanding better on behalf of the British countryside and its people?

Consultation process

NGET did not consult on a variety of options for the Sea Link cable - they had clearly already made a decision. All challenges were/are met with the same (PR firm dictated) response: 'this is the best option for bill payers'. This is a lie. They're not interested in bill payers, they're interested in persuading the UK government to foot the bill for a

bewildering amount of infrastructure projects, each supported by hundreds of documents designed to overwhelm the limited number of qualified people within UK government. The intention is not to deliver the best for the UK; it is to give their shareholders the largest income from the UK at the lowest cost, enabling them to deliver the largest dividends for their shareholders. As a private company, this is quite rightly their remit but the regulator should not and must not be dictated to by those demands. Ofgem must steer the Net Zero ship and not be a passenger.

At the consultation sessions I attended, NGET treated residents like fools - they were patronising, rude and dismissive of every challenge. It is not consultation if you don't act on feedback, it's information and a tick box exercise. Talking of information, I find it extraordinary (and not a little sinister) that NGET excluded Broadstairs library from their list of libraries they distributed hard copies of information to. I do wonder if this is because they analysed the demographics of Thanet and decided that they were most likely to receive push back from the highest income/most educated part of the island. While I appreciate Broadstairs is outwith the geographic area for statutory consultation, it is odd that it was missed out and yet Margate was included when it is further away still.

The most recent round of consultation (November 2024) is another example of poor consultation and lack of transparency. Instead of being transparent about revised plans, they called this a 'targeted consultation' and only invited a small number of people to provide feedback. The changes to their proposals are significant:

Increase in height of converter station by 2 metres meaning it will be even more visible and ugly on what is currently an agricultural area

Continuing use of former hoverport as a storage area - many people in Thanet are under the misapprehension that because Thanet District Council refused NGET permission to use the former hoverport as a construction site, this is now off the table. This is not true but people do not understand that infrastructure projects like this are DCOs and authorities have no ability to overturn a decision. There needs to be much more transparency about the fact that DCOs trample over local objections.

Moving the 'mitigation site' to an area which is 3 miles from the site of the converter station and not functionally linked to Pegwell Bay.

Environmental and community concerns

Thanet is a beautiful place with a unique landscape but we suffer from limited amount of green space, have a very deprived population and huge amounts of housing being built on what's left of the limited amount of green spaces we have. We are already massively

more densely populated than the rest of Kent and our remaining green spaces are both limited and precious. There is substantial research on the value of green spaces to wellbeing and these are of immense importance to our community. On a more material level, the Thanet economy relies heavily on tourism and a huge construction project to construct a massive converter station will have both short and long term impact on that. Small local businesses (Viking Ship Cafe and Salty Seal Cafe most notably) will be destroyed by the Sea Link project. The tourism they attract will not recover. Pegwell Bay visitors have already been impacted by NEMO and Sea Link will impact yet further. Th impact on residents of Pegwell Bay and Cliffsend, as well as businesses, schools and nursery at Great Oaks and Bay Point have not been adequately assessed from my reading of the consultation documents.

On an environmental level, NGET could not pick a more environmentally damaging place for construction if they tried. If they were deliberately trying to see how many species they could wipe out, this would be a great place to choose. Pegwell Bay and Minster Marshes are functionally linked land and part of the migration superhighway for tens of species of red listed birds which rely on this winter feeding ground, as well as resident populations of flora and fauna which depend on this fragile habitat for their survival. It is no exaggeration to say that some threatened species will be wiped out by Sea Link. We have already seen an adverse impact on local bird populations which have never recovered following NEMO which was a much smaller and less invasive project. We must learn from this.

More broadly, wetlands are under immense threat in the UK and globally and the UK government and our regulators have a responsibility not only to the UK but to our international partners to preserve these threatened habitats and to balance the needs of business with those of the flora and fauna we share our planet with. Once this environment is destroyed, it is gone forever. The UK must be a global leader in preserving biodiversity, not a net destroyer. NGET's plans will plunge us firmly into the latter category; a shameful indictment of our failure to prioritise the wellbeing of our environment, our people and our planet.

As the regulator, I urge you to demand that government makes NGET look at projects in the round, rather than considering them on a piecemeal process. We are in danger of wiping out the very things that the UK environment, residents and visitors value most. It must always be a balancing act. NGET needs to rethink Sea Link and we need Ofgem, as the UK regulator, to step in and tell them to go away and come back with a better plan which gives equal weight to the environment, people and profit.

Net Zero Energy Systems

Dear Ofgem RIIO3 Team,

Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3

Please find below a response submitted by Net Zero Energy Systems to Ofgem's RIIO-3 call for evidence which has been developed based upon the evidence gathered through industrial stakeholder engagement activity carried out on behalf of the LIDP funded NEWID project in 2024.

Organisation: Net Zero Energy Systems

Commenting on: Electricity Transmission Networks and Gas Networks generally. Based upon the evidence gathered in North Wales through industrial stakeholder engagement as part of the LIDP (Local Industrial Decarbonisation Plan) competition funded NEWID (North East Wales Industrial Decarbonisation) project.

Response: Not Confidential

The work carried out by the NEWID project in 2024 has demonstrated that industrial energy demand comprises over one third of the UK's total energy demand and a similar percentage of the UK's energy consumption based GHG emissions. Further, industrial energy demand, and GHG emissions is both regionally concentrated (accounting for over half of the energy demand in North Wales) and associated with a relatively small number of large industrial emitter sites: With less than 30 sites responsible for over 99% of the industrial emissions in North Wales which have been reported via the UK ETS.

The NEWID project also identified that unlike the forecasting of transport and domestic decarbonisation demand – where individual technology solutions such as heat pumps and EVs can then be aggregated in models to accurately consider the potential impact of the adoption of thousands if not millions of units across the UK. Large industrial sites cannot be treated in the same way. With each site having a relatively bespoke, process-based energy demand. As a result, 1-2-1 stakeholder engagement was identified as the most appropriate method of developing NEWID project inputs to generate a regional industrial decarbonisation plan, developing one or more net zero option profiles for each industrial site based upon present day energy demands, known future plans and identified potential decarbonisation solutions options.

Industrial stakeholder engagement therefore formed the basis of the evidence gathering which was used to develop regional industrial decarbonisation pathway scenarios for North Wales by the NEWID project. Key lessons drawn from the project work included:

1. Future industrial decarbonisation demand has not been as comprehensively or accurately represented in future energy scenario modelling to date as transport or domestic demand profiling. Stakeholder engagement with the largest regional industrial stakeholders is required to accurately profile the likely future regional energy demand requirements.
2. A few of the largest sites identifying hydrogen fuel-switching as their most feasible decarbonisation solution. When existing and planned (in-construction) sites were considered and added decarbonisation demand was included, this meant that the future industrial hydrogen demand profiled for North Wales was higher than present day industrial natural gas demand in all regional decarbonisation scenarios.
3. However, with onsite natural gas demand typically four to five times greater than electricity demand, increased gross industrial electricity demand was also forecast to increase by between four and seven times present electricity demand. Although some of this demand would be primarily supplied by onsite CHP plants.
4. The application of a holistic and whole energy system approach working with both the regional electricity and natural gas utilities enabled integrated decarbonisation pathways to be developed. With the identified potential to further refine the preliminary stakeholder engagement information generated in future NEWID project phases – e.g. through applying probabilities to individual site decarbonisation solutions to enable a most likely regional industrial decarbonisation pathway (and associated energy and decarbonisation infrastructure requirements) to be identified.
5. An integrated regional energy dataset shared by the electricity and gas utilities is required to support improved forecasting of likely future industrial decarbonisation demand: Present natural gas demand is more likely to give an accurate indication of the potential future electricity demand for an industrial site than electricity demand.

As one of the project partners, SPEN has used the outputs from the NEWID project to provide preliminary inputs to both the NGET T3 business plan, and also their own DFES, NDP and ED3 planning processes.

The evidence produced by the NEWID project indicates that although regional industrial decarbonisation energy demand comprises a significant portion of some UK region's total present (and potential future) energy demand, potential future industrial energy demand is not necessarily comprehensively or accurately characterised at present. With the NEWID project potentially providing indication of a process which could be generally applied to help plug this identified gap.

Best regards

Grant Spence

Net Zero Energy Systems

Engie

Hi,

Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3

At Engie we have a target to hit 1Terrawatt of biomethane injection within the Uk gas grid by 2030. We understand that there are a number of other significant developers looking to expand production at similar scale throughout the UK.

Our pipeline of projects contains a number of sites which have capacity constraints within the gas network.

To overcome this, we have accelerated our High Bickington Reverse Compression project such that this should be installed and fully operational by mid-Summer 2025. This will be a first within the UK. Engie are able to deploy such novel technology at speed within the UK due to our knowledge of such system that we have already developed in France – where 17 of these reverse compression facilities are in operation within our network.

The French model is for the DNO to fund this apparatus – as it has strategic benefits not only to Engie, but also to the DNO and other operators within the locale.

Our proposal is that this model should be copied within the UK whereby the DNO funds this equipment – as others within the network will benefit from the additional injection capacity created. It does seem unfair that Engie would have to bear the entire cost for the benefit of other commercial organisations.

We are comfortable for this information to be made public.

Please contact me direct should you require any further information on this.

With regards,

Mark Voss

Operations Director

Engie Renewable Gases UK

E3G

Hello,

I am responding to the Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3. I am responding on behalf of E3G. We are an independent think tank whose objectives are to promote ambitious but achievable progress on decarbonisation. As well as delivering carbon emission reductions, we also seek to ensure consumers feel the benefits of this decarbonisation in the form of lower energy bills. Ensuring energy bills are lowered as effectively as possible is key to ensuring ongoing public support for decarbonisation.

This response is **not** confidential.

I am writing to raise concerns regarding the business plans submitted by gas distribution network companies. These concerns are:

- GDNs indicate they intend to continue spending on preparations for hydrogen heating (and associated network spending). This is not in line with the position outlined by Ofgem in the Sector Specific Methodology Decision, and such spending does not offer good value for energy consumers.
- GDNs are failing to ensure their future plans are compatible with 2050 net zero targets. At least one network has told that there will be a role for methane beyond 2050, and that they are planning for the UK to miss its carbon targets.
- GDNs fail to set out robustly how they are taking steps to mitigate future network decommissioning costs. The business plans do not give us confidence that networks are sufficiently incentivised to proactively mitigate and reduce future decommissioning and disconnection costs.

Specific pages in the relevant business plans are identified in the text below.

Gas network failing to plan for all likely long-term scenarios

Gas networks must plan for all possible scenarios if they are to make informed spending decisions which deliver good-value outcome for energy consumers. This needs to include scenarios where the role of gas distribution networks declines, or even ceases to exist.

Whilst it is likely that gas transmission networks will play a role in the 2050s and beyond, the same cannot be said for gas distribution networks. A decision to rule out hydrogen for heating would likely mean the eventual end of distribution gas networks in their current form, being replaced by localised "cluster" networks connected via a transmission network. Under this scenario, it is possible these clusters will emerge

separately and independently to GDNs, rather than being their successors. Therefore – it is possible GDNs in their current form could be entirely phased out by 2050, or even the 2040s. Gas network business plans must acknowledge this potential future scenario now, if they are to take actions which mitigate and reduce the potential future cost for consumers.

Unfortunately, the submitted business plans fail to acknowledge the possibility that distribution networks will cease to exist in their current form by 2050. Page 3 of Cadent's business plan states that: "Whilst these different pathways create uncertainty about the balance of roles the gas network will play over time, in all pathways it is clear they will be a need for a gas network of some description well in to the 2040s and beyond." SGN's plan (p7) also insists that gas distribution networks will continue to play a role in the long-term, despite the lack of evidence to support this claim.

Meanwhile, Northern Gas Networks outline a series of areas where their forecasting differs from the 2024 Future Energy Scenarios each of which are transparently intended to overestimate the future role of distribution gas networks (p36). It should also be noted that as part of a report to investors in November 2024, Northern Gas Networks stated "The UK is set to miss legally binding decarbonisation targets… methane will continue to play a key role up to and beyond 2050". (Source: slide 27, NGN-business-update-Nov24.pdf). The clear implication being that investors should see an investment in NGN as a bet *against* the UK's achievement of its 2050 net zero targets. Statements like this undermine the confidence of energy consumers' that gas distribution networks have the public interest at heart.

Statements of these nature undermine confidence that gas networks can be relied upon to adequately plan for future scenarios in a way which minimises future costs for energy consumers. Concerningly, it also suggests gas networks see delivery of decarbonisation as counter to their commercial interests. These statements suggest there is a strong case for Ofgem to take action to ensure business plans remain consistent with both consumer interests and the UK's commitment to addressing climate change.

As set out in our recent briefing, we have significant concerns that uncertainty around hydrogen heating is leading to higher energy bills for consumers: Decisions on UK hydrogen heat - E3G. In the short- and medium- term, these costs result from gas networks justifying spending as necessary to keep hydrogen "on the table". Previous work by E3G found that hydrogen blending of 20% would increase household gas bills by up to 20%, whilst achieving negligible carbon emission reductions: The case against hydrogen blending: A costly distraction - E3G.

Gas network proposals for spending on hydrogen and hydrogen blending

Ofgem's Sector Specific Methodology Decision for RIIO GD3 was unequivocal in setting out that costs associated with hydrogen infrastructure was out of scope of RIIO3, and funding for these proposals should be recovered instead through the Hydrogen Transport Business Model (HTBM). Ofgem note that this approach also enabled opportunities for non-incumbents to seek funding, beyond the existing incumbent gas network companies. Ofgem's decision was also clear that development activities for hydrogen should also be funded through the HTBM, and that any proposals for blending would need to be recovered through net zero related uncertainty mechanisms.

Despite this clear direction, gas network company business plans still set out plans to seek funding for hydrogen development activities in RIIO3. For example;

- Northern Gas Networks on pages 35 and 36 of their business plans indicate they intend to seek funding for both hydrogen blending and network sectorisation to ready the network for hydrogen conversion
- Cadent on page 80 set out that they intend to use parts of their Network Innovation Allowance funding to explore how the gas network might be "repurposed", implying that this refers to hydrogen. Furthermore on page 98, Cadent refer to promotion of "hydrogen blending production markets".
- SGN on page 5 refer to activities relating to hydrogen blending, with further details on p25 clarifying that this includes additional work on a hydrogen blending project in Edinburgh. Hydrogen is mentioned over 61 times in the plan, whilst electrification of heat is mentioned only once.
- Wales and West utilities on page 9 set out their intent to seek funding for "preparatory activity" for hydrogen, incorrectly describing such work as "no regrets". P11 refers to supporting hydrogen blending. On page 24 they set out further long-term commitments on transition to hydrogen (e.g. 20% conversion to hydrogen) which are unlikely to offer good value to consumers, and on page 36 they note their preparations for "full hydrogen conversion".

Mitigating the impacts of future decommissioning

Future gas network decommissioning costs can potentially be reduced if actions are undertaken ahead of time to mitigate future costs. (Source: The elephant in the room: How do we regulate gas transportation infrastructure as gas demand declines?: One Earth). However, gas networks appear to be expending significantly less effort preparing

for decommissioning, relative to their past investigations on repurposing networks for hydrogen. Network companies also have strong incentives to inflate estimates of future decommissioning costs, as a means for arguing against a declining role for gas networks in future. (e.g. SGN's business plan floats a figure of £10bn, but fails to offer any proposals for how this cost could be reduced.)

SGN's business plan notes that the cost of safely disconnecting properties from the gas grid is currently around £1,300 per consumer. These costs appear excessive. In future, Ofgem may wish to consider introducing new reporting, metrics or incentives which reward networks for reducing this cost, as a counterbalance to their conflict of interest in using disconnection cost as a "scare story". E3G notes that GDNs appear quite willing to estimate substantial future cost reductions when it comes to the costs associated with transitioning to hydrogen, and yet appear not to foresee any potential future cost savings associated with future disconnection or decommissioning costs.

Some networks have proposed projects to explore future disconnection and decommissioning costs (e.g. Northern Gas Networks on page 35 of their business plan, SGN on p53, Wales and west on page 40). We welcome this and encourage all gas distribution networks to pursue such preparations. However, Ofgem will need to ensure these projects are subject to effective oversight and incentives, so that genuine efforts are made to minimise future decommissioning costs – rather than inflating figures as an argument against decarbonisation. In particular, we have concerns that both SGN and NGN refer to their projects as "understanding the impact of decommissioning on consumers" which implies a passive approach to costs and impacts, rather than adopting a more proactive stance which seeks to minimise these costs and impacts as far as possible. We would especially like to see more research on the potential cost savings associated with taking an area-wide approach to decommissioning and disconnections, rather than disconnecting consumers piecemeal on a one-by-one basis.

As well as preparing for the financial impacts of decommissioning, gas networks must also work with unions to mitigate impacts on the workforce. Lack of planning also risks threatening the job security and conditions of workers in gas networks. But with a properly planned, union-led approach, the transition could be managed – and could even deliver beneficial outcomes for workers. Planning ahead now could create positive social and economic impacts, and will also ensure that concerns about job security and conditions do not undermine networks' ability to hire workers in the short and medium term.

Conclusion & recommendations

Overall, we are disappointed by the continued unwillingness of network owners to adopt a more mature approach in planning for future gas phase out. This is especially disappointing given the clear direction provided by Ofgem in the SSM Decision, which clearly indicated that consumers should not be expected to pay for future spending on hydrogen or hydrogen blending. Failure to plan properly for the future risks driving increased costs for energy consumers, both in terms of excessive network spending now, as well as higher decommissioning and disconnection costs in future. The approach adopted by gas networks in their business plans raises questions as to whether the RIIO process is sufficiently robust in addressing gas networks' potential conflicts of interest – particularly in terms of long-term planning and proactive management of decommissioning costs.

Recommendations:

1. Prevent unnecessary gas network spending on hydrogen:
    a. Reject any proposals for RIIO3 spending on hydrogen or hydrogen blending, including "preparatory" or "development" work. Such spending should only be considered once UK Government has made a formal decision on the role of hydrogen for heating, which is expected by the end of 2025.
    b. Require any spending on network sectorisation to only go ahead if it is undertaken in a way which would also facilitate future network decommissioning. If this is the case, gas networks should clearly evidence the benefits and set out the likely cost reductions for future decommissioning.
2. Ensure gas distribution networks acknowledge and prepare for all potential future scenarios:
    a. Require all gas distribution networks to acknowledge in their business plans that there may not be a role for gas distribution networks beyond 2050. Require business plans to set out more clearly how this future scenario has been considered and what actions will be taken to mitigate potential future costs for consumers under this scenario.
    b. Require all gas distribution networks to plan on the basis that there will be no usage of methane at distribution level by 2050, as continued usage would not be compatible with the UK's legally binding carbon targets.

(Some usage at transmission level may remain, where supported by carbon capture.)

3. Take action to minimise and mitigate future decommissioning costs:

    a. Require all new network investment in RIIO GD3 to be supported by plans for the eventual decommissioning of these assets.

    b. Require all gas distribution networks to develop plans for gas network decommissioning, and to explore steps which could be taken to reduce decommissioning costs. (e.g. whether assets can be left in place or repurposed for uses aside from carrying methane or hydrogen.)

    c. Ensure all gas distribution networks on gas network decommissioning are subject to appropriate checks and balances to manage the perceived potential conflicts of interests. E.g. Investigations on reducing the costs of decommissioning could be undertaken by independent 3rd-party experts, or overseen closely by Ofgem.

    d. Do not allow gas distribution networks to charge customers for disconnecting from the gas network as they switch to low carbon heating technologies. Doing so would undermine consumer choice, unfairly benefit consumers who have already switched, and directly contradict Ofgem's objectives regarding decarbonisation. Taking such a decision would go beyond Ofgem's remit – and should only be taken if this comes as part of a joined0up strategy agreed with government.

4. Ensure gas networks engage with long-term transition planning for the workforce:

    a. Require all gas distribution networks to adopt a long-term "workforce transition plan", developed in consultation with trade unions. This plan should include actions to ensure positive outcomes for the workforce under the scenario where distribution gas networks are fully decommissioned by 2050.

    b. Require all gas distribution networks to adopt a skills passport which better supports gas network employees looking to transfer their skills to other industries.

If you have any questions or would like to discuss further, please let me know and I would be happy to chat.

Kind Regards,

Chris

Chris Galpin *he/ him*

Policy Advisor

UK Energy Team

IncomeMax Community Interest Company

Dear Ofgem,

I am writing on behalf of IncomeMax Community Interest Company to provide feedback on SGN's RIIO-GD3 Business Plan, specifically regarding their proposals for vulnerable customer initiatives. IncomeMax is responding in an official capacity as a new delivery partner in SGN's Vulnerability and Carbon Monoxide Allowance (VCMA) programme.

1. Organisation Details

Organisation: IncomeMax Community Interest Company

Official Capacity: New delivery partner in SGN's VCMA programme

2. Business Plan Sections Addressed

Network Company: SGN

Business Plan Sections: Chapter 2 (Consumer Value Proposition), Chapter 3 (Delivering for Customers), Chapter 4 (Supporting Vulnerable Customers)

3. Confidentiality Statement

This response is not confidential and may be published on the Ofgem website.

4. Summary of Key Issues and Justification

Issue 1: Ensuring Proactive Support for Vulnerable Customers

SGN's Safe and Warm programme is a lifeline for vulnerable households, ensuring proactive interventions to help people access energy affordability measures, unclaimed benefits, and critical support services.

If Ofgem reduces SGN's funding, this could:

- Shift support from proactive to reactive, leaving households to face financial crises without early intervention.

- Reduce personalised services, increasing the likelihood of energy debt and disconnections.

Evidence:

- IncomeMax's partnership with SGN builds on over fifteen years of experience in supporting vulnerable households. In 2023/24 alone, we identified £29 million in unclaimed benefits and secured £5 million in verified payments for customers.

- Fuel poverty is worsening, with 8.91 million UK households now spending over 10% of their income on energy (DESNZ, 2024).

- Amanda, a IncomeMax customer from Cardiff shared after we successfully maximised her income: "I can afford food now after not having much for a long time. I can pay off debts and get back on track with bills."

These are the outcomes SGN's proactive approach enables.

Issue 2: SGN's Unique Position to Deliver Targeted Support

SGN's access to 300,000 homes annually uniquely positions it to identify vulnerable individuals and connect them to tailored support services.

Without continued funding, SGN will be unable to:

- Maintain its referral pathways to organisations like IncomeMax.

- Deliver Priority Services Register (PSR) sign-ups, leaving at-risk individuals unsupported in emergencies.

Evidence:

- SGN has already supported 403,717 households under GD2 through targeted interventions.

- Every £1 invested in SGN's programme generates over £9 in social value, making it a highly efficient model for addressing fuel poverty.

- SGN's partnership with IncomeMax will ensure that financial support reaches the most vulnerable.

In 2023/24, ImcomeMax helped 16,433 households access life-changing financial assistance and our SGN partnership will enable thousands more vulnerable households to get the financial support they need to stay warm and well.

Issue 3: Risk to Charitable and Community Partnerships

SGN's collaboration with community organisations like IncomeMax ensures resources are directed where they are needed most.

Reduced funding would:

- Decrease resources for community partners, limiting the reach and impact of SGN's initiatives.

- Increase strain on local charities, creating gaps in frontline support for vulnerable households.

Evidence:

- IncomeMax's experience shows the demand for these services is growing. By partnering with SGN, we'll scale our efforts to meet this need efficiently.

- Georgina from Clevedon stated: "It's made such a difference. I am not dreading my heating bills anymore." Reduced funding would jeopardise outcomes like this, leaving households unsupported.

5. Conclusion and Call to Action

IncomeMax strongly supports SGN's business plan and urges Ofgem to:

- Approve full funding for SGN's vulnerable customer initiatives.

- Recognise the cost-effectiveness of proactive intervention in preventing energy debt and fuel poverty.

- Ensure SGN can continue working with community organisations to deliver life-changing support to vulnerable households.

Although our partnership with SGN has only recently started, we already see its transformative potential.

Reducing funding would severely limit the scale of help available at a time when more households than ever are struggling.

Poverty is an astronomical level in the UK. See this House of Commons paper https://commonslibrary.parliament.uk/research-briefings/sn07096/ and the latest research from JRF https://www.jrf.org.uk/uk-poverty-2025-the-essential-guide-to-understanding-poverty-in-the-uk?utm_source=LinkedIn&utm_medium=social&utm_campaign=JRF_29.01

IncomeMax is proud to partner with SGN and is committed to working with Ofgem to ensure vulnerable households receive the support they need. We are happy to provide additional evidence, case studies, or participate in discussions to support this process.

Kind regards,

Lee Healey

Founder and CEO

IncomeMax Community Interest Company

Anonymous

In addressing the call for evidence I address, for example, the following considerations laid out in RIIO-3 Business Plan Guidance, 30 September 2024.

2.1 Building on positive engagement during RIIO-2, companies should continue to ensure that consumers and stakeholders remain at the heart of their RIIO-3 business planning process, ongoing delivery and decision making.

3.6 Building on innovation activities within RIIO-2, companies should continue to undertake innovation to find new ways of developing and operating their networks to deliver a low-carbon energy system that is reliable, safe and efficient, at a pace in line with our net zero targets. In their Business Plans, companies should provide an overview of the BAU innovation they plan to undertake, alongside justification of companies' planned utilisation of the flexible Network Innovation Allowance (NIA) to explore higher risk areas beyond BAU.

*4.17 ...*TOs should communicate their overarching approach to*: ....Strategic optioneering to determine optimal engineering solutions.*

4.23 We want to understand how, at a portfolio level, the TO balances the trade-offs between load and non-load investments that may include but are not limited to:

- *levels of risk;*
- *asset life cycle management;*
- *project lifespan and operations*

I note from the RIIO-3 Business Plan Guidance that OFGEM have certain expectations of Transmission Operators. As a member of a rural Scottish community whose valuable wild spaces and way of life are under threat from significant rural development (mainly SSEN's TKUP project and a large number of speculative battery storage projects and onshore windfarms) I see very little evidence that the Guidance or indeed NESO's expectations are given a moments notice by network operators.

1. In order that *consumers and stakeholders remain at the heart of their RIIO-3 business planning process,* surely their list of stakeholders should be well defined and inclusive of all parties that will be impacted either positively or negatively by the operators activities. And the needs of all of the stakeholders should be considered in the operators business plans. For those of us facing proposals for 60m+ pylon infrastructure through unspoiled countryside I see little evidence of our needs being considered. Notwithstanding public 'consultations' have been shambolic and in many cases somewhat misleading, and clearly managed in such a way as to avoid collection of

feedback, HND is delivered by ESO in consultation with CDG as a vehicle to consult with stakeholder groups, but members of CDG almost exclusively comprise vested interests! Community groups are not properly recognised.

Surely, stakeholder engagement done correctly should find the right compromise between cost, optimal engineering solution and stakeholder buy-in, resulting in less risk of challenge. There are a number of examples (e.g. Nordlink in Germany) where the original HVAC overhead proposals were abandoned for buried HVDC infrastructure following public consultation. The public support the project, which was delivered quickly and efficiently, on time, cost effectively, and with no lasting impact to the communities it passes through. There were, notably, no hold ups due to legal challenge (compare that with the UK, where suboptimal solutions that do not have the support of the public are likely to see significant hurdles risking delivery by 2030). Note: subsequently Germany have legislated against overhead HVAC transmission lines (German Federal Requirements Plan Act) and all new infrastructure is now buried HVDC - the legislation was based on socio-environmental, economic and project delivery considerations! The most efficient nation in Europe understands that a new Transmission infrastructure needs to be implemented quickly and with minimal impact to deliver the transition to Net Zero and they are doing it through HVDC undergrounding - why do we think so differently. Poland too, and others are following suit.

Such considerations and innovation are not possible in the UK while consultations are a closed shop or a tick box exercise. While TOs are only expected to consider the capital cost of a project, only their shareholder stands to gain. The business plan should require TOs to clearly lay out the full lifecycle costs of a project on a risked basis. Only then can OFGEM understand what a reasonable regulated revenue might be.

2. *Companies should continue to undertake innovation to find new ways of developing and operating their networks to deliver a low-carbon energy system that is reliable, safe and efficient, at a pace in line with our net zero targets.* They are not doing this and neither ESO or OFGEM are holding them to account. Currently, the TOs are submitting plans based on off the shelf solutions developed 50 years ago. HVAC infrastructure is an outdated go-to solution that does not address the problem of getting renewable electricity large distances from the far north of Scotland or offshore to the markets in the south.

It doesn't help that the HND comprises segmented solutions with multiple TOs and each incremental segment of new transmission infrastructure is dealt with through planning in its own right. The problem looks like this (information is from an EIR response from NESO 22nd May 2024):

1. ESO ensures means of access to the Transmission system = pushes for a design that allows connections. But ESO state that '*how an option will be built is a matter for the Transmission Owner and the planning processes*'.

2. The ESO only consider the start and the end point, not a specific route. NOA only make recommendations for boundary transfer capability.

3. But ESO state "*We do not exhaustively create or review design and build options for every component of any particular project*" – that is the responsibility of the Transmission Owner - so nobody, neither ESO or OFFGEM are holding the private entity to account on the proposed design?!

4. *'Modifications such as undergrounding tend to be considered further down the project timeline when the project has been developed'.* Why - surely if proper optioneering has taken place the optimal innovation and costs can be considered earlier by ESO? Surely the options should be in the business plan (i.e. the TO should demonstrate they have engaged properly, implemented the best innovative solution etc etc).

5. During planning processes TOs have obligations to present reasonable and credible infrastructure alternatives, but NESO are not ensuring this e.g. TKUP. Are OFGEM?

6. The date of the HND methodology and implementation vs the Relevant Date of the TKUP consideration suggests TKUP is not subject to HND methodology - why not. It should be subject to the same scrutiny as other projects, its gone through multiple changes, was considered under HND1/NOA7 which is arguably very much out of date and not fit for purpose. How does OFGEM plan to demonstrate TKUP is value for money.

7. If NESO are not scrutinising network design, surely OFGEM are duty bound to scrutinise

An example of the lengths a TO will go to to avoid discussing alternative innovative technologies includes, for example, SSEN's consultation for TKUP. At meetings, and in the press, the public have repeatedly asked why a buried or offshore HVDC solution is not possible. SSEN's approach is to publish a document called *'The challenges with undergrounding at 400kV'* in which they compare costs for HVAC overhead and HVAC buried cables. It is effectively a rehash of a 2012 Parsons Brinkerhoff report (a 13 year old report!) and the 2015 National Grid rehash of the same data, which focusses on the difficulties in burying **HVAC** cables, which include the need for the thermally stable backfill of cement bound sand, large cable swathes and joint bays every 500–1,000m

etc. **None of these issues are relevant to HVDC buried cables** (see the 525kV Nordlink example from Germany) - HVDC requires simple trench and fill, the land can largely be returned to its original use and the available section lengths and capacity exceed those in the reports. If you are a member of a community that will be impacted, this is the stuff that matters. The technology is there to allow a compromise, just like NordLink in Germany, but no regulatory body is ensuring options are appropriately assessed on a full lifecycle basis and consulted on.

3. TOs should communicate their overarching approach to*: ....Strategic optioneering to determine optimal engineering solutions.* They are not doing this routinely. Where they are doing this, for example Eastern Green Link 3 and 4 Strategic Options Report 2024, a very detailed assessment with full lifecycle economic analysis concludes:

i) "*Comparing the estimated capital cost of £3,176.6m for the EGL OPP6 (land) option to our preferred HVDC option estimated capital cost of £4,822.6m, the difference is significant. However, the lifetime cost for the overhead line is £5,256m compared to £5,540m for the [buried] HVDC, therefore in this case, the* ***HVDC option offers very comparable value to consumers over its lifetime****. It should be noted over the distance proposed the needs for mitigation of an overhead line option is likely to be required increasing the cost of the land based option." And "****If just 5%*** *(40km) of the overhead line (with circuit length of over 700km) required some underground mitigation through some sensitive areas, this would* ***increase the capital cost by over £1,500m****.* ***Over such long distances (>500km), HVDC becomes competitive*** *especially in comparison of lifetime costs.*

ii) So, Lifetime Cost of New Circuits AC OHL to be comparable with buried HVDC. There is no order of magnitude cost difference and AC OHL carries operational and service risks that can make it more complex and costly on a risk basis.

iii) NG decision to underground about 100km of HVDC between converter stations establishes a principal of doing so regardless of cost so as to minimise landscape and community impact.

iv) The project risks and chance of significant delays in execution for Overhead HVAC are higher than for HVDC – **i.e. on a risk basis buried HVDC is likely to deliver the NetZero solution faster**!!!

For EGL2, a 436km subsea and buried cable from Peterhead to Drax, SSEN and National Grid JV conclude:

i) **HVDC is the optimal solution for transmitting high voltage electricity over long distances**.

ii) Onshore the project will bury 525kV, 2GW high voltage direct current (HVDC) transmission cable between the beach at Fraisethorp and a new converter station next to Drax Power Station in North Yorkshire with the advantage that once buried, the land will be returned to former use (so, hang on, buried HVDC is optimal here…)!

That seems to suggest HVDC network infrastructure can be viable and cost effective and could deliver Net Zero solutions faster - it should be a requirement to provide an optioneering report for all proposed infrastructure as part of business planning including HVDC in all cases.

4. 4.23 *We want to understand how, at a portfolio level, the TO balances the trade-offs between load and non-load investments that may include but are not limited to: levels of risk; asset life cycle management; project lifespan and operations.* I refer the reader to the points above. Optioneering including for buried HVDC infrastructure is critical to understand project risk (the risk of challenge and delay), life cycle (lets introduce the subject of sustainability here too - above ground AC infrastructure is more susceptible to changes in climate, line losses, more down time and high magnitude events - it just costs more).

Changeworks

Dear Ofgem,

RE: Call for Evidence on the Electricity Transmission, Gas Transmission and Gas Distribution Business Plans for RIIO-3

- Changeworks (Resources for Life)
- SGN, Chapter 4, section 4.3 and 4.4
- This response is not confidential.

I am writing on behalf of Changeworks which has been a partner of SGN for some years now, and recipient of funding to support vulnerable communities in Scotland since 2021.

Changeworks has been consulted during the development of SGN's plan, having participated in SGN's stakeholder engagement programme, online and in person.

From our review of the plan, we are supportive of the proposals and the plan put forward by SGN specific to supporting vulnerable customers.

Specific points which we would like to highlight are detailed below:

1. The VCMA has been critical in enabling Changeworks to support the growing number of people in Scotland living in or at risk of fuel poverty. The available support in the VCMA, and the approach SGN takes to deliver it, is central to our ability to support people in Scotland, to target areas and groups identified as most in need, and to offer this support over an extended period of time, which few funders facilitate. This provides stability in the sector and is vital for customers who are often left with no support during certain periods of the year when funding ends.
2. SGN actively uses the knowledge and experience of serving its 300,000 customer base to inform work to support vulnerable customers through its Safe and Warm programme.
3. Rather than duplicating services, SGN uses its established network of partnerships with charitable organisations who have benefited from skills, capacity building and funding. If this was no longer available, both the charities and those who rely on them would lose out.
4. Unlike many other funders, SGN is a true partner, working collaboratively with us to proactively achieve impact in our projects. SGN seeks to support and amplify

our affordable warmth work, leveraging its networks, relationships and insight to ensure our funded projects deliver maximum social value.

5. SGN strives for excellence in its work and expects this of its partners too. Our experience is that SGN Vulnerability staff are dedicated to supporting partners and driving and assisting continuous improvement. This is also achieved through the support of SIA Partners and their SROI consultancy which SGN actively involves in our work.
6. We are pleased SGN recognises the need to address the barriers vulnerable households face in the energy transition and we recommend an increased commitment to working in partnership, developing initiatives and providing financial support targeting those who need increased assistance to deliver a just transition.

Should you wish to discuss anything included in more detail please contact me directly.

Kind Regards,

Morven Masterton

1st Gourock Scout Group

Organisation: 1st Gourock Scout Group

Commenting on Community Funding from SPEN (SPT) – Net Zero Fund RIIO-T2 experience

The funding has been crucial to our plans to transform an underutilised and constant under threat community asset. Through community asset transfer we have taken on a former community centre in an area with a lack of facilities. As a Group which operates entirely on a voluntary basis, we had an ambition not just to have a Scout Hall but to create a modern community hub with a variety of activities and community groups utilising the space, this way the Scout Group adds real value to the Community and is embedded in it's roots. That has taken time to build up and grow successfully. Having operated the building now for two years we have learned the true running costs and how uneconomical and inefficient the building is in it's energy use and consumption.

Users often complain it is cold, particularly less mobile groups despite our best endeavours. Our Net Zero project sought to tackle all aspects and considers the needs of all facility users and what it would take to create that modern community hub we aspired to and to do it in a sustainable way. The building hosts Beavers, Cubs, Scouts, Explorer Scouts, Brownies, Karate, two different weekly free Community Warm Space Café's, Zumba, Mixed Martial Arts, Slimming World and Childrens parties. It is used by the NHS blood collection service and Health Visitors for parent awareness sessions. It is already well used but we can do more in the day time, we had lost a baby sensory group due to the building feeling cold. We have worked hard to improve the building in a number of other ways due to funds raised and grant aid such as new bathroom facilities, kitchen, meeting room upgrades, sound system and AV equipment. We also run community cinema days and other events from the facility which are open to all.

Through the Net Zero fund we had access to fantastic support and advice on the types solutions that would benefit the facility, energy savings to be gained, planning assistance and feasibility support. We have been successful with our application and we are now in the implementation phase with works due to commence at site from late February to late March. The current inefficient heating system, which runs off of gas boilers and feed through pipes and radient panels at ceiling height in the main hall will be replaced by air source heat pumps, replacement radiators where they existed and new radiators in the main hall where none existed. Ceiling and cavity wall insulation also is being installed to retain heat. Replacement windows and fire doors are to be installed and the ventilation system which was defunct when we moved int the building is to be replaced entirely.

Without this funding, this project would never have been achievable for a Group like ours, however the community benefit is huge. We are very much looking forward to the changes and the opportunity that this project enables. This winter, despite running to the best of our ability, the average temperature in the building has been 8 degrees. For a now well used community space that we have created that is not good enough and we would likely lose more community user groups rather than continue to grow. Over winter the blood collection service had to hire in additional heaters to make their service viable, that is not the image or hub we have strived to build.

We very much look forward to re-opening the centre (Coppermine Community Centre) in April, having completed the implementation and where we can start to measure the real community benefit.

Thanks

Mark Gallacher

Hyppo

Dear Ofgem,

As the CEO of Hyppo Hydrogen Solutions, I am writing to express our strong support for the Wales & West Utilities Business Plan for 2026-2031, specifically its proposal to secure innovation funding for the development of a hydrogen powered commercial vehicle fleet.

WWU's commitment to hydrogen as a transport fuel is a crucial step in strengthening energy security and enabling a resilient, decarbonised energy system across Wales and South West England. A diversified approach to zero emission transport where hydrogen complements battery-electric vehicles is essential for ensuring fleet reliability, mitigating supply chain risks, and reducing dependence on imported critical minerals.

Infrastructure development is key to unlocking the enabling effect of hydrogen technology. By integrating hydrogen-powered vehicles into its own fleet, WWU is creating demand signals that will accelerate the deployment of refuelling stations, supply chains, and vehicle adoption for other commercial users. This leadership role is critical, as many sectors such as logistics, heavy-duty transport, and emergency services require the range, refuelling speed, and payload capacity that hydrogen uniquely provides.

At Hyppo Hydrogen Solutions, we have been actively collaborating with WWU on hydrogen vehicle trials, fuel supply pathways, and refuelling solutions. WWU's proactive approach is already delivering real world insights into hydrogen's role in fleet decarbonisation. Supporting this work through the proposed innovation funding will not only help WWU transition its own fleet but also catalyse a broader shift towards hydrogen adoption where battery electric alternatives are not suitable.

We fully endorse WWU's RIIO-GD3 Business Plan and urge Ofgem to recognise the strategic importance of its hydrogen transport initiative. This funding will play a vital role in scaling up the UK's hydrogen economy, ensuring energy resilience, and meeting national net-zero commitments.

Sincerely,

Chris Foxall

Fuel Cell Systems

To whom it may concern.

Re call for evidence on the electricity transmission, gas transmission and gas distribution business plans for RIIO-3

This document provides feedback from Fuel Cell Systems Ltd (FCSL) as a stakeholder.

Organisation: Fuel Cell Systems Limited responding in an official capacity

Network Company: Wales and West Utilities Limited. BP- 3.1& Innovation Strategy 11.4

Confidentiality: Not confidential.

I am writing on behalf of Fuel Cell Systems Limited (FCSL) and in response to your call for evidence on the electricity transmission, gas transmission and gas distribution business plans for RIIO-3 and in particular to support Wales and West Utilities Business Plan and Innovation Strategy.

Fuel Cell Systems Limited is a British company established in 2010 to develop and supply clean energy solutions through the adoption of hydrogen as a fuel. FCSL have been manufacturing and installing hydrogen refuelling systems since 2016. During this period the vast majority of all hydrogen projects in the UK have utilised our equipment and we have worked with key industry partners such as Toyota, BMW, Millbrook Proving Ground, Wales & West Utilities, South Derbyshire Council and St Helens Council.

When considering the transition to zero-emission vehicles and the implications for business operations, several critical considerations emerge. A major consideration is the need for suitable zero-emission vehicles to meet existing and future business requirements, including attaining specific mileage capabilities based on vehicle type, replenishment of the vehicle's energy source whilst achieving cost competitiveness with diesel and petrol fleets. Hydrogen is increasingly recognised as the best option to decarbonise a wide range of transport modes, while delivering on all business and operational needs. Hydrogen fuelled vehicles provide un-paralleled range compared with other clean alternatives. Fewer, faster refuels mean that hydrogen fuelled vehicles can remain on the road for longer periods, while being capable of carrying large payloads. Hydrogen has the ability to fuel both FCEV and Hydrogen Combustion vehicles offering flexibility in decarbonising through new and existing fleet vehicles. These benefits make hydrogen vehicles a realistic option to decarbonise without altering day to day operations.

In the UK we are now seeing support for hydrogen as a fuel. Innovate UK, part of UK Research and Innovation, is working with the Department for Transport to invest up to

£140 million in innovation projects. The Zero Emission Road Freight (ZERFT) Demonstration programme focuses on the largest heavy goods vehicles (HGVs). The programme supports government's commitment to end sales of all new, non-zero emission vehicles. Under this programme the HyHaul project is funded which is situated within the operational boundary of Wales and West Utilities.

Access to the hydrogen gas is being facilitated by UK Government. The Hydrogen Allocation Rounds (HARs) allocate revenue support through the Hydrogen Production Business Model to hydrogen production facilities across the UK. The ambition is to have up to 1GW of electreolytic hydrogen production capacity in construction or operation this year, increasing to 10GW by 2030.

We have significant Government investment in hydrogen production through the HAR projects and Government investment in hydrogen distribution through project like ZERFT and specifically HyHaul.

Operators of vehicle fleets need the support to make the relatively small investment to prepare their own operations. Utility companies like all vehicle operators are facing a future ban on the supply of traditional internal combustion vehicle. These companies need to be granted the freedom to act on their plans to transition their fleet.

Fuel Cell Systems has developed a close working relationship with Wales and West Utilities where we previously supplied the refuelling solution through Hyppo Hydrogen Solutions for the last successful trial that was completed in 2024. As a key stakeholder within this project the information gathered, along with detailed feedback has provided FCSL with great insight to what companies need and demand in order to operate to meet their customers expectations. Wales & West Utilities have clearly identified that BEV will not fully support their operation in full and as a leading supplier within the UK of Hydrogen Refuelling Solutions we need to continue to work with companies and stakeholders as it is critical to ensure that we are investing and developing in the correct area that will offer the solution needed.

The significant investment required along with the complexity of the challenge to provide the vehicles, refuelling infrastructure and available Hydrogen, it is important all stakeholders work collaboratively to develop the network effectively and as efficiently as possible. This cannot be done without the industry moving forward as a collective, the detail outlined within the Business Plan along with the work already completed by Wales & West Utilities will support an accelerated transition to net zero.

It is clear the level of importance the net zero transition Wales & West Utilities have placed within the Business Plan and through their continued proactiveness, their

understanding & reality of the challenge and their informed investment and development, Hydrogen will support the decarbonisation of the fleet.

If you require any further detail, then please do not hesitate in contacting me direct.

Kind Regards

Alex

The Scotch Whisky Association

Organisation name: The Scotch Whisky Association

Network company Business Plan comments relate to: SGN

Comments on SGN's Business Plan

The Scotch Whisky Association (SWA) welcomes the commitment to replace nearly 5,000km of metallic mains with plastic pipes that are, "safer, reduce emissions from our network and are ready to transport green gases". SWA believes that the gas network has a role to play to support the UK's transition to net zero. The network has the potential to supply lower carbon intensive gas, initially by blending natural gas with green gas such as biomethane, but then in the longer-term where it could transition to 100% green gas/hydrogen. This will be important for businesses for whom alternative options to decarbonise might not be possible. In addition to enhancing the existing grid, we also encourage SGN to look at options to extend the network. Distillers have funded private extensions to the network in Speyside. Those investments have enabled nine distilleries to switch from more carbon intensive fuel oils to natural gas. The carbon benefits of connecting distilleries to the network are greater than just lowering emissions associated with the combustion of fuel oil:

- Natural gas delivered by pipeline reduces the need to transport fuel oil by road;
- It does not require additional energy inputs for storage;
- It allows users to implement energy efficiency measures such as boiler economisers;
- It offers opportunities to other users to connect to the network.

Due to constraints in the network not all industrial users connected to it are able secure year-round supplies of gas. Those sites are required to operate dual fuel boilers. This is something that should be addressed in the business plan. The map in SGN's Business Plan (section 1.1.1) and the accompanying text could be interpreted to imply that the network covers the whole of Scotland. It would be helpful if the map highlights the area covered by the gas network as many parts of rural Scotland to not have access to the grid.

We welcome the commitment to, "maximise biomethane injection and reduce connection times for producers". Distillery by-products (liquid effluents and spent cereal grains) can be used as feedstocks in the generation of biomethane using anaerobic digestion (AD).

AD plants can be found at some distillery locations. By-products may also be transported away from distilleries to off-site AD plants. Biogas generated can be used in different ways, such as for combustion on-site to generate process heat, electricity generation using gas engines or CHP, as an alternative sustainable transport fuel (e.g. for HGVs), and can be injected into the grid. Businesses may also purchase grid-supplied green gas under recognised green gas certification schemes to help reduce their emission footprint, in the same way that green tariff electricity can be purchased and reported under a market-based approach. There might be sustained demand for gas supplied via the grid if these reporting mechanisms permit sites to decarbonise where alternatives are limited, such as industrial plants in urban areas.

The Scotch Whisky Association

Steer Energy

Dear Ofgem,

RE: Call for evidence on the electricity transmission, gas transmission and gas distribution business plans for RIIO-3

I am responding on behalf of Steer Energy Ltd, as Technical Director and commenting on SGNs Chapter 6, Network Asset Management Strategy.

I have been involved in developing SGN's plan through their stakeholder engagement programme and broadly support SGN's proposals.

Supporting points of note to their plans are as follows:

SGN's plans aim to promote sustainability through zero-emission construction, innovation, and new technologies. They aim to better understand and respond to the evolving needs of customers, especially vulnerable ones.

SGN's proposals follow a whole-system approach to the energy transition and focusing on stakeholder collaboration. I believe collaboration over competition is a better way to manage the transition.

The proposals to increase biomethane injection, targeting the supply of up to one million homes will have a significant impact on making the gas network greener and exploring other ways to reduce gas pollution, such as hydrogen blending, will be crucial in the early years of GD3. Research into these will inform future government decisions on transition to green energy across the country. Supporting communities, including remote ones, with green gas initiatives will also help the UK as a whole reach its net-zero goals.

Decarbonising multiple-occupancy buildings is a challenge, and SGN's plan will explore options to achieve this through a whole-system approach. Taking a collaborative holistic approach to this challenge is likely to result on the most favourable outcome for the country.

Thank you for reviewing this response should you wish to discuss any of the points in more detail then please get back to me.

Kind regards

Nick Ryan

Steer Energy Solutions

Marie Curie

Dear Sir/Madam

On behalf of Marie Curie, please find a brief response to the gas networks' business plans.

Marie Curie is not well placed to comment on the technical aspects of the business plan, but we wanted to highlight the value that our partnership with the Gas Distribution Networks (Cadent, NGN, SGN and WWU) has provided, and we hope to continue and build on this work in the future as part of the networks' commitment to social impact.

Marie Curie launched a partnership with the UK Gas Distribution Networks (GDNs); Cadent, NGN, SGN and WWU in November 2022, supporting terminally ill people and their families across the UK facing rising energy costs. The GDNs are providing £2 million of funding over the next three years, enabling the following:

- Two Energy Support Officers (ESOs) to Marie Curie's Information & Support line, providing in-depth information on the grants and benefits available to support patients and families with rising energy bills and the increasing cost of living. It has also enabled upskilling of Support Line staff and the development of tailored resources on energy support, fuel poverty and the cost of living.
- Fuel poverty awareness training created and rolled out to Marie Curie healthcare staff to identify those struggling to pay their bills, signpost to support and raise awareness of the Priority Services Register (PSR), giving vulnerable households immediate support in the event of emergencies such as power cuts.

To date, our partnership has achieved the following outcomes:

- **1,564** Marie Curie healthcare staff trained on fuel poverty awareness
- **5,683** people living with a terminal illness supported by the ESOs and Support Line staff on Marie Curie's Information & Support line.
- **4,972** conversations held by Marie Curie frontline staff and Energy Support Officers about the PSR.
- **Over £1.5mllion** worth of benefits identified for those in need

One of the ESOs shared their experience with a caller whose partner is living with a terminal illness:

"*Due to their immigration status, they had not previously been allowed to claim benefits. Thankfully, this had recently changed, and they wanted to see if there was any help available to them now. After doing a benefits calculation with them, I'm pleased to say that their monthly household income will now increase from around £1,000 to almost £2,500. This is wonderful news and such a relief for the family*."

I hope this information is of assistance.

Best wishes

Jamie Thunder

Senior Policy Manager – Financial Security

Marie Curie

CO-Gas Safety

CO-Gas Safety is an independent, registered charity and our aims are to prevent deaths and injuries from unintentional carbon monoxide poisoning and other gas dangers. I have run the charity as a full-time volunteer since 1995, helped by other voluntary trustees/directors, mainly survivors/victims of CO.

We raise awareness by the use of our film*, animation* and attached leaflet which explains that CO is emitted from faulty appliances powered by any carbon fuelled appliance (e.g. cooking, heating, generators, cars etc). **The problem with CO is that you cannot sense it using human senses and yet less than 2% of CO in the air can kill in under three minutes**. We also help victims, survivors and families of victims mainly of carbon monoxide (CO) poisoning. We do also cover deaths from explosion or suffocation caused by unburned gas.

**Please, for your own safety and that of those you care about, watch our one minute film about Sue who was exposed to carbon monoxide https://www.co-gassafety.co.uk/one-survivors-story/ For more detailed information please also watch our animation https://www.co-gassafety.co.uk/animation/*

We collect, collate and publish deaths from unintentional CO, and we publish case studies on our website.

Data https://www.co-gassafety.co.uk/data/ Case studies https://www.co-gassafety.co.uk/case-studies/

We've found from helping victims/survivors and families that every incident is a research opportunity for prevention (a bit like the Air Accident investigations in plane crashes)

Our main interest is in the gas emergency service and the funding Ofgem has provided the GDNs with regard to: -

1. Raising awareness of the dangers of carbon monoxide and
2. Testing in homes and emissions from appliances of 'customers in vulnerable situations'.

We find the gas industry understandable reluctant to concentrate on the downsides of gas, but we are keen that they should fulfil their duties to raise awareness by, for example making and distributing a hard-hitting warning film.

As CO is so dangerous we think that the gas emergency service should have a mandatory duty to test homes and emissions from appliances, whenever practicable. Thanks to Ofgem the GDNs are now beginning to do this with Cadent very much in the

lead, also Northern Gas Networks with the other two a bit late to the task. **Without testing nobody can know whether or not they are being exposed to CO, or even which appliance is the dangerous one.**

We are keen to make sure that Ofgem continues to fund this and indeed extends funding because all of us are vulnerable to CO, however healthy, wealthy or wise.

We are also keen to make sure that where CO is found, the parts per million (PPM) of CO are given to those exposed or suspected to have been exposed in writing/digitally for their medics. Medics don't know much about CO but react well to PPM of CO from a gas engineer. **This saves NHS costs**. We are also keen to make sure these PPM are recorded in **data** along with other details such as the type of appliance (cooker, fire, boiler etc.), manufacture, age of appliance, whether serviced or not, and type of property and tenure etc. etc., yet we strongly suspect this vital data is not being recorded. We have worked very hard to try to persuade the GDNs to allow us to advise us on the data fields with little or no real success. Yet we have been collecting data on deaths since 1995.

It may well be that we just need to submit something, similar to what I've outlined in the email, about this important life and death and preventative issue rather than wade through pages that are not relevant to our aims and objectives.

Would it be possible to do this?

Your guidance and advice would be much appreciated. Thank you for reading this.

Best Wishes

Stephanie Trotter, OBE (Mrs)

President & Director of CO-Gas Safety

Dear RIIO 3 Team,

I do apologise but we seem to have overlooked yet more proof that testing for CO in homes is vitally needed for everyone.

Please see the CLASP report, the EU report, Cadent Wayne Merry's presentation including slide 12 of his cooker data, and our submission to the Safe Home Summit – Healthy Homes all attached. See also https://www.theguardian.com/environment/2024/oct/28/pollutants-from-gas-stoves-kill-40000-europeans-each-year-report-finds

54% of UK households have gas cookers.

See also attached Beth Cheshire's research into low levels of CO and my comments about that.

We understand that Ofgem lacks the power to make regulations or legislate but it surely Ofgem has a legal duty 'to protect the interests of consumers from the dangers of gas in pipes' and the MOU sets out how Ofgem should communicate with HSE. HSE has the power to make regulations at least. CO-Gas Safety suggests that all registered gas engineers be under a mandatory duty to test for CO, whenever practicable. Also to inform the person exposed or suspected to have been exposed in writing/digitally.

The opinion of both Ofgem and HSE, expressed publicly would also be very helpful.

We would be most grateful for your acknowledgement of receipt of this email.

Best Wishes

Stephanie Trotter, OBE (Mrs)

President & Director of CO-Gas Safety

Dear RIIO3 Team,

Thank you very much indeed for your kind acknowledgement of our submission.

We've recently been asked to have a meeting with CORA. I have had a zoom with Xavier Bebin before. But looking again at the CORA platform and the data we are more convinced than ever that **the vital data is obtained by testing for CO, and if CO is found, those exposed to CO or suspected to have been exposed must be informed of the Parts Per Million found, ideally verbally and in writing/digitally for their medics. Also, the PPM of CO found must be recorded in the data.**

Then we'll all have a much better idea of just how much of a problem CO is.

Therefore, I attach our concerns about data. We'd be grateful if you could include this as part of our submission.

Thank you.

Best Wishes

Stephanie Trotter, OBE (Mrs)

President & Director of CO-Gas Safety

NatureScot

Good afternoon

I am writing to provide comments on behalf of NatureScot on the RIIO T-3 Business Plans submitted by SSEN Transmission and Scottish Power Transmission. NatureScot is the lead public body responsible for advising Scottish Ministers on all matters relating to the natural heritage.

SSEN Transmission

NatureScot welcomes the commitment in section 4 of SSEN Transmission's Draft Business Plan to deliver at least 10% biodiversity net gain in the terrestrial environment. We support SSEN Transmission's targets to allow them to achieve this commitment. We therefore support the considerable financial investment proposed in the Sustainability Action Plan to achieve targets 8 and 9. We look forward to working with SSEN Transmission to take forward these targets in the plan period.

We also greatly welcome SSEN Transmission's commitment to expand effort into the marine environment. We welcome and support SSEN Transmission's Sustainability Action Plan aims 10.d) Marine BNG - skills and workforce development and 10.e) Marine BNG - research and monitoring and would welcome further discussion about how best to direct investment in these areas.

Whilst we warmly welcome the prospect of additional investment in marine restoration work, we suggest that further discussion might be helpful before finalising the scope of the following Sustainability Action Plan aims: 10.a) Marine BNG – metric development , 10.b) Marine MNG – Oyster restoration and 10.c) Marine BNG - Seagrass restoration. Further consideration would be helpful in the context of the Scottish Government's current work on a Marine and Coastal Restoration Plan due to be published this year; work we have been doing considering restoration opportunities and constraints; and the work being carried out currently on the National Marine Plan for Scotland, which is considering the introduction of a marine positive nature policy. It would be useful to further scope these aims and whether other alternative actions may be suitable, particularly given the recent donation by SSEN Distribution to the Scottish Marine Environmental Enhancement Fund (SMEEF) for seagrass restoration (14ha).

Scottish Power Transmission

NatureScot welcomes SP Energy Networks' Environmental Action Plan commitment to deliver at least 10% increase in biodiversity net gain on projects subject to planning consent. We support SP Energy Networks' targets to allow them to achieve this commitment. We therefore support the considerable financial investment proposed in the Environmental Action Plan to achieve the 6 Actions for Nature. We look forward to working with SP Networks to take forward these targets in the plan period.

Please contact me if you have any queries regarding this response.

Kind regards

David Law

Wood Group UK Ltd

Dear Sir / Madam,

This email is provided in response to the "Call for evidence on the electricity transmission, gas transmission and gas distribution business plans for RIIO-3" and on behalf of Wood Group UK Limited, who are a prime contractor that are engaged by network companies to undertake new-build and refurbishment overhead line and underground cable electricity transmission projects.

As part of our preliminary discussion with SSE regarding their Business Plan for RIIO-3, we reinforce the need for the following:

Approval of projects through an advanced procurement mechanism:

The Transmission and Distribution sector has suffered from under-investment in recent years, combined with difficult contracting arrangements which has contributed to reduced capacity in the supply chain, in terms of specialist equipment, OEM suppliers and skilled overhead line workers.

As prime contractors develop our own business plans to support capacity growth and represent the case for investment within our organisations, it is a fundamental requirement to demonstrate our project pipeline and prove the demand for our services.

Furthermore, the accelerated nature of the capacity growth within the sector (as driven by the UK's Net Zero Strategy) is such that we require visibility of the project pipeline today, so that we can plan our investment in a manner that ensure we meet the demands of future projects and the wider network design.

The nature of this planning is critical to investment that is time sensitive, such as training specialist overhead lines personnel and procuring specialist plant that is required for projects with specific technical characteristics.

Long term, strategic workforce investment in the north of Scotland:

Having undertaken various electricity transmission projects in the north of Scotland during the period 2018 - 2024, the workforce has consistently been under-represented by those from local areas.

We consider this under-representation to be a significant risk to projects that are planned in the north of Scotland, at a time where there will be significant demand from electricity transmission projects throughout the UK (which are closer to the homes of the current workforce).

With investment, the challenge is to develop a resident workforce in the north of Scotland that is able to modify and maintain the new infrastructure that is developed there.

The challenge is to make electricity transmission sector as appealing as competing sectors such as upstream oil and gas, renewable energy and commercial fabrication.

We welcome the opportunity to provide any supplementary feedback as may be required.

Regards,

Sandy Crerar