



Environmental Action Plan

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1.0	17/09/2024	Final for sign-off
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RIIO-GT3 Environmental Action Plan

1. Executive Summary

National Gas Transmission (NGT) cares about the environment and as a responsible business we are committed to leading a clean energy future for everyone. It is our aim to minimise negative environmental impacts across all operations, whilst also seeking ways to enhance the local environment.

To deliver this aim, and operate in line with Ofgem expectations, we have developed a five-year Environmental Action Plan (EAP). This plan focusses on decarbonising the network by 2050 for scope 1 and 2 emissions - natural gas contributes to a third of the UK's carbon budget and as such we are a key enabler for the UK Government to reach its net zero goals. In addition, our EAP also aims to reduce the wider impact of network activities, keeping stakeholders at the heart of its decision making.

The RIIO-GT3 Environmental Action Plan builds on the commitments we made in RIIO-T2 and incorporates anticipated future requirements such as mandatory reporting for the Task Force for Nature-Related Financial Disclosure (TNFD).

Our EAP covers four broad areas and consists of 14 commitments which align to contemporary environmental issues. There are a further two commitments which align to internal and external stakeholder engagement:

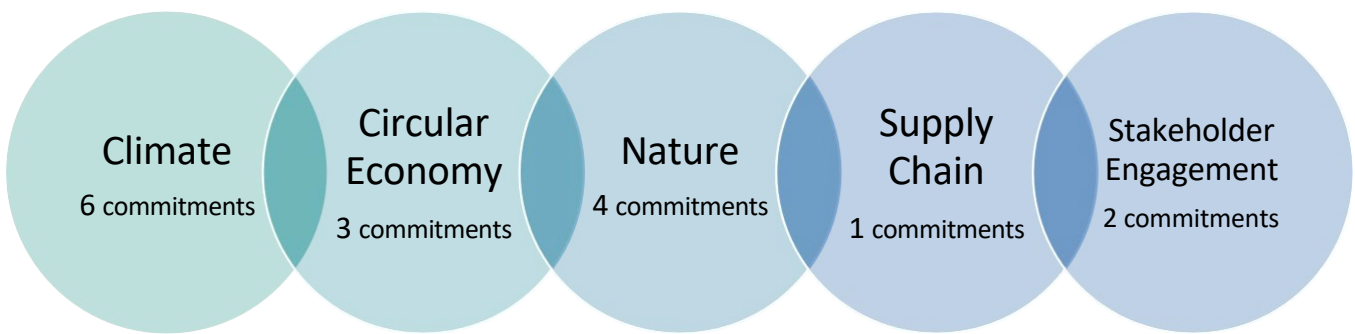


Figure 1 Summary of RIIO-GT3 EAP Commitments by topic

Note: Shrinkage and Biomethane are addressed in Operator Annex - NGT_A10_System_Operator_Annex_RIIO-GT3 as per Ofgem Business Plan Guidance.

It is important to note that sustainability is embedded in decision making within our asset management system, and therefore across investment proposals, as can be seen within engineering justification papers (EJPs).

2. Introduction

In accordance with the Ofgem Business Plan Guidance this document will describe the assessment methodology used to develop the Environmental Action Plan (EAP). This includes an analysis of our significant environmental impacts arising from our activities, opportunities and challenges for addressing material impact areas – those which have been rated as a significant risk, options analysis to identify the value for money of initiatives to reduce our environmental impact, evidence that we have considered these impacts in the landscape of our wider business planning processes and decisions, evidence that wider stakeholders have been involved in the assessment, our long-term overall targets/objectives for our environmental impacts beyond the RIIO-GT3 period and an assessment of our potential environmental impacts in RIIO-GT3 without intervention, in comparison to our current impacts.

It will also set out the role the company envisages in playing in supporting the low carbon energy transition, the deliverables, outputs and environmental benefits we propose to deliver through the implementation of the EAP over RIIO-GT3 and the links between the impacts areas we have prioritised in the EAP, the deliverables and targets in RIIO-GT3 and how these link to our long-term targets/objectives.

For RIIO-GT3 Ofgem expect National Gas Transmission to focus on the following:

- Decarbonising the network; and
- Reducing the wider impact of network activities on the environment.

These considerations have been embedded into the EAP including the methodology that has been used to assess the environmental impacts of the network and business plan.

3. Initial environmental action plan commitment development

In December 2023, we engaged Guidehouse to develop our environmental commitments with the requirement to ensure that they aligned to our Net Zero by 2050 commitment for scope 1 (direct emissions e.g. emissions from our gas turbine compressors if they are shut down for maintenance) and scope 2 emissions (indirect emissions e.g. the electricity we use to run our Variable Speed Drive compressors) and build on the RIIO-2 targets.

To develop the initial environmental commitments Guidehouse reviewed the Ofgem Business Plan Guidance for RIIO-T2, our current state, carried out benchmarking and reviewed industry and legislative developments to inform the correct level of ambition and focus. Numerous internal stakeholder events were conducted to seek understanding of current delivery and reporting processes, any barriers or challenges that were faced and seek support from the business units responsible for delivery of the targets.

In February 2024, Guidehouse¹ presented us with 19 commitment suggestions, as summarised in Table 1 below.

Number	Topic	Guidehouse suggested commitment
1	Embedded Carbon	Reduce carbon intensity (in tCO ₂ e/ m£ spend) of major construction projects by 50%
2	Embedded Carbon	Achieve the PAS 2080 standard certification in T-3
3	Embedded Carbon	Projects to use a minimum of 30% of materials from sustainable sources throughout GT3
4	Resource Use and Waste	Reduce waste through decreasing waste tonnage and increasing recycling rates
5	Resource Use and Waste	Increase percentage of waste recycled from NGT's construction projects based on a 2024/25 baseline
6	Resource Use and Waste	Embed circular economy principles through developing an asset reuse strategy

¹ The Guidehouse Report is the NGT_C22_Guidehouse_EAP_Final_Report

Number	Topic	Guidehouse suggested commitment
7	Supply Chain	All suppliers providing annual business of at least £250k will have environmental targets
8	Supply Chain	Increase transparency and communication of NGT's supply chain environmental actions
9	Supply Chain	Increase engagement and enable skill development within NGT and its supply chain
10	Biodiversity and Natural Capital	Develop a strategy & governance framework to address nature related risks & opportunities
11	Biodiversity and Natural Capital	Deliver net gain in environmental value across all non-operational land from a 2025 baseline
12	Business Carbon Footprint	Absolute reduction in Scope 1 emissions (excl. compressor combustion) by 30% by 2030 (w.r.t 2022 baseline)
13	Business Carbon Footprint	Achieve 100% reduction in Scope 2 emissions
14	Business Carbon Footprint	Develop technological capabilities for compressor decarbonisation within the NTS
15	Business Carbon Footprint	Fully embed climate resilience within energy network and system investments
16	Transmission Loss & Shrinkage	Reduce methane emissions from leaks, venting and operating assets on the network during RIIO-GT3 by 38%
17	Transmission Loss & Shrinkage	Enhance leak detection capabilities through the adoption of innovative digital platforms
18	Internal-focused commitment	Integrate sustainability into key business activities and decision-making processes at NGT Milestones to include incentive structures, integration with risk processes and employee engagement activities
19	External-focused commitment	Increase engagement with the public and other external stakeholders on environmental imperatives and NGT's actions Milestones to include outreach programmes, engagement with educational institutions and participation in trade forums

Table 1 Recommendations for commitments from Guidehouse

Upon receipt of the Guidehouse Final EAP commitment report and the RIIO-GT3 Ofgem Business Plan Guidance the suggested commitments were reviewed internally and against the Ofgem requirements. The first step in this process was to ensure the proposals were aligned to addressing our environmental impacts.

4. Our Environmental Impacts

To determine if the suggested commitments aligned to where we need to focus our efforts to reduce our environmental impact, we reviewed which of our activities (aspects) have the most significant impact on the environment. This assessment was carried out by reviewing the Aspects and Impacts Register which forms part of our ISO14001:2015 Environmental Management System. The register is validated via the ISO14001:2015 external audit process. Table 2 below shows the most significant impacts our activities have on the environment alongside their associated aspect. We concentrated on those impacts with an inherent risk score of 15 and above, when assessing the likelihood of an event occurring vs consequence (significant risk). The aspects and impacts detailed below remain the highest scoring impact areas after mitigation (those with the highest residual risk score). Our significant impact areas have not changed since we developed our RIIO-T2 Environmental Action Plan and as such the proposed commitments would be effective in addressing our environmental impacts.

Aspect Group	Aspect (activity)	Impact
Emissions to air	Fuel combustion	Global warming potential
	Fugitive and venting natural gas emissions	Global warming potential
	Embodied carbon	Global warming potential
Natural Environment	Disturbance and/or removal of habitats/species	Damage to natural environment
Resource use	Use in construction	Depletion of natural resources
	Waste Management	Depletion of natural resources
	Associated resource use and waste from procured goods and services	Depletion of natural resources

Table 2 Significant Impact Areas

Following our assessment of impact areas, a gap analysis was completed against Ofgem’s specific EAP inclusion requirements, to ensure no misalignments or gaps. In broad terms, Ofgem expect the following topics to be covered:

- Business carbon footprint
- Embodied carbon
- Supply chain
- Resource use and waste
- Biodiversity and natural capital
- Shrinkage
- Biomethane and other low carbon gas connections
- Greenhouse gas emissions

Please note that Shrinkage and Biomethane are dealt with separately via the NGT_A10_System_Operator_Annex_RIIO-GT3. As such the remaining topics, business carbon footprint, embodied carbon, resource use and waste and biodiversity and natural capital do align to our significant impact areas as detailed below in Table 3:

Aspect Group	Aspect (activity)	Impact	Ofgem requirement
Emissions to air	Fuel combustion	Global warming potential	Business carbon footprint
	Fugitive and venting natural gas emissions	Global warming potential	Business carbon footprint/ Greenhouse gas emissions
	Embodied carbon	Global warming potential	Embodied carbon/Supply chain
Natural Environment	Disturbance and/or removal of habitats/species	Damage to natural environment	Biodiversity and natural capital
Resource use	Use in construction	Depletion of natural resources	Resource use and waste
	Waste Management	Depletion of natural resources	Resource use and waste
	Associated resource use and waste from procured goods and services	Depletion of natural resources	Resource use and waste

Table 3 Alignment of aspects to Ofgem requirements

We also completed a benchmarking and horizon scanning exercise (external drivers) to provide us with a framework within which the EAP commitments should be further developed. The table in Appendix B summarises this exercise including our aspects and impacts, external drivers and links to our Business Plan and business commitments.

5. Opportunities and challenges aligned to material impacts.

We have identified several opportunities and challenges associated with our material (significant) impacts. These are detailed in Table 4 below and have been taken account of during commitment development. We are aware that there are a number

of nascent carbon reduction technologies which are currently being trialled in the field which, if successful, will support the delivery of our net zero glidepath; others we are currently researching to understand if they are viable options for the future.

Aspect Group and Impact Area	Opportunities	Challenges
Emissions to air – Global warming potential	Expansion of leak detection	Supply and demand governs compressor usage
	Supply chain collaboration to use sustainable alternatives/options (net zero companies/suppliers)	Nascent technologies not being suitable or scalable e.g., to reduce compressor emissions from combustion
	Vent capture technology for compressors	
Natural Environment – Damage to natural environment	Enhancement of non-operational land	Repeat use of same areas of land for laydown/site establishment for projects.
		Third party land ownership.
Resource use – Depletion of natural resources, waste	Use of recycled content products/sustainable products	Waste end of life verification.
		Potential deviation from NGT specifications.
		Changing mindsets to a circular approach whereby items are not seen as a waste but as a potential material which remains in circulation

Table 4 Opportunities and Challenges aligned to impact areas.

6. Options analysis

Upon identification of our impact areas, the consumer value of proposed initiatives to address these areas was assessed as detailed in Table 5 below. The options assessment considered our Asset Management Plan, investment opportunities and constraints, wider business commitments including our glidepath to net zero, alongside historical stakeholder opinion from our RIIO-T2 EAP development process. Our Asset Management Strategy explicitly takes environmental considerations into account, as set out in NGT_A08_Network_Asset_Management_Strategy_RIIO_GT3 and the detailed justification for options is included in NGT_EJP21_Network_Decarbonisation_RIIO_GT3.

Please note air quality (compressor emissions compliance), biomethane and shrinkage have been excluded from this options assessment as the relevant business plan proposals deal with these topics in more detail. This excludes those items which are minimum expectations set by Ofgem, and those which build upon our current targets to sustain continual improvement, for example waste recycling and supply chain.

Contemporary Theme	Topic	Option 1	Option 2	Option 3
Climate	Reduction in scope 1 and scope 2 emissions	Do nothing; this was deemed unacceptable as it does not align with our commitment to decarbonise the current methane network	Chosen option: invest in decarbonisation levers as set out in our Decarbonisation Strategy where viable, efficient and economical to do so. As defined in the Network Decarbonisation and	Invest in all decarbonisation levers as set out in our Science Based Target initiative aligned Decarbonisation Strategy. Discounted due to excessive costs.

Contemporary Theme	Topic	Option 1	Option 2	Option 3
			Compressor Fleet EJPs.	
Climate	Embodied carbon in projects (>£25m) (scope 3 emissions)	Do nothing; Continue to baseline, assess and working to achieve carbon neutral construction. Deemed unacceptable as it does not align with our commitment to decarbonise.	Chosen option: Deliver projects (<£25m) in accordance with our Carbon Neutral procedure, baseline, identify carbon intensive areas, develop reduction plan to achieve at least a 50% reduction in carbon intensity per £m spend, work with supply chain to further reduce.	Deliver carbon neutrality across all construction works. Discounted as we are yet to fully understand capability and consumer value this would bring.
Nature	Natural environment	Deliver Net Gain only where required via Planning regulations. Discounted as does not meet Ofgem requirements	Chosen option: Continue to deliver net gain in Environmental Value across our non-operational land, continue to embed and deliver Natural Capital on network projects (where applicable) and develop our Nature Strategy	Deliver Natural Capital across all network projects. Discounted due to excessive costs associated with offsite delivery for small projects (third party land).
Circular Economy	Resources	Do nothing; maintain RIIO-2 out turn performance. Deemed not acceptable as does not align to business ambitions	Chosen option: Build on RIIO-2 out turn performance for waste metrics. Further embed Circular Economy Strategy developed in RIIO-T2.	N/A

Table 5 Opportunities and Challenges aligned to impact areas

7. Environmental impacts in RIIO-GT3 without intervention

Our current environmental impact areas, as detailed in Table 5 above, would remain the most significant should interventions not be deployed. A lack of intervention would lead to an increase in significance particularly with regards to emissions to air from the current natural gas system. The “do nothing” approach does not align to our business commitments of achieving net zero by 2050 for scope 1 and scope 2 emissions and our net zero glidepath, our golden threads of “Drive positive environmental and community impacts” and “Deliver sustainable value for customers and stakeholder” nor to our Responsible Business commitments. Our RIIO-GT3 EAP commitments are aligned to driving down the impacts from these significant activity areas whilst ensuring consumer value is maintained.

By way of an example, we have forecast our scope 1 and 2 emissions out to 2031, comparing the do-nothing approach with the indicative outcomes if our investments are delivered as per the plan. This is a detailed model, based on the outage plan, asset health work and forecast utilisation of compressors. Table 6 below shows this forecast and a shortfall of meeting our 2030 Science Based Target initiative (SBTi) aligned scope 1 and 2 emissions reduction target in the “Do Nothing” scenario:

ktCO2e	Baseline Year	2027	2028	2029	2030	2031
Do Nothing	480	684	426	556	398	571
With planned intervention	480	580	378	476	356	486

Table 6: Forecast scope 1 and 2 emissions against the Do Nothing approach vs. delivered investments

8. Our Environmental Commitments

Following the options analysis, further consideration was given to the Guidehouse suggested commitments with internal stakeholders, drilling down on the challenges and deliverability of the proposals highlighted. Of particular concern was availability of data since business separation from National Grid Group PLC and the robustness of reporting mechanisms. The proposals were also reviewed against the Ofgem Business Plan Guidance for RIIO-GT3, these activities led to revisions of the suggested commitments and inclusion of Ofgem specific requirements as shown in the table below.

Guidehouse Topic	Guidehouse suggested commitment	Inclusion in RIIO-GT3 EAP	Justification if not included or revised	NGT topic	NGT commitment	Ofgem requirement
Embedded Carbon	Reduce carbon intensity (in tCO2e*/ m£ spend) of major construction projects by 50% <i>*tonnes Carbon Dioxide equivalent</i>	Yes	-	Climate	Reduce carbon intensity (in tCO2e/ m£ spend) of construction projects (>£25m) by 50%	Embodied Carbon
Embedded Carbon	Achieve the PAS 2080 standard certification in RIIO-GT3	No	Following business separation tools and available data are insufficient to understand if this could be transformed into an achievable target within RIIO-GT3. The Carbon Neutral Construction Policy we are currently developing aligns to PAS2080 principles.	-	-	-
Embedded Carbon	Projects to use a minimum of 30% of	Yes		Climate	Projects (>£25m) to use a	Above minimum expectations

Guidehouse Topic	Guidehouse suggested commitment	Inclusion in RIIO-GT3 EAP	Justification if not included or revised	NGT topic	NGT commitment	Ofgem requirement
	materials from sustainable sources throughout RIIO-GT3				minimum of 30% of materials from sustainable sources throughout RIIO-GT3	
Resource Use and Waste	Reduce waste through decreasing waste tonnage and increasing recycling rates	Yes		Circular Economy	Reduce waste through decreasing waste tonnage and increasing recycling rates	Resource Use and Waste
Resource Use and Waste	Increase percentage of waste recycled from NGT's construction projects based on a 2024/25 baseline	Yes		Circular Economy	Increase percentage of waste recycled from NGT's construction projects based on a 2024/25 baseline	Resource Use and Waste
Resource Use and Waste	Embed circular economy principles through developing an asset reuse strategy	Yes – revised	Asset re-use is embedded in current working practices – revision is to “Further embed circular economy principles”	Circular Economy	Embed circular economy principles	Resource Use and Waste
Supply Chain	All suppliers providing annual business of at least £250k will have environmental targets	No	Does not align to Ofgem Business Plan Guidance	Supply Chain	We will ensure that our supplier code includes high standards of environmental management including the requirement for public disclosure and to cascade the requirements to their suppliers. We will achieve more than 80% of suppliers meeting the code and report	Supply Chain

Guidehouse Topic	Guidehouse suggested commitment	Inclusion in RIIO-GT3 EAP	Justification if not included or revised	NGT topic	NGT commitment	Ofgem requirement
					annually on the percentage of suppliers meeting the code.	
Supply Chain	Increase transparency and communication of NGT's supply chain environmental actions	No	Does not align to Ofgem Business Plan Guidance	-	-	-
Supply Chain	Increase engagement and enable skill development within NGT and its supply chain	No	Does not align to Ofgem Business Plan Guidance	-	-	-
Biodiversity and Natural Capital	Develop a strategy & governance framework to address nature related risks & opportunities	Yes		Nature	Develop a strategy & governance framework to address nature related risks & opportunities	Above minimum expectations
Biodiversity and Natural Capital	Deliver net gain in environmental value across all non-operational land from a 2025 baseline	Yes		Nature	Deliver net gain in environmental value across all non-operational land from a 2025 baseline	Above minimum expectations
-	-	-	-	Nature	Deliver net gain in natural capital for network projects (>£25m where there is a permanent impact)	Biodiversity and natural capital
-	-	-	-	Nature	Report on action taken to assess and remedy the impacts of activities conducted	Biodiversity and natural capital

Guidehouse Topic	Guidehouse suggested commitment	Inclusion in RIIO-GT3 EAP	Justification if not included or revised	NGT topic	NGT commitment	Ofgem requirement
					within National Parks	
Business Carbon Footprint	Absolute reduction in Scope 1 emissions (excl. compressor combustion) by 30% by 2030 (w.r.t 2022 baseline)	Yes - revised	These have been combined and reduction aligned to our Net Zero Glidepath for scope 1 and scope 2 emissions requirements more broadly whilst we work through developing the theoretical data to realistic using Copperleaf.	Climate	Deliver and report on BCF reduction and progress towards achieving the SBTi aligned Net Zero Glidepath for scope 1 and scope 2 emissions through economic and efficient actions (target is a 21% reduction in scope 1 and 2 emissions by 2030 against a FY22/23 baseline)	Business Carbon Footprint
Business Carbon Footprint	Achieve 100% reduction in Scope 2 emissions	Yes – revised		-	-	-
Business Carbon Footprint	Develop technological capabilities for compressor decarbonisation within the NTS	No	This activity is already underway via the Methane Emissions Reduction Campaign Re-opener	-	-	-
Business Carbon Footprint	Fully embed climate resilience within energy network and system investments	No	Ofgem require a specific Climate Resilience Strategy – this would be a duplication	-	-	-
Transmission Loss & Shrinkage	Reduce methane emissions from leaks, venting and operating assets on the network during RIIO-GT3 by 38%	Yes – revised	This has been revised to allow us to develop an accurate baseline – we have extended our leak	Climate	Reduce methane emissions by 90% from FY22/23 baseline from leaks, venting and operating assets on the	Business Carbon Footprint

Guidehouse Topic	Guidehouse suggested commitment	Inclusion in RIIO-GT3 EAP	Justification if not included or revised	NGT topic	NGT commitment	Ofgem requirement
			detection and repair programme across the network as such we need to understand if 38% is achievable based on new data.		network during RIIO-GT3	
Transmission Loss & Shrinkage	Enhance leak detection capabilities through the adoption of innovative digital platforms	Yes		Climate	Enhance leak detection capabilities through the adoption of innovative digital platforms	Above minimum expectations
Internal-focused commitment	Integrate sustainability into key business activities and decision-making processes at NGT Milestones to include incentive structures, integration with risk processes and employee engagement activities	Yes		Stakeholder Engagement	Integrate sustainability into key business activities and decision-making processes at NGT Milestones to include incentive structures, integration with risk processes and employee engagement activities	Above minimum expectations
External-focused commitment	Increase engagement with the public and other external stakeholders on environmental imperatives and NGT's actions Milestones to include outreach programmes, engagement with	Yes		Stakeholder Engagement	Increase engagement with the public and other external stakeholders on environmental imperatives and NGT's actions Milestones to include outreach	Above minimum expectations

Guidehouse Topic	Guidehouse suggested commitment	Inclusion in RIIO-GT3 EAP	Justification if not included or revised	NGT topic	NGT commitment	Ofgem requirement
	educational institutions and participation in trade forums					

Table 7 – comparison of Guidehouse recommendations against our commitments and Ofgem’s requirements

9. Our targets/objectives for environmental impacts beyond RIIO-GT3

Our long-term objective is to minimise the environmental impact from our business and operations. This is an enduring objective which aligns to our values and extends beyond the RIIO-GT3 period. We have set a long-term target to decarbonise the business and meet net zero for scope 1 and 2 emissions by 2050. To achieve this, we have developed a net zero glidepath and set targets for emissions reduction aligned to Science-Based Target initiative (SBTi) Corporate Standard.

Following separation from National Grid Group, we conducted a review of our business carbon footprint and established FY2022/23 as our baseline performance year. We will track our progress to decarbonise the network against baseline year performance. By the end of RIIO-GT3 we aim to achieve a 21% reduction in scope 1 and 2 emissions and 90% reduction by 2050. These targets will be reviewed following the issue of the SBTi Oil and Gas sector guidance which is expected at the end of 2024. RIIO-GT3 investments linked to delivering our decarbonisation target can be found in the Compressor Fleet and Network Decarbonisation EJPs.

10. External stakeholder feedback

We held a roundtable session with various external stakeholders to seek agreement on the level of ambition of the commitments and to determine if there were topics not covered within the EAP commitment that were expected to be included.

Most commitments scored as being broadly the right level of ambition. Feedback has been reviewed and incorporated within Appendix A. None stood out as being either overly ambitious or not ambitious enough.

The EAP has also been reviewed and challenged by the Independent Stakeholder Group (ISG); comments were received and have been taken into account. These included providing more detail within the main document on the process that had been followed to set the target, more clarity on metrics and more information on how the targets are going to be achieved.

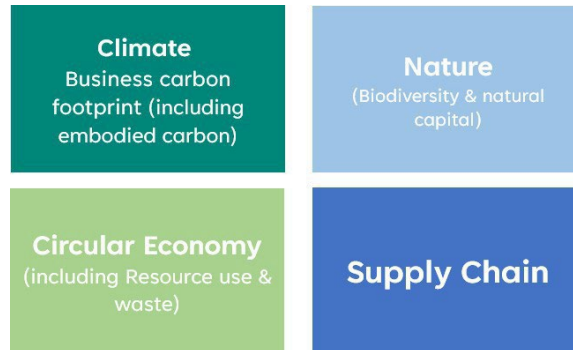
11. Supporting the low carbon energy transition

In addition to working hard to meet our net zero by 2050 commitment for the current natural gas system, we recognise, that things cannot continue exactly as they have done before. To ensure the resilience of energy to British heavy industry and protect tens of thousands of jobs, we must play a part in achieving net zero to ensure we keep the lights on.

That’s why, as well as providing critical energy security through natural gas now, we have ambitious plans to deliver a core hydrogen network across Britain. This would effectively act as a ‘hydrogen motorway’, taking hydrogen to where it needs to be, across the whole of Great Britain, ensuring that all parts of the country can directly benefit from the hydrogen economy. During this transition period the EAP commitments look to optimise the opportunities to reduce our environmental impacts without hindering industry and consumer requirements.

12. Environmental Action Plan Commitments

We are committed to continually improve our environmental performance, reducing our impacts on the environment and seek to deliver carbon emissions reduction initiatives to support delivery of our net zero decarbonisation strategy. Our proposed EAP is aligned to four contemporary themes capturing the requirements as detailed in the Ofgem Business Plan Guidance, these are:



Each of the commitments have been designed to mitigate our most significant environmental impacts of the network and stretch us to continually improve our environmental performance.

An overview of each focus area is detailed below including the associated commitments. Appendix A contains further details of each commitment aligned to the four themes.

12.1 Climate

In RIIO-2 we have delivered the following:

- i. A bespoke decarbonisation strategy and glidepath to net zero were completed in October 2023 aligned to System Transformation. The glidepath is aligned to the Science Based Target initiative (SBTi) Corporate Standard methodology and will be updated once the oil and gas sector specific methodology is published. As part of planning for the next regulatory period (RIIO-GT3) we are confirming where investments are required to support our net zero ambitions.
- ii. Fully embedded additional methane emissions into our Business Carbon Footprint (BCF) to better reflect the emissions of National Gas as a standalone business. Our regulatory reporting, Glidepath to Net Zero and any other publications of our BCF will now align to ensure a consistent process going forward.
 - iii. We received the outcome of our reopener request, the Methane Emissions Reduction Campaign (MERC) in March 2024. The MERC submission comprised of three themes:
 1. Expansion of NGTs fugitive emission detection and repair (LDAR) programme and establishment of a measurement-based fugitive emission performance baseline.
 2. Combined Gas Recompression and Zero Loss seals.
 3. Recompression Units – mobile units with greater capacity to recompress (therefore reducing venting to atmosphere).
 4. We are also developing our LDAR programme process and trials continue for the CMT (Compressor Machinery Train) and recompression themes.
- iv. The NOx from our gas compressor running as an intensity measure of kilograms per hour (kg/h) has fallen from 6.3 in the previous year to 5.42kg/h which equates to a 13.9% reduction due to the increased utilisation of Best Available Technique (BAT) units (newer, cleaner units). There has been a reduction in run hours across the network of 43%, with a greater proportion of the hours being attributed to electric Variable Speed Drive (VSD) running (23.5% in 2022/23 to 27.5% in 2023/24).

Our key deliverable for RIIO-GT3 is to deliver a 21% reduction in scope 1 and scope 2 emissions, we are focussing specifically on reducing our methane emissions on the National Transmission System as well as business wide emissions. Our commitments are underpinned by our decarbonisation strategy (for Scope 1 and 2 emissions). Whilst Scope 3 emissions from our network projects are supported by our supply chain and climate commitments and T/SP/ENV30 Specification for

Sustainability and Net Zero for Gas Transmission projects our sustainability specification. We will also continue to ensure compliance to compressor emissions legislation by ensuring we continue to contribute to improved air quality by reducing oxides of nitrogen (NOx) emissions from our compressor fleet. These activities are a progression on our current RIIO-T2 activities and performance.

In the RIIO-GT3 business plan submission there are proposed Capex investments where network decarbonisation is the primary driver. These are set out in NGT_EJP21_Network_Decarbonisation_RIIO-GT3. Further funding via uncertainty mechanism and a further proposal via baseline funding application. This includes:

- Re-wheeling of some electric variable speed compressors which will take duty off some gas turbine driven compressor units,
- Implementation of fixed recompression technology for vent capture from the gas compressor fleet subject to successful trial in RIIO-T2 and,
- Exploring the purchase and implementation of mobile flaring rather than venting as a last step to facilitate pipeline isolation and maintenance.

12.2 Circular Economy

We are currently in the early stages of developing our Circular Economy Framework, piloting articles and initiatives to understand where and how we can move from the linear model of take make discard to embed a circular approach to materials and articles and are working with our construction project contractors to ensure the Carbon Interface Tool is used to allow sight of the proportion of recycled materials used on projects.

In RIIO-GT3 we will continue to embed and further implement our Circular Economy Framework, identifying further products and opportunities to work with our suppliers to keep materials and products in circulation rather than used items becoming waste. We will also continue to build upon our RIIO-T2 performance with further stretching targets for waste management.

To facilitate this in RIIO-GT3 we will undertake a series of waste audits to determine if any opportunities for recycling and reuse can be identified, we will work with our suppliers to help understand where circularity can be improved and provide education and training to help bring about a step change in moving towards Circular Economy principles.

12.3 Nature

In RIIO-T2 we have successfully delivered a number of initiatives to improve the environmental value of our non-operational land and have identified further opportunities for improvement across the remaining years of RIIO-T2. We are completing and refining our biodiversity net gain and natural capital assessments for appropriate construction projects and are in discussions with external providers regarding delivery of the required improvements where on-site delivery is not possible.

In RIIO-GT3 we will be developing our Nature Strategy building upon our RIIO-T2 performance, reviewing our lessons learnt and working towards incorporating Nature Based Solutions and Green Infrastructure Framework requirements within our network projects where viable. This strategy also aims to set up in readiness for nature related risk and opportunity reporting which is anticipated to become a legal requirement within the next two – three years.

12.4 Supply Chain

Currently 76% of our top 50 suppliers have carbon reduction targets, RIIO-GT3 will see us diversify those targets to include biodiversity and resource use specifically and ensure the code aligns to high environmental management standards with a target to ensure more than 80% of our suppliers are compliant. Additionally, training will be provided to enable all employees who work with supply chain partners to confidently engage on sustainability topics. These actions will help us to understand our scope 3 emissions and working with our supply chain drive down our scope 3 emissions and seek opportunities for collaboration to embed circular economy principles.

13. Conclusion

Our ambitious Environmental Action Plan commitments have been developed to support the decarbonisation of the network and to reduce the wider impact of our network activities. They build on our RII0-T2 performance, are forward looking to ensure we are in a strong position to align to future legislative requirements and push us to achieve continual improvement. The Environmental Action Plan is underpinned by our commitment to achieve net zero by 2050 for scope 1 and 2 emissions, with the wider business plan supporting delivery of key carbon reduction initiatives.

14. Appendices

14.1. Appendix A – RIIO-GT3 National Gas Transmission – Headline Environmental Action Plan Commitments and Stakeholder Feedback

**Metrics may require updating upon publication of the Ofgem KPI table and commentary guidance*

Number	Theme	Strategy - Commitment/Deliverable (what)	Tactic (how)	Measurement (metric*)	Link to long term objective/benefits delivered	Stakeholder Feedback
1	Climate	Deliver and report on BCF reduction and progress towards achieving the NetZero Glidepath for scope 1 and scope 2 emissions through economic and efficient actions	Annually report on BCF reduction and progress against our SBTi aligned net zero Glidepath for scope 1 and 2 emissions - target is 21% reduction in scope 1 and 2 emissions by 2030	tCO2e	Net Zero by 2050 commitment (for scope 1 and 2 emissions) – decarbonisation of the network	A query was raised on whether this target was ambitious enough given it is a Business Plan Guidance requirement. We are committed to achieving our net zero by 2050 (for scope 1 and scope 2 emissions) target- this metric allows our stakeholders to see if we are aligned to our ambitious glidepath.
2	Climate	Reduce carbon intensity (in tCO2e/m£ spend of projects >£25m) by 50% by 2030 through collaboration with our supply chain	For projects (>£25m) starting in RIIO-GT3, calculate and report on the embodied carbon to identify carbon intensive activities of projects For projects (>£25m), implement reduction measures to achieve carbon intensity target	tCO2e	Reduction in Scope 3 emissions – supports decarbonisation	N/A
3	Climate	Projects to use a minimum of 30% of materials from sustainable sources throughout RIIO-GT3	For RIIO-GT3 projects (>£25m), a minimum of 30% of materials must come from sustainable sources	% of material used from sustainable sources	Reduction in Scope 3 emissions – supports decarbonisation	N/A

Number	Theme	Strategy - Commitment/Deliverable (what)	Tactic (how)	Measurement (metric*)	Link to long term objective/benefits delivered	Stakeholder Feedback
			This includes plastic with higher yields of recycled content, recycled metal, re-used plastic, certified wood (FSC), etc.			
4	Climate	Reduce methane emissions by 90% from FY22/23 baseline from leaks, venting and operating assets on the network during RIIO-GT3	Achieve 90% reduction in venting emissions from maintenance operations (PIG trap, station & pipeline venting) Achieve a reduction in fugitive emissions (AGIs and pipeline) from an established baseline (using Leak Detection and Repair data) Achieve reduction in emissions from operating assets from 2022/23 baseline	tCO2e	Net zero by 2050 commitment - decarbonisation of the network	N/A
5	Climate	Enhance leak detection capabilities through the adoption of innovative digital platforms (<i>if viable for National Gas Transmission systems</i>)	Develop and implement an efficient monitoring protocol for fugitive emissions Review fugitive data generated from monitoring and understand the possibility to future incorporation into a digital platform like DPLA Improve internal data collection and reporting practices around leak detection	Fugitive emissions monitoring protocol including improved internal data collection and reporting	Net zero by 2050 commitment – supports decarbonisation of the network	Clarity provided in the commitment around actual adoption of digital platform
6	Climate	Reduction in NOx emissions (improved air quality)	Deployment of the Compressor Emissions Strategy (DLE retrofit and new gas turbine unit installation)	NOx kg/hour of compressor running time	Legal requirement – improved air quality Responsible Business	Intensity target
7	Circular Economy	Reduce waste through decreasing waste tonnage and increasing recycling rates	Further reduce office waste from achievement level at end of RIIO-T2	% of waste recycled % of waste to landfill	Further embedded Circular Economy principles – supports	N/A

Number	Theme	Strategy - Commitment/Deliverable (what)	Tactic (how)	Measurement (metric*)	Link to long term objective/benefits delivered	Stakeholder Feedback
			(target to be determined at end of RIIO-T2). Recycle 80% of office waste by the end of RIIO-GT3 Recycle 70% of waste from compressor and NGS sites by the end of RIIO-GT3 Reduce water consumption through re-use and water metering strategies	(achieve/maintain Zero* waste to landfill – dependant on RIIO-T2 out turn) *of avoidable waste	decarbonisation and Responsible Business	
8	Circular Economy	Increase percentage of waste recycled and reused from NGT's construction projects (>£25m) based on a 2025/26 baseline	Improve data management by creating a standardised data set with more granularity on waste type Develop new waste governance processes and contractor requirements around the collection and monitoring of waste Set recycling target for major projects (>£25m) through RIIO-GT3	% of waste recycled and reused % of waste to landfill (achieve/maintain Zero* waste to landfill – dependant on RIIO-T2 out turn) *of avoidable	Further embedded Circular Economy principles – supports decarbonisation and Responsible Business	N/A
9	Circular Economy	Embed circular economy principles	Identify and pilot further opportunities to implement and refine the framework from lessons learnt.	TBC – to be developed based on RIIO-T2 out turn performance	Supports decarbonisation and Responsible Business	Specific and targeted ambitions stated would be helpful. The metric will be developed based on RIIO-T2 out turn performance
10	Nature	Deliver net gain in natural capital for network projects	Develop and implement natural capital improvement plans for new projects (>£25m) where land has been permanently impacted Monitor and report progress in improvement in natural capital in the annual environment report	Target 10% increase in Natural Capital	Nature positive – supports Responsible Business	N/A

Number	Theme	Strategy - Commitment/Deliverable (what)	Tactic (how)	Measurement (metric*)	Link to long term objective/benefits delivered	Stakeholder Feedback
11	Nature	Deliver net gain in environmental value across all non-operational land from a 2025 baseline	Develop and implement habitat enhancement plans for top 5 non-operational land holdings by area/environmental value Monitor and report progress in improvement in environment value in the annual environment report	Target 10% increase in Environmental Value	Nature positive - supports Responsible Business	N/A
12	Nature	Report on action taken to assess and remedy the impacts of activities conducted within National Parks	Develop a robust reporting methodology Ensure all projects are aware of the reporting requirements and process	Summary provided in AER – metrics to be developed	Supports Responsible Business	N/A
13	Nature	Develop a strategy & governance framework to address nature related risks & opportunities.	Assign an executive sponsor to support nature & biodiversity agenda Disclose NGT's nature related risks & opportunities in alignment with TNFD guidance In the Annual Environment Report, disclose summary of NGT's actions towards biodiversity/natural capital enhancement	Delivery of strategy and governance framework	Nature positive - Taskforce for Nature Related Financial Disclosure (TNFD)	N/A
14	Supply Chain	Ensure that more than 80% of our top suppliers are meeting the Supplier Code	Review Supplier Code to ensure the environmental management requirements are to a high standard and align to NGT ambition and corporate strategy. Support NGT's top 50 suppliers (by category/spend) to commit to high environmental management standards including carbon reduction targets, resource use and biodiversity	% of suppliers	Supports Responsible Business/Sustainable Procurement	N/A

Number	Theme	Strategy - Commitment/Deliverable (what)	Tactic (how)	Measurement (metric*)	Link to long term objective/benefits delivered	Stakeholder Feedback
			Support incorporation of environmental criteria within NGT's tendering process by rewarding applicants' commitment to sustainability and environmental action			
15	N/A	Continue to integrate sustainability into key business activities and decision-making processes at NGT	To include incentive structures, integration with risk processes and employee engagement activities	TBC	Transparency Responsible Business	N/A
16	N/A	Increase engagement with the public and other external stakeholders on environmental imperatives and NGT's actions	To include outreach programmes, engagement with educational institutions and participation in trade forums	TBC	Transparency Responsible Business	N/A

Please note that Shrinkage and Biomethane are addressed separately in the NGT_A10_System_Operator_Annex_RIIO-GT3.

The Ofgem Business Plan Guidance states in section 4.54 that where Business Carbon Footprint targets are being developed or reviewed, Ofgem expect that we work alongside the Independent Stakeholder Group (ISG) in developing science-based targets in alignment with the Science Based Target Initiative. As we have already developed our SBTi aligned scope 1 and scope 2 emissions reduction targets Ofgem confirmed via the Supplementary Question (SQ) process - Environment section 4.54 BP – NationalGas028 response “that already existing targets do not require alteration/consultation with ISGs. However, any future targets should be discussed with ISG and awareness of current standards should be established through these discussions.” As such consultation with the ISG on our emissions targets has not taken place.

14.2. Appendix B – Summary of Aspects/Impacts, External Drivers and Links to Business Plan/Commitments

*UN Sustainable Development Goals

**UK Government Environmental Improvement Plan

Aspects/Impacts	Legislation	Alignment to UNSDG* and UKEIP**	Other macro trends	Links to wider Business Plan/Commitments
Emissions to Air - NOx	Compressor emissions legislation: Industrial Emissions Directive (IED), Medium Combustion Plant Directive (MCPD) – transposed into UK law via the Environmental Permitting (Amendment) Regulations 2018	UNSDG Goal 7: Affordable and clean energy EIP Goal 2: Clean Air	Legislation continues to tighten to drive improved air quality	For further information please see the Compressor Fleet EJP
Emissions to air – CO ₂ and CO ₂ e Including from our network operations and capital carbon from our infrastructure	Climate Change Act 2008	Goal 7: Affordable and clean energy Goal 9: Industry, innovation and infrastructure Goal 13: Climate action EIP Goal 2: Clean Air	Upcoming EU legislation to manage fugitive methane emissions from gas infrastructure – potential for UK equivalent. UK Government Net Zero Strategy: Build Back Greener Industry focus to decarbonise e.g. concrete, steel	For further information please see the following EJP: Network Decarbonisation Reduction in scope 1 emissions Reduction in scope 3 emissions
Natural Environment (gain/loss)	Environment Act 2021 via the amended Town and Country Planning Act 1990	UNSDG Goal 15: Life on land EIP Goal 1 – Thriving plants and wildlife	Environmental Improvement Plan published in January 2023 – apex goal – improving nature Nature Positive 2030	Responsible Business

Aspects/Impacts	Legislation	Alignment to UNSDG* and UAEIP**	Other macro trends	Links to wider Business Plan/Commitments
			Green Infrastructure Framework	
Resources – waste management	Environmental Protection Act 1990: The Environmental Protection Act deals with issues relating to waste on land, defining all aspects of waste management.	UNSDG Goal 12: Responsible consumption and production UAEIP Goal 5: Maximise our resources, minimise our waste UAEIP Goal 6: Using resources from nature sustainably	Circular Economy: shift in vision to a more holistic (circular) approach to waste and resources whereby resources are manufactured into a product with the intention that their design prevents them from never becoming a waste	Strategic Priority
Supply Chain	N/A	UNSDG Goal 13: Climate action UNSDG Goal 12: Responsible consumption and production UAEIP Goal 5: Maximise our resources, minimise our waste UAEIP Goal 6: Using resources from nature sustainably	There is power in procurement. The environmental impact within the supply chain can significantly outstrip the impact related to our operations. The decisions made when purchasing goods and services, and the way we can influence our suppliers, offers a far greater opportunity for positive change than could be achieved through acting only on areas within our direct operational control.	Supplier Code of Conduct, Responsible Business

14.3. Appendix C – Business Plan Guidance Cross Reference

Business Plan Requirement	Evidence Location
Analysis of the significant environmental impacts arising from its network activity.	Environmental Action Plan Annex – Chapter 4, Table 2
The opportunities and challenges for addressing material impact areas.	Environmental Action Plan Annex – Chapter 5, Table 4
An options analysis to identify the value for money of initiatives to reduce its environmental impact.	Environmental Action Plan Annex – Chapter 6; Table 5 and the Network Decarbonisation and Compressor EJPs for specific investments
Evidence that consideration of impacts is coordinated with the company’s wider business planning processes and decisions.	Environmental Action Plan Annex – Chapter 6; Appendix A; NGT_A8_Network Asset Management Strategy_RIIO_GT3 sets out how this fits into the Asset Management decision making process.
Evidence that wider stakeholders have been involved in the assessment.	Environmental Action Plan Annex – Chapter 10 and Appendix A.
The company’s long-term overall targets/objectives for the network’s environmental impacts, beyond the RIIO-GT3 period.	Environmental Action Plan Annex – Chapter 9
Include an assessment of the network's potential environmental impacts in RIIO-3 without intervention, in comparison to its current impacts.	Environmental Action Plan Annex – Chapter 7, Table 6
Set out the role the company envisages playing in supporting the low carbon energy transition.	Environmental Action Plan Annex – Chapter 11
Set out the deliverables, outputs and environmental benefits the company proposes to deliver from implementing the EAP over RIIO-GT3.	Environmental Action Plan Annex – Chapter 12; Appendix A
Set out clear links between the impact areas it has prioritised in the EAP, the deliverables and targets in RIIO-GT3, and how these are linked to the company’s long-term environmental targets/objectives.	Environmental Action Plan Annex – Appendix B