

North Sea Transition Authority

OGA Plan to reduce UKCS greenhouse gas emissions

Date of publication 27 March 2024

The document can be found on the NSTA's website here.

© NSTA Copyright 2024

URN

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the NSTA open user licence.

This document is available in large print, audio and braille on request. Please email: correspondence@nstauthority.co.uk with the version you require.

Enquiries to: North Sea Transition Authority Sanctuary Buildings 20 Great Smith Street London SW1P 3BT

Email: correspondence@nstauthority.co.uk

Published by the North Sea Transition Authority

Context

- The requirement for rapid and sustained reductions in oil and gas production emissions continues to be essential. Under the OGA Strategy¹ ('the Strategy'), relevant persons must take net zero into account within their decision-making processes. This makes it vital to understand the UKCS wide emissions and how individual decisions affect those. The NSTA has undertaken to set out the steps necessary for emissions reductions pathways in the form of this OGA Plan ('Plan').
- 2. Relevant persons are already taking decisions that will have a bearing on their ability to meet commitments up to and beyond 2030 and play their part to ensure the country meets the UK government's net zero greenhouse gas ('GHG') emissions reduction target by 2050. To ensure that the current downward trajectory of emissions continues at the pace required to sustain the industry's compliance with the Strategy, including its requirement for industry to consider its social licence to operate, relevant persons should ensure they have the right data and must make decisive emissions reduction actions now and on an ongoing basis.

The Plan

3. This Plan sets out the NSTA's requirements for how relevant persons can meet the Central Obligation, as set out in the Strategy, for GHG emissions reductions from oil and gas extraction:

Central Obligation

- 2. Relevant persons must, in the exercise of their relevant activities, take the steps necessary to:
 - a. secure that the maximum value of economically recoverable petroleum is recovered from the strata beneath relevant UK waters; and, in doing so,
 - b. take appropriate steps to assist the Secretary of State in meeting the net zero target, including by reducing as far as reasonable in the circumstances greenhouse gas emissions from sources such as flaring and venting and power generation, and supporting carbon capture and storage projects. (Emphasis added)
- 4. The Strategy also references reducing greenhouse gas emissions as far as reasonable in the circumstances in the Supporting Obligations at:
 - paragraph 9. c. (Development) where relevant persons must give due consideration when planning, commissioning and constructing infrastructure in a way that meets the optimum configuration for maximising the value of economically recoverable petroleum that can be recovered from the region in which the infrastructure is to be located;

- 10. b. (Asset Stewardship) where the owners and operators of infrastructure must ensure that it is maintained in such a condition and operated in such a manner; and,
- 13. b. (Technology) where relevant persons must ensure that technologies, including new, emerging and existing technologies, are deployed, to their optimum effect, and where appropriate encourage the development of such technologies.
- 5. The Strategy, at paragraphs 18 to 20, specifically provides for the NSTA to be able to produce such a Plan to set out the NSTA's view of how any of the obligations in the Strategy may be met.
- The Strategy sets out in its definition of 'economically recoverable' that, where relevant, UK Government carbon appraisal values will be used to assess the societal impacts of GHG emissions².
- 7. It is important that industry recognises that the full societal costs of emissions are markedly larger than those that they incur directly through market-based carbon prices. In preserving their social licence to operate, relevant persons should therefore also consider as one factor the societal costs of emissions in their overall decision making.
- 8. This Plan sets out emissions reduction principles and requirements on the path to net zero, rather than a specific interim target or target year. The plan is concerned with emissions reductions, and emissions offsetting will not be considered towards meeting the obligations in the Plan.

- The Plan therefore contains specific steps the NSTA requires relevant persons to deliver, under four broad headings: investment and efficiency; platform electrification and low carbon power; inventory; and flaring and venting.
- 10. From an emissions reduction perspective, there may be considerable interactions between initiatives under these broad headings. While the NSTA expects industry to adhere to this Plan, we recognise that the principles and requirements may not all be equally applicable to individual assets, and in some circumstances one route may be more suitable than another.
- 11. The NSTA intends to apply the Plan in a reasonable manner and will not pursue routes with significant unintended consequences simply because of specific wording in the Plan.
- 12. Further, and as provided for in the Strategy, where relevant persons intend to carry out activities in a manner which is inconsistent with the Plan, those persons must first demonstrate to the satisfaction of the NSTA how their alternative meets the obligations of the Strategy.
- As the Plan is produced under the Strategy, the relevant safeguards set out at paragraphs 31 to 36 of the Strategy may apply as the context provides.

Relevant persons

14. The relevant persons affected by this Plan include holders of petroleum licences; operators under petroleum licences; owners of upstream petroleum infrastructure; persons planning and carrying out the commissioning of upstream petroleum infrastructure; and owners of relevant offshore installations (all referred to as '**relevant persons**' or '**Operator**') - as the context provides. The Plan also sets out certain commitments from the NSTA.

Requirements for relevant persons to follow

Investment and efficiency

Overview

The NSTA expects relevant persons to make investments to reduce GHG emissions across their oil and gas extraction operations. This includes investment in specific technology to improve the efficiency of existing power generation; process operations to reduce emissions of existing assets; as well as planning for the deployment of emissions reduction technology and measurement in new and planned projects.

Investment and efficiency

Requirements

The following requirements are those the NSTA considers necessary for relevant persons to meet the Central Obligation in relation to **investment and efficiency**, along with Supporting Obligations 9, 10, and 13 each where relevant:

- Produce an Emissions Reduction Action Plan ('ERAP') for each asset which, among other things, summarises and assesses applicability of available emissions abatement and emissions monitoring opportunities and technologies, and sets out planned emissions reduction initiatives, including for logistics emissions. Relevant persons should produce one Supply Chain Action Plan ('SCAP') encompassing capital expenditure arising from its ERAPs.
- 2. Implement and execute in a timely manner the ERAP produced in accordance with Requirement 1.
- 3. Select, plan and execute, for each asset, appropriate emissions reduction and monitoring initiatives which are aimed at reducing the emissions of that asset over a reasonable timescale.

- Relevant persons should secure substantial emission reductions, such reductions to be reported into the government's Environmental and Emissions Monitoring System ('EEMS').
- 5. Accompany any investment proposal to recover new resources with a commitment to deliver an appropriate emissions reduction opportunity from the asset's ERAP, including, where appropriate, through participation in regional electrification projects.

To support the above, the NSTA will continue to share a summary of key insights from ERAPs and benchmarking.

To support the above, and building on ongoing work, the NSTA will provide further instructions on the reporting requirements for ERAPs.

These requirements build on and are consistent with the NSTA's existing Net Zero Stewardship Expectation 11³.

Electrification and low carbon power

Overview

Power generation is the largest contributor to GHG emissions from UKCS oil and gas production, making up 79% of emissions in 2022⁴. All new infrastructure must be designed considering low carbon power options. Investing in electrification and low carbon power in existing infrastructure is required if industry is to make the significant reductions to emissions required to sustain industry's social licence to operate and therefore secure maximising economic recovery and recover remaining area value.

Asset electrification investment horizons can be long, as can project lead times, so taking action now and in the near future will ensure the current emissions reductions continue at the pace needed to sustain industry's compliance with the Strategy.

In addition to electrification, the NSTA will also consider other forms of low carbon power consistent with Maximising Economic Recovery ('**MER**') where relevant persons present credible evidence that near equivalent emissions reductions will be achieved. The NSTA expects relevant persons to take the full actions set out in the requirements below in all cases. The NSTA recognises that in particular cases relevant persons may be able to demonstrate that, despite their best endeavours in the circumstances, solely due to factors outside their control, including for example the non-availability of grid connections, it may not be possible to take the full actions set out in the requirements.

In particular, the Strategy references *reducing* as far as reasonable in the circumstances greenhouse gas emissions resulting from power generation at paragraphs 10 (Asset Stewardship) and 13 (Technology).

Electrification and low carbon power

Requirements

The following requirements are those the NSTA considers necessary for relevant persons to meet the Central Obligation in relation to **electrification and low carbon power**, along with Supporting Obligations 9, 10 and 13 each where relevant:

- New developments with a first oil or gas date after 1 January 2030 must be either fully electrified⁵ or run on alternative low carbon power with near equivalent emission reductions. For tie-back developments, that will mean only tying back to hosts that are fully electrified or committed, to the NSTA's satisfaction, to electrification or low carbon power.
- New developments, excluding tie-back developments, with a first oil or gas date before 1 January 2030 should generally at a minimum come online electrification ready⁶.
- Relevant persons must provide a comprehensive technical and economic assessment of all potentially available electrification schemes and associated emissions reductions before submitting their Field Development Plans ('FDPs')/ FDP Addendums ('FDPAs') Concept Select. Where two or more development proposals are available, the NSTA will normally favour a lower emitting development proposal.
- All assets intending to produce oil or gas beyond 1 January 2030 must have ERAPs that include a comprehensive technical and economic assessment of both full and partial electrification⁷

options, including a full assessment of potential emissions savings from relevant regional electrification schemes. That assessment must identify all reserves and resources (risked) that may be developed through that asset.

- 5. Financial investments must be made to electrify all assets where it is reasonable to do so. In assessing whether electrification is reasonable, relevant persons must weigh the total remaining value of reserves and resources (risked) that will or may be developed through that asset and the expected emissions reductions from electrification against the expected cost of electrification.
- 6. Where the NSTA considers that it is reasonable to electrify an existing asset, but relevant persons have chosen not to electrify, those relevant persons should have no expectation that the NSTA will approve FDPs or FDPAs, or issue any future decisions that give access to additional hydrocarbon resource on that asset. Where the NSTA considers it not reasonable to electrify an existing asset, relevant persons must still pursue other power emissions reductions.

To support the above, the NSTA will continue to engage with other regulators and government in identifying and as appropriate addressing barriers.

These requirements build on and are consistent with the NSTA's existing net zero expectations set out in the Field Development Plan guidance.

⁶ Electrification ready - The installation and testing of all the necessary works and/or modifications to the upstream facility in readiness for full or partial electrification once a connection can be made to a source of electric power.

⁵ Fully electrified - The ability to continuously meet largely all the power requirements of an asset through electrification.

⁷ Partial electrification - Any substantial electrification of an upstream facility that does not amount to full electrification. Partial electrification solutions will only be considered where full electrification is not viable.

Inventory

Overview

The NSTA is focused on both securing production and driving down oil and gas extraction emissions across the UKCS and accelerating the transition to net zero. To secure production while reducing emissions overall, it is crucial to look at trade-offs between installations. Analysis suggests that closing some low producing installations could allow more and cleaner new production to come online while still reducing overall UKCS level emissions..

In that context, the NSTA will: monitor high emissions intensity assets; where appropriate follow up with more detailed asset discussions; and may then require relevant persons to agree company Cessation of Production ('CoP') dates with reference to societal carbon values. In this context, emissions intensity will be used to identify assets to consider more closely but this will not be the single determining factor as it may for example be crucial as a tie-back for other cleaner production. Where relevant persons take action to reduce the asset's emissions and therefore emissions intensity below the threshold level, the requirement will also no longer apply.

In addition, delivery of declared CoP dates – via the annual UKCS Stewardship Survey – provides certainty on the asset decommissioning glidepath, helping to ensure that investment and regulatory decisions concerning new developments are made with less uncertainty around the overall downward emissions trajectory, and assisting with costefficient decommissioning planning.

Fixing or 'locking in' CoP dates, therefore, supports orderly phasing out of installations, and minimising emissions through efficient management of the transition from late life asset, through to CoP, into decommissioning or repurposing.

Relevant persons must, as appropriate, declare an early CoP date (for reference and decommissioning planning); a backstop date, based on criteria such as well decommissioning plans, down-manning/ disembarkation date; and for all assets, a company CoP date which is based on criteria such as economic, technical, emissions, strategy, or other considerations.

For assets with a fixed company CoP date beyond six years, the NSTA may allow for some flexibility to be applied to that date compared to assets with company CoP dates within the six-year glidepath.

Inventory

Requirements

The following requirements are those the NSTA considers necessary for relevant persons to meet the Central Obligation in relation to **inventory**, along with Supporting Obligations 9, 10 and 13 each where relevant:

- Where GHG emissions intensity is 50%⁸ over the average UK offshore emissions intensity⁹ and assets currently or in the future¹⁰ intend to produce oil or gas beyond 1 January 2030, relevant persons will discuss CoP with the NSTA and, unless there are specific circumstances such as those set out in the overview, must agree their company CoP date with reference to societal carbon values¹¹.
- 2. Relevant persons, as appropriate, must declare early CoP, company CoP and backstop dates for their assets to the NSTA.

- 3. Declaring and provisioning for a company CoP date must be accompanied by early and fit-for-purpose decommissioning planning to avoid potentially costly decommissioning delays and unnecessary emissions being incurred post CoP.
- 4. Where assets have set a company CoP date, including under Requirement 1, relevant persons should have no expectation that the NSTA will issue any future decisions that give access to additional hydrocarbon resource on that asset, subject to considering such an application on a case-by-case basis.

To support the above and streamline reporting, the NSTA will from 2024 update the UKCS Stewardship Survey to allow reporting of company CoP date for all assets, and where appropriate early CoP and backstop dates.

To support the above the NSTA will work with industry to support their development of best practice for setting CoP dates.

⁸ NSTA reserves the right to review or withdraw this requirement to reflect the changing UKCS emissions intensity profile.

⁹ The average offshore emissions intensity measure is a calculation of all UKCS offshore production emissions from facilities, but not terminals, including CO2, methane and nitrous oxide, divided by total UKCS sales production, based on data from EEMS and PPRS to calculate the measure.

¹⁰ As of 27 March 2024

¹¹ https://www.nstauthority.co.uk/media/vkdd5ui5/carbon-valuation-methodology-external-guidance.pdf

Flaring and venting

Overview

Around one sixth of emissions from UKCS oil and gas production come from flaring. The NSTA has published guidance¹² to make it clear that flaring and venting and associated emissions should be at the lowest possible levels in the circumstances, all new developments should be planned and developed on the basis of zero routine flaring and venting, and there should be zero routine flaring and venting for all developments by 2030. For venting, the NSTA puts a particular focus on methane.

While progress has been made, with industry flaring volumes having decreased by around 50% since 2018, and some flaring is unavoidable for safety and operational reasons, the NSTA has been clear that more must be done to prevent the wasteful flaring of gas and expects the reductions to continue. To improve transparency, and in line with the World Bank zero routine flaring by 2030 initiative¹³, endorsed by the UK Government, the NSTA requires that operators provide a documented method of the split of projected flaring and venting figures into routine (category A), non-routine (category B), and emergency (category C) categories.

In terms of fugitive emissions, the accidental leakage of GHGs from faulty infrastructure and equipment that transports fossil fuels, the NSTA expects that relevant persons should, in a proportionate manner, continuously work to monitor and reduce them.

¹² https://www.nstauthority.co.uk/media/7647/flaring-and-venting-guidance_june-2021-final.pdf

 $^{13}\ https://the docs.worldbank.org/en/doc/a903b5e6456991faf3b5e079bba0391a-0400072021/related/ZRF-Initiative-text-list-map-104.pdf$

Flaring and venting

Requirements

The following requirements are those the NSTA considers necessary for relevant persons to meet the Central Obligation in relation to **flaring and venting**, along with Supporting Obligations 9, 10 and 13 each where relevant:

- Relevant persons shall, as from 1 June 2024, provide a documented method of the split of projected flaring and venting figures into categories (A, B, and C) with their flare and vent consent applications, to support delivery of zero routine flaring and venting from 2030.
- 2. Relevant persons shall within their ERAPs, as from **1 June 2025** at the latest have plans, with associated budgets, to deliver continuous improvements in flaring and venting leading to GHG emissions reductions at the UKCS-level.
- 3. All assets consented to on a zero routine flare and vent basis must operate as such.

- All new developments, including tiebacks to existing hosts, should be planned, designed and developed on the basis of zero routine flaring and venting.
- 5. Zero routine flaring and venting for all by 2030, for the latter with a particular focus on methane.
- 6. Relevant persons shall deliver continuous reductions of fugitive emissions.

To support the above, from 2024, the NSTA will publish a list of assets with Category A flaring on an annual basis.

These requirements build on and are consistent with the NSTA's existing flaring and venting guidance¹⁴ and the industry's existing commitments to emissions reductions in the OEUK Methane Action Plan¹⁵.

¹⁴ https://www.nstauthority.co.uk/media/7647/flaring-and-venting-guidance_june-2021-final.pdf



Copyright © North Sea Transition Authority 2024

The North Sea Transition Authority is the business name for the Oil and Gas Authority, a limited company registered in England and Wales with registered number 09666504 and VAT registered number 249433979. Our registered office is at Sanctuary Buildings, 20 Great Smith Street, London, United Kingdom, SW1P 3BT.