Just Transition Review of the Energy Sector

Annex: Climate Compatibility Checkpoint

Reliance Restricted

7 November 2022

Building a better working world

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Abbreviations

Abbreviation	Description	Abbreviation	Description
API	American Petroleum Institute	NGL	Natural Gas Liquids
BEIS	Department for Business, Energy and Industrial Strategy	NGO	Non-Governmental Organisation
boe	Barrel of oil equivalent	NSTD	North Sea Transition Deal
CCC	Climate Compatibility Checkpoint or Climate Change Committee	NSTA	North Sea Transition Authority
CCUS	Carbon Capture Usage and Storage	O&G	Oil and gas
CNS	Central North Sea	OCI	Carnegie Endowment's Oil-Climate Index
CO2	Carbon dioxide	OESEA	Offshore Energy Strategic Environmental Assessment
E&P	Exploration and Production	OESEA4	Offshore Energy Strategic Environmental Assessment 4
EIA	Environmental Impact Assessment	OGA	Oil and Gas Authority
ES	Environmental Statement	OPRED	Offshore Petroleum Regulator for Environment & Decommissioning
FDP	Field Development Plan	PR	Public relations
FDPA	Field Development Plan Addendum	R&D	Research and Development
GHG	Greenhouse gas	ROW	The rest of the world
GVA	Gross Value Added	rUK	The rest of the UK
HMT	Her Majesty's Treasury	ScotNS	The Scottish North Sea
HMRC	Her Majesty's Revenue and Customs	SG	Scottish Government
IPCC	Intergovernmental Panel on Climate Change	SoS	UK Secretary of State for Business, Energy and Industrial Strategy
kg	Kilogram	SPV	Special Purpose Vehicle
ktoe	Kiloton of oil equivalent	UK	The United Kingdom
LNG	Liquified natural gas	UKCS	The UK Continental Shelf
MTCO2e	Million tonnes of carbon dioxide equivalent		

1 Executive Summary

CCC timing and application / important considerations

Introduction

The UK Government (specifically BEIS) is currently responsible for the regulation of the ScotNS O&G sector with NSTA responsible for licensing and environmental regulation managed by OPRED. Were Scotland to become independent, we would expect SG to be responsible for the ScotNS O&G sector with equivalent bodies to NSTA and OPRED created to perform equivalent functions.

In March 2021, a review by BEIS concluded that a Climate Compatibility Checkpoint (CCC) should be introduced to ensure that any future O&G licensing is compatible with the UK's climate objectives before a licensing round is offered. BEIS released a consultation in December 2021 to gather input on the design of the CCC.

This report assesses how a CCC could be designed specifically for the ScotNS O&G sector to support SG in their development of a robust position, both for engagement with BEIS and in preparation for the possibility of Scottish independence.

CCC timing and application

It would be legitimate for SG to consider multiple checkpoints, one prior to a licensing round, as proposed by BEIS (First Checkpoint), another prior to the granting of development consent (Second Checkpoint), as well as prior to the subsequent consenting of further development at the field, either beyond the original timeframe or at additional locations (Further Checkpoint(s)).

For the purpose of this report, we have considered the Second and Further Checkpoints and their tests as a separate overlay to the existing FDP and FDPA assessment processes (as set out on slide 14). It could however be possible for the Second and Further Checkpoint tests to be implemented in the form of an augmentation of the current FDP / FDPA assessment processes.

The First Checkpoint would be necessary to ensure that new exploration activities only go ahead if the ScotNS O&G sector is on track with its climate commitments and that potential additional production would not threaten SG achieving its net zero ambitions. Second and Further Checkpoints are potentially also necessary for a credible CCC so that a decision is made when the proposed development route and potential production output from the field is known. Furthermore a number of years will have elapsed between the time of the First and Second Checkpoints meaning the context for a decision could have changed materially.

We would expect the First and Second Checkpoints to comprise different tests, based on the information available at the time. Further Checkpoints would consist of the same tests as the Second Checkpoint.

The latest data available at the time of the checkpoint should be used for all tests. Test methodologies must also be capable of being easily updated over time to reflect the circumstances at the time of the checkpoint.

The decision as to whether or not a checkpoint is passed would be made by ministers, informed by advice from an independent body undertaking the assessment, such as NSTA or OPRED (or their equivalent in the event of Scottish independence). Ministers would need to work with the assessing body to ensure they are comfortable advising in the capacity required by ministers, especially where tests are more subjective and less empirical.

Important considerations relevant to the CCC

There is a significant risk that the potential for unexpected refusal of permission at later stages in the development process (i.e. Second and Further Checkpoints) will have a significant detrimental impact on investor confidence, with the possible consequence that potential developers will choose not to invest in exploring and further developing the ScotNS for O&G.

A balance must be struck to ensure the credibility of a CCC which would give SG the genuine option to refuse consent for additional production if that is what is required for SG to achieve its Just Transition ambition, without reducing or even removing investor appetite thereby depriving SG of having the option to allow increased production. To achieve this, the checkpoint tests will need to be as evidence-based, transparent and simple as possible.

There is a very high likelihood that a CCC could be subject to legal challenge whatever its outcome, for example judicial review from an environmental NGO, or from a company seeking to exploit resources. This increases more than ever the necessity that all checkpoint tests are as evidence-based, robust and defensible as possible.

Evaluation of potential CCC tests and findings

A significant risk to the viability of certain tests (particularly those involving international emissions benchmarking) is the availability and acceptance of internationally recognised and robust data. Different organisations produce opinions and analysis based on the availability of their own data sets; SG will need to determine the information to be used for a CCC, and in turn, this must be accepted as reasonable by major stakeholders.

Evaluation of potential CCC tests

We have evaluated a wide range of possible tests against nine principles that build upon BEIS's suggested principles (evidence-based, transparent and simple) as well as the principles of public law (see slides 20 and 21) to identify potential tests for inclusion in the checkpoints (see diagram on the next slide). The tests considered fall within the six test areas in scope based on the six tests proposed by BEIS in their consultation, as well as three additional test areas suggested by us.

The First Checkpoint would broadly comprise tests on the ScotNS O&G sector as a whole, as insufficient information would be available at the time of the checkpoint to undertake the assessment of the field itself. These tests would carry greater uncertainty than the Second Checkpoint tests as broader assumptions would be necessary in the absence of specific field data and the reliability of projections is lower on account of the greater amount of time between the checkpoint and anticipated production. The Second and Further Checkpoint tests would be more focussed on the new field in question.

Where the same test is included in both checkpoints, it is suggested that the test is repeated in the Second / Further Checkpoint to ensure that the ultimate decision on additional O&G production is based on the most up-to-date information available and current circumstances. This is important as it is expected that a significant amount of time would elapse between First and Second / Further Checkpoints.

Findings *(see next slide for diagram of potential CCC structure including tests)*

Test 1 (within Test Area 1) (comparison of forecast ScotNS O&G sector production against a pathway determined by SG to be consistent with achieving the 1.5ºC Paris Agreement goal) has been included in both checkpoints, as although relying on a high degree of subjectivity in terms of the determination of the comparator pathway, it would be an important empirical test giving a definitive outcome.

The purpose of **Test Area 2** (assessment of the ScotNS O&G sector's contribution to international Scope 3 emissions in the context of the 1.5 °C Paris Agreement goal) should be achieved by Test 1, as Scope 3 emissions are intrinsically linked to production levels (in a global context), so we have not put forward any tests in this area.

Variants of tests within **Test Area 3** (sector Scope 1 and 2 emissions performance against targets based on NSTD) have been included within both checkpoints. Although these tests would not assess the specific field in question, they would serve to prevent 'rewarding the sector' if it fails to meet its commitments.

Test Area 4 concerns benchmarking of Scope 1 and 2 emissions against international producers. Subject to the significant challenge of the availability and acceptance of internationally recognised and robust data, **Test 4a** (benchmarking of ScotNS O&G sector) could be included in the First Checkpoint, however Test 4b (benchmarking of the new field) has been left out on the basis that this would be assessed within Test 8 (see below).

Test 5 (energy security risk assessment) would consist of more of a contextual report than a test that by necessity would be subjective and would not produce a definitive outcome. Nevertheless, due to the importance of ensuring that Scotland's energy security is fully considered as part of any decision in respect of additional O&G production, it has been included in both checkpoints.

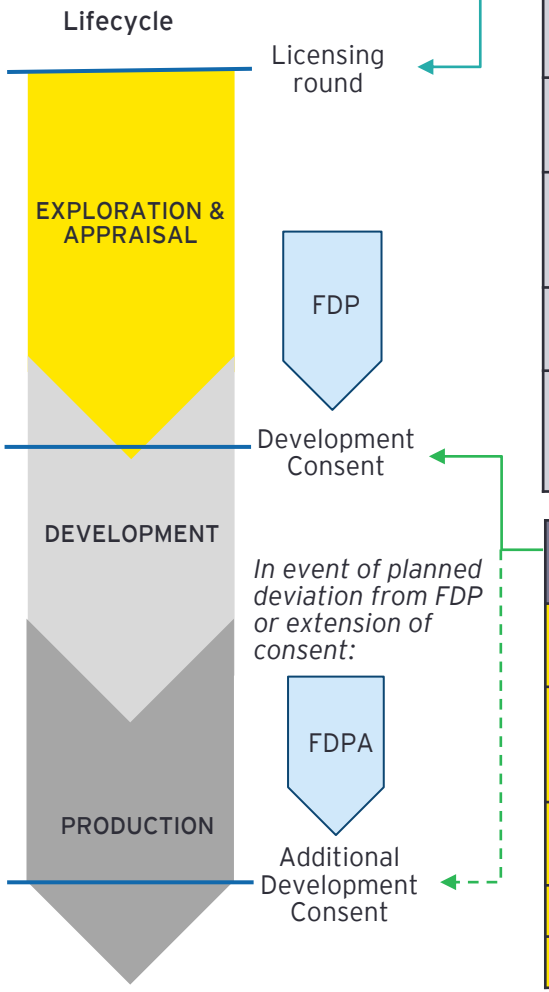
Test Area 6 would assess contribution towards Scotland's energy transition, which could serve as a qualitative complement to Test Area 3 (Scope 1 and 2 emissions performance). **Test 6a**, which tests the ScotNS O&G sector, could be included within the First Checkpoint, however Test 6b, which focusses on the specific development project, has been left out on the basis that it should be covered by Test 7 (see below).

Test 7 consists of a broader environmental assessment of the project developer's FDP and so would only be applicable for the Second Checkpoint. This could be implemented in the form of a widening of the current assessment process, rather than as a separate test, to ensure that the FDP demonstrates sufficient alignment with SG's net zero and Just Transition ambitions in order to be approved.

Test 8 consists of a comparison against the most likely counterfactual scenario(s). Potentially this could be made a requirement of a developer within its FDP and so like Test 7 would only feature in the Second Checkpoint. Highly subjective in nature and potentially posing a significant risk of legal challenge, if it could be made viable it could be an important test.

Potential CCC structure and further considerations

Potential CCC structure



FIRST CHECKPOINT
1 – sector production in context of 1.5ºC Paris Agreement goal
3a – sector Scope 1 and 2 emissions – historic performance
4a – international benchmarking of sector Scope 1 and 2 emissions intensity
5 – energy security risk assessment
6a – sector emissions abatement activity (including other energy transition progress)

SECOND / FURTHER CHECKPOINT(S)
1 – sector production in context of 1.5ºC Paris Agreement goal
3b – forecast sector Scope 1 and 2 emissions performance (including new field)
5 – energy security risk assessment
7 – FDP assessment
8 - Counterfactual test

Source: EY analysis

Tests within Test Area 9 (impact on cost for consumers) have not been included in the checkpoints on the basis that the impact of additional production from one field on consumer costs would be immaterial.

The diagram (left) sets out the potential timing in the lifecycle of an O&G project of the First, Second and Further Checkpoints and the tests that we suggest could be included within each, though issues remain with data and transparency for some of the tests.

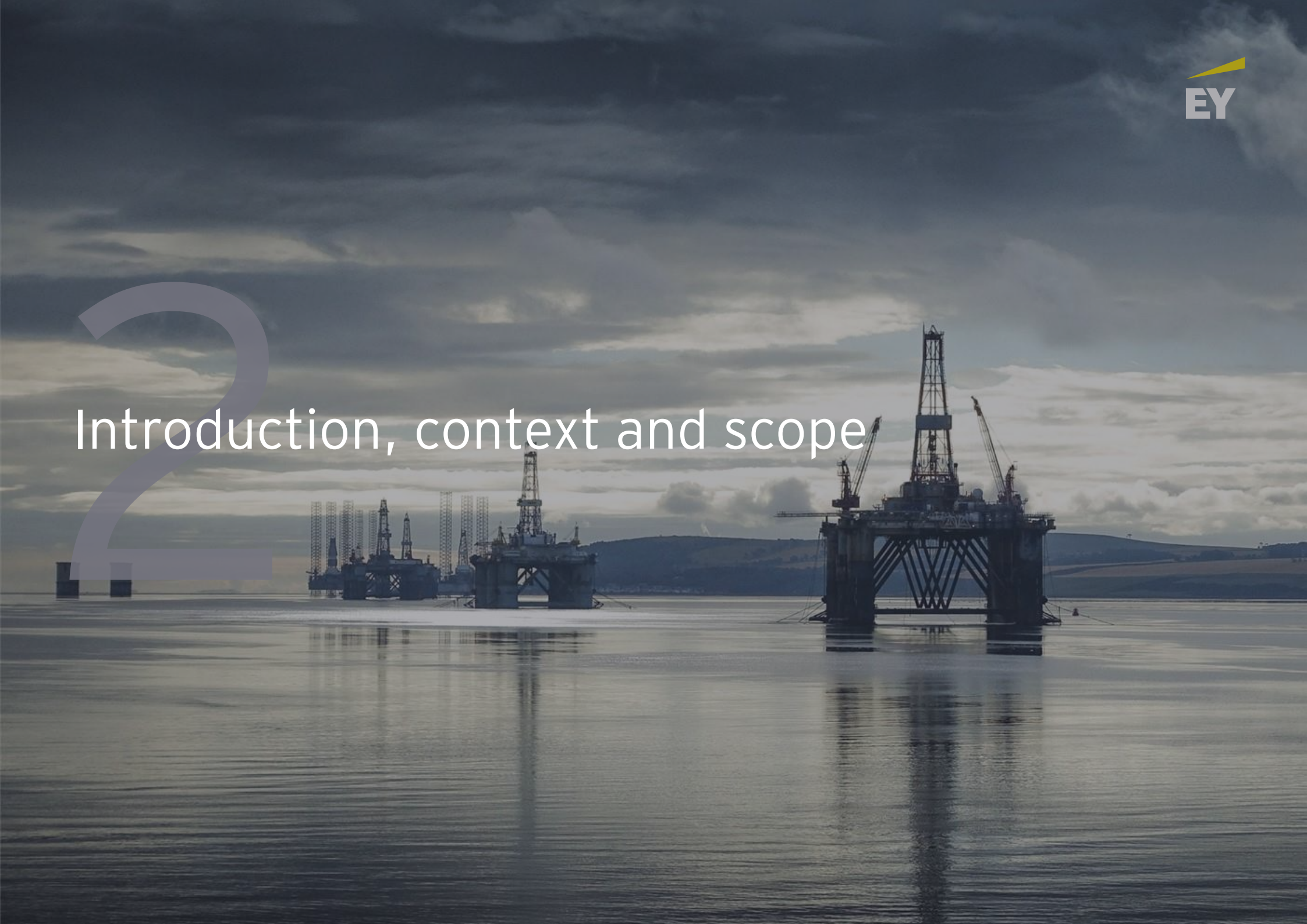
Tests could be scored on a graded basis (i.e. 1-10), subject to the nature of each specific test. Different tests could be given greater weighting than others in informing the overall checkpoint decision, however detailed consideration of weighting the tests is outside the scope of this report. Certain tests could also be binary pass / fail tests if they are considered to be red lines which cannot be crossed. The information (both quantitative and qualitative) from the test that informed the score should be made available to the decision-makers.

The Just Transition pathways (specifically the choice of which is used as a comparator) would have a very significant impact on the outcome of Test 1, but should not materially impact the other tests.

Further considerations

The tests we have included as potential options for each of the checkpoints (left) represent a mixture of empirical tests that should produce definitive outcomes as well as qualitative and subjective assessments that would serve more to provide a contextual basis for decision-making. Both types of information are legitimate bases for decisions but the challenges that exist in the design and implementation of these tests mean that strategic choices need to be made by SG in relation to how much discretion ministers should have in determining the output of a CCC.

This will impact the extent to which CCC tests need to be categorical in their outputs or contextual in nature to inform decision-making. Attention would also need to be paid to what is said publicly about how the test will be applied and decisions made. SG will also need to give consideration to the specific challenges that each of the tests and the CCC in general face (as outlined in this report) and form an approach for addressing these.



2 Introduction, context and scope

Introduction, context and scope

Background and context

The climate change emergency and the need for a Just Transition programme to respond will necessitate the largest redeployment of capital and step change in behaviours post the industrial revolution. The Scottish Government (SG) has put this at the forefront of its policy objectives.

EY has been commissioned to undertake research to provide a baseline review of the oil and gas (O&G) sector in Scotland to support both policy development and the creation of a refreshed Scottish Energy Strategy and Just Transition Plan.

Our reports

We have produced 3 reports to provide analysis on Just Transition issues for SG. The first report (Chapter 1) sets out the current and future state of the Scottish O&G industry and how it fits into the Scottish energy system, including forecasts of production and the anticipated decline in O&G jobs and Gross Value Added (GVA) that will result. The second (Chapter 2) sets out the factors that contribute to the current patterns of consumption of that O&G (not exported to the rest of the UK (rUK) or further afield). The third report (Chapter 3) sets out the contribution of the growth of renewables and associated energy industries to jobs and GVA, to replace that lost by the decline of O&G, and the factors that will need to be taken into account in managing this aspect of the transition.

We have also produced a Summary Report following the completion of Chapters 1, 2 and 3 which focuses on the development of a suite of accessible outputs to support the co-design of the Just Transition Plan.

Purpose of this report

In March 2021, a review by the Department for Business, Energy & Industrial Strategy (BEIS) found that a checkpoint should be introduced to ensure that any future O&G licensing is compatible with the UK's climate objectives before a licensing round is offered. BEIS released a consultation in December 2021 to gather input on the design of what they refer to as a Climate Compatibility Checkpoint (CCC).

The purpose of this report is to provide recommendations for the design of a set of specific tests that could form the basis of a CCC that could be applied to the Scottish North Sea (ScotNS) O&G sector, with the aim of supporting the SG ambition of delivering the "fastest possible managed and just transition away from dependence on O&G in line with climate commitments". It is important for SG to develop its own position with regard to a CCC and its design, to inform engagement with BEIS on the subject. Furthermore, in a potential Scottish independence scenario, we would expect SG to be responsible for the regulation of ScotNS O&G sector and so would be responsible for the approach adopted in respect of a CCC.

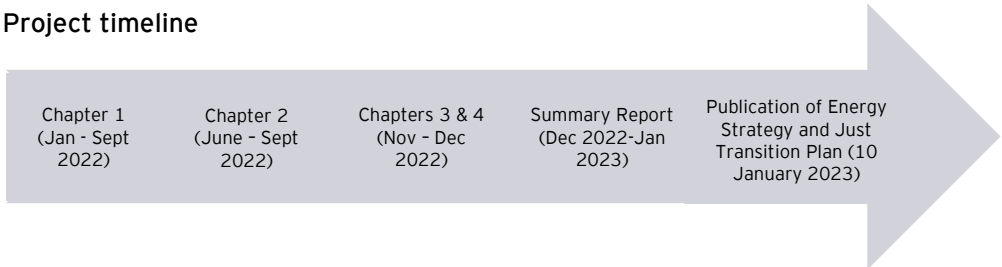
For the purpose of this report, ScotNS is defined in the same way as in Chapter 1, following the methodology definition used in the production of O&G statistics, namely, estimates for the Scottish portion of the UK Continental Shelf (UKCS) which are based on activities within the Scottish adjacent waters boundary. This was defined during the devolution of fisheries management policy and is described in the Scottish Adjacent Waters Boundary Order (1999).

Given this report is only concerned with the ScotNS O&G sector, not the entire UK O&G sector, this report's assessment of the CCC does not consider the interests of rUK, for example in terms of the energy security of rUK.

This report was prepared prior to the publication of BEIS' consultation response and its proposed Climate Compatibility Checkpoint design in September 2022. As instructed by you, we have added an Appendix which contains an assessment of this publication in the context of our report.

This report is just one part of an overall multi-phase project and any subsequent policy decisions should be informed by the full package of analysis and not solely this report. This is a draft report for reference only and should be treated as strictly sensitive.

Project timeline



Introduction, context and scope

The scope of this report will cover:

1) Design of specific CCC tests

- SG have requested we advise on the design of tests covering at least the areas below. Note that these test areas are based (in a different order) on the six tests outlined for consideration as part of the BEIS consultation (see slide 15 for further details on the consultation).

Test Area 1: Contribution of ScotNS O&G activity to the 'global production gap'. This is defined by the United Nations as the discrepancy between all countries' planned fossil fuel production and global production levels consistent with limiting warming to the Paris Agreement goal of 1.5°C.

Test Area 2: Contribution of international Scope 3 greenhouse gas (GHG) emissions from ScotNS produced O&G and whether these would be expected to fall in line with the fall in emissions required to keep global warming within the Paris Agreement temperature goal of 1.5°C if the licensing were agreed.

Test Area 3: Reductions in Scope 1 and 2 GHG emissions from the ScotNS O&G sector vs. domestic commitments (including industry-led targets, statutory national emissions targets (both Scottish and UK) and any other relevant commitments).

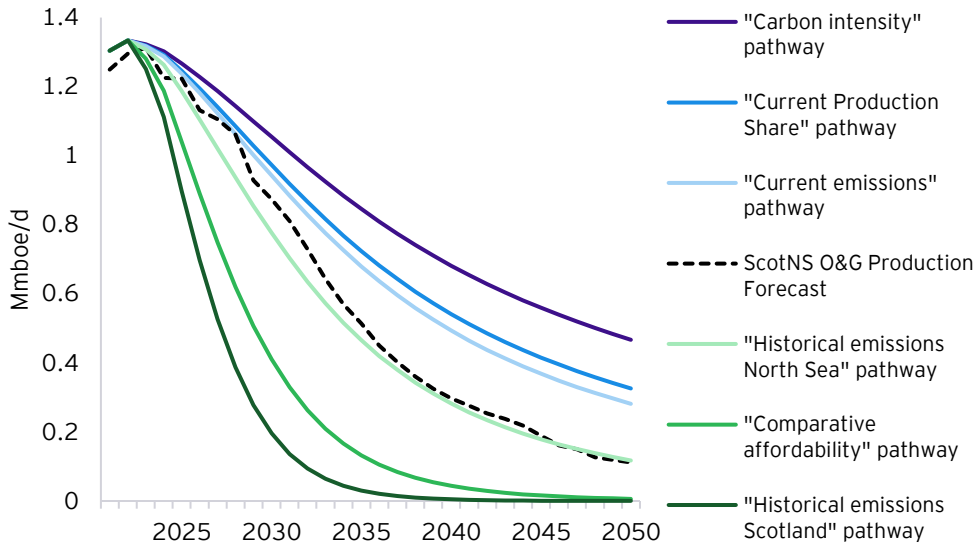
Test Area 4: Reductions in Scope 1 and 2 GHG emissions from the sector benchmarked internationally.

Test Area 5:
Status of Scotland as a net importer or exporter of O&G (including considerations around energy security).

Test Area 6:
Sector progress in supporting Energy Transition technologies.

- As per SG's instructions, our advice is on the basis that the CCC will be applied to both new licensing rounds and existing consented (but undeveloped) fields, and we provide views on at which stage in the overall licensing process each test could best be applied.
- 2) Implications of Just Transition scenario pathways on CCC tests
- We consider the implications of the different Just Transition scenario pathways (per Chapter 1 and below) on the potential CCC tests.

Scotland's potential production pathways



Source: EY analysis

- As mentioned on the previous slide, the aim of the CCC would be to support the SG's ambition of delivering the "fastest possible managed and just transition away from dependence on O&G in line with climate commitments". The primary focus of the tests assessed in this report is therefore on ensuring the ScotNS O&G sector contributes to SG meeting its climate commitments, through reducing emissions and supporting energy transition, and the tests do not consider Scotland's wider economic context (such as the Scottish economy, jobs etc.) which is outside the scope of this report.

3 UK offshore O&G industry and regulatory system

ScotNS O&G sector within the context of the UK O&G industry

Scottish O&G industry is not fully devolved

The Scotland Act 2016 devolved onshore O&G licensing powers to Scotland, with all other O&G legislation remaining under the remit of the UK Government, specifically BEIS. This includes the fiscal, regulatory, environmental, decommissioning and health and safety regimes of the offshore O&G industry, overseen by various bodies including Her Majesty's Treasury (HMT), Her Majesty's Revenue and Customs (HMRC) and the Health and Safety Executive.

The Oil and Gas Authority (OGA) was created in 2015 and became known as the North Sea Transition Authority (NSTA) in 2022. They are another key player given their role as the UK O&G sector's independent regulator.

The Offshore Petroleum Regulator for Environment & Decommissioning (OPRED) is the part of BEIS responsible for regulating environmental and decommissioning activity for offshore O&G operations.

Current O&G licensing system

The Petroleum Act 1998 gives all rights to the UK's petroleum resources to the Crown. However, NSTA can grant production licences (referred to hereon as simply 'licences') that confer exclusive rights to 'search and bore for and get' petroleum. NSTA currently runs a competitive licensing system and applications may only be made in accordance with approved procedures. Note NSTA can also award non-exclusive exploration licences, but for the purposes of this report these will not be considered when referring to licences.

NSTA's licensing system covers all O&G within the United Kingdom, its territorial sea and on the UKCS. This includes fields in ScotNS under the Continental Shelf Act 1964 conclusion of boundary agreements, and the Scottish Adjacent Waters Boundaries Order 1999 (No. 1126), which implements an agreement reached with the Faroe Islands.

At present SG holds no authority over the licensing of O&G fields in ScotNS; all decisions are made at a UK level by the UK authority NSTA with the agreement of the UK Secretary of State (SoS). In the event of Scottish independence, we would expect SG to be responsible for the regulation of the ScotNS O&G sector, with licensing decisions being made by an equivalent body to NSTA, with environmental regulation managed by an equivalent body to OPRED.

NSTA licensing process & requirements

As production licences confer exclusive rights, NSTA has certain expectations of licensees. This includes appropriate technical and financial capacity to contribute to the delivery of economic recovery, as well as support for the UK Government's target of reaching net zero by 2050. Other requirements include the establishment of a tax base, finance, residence and organisational structure and, for offshore licensees, there are safety and environmental capability requirements under the Offshore Petroleum Licensing (Offshore Safety Directive) Regulations 2015.

Licences can be held by a single company or by several working together, but in legal terms there is only ever a single licensee regardless of how many companies it may comprise. All companies on a licence share joint and several liability for obligations and liabilities that arise under it. Each licence takes the form of a deed, which binds the licensee to obey the licence conditions regardless of whether or not it is using the licence at any given moment.

Overview of key parties in UK O&G industry	
BEIS	UK Government department responsible for regulation of the UK offshore O&G industry.
SG	Responsible for onshore O&G licensing and for the skills and training policy for Scotland's O&G industry. In a future independent Scotland scenario, SG would be responsible for regulation of the Scottish offshore O&G licensing.
NSTA	Independent regulator of the UK O&G industry, including regulation of the licensing of the UK's offshore O&G and carbon storage industries.
OPRED	Regulates environmental and decommissioning activity for offshore O&G operations, including carbon capture and storage operations, on the UKCS.

Current net zero evaluation within the UK regulatory process

Offshore Energy Strategic Environmental Assessment (OESEA)

An OESEA needs to be performed by BEIS before an offshore O&G licensing round can be undertaken by the NSTA.

An OESEA assesses the likely significant effects on the environment and the measures envisaged to prevent, reduce and offset any significant adverse effects on the environment. An OESEA also requires consultation with the public and environmental bodies.

BEIS are currently undertaking a new OESEA (OESEA4) covering a draft plan that includes leasing/licensing for offshore renewables and offshore O&G exploration and production. Note OESEA4's plan for O&G licensing rounds is subject to the outcome of BEIS' CCC consultation (see next slide for further detail).

Following completion of an OESEA, NSTA can issue licences via a licensing round. Licences do not constitute approval for development of a production project. Additional consent from NSTA is required before development can commence.

Field Development Plan (FDP) & Environmental Impact Assessment (EIA)

Once an economic discovery is made, a FDP must be approved by NSTA. In the FDP, the developer is required to evaluate how it will assist the SoS in meeting its net zero target, including by reducing emissions as far as possible from flaring, venting and power generation, supporting Carbon Capture Usage and Storage (CCUS) projects (e.g. through the reuse of infrastructure).

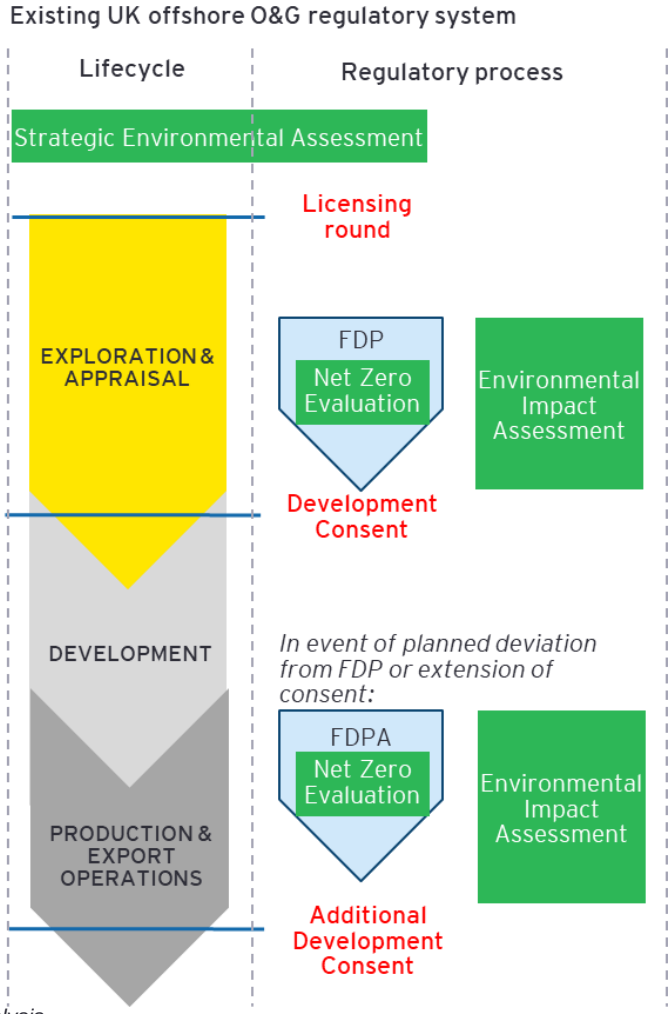
At this stage the licensee is also required to undertake an EIA, the findings of which are submitted to OPRED in the form of an Environmental Statement (ES). When the FDP has been approved, the consent of NSTA is required before development can commence. NSTA cannot grant consents without OPRED's approval of the ES.

All NSTA consents require the separate agreement of the SoS. Conditions may be attached to the consent that the developer must comply with. This gives powers to NSTA to require a review if the performance of the developer does not meet these conditions.

Note the FDP / ES process already contains a net zero evaluation, however this is narrow and does not consider Scope 2 and 3 emissions, for example.

Field Development Plan Addendum (FDPA)

If consent is issued for a duration of production that is less than the anticipated life of the field, the developer is required to submit a FDPA for production beyond the term of the original consent. A FDPA is also necessary if the developer wishes to deviate from the approved FDP. The process for approving a FDPA is largely the same as for a FDP. An EIA may also required for a FDPA, following the same process as for a FDP above.



Source: EY analysis

BEIS' CCC consultation

BEIS' CCC consultation

In March 2021, a review by BEIS found that a checkpoint (referred to as a CCC) should be introduced to ensure that any future O&G licensing is compatible with the UK's climate objectives before a licensing round is offered.

BEIS released a consultation in December 2021 to gather input on the design of the CCC.

BEIS proposed the CCC would consist of a series of tests to be exercised before NSTA can offer a new licensing round. Whether more than one licensing round could be offered off the back of one checkpoint being undertaken was left open as part of the consultation.

BEIS proposed that the CCC would not be applied in the consenting process for proposed developments that come under licences that have already been awarded.

BEIS proposed the following potential tests:

1. Reductions in Scope 1 and 2 GHG emissions from the sector vs. commitments.
2. Reductions in sector Scope 1 and 2 GHG emissions benchmarked internationally.
3. Status of the UK as a net importer or exporter of O&G.
4. Sector progress in supporting Energy Transition technologies.
5. Consideration of international Scope 3 emissions from UK produced O&G and whether these would be expected to fall in line with the fall in emissions required to keep global warming within 1.5°C if further licensing rounds were agreed.
6. Consideration of the 'global production gap'. This is defined by the United Nations as the discrepancy between all countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C.

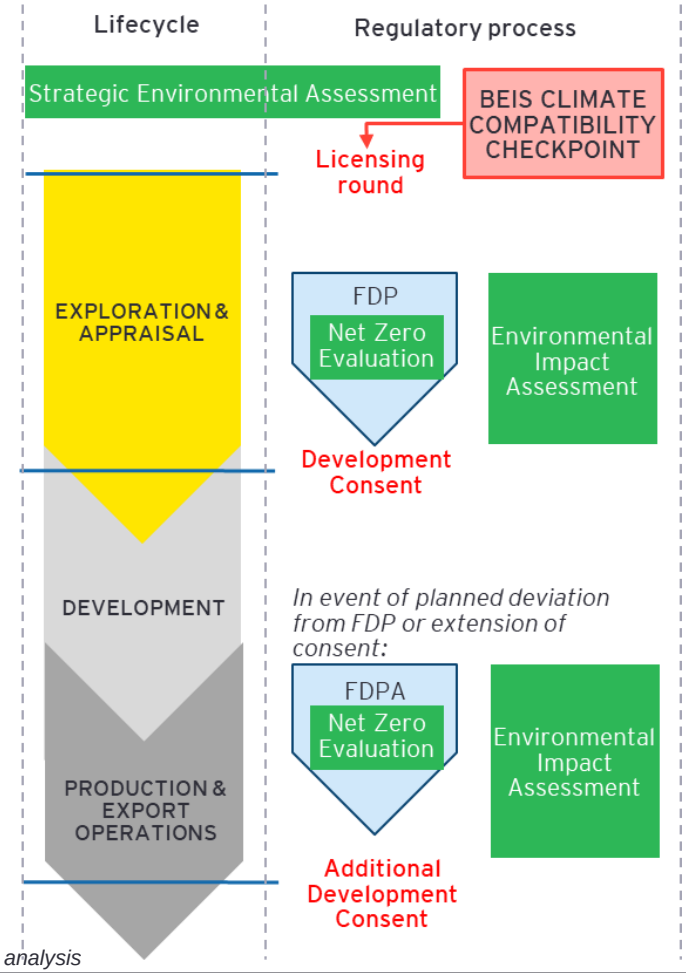
Implications for SG

Given BEIS is responsible for the policy and regulation of the ScotNS O&G sector, as part of the wider UK industry, the CCC approach determined by BEIS would apply to the ScotNS O&G sector.

It is important for SG to develop its own position with regard to a CCC and its design, to inform engagement with BEIS on the subject.

Furthermore, in a potential Scottish independence scenario, we would expect SG to be responsible for the regulation of the ScotNS O&G sector and so would be responsible for the approach adopted in respect of a CCC.

BEIS' CCC in the context of NSTA process



Source: EY analysis

4 CCC methodology development

Timing of checkpoints in licensing / consenting process

Pre-licensing round (First Checkpoint)

The BEIS consultation suggests only performing a checkpoint prior to a new licensing round. SG have asked us to consider checkpoints at different points in time throughout the licensing / consenting process, with different tests according to the stage of the regulatory process.

A checkpoint prior to a new licensing round would be necessary to ensure that new exploration activities only go ahead if the ScotNS O&G sector is on track with its climate commitments and that potential additional production would not threaten SG achieving its net zero ambitions. The drawback of only performing a checkpoint prior to a licensing round is that at this stage the O&G that may be found at the new field is unknown (the relative proportions of O&G, and the relative types and volumes), as well as what the development process would look like. As such, a checkpoint undertaken at this stage would be based on broader assumptions and greater speculation than one at a later stage.

Generally speaking, the tests within a pre-licensing checkpoint would be on the sector as a whole, as more focused testing on the particular field would not be possible due to the extent of the unknown.

Pre-development consent (Second Checkpoint)

A checkpoint prior to development consent being awarded (i.e. post-exploration and appraisal stage) could be more impactful as the O&G resources would be better known and the potential development route and market will be clearer. As such, the tests in a checkpoint at this stage could be focussed on the specific field in question. Furthermore, given the amount of time between exploration and development, a checkpoint at this later stage would be based on more up-to-date external considerations than in the case of a pre-licensing checkpoint undertaken many years prior to development, which could be out of date by the time of granting development consent.

It is worth noting that carbon emissions associated with exploration are not significant compared to development and production stages, however public / stakeholder perception of allowing new exploration activity would need to be considered.

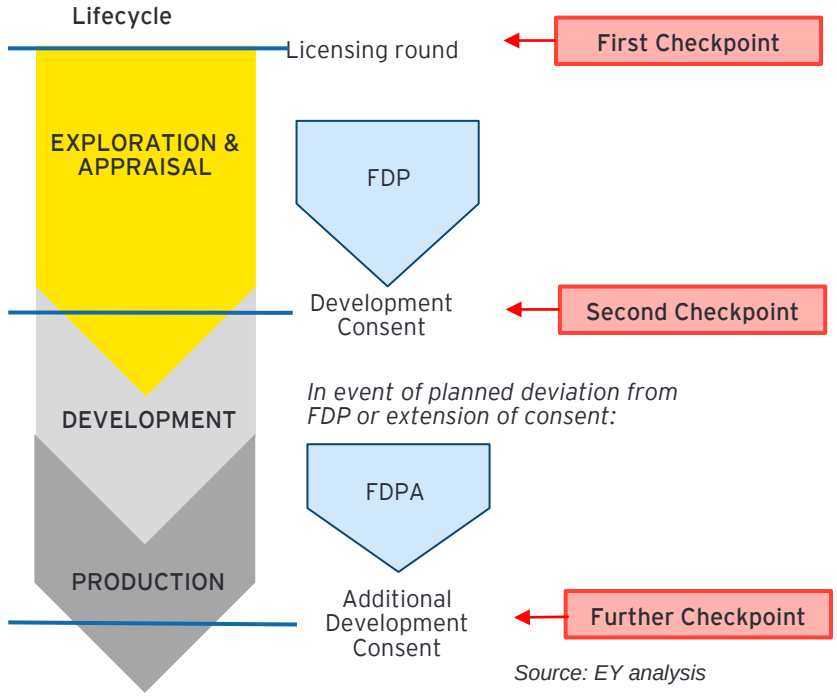
The impact of a Second Checkpoint on the confidence of Exploration & Production (E&P) investors would need to considered carefully. The methodology of a Second Checkpoint and associated expectations of developers would need to be as clear and objective as possible to ensure potential developers are not deterred.

Pre-development consent for an FDPA (Further Checkpoint(s))

Following development consent being granted, if there are any material planned deviations from the FDP or an extension of the development consent is requested, the developer would be required to submit a FDPA. This would be another occasion for implementing a checkpoint which we expect would consist of the same tests as the Second Checkpoint. A Further Checkpoint would therefore be in effect a re-application of the Second Checkpoint. More than one FDPA could be submitted over the life of a project which could result in multiple Further Checkpoints. If a Further Checkpoint is failed, the additional production planned under the FDPA would not be allowed to take place, however we would expect that this would not impact previously passed checkpoints and so production under an approved FDP would still be able to continue.

For the purpose of this report, we have considered the Second and Further Checkpoints and their tests as a separate overlay to the existing FDP and FDPA assessment processes (as set out on slide 14). It could however be possible for the Second and Further Checkpoint tests to be implemented in the form of an augmentation of the current FDP / FDPA assessment processes.

Potential timing of checkpoints



Source: EY analysis

Application of checkpoints (cont.)

Score	Lower threshold (% variance v. baseline)	Upper threshold (% variance v. baseline)	Qualitative score
10	-50%	No upper limit	Significantly outperformed
9	-30%	-50%	
8	-15%	-30%	Outperformed
7	-5%	-15%	
6	0%	-5%	Par
5	5%	0%	
4	15%	5%	Underperformed
3	30%	15%	
2	50%	30%	Significantly underperformed
1	No lower limit	50%	

With no thresholds above 50% variance (favourable or adverse), this would not differentiate between projects whose performance falls outside of this range, which would score either a 1 or a 10. Larger percentage variances may become more likely for later years as the baselines used for comparison become smaller (for example the low emissions / production targets in the 2040s), in which case broader thresholds might need to be considered.

The application of such scoring to each test could vary subject to the nature of the test; further scoring considerations are provided for each of the tests.

Note that the 1-10 quantitative scores above have been aligned with the qualitative scores so that for tests which have both quantitative and qualitative elements, it would be possible to consolidate the scores of both elements into an overall score. Further detail is provided for each applicable test.

Binary scoring

SG could also choose to use a binary pass/fail scoring method where it deems there are lines that cannot be crossed for production to be allowed. The entire scoring basis could be pass/fail or alternatively a test could use a graded scoring method (as discussed above) where scores below a certain level (i.e. below 5 or below par) result in a fail.

SG would also have options around how many tests can be failed before a checkpoint is failed. A single failed test could result in the checkpoint being failed, or a checkpoint could have a maximum number of failed tests, or a failed test could not automatically result in the checkpoint being failed, but could rather result in a higher 'pass mark' being required for the overall checkpoint.

A grace margin could be afforded if binary scoring is used and this would need to be bespoke for each test, however for example it could be 10% of the baseline. There should perhaps be scope for the grace margin to be variable over time, as larger percentage variances may become more likely in later years as baselines become smaller.

Checkpoint updates (future-proofing)

The information used for all of the tests in the checkpoints would need to be reviewed on a regular basis to ensure that all baselines and other information are up-to-date and appropriate. A regular review could be undertaken on an annual basis or alternatively done as a preliminary stage to a checkpoint being undertaken.

Furthermore, test methodologies may need to be updated over time to reflect changed circumstances at the time of the checkpoint. For example, the methodology for determining the most suitable comparator for international emissions benchmarking (Test Area 4) is based on current circumstances (that Scotland is in aggregate a net exporter of O&G), however in future Scotland may become a net importer in which case the methodology may need to change.

Thresholds used for scoring may also need to have some flex in future years where production and emissions baselines become very low with the result that divergences will give much larger percentage variances in later years than earlier years.

Data used for the checkpoints

The availability of data varies depending on the nature of the test. For example, for the UK O&G sector, NSTA publishes production and emissions data, which can be used for benchmarking against UK performance. However, international benchmarking may be more difficult on account of the fact that not all jurisdictions have equivalent data reporting processes that can be relied upon equally. As part of developing the checkpoint tests, SG will need to determine the data to be used for the tests, and whether this will be data from existing recognised industry sources or newly created external reference data.

Post-checkpoint monitoring and breach of checkpoint

A number of the checkpoint tests are based on planned (not performed) activity, for example, Test 7 (FDP assessment).

Application of checkpoints (cont.)

The checkpoints would need to make provision for ongoing monitoring of the performance of the project in relation to the tests, to ensure developers deliver on the ambitions set out in the FDP and are held to account where performance fails to meet expectations ('breach of checkpoint'). SG could consider a requirement for developers to ringfence funding to be used in the event of breach, for example to be invested in emissions abatement / offsetting if emissions are materially higher than estimated in the FDP, as well as the right of SG to shut down operations in the event of a significant breach.

Investor confidence

The impact of having multiple checkpoints on the confidence of developers will need to be considered when determining the number and timing of checkpoints. There is a significant risk that checkpoints at later stages in the development process (i.e. Second and Further Checkpoints) could have a major negative impact on investor confidence, with the possible consequence that potential developers will choose not to invest in exploring and further developing the ScotNS, instead choosing to direct their energies to other territories where they do not face such risk. The worst-case impact of this is that exploration and the potential for further development of the ScotNS could be eliminated.

However, for the CCC to be credible and have tests based on accurate and relevant information, a checkpoint at a later stage, once the proposed development route and potential production output from the field is known, would be necessary. A balance needs to be struck here to ensure the credibility of a CCC which would give SG the genuine option to refuse consent for additional production if that is what is required for SG to achieve its Just Transition ambition, while not reducing or even removing investor appetite thereby depriving SG of even having the option to increase production, if that is what is needed to protect Scotland's energy security and economy.

To achieve this balance, the checkpoint tests (especially those making up the second and further checkpoints) will need to be as evidence-based, transparent and as simple as possible (key principles identified by BEIS in their consultation, which we review in slide 15), to give developers the confidence that later checkpoints can be passed provided they meet certain requirements and to keep risk for investors at an acceptable level.

If Second / Further Checkpoint tests were to be incorporated into the existing FDP / FDPA assessment processes, instead of being separate exercises, this could mitigate negative impact on investor confidence.

Application to existing licences

SG have suggested that their preferred approach would be for checkpoints to be applied also to fields which have already received licences but which have not yet been consented for development.

This could also have serious implications in terms of investor confidence in the ScotNS O&G market, and so the same considerations as above would apply here in terms of the nature of the checkpoints. It could also give rise to legal challenge from existing licensees and so legal advice should be taken before any action is taken with regard to existing licences.

Subject to legal advice, prior to any implementation, communications would need to be maintained with existing licensees that could be affected to ensure they can manage their risk and continue to develop their projects.

Legal challenge

There is a very high likelihood that any CCC that is passed will be subject to legal challenge from environmental NGOs (for example). This increases more than ever the necessity that all checkpoint tests are as evidence-based, robust and defensible as possible. To the extent that tests are deemed not to meet these criteria, they should not be included in the checkpoint to avoid undermining the CCC as a whole.

The CCC will need to follow public law principles to mitigate the risk of successful judicial review challenges. Specifically, the checkpoints and their tests must be lawful, rational (i.e. reasonable) and fair (i.e. unbiased) and they must respect the rights and interests of individuals.

Where applicable, using the most environmentally favourable assumptions when determining comparators to Scottish production (i.e. using a lower-emission producer as a comparator, all else being equal) should make tests more robust in the context of an environmental challenge to a passed CCC. However, it is important to ensure that any perception of tests being skewed by the assumptions applied is avoided.

However, there is also a reasonable chance that a failed CCC might give rise to legal challenge from an unsuccessful developer. This will particularly be the case if the developer feels that the CCC tests were incorrectly or ambiguously applied or they were not given a reasonable chance of success. To mitigate the risks, the tests will need to meet as many of the principles on the following slide as possible, in particular they will need to be as objective, empirical and as clear as possible.

Principles of an effective checkpoint test

In their CCC consultation of December 2021, BEIS proposed the design of the checkpoint should satisfy the following principles:

- **Evidence-based** – must use reliable data or credible projections.
- **Transparent** – should have a clear and objective structure and the sources of data should be publicly available.
- **Simple** – must be capable of being described in a short document giving confidence to stakeholders of a clear and methodical process.

We have taken BEIS's three principles as a starting basis and, following the principles of public law (per the previous slide), we have developed our own guiding principles which could be used to design potential CCCs:

Evidence-based:

1. **Quality of data** – the quality of the test is only as good as the weakest data set it uses. Data may not exist in certain cases, may be unreliable or may not be consistent across different countries, for example. Tests will also rely on assumptions and/or speculation to varying degrees.
2. **Objective** – the more objective the test, the lower the risk of dispute and potential challenge from unsuccessful developers. A greater degree of subjectivity could make the risk too great for developers to invest.
3. **Empirical** – the more quantifiable a test is, the clearer and more definitive the result should be. An empirical test is fact-based instead of relying on value judgements which could be influenced by subjective points of view.

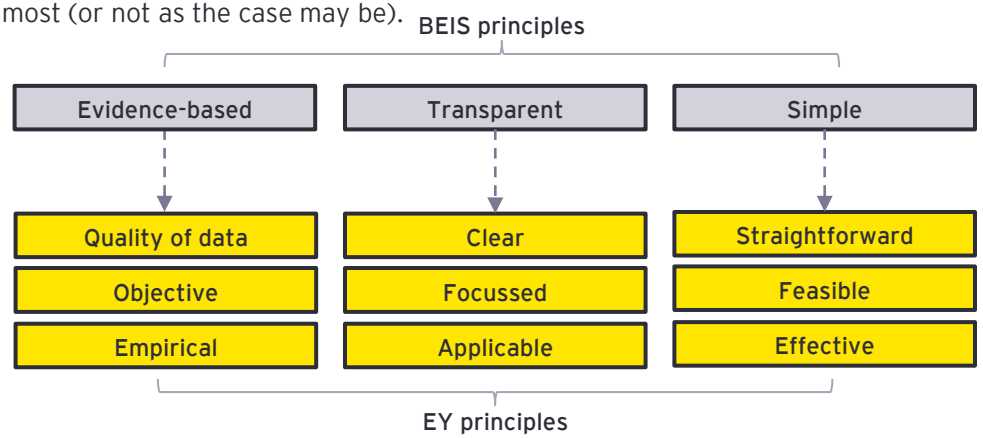
Transparent:

4. **Clear** – the test methodology should be publicly available and clearly expressed, with minimum ambiguity to minimise risk for developers to encourage investment and reduce the risk of appeal / challenge. Duplication between tests must be avoided to prevent an unnecessary burden being imposed on developers (and assessors).
5. **Focussed** – the test should be as targeted as possible in respect of the project and the key issues relevant to the checkpoint. For example, tests that assess specific field production rather than the sector as a whole will be more targeted and should be more effective.
6. **Applicable** – the test needs to be as relevant as possible to the applicants. Tests are better that assess factors are under the control of developers and are as relevant as possible to developers. For example, if the applicant is being assessed on CCUS investment but does not operate in that sector, the test would not be effective.

Simple:

7. **Straightforward** – the less complex the test, the better, for the sake of implementation and risk for investors, and the likelihood of misunderstanding, misapplication and legal challenge.
8. **Feasible** – it must be possible to implement the test in practice, rather than just being good in theory.
9. **Effective** – the extent to which a test achieves its purpose, and assesses what it is seeking to test. It should not be possible to pass the test without meeting the necessary criteria. Therefore an effective test will drive / incentivise behaviours from developers and the sector that align with SG's objectives.

When assessing each of the tests in section 5, as well as considering the tests in the context of their relevance and importance in supporting SG to achieve its Just Transition ambition, we have considered each test against the above principles. Slide 41 provides an overview of how well each test performs against each of the principles (and in the context of SG's Just Transition ambition) and comments are provided for each test in terms of the principles that apply the most (or not as the case may be).



Overview of potential tests assessed

We have considered tests within the six test areas specified in our scope of work, as well as in some additional areas, as set out in the table below. Detail on each individual test is provided in Section 5. Any analysis and findings in the test examples are purely for illustrative purposes only and should not be considered actual test findings.

Note we have considered these tests in the context of two potential checkpoints, as outlined in slide 17 – the first pre-licensing and the second pre-development consent (to be repeated as a Further Checkpoint(s) in the event of a FDPA(s)). Because of the different context in which these two types of checkpoints would take place, the two checkpoints would require different tests, hence these have been presented separately in the table below.

Note this slide details all tests considered, not the tests recommended for the checkpoints, which are summarised in the following two slides.

		POTENTIAL TESTS ASSESSED	
TEST AREA	Description of test area	FIRST CHECKPOINT	SECOND / FURTHER CHECKPOINT
1 – Production in context of 1.5ºC Paris Agreement goal	Comparison of sector production forecast at time of checkpoint against a production pathway envisaged to achieve the Paris Agreement goal to limit temperature rises to 1.5ºC (to be determined by SG)	**1** – sector production forecast against 1.5ºC pathway	**1** – sector production forecast (including new field) against 1.5ºC pathway
2 – Scope 3 emissions in context of 1.5ºC Paris Agreement goal	Assessment of contribution to international Scope 3 emissions from the ScotNS O&G sector in line with the fall in emissions required to keep global warming within the Paris Agreement temperature goal of 1.5ºC	n/a (on basis that this is assessed by Test Area 1	n/a (on basis that this is assessed by Test Area 1)
3 - Sector Scope 1 and 2 emissions reduction performance	Comparison of sector Scope 1 and 2 emissions against targets based on NSTD commitments	**3a** – sector Scope 1 and 2 emissions versus baseline (historic performance)	**3b** – sector Scope 1 and 2 emissions versus baseline (forecast including new field)
4 – Scope 1 and 2 emissions benchmarked internationally	Comparison of sector and field Scope 1 and 2 emissions against most likely alternative international producer	**4a** – benchmarking of sector Scope 1 and 2 emissions intensity internationally	**4b** – benchmarking of field Scope 1 and 2 emissions intensity internationally
5 – Energy security - balance of imports / exports	Test focussing on energy security considerations, specifically on reliance on O&G imports	**5** - qualitative risk assessment of Scotland's energy security position	**5** - qualitative risk assessment of Scotland's energy security position
6 – Progress in supporting energy transition	Assessment of sector and field developer's contribution to energy transition (with emphasis on innovation)	**6a** – sector performance against energy transition (including NSTD) commitments	**6b** – licensee contribution to energy transition in FDP
7 – FDP assessment	More intensive assessment of climate change considerations in FDP and ES	n/a	**7** – FDP assessment
8 – Counter-factual	Comparison of climate impact of production at new field against most likely counterfactual scenario(s)	n/a	**8** – counterfactual test
9 – Impact on consumer costs	Test focussing on impact that production at new field would have on costs for consumers	n/a	**9** – assessment of cost implications for the consumer

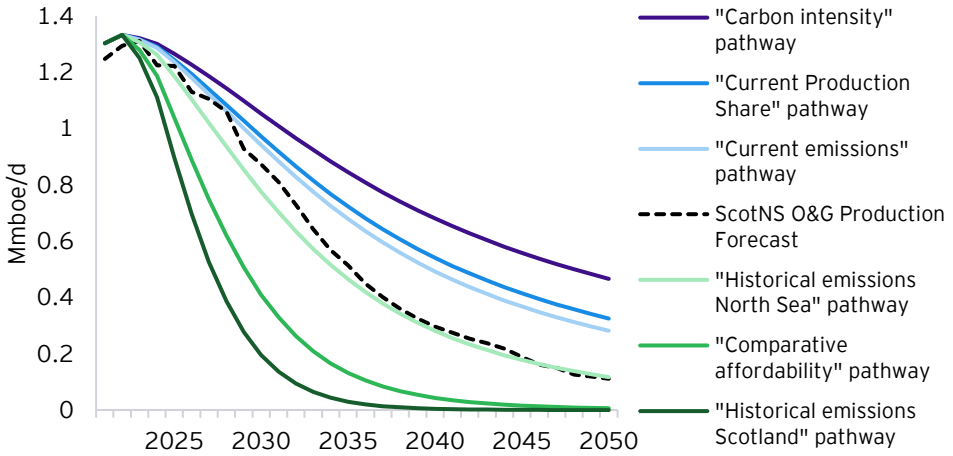
5 Assessment of potential CCC tests

Test Area 1 – Scottish production in context of Paris Agreement to limit temperature rises to 1.5ºC

Overview

This area assesses Scottish O&G production projections against a baseline Scottish production pathway that is consistent with meeting the goals of the Paris Agreement to limit global temperature rises to 1.5ºC. Note that there are various potential production pathways based on different scenarios that we have covered in Chapter 1, as shown in the chart below.

Scotland's potential production pathways



Source: EY analysis

For the purpose of this test area, SG would need to determine which scenario should be used as the comparator pathway for this test. The outcome of the test will vary significantly depending on which pathway is chosen as the comparator – see Section 6 for more information. It could be possible for different pathways to be used as the comparator each time this test is applied. However, so doing could undermine the robustness of the test, making it more exposed to legal challenge and having a negative impact on investor confidence.

There are significant risks associated with this test area due to subjectivity in terms of which scenario pathway is used as the comparator, the difficulties of reliably forecasting production many years into the future, and the complication and uncertainty inherent in translating global total emissions (Scope 1,2 and 3) targets based on global consumption to production at a national Scottish level. Particularly given the high likelihood of the outcome of any checkpoint test being legally challenged (as set out in the introduction), the viability of this test will depend on these risks being adequately mitigated.

Test 1 – forecast Scottish O&G production against 1.5ºC pathway (all checkpoints)

The latest production forecasts for the Scottish O&G sector at the time of the checkpoint are compared to a production pathway, as determined by SG, over a set period of time. This test could be applied as part of all checkpoints.

There could be a case for this test to be considered more important than others in the First Checkpoint due to its direct relevance in assessing production forecasts against a budget when the decision being made is around additional production.

There could be a case for this test being a binary pass / fail test, for which the scoring could be applied in different ways, for example:

1. Fail if at any stage projections exceed baseline; or
2. Fail if total consolidated projections exceed baseline.

Given the uncertainty in forecasting production and in determining production pathways, a grace margin could be afforded, for example 10% of the production pathway. There should perhaps be scope for the grace margin to be variable over time, as larger percentage variances may become more likely in later years as baselines become smaller.

If a 1-10 scoring method were to be used for this test instead, the thresholds as set out in slide 19 could be applied on the following bases:

1. On the total consolidated projections versus baseline;
2. On the average variance of projections versus baseline; or
3. On the most adverse variance of projections versus baseline.

The data used to perform this test should be regularly reviewed to ensure the most relevant global data is used at the checkpoint. For example, using the latest NSTA production forecast information and modelling Scottish 1.5ºC production pathways using the latest IPCC Carbon Budgets. As such, the application of this test at the Second Checkpoint would be using different data from the first, as it would use the most most-up-date production forecasts and pathways at the time of the checkpoint.

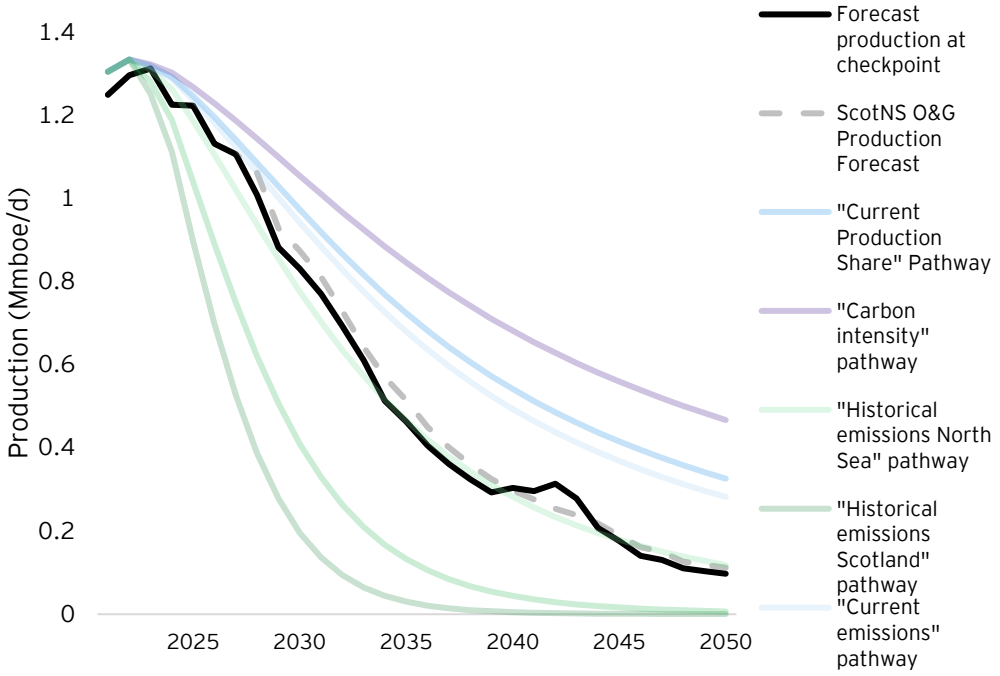
At Second Checkpoint stage, it should also be possible to refine the sector production forecast by adding the field's production forecast, but it would be necessary to ensure that the field's production is not double counted within the sector production forecast's estimates for probable and possible new fields.

Test Area 1 – Scottish production in context of Paris Agreement to limit temperature rises to 1.5ºC

For the purpose of this test area, O&G production have been considered together as this is how NSTA have reported forecast production and is the basis on which the pathways have been calculated. As the ultimate comparator is total global emissions, the test result should not be impacted if O&G were to be assessed separately, as they would be re-consolidated for the purpose of the exercise.

Illustrative example

As discussed above, the result of the test could vary depending on which pathway is used as the baseline, which scoring method is used, and the duration of the forecast period. For the purpose of this example, we have assumed the ScotNS O&G Production Forecast to 2050 is used as the baseline, however we have shown the other pathways on the chart to give an illustration of the impact of using different pathways as the comparator.



The outcomes of this example could be as follows depending on the method of graded or binary scoring applied:

Scoring method (graded)	% Variance	Score	Comments
Total consolidated production variance	(2.7%)	6	Forecast of 17.9Mmboe/d vs. comparator of 18.35Mmboe/d
Average annual production variance	(5.1%)	7	Forecast average annual production of 0.40Mmboe/d vs. comparator of 0.43Mmboe/d
Most adverse variance of projections against baseline	23.7%	2	In 2042, forecast annual production of 0.31Mmboe/d vs comparator of 0.25Mmboe/d

Scoring method (binary)	Outcome	Comments
Fail if at any stage baseline exceeded	Fail	Forecast production exceeds baseline between 2039-2045
Fail if total consolidated production exceeds baseline	Pass	Forecast of 18.0Mmboe vs. comparator of 18.35Mmboe/d

Evaluation against principles of an effective test

Case for	*Case against*
• The **data** for this test exists and is readily accessible • Relatively easy test to implement in practice (**feasibility**) • High degree of relevance for decision-making around additional production	• Scotland's 1.5ºC production pathway is difficult to predict and will be subject to a number of **complex** factors • The test outcome would depend on which pathway is used as the comparator – this is a highly **subjective** choice • The Paris Agreement 1.5ºC goal is based on consumption and this has been translated to production without considering the differences between various types of O&G (**effectiveness** of test may therefore be hindered)

Conclusion

We would suggest this is included in the First Checkpoint and would perhaps be the most important First Checkpoint test due to its direct relevance.

Test Area 2 – international Scope 3 emissions in context of Paris Agreement to limit temperature rises to 1.5ºC

Overview

The purpose of this test area would be to assess the international Scope 3 emissions resulting from Scottish O&G production in the context of emissions meeting the goals of the Paris Agreement to limit temperature rises to 1.5ºC.

Globally, Scope 3 emissions are intrinsically linked to production levels which are already assessed in the context of the Paris Agreement in Test Area 1. As such, we do not think that a separate test on international Scope 3 emissions would be necessary.

We would not recommend tests specifically on Scottish Scope 3 emissions as part of the CCC. This is because, as explored in Chapter 1, the majority of Scottish production is exported and so there is not a direct correlation between Scottish production and consumption levels (the latter of which causes Scotland's Scope 3 emissions). As such, Scottish Scope 3 emissions would not be impacted by additional ScotNS O&G production.

Conclusion

On the basis that the purpose of this area would in effect be achieved by Test Area 1 which assesses Scottish O&G production against Scotland's production pathway to limit global temperature rises to 1.5ºC, we have only considered tests under Test Area 1 (see slides 24-25) and not Test Area 2.

Test Area 3 – sector Scope 1 and 2 emissions reduction performance

Overview

This test area would assess the sector's performance in reducing its Scope 1 and 2 greenhouse gas emissions with the purpose of incentivising decarbonisation of the sector and ensuring the sector is not rewarded if it fails to do so. Test 3a is a look-back test whereas Test 3b is look-forward. This test area does not consider Scope 3 emissions.

First Checkpoint

Test 3a – sector Scope 1 and 2 emissions versus baseline (historic performance to date)

Compare total sector Scope 1 and 2 emissions reductions against a baseline, for example: 10% by 2025, 25% by 2027, 68% by 2030, 90% by 2040 and 100% by 2050, based on:

- Commitments agreed in the NSTD (10% reduction against 2018 baseline by 2025, 25% by 2027 and 50% by 2030);
- CCC's recommendation that the sector's emissions are reduced by 68% by 2030 (relative to 2018 levels); and
- The sector's commitment to 90% reduction by 2040 and 100% by 2050 against a 2018 baseline.

Note that the above suggested baseline is based on UK-wide commitments and consideration would need to be given to any adjustments that may need to be made to apply to Scotland specifically.

This would be a simple and objective test, for which all necessary information should be available via governance of the NSTD. If a 1-10 scoring method were to be used for this test, this could be applied simply by applying a methodology such as that set out on slide 19.

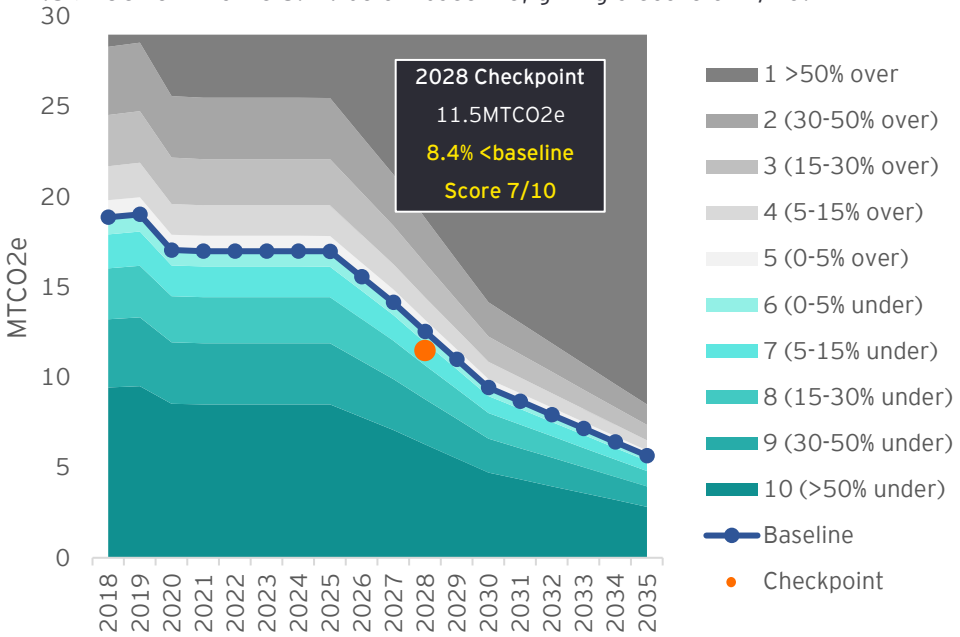
Evaluation against principles of an effective test

Case for	*Case against*
• Effectively already performed by NSTA as part of NSTD governance (**data** is readily available)	• Does not assess specific entities seeking to explore / develop (**unfocussed**) • Future developers could be penalised based on the performance of existing project owners (these may be completely different entities) (**not applicable to developers directly**) • A specific project may make positive contributions to emissions reduction but still be penalised if remaining sector does not too (less **effective**)

Case for	*Case against*
• Simple, objective and empirical	• NSTD emissions reduction targets closely linked to projected production decline so may not accurately test emissions abatement performance (less effective) (Test 6a is necessary for assessing this)

Illustrative example

At point of pre-licensing checkpoint being undertaken in 2028, the latest NSTA annual report available is 2026 which shows total sector emissions of 11.5MTCO2e which is 8.4% below baseline, giving a score of 7/10.



Conclusion

As this test does not assess the field developer specifically, we propose that this test is included in the First Checkpoint.

Test Area 3 – sector Scope 1 and 2 emissions reduction performance

Second Checkpoint

Test 3b - sector Scope 1 and 2 emissions versus baseline (forecast including emissions from new field)

Comparison of forecast Scope 1 and 2 sector emissions including emissions from the new field, against the same baseline as for Test 3a, updated as required to reflect latest emissions reductions targets.

This test would be easily done using NSTA's annual emissions projections and adding to this the anticipated emissions from the new field which would be required in the FDP.

When adding emissions associated with the new field's production, it will be necessary to ensure this is not double counted within the sector emissions forecast's estimates for probable and possible new fields.

If a 1-10 scoring method were to be used for this test, the thresholds as set out in slide 19 could be applied, as for 3a. However, as this test assesses projections rather than a snapshot fixed in time like 3a, there are various ways the scores could be applied:

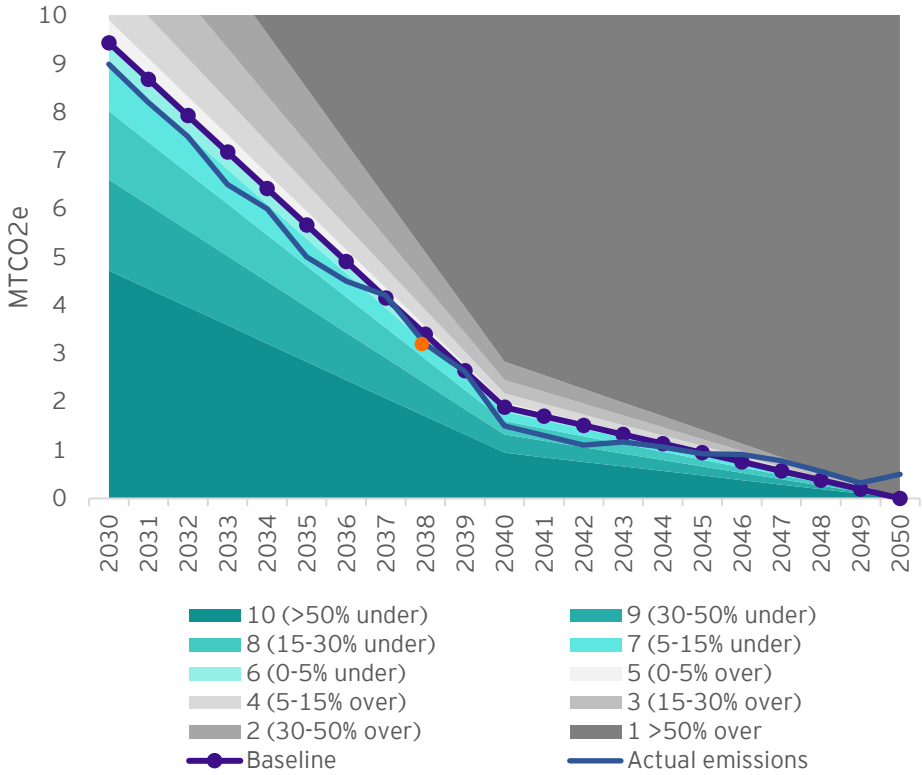
1. On the total consolidated projections versus baseline;
2. On the average variance of projections versus baseline; or
3. On the most adverse variance of projections versus baseline.

Illustrative example

For the purpose of this example, we have assumed a Second Checkpoint being undertaken in 2038.

Scoring method (graded)	% Variance	Score	Comments
Total consolidated forecast emissions	(2.9%)	6	Forecast of 15.95MTCO2e vs. baseline of 16.43MTCO2e
Average annual forecast emissions	6.5%	4	Annual emissions lower than baseline up to 2045 but higher thereafter and by larger margins
Most adverse variance of projections against baseline	69.5%	1	In 2049, forecast emissions of 0.32MTCO2e vs baseline of 0.19MTCO2e

Although overall emissions are forecast to be lower than baseline giving a positive score of 6 using the first scoring method, adverse variances in the final years where the baseline is so low give rise to very large percentage variances resulting in below par scores for the last two methods.



For both tests, not only the scores but the performance data that the scores are based upon should be presented as findings.

Test Area 3 – sector Scope 1 and 2 emissions reduction performance

Test 3b (cont.)

Evaluation against principles of an effective test	
Case for	*Case against*
• **Simple** to administer, using **readily available information** • Includes emissions from new production (slightly **more focussed and applicable** to specific project than 3a) • Shorter time between test and operations than 3a	• Future developers could be penalised based on the performance of existing project owners (these may be completely different entities) (still lacks **focus**) • A specific project may make positive contributions to emissions reduction but still be penalised if remaining sector does not too (less **effective**) • NSTD emissions reduction targets closely linked to projected production decline so may not accurately test emissions abatement performance (less **effective**) (Test 6a is necessary for assessing this) • Emissions from the field being assessed unlikely to be significant enough to impact forecast performance versus baseline

Conclusion

We would propose including this as part of the Second Checkpoint to ensure that the most up-to-date performance is assessed given the likely amount of time since the First Checkpoint. This could be an important factor in decision-making in the unlikely event the margin between forecast emissions and the baseline is narrow enough for the field's emissions to be the difference between meeting / failing to meet the target.

Test Area 4 – Scope 1 and 2 emissions benchmarked internationally

Overview

This test area would compare Scope 1 and 2 emissions from the ScotNS O&G sector against international O&G producers. Additional Scottish production would be easier to justify if its emissions are lower relative to its international peers.

First Checkpoint

Test 4a – benchmarking of Scottish sector's Scope 1 and 2 emissions intensity internationally

This test is a benchmarking of the Scope 1 and 2 emissions intensity per barrel of the ScotNS O&G sector against international O&G producers. The international comparators to be used will depend on what is believed to be the most likely consequence (in terms of international O&G production) of production from the new field not taking place. This would be different for oil as opposed to gas, and so different test methodologies would be needed for each. Furthermore the most appropriate comparator may need to change consistent with the latest circumstances at the time of the checkpoint. For example, the comparators discussed below are on the basis of Scotland being a net exporter of O&G but this could change in the future.

An issue with this test is the availability and acceptance of an internationally recognised and robust annual comparator index for emissions from O&G production of different nations. While different organisations produce opinions and analysis based on information that they have, without certainty with regard to the source of the information and its acceptance as a benchmark, the viability of this test is at risk.

Oil

As Scotland is, in aggregate, a net exporter of oil (note that for the purpose of this report and in line with Chapter 1, NGLs are included with crude oil), the likely consequence of no oil production from the new field is that Scottish exports would be reduced and the international demand for this oil would be met by overseas producers. The most suitable comparator for oil therefore could be a weighted average of these overseas producers.

Illustrative example

For the purpose of this example, we have used data from Carnegie Endowment's Oil-Climate Index (OCI). We have used the emissions intensity of UK Forties Blend as representative of the ScotNS O&G sector. For the comparator, we have assumed that the majority of oil production that would replace production from the new ScotNS field would be from US shale and Middle East onshore and shallow water producers. We have calculated a weighted average emissions comparator for these producers that have data on the OCI, based on their respective levels of production.

The variance against the comparator has been scored from 1-10 in line with the methodology outlined in slide 19.

	Scope 1 and 2 emissions intensity (kgCO2e/boe)
ScotNS O&G sector	94
Weighted average of comparator	75
Difference (favourable) / unfavourable	19
% difference (favourable) / unfavourable	26%
Score	3/10

Gas

Scotland is a net exporter of gas, predominantly to rUK with only minimal amounts exported to ROW via the UK-Ireland interconnector. The likely consequence of no gas production from the new field would therefore be that rUK would need to import gas from elsewhere. We would expect that Norway would not have enough surplus gas to replace this production via pipeline, as this is being exported to continental Europe to replace that previously supplied by Russia, and so the replacement gas would instead come in the form of LNG from the US Gulf Coast.

Although we do not have definitive data on gas Scope 1 and 2 emissions, we would expect that a US LNG comparator would be significantly more emissions intensive than the ScotNS gas production, due to the energy-intensive activities associated with liquefying and transporting LNG.

Test Area 4 – Scope 1 and 2 emissions benchmarked internationally

Evaluation against principles of an effective test	
Case for	*Case against*
• Test area most likely to prevent 'carbon leakage' (could be one of the more **effective** tests) • **Simple** and **empirical** test, provided robust source of information for international emissions	• Significant risk with regard to **existence of required data** for oil production, and reliability and comparability of data from certain countries • Does not assess specific field in question (not **applicable** to developer) • Determining the comparator is **subjective**

Conclusion

Provided the necessary information can be obtained, we suggest this test is included in the First Checkpoint, as this is perhaps the most relevant of all sector-wide tests, as the relative carbon intensity of the UK sector compared internationally is indicative of the likely global emissions impact of the decision.

Second Checkpoint

Test 4b – benchmarking of field's Scope 1 and 2 emissions intensity against ScotNS O&G sector and internationally

As with Test 4a, the Scope 1 and 2 emissions intensity per barrel of production from the new field could be benchmarked against the ScotNS O&G sector average emissions intensity as well as an international comparator. This test would require that developers include within their FDP details of the emissions intensity per barrel of their production activities.

The same risks in respect of the existence, reliability and comparability of international data would apply for this test as for 4a.

Given the subjectivity inherent in determining the comparator, there would be a very high likelihood of the outcome of this test being subject to legal challenge, whether positive or negative. However, due to the fact that this test would effectively duplicate part of Test 8, we do not propose it is included as part of a checkpoint.

Evaluation against principles of an effective test	
Case for	*Case against*
• **Focussed** test on specific field, **directly applicable** to the developer • Test area most likely to prevent 'carbon leakage' (**effective**) • **Simple and empirical** test, provided robust source of information for international emissions • Shorter time between test and operations than 4a	• Significant risk with regard to **existence of required data** for oil production, and reliability and comparability of data from certain countries • Determining the comparator is **subjective**

Conclusion

This test is likely to be part of Test 8 (counterfactual test) and so would not need to be part of the checkpoint in its own right, unless Test 8 is not included. We have therefore not suggested that this test is included separately in the Second Checkpoint.

Test Area 5 – Energy security - balance of imports / exports

Overview

This test area is based on the BEIS consultation test around the UK's status as a net importer of O&G, on the basis that a high score would be awarded if the UK, at the time of the checkpoint, is set to remain a net importer, so that new production would replace imports thereby improving the UK's energy security position.

This report considers Scotland only, and not rUK, and so such a test would generally not be applicable for Scotland which is in aggregate a net exporter of O&G. As a result, a separate energy security test for Scotland alone would have to take the form of a qualitative risk assessment of Scotland's energy security position at the time of the checkpoint and its implications for further Scottish O&G production.

In practice, considering Scottish energy security implications without regard for the energy security of rUK, Scotland's biggest trading partner, may not be realistic or even possible as Grangemouth plays a broader role for the whole UK, not just Scotland, and Scotland's gas network is completely integrated with rUK in the form of the National Transmission System (NTS).

Both checkpoints

Test 5 – qualitative risk assessment of Scotland's energy security position

This test could consist of a qualitative risk assessment of Scotland's energy security position, broken down into a number of areas, for example as set out in the table (right). Reliance on O&G imports is likely to be a consideration as part of this assessment. This could include a quantitative test based around projected imports of O&G, however this would be more challenging for oil than for gas. This is because of the stronger relationship between production and imports for gas than for oil, as import levels of oil are determined by complex economic factors outside of policy makers' control and so increased production would not necessarily result in reduced imports.

In the right-hand table, we have assumed that a simple high / medium / low basis would be used for assessing each of the risk areas. Alternative options would be to assign risk scores of high / medium / low or use numerical scores, with the potential option of having more than three scores (although given the qualitative nature and wide scope of this assessment, the simpler the scoring the methodology, the better). The report backing up the risk rating would need to be detailed and made available to SG. It would need to reference explicitly whether it is attempting to project forward to the time of production from the new field or if it is assessing a snapshot in time (the position at the time of the checkpoint).

In terms of assigning an overall risk score, this would ultimately be a subjective decision of whoever is undertaking the assessment, based on the individual risk scores of each of the sub-categories of the assessment.

Indicative methodology - Energy security risk assessment		
Area of energy security	**Risk assessment**	**Commentary**
Reliance on O&G imports	i.e. **High** / Medium / Low	
Variety of sources of O&G available	**High** / Medium / Low	
Geo-political climate	**High** / Medium / Low	
Alternative sources of energy	**High** / Medium / Low	
Cost of energy	**High** / Medium / Low	
OVERALL RISK RATING	**High** / Medium / Low	

Evaluation against principles of an effective test

Case for	*Case against*
• Essential for energy security to be considered as part of any decision • Necessary Information exists and eminently **feasible** to perform	• Not possible to quantify for the most part (not an **empirical** test) • Additional production from a single field is unlikely to impact Scotland's energy security materially (less **effective**) • Difficult to assess Scotland separately from rUK due to trading relationships and integrated infrastructure

Conclusion

Although less of a test and more of a contextual report, we would propose including this in both checkpoints to provide the essential energy security context that needs to be considered for decision-making in respect of additional production, bearing in mind that in practice the energy security position of rUK will be likely to have a material impact on decision-making.

Test Area 6 – sector progress in supporting energy transition

Overview

This test area assesses the progress in, or contribution towards, the development of energy transition technologies, based on commitments in the NSTD. This could be broadened to include all areas necessary to the delivery of energy transition, such as people and skills.

First Checkpoint

Test 6a – sector performance against energy transition (including NSTD) commitments

NSTD emissions reduction targets, used for the purpose of Test 3a, are expected be largely correlated to the forecast decline in production from UKCS. Therefore Test 3a may not materially assess emissions abasement activity undertaken by the sector.

Test 6a would specifically assess sector performance with regard to emissions abatement activity, in support of Scotland's energy transition in accordance with NSTA's Strategy for Net Zero, including such activities as set out in the indicative methodology table (right). This test could also consider future emissions abatement activity, for example activities as part of OEUK's Methane Action Plan.

This test is likely to include both quantitative and qualitative elements and for each the scoring methodologies set out in slide 19 could be used. An overall score using the qualitative scoring categories would be awarded based on the scores of each sub-category.

Evaluation against principles of an effective test	
Case for	*Case against*
• Should be **simple** methodology • Considers private sector contribution to energy transition which is vital to its achievement	• Progress will depend on government policy and regulatory development which is out of sector's control (lower **applicability** score) • Extent to which baselines could be quantifiable is unclear (could be developed in consultation with NSTA). **Subjective / not fully empirical** • Some of these energy transition activities may not be within the sphere of E&P companies (not **applicable** to developer potentially) • As applied to sector, does not assess performance of specific entity (less **focussed**)

The most suitable body to undertake this test could be NSTA (or its equivalent in the case of an independent Scotland) as it is already managing the governance of the NSTD. It is not clear whether NSTD governance will assess performance against quantifiable baselines. If not, that should be made an additional requirement of this test to the extent possible. If another entity were to be responsible for this test, such as OPRED (or its equivalent) or SG, NSTA would need to be consulted heavily as part of the process.

Indicative methodology - O&G Sector energy transition scorecard - 2030			
Energy transition activity	**Illustrative targets**	**Actual performance**	**Rating**
Flaring and venting	• Zero routine	[Information should be available from NSTD annual reports]	1-10 for those elements that are quantifiable* Otherwise, qualitative scoring: Significantly outperformed / Outperformed / Par / Under-performed / Significantly underperformed
Platform electrification / efficiency	• £3bn invested • X% of platforms powered by onshore / offshore electricity		
CCUS Transportation and Storage	• 4 clusters implemented • £3bn invested • 10MT/y of CO2 captured		
Hydrogen	• 5GW of production capacity		
Use of Scottish material / technology	• 50% on new projects		
R&D in energy transition	• £Xm invested		
Decommissioning			
OVERALL SCORE	Significantly outperformed / Outperformed / Par / Underperformed / Significantly underperformed		

*It will be necessary to be clear upfront where the outcomes of each component of the test is expected to be subjective and contextual as opposed to empirical and definitive.

Conclusion

We would propose this is included in the first checkpoint as a more qualitative complement to 3a, as the O&G sector's contribution to energy transition will be vital. However, due to the potential lack of definitive comparators, this by necessity will have subjective elements

Test Area 6 – sector progress in supporting energy transition

Second Checkpoint

Test 6b – project contribution towards energy transition in FDP

This would involve an assessment of the specific project's contribution towards energy transition, covering the same areas as 6a.

On the basis that assessment would be on statements of intent in the project FDP, the developer's performance against these promises would need to be monitored on an ongoing basis.

It could be an option for the test to include consideration of energy transition contribution from the developer outside of the project in question, however there could be PR risks associated with this, if a company is rewarded for green energy activities by being granted consent to extract further O&G.

Evaluation against principles of an effective test

Case for	*Case against*
• **More focussed** than 6a as tests developer rather than sector • Could Incentivise developer to maximise energy transition initiatives as part of project	• Test may **not be directly applicable** to the project, for example investment in new energy technologies • Some of these energy transition activities may not be within the sphere of E&P companies – unlikely that they will be investing in renewables or alternative energy sources • Progress will depend on government policy and regulatory development which is **out of sector's control** • Potential **lack of clarity** / ambiguity in case of developer being SPV with multiple ownership

Conclusion

This test is likely to be part of Test 7 (FDP assessment) and so would not need to be part of the checkpoint in its own right, unless Test 7 is not included. We have therefore not suggested this test to be included in the Second Checkpoint.

Test 7 – FDP assessment

Overview

Only applicable at development consent stage (i.e. as part of the second checkpoint), this test is a detailed assessment of the project FDP and could take the form of an expansion of the existing FDP assessment process (through the EIA and ES), or it could be a separate test.

Methodology

The assessment could take the form of a review of the FDP by an independent assessor (for example, OPRED or the equivalent of OPRED for an independent Scotland). This review would comprise an assessment of the FDP's strength in addressing the criteria set out on the next slide. Instead of being a separate test, this assessment could be in the form of expanding the scope of the EIA and ES that are part of the FDP process and are currently assessed by OPRED.

The assessor could award a score out of 10 (for example) for each of the criteria based on the extent to which the FDP (or its ES) addresses this area.

The quantitative elements of the assessment could also be given scores out of 10 based on performance relative to a baseline; some of these could also result in fail recommendations if they do not meet certain thresholds (for example, if routine flaring and venting is not zero from 2030 onwards).

Additional pass/fail rules could be overlaid on the 1-10 scoring, for example, a certain number of scores below 5 could equal a fail recommendation, or certain criteria could have a minimum score required to avoid a fail recommendation.

The scores for each of the criteria could be consolidated into an overall score, which would be the output of this test in the checkpoint dashboard. The assessor could also provide an overall pass/fail recommendation based on the overall score considered in conjunction with any tests with specific pass/fail conditions. A set 'pass mark' could be stipulated and any scores below this would result in a fail.

Other considerations

Clear guidance in terms of the requirements expected of the developer as part of this test and the assessment process will be essential to give developers a thorough understanding of what is required to pass and to keep risk for investors at an acceptable level. Failure to be transparent and clear could give rise to a risk of challenge from unsuccessful developers.

The assessment of this test in particular would need to follow public law principles to mitigate the risk of a successful judicial review challenge.

As this test would be based on planned (not performed) activity, there would need to be a robust process for monitoring developer performance to ensure developers deliver on the ambitions set out in the FDP.

Evaluation against principles of an effective test

Case for	*Case against*
• Where FDPs need to meet a certain threshold to pass or score well, the test would serve to push sector standards pre-emptively (**effective**) • This test would necessitate that developers provide maximum environmental information in their FDPs, driving good behaviours • Most **focussed** of all tests	• Element of **subjectivity** in parts of test • High degree of speculation in certain parts of test that look at events far in the future (i.e. decommissioning) • A challenge to this test could be that the FDP already is assessed against net zero criteria as part of the existing consenting process. So it will be necessary for this test to be a more robust assessment of the FDP's environmental implications, with a genuine option of failing the FDP if it does not score well enough

Conclusion

We would suggest inclusion of this test in the Second Checkpoint (either as a separate test or as an expansion of the current FDP assessment process), as perhaps the most focussed method of assessing the justification for additional production.

Test 7 – FDP assessment – indicative methodology

This test could comprise an assessment of the extent to which the FDP addresses criteria such as that set out in the table below:

Area	Criteria[1]	Quantitative / qualitative	Scoring approach
Rationale	1. Provide reasons why additional production is needed from ScotNS	Qualitative	Score of 1-10 based on strength of FDP in this area[2]
	2. Provide specific details of end uses of O&G produced[3]	Qualitative	Score of 1-10 based on strength of FDP in this area
Emissions abatement	3. Carbon intensity per barrel of production[4]	Quantitative	Score of 1-10 based on strength of FDP in this area. Automatic fail if not below sector average
	4. Proportion of renewable energy used for production	Quantitative	Score of 1-10 based on strength of FDP in this area. Automatic fail if not below sector average
	5. Use of flaring / venting	Quantitative	Score of 1-10 based on strength of FDP in this area. Automatic fail if routine flaring / venting is not zero by 2030
	6. Use of CCUS	Qualitative	Score of 1-10 based on strength of FDP in this area. May not apply to all fields in which case 'n/a'
	7. Energy efficiency	Qualitative	Score of 1-10 based on strength of FDP in this area
	8. Emissions offsetting[5]	Quantitative	Score of 1-10 based on strength of FDP in this area. Automatic fail if emissions are not offset above a certain threshold
Energy transition	9. Innovation	Qualitative	Score of 1-10 based on strength of FDP in this area
	10. Potential for infrastructure to contribute to energy transition activity	Qualitative	Score of 1-10 based on strength of FDP in this area
	11. Overall impact of project on Scotland's energy transition	Qualitative	Score of 1-10 based on strength of FDP in this area
Decomm.	12. Minimisation of emissions from decommissioning	Qualitative	Score of 1-10 based on strength of FDP in this area
	13. Innovation in decommissioning process	Qualitative	Score of 1-10 based on strength of FDP in this area
	14. Reuse of materials	Qualitative	Score of 1-10 based on strength of FDP in this area
TOTAL SCORE			Total score out of 140[6]

[1] Not all criteria would necessary apply to all fields so some may not be applicable in certain cases.

[2] It is envisaged that each of these criteria would be in the form of 'exam questions' that the developer must answer within a certain word count and with supporting documentation as required. The scoring rationale for a 1-10 approach would need to be developed in detail to ensure maximum robustness of this test.

[3] It may not be feasible for developers to answer this question as currently production is not dedicated for a specific use, rather production is sold for the best price in the market at the given time.

[4] This criteria may not be necessary here to the extent it is also covered in Test 8. This would be more focussed on the particular field than Test Area 3 which assesses the entire sector's emissions relative to its NSTD commitments, and Test 4a which assesses the carbon intensity of the entire sector against a broader international benchmark.

[5] Requires a robust offset market which currently does not exist. Voluntary offsets would be on top of carbon price already incurred on emissions by developers.

[6] For the purpose of this illustration, we have assumed that all criteria are weighted equally and the total score is a consolidation of the scores of all the criteria that are scored 1-10.

Test 8 – counterfactual test

Overview

This test would seek to identify as accurately as possible what the alternative source(s) of energy would be if O&G is not extracted from the field in question, or, put another way, what energy sources this production would displace.

It would compare the environmental implications of production from this new field versus the most likely counterfactual or counterfactuals (which is likely to be overseas O&G production to meet international demand).

Methodology

This test could use a template similar to that shown in the following slide, in which production from the new field is evaluated against the counterfactual scenario(s) across the following areas:

- Scope 1 and 2 emissions intensity from production (assumed this is not also covered in Test 7);
- Scope 3 emissions (to the extent that it is believed additional O&G production might displace alternative low-carbon energy production);
- Impact on energy security and geo-political implications; and
- Impact on energy transition.

Note that some of the above could also be covered in other tests, for example, Scope 1 and 2 emissions intensity and energy transition implications could be partially covered in Test 7, and energy security implications could be partially covered in Test 5. The difference between Test 8 and these tests is that Test 8 is intended to be a targeted assessment of specific development project, whereas the other tests are broader global assessments of the sector in general. To the extent there is a risk of overlap, it will be important to ensure that there is no duplication between tests.

The main risk for this test would be that determining the counterfactual scenario would be a subjective process, and there could be multiple plausible counterfactuals which could vary significantly in terms of being favourable or adverse in comparison with production from the new field. It may be necessary for this test to include comparison against multiple counterfactuals where this applies with a potential assessment of the plausibility of each of the counterfactuals.

In light of the above, consideration of whoever should be responsible for determining the counterfactual scenario(s) and undertaking the evaluation, is of particular importance. The options could be as follows:

- SG could undertake this exercise using information taken from the FDP (or ES) and determining the counterfactual itself. This could increase the risk of challenge from an unsuccessful developer on account of a lack of independence in the process, and would also expose SG to legal action from NGOs in the event the checkpoint is passed.
- An independent body (such as OPRED, or its equivalent in the case of an independent Scotland) could undertake the assessment. This would be better in terms of independence however it is unlikely that SG or an independent body would be willing to determine counterfactuals given the degree of subjectivity involved.
- The most feasible way of implementing this test could therefore be for the developer to be required to do include a counterfactual comparison in its FDP (or ES), to be assessed by NSTA or OPRED (or their equivalents in the case of an independent Scotland).

With regard to scoring this assessment, for each of the areas of comparison, production from the new field should perhaps be rated against the counterfactual as: 'favourable', 'adverse', or 'not materially different', with supporting commentary provided. An overall rating using the terms above could be provided as the output of this test.

Evaluation against principles of an effective test

Case for	*Case against*
• Potentially most **focussed** test in terms of informing the pros/cons of a decision	• High degree of **subjectivity** • Where comparing to overseas O&G production, there is risk around the **availability and/or reliability of data** • Would rely on a high degree of speculation / assumption

Conclusion

On balance, we would recommend that this test is included in the Second Checkpoint as an important factor in determining whether or not the checkpoint is passed, however the degree of subjectivity in determining the counterfactual(s) poses a significant challenge to the test.

Test 8 – counterfactual test – indicative methodology

Below is a potential template for the purpose of Test 8 (the counterfactual test):

	Production from new field	Counterfactual	Rating	Supporting comments
Type of energy	[O&G]	[e.g. oil, gas, coal, renewable etc.]		
Producer of energy	[Scotland]	[e.g. Scotland, UK or other nations]		
AREAS OF ASSESSMENT				
Scope 1 and 2 emissions intensity of energy production (including transportation if applicable)	[details to be obtained from FDP]	[details to be determined by assessor]	Favourable / Adverse / Not materially different	[Quantifiable comparison along the lines of Test 4b]
Scope 3 emissions	[details to be obtained from FDP]	[details to be determined by assessor]	Favourable / Adverse / Not materially different	[Only applicable in the event that additional O&G production might displace alternative low-carbon energy production]
Impact on energy security (i.e. increased reliance on imports) and other geo-political implications	[details to be obtained from FDP]	[details to be determined by assessor]	Favourable / Adverse / Not materially different	[Likely to be qualitative comparison]
Impact on energy transition	[details to be obtained from FDP]	[details to be determined by assessor]	Favourable / Adverse / Not materially different	[Likely to be qualitative comparison]
OVERALL	[Summary of above]	[Summary of above]	Favourable / Adverse / Not materially different	[Consolidated view on environmental impact of O&G production from the new field versus the counterfactual (i.e. favourable / adverse)]

Test 9 – impact on costs for consumers

This test would be on the impact that production at the new field in question would have on the cost of energy for Scottish consumers.

It has been considered to ensure that decision-making in respect of the new field takes into account the potential impact on Scottish consumers of production at the field in question.

Given the complexity and scale of Scottish imports and exports of O&G, the impact of production from one new field on energy affordability for the Scottish consumer is expected to be immaterial. For this reason, we do not think there would be value in having a separate test for this in any checkpoint.

Furthermore, it is proposed that Test 5 (energy security risk assessment) will include consideration of affordability for Scottish consumers.

Conclusion

We do not suggest this is included as a separate test on the basis that it would not be effective due to the anticipated lack of impact the new production would have on consumer prices.

6 Assessment findings

Evaluation of CCC tests against EY test principles

Test	*Evidence-based*			*Transparent*			*Simple*			Importance to Just Transition	Key evaluation criteria determining potential inclusion / exclusion
	1. Existing / available data	2. Objective	3. Empirical	4. Clear	5. Focussed	6. Applicable	7. Straight-forward	8. Feasible	9. Effective		
1 – sector production in context of 1.5ºC Paris Agreement goal	✓✓✓	✓	✓✓✓	✓✓	✓	✓	✓	✓✓✓	✓✓	✓✓✓	Highly relevant to decision-making around additional production
2 – Scottish scope 3 emissions in context of Paris Agreement to limit temperature rises to 1.5ºC	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Not included as covered in Test Area 1
3a – sector Scope 1 and 2 emissions – historic performance	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓	✓	✓✓✓	✓✓✓	✓	✓✓✓	Simple, objective and empirical test using readily available data
3b – forecast sector Scope 1 and 2 emissions performance (including new field)	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓	✓✓✓	As per 3a
4a – benchmarking of Scottish sector's Scope 1 and 2 emissions intensity internationally	✓	✓	✓✓✓	✓✓	✓	✓	✓	✓	✓✓✓	✓✓✓	Empirical and highly relevant test, provided robust data is used
4b – benchmarking of field's Scope 1 and 2 emissions intensity against Scottish sector and internationally	✓	✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓	✓	✓✓✓	✓✓✓	Not included as would be part of Test Area 8
5 – energy security risk assessment	✓✓✓	✓✓	✓	✓✓	✓	✓	✓✓	✓✓✓	✓✓	✓✓✓	Feasible and essential to decision-making
6a – sector performance against energy transition (including NSTD) commitments	✓✓✓	✓✓	✓✓	✓✓✓	✓	✓	✓✓✓	✓✓✓	✓✓	✓✓✓	Simple and vital to engage private sector in energy transition
6b – project contribution towards energy transition in FDP	✓✓✓	✓✓✓	✓✓	✓	✓✓✓	✓	✓✓✓	✓✓✓	✓	✓✓	Not included as would be part of Test Area 7
7 – FDP assessment	✓✓✓	✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓	✓	Most focussed method of assessment
8 – Counterfactual test	✓	✓	✓✓	✓✓	✓✓✓	✓✓✓	✓	✓✓✓	✓✓	✓	Focussed in informing pros/cons of decision
9 – Impact on costs for consumers	✓✓	✓✓	✓✓	✓✓	✓	✓	✓✓	✓✓	✓	✓✓✓	Ineffective due to lack of materiality

KEY: First Checkpoint; Second / Further Checkpoint(s); All Checkpoints ✓✓ ✓; Strongly applies ✓ ✓; Applies ✓; Marginally applies / does not apply; Key evaluation criterion

First Checkpoint (pre-licensing round) – potential tests

The tests shown below are those that may be suitable for inclusion in a First Checkpoint, subject to further consideration. They are not intended to represent collectively a proposed First Checkpoint. For example, the inclusion of one test may necessitate the exclusion of another. The same applies to the following slide for the Second / Further Checkpoint.

1 – sector production in context of 1.5ºC Paris Agreement goal

Comparison of the latest production forecasts for the Scottish O&G sector against Scotland's production pathway that is consistent with meeting the goals of the Paris Agreement to limit temperature rises to 1.5ºC.

There are different pathways based on different scenarios that could be used as the comparator and the pathway to be used would be determined by SG. The outcome of the test would vary significantly depending on which pathway is used as the baseline.

This could perhaps be the most important test of the First Checkpoint due to its direct relevance for decision-making around production. However, there are a number of risks that will need to be mitigated for this test to work (including the impact on outcome of test of choice of pathway, difficulty of reliably forecasting production long term, and the assumptions and complexity behind the different pathways).

3a – sector Scope 1 and 2 emissions – historic performance

Historic comparison of total sector Scope 1 and 2 emissions reductions against a baseline, for example: 10% by 2025, 25% by 2027, 68% by 2030, 90% by 2040 and 100% by 2050.

The purpose of this test is to support incentivisation for decarbonisation of the sector and ensure the sector is not 'rewarded' if it fails to do so.

Although this test does not assess specific parties, it is simple and objective and effectively should already be performed as part of NSTD governance, so it could be included for additional context without being given critical importance as a deciding factor.

4a – international benchmarking of sector Scope 1 and 2 emissions intensity

Comparison of Scope 1 and 2 emissions intensity per barrel of ScotNS O&G production against an international comparator.

This could be a weighted emissions intensity per barrel from the countries which would most likely produce the O&G that would replace that of the new field to meet international demand. The comparator methodology may need to change over time to reflect circumstances at the time of the checkpoint.

This is a simple and objective test which could be included in the checkpoint as an indicator of the likely global emissions impact of the decision. However, there is a major question mark over the existence and reliability of data required for this test.

5 – energy security risk assessment

Qualitative risk assessment of Scotland's energy security position, looking at a number of areas such as:

- Reliance on O&G imports
- Variety of sources of O&G available
- Geo-political climate
- Alternative sources of energy
- Cost of energy.

Though less a test and more a contextual report, it is essential to consider energy security for decision-making in respect of additional production, even though additional production from a single field may not have a material impact. rUK's security, not considered for the purpose of this report, will likely be relevant in practice.

6a – sector emissions abatement activity (including other energy transition progress)

Review of the sector's performance in respect of energy transition, assessing quantitatively and qualitatively progress across areas possibly including:

- Flaring and venting
- Platform electrification / efficiency
- CCUS Transportation and Storage
- Hydrogen
- Use of Scottish material / tech
- R&D in energy transition
- Decommissioning.

The purpose of this test is to support incentivisation of the O&G sector to deliver energy transition and ensure the sector is not 'rewarded' if it fails to do so.

This test should perhaps be included given the importance of the O&G sector in delivering energy transition. The fact that sector performance will depend on government policy and regulatory development which is out of its control will need to be borne in mind.

Second Checkpoint (pre-development consent) / Further Checkpoint (pre-development consent for FDPA) – potential tests

1 – sector production in context of 1.5ºC Paris Agreement goal

Comparison of the latest production forecasts for the Scottish O&G sector (including the new field's forecast production) against Scotland's production pathway that is consistent with meeting the goals of the Paris Agreement to limit temperature rises to 1.5ºC.

As with 1a, different baseline pathways could be used which would vary the results of the test.

This could be an important test in the Second Checkpoint, although there are a number of significant risks to be mitigated (as per 1a) and production from the new field is unlikely to be the differentiating factor between production being below or exceeding the baseline pathway.

3b – forecast sector Scope 1 and 2 emissions performance (including new field)

Forecast comparison of total sector (including the new field) Scope 1 and 2 emissions reductions against a baseline, for example: 10% by 2025, 25% by 2027, 68% by 2030, 90% by 2040 and 100% by 2050 (the same as in Test 1a).

The purpose of this test is to support incentivisation for decarbonisation of the sector and ensure the sector is not 'rewarded' if it fails to do so.

This test could be included in the Second Checkpoint principally for context. This test could be an important factor in decision-making if the margin between forecast emissions and the baseline is narrow enough for the field's emissions to be the difference between meeting / failing to meet the target, but this is unlikely.

5 – energy security risk assessment

This test would refresh the qualitative risk assessment of Scotland's energy security position from the First Checkpoint, based on current information, covering the same areas:

- Reliance on O&G imports
- Variety of sources of O&G available
- Geo-political climate
- Alternative sources of energy
- Cost of energy.

We suggest this assessment is repeated in the Second Checkpoint so the most up-to-date contextual energy security information is used to support the decision-making process.

7 – FDP assessment

Review of the FDP against pre-agreed criteria, for example relating to emissions reduction and energy transition, possibly by an independent body such as OPRED or its equivalent in the case of an independent Scotland.
The scoring could include both graded (i.e. 1-10) scoring and potentially pass / fail scoring either in the case of important quantitative elements or as an overlay on the graded scoring (e.g. a certain number of scores below 5 could trigger a fail recommendation).

Rather than being a separate test, this could in practice be an expansion of the existing FDP assessment process. This would perhaps be the most targeted method of assessing the justification for additional production, despite the amount of subjectivity and speculation involved. There should be provision for ongoing monitoring of the performance of the project, to ensure developers are held to account on the ambitions set out in the FDP.

8 - Counterfactual test

Production from the new field would be evaluated against a counterfactual scenario(s) across the following areas:

- Scope 1,2 and 3 emissions
- Energy security and geo-political implications of production
- Impact on energy transition.

This may in practice need to be a requirement of the FDP for the developer to undertake this counterfactual comparison. It is important to ensure that there is no duplication between this test and others.

This test could perhaps be the most definitive in terms of evaluating the pros/cons of a decision. However, perhaps more than any other test, this would be highly subjective and require a large degree of speculation and there is likely to be disagreement between parties as to what the counterfactual(s) should be.

7 Implications of Just Transition scenario pathways on the CCC

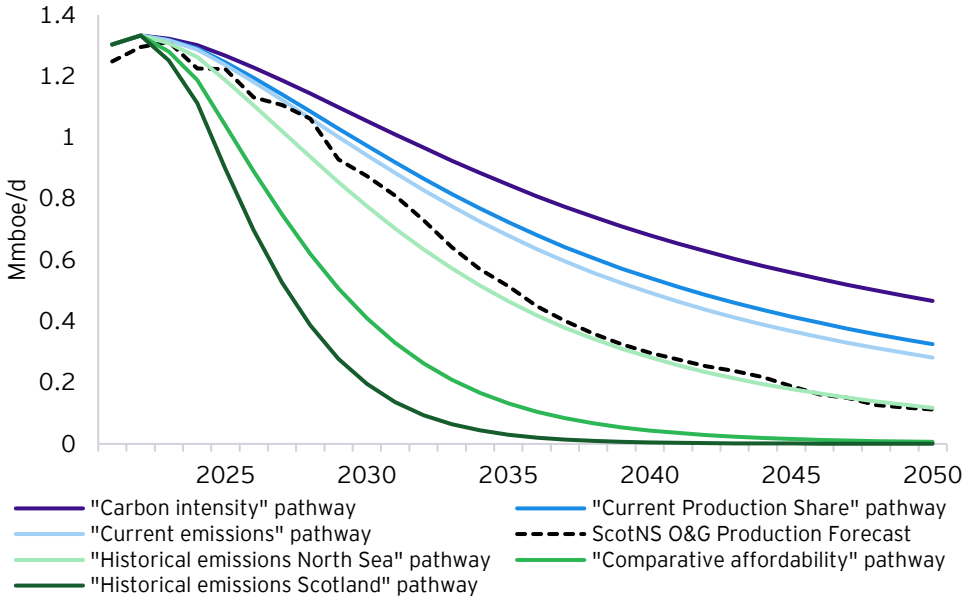
Context

For Chapter 1, we modelled Scotland's Current Production Share Pathway, which represents a production pathway consistent with meeting the goals of the Paris Agreement to limit temperature rises to 1.5ºC.

We introduced a range of potential scenarios which applied adjustments to Scotland's Current Production Share Pathway, to show the different production pathways that a Just Transition could involve.

The different scenario pathways are illustrated below and defined in the table to the right. Please see Chapter 1 for further detail on the methodology used and assumptions applied.

Scotland's potential production pathways



Source: EY analysis

ScotNS O&G Production Forecast above represents our assessment of future ScotNS production levels. This does not include unexplored North Sea fields.

Scenario	Factor*	Definition
Current production share pathway	n/a	► The Scottish FtF modelled scenario arrived at by assuming that Scotland's production serves a constant portion of global demand
Comparative carbon intensity of production	75%	► Higher production pathway on the basis that the UK production is less carbon intensive than global weighted average ► Based on rationale that production should be maintained at a higher rate in areas with lower carbon intensity of production
Current emissions on per capita basis	110%	► Slightly lower production pathway on the basis that UK's 2019 emissions per capita match the average for O&G producing countries, and Scotland's 2019 per capita emissions were 10% higher than the UK average ► Based on rationale that countries with higher current emissions should decline at a faster rate
Historical emissions caused (North Sea production / global production)	169%	► Lower production pathway on the basis of UK's above weighted average historical production of O&G relative to other countries ► Based on rationale that countries that have produced more O&G historically have contributed more to emissions and have benefited more economically and should decline production at faster rate
Comparative affordability for producing countries	352%	► Significantly lower production pathway on the basis that UK has the seventh highest GDP per capita of O&G producing countries (with Scotland 7% below the UK average) ► Based on rationale that countries that can afford it the most should transition to clean energy at a faster rate
Historical emissions (UK wide)	544%	► Significantly lower production pathway on the basis of UK's greater historical contribution to global emissions relative to other countries (UK has the fourth highest cumulative emissions, and second highest historical emissions per capita) ► Based on rationale that countries with greater historical emissions should decline production at faster rate

**Factor applied against Current Production Share Pathway – a factor above 100% accelerates the rate of decline in production*

Implications on CCC tests

The principal test area that the different Just Transition pathways would directly impact would be Test Area 1, as this is the one area that quantitatively assesses ScotNS O&G sector future production.

Test Area 1 - production in context of 1.5ºC Paris Agreement goal

This area would most likely consist of an assessment of the latest production forecast for the ScotNS O&G sector, including anticipated production from the new field in question when applied as part of a Second or Further Checkpoint, against one of the production pathways determined by SG to be consistent with meeting the goals of the Paris Agreement to limit temperature rises to 1.5ºC. See slides 24/25 for further information on this test area.

Were a checkpoint to be applied today, the ScotNS O&G Production Forecast would serve as the production forecast that would need to decline at a rate equal to or faster than whichever 1.5ºC pathway is used as a comparator for a positive test score to be achieved.

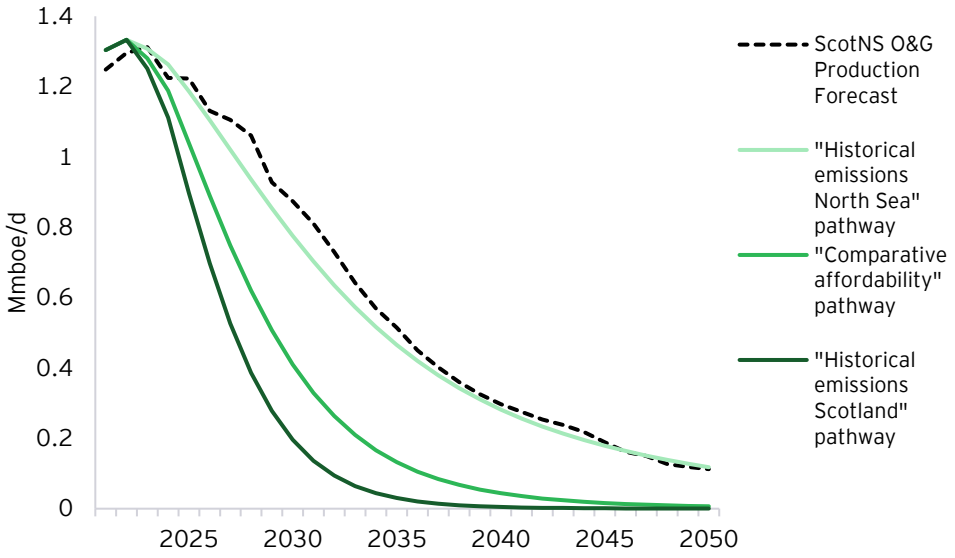
Scenarios with faster rates of decline than ScotNS O&G Production Forecast

The implication of using one of the pathways with a rate of decline of O&G production that exceeds the ScotNS O&G Production Forecast (**Historical Emissions, Affordability and Historical Production**), is that this test would be likely to result in a fail or low score, unless production forecasts have reduced significantly by the time of the checkpoint.

In the case of using Affordability and Historical Emissions scenario pathways as the comparator, the production forecast at the time of the checkpoint will need to have reduced dramatically for a positive test score to be possible.

The Historical Production scenario pathway on the other hand tracks just under the ScotNS O&G Production Forecast and so the production forecast at the time of the checkpoint would need to drop by a far smaller amount for a positive test score to be possible.

Scotland's potential production pathways



Source: EY analysis

Implications on CCC tests (cont.)

Scenarios with slower rates of decline than ScotNS O&G Production Forecast

Three of the scenarios produce production pathways that decline at a more gradual rate than the ScotNS O&G Production Forecast: **Current Emissions, Carbon Intensity and the Current Production Share Pathway.** If these scenario pathways were to be used as the comparator for Test 1, the likely outcome would be a pass or high score, unless the production forecast has increased materially by the time of the checkpoint. This is subject to the scoring method that is used for the test, which will be critical in determining the test outcome.

For example, if the scoring is based on the total consolidated production variance or the average annual production variance (see slide 24 for more detail), the likelihood of a favourable test score is greater due to the variance between the pathways and the ScotNS O&G Production Forecast growing wider over time. However, if the scoring is based on the worst annual production variance, the gap between the ScotNS O&G Production Forecasts and the pathways is small enough for a low / fail score to be possible.

Given the proximity between the ScotNS O&G Production Forecast and the pathways at certain points (particularly the late 2020s), production from the new field could possibly be the difference between a high / pass and low / fail score.

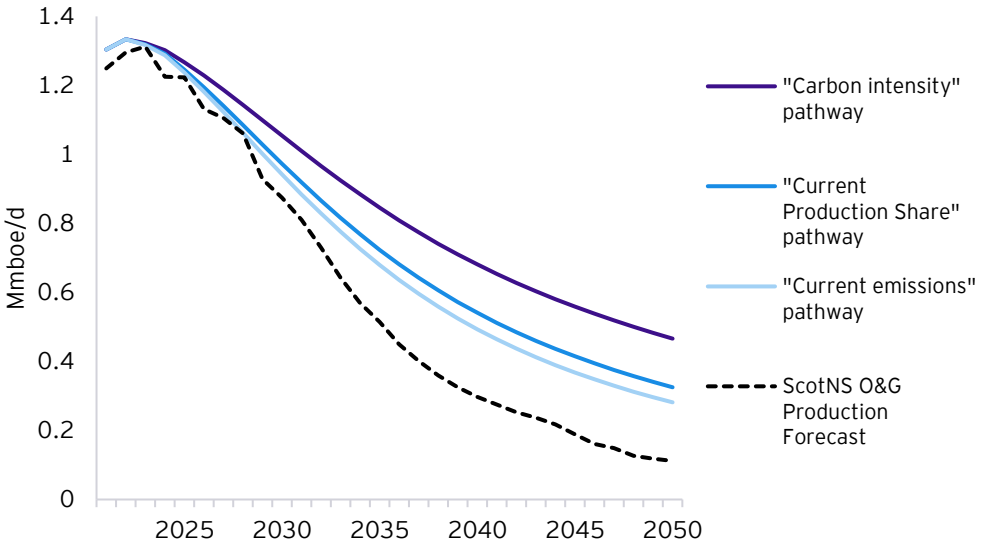
Potential impact on other test areas

Other test areas could also be affected by the different Just Transition pathways, to the extent that the pathway chosen by SG is deemed to represent forecast production. This impact would be less quantifiable and material than for Test 1 as these other test areas do not focus primarily on future production.

For Test Area 3 (which assesses sector Scope 1 and 2 emissions performance against a pre-determined baseline), depending on the basis for determining the baseline, the pathways could affect the targets that the sector is assessed against, as future Scope 1 and 2 emissions will be correlated to the anticipated scale of future production.

Test Area 5 (risk assessment of Scotland's energy security position) could be affected by the pathways on the basis that a faster decline in production of O&G would result in increased reliance on imports and alternative energy sources (domestic and international) that may not be sufficiently mature to cover the shortfall in O&G production.

Scotland's potential production pathways



Source: EY analysis

Similarly, Test Area 6 (which evaluates performance in supporting Scotland's energy transition) could also be impacted in that a faster decline in O&G production could necessitate more ambitious energy transition targets but could also have a detrimental economic impact which could hinder energy transition performance.

Whereas the determination of the pathway as the comparator for Test 1 will be fundamental to the test and its outcome, for these other test areas SG's choice of central pathway could have a bearing on the findings (to the extent the pathway chosen is deemed to represent forecast production) but to a less critical extent.

In this section we have only explored the impacts of the different pathways on the CCC tests themselves. Chapter 3 explores the wider impacts of the different pathways on the economy (jobs, GVA, investment and Gross Domestic Product (GDP)), infrastructure, the skills agenda, energy security and energy costs, the environment and regional impacts on Scotland's O&G sector.

8 Appendix A – Report addendum

Appendix A – Addendum to the report based on subsequent announcements

BEIS CCC consultation
BEIS' CCC consultation ran up until the end of February 2022. In September 2022, subsequent to the writing of this CCC report, BEIS issued their evaluation of the responses to the consultation, alongside a final design of the checkpoint. Following BEIS' evaluation of the consultation responses the following tests were included in the CCC:
1a – Historical reductions in operational greenhouse gas emissions from the sector vs. commitments
1b – Projected reductions in operational greenhouse gas emissions from the sector vs. targets set out in the NSTD
2 – Operational greenhouse gas emissions intensity from the sector benchmarked internationally
3 – Status of the UK as a net importer of O&G.

The following tests were rejected:
4 – Sector progress in supporting Energy Transition technologies
5 – Consideration of international Scope 3 emissions
6 – A test that considers the world's 'production gap'.

Our process
The main body of this report has been prepared to give SG an overview of the options available to them with regards to a potential Scottish CCC, and is not intended to represent a formal CCC design like BEIS has published. We evaluated a series of test areas against the principles of an effective test, including the following:
1 - Production in context of 1.5ºC Paris Agreement goal
2 – Scope 3 emissions in context of 1.5ºC Paris Agreement goal
3 - Sector Scope 1 and 2 emissions reduction performance
4 – Scope 1 and 2 emissions benchmarked internationally
5 – Energy security - balance of imports / exports
6 – Progress in supporting energy transition
7 – FDP assessment
8 – Counter-factual
9 – Impact on consumer costs

The first six test areas were based on the six potential tests per the BEIS consultation, while the final three were included in the evaluation by EY as extras to consider. Tests within each of these test areas, except for Test Areas 2 and 9, have been suggested as possible CCC tests worthy of further consideration.

Comparing the BEIS CCC tests with the proposed Scottish CCC tests
BEIS tests 1a, 1b and 2 are effectively the same as the proposed Scottish Tests 3a, 3b and 4a. Given Scotland's position as a net exporter of O&G, BEIS test 3 would not be applicable for a Scottish CCC, but energy security has been considered separately in our Test Area 5. The three tests rejected by BEIS are evaluated as test areas in our report. We have suggested how tests in these areas could be applied in a Scottish CCC while highlighting a number of challenges that would need to be resolved for these tests to be viable. See the following slides for more details.

The BEIS consultation response makes it clear that its CCC is intended to be informative in nature rather than deterministic, i.e. it is purely to inform Ministers' decisions on whether to endorse new NSTA licensing rounds, rather than determining if a checkpoint has been passed or failed. This decision to make the CCC informative rather than pass/fail could reflect some of the challenges highlighted in the report around availability of information, investor confidence and exposure to legal challenge. If a Scottish CCC is to be a categorical pass/fail exercise, these risks would need to be mitigated.

BEIS has confirmed that the CCC would not be applied ahead of the awarding of development consents, on account of the need to 'maintain certainty in the industry and avoid adverse impacts on future investment decisions in the UK'. We have discussed this in the report as a critical challenge associated with any later application of the CCC that would need to be managed carefully.

Appendix A – Addendum to the report based on subsequent announcements

Equity as an additional principle

In addition to the BEIS principles outlined on slide 21, many respondents to the BEIS consultation suggested that equity should be included as an additional principle for the following reasons:

- The UK is wealthier than many other petroleum-producing nations;
- The UK has, on average, emitted more pollution per capita than many other petroleum producing nations;
- The UK derives a smaller fraction of its wealth from petroleum production than other petroleum-producing nations, i.e. it is less dependent on the industry.

The respondents argued that based on the above, the UK's production of O&G should decline at a faster rate than other countries. BEIS concluded in its consultation response that it would not be appropriate to add equity as a principle, on the basis that it cannot be determined with any likelihood that reducing UK O&G production faster on the grounds of equity would have the desired outcome, i.e. it would most likely be to the benefit of other developed producers instead of developing countries, and it would not be likely to reduce overall global emissions.

Based on the above, we would not propose adding equity as a guiding principle for the purpose of our report. As the purpose of the CCC is to ensure that any additional O&G production is in alignment with SG's climate commitments, our view is that equity is not a relevant principle for the purpose of evaluating potential tests for a CCC.

It is worth noting that the UK and Scotland follow IPCC-recognised equity principles in its Nationally Determined Contribution (NDC), and that the principle of equity has been considered in the development of the scenario pathways per section 7 of this report, specifically the "Comparative Affordability" and "Historical Emissions" pathways.

Tests rejected by BEIS

4 – Sector progress in supporting Energy Transition technologies

The equivalent tests in our report were 6a - sector performance against energy transition (including NSTD) commitments and 6b - project contribution towards energy transition in FDP.

A number of issues were raised by respondents, including that it is wrong to use investment in clean energy to justify continued extraction of O&G, that singling out Carbon Storage and Hydrogen Generation could be seen as deprioritising other new energy technologies, and that the success of energy transition technologies such as CCUS and Hydrogen is not entirely within the sector's control.

This latter point is one of the main concerns that we raised with this as a potential test, however we did not rule this test area out for potential inclusion in a CCC given the importance of the offshore O&G sector in delivering energy transition and the need for associated incentivisation and to ensure the sector is not 'rewarded' if it fails contribute sufficiently. As emissions have been naturally declining in line with production over the last 20 years and are forecast to continue to do so, there is a risk that without incentivisation the sector will not undertake proactive emission abatement activity.

To address the risk of this test assessing what is not within the sector's control, the test would need to focus on energy transition activities which O&G operators can reasonably participate in, such as supporting renewable energy development through platform electrification, usage of local supply chain, investment in green R&D, decommissioning and contribution to CCUS, for example.

If it is determined that this risk and others cannot be sufficiently mitigated for this test to be a robust pass/fail test, it could still be possible for the test to be informative only (as per the BEIS CCC) with the challenges and risks documented.

Appendix A – Addendum to the report based on subsequent announcements

5 – Consideration of international Scope 3 emissions

Equivalent Scottish Test Area 2 - Scope 3 emissions in context of 1.5ºC Paris Agreement goal was not put forward as a standalone test on the basis that Scope 3 emissions are intrinsically linked to production levels and therefore already covered by our Test 1.

We understand the rationale for not including this test in the final BEIS CCC design, as the challenges associated with creating a robust test involving Scope 3 emissions are significant. We have nevertheless suggested that Test 1 in our report could be considered further as a test methodology which assesses Scope 3 emissions and we have set out in the report the key issues that will need to considered closely. See below for further details.

6 – a test that considers the world's 'production gap'

The production gap is defined as the difference between the quantity of fossil fuels the world can afford to burn while remaining within the Paris Agreement 1.5ºC limit, and the quantity of fossil fuels that the world is planning to burn, based on a global sum of government projections.

In their consultation, BEIS asked respondents how would a test that considers the production gap be designed, detail of any proposed methodology and sources of data and projections that would be required

Many respondents were of the view that a production gap test should not be included because there should be many other priorities for the UK above the existence of a global production gap. There were also concerns that using a production gap as a justification for stopping or reducing licensing for UK O&G could be counterproductive. Many respondents felt that such a test would not contribute to the purpose of the CCC which is to help ensure that any future licensing is consistent with UK climate objectives. Finally, the risk of unintended consequences due to complexity and uncertainty was flagged.

BEIS argued that halting new licences based only on whether there is a production gap is an over-simplified, and potentially counter-productive approach and concluded that the test should not be included in the CCC.

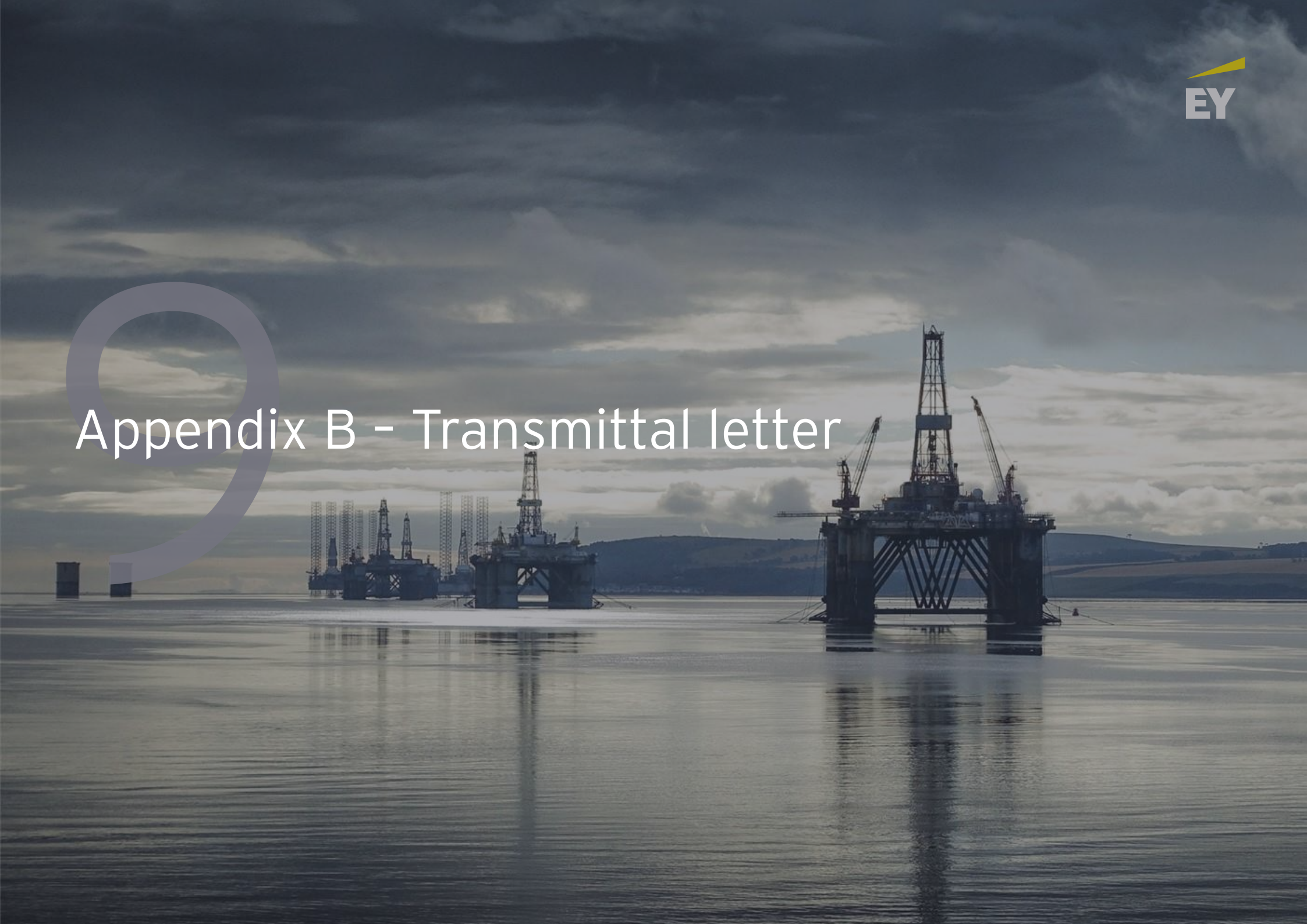
Creating a test that could perfectly produce a pass/fail outcome based on whether or not the global production gap would be increased or reduced by additional O&G production is not possible. We accept the BEIS position that a production gap test does not directly influence the actions of other petroleum producing nations and therefore that any decline in Scotland's production levels would not guarantee a decline in the overall global production gap.

Our Test 1 is a potential test design based on the global production gap which assesses Scottish O&G production projections against a baseline Scottish production pathway that is consistent with meeting the goals of the Paris Agreement to limit global temperature rises to 1.5ºC. There are a number of pathways that could be used as the comparator in this test, all based on the assumption that Scotland's production serves a constant portion of global demand, which in reality is not the case (see Chapter 1 for further information).

Although this test cannot predict a global production gap impact, it can at least serve as a benchmark based on the global production gap against which SG could measure itself. Despite the significant risks associated with this test, we have considered it as worthy of further consideration as it is perhaps the most relevant of all tests considered for making decisions on future production activity.

33rd offshore O&G licensing round

Also subsequent to the writing of this report was the opening of the 33rd offshore O&G licensing round in October 2022. This could result in a slightly slower decline in future O&G production (although the extent of this at this stage cannot be known). This could most directly impact Test 1 which is based on production forecasts against a predetermined baseline, but it could also impact to a smaller degree Test Areas 3 (sector emissions performance), 5 (energy security) and 6 (energy transition performance). The overall impact to the CCC tests considered in this report is not anticipated to be material.



Appendix B – Transmittal letter

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Just Transition Review of Scottish Energy Sector – Chapter 4: Climate Compatibility Checkpoint

7 November 2022

Dear Sir/Madam

In accordance with our engagement letter dated 22 October 2021, we have prepared our report in relation to the Scottish Government's Just Transition review of the energy sector. This report relates to Chapter 4, specifically the design of a set of specific tests that could form the basis of a Climate Compatibility Checkpoint, and how these tests may differ depending on the Just Transition scenario pathway which is used as a comparator. Please note that this report was prepared prior to the publication of BEIS' consultation response and its proposed Climate Compatibility Checkpoint design in September 2022. As instructed by you, we have added an Appendix which contains an assessment of this publication in the context of our report.

Purpose of our report and restrictions on its use

This report was prepared on your instructions solely for the purpose of the Scottish Government and should not be relied upon for any other purpose. Because others may seek to use it for different purposes, this report should not be quoted, referred to or shown to any other parties except as permitted under the Engagement Letter. Additionally, we have agreed that you may publish the whole of this report as a single document without amendment or redaction as a portable document format (pdf) file on the world wide web.

In carrying out our work and preparing our report, we have worked on the instructions of the Scottish Government. Our report may not have considered issues relevant to any third parties. Any use such third parties may choose to make of our report is entirely at their own risk and we shall have no responsibility whatsoever in relation to any such use.

Scope of our work

Our work in connection with this assignment is of a different nature to that of an audit. Our report to you is based on inquiries of, and discussions with, the Scottish Government and Transport Scotland. We have not sought to verify the accuracy of the data or the information and explanations provided by the Scottish Government.

This report specifically focuses on Climate Compatibility Checkpoints and their implications. Chapter 3 consolidates conclusions from all phases of the project and includes scenario development, the consequences of each scenario on the Just Transition and recommendations for potential Scottish Government policy interventions.

If you would like to clarify any aspect of this review or discuss other related matters, please do not hesitate to contact us.

Yours faithfully

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