

SUMMARY VERSION:
SEA CHANGE

CLIMATE EMERGENCY, JOBS AND
MANAGING THE PHASE-OUT OF UK
OIL AND GAS EXTRACTION



May 2019

Endorsed by

COMMON WEAL



KEY FINDINGS

A well-managed energy transformation based on Just Transition principles can meet UK climate commitments while protecting livelihoods and economic well-being, provided that the right policies are adopted, and that the affected workers, trade unions and communities are able to effectively guide these policies.

Global commitments on climate change, enshrined in the 2015 Paris Agreement on climate change, require the rapid transformation of energy systems, replacing fossil fuels with energy from renewable sources.

Both the UK and devolved Scottish Governments have introduced pioneering Climate Change Acts and are phasing out or have already phased out coal power. In contrast, carbon dioxide emissions from burning of oil and gas have fallen just 3% since 1990. Both governments' policy on oil and gas is to enable the greatest possible volume to be extracted. This policy position is incompatible with the UK's and Scotland's climate commitments.

The UK offshore oil industry is a significant employer, with about 30,000 direct workers and over 70,000 more in the domestic supply chain. However, as the industry increases automation and tries to cut costs, it has made many job cuts and put pressure on working conditions. Unfortunately, failures of energy transition policy have meant the development of the renewable energy sector over the last 20 years has not translated into significant UK job creation, as a high proportion of manufacturing jobs in the renewables industry have been lost to overseas competitors. Furthermore, the growing offshore wind power sector is characterised by a lack of trade union recognition and challenging working conditions.

This is a summary of the report *Sea Change*. The report examines the future of UK offshore oil and gas extraction in relation to climate change and employment. It finds that:

- **The UK's 5.7 billion barrels of oil and gas in already-operating oil and gas fields will exceed the UK's share in relation to Paris climate goals - whereas industry and government aim to extract 20 billion barrels;**
- **Recent subsidies for oil and gas extraction will add twice as much carbon to the atmosphere as the phase-out of coal power saves;**
- **Given the right policies, job creation in clean energy industries will exceed affected oil and gas jobs more than threefold.**

In light of these findings, the UK and Scottish Governments face a choice between two pathways that stay within the Paris climate limits:

1. **Deferred collapse:** continue to pursue maximum extraction by subsidising companies and encouraging them to shed workers, until worsening climate impacts force rapid action to cut emissions globally; the UK oil industry collapses, pushing many workers out of work in a short space of time. *Or:*
2. **Managed transition:** stop approving and licensing new oil and gas projects, begin a phase-out of extraction and a Just Transition for workers and communities, negotiated with trade unions and local leaders, and in line with climate change goals, while building quality jobs in a clean energy economy.

Given the tightness of remaining carbon budgets, each new license, permit or tax break for oil and gas pushes the UK further towards the deferred collapse path. We recommend the second course; our research shows that energy transformation can meet UK climate commitments while protecting livelihoods and economic well-being, if the right policies are adopted.

Local manufacturing and workforce participation therefore need to guide new approaches to economic development, industrial policy and ownership, together with stronger trade union rights for workers affected by energy transitions, including union recognition and sectoral bargaining to ensure acceptable norms on pay and working conditions.

We recommend that the UK and Scottish Governments:

- **Stop issuing licenses and permits for new oil and gas exploration and development, and revoke undeveloped licenses;**
- **Rapidly phase out all subsidies for oil and gas extraction, including tax breaks, and redirect them to fund a Just Transition;**
- **Enable rapid building of the clean energy industry through fiscal and policy support to at least the extent they have provided to the oil industry, including inward investment in affected regions and communities;**
- **Open formal consultations with trade unions to develop and implement a Just Transition strategy for oil-dependent regions and communities.**

SUMMARY

CLIMATE LIMITS: UK OIL AND GAS VS THE PARIS GOALS

Using data sources from the energy industry and the Intergovernmental Panel on Climate Change (IPCC), research by Oil Change International (OCI) has found that carbon dioxide emissions from the oil, gas and coal *in already-operating fields and mines* globally will push the world far beyond 1.5°C of warming and will exhaust a 2°C carbon budget, as shown in Figure ES-1.

These *developed reserves* exist where infrastructure has already been built, capital invested and workers employed for long-term operating jobs. Because of the problem of “carbon lock-in”, the more fossil fuel reserves that are developed, the harder it will be to achieve the Paris goals.

Any new oil or gas field developed in the UK or elsewhere will add to the left-hand column in Figure ES-1. Barring a dramatic change in the prospects of carbon sequestration technologies, this can only lead to two possibilities: either the newly developed reserves are fully extracted and burned, helping push the world further beyond climate limits, or some portion gets left in the ground, stranding the capital

already invested and forcing a deferred collapse of fossil fuel extraction at the expense of workers and communities.

The alternative to such socially damaging and costly outcomes is a structured and planned transition, phasing out oil and gas extraction while replacing it with clean energy to power our economy. And while this process must occur worldwide, the first steps should be taken in countries that have the greatest resources to enable the transition. As well as in the UK, climate justice advocates are actively calling for an end to new oil and gas development as part of a managed transition in Norway, Canada and the United States; in all three cases, the calls have entered the political debate. In the words of the Lofoten Declaration, signed by over 500 civil society organisations, “It is the urgent responsibility and moral obligation of wealthy fossil fuel producers to lead in putting an end to fossil fuel development and to manage the decline of existing production.”

However, the policy of the UK and Scottish Governments is to maximise extraction of oil and gas, by continuing to support exploration and new oil extraction infrastructure.

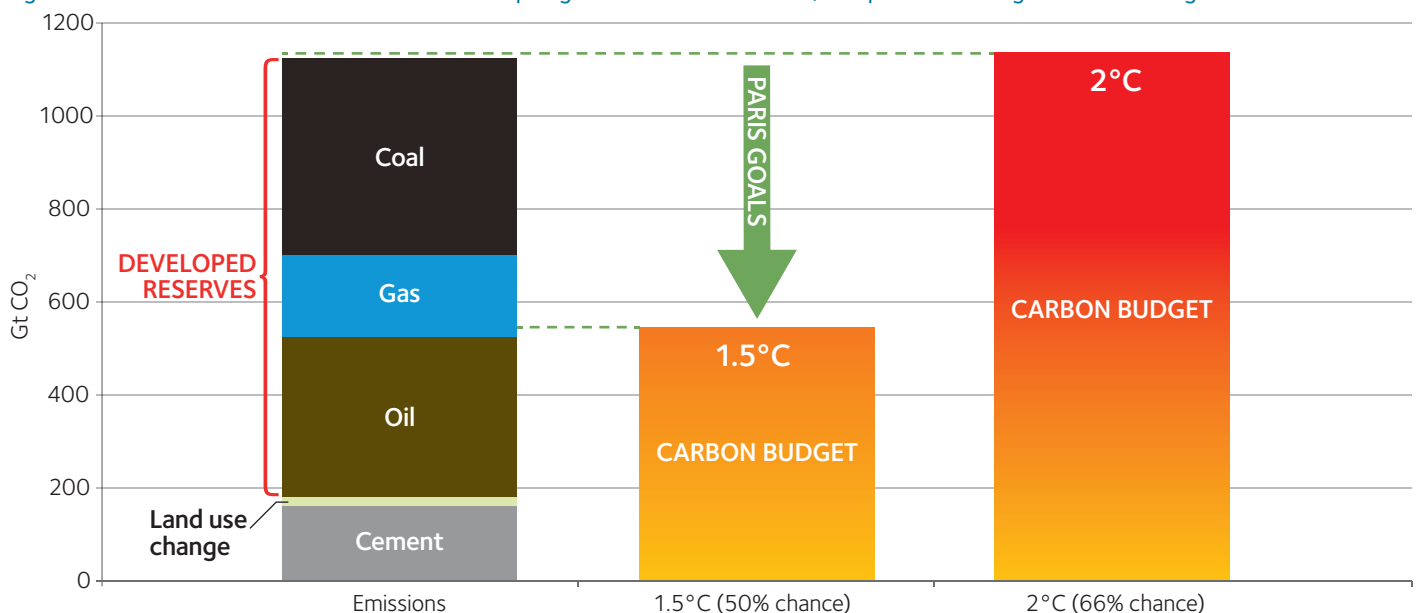
Extraction is currently growing, with major new projects coming on stream (such as BP’s Clair Ridge) and new discoveries (such as Total’s Glendronach field). In 2019, the UK Government plans to complete the UK’s 31st licensing round and launch a 32nd licensing round, to encourage yet more exploration.

Key finding: The UK’s 5.7 billion barrels of oil and gas in already-operating fields will exceed the UK’s share in relation to the Paris climate goals – whereas industry and government aim to extract 20 billion barrels.

Our research finds that:

- **Opening new fields would nearly quadruple the emissions from UK oil and gas.** These new fields are additional to the UK’s developed reserves in Figure ES-1 below. These emissions are shown over time in figure ES-2 overleaf.
- **If all countries took the same approach as the UK – of phasing out coal power while maximising oil and gas extraction – resulting warming would significantly exceed 2°C, moving dangerously beyond the Paris goals** (see Figure ES-3). This is because the additional oil and gas emissions far exceed the savings from coal.

Figure ES-1: Carbon dioxide emissions from developed global fossil fuel reserves, compared to Paris goals carbon budgets



Sources: Rystad UCube, International Energy Agency (IEA), World Energy Council, Intergovernmental Panel on Climate Change (IPCC), OCI analysis

KEY RECOMMENDATIONS

Based on these findings, we recommend that:

- The UK should cancel the current and any future oil and gas licensing rounds, and stop issuing permits for new fossil fuel exploration and development;
- The UK should revoke undeveloped licenses and review whether existing

facilities should be phased out early through a Just Transition, in order to contribute to the achievement of the Paris goals.

While our report focuses on the impacts of offshore UK oil and gas extraction, these conclusions apply equally to the

UK Government's efforts to encourage onshore extraction in England through hydraulic fracturing (fracking). The Scottish Government has declared an indefinite moratorium on fracking; the Welsh Government has stated it will not issue any licenses for fracking.

Figure ES-2: Projected carbon dioxide emissions from UK oil and gas, 2018-50

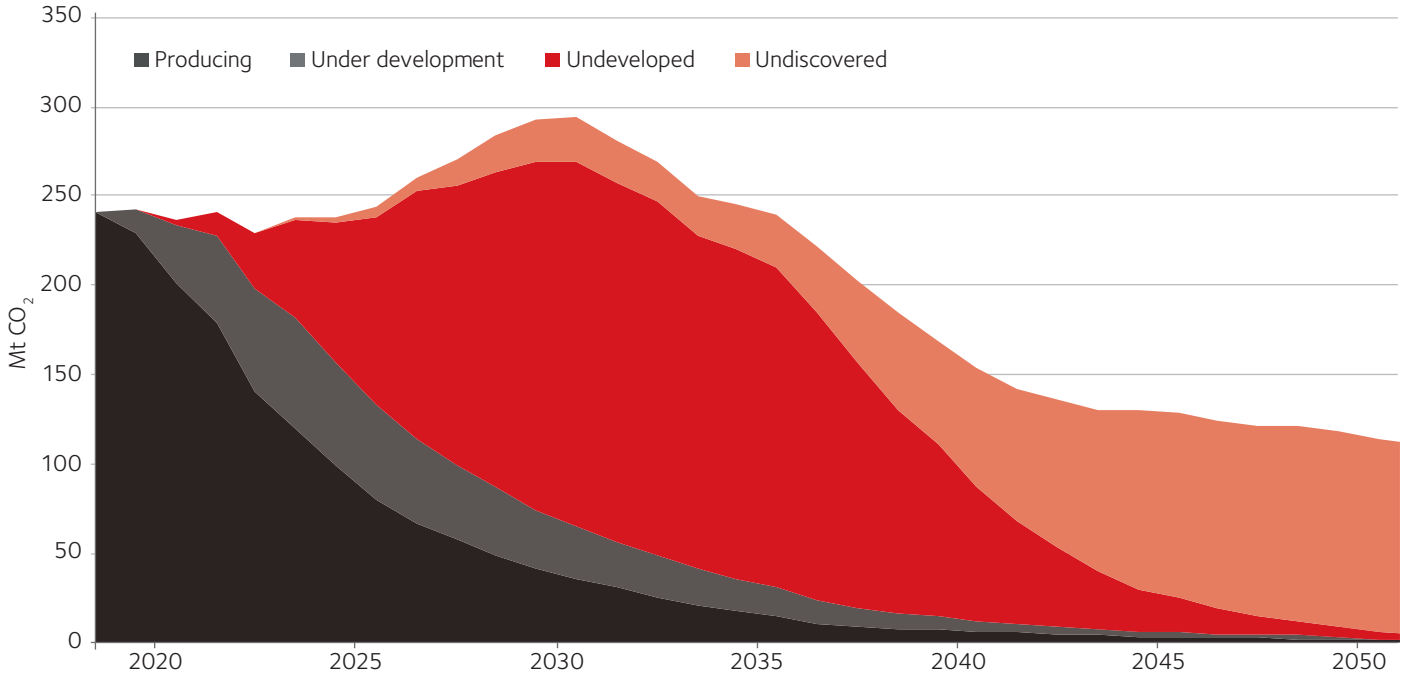


Figure ES-3: If all countries took the same approach as the UK: The impact on cumulative global carbon dioxide emissions from fossil fuels if all countries phase out coal while maximising oil and gas extraction

Specifically, if countries: (i) phase out coal power using the timeline of the Powering Past Coal Alliance; (ii) phase out non-power uses of coal by 2050; (iii) approve all new oil and gas fields until 2030; and (iv) provide additional subsidies to keep those fields profitable whenever the oil price falls

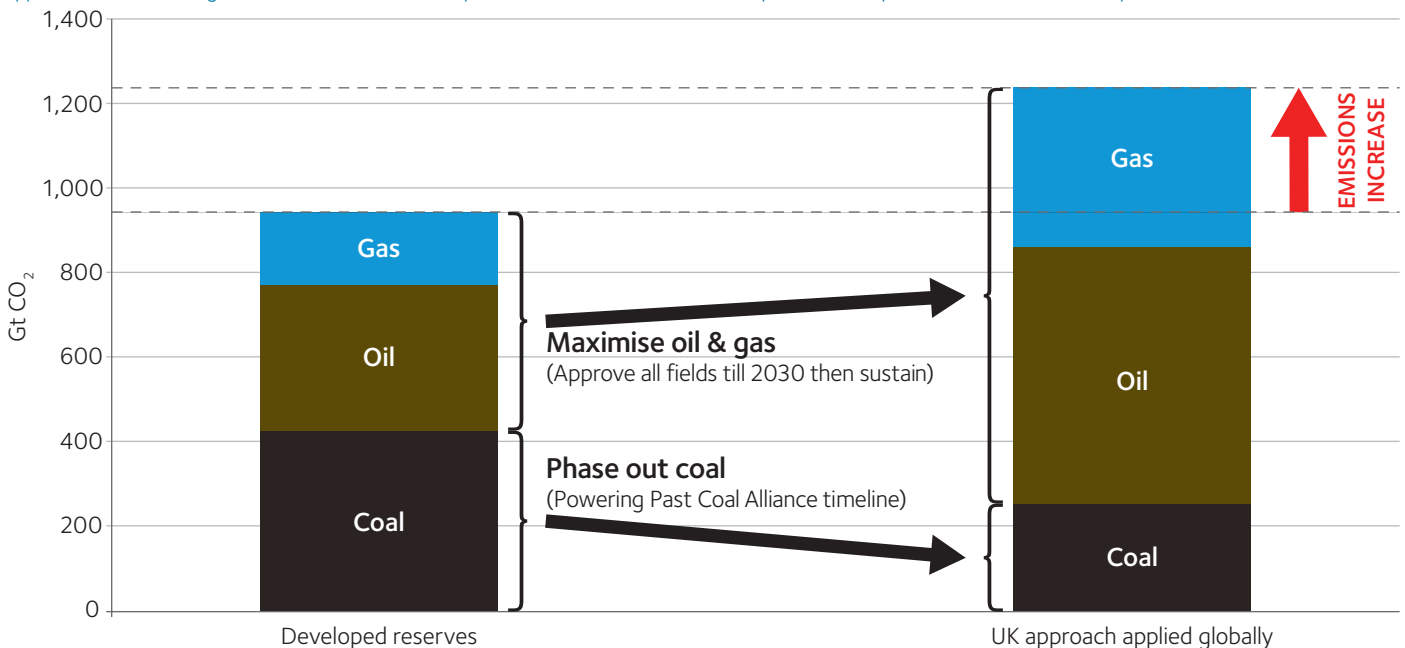
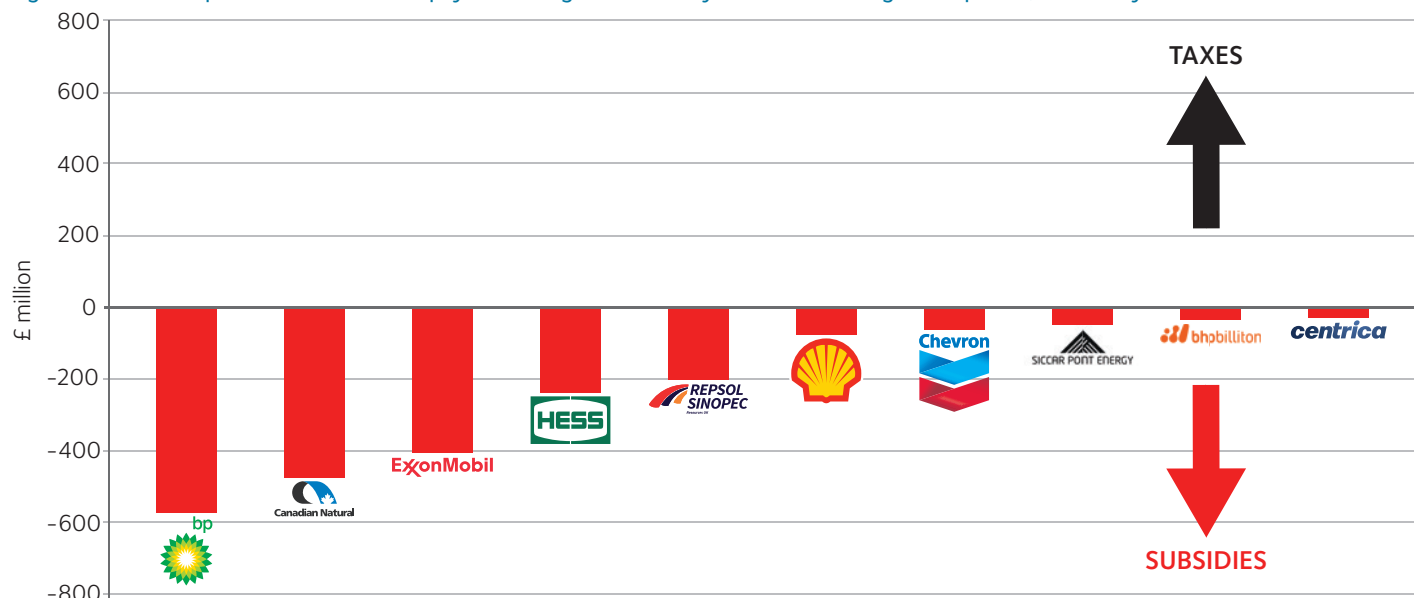
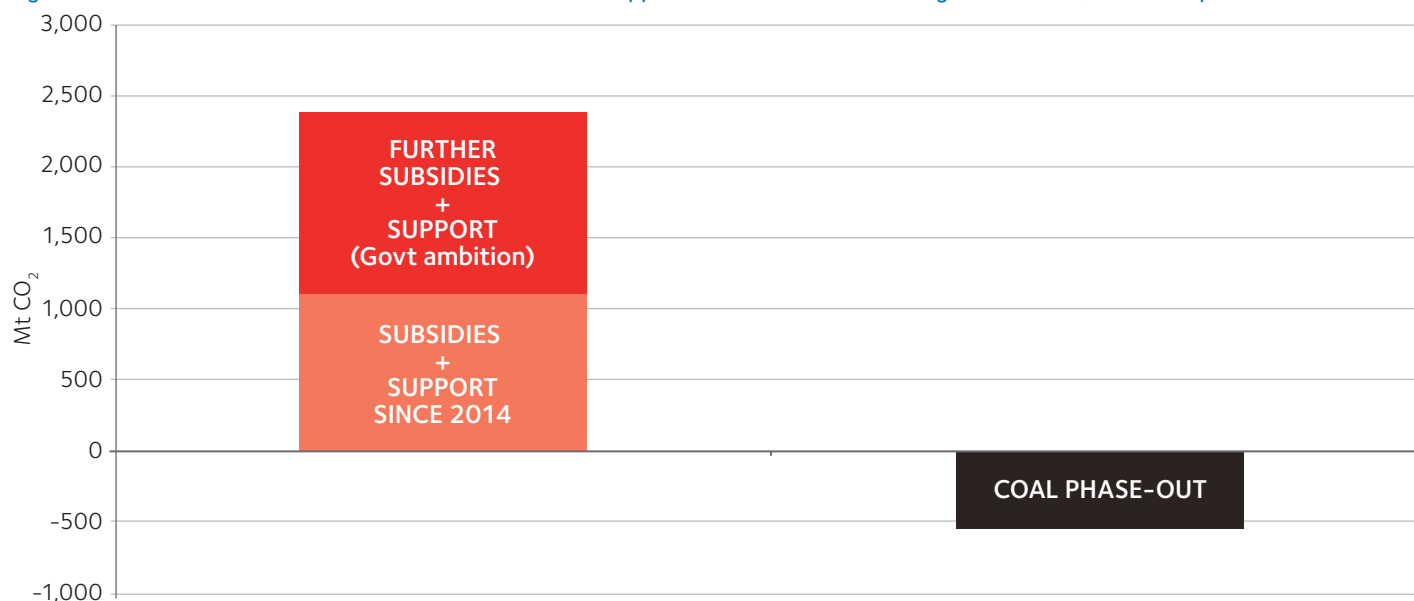


Figure ES-4: The top ten takers: Total net payments to government by selected oil and gas companies, calendar years 2015-17



Source: UK Extractive Industries Transparency Initiative (EITI) Multi Stakeholder Group

Figure ES-5: Effect on 2016-2050 carbon emissions of UK support and subsidies for oil and gas extraction, vs UK coal phase-out



Sources: Rystad UCube, Oil and Gas Authority (OGA), Department for Business, Energy & Industrial Strategy (BEIS), IPCC

SUBSIDIES FOR OIL AND GAS EXTRACTION

In pursuit of its policy of maximising oil and gas extraction, the UK Government has given generous tax giveaways to oil and gas companies. In the tax years 2015-16 and 2016-17, the Treasury gave more money to oil companies than it took from them in taxes.⁵ Figure ES-4 shows the top ten beneficiary companies, all of which received net handouts during 2015 to 2017. This is not because they made losses: at least five

of the ten were profitable during the period. Both BP and ExxonMobil made more than £1 billion of profits from UK extraction during that period.

Key finding: Recent subsidies to oil and gas extraction will add twice as much carbon to the atmosphere as the phase-out of coal power saves.

The UK Government estimates that the oil and gas subsidies and support that it has

introduced since 2014 will increase future extraction by more than 30%. The carbon dioxide emissions from that additional oil and gas are already twice what will be saved over that period by the UK phase-out of coal power (see Figure ES-5). Through additional measures to achieve its "Vision 2035", the government hopes to double the impact of those recent subsidies.

a In 2017-18, tax revenues went back into the black (to £1.2 billion) although still a long way short of the £6.1 billion collected in 2010, when oil prices and extraction rates were at roughly the same level.⁵

6 Our report identifies and evaluates three major types of subsidy for UK oil and gas extraction:

- 1) **Tax allowances:** tax breaks on high-cost and marginal fields, available from 2009 to 2015, now replaced by tax breaks on investment on all fields.
- 2) **Reduced tax rates:** the UK has some of the lowest oil tax rates in the world, pushed even lower in the 2015 and 2016 Budgets. For example, Petroleum Revenue Tax is now charged at zero percent.
- 3) **Decommissioning tax breaks:** the taxpayer will pay almost half of the cost

of decommissioning offshore oil installations at the end of their life.

In addition:

- Since 2013, the government has signed legal guarantees to prevent any future elected government from changing the tax rules, an extraordinary surrender of sovereignty.
- It allows companies to sell their tax histories to other companies, so that those new companies can also claim public funding for decommissioning.

Table ES-1 shows estimates of the costs and impacts of these subsidies.

KEY RECOMMENDATIONS

Based on these findings, we recommend that:

- **The UK should remove all subsidies from oil and gas extraction, including tax breaks, and redirect them to fund a Just Transition.**
- **Decommissioning Relief Deeds should be cancelled; companies should pay decommissioning costs, and their decommissioning plans should provide for a Just Transition for workers.**

Table ES-1: Summary of three types of UK subsidy for oil and gas extraction

Type	Measure	Cost to taxpayer	Effect on extraction/emissions		Fits subsidy definition?
Tax allowances	Field Allowances (2009-15)	£1.1 bn granted in 2013-14, used over 5 years	Designed to enable extraction of fields that would be otherwise unviable	Supported 100 additional fields	Tax allowances almost universally considered to be a form of subsidy (except by UK govt)
	Investment Allowance (2015-)	£1.3 bn over 5 years (combined with 2015 tax cuts)	Designed to incentivise investment, causing carbon lock-in	+ 700 MtCO ₂ = 10 years of UK coal emissions	
Reduced tax rates	25 years of tax cuts, to unusually low levels	Govt revenue since 1990 is £255 bn lower than if it had the same effective tax rate as Norway	Declining extraction has been reversed through subsidies	New fields opened since the major subsidies of 1993 have added 13.3 bn boe to date ⇒ +3.6 GtCO ₂ , more than UK coal emissions over that period	Govt forgoes revenue, enabling higher profits than otherwise due (WTO, IMF definitions); UK fails to secure the public's fair share of income from the nation's resources; oil companies average 20% profit over last 10 years, cf 12% for other UK industries.
	Major tax cuts in 2015 and 2016 Budgets	£2.3 bn over 5 years (including Investment Allowance)		2015 tax cuts + investment allowance: 15% increase in 2019 extraction ⇒ +16 MtCO ₂ /yr	
Decommissioning funding	Decommissioning tax reliefs	Taxpayer pays almost half of a bill estimated at £60 bn, but could be much higher	Attracts more companies to extract, frees up their capital for expansion	Not known	A grant, liability or foregone tax (WTO), not available to other industries (IMF)
	Decommissioning Relief Deeds	Principal cost is in removing future governments' freedom to change tax rules. Already by 2019, Treasury has committed £357m to covering one company's default.	Unlocking capital for expansion (up to £40 bn)	Could enable extraction of an additional 1.7 bn barrels of oil equivalent ⇒ +650 MtCO ₂	These mechanisms don't directly change flow of funds, but underpin the tax reliefs, and are not available to other UK industries or in other countries
	Transferable Tax Histories	Unknown, though clearly the mechanism allows companies to claim reliefs that they could not otherwise	Designed to increase investment and extraction	Not known	

JOB CREATION IN THE TRANSITION TO A CLEAN ECONOMY

To respond to the challenges presented by climate change while avoiding a deferred collapse of the UK's oil industry, a structured and planned transition is needed which covers both phasing out extraction and replacing the oil and gas with clean energy to power our domestic economy. Renewable energy is now cheaper in the UK than gas power. Several UK and global studies have shown that a rapid transition to 100% renewable energy is both technically feasible and affordable. The barriers are political.

The history (and present) of UK oil and gas extraction shows what can be achieved when a government sees a strategic interest in enabling an industry. From the first discovery of oil in 1969, the UK was an oil exporter within just twelve years, and by 1985 was the world's fifth largest producer of oil. It was government policy that enabled this rapid expansion, and government policy (through subsidies and industrial interventions) that sustained extraction long after it would have otherwise declined.

Clearly, it is an ambitious project to transform the UK energy system within a couple of decades, just as the rapid development of the North Sea was an ambitious project. However government intervention enabled the oil industry to develop, and it will be government intervention that similarly enables renewables.

Our report models the impact on the oil and gas workforce of ending the development of new fields. Taking into account jobs created through decommissioning and forecast retirement in the existing workforce, we estimate that 40,000 existing oil workers (direct and supply chain) may need to be in a different job by 2030.

To examine the scale of jobs that can be created in compatible clean energy industries and the level of policy ambition necessary, we model the numbers of new jobs that would be created in offshore wind, marine renewables and energy efficiency retrofits, sectors that have strong overlaps with existing oil and gas skills.

Key Finding: Given the right policies, job creation in clean energy industries will exceed affected oil and gas jobs more than threefold.

On the Current Trajectory (minimal support for renewable energy), the growth of jobs in wind energy alone exceeds the number of oil workers affected by the transition, but will not result in enough power to meet UK demand, nor in enough jobs to credibly support large-scale re-employment of existing oil industry workers. This demonstrates that ambitious government action is needed to push ahead the transition.

In an Existing Ambitions scenario (currently proposed ambitious targets from industry

and policymakers), at least three times as many new jobs will be created in wind power, marine renewables and energy efficiency retrofits as the number of oil and gas jobs affected in a managed phase-out of oil and gas extraction.

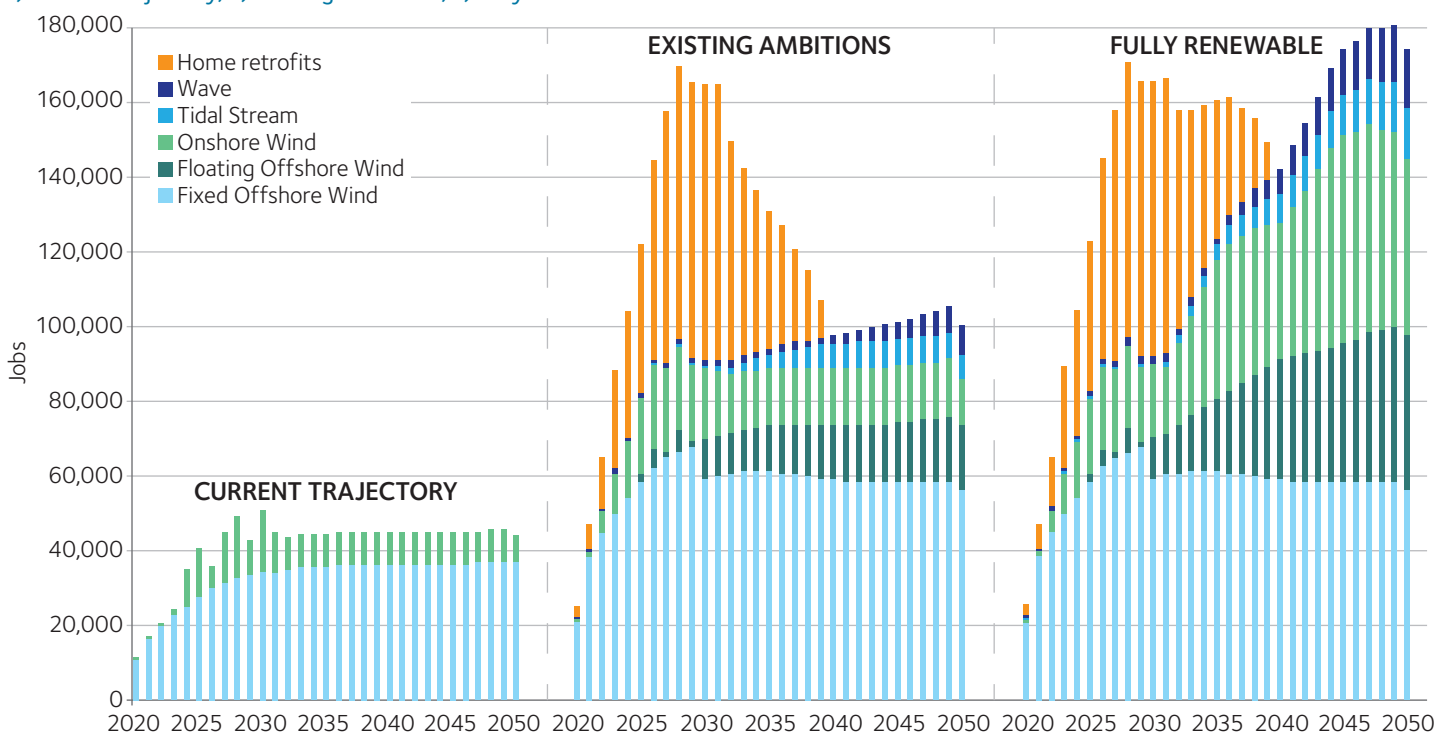
We advocate the full transition from fossil fuels to renewable energy before 2050, in line with climate goals. In a Fully Renewable scenario, we find that over four times as many new jobs will be created in just these sectors as the number of current oil and gas workers affected.

KEY RECOMMENDATIONS

Based on these findings, we recommend that:

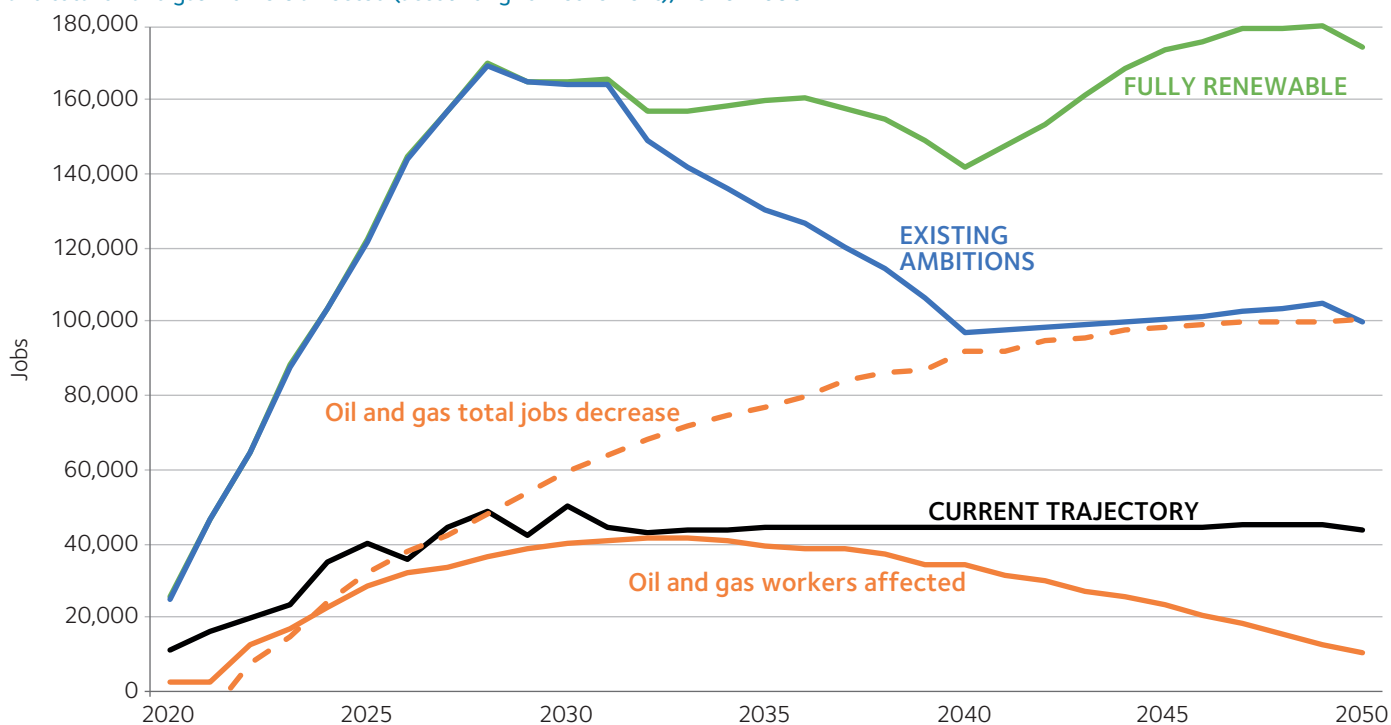
- **The UK and Scottish Governments should initiate a concerted policy and fiscal effort to rapidly build the clean energy industry to at least the extent they have supported the oil industry, with the aims of meeting UK energy needs and creating decent employment. This should include investment and public sector participation in the clean economy, for example through national investment banks, ownership of renewable infrastructure and support for local supply chains.**
- **The governments should support major scaling-up of education, retraining and re-skilling to help workers succeed in new industries.**

Figure ES-6: Estimates of cumulative potential new jobs in case-study industries – a) Current Trajectory, b) Existing Ambitions, c) Fully Renewable.



Sources: Modelling by Platform and Transition Economics.

8 Figure ES-7: Potential new clean energy jobs in three scenarios, compared to total oil and gas jobs lost (without new fields), and total oil and gas workers affected (accounting for retirement), 2020-2050



Sources: Modelling by Platform and Transition Economics.

DELIVERING A JUST TRANSITION FOR THE WORKFORCE

While developing renewable energy and clean infrastructure can create significantly more jobs than those affected in a phase-out of oil and gas extraction, it does not follow automatically that new jobs will be created in locations where they are needed, that they will match the skills of existing workers, or that these new jobs will equate to decent, unionised work. Government policy therefore plays a pivotal role. Past energy transitions in the UK have failed in these respects, with manufacturing jobs going overseas, increased labour market inequality and rising poverty. The present transition to a low-carbon economy has similarly seen a large portion of manufacturing jobs in the renewables industry go overseas. New approaches to economic development, industrial policy and ownership which emphasise local democracy and workforce participation are therefore necessary. Regional strategies will be required to respond to the particular challenges faced by industry centres like Aberdeen and Aberdeenshire.

A Just Transition Plan for industrial conversion to renewable energy sources while protecting workers' livelihoods is urgently needed.

Drawing on published literature and trade union statements, we propose a set of safeguards necessary to protect existing oil and gas workers' rights and livelihoods that a Just Transition strategy should aim to deliver. The safeguards include:

- Accountability to worker representatives and affected communities;
- Long-term investment into industry cluster locations such as Aberdeen;
- Where jobs are lost, creation of new jobs with equivalent terms and conditions and permanent contracts;
- Support for workers' education, re-location and retraining, along with wage and pension protection;
- Trade union rights for workers affected by energy transitions, including union recognition and sectoral bargaining.

Creating good quality new jobs requires public sector participation, support and investment. Evidence from other countries (from Taiwan to Denmark to Canada) suggests that significant degrees of public ownership of energy infrastructure and support for innovation, infrastructure and supply chains can be decisive in enabling a rapid transition that serves the public good.

KEY RECOMMENDATIONS

We recommend that:

- **The UK and Scottish Governments should develop and implement robust Just Transition Plans, guided by climate limits, for the workforce and communities dependent on the oil industry. These should be accountable to trade unions and local stakeholders and guarantee safeguards to protect workers' livelihoods.**
- **Governments should provide regionally specific policy development, planning and targeted long-term investment to manage transition for the wider community in oil industry centres.**
- **The UK and Scottish Governments should ensure that offshore renewable energy projects are designed so as to maximise the transferability of oil and gas workers (for example, in terms of common standards), and provide terms and conditions equivalent to those of existing oil and gas jobs.**

To read the full report, visit:
<http://bit.ly/sea-change-report>