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14 Buckingham Street London WC2N 6DF T: +44 (0)20 7470 6100 E: info@ippr.org

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Fatima-Zahra Ibrahim

Campaigner and climate activist

Paul Nowak

Deputy General Secretary, Trade Union Congress

Steve Waygood

Chief Responsible Investment Officer, Aviva Investors

Anna Taylor

Student climate striker and activist

Dr Emily Shuckburgh

Director of Cambridge Zero, University of Cambridge

ABOUT THE COMMISSION

The IPPR Environmental Justice Commission (EJC) is a landmark initiative building on IPPR's award winning work on environmental breakdown and its Commission for Economic Justice. The commission is co-chaired by Hilary Benn, Caroline Lucas and Laura Sandys, and they are joined by commissioners drawn from business, activism, academia, civil society, and trade unionism.

The central aim of the commission is to present an ambitious, positive vision shaped around people's experiences and needs, and develop a plan of action that integrates policy both to address the climate and environmental emergencies and to deliver economic and social justice.

The commission's final report will be published in 2021. Find out more at: https://www.ippr.org/environment-and-justice

NOTE

This briefing is presented as a submission to the IPPR Environmental Justice Commission in order to stimulate vital public debate. The arguments and the proposals made are those of the authors only. Commissioners serve in an individual capacity, and no report of or for the Commission should be taken as representing the views of the organisations with which they are affiliated.

ABOUT THE AUTHORS

Joshua Emden is a research fellow at IPPR.

Luke Murphy is head of the Environmental Justice Commission and associate director for the energy, climate, housing and infrastructure team at IPPR.

Russell Gunson is director at IPPR Scotland.

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SUMMARY

The Covid-19 crisis has hit the oil and gas industry hard. The crisis has accelerated the collapse of the oil price, the second time this has happened in just over five years. Extraction has shrunk as health restrictions have been put in place and demand has dwindled, threatening tens of thousands of jobs concentrated in Scotland and also across the UK.

This is already having an impact on the workers and communities directly employed in the industry, those employed through supply chains and the communities who depend on the industry too. It could also have serious implications for Scotland's economy, particularly in the north east of Scotland, and for Scottish parliament revenues given the recent devolution of income tax on earnings. There are also likely to be repercussions for the UK economy as a whole, as high-value, high-paid jobs are lost at a time when jobs and livelihoods are being lost across the country.

But, crucially, in this crisis there is a possibility for change. If we are to meet our international climate obligations under the Paris Agreement and legally binding net zero targets passed by both the UK and Scottish parliaments by 2050 and 2045 respectively at the very latest, as well as our wider commitments to restoring nature, we must not return to business as usual. Instead, we must reshape the oil and gas industry, to help us achieve net zero emissions and restore nature in Scotland and across the UK.

Doing so will also require a long-term plan for reducing oil and gas extraction from UK waters over the coming years. It will also require the building of bridges out of the sector for the workers and businesses who will be affected and the right investment and support for the wider communities who will also be affected.

In taking this action, the UK and Scottish governments have the opportunity to show global leadership and demonstrate the economic, environmental and reputational benefits of being a major historical oil and gas producer to announce a timetable to wind down fossil fuel production to align with net zero and the Paris Agreement.

This is not about managing decline, but a **managed transition** – from the reliance on fossil fuels, to the creation and expansion of the industries and jobs of the future. As previous IPPR analysis has shown, a well-managed transition that involves investment in industries like renewable power, low-carbon heating and energy efficiency, low-carbon transport, hydrogen, CCS and decommissioning could create 1.6 million jobs, shared across the country. As upcoming research will further explore, investment in low-carbon energy projects will also substantially benefit energy-intensive industries that currently rely on fossil fuels by de-risking them from future decarbonisation policies.

That the transition is owned and driven by the workers and communities affected will be critical to the success of any plan. That means it must be co-produced, between oil and gas workers and their trade unions, oil and gas communities and oil and gas companies. It must also be co-designed between the UK and Scottish governments; a transition should not be imposed on Scotland given the importance of the industry to the national and many local economies. And it must be co-funded, with the UK government taking responsibility for the overwhelming majority of the costs of transition, as it has received the overwhelming majority of oil and gas revenues.

This report outlines a number of actions that we believe are necessary to set out that long-term plan for oil and gas in the UK. At its centre, this report calls for a net zero deal for oil and gas in Scotland and the UK to feed into to the government's commitment to developing an oil and gas sector deal. This would be a jointly owned plan between UK and Scottish government, setting out targets and caps for oil and gas extraction and plans for investment in new low-carbon industries. It would be built by the communities, companies and people who are invested in the oil and gas sector. And it would be co-funded, with the UK government, Scottish government and businesses all paying their fair share.

This net zero deal requires a number of dimensions.

Place-based dimension

Firstly, the net zero deal will need to have a **place-based dimension** where investments to develop new opportunities in local areas currently dependent on oil and gas are identified. Local communities must not be left behind as the oil and gas industry winds down but instead be given the tools and opportunity to thrive through a process over which they have real say.

People-based dimension

Second, the deal will need to have a **people-based dimension**, finding the new opportunities necessary to protect current workers and future oil and gas workers. Over the short to medium term, this will likely require significant skills investment, funded by the UK and Scottish governments, and delivered in line with devolved priorities in England and Scotland, providing a bridge to oil and gas workers from the sector and its supply chain to others. Over the short term this will require targeted job support, including short term work schemes to spread what may be reducing numbers of jobs to wide numbers of people, freeing time to develop next careers and training.

Sector dimension

Thirdly, this will require a **sector dimension**, finding and funding new and growing sectors to fill the gap in the economy from the loss of high-paid, carbon-heavy jobs, at the UK level and Scotland level. This should start with government investment into zero-carbon and climate-compatible industries including decommissioning, offshore wind and energy efficiency retrofitting, hydrogen and CCS plants.

We make a **series of recommendations** that should form key components of any net zero and just transition deal for oil and gas. The key recommendations are:

CO-DESIGN, CO-PRODUCTION AND CO-OWNERSHIP

- The UK and Scottish governments should commit to a co-design process for a net zero deal for oil and gas, establishing a joint-steering group with representatives from both governments.
- The Scottish government should provide more funding and capacity to the Just Transition Commission (transforming it into a Net Zero and Just Transition Delivery Body) and establish a process for the co-production of the net zero deal for oil and gas. Similar bodies should be created across the UK.
- In tandem with hearing from workers, we recommend that citizens' juries for affected regions like Aberdeenshire should be set up by the Scottish government and UK governments to test just transition proposals.
- The UK and Scottish governments should learn from the missed opportunity of the Lucas Plan and work closely with oil and gas company management, trade unions and workers in the oil and gas sector.
- The UK and Scottish governments should provide funding to local councils in affected areas to purchase, where possible, oil and gas assets to be transformed into community owned projects.

WINDING DOWN OIL AND GAS

- The UK and Scottish governments should work together to set clear five-yearly targets to reduce oil and gas production, consumption and exports over time, in line with overall net-zero targets and the Paris Agreement recorded on a billion barrel per five-year basis.
- The UK and Scottish governments should collectively agree to remove or amend the Infrastructure Act so that it puts a cap aligned to their respective net zero targets and commitments under the Paris Agreement, on the requirement for maximum economic recovery (MER) from oil and gas fields. As part of the government's ongoing oil and gas licensing review (HM Government 2020a), this cap should also be incorporated into future licensing arrangements to ensure any future exploration is compatible with a net-zero target and the Paris Agreement.
- To embed a commitment to reducing production in company culture, the government should reform CEO's duties to include environmental obligations, full, transparent reporting and pay and bonuses linked to long-term environmentally sustainable value creation.
- The government must confirm its intention to phase out UK Export Financing (UKEF) of fossil fuel projects (ECIU 2020) and UKEF should also actively increase investment into low-carbon and climate compatible opportunities abroad such as offshore wind and decommissioning.

BRIDGES TO THE FUTURE

- Both the UK and Scottish governments should work with local councils to invest in the expansion of local infrastructure situated in oil and gas regions. Examples of local projects could include investment in local CCS projects like Acorn in Scotland, the expansion of port infrastructure, investment in broader supporting infrastructure like broadband and transport links, and the development of regional low-carbon clusters of industry such as Grangemouth and Teesside, academia and technical colleges.
- To ensure that local communities build on the legacy of oil and gas infrastructure, both the UK and Scottish governments should work with local councils to explore the repurposing of oil and gas infrastructure such as pipelines, platforms and old wells (Forbes-Cable et al 2020) for technologies like hydrogen and CCS. The government's 10 point plan makes a good start by setting out plans for investment in CCS and hydrogen 'SuperPlaces' in the North East, Scotland, North West and Wales (HM Government 2020b). However, these plans must also provide a route for oil and gas workers to access these employment opportunities, whether through awareness or access to relevant training. As upcoming research from IPPR will also explore, investment should also be put towards innovation and new equipment in energy-intensive industries to create clear demand for these low-carbon projects as well as de-risking these industries from future decarbonisation policy.
- The UK and Scottish government should increase funding as part of the Aberdeen City Deal to create a Low Carbon Wealth Fund for Aberdeen and wider Aberdeenshire.
- The UK and Scottish governments should make funding and support for low-carbon projects contingent on leveraging inward investment from industry into local communities and, crucially, hiring from UK-based suppliers in order to establish a strong, domestic low-carbon manufacturing base. The UK government should also include local labour clauses in all contracts for energy projects going forward.
- To ensure that decommissioning projects are no longer deferred, we recommend that the UK and Scottish governments impose fines on industries that continue to delay the decommissioning of their wells. These fines would then be reinvested into the Low Carbon Wealth Fund.

- The UK government should only continue to provide tax relief for decommissioning if oil and gas companies also commit to invest in low-carbon projects and contribute to training costs for workers. Tax reliefs should be contingent on employing locally.
- The UK and Scottish governments should co-invest in and expand the capacity of the National Decommissioning Centre (English 2019) in Scotland.

RE-SKILLING AND RE-TRAINING THE LOW-CARBON WORKFORCE OF THE FUTURE

- The chancellor's recent extension of the furlough scheme to March 2021 is welcome. However, workers using the scheme should be allowed and supported to undertake training to move away from the oil and gas sector.
- The UK and Scottish governments should immediately raise awareness of and scale up the Jobcentre Plus Rapid Response Service and PACE respectively to provide information regarding training and upskilling, with an emphasis on retraining out of the oil and gas sector.
- The UK government has made a good start by introducing a Green Jobs Taskforce
 to discuss skills needs to unlock the low-carbon employment opportunities
 of the future (HM Government 2020b). However, the work of this group must
 be supported by conducting comprehensive skills audits to better inform
 policymaking by properly identifying skills gaps.
- Both the Scottish and UK governments should set up linked but separate skills academies for existing workers¹ that draw together existing initiatives and build on them.
- The skills academy would build on the work of the ECITB's Connected Competence initiative and develop qualifications, or verify the existing skills of oil and gas workers, that could act as a skills passport to remove the burden of either employers or employees having to pay for certification of skills that they already have when workers move jobs.
- The UK government shoud give workers the confidence to train, starting by
 establishing lifelong learning accounts (in Scotland's case, substantially
 expanding the amount offered for Individual Training Accounts) for all adults
 so that everyone has a personalised budget for training, and introducing a right
 to career reviews and face-to-face guidance on training to help them access it.
- The UK and Scottish governments should both develop a comprehensive plan for a net zero workforce that embeds diversity and inclusion at its core, recognising that one of the challenges for the sector is diversity in the workforce and the fact that the number of women and BAME workers are underrepresented in the sector.

The Covid-19 crisis has exposed the inequalities and weaknesses present across the UK. When we leave the pandemic behind us, and emerge from the crisis, we must stay true to the rhetoric of building back better, employed in different forms by both the UK and Scottish governments. A crucial part of doing so will require that we do not return to business as usual. Instead, we must use the challenge forced upon us by the global pandemic to reshape our oil and gas industry into one that can support and drive our efforts to reach net zero, restore nature and build the bridges to the future to support oil and gas workers and communities to not just survive but thrive.

¹ While these academies would apply to existing workers, a similar model could also be developed for new labour market entrants such as graduates as well.

VISION AND FRAMEWORK



Present an ambitious, positive vision shaped around people's experiences and needs, and develop a plan of action that integrates policy both to address the climate and environmental emergencies and to deliver economic and social justice.

IPPR's Environmental Justice Commission mission statement

The vision of the IPPR Environmental Justice Commission is of a vibrant, healthy society, and a clean, innovative economy, driven by the key principle of fairness. Realising this ambition will require a transformation that is both rapid and fair and that places people at its heart. It will require a fundamental change to our economic, democratic and societal model: a programme of renewal.

Nowhere is this transformation more needed or urgent than in the oil and gas industry. Securing it will require that all policies and programmes together address the climate emergency and restore nature; improve lives and offer opportunities for all in a transformed and thriving economy - leaving no-one behind. It is through this framework that the commission is assessing whether individual policy proposals and policy programmes as a whole achieve our goals.

It is also through this framework that we have considered the policy proposals for the oil and gas sector as outlined in the diagram below. The proposals in this report are designed around the objective of delivering a faster shift while simultaneously increasing justice and delivering a transformed and thriving economy and more resilient society.

Social and economic justice

Ensuring the job support scheme supports oil and gas workers and provide necessary investment for re-training and education A worker and community-led just transition plan that promotes community ownership or community share of legacy assets and inward investment to oil and gas regions

An oil and gas deal for the North Sea that includes no provisions for just transition

Rapid expansion of low-carbon investment without consideration of job potential in supply chain for communities in oil and gas regions

Faster shift to climate and nature safe economy

1. INTRODUCTION:

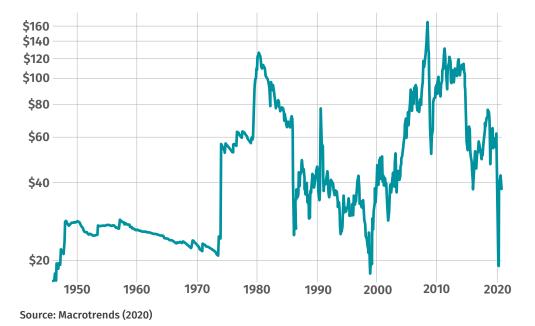
WHY THE OIL AND GAS SECTOR NEEDS A TRANSFORMATION

Covid-19 has had a severe and immediate impact on the oil and gas sector. Lockdown policies introduced around the world have significantly reduced demand and the oil and gas price – already falling due to geopolitical disagreements – has plummeted and then rebounded to a lower level (as figure 1.1 shows). As a consequence, companies in the sector have scaled back their capital expenditure and operational budgets. Despite the introduction of job support schemes in the UK and around the world, the trade body Oil & Gas UK estimates that, in the next 12 to 18 months, a further 30,000 jobs could be lost, many of which are likely to be in Scotland (OGUK 2020a).

However, while these economic impacts are severe, fluctuations in the oil price (as figure 1.1 shows) are by no means unprecedented.

FIGURE 1.1: THE LATEST OIL PRICE CRASH IS THE LATEST IN A LONG HISTORY OF OIL PRICE VOLATILITY

Price of West Texas Intermediate Oil since 1946 adjusted for inflation²



² Though data for Brent crude oil (most relevant for the UKCS) is not shown, these two grades of crude oil generally track closely to each other

While historic price spikes and crashes had significant economic impacts at the time (such as the increasing popularity of more fuel-efficient Japanese cars after the 1973 oil price shock), the oil and gas industry has survived throughout these boom and bust cycles.

This time however, what comes next must be different. To stand a chance of limiting global heating to 1.5C, the Intergovernmental Panel on Climate Change (IPCC) estimates that global oil and gas demand must fall by approximately 60 per cent by 2040 (Muttitt et al 2019), risking many yet-to-be-extracted oil and gas assets becoming stranded, even beyond those already being written off due to Covid-19. While this does not mean eliminating oil and gas production and consumption altogether,³ according to the Committee on Climate Change, oil and gas consumption will need to decrease by 82 per cent and 32 per cent respectively by 2050 at the very latest.

As COP 26 looms and the need for sweeping climate and nature policy becomes more urgent, the UK and the rest of the world must respond by transforming the oil and gas sector, protecting its workers, and providing bridges to the future by capitalising on the substantial opportunities of low-carbon investment.

While the Scottish government has begun to introduce many initiatives that start to grapple with this challenge, much more work is needed in Scotland and from the UK government who have yet to start fully incorporating the need for a just transition into policymaking.

In this paper, we set out the benefits of a transformed oil and gas sector, the challenges of getting there, and a net zero deal to deliver this transformation. We propose this deal as a contribution to the ongoing negotiations for an oil and gas sector deal that are currently underway with the UK government, and the UK's government's ongoing review into its oil and gas licensing regime.

For example, gas will still be needed (in combination with Carbon Capture and Storage) for hydrogen production and both oil and gas will still be needed for some industrial processes (again combined with CCS)

2. WHAT ARE THE BENEFITS?

A net zero deal for oil and gas in the UK could have several key goals. These include meeting climate change objectives and demonstrating genuine climate leadership in the run up to COP 26 propelling additional global action; creating a zero-carbon workforce of the future while providing good quality, stable employment for workers and local communities; and finally, an opportunity to build thriving local economies by repurposing existing oil and gas infrastructure and providing a rapid response to the economic shock after Covid-19. In total, if well-managed, a low-carbon transition could create up to 1.6 million jobs in low-carbon and net-zero compatible industries, build successful economic hubs with world-leading expertise and export potential, and protect workers in energy intensive industries.

A BETTER LIFE FOR ALL

The extraction of oil and gas is, by definition, finite. Under current projections by the Oil and Gas Authority (OGA), oil and gas production is predicted to decline over the next few decades on the UK Continental Shelf (UKCS) as extraction becomes increasingly uneconomic. A transition strategy was always required but it has become more urgent given the climate and nature crises, and now Covid-19.

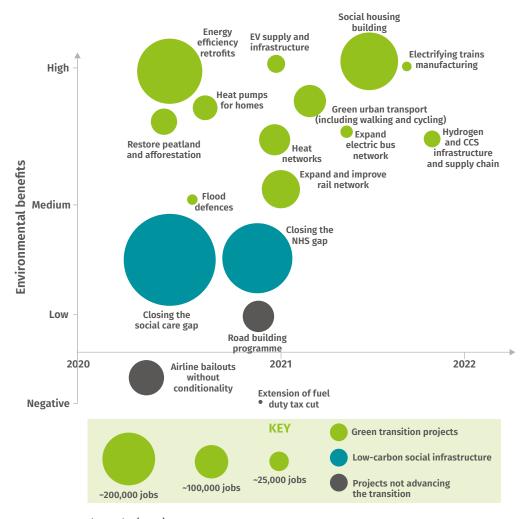
This need not be about managed decline, but instead, a well-managed transformation to a low-carbon economy that could benefit workers and communities, the Scottish and UK economies and the climate and wider environment.

Benefits to the economy

IPPR has previously set out how the government should respond to the pandemic through investment to create jobs (figure 2.1). We estimate that with the right policies, approximately 1.6 million jobs could be created in the low-carbon economy over the next decade (Jung and Murphy 2020), of which 134,000 could be created in Scotland.

FIGURE 2.1: OVER 1.6 MILLION JOBS COULD BE CREATED THROUGH INVESTING IN LOW-CARBON PROJECTS AND PROGRAMMES OVER THE NEXT DECADE

Estimated jobs figures for different low-carbon projects and social infrastructure by 2030 (larger bubbles indicate greater employment opportunity)



Source: Jung and Murphy (2020)

While not all workers in the oil and gas sector will have immediately transferable skills, according to analysis by Platform, Oil Change International and Friends of the Earth Scotland, based on research conducted by EY in 2014, just under seven in 10 jobs in the oil and gas sector have at least a partial overlap with skills that are likely to be needed in low-carbon industries (Muttitt et al 2019).

While a recent survey suggests that over half of oil and gas workers would be interested in a move to renewables or offshore wind roles (Jeliazkov et al 2020), not all oil and gas workers, whether they have transferable skills or not, will necessarily want to move into low-carbon industries. However, as we discuss in our recommendations, skills interventions will also be able help provide a bridge for oil and gas workers to move into other roles and sectors, even if they do not explicitly fall within the low-carbon economy.

The opportunity for workers

One of the key features of a just transition is that support for workers must ensure job quality as well as quantity. Indeed, job quality has become a major and urgent issue amid the economic impact of Covid-19 as those in low-income insecure have been worst affected (McNeil et al 2020). If trade unions are treated as important social partners in just transition policy going forward (see box 2.1), the low-carbon economy has the potential to offer the same, or better, job quality than the oil and gas sector.

BOX 2.1: JOB QUALITY AND THE ROLE OF TRADE UNIONS

The concept of a just transition was created by the international trade union movement and was defined as securing "the future and livelihoods of workers and their communities in the transition to a low-carbon economy" in a way that "provides and guarantees better and decent jobs, social protection, more training opportunities and greater job security for all workers affected by global warming and climate change policies" (ITUC 2018a).

This definition not only incorporates the idea of having a job, but also speaks to the importance of job quality in future employment and a broader desire by unions to move towards more environmentally and socially equitable societies. Building on the work of the international trade union movement, we suggest that job quality should be measured according to the following principles (ITUC 2018b; JTC 2020; ILO 2015):

- engagement with communities
- **flexibility** (no "one size fits all" policy for different places and sectors).
- well-paid jobs
- protection of workers' rights
- opportunities for training and career progression
- job security
- intersectional diversity
- safe-working environment.

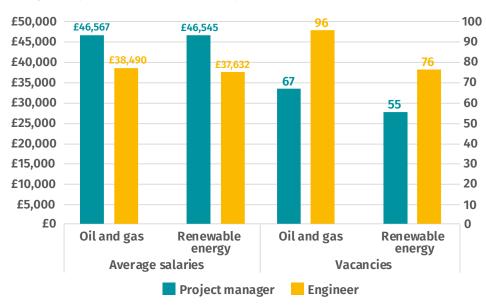
To ensure low-carbon companies uphold this definition of job quality, trade unions will need to have the right to speak with employees and be treated as crucial social partners that are included in government and industry plans and sector deals going forward. As IPPR has previously shown, unions have a proven track record of achieving higher wages and workplace benefits for their members through collective bargaining and advocating 'good work' that involves greater training and career progression opportunities for employees (Dromey 2018).

Well-paid and high-quality jobs

One of the key concerns for workers is whether jobs in the low-carbon economy will match the levels of pay in the oil and gas sector. Yet it has been shown that high and mid-level skills in low-carbon sectors could have similar levels of pay as those in the oil and gas industry (Emden and Murphy 2018).

FIGURE 2.2: THE AVERAGE SALARIES FOR PROJECT MANAGER AND ENGINEER ARE COMPARABLE IN BOTH SECTORS AND THERE ARE ONLY SLIGHTLY MORE VACANCIES IN THE OIL AND GAS SECTOR*

Average salary and number of vacancies by sector and role

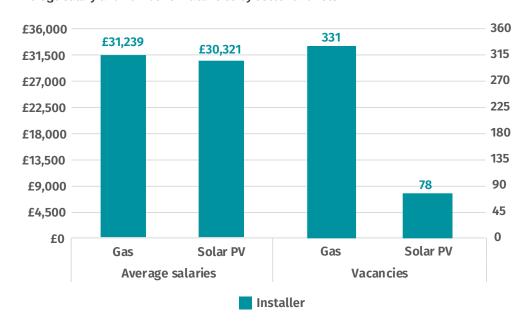


^{*} As of 27 September 2018

Source: Emden and Murphy (2018)

FIGURE 2.3: THOUGH THERE ARE MORE VACANCIES* FOR GAS BOILER INSTALLER ROLES, SOLAR PV INSTALLERS COMMAND SIMILAR SALARIES.

Average salary and number of vacancies by sector and role



* As of 27 September 2018

Source: Emden and Murphy (2018)

By transitioning to these new industries and improving working conditions, the sector could also tackle the problem of worker retention (Lee 2020). Working conditions in the oil and gas sector can be very challenging. While unions have worked hard with companies to ensure high safety standards and high levels of pay for long shifts and weeks away from the mainland, work-life balance issues remain. A recent survey of offshore oil and gas workers showed that 58 per cent of workers were unhappy with their job security and 18 per cent were very unhappy with workload and hours compared to just 6 per cent who listed themselves as very happy (Jeliazkov et al 2020).

Securing better working conditions in the low-carbon economy will depend on ensuring a consistent pipeline of low-carbon projects, establishing supply chains that generate stable, local jobs, treating trade unions as key social partners and providing them with access to workers and establishing clear definitions of what constitutes 'good quality' jobs.

Improved job security for workers and local communities

The oil and gas industry and the market within which it operates is notoriously volatile and has seen big expansions and contractions in job levels in the past. In 2009, employment levels in the UK stood at 300,000 jobs. Over just five years the sector saw increases of over 50 per cent with a peak of 470,000 employed in 2014. But by 2019, as a result of the oil price crash in 2014/15, all these gains were lost with employment levels returning back to around 300,000 jobs (OGUK 2019). Perhaps unsurprisingly, a recent survey of oil and gas workers confirmed that job security is the top priority for 58 per cent of workers, by far the most frequently cited concern about the industry (Jeliazkov et al 2020).

While jobs in renewable sectors can also fluctuate – and have done in recent years (ONS 2020) – one of the primary drivers for this has arguably been wavering government policy, rather than exogenous market forces. Unlike the oil and gas sector, meeting net-zero targets will require consistent investment, the development of long-term project pipelines and hence consistent labour demand in low-carbon industries.

Beyond high overall demand for jobs, local communities could also benefit from longer-lasting jobs in their areas. While shorter-term, transient construction jobs are likely to provide a substantial proportion of job opportunities, the majority of labour demand is likely to be for more locally based roles such as repair and maintenance, professional and business services and IT support (Martinez-Fernandez et al 2013).

In addition, if the UK and Scottish governments can establish greater investment in the supply chains for low-carbon projects, local economies will also benefit from renewed and stable manufacturing bases, as well as protecting workers in energy-intensive industries. For example, UK investment in offshore wind, while not universally successful at establishing domestic supply chains saw the building of a turbine blade factory in Hull, where it has been estimated that for every £1 of investment, an additional 47p will be generated in the income of the Humber economy (University of Hull 2020).

A timely transition for local communities

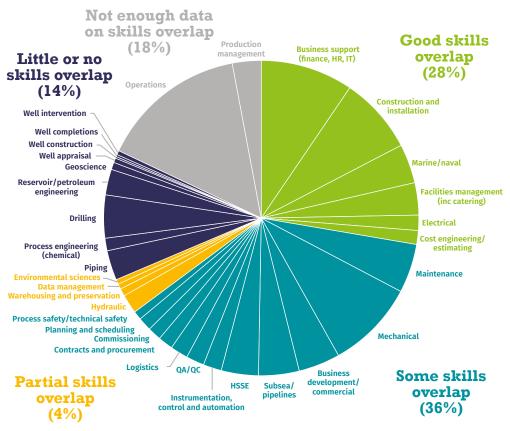
Many of the places that are most at risk of job losses in the oil and gas sector also offer the most opportunity for low-carbon investment. In part this is due to the substantial opportunities to repurpose existing oil and gas infrastructure such as pipelines, platforms and abandoned wells as well as the relevance and transferability of workers' expertise (see figure 2.4) (Durusut et al 2020). With

⁴ Direct, indirect and induced jobs.

concerted investment in low-carbon projects (see table 2.1), supply chains and engagement with local communities, there is also an opportunity to revitalise manufacturing bases and leverage expertise across the country and give local communities the opportunity to have their say on the future of their local areas.

FIGURE 2.4: JUST OVER TWO-THIRDS OF JOBS IN OIL AND GAS SECTORS HAVE SKILLS THAT ARE AT LEAST PARTIALLY TRANSFERABLE TO LOW-CARBON INDUSTRIES

Assessment of skill transferability by job role in the oil and gas industry



Source: Muttitt et al 2019

In the wake of the post-Covid economic shock, it is critical the UK and Scottish governments invest in the industries of the future *and* provide rapid retraining and alternative employment to workers who are at risk of losing their jobs right now. In the short-term, moving forward with decommissioning of wells could help to sustain workers within the oil and gas industry while addressing net-zero targets at the same time. Not only are the skills required for decommissioning highly and quickly transferable from existing roles within the oil and gas sector, it is also a substantial export opportunity for Scotland as the sector is regarded as having world-leading expertise (SDS 2019). A recent survey results also suggests that moving into decommissioning was the third most popular sector (at 38 per cent, after offshore wind at 53 per cent and renewables at 51 per cent) that oil and gas workers said they would be interested in moving into with the right education and training (Jeliazkov et al 2020).

TABLE 2.1: THERE ARE SUBSTANTIAL OPPORTUNITIES IN MANY LOW-CARBON AND CLIMATE COMPATIBLE PROJECTS IN MANY OF WHICH, OIL AND GAS WORKERS ARE LIKELY TO HAVE AT LEAST PARTIALLY TRANSFERABLE SKILLS

Transition technology	Possible locations	Transferability of skills	Existing and upcoming projects
Decommissioning	Aberdeen and UK Continental Shelf	High – Due to legal obligations to plug an abandon wells, many oil and gas companies will already have expertise or could train workers relatively quickly	Estimates of between 9,500- 12,000 jobs created from plugging 1,600 wells between 2017-2025
Subsea network projects	Aberdeenshire	High – existing engineering base which could be expanded to accommodate further offshore wind projects and attract further investment from overseas	Aberdeen Global Underwater Hub
Offshore wind including new floating offshore wind projects	Scotland, North East, North West, East of England and South East coastlines	Medium – Seamen, engineering and project management skills likely to be needed. Drilling and offshore platform catering skills likely to be lost. Potential for immediate job transference but on its own the sector is unlikely to absorb all jobs lost in the oil and gas sector	Hywind Scotland, 2020 ScotWind leasing round for 10GW of offshore wind projects including floating offshore wind, estimates of 150,000 jobs by 2050
Carbon capture and storage (CCS)	Aberdeen, UKCS, industrial clusters throughout the UK "including recent commitment for industrial clusters by 2020s in "SuperPlaces" in the North East, North West, Scotland and Wales"	Medium – Existing pipeline infrastructure and potentially geological space to store captured carbon emissions. Full scale deployment not expected until 2030s	Teesside Collective, ACORN, estimates of 15,000 jobs between 2020 and 2050
Blue hydrogen	Teesside, North West, Yorkshire	Medium – Similar specialist competencies including knowledge of gas compression, transport and liquefaction. Mid and lower-skilled jobs less likely to be transferable. Full scale deployment not expected until 2030s	HyNet Northwest, H21 programme, H2H Saltend, Aberdeen Hydrogen Fuel Cell Bus Project, estimates of 100,000 jobs in 2050

Source: Forbes-Cable et al (2020); BEIS (2020a); Durusut et al (2020); SDS (2019); Subsea UK (2019); Hollis (2020); Scottish Government (2020a); HM Government (2020b)

SHOWING CLIMATE LEADERSHIP AND RESTORING NATURE

Last but not least is the imperative of the climate and nature crises. The Committee on Climate Change's (CCC) net-zero scenario, calls for oil and gas demand in the UK to fall by 82 and 32 per cent respectively by 2050 at the very latest. But a plan of action to reduce the size of the sector is essential to achieving this goal. Furthermore, in the build-up to COP26 which is to be hosted in Glasgow in November 2021, the UK and Scottish governments have an opportunity to demonstrate climate leadership by putting in a plan to phase out domestic oil and gas.

A key principle of the Paris Agreement in 2015 was that countries had 'common but differentiated responsibilities' when acting to limit global heating (UN 2015), meaning that wealthier countries like the UK should cut emissions faster than others. An ambitious UK plan for the transformation of the oil and gas sector could galvanise other countries to take similar action and give the world the best possible chance of fulfilling this principle.

Finally, though the number of oil spills have decreased substantially over the last 30 years⁵ (Roser 2016) and the last spill in the UK was in 2011 (Vaughan 2016), when they do occur the impact on wildlife, ecosystems and local economies is substantial, as the current oil spill in Mauritius is demonstrating (Mwai 2020). By taking a lead on phasing out oil and gas, this threat will be entirely removed.

⁵ Though importantly, smaller spills are not recorded (Mwai 2020)

3. CHALLENGES AND CURRENT POLICIES

As much as a just transition for workers in the oil and gas sector could herald investment in thriving new economies built on legacy infrastructure, a poorly managed transition risks compounding the economic shock caused by the pandemic and returning to the boom and bust cycle of the oil and gas industry. In this chapter, we highlight the number and distribution of jobs at stake in the oil and gas sector and its supply chain; evaluate the sufficiency and, in some cases, incompatibility of current policy from the UK and Scottish governments; scrutinise the ambitions of oil and gas companies themselves; and highlight challenges over securing job quality and broader barriers in the skills system.

WHO'S AT RISK AND WHERE?

At the time of writing, thousands of workers have already been laid off in the oil and gas sector and the RMT union has warned that many workers have had difficulty accessing the furlough scheme (Thomas 2020). If the economic shock of the pandemic continues, as figure 3.1 shows, this would be particularly damaging to North East Scotland.

FIGURE 3.1: THE IMPACT OF THE PANDEMIC ON THE OIL AND GAS SECTOR COULD BE PARTICULARLY DAMAGING TO THE NORTH EAST OF SCOTLAND, WHICH HAS A HIGH PROPORTION OF THE UK'S OIL AND GAS WORKERS

Jobs in upstream oil and gas activities by local authority

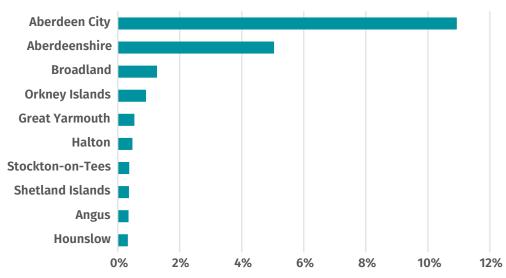


Source: IPPR analysis of BRES (2020a)

Oil and gas workers are also a major part of Aberdeen's local economy as a whole, making up over 10 per cent of workers in the region as figure 3.2 shows. However, losses in the offshore oil and gas sector would also have severe ripple effects on the broader jobs market in the area. For example, in 2014 after the oil price started to decline, the population of Aberdeen shrunk by around 15 per cent (Geoghegan 2016) and a report by PwC found that two-thirds of students and young professionals were considering leaving the city (Braiden 2016). In the most recent crash, the oil price has fallen far lower and a recovery may take far longer, meaning the risk for cities like Aberdeen could be even more severe than in the past. In addition, according to O&G UK, while most offshore workers work in Aberdeenshire, their places of residence are more diffuse with 30 per cent having residence in Aberdeen, 17 per cent in the North East and 5 per cent in the East of England. This means that job losses could have second order effects in these local economies as well.

FIGURE 3.2: JOBS IN OIL AND GAS ARE A MAJOR PART OF ABERDEENSHIRE'S LOCAL ECONOMY

Jobs in upstream oil and gas activities as a percentage of total jobs within each local authority

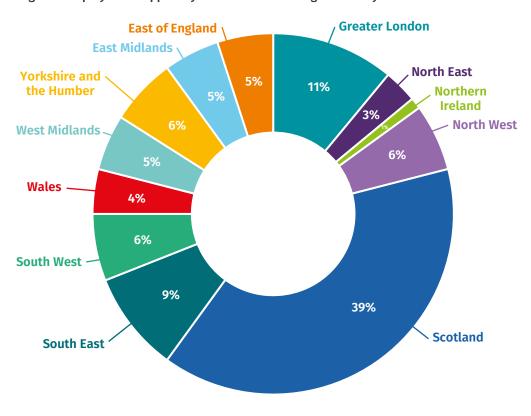


Source: IPPR analysis of BRES (2020b)

There are also many more indirect and induced jobs (229,500 jobs) created by the oil and gas sector – such as those in the supply chain, eg manufacturing drill bits for oil rigs – and, while a large proportion are in Scotland, they are more spread across the country than direct jobs.

FIGURE 3.3: INDIRECT AND INDUCED JOBS ARE MORE SPREAD ACROSS THE COUNTRY THOUGH THE PLURALITY ARE STILL IN SCOTLAND

Regional employment support by the offshore oil and gas industry in 2018



Source: OGUK (2019)

While some industries in the supply chain would also be able to supply renewable projects in future, as offshore oil and gas exploration on the UKCS is paused or halted altogether, there is great uncertainty over what would happen to these workers. After declines in the oil price in 2014 for example, 100,00 jobs were lost in the oil and gas industry and extended supply chain, with around 360,000 further workers agreeing to pay cuts (Geoghegan 2016).

QUESTIONS OVER JOB QUALITY

Although there is the potential to improve working conditions in low-carbon industries this is not a guarantee. For example, due to skills shortages caused by industry short-termism and the time taken to train up employees internally, many low-carbon developers have resorted to hiring independent contractors rather than opting for consistent in-house employment (Emden and Murphy 2019). In addition, in many cases trade unions, who have a proven track record of improving workers' wages and working conditions (Dromey 2018), do not have the same level of access to newer low-carbon companies as with conventional industries.

This is perhaps best exemplified in Germany where a lack of union access and collective bargaining arrangements in the offshore wind sector has resulted in more jobs losses (as many as 40,000 by the end of 2019) than the number of jobs in the coal industry (20,000) that the federal government is including within a 40 billion euro just transition support package as part of a compromise with unions to phase out of coal power (Emden 2020). In the UK, the proportion of industries with collective bargaining arrangements is even lower than in Germany.

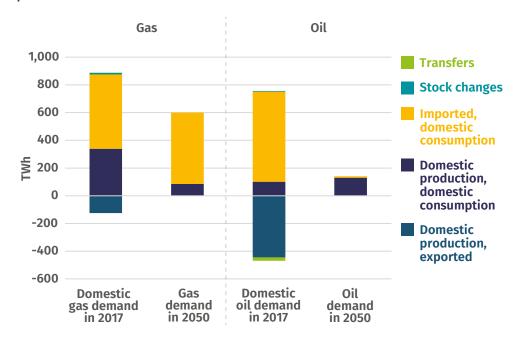
TIGHTENING UP TARGETS

At present, the UK exports around 80 per cent of domestic oil production (BEIS 2020b) and 20 per cent of gas production (BEIS 2020c). By 2050, the oil and gas industry anticipates that substantially reduced domestic production in 2050 will service domestic consumption rather than any of it being exported. While such a scenario is possible (see figure 3.4), to meet our net-zero targets, policy will be needed to ensure that domestic consumption and exports decrease over time.

In addition, while the recent announcement to review UK Export Finance's support for overseas oil and gas projects is welcome (Keating 2020), the industry's Roadmap 2035 envisages exporting expertise for further international exploration (OGUK 2020b). While both barrels of, and expertise in, oil and gas could theoretically continue to be exported provided overall production was still declining, this model creates unsustainable jobs in the long-term and increases other countries' territorial emissions at a time when there is a need for global climate leadership and action to curtail emissions around the world in order to keep global heating under 1.5C (Rogelj et al 2019).

FIGURE 3.4: ALL OIL AND GAS PRODUCED IN 2050 AS PART OF A NATURAL DECLINE IN THE UKCS COULD SERVICE NET-ZERO ALIGNED DEMAND FOR OIL AND GAS IN 2050, ASSUMING EXPORTED OIL IS SWITCHED TO DOMESTIC CONSUMPTION

Oil and gas domestic production, exports and demand in 2017 vs. net-zero aligned production and demand in 2050



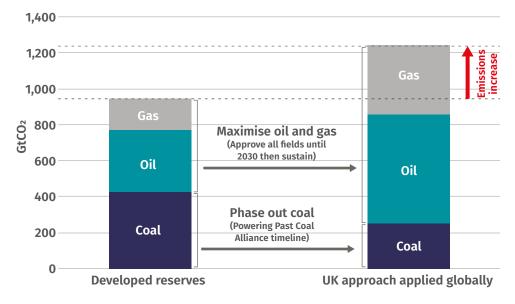
Source: IPPR analysis of BEIS (2020b); BEIS (2020c); CCC (2019)

INCOMPATIBLE AND INSUFFICIENT LEGISLATION AND PRACTICES

At present, the law requires extraction of oil and gas at a level that is incompatible with the UK and Scotland's domestic and international climate commitments. A clause in the 2015 Infrastructure Act currently requires "maximum economic recovery" of oil and gas reserves on the UKCS (Muttitt et al 2019). While the oil and gas industry anticipates a decline in oil and gas production in the UK, if this approach were taken by every country around the world, the 1.5C global heating target would be rapidly overshot. Furthermore, even if there is a decline in production on the UKCS, this legislation risks deepening the industry's path dependency on further exploration to the point where either a 1.5C global heating target will not be met or oil and gas assets will suddenly become stranded as stricter climate policy is introduced causing a "deferred collapse" in the industry. This fear has previously been highlighted by the former governor of the Bank of England Mark Carney, who has warned of a 'Minsky Moment' for the value of asset prices (Carney 2019). These considerations will also need to be factored into the ongoing License Review so that the industry is dissuaded from over-extending into exploration and is instead encouraged to diversify their portfolio.

FIGURE 3.5: IF ALL COUNTRIES WERE TO FOLLOW THE UK'S EXAMPLE AND PURSUE THE MAXIMUM ECONOMIC RECOVERY OF OIL AND GAS ASSETS, THE WORLD WOULD DRAMATICALLY OVERSHOOT A 1.5C GLOBAL HEATING TARGET

Global emissions of tonnes of CO2 comparing developed reserves to maximised extraction of oil and gas



Source: Muttitt et al (2019)

INITIATIVES FROM SCOTTISH GOVERNMENT TO SECURE A JUST TRANSITION

The Scottish government has introduced many initiatives to support skills and retraining of oil and gas workers in Scotland (see table 2). These have been useful for building institutional experience and capacity in skills and transition policy and demonstrates a policy commitment, and recognition of the language of, just transition.

⁶ A market collapse caused by a period of speculative investment.

TABLE 3.1: SUMMARY OF POLICY ACTIONS AND INITIATIVES RELEVANT TO A JUST TRANSITION BEING TAKEN BY THE SCOTTISH GOVERNMENT

Framework/policy	Description
Programme for government (2020/21)	Scottish government confirmed that exploration and production in the North Sea will be conditional on sectoral action to ensure a sustainable energy transition.
Just Transition Commission in Scotland	Created in September 2018, and set up to consult stakeholders, embed the principles of just transition in policymaking and provide recommendations to government.
Partnership Action for Continuing Employment (PACE)	Free advice service for individuals facing redundancy providing support for workers including counselling, training and skills seminars.
£62 million Energy Transition Fund	Fund committed in 2020 to support the oil and gas sector recover from Covid-19 and the related oil and gas price crash ³⁶ and aims to help it diversify by investing in prominent low-carbon energy projects.
£12 million Transition Training Fund	Introduced in 2016 as a three-year fund to support high-skilled workers a grant to redeploy workers from the North Sea. In its first year it claimed to have supported more than 1,000 people.
Future Skills Action Plan	Utilises a £1.3 billion of funding from city and growth deals from 2020/21 to deliver skills investment plans including: • increasing investment in the Flexible Workforce Development Fund to £20 million per annum which provides funding of up to £15,000 for levy-paying employers to train their workforce • committing to publishing a Climate Emergency Skills Action Plan • creating a national retraining partnership with employers, unions, colleges and universities to collaborate over workforce upskilling.
Individual training accounts	Grants of up to £200 for a single training course per year launched in October 2017 and will remain open until February 2021.
Fair Work First	Attachment of "Fair Work First" criteria introduced in 2019/20 (such as investment in skills and training, minimal use of zero hours contracts and tackling the gender pay gap) to some future grants from government.
£25 million National Transition Training Fund	Set up in October 2020, for the provision of green skills training for those facing unemployment in areas of immediate demand such as heat and energy efficiency.
Aberdeen City Deal	A join investment from the UK and Scottish Government in 2016 to invest up to £250 million and £44 million from Aberdeen City Council and Aberdeenshire Council in the region.

Source: Scottish Government (2019, 2020a, 2020b, 2020c, 2020d, 2020e, 2020f); SDS (2020a, 2020b); OSSS (2016)

However, these initiatives have also faced challenges. Many of these schemes, institutions and plans are likely to require coordination with each other and further scaling up to fully support oil and gas workers. Furthermore, for some initiatives, delivery has been challenging. For example, the Energy Transition Fund has been heavily criticised by workers in the industry for having excessive administrative hurdles to access funding.

In addition, the Just Transition Commission in Scotland has lacked the funding, or capacity from the Scottish government to conduct thorough consultation with workers in the oil and gas industry, meaning the voices of those most affected risk being lost in the development of policy support, hence rendering that support less effective. Finally, though skills policy is devolved in Scotland, close collaboration with the UK government is necessary but, as discussed below, the latter's policy programme on skills transition is less well developed.

INITIATIVES FROM UK GOVERNMENT TO ADDRESS JUST TRANSITION

The UK government has not had a comprehensive national skills strategy since 2009, nor has it yet internalised the language or concept of a just transition in policymaking. As we discuss in our recommendations below, filling this policy gap will be critical to facilitating a just transition for workers not just in the oil and gas sector, but in the other high-carbon industries where workers may be at risk. Nevertheless, existing and upcoming initiatives such as the Lifetime Skills Guarantee and the Jobcentre Rapid Response Service and the Career Transition Partnership and future proposals such as the National Retraining Scheme could provide the basis of a policy architecture on which to build institutional capacity and programmes centred on a just transition. In this regard, the Green Homes Grant skills competition and the Green Jobs Taskforce are welcome policy initiatives but, as we discuss in chapter 4, will need to set out specific support for at-risk workers.

TABLE 3.2: SUMMARY OF POLICY ACTIONS AND INITIATIVES RELEVANT TO A JUST TRANSITION BEING UNDERTAKEN BY THE UK GOVERNMENT.

Policy name	Description	
Aberdeen City Deal	A joint investment from the UK and Scottish governments in 2016 to invest up to £250 million and £44 million from Aberdeen City Council and Aberdeenshire Council in the region.	
Jobcentre Plus Rapid Response Service	Support with applying for benefits and CVs but crucially, also accessing training and upskilling.	
Career Transition Partnership	Designed primarily for service men and women to find new careers after leaving the armed forces, this model could potentially be replicated for a just transition.	
National Retraining Scheme	Yet to be announced.	
Green Homes Grant skills training competition	£6.9 million competition to increase skills of installer base for energy efficiency and heat pumps	
Lifetime Skills Guarantee	A commitment to fully fund level 3 qualifications for adults of any age.	
Green Jobs Taskforce	A group of industry, civil society and union stakeholders to set the direction for the job market	

Source: OSSS (2016); DWP (2020); CTP (2015); DfE (2019)

POLICIES TO ADDRESS WIDER LOW-CARBON TRANSITION

Investing in the low-carbon technologies of the future is crucial for two reasons. From a climate perspective, reducing oil and gas demand on a permanent basis to fall in line with net-zero targets requires investing in technologies like electric vehicles and low-carbon heating. From a worker perspective, these investments are essential to creating the career opportunities into which oil and gas workers may move. However, despite initial progress, the UK and Scottish governments will need to work together alongside private investors to substantially increase investment into low-carbon technologies to meet net-zero targets and create future jobs. According to recent IPPR analysis of the government's 10 point plan, the UK government is currently only investing 12 per cent, or around £4 billion, of the estimated £33 billion of public investment that will be needed annually (Murphy and Jung 2020). In addition, of the estimates provided in the 10 point plan, the private sector would only provide around £4.4 billion of investment annually and the anticipated emissions reductions would not even be enough to meet fourth and fifth carbon budgets, let alone the UK's net-zero target (HM Government 2020b).

Examples of missed opportunities and the need for more concrete long-term policy have been highlighted by the Just Transition Commission in Scotland, where policy arrangements for offshore wind, while generating a strong project pipeline, have failed to generate a local manufacturing supply chain in Scotland for these projects (JTC 2020). This is perhaps best highlighted by the recent snub of the Scottish manufacturing company BiFab as a provider for new offshore wind projects in favour of an international provider (Fraser 2019).

TABLE 3.3: POLICY INITIATIVES FROM BOTH THE UK AND SCOTTISH GOVERNMENTS ARE NOT SUFFICIENTLY AMBITIOUS FOR THE INVESTMENT REQUIRED TO MEET NET-ZERO TARGETS BY 2050 IN ANY MAJOR SECTOR OF THE ECONOMY⁷

Low-carbon sector	UK government policy	Scottish government policy	Approximate UK-wide annual investment needed to meet net-zero in this sector
Heat	 £2 billion invested in energy efficiency and low-carbon heating grants A £1 billion extension the Green Homes Grant going into next year, including a commitment to install 600,000 heat pumps a year by 2028 Plan to have a "Hydrogen Town" by the end of the decade 	£1.6 billion committed to decarbonising heat and installing energy efficiency as part of Low Carbon Fund	£15 billion
Transport	£5 billion over five years invested in local buses, cycling and walking infrastructure £500 million over the next five years to rollout EV charging infrastructure An additional £1.3 billion committed to charging infrastructure in the 10 point plan as well as £1 billion to support the EV market and supply chain in the UK and a £582 million extension to the plug-in car grant A competitive £2.5 billion Transforming Cities Fund devolved to cities to invest in urban transport £15 million invested in research into zero-emissions aircrafts	£500 million over five years for large scale, active travel projects as part of Low Carbon Fund	£10 billion
Industrial decarbonisation Carbon removal	Industrial decarbonisation challenge of £170 million towards technologies like carbon capture and hydrogen in industrial clusters with a potential further £131 million to be awarded An additional £240 million Net Zero Hydrogen Fund with a target of producing 5GW of low-carbon hydrogen by 2030 and a £1 billion CCUS infrastructure fund	£60 million for industrial decarbonisation as part of Low Carbon Fund and £6.9 million for green hydrogen project Research projects commissioned for CCS	£5-10 billion £10-20 billion

Source: CCC (2019); Scottish Government (2020f); DfT (2020); Innovate UK (2019); BEIS (2019); HM Government (2020b)

⁷ For the purposes of this report, other sectors like agriculture are not included, though similar analysis would show the UK and Scotland are also behind in these areas.

INSUFFICIENT ACTION FROM OIL AND GAS COMPANIES TO SECURE A JUST TRANSITION

Many in the oil and gas industry now recognise the need for a net zero transition and some have also identified opportunities for investment into low-carbon industries as well as collaboration over skills training that could support movement away from the oil and gas sector into new low-carbon, local industries. BP and Equinor for example, have recently announced new investments in floating offshore wind (Raval 2020).

Recent initiatives – like the Energy Transition Alliance – have produced strategies and reports such as the Oil and Gas Technology Centre's *Net Zero North Sea* report (Forbes-Cable et al 2020), which have identified numerous opportunities to repurpose oil and gas infrastructure and build new low-carbon energy hubs. Broader industry initiatives like the ECITB's Connected Competence initiative are also seeking to streamline the process of moving between industries by providing a common accreditation that avoids the need for unnecessary and costly retraining (ECITB 2020a). Finally, some oil majors have committed to reducing operational emissions which collectively make up 40 per cent (CCC 2019) of UK industrial emissions. Given that industrial emissions will need to decrease by just over 90 per cent, a net-zero strategy for operational emissions in the oil and gas sector could make a substantial contribution to this goal.

However, crucially, almost none of the initiatives from the oil and gas industry, including commitments from oil majors to cut their *operational* emissions, commit to reducing *production* of oil in any way (with the possible exception of BP whose targets to cut production may be aligned with a 2C global heating scenario but are unlikely to adhere to a 1.5C scenario). Operational emissions are not the main source of emissions in the oil and gas sector; there is no such thing as a 'low-carbon barrel of oil'. Operational emissions only account for around 9.2 per cent of UK oil companies' total lifecycle emissions (ie including emissions from the oil and gas products themselves) (WRI 2016).

Furthermore, individual company commitments are by no means widespread in the sector as a whole and are more common among larger, better-resourced, companies that only represent around 40 per cent of assets owned on the UKCS (Muttitt et al 2019). Smaller companies are less likely to have the resources and knowledge of low-carbon projects to invest in them. A recent wave of investment just before the global pandemic (Thomas 2019), combined with the substantial cost of decommissioning (SDS 2019), suggests that some companies, even while shedding jobs, will hope to ride out the price crash in anticipation of future growth and exploration in the UKCS. Even BP, who have pledged to cut production by 40 per cent at a global level, still have nominal plans to invest in future exploration in the UKCS.

This inertia to act is also based on the assumption that UK policy will in future rely heavily on hydrogen and CCS throughout the economy and in particular for heating. This attitude is typified by Oil and Gas UK's *Energy Transition Outlook* which assumes that oil and gas demand combined would only be reduced by 30 per cent by 2035 at most and calls for more support for oil and gas extraction. Part of its rationale for this position is it believes that sectors like domestic heating will not be decarbonised by retrofitting heat pumps as it assumes this will be too difficult (Muttitt et al 2019).

However, as previous IPPR research discusses (Webb et al 2020), while a heating system dominated by hydrogen and CCS is possible, there are several flaws to this rationale. First, this pathway would require substantial infrastructure investment and rapid widescale deployment in the 2020s and 2030s to meet net-zero targets. Second, this pathway would be low carbon but not zero carbon, requiring

further investment in innovative capture technologies which would further delay deployment. Finally, hydrogen heating would still require substantial imports for gas which would reduce energy security. By contrast, heat pumps are a commercially available technology right now.

Finally, decommissioning – which is a quick-win opportunity for preserving jobs – is currently deadlocked by high costs leading to wells being left non-operational but not properly plugged. This is because, even despite substantial tax reliefs and legal obligations to plug and abandon wells, decommissioning remains capital intensive for companies, which reduces their profits (NAO 2019).

BROADER CHALLENGES IN THE SKILLS SYSTEM

Current evidence suggests our skills system is ill-equipped to support a just transition. A recent survey by the Open University's annual Business Barometer reports that 85 per cent of respondents in the mining and energy sector are reporting skills shortages (Open University 2019), despite four in five oil and gas workers saying they would consider moving out of their current role and into another part of the energy sector (Jeliazkov et al 2020). There is thus a willingness by workers to change careers but there is a need for skills training to facilitate that transition.

The current challenges within the skills system include:

- insufficient funding for adult retraining (particularly in England but also in Scotland)
- insufficient devolved powers for skills (even under current devolved arrangements) means local governments who have the best understanding of local skills needs cannot sufficiently tailor solutions to their local areas
- lack of foresight over future skills needs due to policy uncertainty at the national level and a lack of comprehensive skills audits
- lack of commonly recognised accreditation across the industry which creates administrative and cost barriers to workers who have transferable skills but still need to undergo unnecessary retraining
- poaching within the energy sector can reduce the incentive for smaller companies to train workers and pay into levies
- competition from other sectors.

Emden and Murphy (2019); Thomas and Gunson (2017a); ECITB (2020b)

Despite these challenges, better skills policy has never been more urgent, as the pandemic has meant that workers are losing their jobs while training providers have started to report challenges with providing training and have seen a decrease in the number of companies seeking their services as financial constraints tighten operational budgets. Furthermore, where some training may be available online and can be done fairly quickly, more specialist roles may still require a more substantial period of training, especially if workers are starting courses with no previous experience.

4. A NET ZERO DEAL FOR OIL AND GAS

Securing the benefits and addressing the challenges of the transition will require concerted effort and policies from the UK and Scottish governments, alongside a commitment to working together.

To achieve this, we outline a plan for a net zero deal for oil and gas in Scotland and the UK to feed into to the government's commitment to developing and oil and gas sector deal. A jointly owned plan between the UK and Scottish governments, setting targets and caps for oil and gas extraction over the coming years, setting in motion the policies to reduce demand, and crucially providing the necessary support to re-skill the workforce and the necessary investment to grow the industries of the future. It is a deal that must be built by the communities, companies and people who are invested in the oil and gas sector. It would be co-funded, with the UK government, Scottish government and businesses all paying their fair share.

The net zero deal for the oil and gas industry requires a number of dimensions.

Firstly, the net zero deal must have a **place-based dimension** where investments to develop new opportunities in local areas currently dependent on oil and gas, as well as across the Scottish economy more broadly, must be identified and the funding provided. Local communities must not be left behind as the oil and gas industry winds down, but instead be given the tools and opportunity to thrive through a process over which they have real say.

Second, the deal must have a **people-based dimension**, finding new opportunities to protect current workers and future oil and gas workers. Over the short to medium term, this will likely require significant skills investment, funded by the UK and Scottish governments, and delivered in line with devolved priorities in England and Scotland, providing a bridge to oil and gas workers from the sector and its supply chain to others. Over the short term this will require targeted job support, including short time work schemes to spread what may be reducing numbers of jobs to wide numbers of people, freeing time to develop next careers and training.

Thirdly, there must be a **sector dimension** finding and funding new and growing sectors to fill the gap in the economy from the loss of high paid carbon heavy jobs, at the UK level and Scotland level. This should start with government investment into zero-carbon and climate-compatible industries that will benefit oil and gas regions directly as well as the wider economy, including decommissioning, offshore wind and energy efficiency retrofitting, hydrogen and CCS plants.

We make a **series of recommendations** that should form key components of any net zero deal for oil and gas.

CO-DESIGN, CO-PRODUCTION AND CO-OWNERSHIP

Co-creation will require coordination at multiple levels – between the Scottish government and UK government, and between both governments, industry, trade unions, and most importantly, workers and communities. On a logistical level, co-creation will first require synchronising the various initiatives and schemes introduced by the Scottish government, UK government and industry to ensure there is a unified and comprehensive just transition plan for the oil and gas sector.

However, these plans will also need to be rigorously tested by engaging with workers in the oil and gas sector and local communities that stand to be affected in a way that the Just Transition Commission in Scotland has lacked the capacity to do. Indeed, ignoring workers would be to miss out on a wealth of invaluable experience and skills in essential components of a transition such as worker safety and decommissioning.

- The UK and Scottish governments should commit to a co-design process for a net zero deal for oil and gas, establishing a joint-steering group with representatives from both governments. Central to this agreement must be a commitment to co-production with all relevant stakeholders (see below).
- 2. The Scottish government should provide more funding and capacity to the Just Transition Commission (transforming it into a Net Zero and Just Transition Delivery Body), and establish a process for the co-production of the net zero deal for oil and gas. This should include working with trade unions to arrange evidence sessions with workers in the industry. Working with all these stakeholders, this body would establish Just Transition Agreements that cover a range of issues including: the overall number of jobs or workers employed, pay and conditions, job security, working time, job descriptions, duties assigned to job roles, training and skills, apprenticeships, retirement policy, monitoring and surveillance, performance management, health and safety implications and equal opportunities. Companies should also work with unions to identify and deliver best environmental practice at a workplace level.
- 3. The UK government should also establish a Net Zero and Just Transition Delivery Body (NZJT), provide funding for similar bodies to be established at the regional level and a similar process should also be followed in Wales and Northern Ireland. They should be provided with sufficient capacity to conduct their own evidence sessions from workers across the UK. This could benefit workers in the oil and gas sector in the short-term but will be relevant across the economy for other at-risk workers.
- 4. In tandem with hearing from workers, we recommend that citizens' juries for affected regions like Aberdeenshire should be set up by the Scottish and UK governments to test just transition proposals, particularly those related to workers and workers' skills. This will aim to capture both workers' views and those of members of the community living in Aberdeenshire more broadly. Once conducted, local councils could then follow up with stakeholders and enable them to be local advocates to raise awareness of the opportunity for local community voting on just transition proposals.
- 5. In the longer-term, the UK and Scottish governments should learn from the missed opportunity of the Lucas Plan (see box 4.1 below) and work closely with oil and gas company management, trade unions and workers in the oil and gas sector not just to understand the challenges in the sector but to develop worker-led strategies for industry diversification that focus on the production of social goods.

BOX 4.1: WHAT IS THE LUCAS PLAN?

The Lucas Plan was a counter-proposal developed by staff and workers of Lucas Aerospace in response to management announcing the need to cut jobs in response to increased international competition and technology change. The plan derived from extensive consultation with the Lucas Aerospace's own workers who developed 150 product ideas to diversify the company in a way that kept jobs whilst also creating socially beneficial products such as medical equipment. While the plan was rejected by management, the model received international support and the Combine of workers who formed to develop the plan attracted charitable funding and set up educational institutions to further their ideas (Salisbury 2020).

6. One option to increase both worker and community participation in these strategies could be for the UK and Scottish governments to provide funding to local councils in affected areas to purchase oil and gas assets once they had been decommissioned and transform them into community owned projects the future of which could be decided by local communities. Options could range from repurposing assets into low-carbon projects as mentioned in chapter 2 to nature reserves and heritage sites.

WINDING DOWN OIL AND GAS

For the UK and Scotland to meet their net-zero targets both production and consumption of oil and gas must be significantly curtailed. This will require policies to cap production and reduce demand.

Policies to reduce production include the following (for consumption/demand policies see next section).

- 7. The UK and Scottish governments should work together to set clear five-yearly targets to reduce oil and gas production, consumption and exports over time, in line with overall net-zero targets, and commitments in line with the 2015 Paris Agreement, recorded on a billion barrel per five-year basis. Since the oil and gas industry expects production to decline over time on the UKCS anyway, this target should also be accompanied by strict financial penalties if the targets are exceeded to ensure that production does in fact decline as expected.
- 8. The UK and Scottish governments should collectively agree to remove or amend the Infrastructure Act so that it puts a net-zero compatible cap on maximum economic recovery (MER). This cap should also be incorporated into future licensing arrangements to ensure any future exploration is compatible with a net-zero target and is ultimately phased out over time. In this regard, both the ongoing licensing review and consideration of how MER can be updated to meet net-zero targets is welcome but must be accelerated. As has been previously argued, if this MER approach was replicated on a global scale, the world would drastically overshoot its 1.5C global heating target (Muttitt et al 2019).
- 9. To embed this approach in company culture, the government should reform CEO's duties to include environmental obligations, full, transparent reporting and pay and bonuses linked to long-term environmentally sustainable value creation. As IPPR has previously recommended (IPPR 2018), this would require amending Section 172 of the Companies Act to ensure that the success of a company included the interests of the company's employees; the need to foster business relationships with suppliers, customers and others; the impact of company operations on the environment, community and human rights; and the desirability of maintaining a reputation for high standards of business conduct.

10. The government must confirm its intention to phase out UK Export Financing (UKEF) of fossil fuel projects (ECIU 2020) and UKEF should also actively increase investment into low-carbon and climate compatible opportunities abroad such as offshore wind and decommissioning.

BRIDGES TO THE FUTURE

Reducing consumption for oil and gas and investing in the technologies of the future to create jobs and thriving industries and communities go hand in hand. This must include, for example, maximising the opportunity that decommissioning offers to the UK economy.

We propose the following policies to provide bridges to the future for oil and gas workers and communities.

- 11. Both the UK and Scottish governments should work with local councils to invest in the expansion of local infrastructure situated in oil and gas regions to facilitate an increase in low-carbon projects and increase the attractiveness of these areas for international investment. Examples of local projects could include investment in local CCS projects like Acorn in Scotland, the expansion of port infrastructure, investment in broader supporting infrastructure like broadband and transport links, the development of regional low-carbon clusters of industry such as Grangemouth and Teesside, academia and technical colleges, and investment in local transport infrastructure to improve mobility for workers and make the regions more attractive to businesses (Emden and Murphy 2019).
- 12. To ensure that local communities build on the legacy of oil and gas infrastructure, both the UK and Scottish governments should work with local councils to explore the repurposing of oil and gas infrastructure such as pipelines, platforms and old wells (Forbes-Cable et al 2020) for technologies like hydrogen and CCS. The government's 10 point plan makes a good start by setting out plans for investment in CCS and hydrogen 'SuperPlaces' in the North East, Scotland, North West and Wales (HM Government 2020b). However, these plans must also provide a route for oil and gas workers to access these employment opportunities, whether through awareness or access to relevant training. As upcoming research from IPPR will also explore, investment should also be put towards innovation and new equipment in energy-intensive industries to create clear demand for low-carbon projects as well as de-risking these industries from future decarbonisation policy.
- 13. The UK and Scottish government should increase funding as part of the Aberdeen City Deal to create a Low Carbon Wealth Fund for Aberdeen and wider Aberdeenshire. This wealth fund would be spent on similar low-carbon projects as mentioned above but would be devolved and tailored to local needs and opportunities in Scotland.
- 14. Across all of these investments, to ensure that the full benefits of low-carbon investment are realised, both the UK and Scottish governments should build on the provisions of the offshore wind sector deal (HM Government 2019) and make funding and support for low-carbon projects contingent on leveraging inward investment from industry into local communities and, crucially, hiring from UK-based suppliers in order to establish a strong, domestic low-carbon manufacturing base. The UK government should also include local labour clauses in all contracts for energy projects going forward.
- 15. To ensure that decommissioning projects are no longer deferred, we recommend that the UK and Scottish governments impose fines on companies that continue to delay the decommissioning of their wells. These fines would then be reinvested into the Low Carbon Wealth Fund.

- 16. Furthermore, we recommend that the UK government should making both licensing of new exploration and continued tax relief for decommissioning conditional on commitments from oil and gas companies to invest in low-carbon projects and contribute to training costs for workers. In addition, as with low-carbon investments mentioned above, the UK government should also make tax reliefs contingent on employing locally to ensure that decommissioning projects are not outsourced.
- 17. Finally, to recognise Scotland's expertise in decommissioning and realise the export opportunities for decommissioning, the UK and Scottish governments should co-invest in and expand the capacity of the National Decommissioning Centre (English 2019) in Scotland. The purpose of this investment would be to increase training capacity for decommissioning as well as working with UK Export Finance to identify export opportunities for decommissioning expertise.

While reforming decommissioning policy could present a substantial opportunity for workers, it is not necessarily the case that all industries will have the capacity themselves to diversify their portfolios and invest in low-carbon projects.

- 18. To this end, the Scottish government should ramp up the capacity of its National Retraining Partnership and convene onboarding sessions for oil and gas company workers, their boards, executives and shareholders with organisations that have relevant expertise in investment into the low-carbon sector such as the Green Finance Institute.
- 19. As part of a broader investment programme, the UK government should expand both the internal capacity of the British Business Bank for appraising low-carbon projects and the provision of concessional finance and advice for these projects.
- 20. In addition, the UK government should update UKEF sector expertise in renewable energy so that UK exporters do not miss out on emerging markets and opportunities (NAO 2020).

Policies to curtail demand, including the following.

21. Reducing demand for oil and gas will require significant commitments from both the UK and Scottish governments in the decarbonisation of homes and transport. For example, recent research by IPPR recommend that the UK government should invest £5.3 billion per year through to 2030 in a Home Improvement Plan for England that funds the installation of heat pumps and high energy efficiency standards. On road transport, the UK government will need to build on local examples (such as the London scrappage scheme) and introduce a national vehicle scrappage scheme at the point of sale for ULEVs to link the two markets together and encourage vehicle owners to swap their vehicles. The IPPR Environmental Justice Commission is further exploring these themes in upcoming work.

RE-SKILLING AND RE-TRAINING THE LOW-CARBON WORKFORCE OF THE FUTURE

Ultimately, a just transition is predicated on a comprehensive plan that invests in low-carbon technologies of the future. However, from a worker perspective, the access to quality skills and training to facilitate a transition into these new sectors is arguably the most important component of a just transition.

In the near term, there is a need to provide immediate support. Policies to deliver this include the following.

22. The chancellor's recent extension of the furlough scheme to March 2021 is welcome. However, workers receiving using the scheme should also be allowed and supported (described below) to undertake training to move away from the oil and gas sector.

23. For those thousands of workers who have already lost their jobs, the UK and Scottish governments should immediately raise awareness of and scale up the Jobcentre Plus Rapid Response Service and PACE respectively to provide information regarding training and upskilling, with an emphasis on retraining out of the oil and gas sector, and, as IPPR has recently called for, an increase in the benefits threshold.

In the medium to long-term term, there is a need for wide-ranging skills policy to underpin the development of a future low carbon workforce. Policies to deliver this include the following.

- 24. The UK government has made a good start by introducing a Green Jobs Taskforce to discuss skills needs to unlock the low-carbon employment opportunities of the future (HM Government 2020b). However, the work of this group must be supported by conducting comprehensive skills audits to better inform policymaking by properly identifying skills gaps. In addition, to give workers the confidence to train, the UK and Scottish governments should establish lifelong learning accounts (in Scotland's case, substantially expanding the amount offered for Individual Training Accounts) for all adults so that everyone has a personalised budget for training, and introduce a right to career reviews and face-to-face guidance on training to help them access it.
- **25.** The UK and Scottish governments should both develop a comprehensive plan for a net zero workforce that embeds diversity and inclusion at its core, recognising that one of the challenges for the sector is diversity in the workforce and the fact that the number of women and BAME workers are underrepresented in the sector.
- 26. Both the UK and Scottish governments should set up linked but separate skills academies for existing workers⁸ that draw together existing initiatives and build on them.

The main objectives of the skills academies can be summarised as the **LEAF** (listening, evaluating, accrediting, financing) framework. This will include:

- **listening** to workers, industry, trade unions and training providers to understand workers' anxieties, fears and aspirations, to understand skills gaps in low-carbon industries, and to establish between all stakeholders an accepted definition of good quality work
- evaluating and quantifying the workers' skills and assessing their transferability by conducting skills audits of the oil and gas workforce, working closely with industry to do so
- accrediting training providers to ensure that all training provided is both relevant and accessible, particularly under lockdown conditions where training may have to be conducted more regularly through online courses
- financing companies and workers to access this training through a combination of grants, zero-interest loans and, in Scotland, increases to individual training accounts.

The skills academy is not a new idea and indeed was introduced in 1998 specifically for the purpose of upskilling workers to meet planned expansion in exploration activities in the UKCS. Consequently, now is the time to plan for the next phase of expansion into low-carbon technologies. As an indicative figure, our estimates for the skills academies in Scotland and the UK would require funding of approximately £40.5 million per year and £63.4 million per year respectively over ten years and would learn lessons from the Transition Training Fund (Scottish

⁸ While these academies would apply to existing workers, a similar model could also be developed for new labour market entrants such as graduates as well.

Government 2020a).9 For comparison, the proposed 2020/21 budget for skills and training in Scotland is £246.1 million, suggesting that such an academy would be relatively affordable.

The way in which an academy would 'bring together' existing initiatives and apply the LEAF framework would differ by industry and nation. For example, for decommissioning, skills provision is already deemed by industry to be relatively sufficient (BEIS 2020a). By contrast, in emerging low-carbon sectors such as hydrogen and CCS, the skills academies would work more closely with government, trade unions, industry stakeholders and training providers to ensure the right skills were being trained to maximise the potential for growth in these industries.

Furthermore, in Scotland, the skills academy would be linked with existing initiatives such as the Scottish Credit and Qualifications Framework (Thomas and Gunson 2017b), the National Retraining Partnerships and the Individual Training Accounts. From a worker perspective, the intention would be to streamline these initiatives onto one online platform, advice service and/or newsletter provided by the skills academy so that skills provision is accessible, informative and userfriendly. While the skills academy would focus on re-training and upskilling for low-carbon industries, it should also offer comprehensive and accessible links to alternative government training schemes and careers advice services outside of the sector for workers who want to access different forms of employment.

27. Finally, the skills academy would build on the work of the ECITB's Connected Competence initiative and develop qualifications, or verify the existing skills of oil and gas workers, that could act as a skills passport to remove the burden of either employers or employees having to pay for certification of skills that they already have when workers move jobs.

Funding is based on the estimates by the Scottish government that its three year, £12 million Transition Training Fund supported 1,000 people to redeploy (at a presumed cost of £4 million). This cost is then multiplied by the number of direct, indirect and induced jobs in the oil and gas sector across 10 years to give the total UK figure. To calculate the cost of a skills academy in Scotland, the geographic distribution of jobs is applied and subtracted from the UK total. All jobs data and geographic distribution data comes from https://oilandgasuk.co.uk/wp-content/uploads/2019/08/Workforce-Report-2019.pdf

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