



JANUARY 2023
JUST TRANSITION LAB

JUST TRANSITION FOR WORKERS AND COMMUNITIES IN ABERDEEN AND ABERDEENSHIRE: RAPID EVIDENCE ASSESSMENT REPORT

1495



UNIVERSITY OF
ABERDEEN



Report was prepared by Just Transition Lab research team: Daria Shapovalova, Tavis Potts, John Bone, Keith A. Bender

DOI: <https://doi.org/10.57064/2164/19887>

Table of abbreviations

AREG	Aberdeen Renewable Energy Group
BEIS	Department for Business, Energy & Industrial Strategy
DECC	Department of Energy & Climate Change (now – BEIS)
DEFRA	Department for Environment, Food & Agriculture
CCUS	Carbon capture, utilisation and storage
JT	Just Transition
NERC	Natural Environment Research Council
NESCAN	North East Climate Action Network
NESDA	North East Scotland Development Authority
NSTA	North Sea Transition Authority (formerly – OGA)
NZTC	Net Zero Technology Centre (formerly – OGTC)
OEUK	Offshore Energies United Kingdom (formerly – OGUK)
OGA	Oil and Gas Authority (now – NSTA)
OGTC	Oil and Gas Technology Centre (now – NZTC)
OGUK	Oil and Gas United Kingdom (now – OEUK)
ONS	Office for National Statistics
REA	Rapid Evidence Assessment
SIMD	Scottish Index of Multiple Deprivation
UKCS	United Kingdom Continental Shelf

Contents

Table of abbreviations	1
1. Background	3
2. Aberdeen and Aberdeenshire: arrival and peak of oil and gas	5
3. How has the oil and gas industry benefitted the development of the region?	9
3.1 Population growth	9
3.2 Employment	10
3.3 Higher earnings	12
3.4 Contribution to local economy, services, and communications	14
3.5 Aberdeen – centre for excellence in energy.....	15
4. Oil boom and bust: challenges of being an ‘oil capital’	17
4.1 Decline in traditional industries	18
4.2 Removal of regional assistance and lack of ‘trickle down’ of profits	20
4.3 Pressure on housing and local authorities	21
4.4 Inequality	23
4.5 Vulnerability of regional economy: Impact of oil price fluctuations	28
4.6 Lack of local control	32
5. Just Energy Transition and future visions for Aberdeen and Shire	34
5.1 Path dependency: what are we transitioning to?	35
5.2 Measuring Just Transition?	39
5.3 Just Transition for communities and workers in Aberdeen and Aberdeenshire	41
6. What we don’t know: Gaps in literature and data	43
Acknowledgments:	46
Appendix: Methodology	46

1. Background

Since oil was first discovered in the North Sea in 1969, over 45.9 billion boe of oil and gas has come from the UK continental shelf.¹ Aberdeen and its surrounding areas became the hub for the oil and gas industry when it first arrived at the UK shores. From the ‘oil capital’ of Europe, Aberdeen has now become an ‘energy capital’ – hub not only for oil and gas but also for offshore technologies in renewables and decommissioning. The production of oil and gas from the UK continental shelf peaked in 1999 and has been in decline since. In addition, commitments to net zero and the UK’s legal obligations to mitigate climate change are reshaping the energy industry.

The North East of Scotland is at the forefront of the energy transition processes in the UK. With the transformation of the UK’s energy sector and the integration of climate goals into the energy decision-making, lives of communities and workers in Aberdeen and Aberdeenshire are directly affected by changes in the labour market and new energy and climate policies. In March 2022, the Aberdeen Net Zero Route Map 2045 was launched featuring ‘Just Transition’ as one of the desirable outcomes.² Energy transition and the North East feature extensively in the work of the Scottish Government’s Just Transition Commission.³

Just Transition refers to a fair distribution of burden and benefits of the transition to a low-carbon economy. Precise definition and scope of Just Transition will vary depending on context. Often, a narrower definition of Just Transition is used, focusing on workers, owing to the term’s origin from United States trade unions in the 1980s.⁴ Over time, a wider approach emerged, particularly in academia, bringing together all elements of society in transition, and encompassing energy justice, climate justice, and environmental justice.⁵ In our project we take a broader approach to Just Transition, focusing on the wider community while acknowledging the centrality of workers’ rights in transition, particularly in the context of the North East of Scotland.

¹ Oil and Gas Authority, [UK Oil and Gas: Reserves and Resources](#) (2021). Boe is barrel of oil equivalent - the amount of energy that is equivalent to the amount of energy found in a barrel of crude oil.

² Aberdeen City Council, [Net Zero Aberdeen Routemap: Towards Becoming a Net Zero Emissions City by 2045](#) (2022).

³ In 2022, the Scottish Government established a £500 million [Just Transition Fund](#) for projects in the North East and Moray. See also, Just Transition Commission, [Making the Future: Initial Report of the 2nd Just Transition Commission](#) (2022).

⁴ P. Newell and D. Mulvaney, ‘The Political Economy of the “Just Transition”’, *The Geographical Journal* (2013), [doi:10.1111/geoj.12008](#). See also, [Solidarity and Just Transition Silesia Declaration](#) (2018); UNFCCC, [Just Transition of the Workforce](#), and the [Creation of Decent Work and Quality Jobs](#) (UN 2020).

⁵ R. Bray and R. Ford, [Delivering a Just Transition to Net Zero: Whose Role is it Anyway?](#) (University of Strathclyde, 2021) [doi:10.17868/78376](#); K.E.H. Jenkins at al., ‘Politicising the Just Transition: Linking Global Climate Policy, Nationally Determined Contributions and Targeted Research Agendas’, 115 *Geoforum* (2020), <https://doi.org/10.1016/j.geoforum.2020.05.012>.

This report is part of the University of Aberdeen Just Transition Lab’s project on ‘Just Transition for Workers and Communities and Aberdeen and Aberdeenshire’. This project will identify and analyse the relevant literature as well as socio-economic and demographic data; use participatory research to develop regional Just Transition indicators and scenarios; and test the existing policies against these indicators and scenarios. Researchers from social science, geography, law, and economics are engaging with the local stakeholders and civil society to deliver an impactful evidence base for defining and measuring Just Transition in Aberdeen and Aberdeenshire. This report covers the first phase of the project as outlined in the Figure 1 below. Research in this phase is conducted through a Rapid Evidence Assessment (REA) and data sources review. The detailed methodology can be found in the Appendix at the end of the document. The report features a large number of direct quotes so as to allow the evidence found to speak for itself and only provide narrative where necessary. The report does not aim to present a comprehensive account of the history of the oil and gas industry in the North East. Rather, the purpose of this REA is to establish the baseline of available research, assessment, as well as data necessary for addressing the questions below. The main purpose of the report is to guide the project team towards the identification of Just Transition indicators for the North East in the later stages of the project.

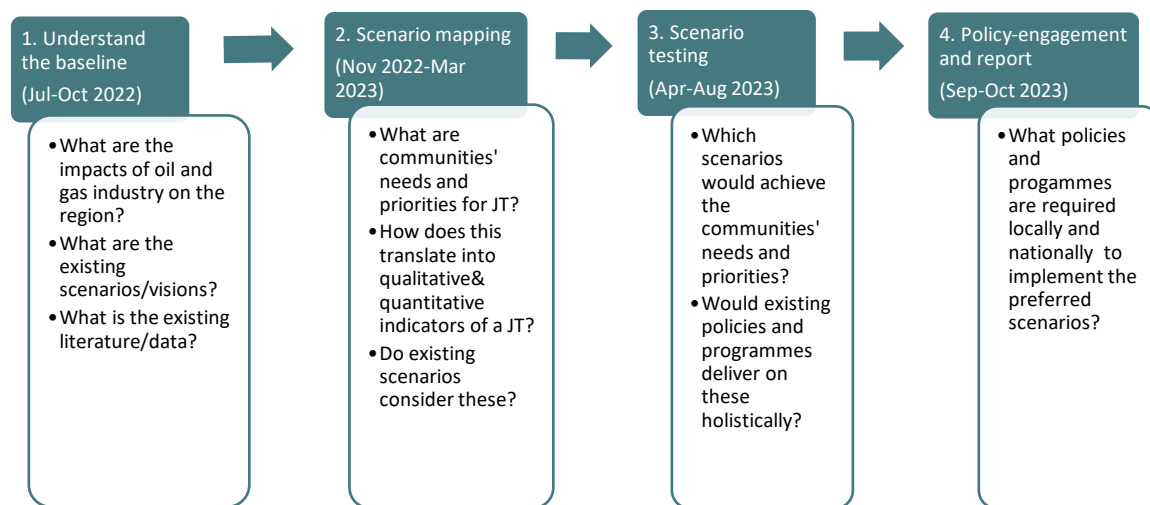


Figure 1: Project phases breakdown

The report addresses the following questions:

- How has the oil and gas industry shaped the economy of the region?
- What are/were the impacts of the oil and gas industry downturn(s)?
- What are the impacts, risks, and opportunities of close ties between communities and the oil and gas industry? How are these being managed, by whom and for whom?
- What challenges will the region face over the next 10 years as the industry transitions?

- Are current efforts to mitigate these challenges proportionate?
- What scenarios/visions exist for a Just Transition in Aberdeen and Aberdeenshire?

To allow for a more critical reading of the report, we colour-tagged the sources in the footnotes. To this end:

- **academic sources** will appear in **green**;
- **governmental/local authority** sources will appear in **orange**;
- **personal accounts/books/periodicals** will appear in **purple**;
- **industry-related sources** will appear in **blue**
- **third sector/international organisations** will appear in **red**

Where online sources were available, the underlined text in the footnotes links to the original source. Sources that were only available in hard copy format were accessed through the archives of the Aberdeen City Library and the Aberdeen University Special Collections.

Some sources are not clearly categorised and are co-published by 1) academic authors/third sector organisations and 2) local authority/industry.⁶

The following sections 2 and 3 discuss the evidence and provide context in relation to opportunities and benefits of Aberdeen being an oil and gas hub based on the evidence from the REA (with some additional sources provided for context and identified as ‘added source’ in the footnote). Section 4 discusses some of the challenges with the change. Section 5 focuses on evidence regarding Just Transition, visions and strategies for the future in Aberdeen/North East. The Appendix provides a detailed account of the methodology used for this report.

2. Aberdeen and Aberdeenshire: arrival and peak of oil and gas

This section provides a brief overview of the timeline of the oil and gas industry in the UK continental shelf with particular relevance to Aberdeen. This report does not delve into the history of the industry in-depth as this has been already done in other sources, such as Kemp’s seminal *Official History of North Sea Oil and Gas* or the industry-produced books⁷ and surveys.⁸

⁶ C. Johnston et al., *A Wee Drop of Oil: 30 years of Oil in Aberdeen (2000)*.

⁷ J. Cresswell, *Black Gold and the Silver City: The Oil Revolution in Aberdeen and the North of Scotland 1965-2000* (Balmoral Group 2000); J. Cresswell, *Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution* (Balmoral Group, 2010); J. Cresswell, *ABZ and Big Oil: 50 Years of Black Gold in the Silver City* (Balmoral Group, 2015).

⁸ Aberdeen Chamber of Commerce annual Oil and Gas Surveys (from 2022 – Energy Transition Survey).

There is broad agreement in the evidence that in the pre-oil period, in the mid-1960s, Aberdeen and Aberdeenshire had a static population and depressed economy, which was primarily based on traditional industries – fishing, farming, paper-making, textiles and food processing.⁹ Mechanisation and subsequent reduced demand for labour were leading to higher unemployment rates nationally and this had a particular impact in the North-East of Scotland.

In 1966, the Scottish office commissioned Professor Maxwell Gaskin (University of Aberdeen) “to conduct a study into the development potential of the North East”.¹⁰ The so-called Gaskin Report, released in 1969, is believed to be a good indicator of what would have happened in the North East in the absence of the oil and gas industry.¹¹ However, the report’s predictions did not materialise as 1969 also saw the first big oil strike in the North Sea – Amoco’s Montrose Field.¹²

*“The first oil was brought ashore from Hamilton Brothers’ Argyll Fields and then from the BP Forties Field in 1975. Brent oil came on stream a year later with Ninian following in 1978”.*¹³ By late 1970s, a number of oil and gas fields have come on stream, including Forties (1975), Brent (1976) and Ninian (1978). Oil landed in Cruden Bay and gas in St Fergus – both just north of Aberdeen.

Aberdeen's oil boom really started in the autumn of 1970 and by 1974 – “almost all the companies prospecting in Scottish waters had an office in the city, so did drilling contractors, manufacturers of drilling equipment, chemical and specialist firms”¹⁴. By autumn 1974, NESDA identified 233 oil firms and 174 related firms in Aberdeen and immediate surroundings, directly employing 6780 people, predominantly men.¹⁵

“In the late 1970s between 5,000 and 6,000 people per year were arriving to Aberdeen. Over 30,000 new houses were built, 55 per cent of these provided by the public sector. It still wasn’t enough; house prices and rents increased massively, house prices by over a factor of four. Schools and other services had to be built to accommodate the incoming oil men and women.

⁹ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000); *Aberdeen City Council, The Importance of the Energy Sector to Aberdeen City and Shire (2010)*.

¹⁰ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 58.

¹¹ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 58; *Aberdeen City Council, The Importance of the Energy Sector to Aberdeen City and Shire (2010)* p.3.

¹² K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 58.

¹³ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 62; M. Shepherd, *Oil Strike North Sea: A First-Hand History of North Sea Oil* (Luath Press 2015) p. 49.

¹⁴ D. Hunt, *Aberdeen and the Oil Boom* (London Business Publications, 1975).

¹⁵ D. Hunt, *Aberdeen and the Oil Boom* (London Business Publications, 1975).

*Areas of the city were zoned for offices, industrial sites and warehouses; not only that, the transport infrastructure desperately needed to be upgraded”.*¹⁶

Aberdeen’s status as Europe’s “oil capital” was assured when the large oil companies, the so called ‘majors’, established offices in Aberdeen in the 1980s: *“Shell, Chevron, Total and Amerada Hess went to Altens, BP set up at Dyce, Conoco and Marathon went to Rubislaw, and Elf to Bridge of Don”.*¹⁷

After the early 1970s OPEC oil embargo, the price of crude oil was quite high and fuelled the North Sea boom until the first global oil price crash of early 1986, which severely damaged oil and gas investment in exploration and further projects, and had an impact on employment in North East of Scotland.¹⁸

In July 1988, a tragedy struck Aberdeen as the Piper Alpha rig exploded in the North Sea, *“a great ball of fire bursting nightmarishly over it. That night, helicopters shuttled backwards and forwards from the scene of the disaster, carrying the dead and the badly-scarred victims of the tragedy to the helicopter pad in the grounds of the Aberdeen Royal Infirmary. The toll was 167 dead, with many injured, some severely burned”.*¹⁹ A subsequent inquiry led by Lord Cullen produced a report *“damning, in effect an indictment of a culture of complacency”* leading to the overhaul of safety regulation on the UKCS.²⁰

Production was in steady increase until the peak in 1999. Although the predictions placed the loss of the UK’s self-sufficiency to around 2010, the late 1997 through 1999 global oil price slump and the subsequent slow-down in production from the UKCS brought it forward.²¹ It is around this time that renewable energy development gained traction in the region although it was not universally welcomed. Former Aberdeen City Council’s economic development director recalls: *“[at a high-profile conference in London] I remember getting catcalled and being booed for mentioning renewables”.*²²

In 2000, Scotland’s All-Energy conference was launched in Aberdeen, immediately followed by the creation at Aberdeen City Council’s behest, a renewable energy focus group that later became the private-public partnership Aberdeen Renewable Energy Group (AREG); in effect the city’s first energy transition initiative.

¹⁶ M. Shepherd, *Oil Strike North Sea: A First-Hand History of North Sea Oil* (Luath Press 2015) p. 58.

¹⁷ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 66.

¹⁸ See section 4.4.

¹⁹ R. Smith, *The Granite City: A History of Aberdeen* (John Donald Publishers Ltd. 1989) p. 190.

²⁰ S. McGinty, *Fire in the Night: The Piper Alpha Disaster* (MacMillan 2008) p. 259-265.

²¹ J. Cresswell, *Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution* (Balmoral Group, 2010) p. 16.

²² G. McIntosh quoted in J. Cresswell, *ABZ and Big Oil: 50 Years of Black Gold in the Silver City* (Balmoral Group, 2015) p. 122.

In 2001, the term ‘maximising economic recovery’ was first used,²³ foreshadowing the main policy priority for the next two decades and counting. In 2004, the UK became a net importer of natural gas and in 2005 – of crude oil. By 2003, *“the North Sea output was falling faster than intended”*.²⁴

In 2008, the Global Banking Crash inflicted relatively minor damage to the “Bull Run” then under way in the North Sea – the longest on record.

The rebound in the oil price and the intensive drive to maximise economic recovery from the UK instilled confidence in a long and healthy future of the industry. An industry-related source from 2012 reads: *“Aberdeen’s local economy is one of the strongest in the UK, with up to half a million energy and energy-related jobs estimated to have been created in and around Aberdeen. In January 2011, the city was identified as one of five regions whose high levels of employment, skilled workers and average earnings had the potential to help the UK out of recession”*.²⁵

In mid-2014, the third global oil price crash hit seriously impacting employment and housing prices in Aberdeen and Aberdeenshire.²⁶ Currently, the post-covid recovery, high oil and gas prices as well as energy security concerns reignite conversations fast tracking licenses and authorisations for the petroleum production and appear to instil more confidence in the industry once again.²⁷

As Cresswell observed in 2015: *“It is clear that the North Sea is in for a hard and rough ride. Whether or not the city will still have a credible oil and gas industry presence come 2065 remains to be seen; after all, it is still extremely hard to see beyond five years – in other words, only one term of government”*.²⁸

No-one was ready for the Fourth global oil price crash which hit in 2020 further damaging the North Sea oil and gas industry, which was still reeling from the mid-2014 through 2017 hit.

²³ J. Cresswell, *ABZ and Big Oil: 50 Years of Black Gold in the Silver City* (Balmoral Group, 2015) p. 129.

²⁴ J. Cresswell, *Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution* (Balmoral Group, 2010) p. 37.

²⁵ H. Campbell, *Across the North Sea: The Oil Age in the UK* (2012) p. 43.

²⁶ A. Aiton et al., *Aberdeen and Aberdeenshire since the Oil Price Fall (SPICe 2016)* [added source].

²⁷ Aberdeen & Grampian Chamber of Commerce, *Energy Transition, 25th Survey (2022)* [added source].

²⁸ J. Cresswell, *ABZ and Big Oil: 50 Years of Black Gold in the Silver City* (Balmoral Group, 2015) p. 193.

3. How has the oil and gas industry benefitted the development of the region?

It is well documented how large of a contribution the industry has made into the UK economy over the years. This section focuses instead on benefits to Aberdeen and Aberdeenshire specifically, detailing the benefits most brought up in the evidence. Indeed, the transformational impact the industry has made on the regional economy is hard to overstate.

Some quotes from the first oil boom in Aberdeen read:

*“The city of Aberdeen has an air of confidence and self-assurance about it, which is sadly rare in these times of closures, lay-offs and failures of industry large and small throughout Britain”.*²⁹

*“The popular image of Aberdeen today is of a thriving city, flush with money and jobs – Houston in Scotland, the oil capital of Europe”.*³⁰

3.1 Population growth

From the 1950s on, there was a steady decline in population in North-East Scotland, with outmigration greater than natural increase. *“The economies of the North East and Aberdeen were thus dominated by low wage industries such as agriculture and fishing, were in long term decline in the 1960s”.*³¹ It is believed that in the late 1960s, the North-East of Scotland was losing approximately 4,500 people a year.³² A continual population decline appears to have long been a phenomenon in the region, *“accelerating due to increased agricultural mechanisation in the post war period”.*³³

It is agreed that in the 1960s, the *“principal indicator of Aberdeen’s economic problems was the lack of well-paid job opportunities”.*³⁴ This led to southward migration and by 1970 the population of Aberdeen showed *“signs of both overall ageing and absolute decline”.*³⁵ Between 1961 and 1971 the population within the city *“fell from 185,890 to 182,071 an annual percentage decline of 0.19”.*³⁶ The decline was not sharp but steady.

²⁹ D. Duffy, *Aberdeen: A Dynamic City Moving into its Second Oil Decade* (1980).

³⁰ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

³¹ M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

³² D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976) referring to Gaskin Report.

³³ D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976).

³⁴ A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 6.

³⁵ D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976).

³⁶ D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976).

In the 1970s, the Aberdeen Area is reported to have “*experienced considerable growth in population*” due to the inward migration of workers (and their families) who took up jobs related to the oil industry.³⁷ The outward migration from the city has also reduced which further contributing to stabilising the population count in the region. The establishment of the oil and gas industry is believed to have reversed the trend and the combined City and Shire population grew from 401,410 in 1981 to 457,320 in 2009.³⁸

3.2 Employment

The 1960s in the UK were marked by a national recession which the North-East of Scotland did not avoid:

*“Changing investment patterns in agriculture, paper and textiles, aimed at reducing marginal costs also reduced labour requirements, particularly for men, during the 1960s. This overall loss of employment from both agriculture and traditional industries had not been compensated for by an extension of alternative industrial employment within the [Aberdeen] city. Restricted job opportunities meant for those that remained that competition for employment was keen. Employers enjoyed a wide choice of employees, labour turnover was minimal, wage rates were not subject to wage drift, and were therefore, below the national average”.*³⁹

It is evident that although the arrival of the oil sector had “*not insulated the Aberdeen economy from the effects on the national recession*”,⁴⁰ in 1971-1975 the city's employment “*rose by 58%, in 1976, 15% of city's jobs were oil related*”.⁴¹ Going forward the level of unemployment stayed below the national average.⁴² For example, in 1997 unemployment in Aberdeen City was 2.8% compared to Scotland's 6.7%⁴³

In the mid-1980s and 1991, 52,500 and 54,000 workers respectively were employed in running UKCS offshore and supporting administrative and service onshore. Between 1993 and 1997, these figures were estimated to be 51,500 and 46,000 respectively.⁴⁴

With production wind-down, the total employment for Aberdeen and Aberdeenshire on the UKCS was estimated to be 39,000 in 2003, and in the period to 2021, total employment was

³⁷ L. J. Thornton, *Housing and the Onshore Impact of Offshore Oil Development SSHA and the Aberdeen Experience* (University of Glasgow, 1982).

³⁸ Aberdeen City Council, *The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p. 13.

³⁹ D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976).

⁴⁰ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

⁴¹ This proportion rose to 31% by 1991. K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 67.

⁴² Aberdeen City Council, *The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p. 12, data from ONS.

⁴³ Aberdeen City Council and Aberdeenshire Council, *Oil and the North East: The Developing Impact* (1997).

⁴⁴ Grampian Regional Economic Council, *Oil and Grampian: The First 25 years* (1993); Aberdeen City Council and Aberdeenshire Council, *Oil and the North East: The Developing Impact* (1997).

forecast to fall to 25,000.⁴⁵ In 2010, direct employment in oil and gas in the City and Shire was 23,500 – or 10% of total employment in the region (see Figure 7 below). Together with direct and supply chain employment (businesses that support the industry e.g. consultancy, engineering, hr, legal, finance, education, etc) the oil and gas industry provided employment for 105,500 (46% of total employment in City and Shire) in 2006.⁴⁶

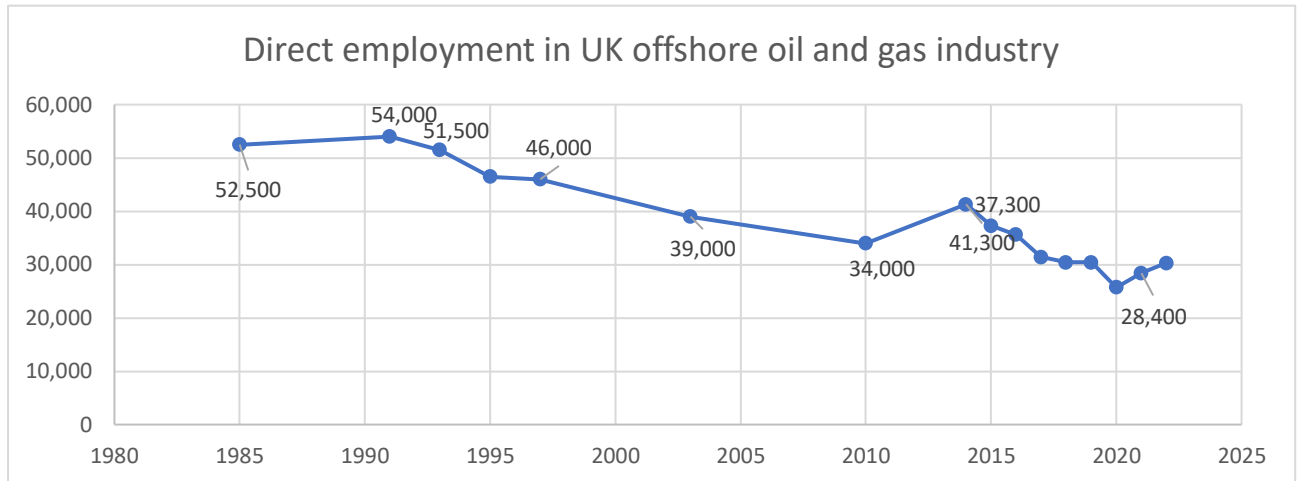


Figure 7: Direct employment in UK offshore oil and gas industry. Data sources: 1981 – 1997: Grampian Regional Council reports; 2003, 2010: Aberdeen City Council reports, data from OGUK; 2014-2015: OGUK Workforce Insight report 2019; 2016-2021: OEUK/OGUK Workforce Insight report 2022.

It is also highlighted that the presence of the oil and gas industry increased the so-called induced employment - brought by increased consumer spending e.g. housing, food, clothing etc.⁴⁷ Hunt notes that:

*“oil exploration has led to an explosion in job opportunities which, if not directly involved in exploration, are derived from its arrival in the area. Since 1970 there has been an influx of new commercial and financial offices together with hotels”.*⁴⁸

It was estimated that:

“the value of the employment multiplier of the oil-industry in Grampian Region to have been 1.78 in 1981. For every 100 jobs in the oil sector, a further 78 jobs have been created in local shops, pubs, restaurants, transport, schools and hospitals. With the

⁴⁵ Aberdeen City Council, *The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p. 14.

⁴⁶ Aberdeen City Council, *Aberdeen City and Shire: The Energy Sector* (2006) p. 11 data from OGUK, Experian, ONS.

⁴⁷ Aberdeen City Council, *The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p. 11 data from OGUK, Experian, ONS.

⁴⁸ D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976) p. 272.

inclusion of these jobs in non-oil industries, more than a fifth of the jobs in Grampian Region in 1981 were attributable, directly or indirectly, to oil".⁴⁹

While there do not appear to be reliable figures on this, estimations range from “around 20,000 people whose jobs were principally dependent upon the fortunes of the oil industry” in 1991 and 1993⁵⁰ to 31,800 in 2010.⁵¹ “The oil industry generated significant benefits for the local economy. There was an increase in the demand for local products and services. New jobs were created in construction, catering, entertainment, retailing and a variety of other activities”.⁵²

Today, jobs in the energy sector in transition are high on the agenda for Aberdeen and Shire.⁵³ Skills Development Scotland reports that Health and Social Care is the main employer in Aberdeen and Shire today, followed by Engineering and Energy. Employment growth in the mid-term is, however, predicted primarily for lower skilled and lower paid jobs.⁵⁴

3.3 Higher earnings

From the beginning of oil exploration and production on the UKCS, the average earnings for men appear to have increased and have remained consistently higher than the national average.⁵⁵

A personal account book quotes:

“For once in my life there was a real prospect of prosperity. With a fairly well paying job, a company car, a bit of travel and enticing offers of career advancement. I had no more lingering doubts that this business was a winner. Though still not swallowing the hype that was being spewed out by the papers and television, I was reasonably convinced by the valid commentary from reliable sources and the evidence of my own eyes, as I toured the expanding onshore and offshore facilities, that North Sea Oil would transform our region”.⁵⁶

⁴⁹ G. Lloyd and D. Newlands, *The Interaction of Housing and Labour Markets: an Aberdeen Case Study*, 7(1) *Land Development Studies* (1990) <https://doi.org/10.1080/02640829008723996>.

⁵⁰ *Grampian Regional Economic Council: The First 22 Years (1991)*; *Grampian Regional Economic Council, Oil and Grampian: The First 25 years (1993)*.

⁵¹ *Aberdeen City Council, The Importance of the Energy Sector to Aberdeen City and Shire (2010) p. 11* data from OGUK, Experian, ONS.

⁵² M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

⁵³ See section 5.4.

⁵⁴ *Skills Development Scotland, Regional Skills Assessment: Aberdeen City and Shire (SDS, 2021)*.

⁵⁵ G. Lloyd and D. Newlands, *The Interaction of Housing and Labour Markets: an Aberdeen Case Study*, 7(1) *Land Development Studies* (1990) <https://doi.org/10.1080/02640829008723996>.

⁵⁶ J.C. Milne, *Dubs: How the Oil Came North* (Plashmill Press, 2009) p. 169.

In 1985 relative earnings in Aberdeen were “some 10% higher than the UK average”.⁵⁷ In 1997 they average earning were estimated to be 15% above the national average.⁵⁸ In 2001, 2008, 2009 – earnings in Aberdeen city and shire have been consistently above the Scottish average. In Aberdeen city – around 20% higher than the Scottish figure, and 15% higher than the British figure. In Aberdeenshire, average earnings were below the Scottish figure in 2001, but had surpassed it by 2009.⁵⁹

*“Thousands of jobs in a host of allied occupations emerged at the start of oil in the 1970s, many based on engineering which time-served men able to take advantage of the arrival of petroleum to start up their own business – and for a number this Klondike transformed them from wage earners to millionaires. During the early years of North Sea oil and gas even unskilled workers offshore earned high wages, around double the UK average, in exchange for long working hours”.*⁶⁰

A recent periodical notes:

*“Today, a typical offshore platform will have a small cadre of salaried workers directly employed by the owners, with the majority of workers contractors in a range of ancillary roles. Offshore pay is still better than rates available on shore, but the hours are longer, the conditions inherently more stressful, and zero hours contracts have become increasingly commonplace”.*⁶¹

That said, Aberdeen still remains a relatively high-earning area in the UK, see Figure 8.

⁵⁷ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

⁵⁸ Aberdeen City Council and Aberdeenshire Council, *Oil and the North East: The Developing Impact* (1997); Grampian Regional Economic Council, *Oil and Grampian: The First 25 years* (1993).

⁵⁹ Aberdeen City Council, *The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p. 13 data from ASHE, ONS.

⁶⁰ L. Dey and M. Dey, *Aberdeen at Work: People and Industries Through the Years* (Amberley Publishing, 2020) p. 75.

⁶¹ C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018).

UK, April 2022

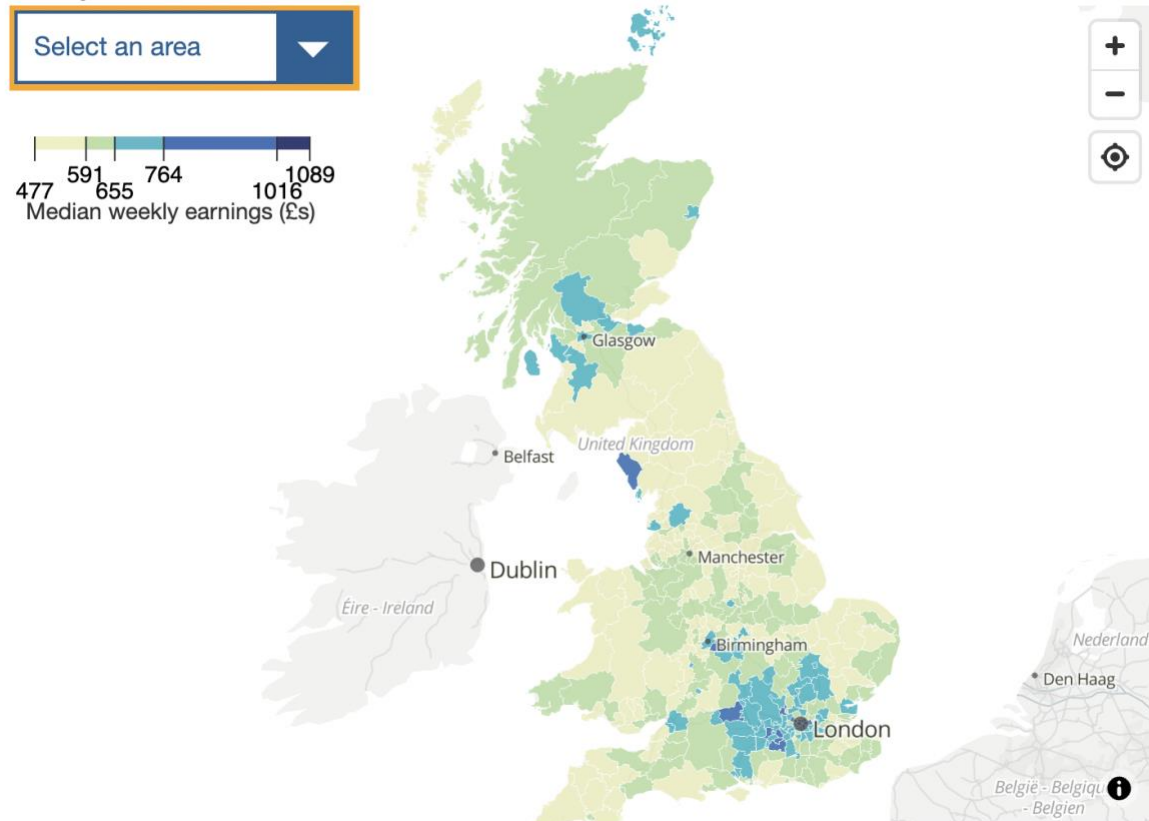


Figure 8: Median gross weekly earnings for full-time employees for all local authorities by place of work⁶²

3.4 Contribution to local economy, services, and communications

In the 1960s, Aberdeen “with its declining local markets, geographical isolation and poor external communication network, offered little to stimulate internal expansion or to attract external investment”.⁶³

The establishment of the oil and gas industry in Aberdeen in earnest, required good connections to the region, access to an international airport, helicopter transport capacity, and, of course, a well-functioning harbour. In addition, the incoming immigrants and the new earnings needed to be spent in the city – prompting the opening of new retail spaces and revitalisation of the high street.

The oil industry generated significant benefits for the local economy. There was an increase in the demand for local products and services. New jobs were created in construction, catering, entertainment, retailing and a variety of other activities.⁶⁴

⁶² Office for National Statistics - Annual Survey of Hours and Earnings (2022) [added source].

⁶³ D. Hunt, Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners, 9 *International Journal of Environmental Studies* (1976).

⁶⁴ M.G. Lloyd, D and Newlands, Aberdeen: Planning for Economic Change and Uncertainty, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

In 1971, Aberdeen airport handled 140,000 passengers; in 1984, this figure has grown to 1.75 million and more recent [2010] figures are close to 3.4 million. Aberdeen airport is home to one of the world's busiest commercial heliports.⁶⁵ Shepherd notes that pre-oil, Aberdeen airport featured one desk for both the bar and the ticket sales, with one person manning both.⁶⁶

The 1980s were marked by vast enhancement and investment into the Scottish ports and roads (Perth- Inverness; Dundee -Aberdeen).⁶⁷ In 1980, a weekly ferry service was launched linking Aberdeen to the Faroes, Denmark and Norway, also of great benefit to non-oil industry and tourism.⁶⁸

As the oil majors were mostly establishing their North Sea regional headquarters in Aberdeen,⁶⁹ retail floor space in Aberdeen “increased by 100,000 m²”⁷⁰ and several new shopping centres were being developed, for example the Trinity and St Nicholas Centres, and more recently the Bon Accord Centre. These still operate today, albeit in a much more low-key state due to the impacts of covid-19, with threat of closure hanging over the Bon Accord.

3.5 Aberdeen – centre for excellence in energy

Aberdeen City and Shire, owing to their energy past and present, provide a sizeable contribution to the national economy.⁷¹ Industry related sources and personal accounts convey a sense of pride in the endeavour to develop oil and gas resources for the good of the country, and today – in leading efforts in energy transition.⁷²

*“That the city is firmly established as an international oil centre means that companies will see it as their headquarters for all offshore operations in Europe for a very long time to come. Aberdeen-based companies are already exporting the skills they learned in the North Sea to countries all over the world”.*⁷³

Despite the maturing production, Aberdeen remained the “primary command centre for the North Sea super majors, majors, large independents and a host of small exploration & production companies colloquially known as minnows and juniors”.⁷⁴ Aberdeen remains the

⁶⁵ Aberdeen City Council, *The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p. 17.

⁶⁶ M. Shepherd, *Oil Strike North Sea: A First-Hand History of North Sea Oil* (Luath Press 2015).

⁶⁷ A. Kemp, *The Official History of North Sea Oil* (Routledge 2012).

⁶⁸ D. Duffy, *Aberdeen: A Dynamic City Moving into its Second Oil Decade* (1980).

⁶⁹ Aberdeen City Council and Aberdeenshire Council, *Oil and the North East: The Developing Impact* (1997).

⁷⁰ Grampian Regional Economic Council, *Oil and Grampian: The First 25 years* (1993).

⁷¹ Total Aberdeen and Shire GVA for 2021 was £16, 845 mil, or 12,3% of Scottish Output. *Skills Development Scotland, Regional Skills Assessment: Aberdeen City and Shire* (SDS, 2021).

⁷² L. Corradi, *Energy Integration & Industry Transition* (OGTC 2020).

⁷³ R. Smith, *The Granite City: A History of Aberdeen* (John Donald Publishers Ltd. 1989) p. 191.

⁷⁴ J. Cresswell, *Black and Green Gold: Aberdeen's Continuing Role in the Energy Revolution* (Balmoral Group, 2010) p. 119.

location for the regional headquarters of a number of large supply companies, including Wood Group, Aker Solutions, Petrofac, Balmoral Group, Senergy, Craig Group, Subsea 7. It further acts as a European HQ for US companies, such as Baker Hughes, Halliburton, and Schlumberger. Aberdeen is often seen as a testing ground/lab for global oil technology - a place for learning by doing despite the tech developed elsewhere.⁷⁵

It often comes across in industry-related sources that this success was possible almost in spite of the fast-changing political landscape.

*“Despite the Whitehall farce [reference to political shuffles leading up to 2010], Aberdeen has made tangible progress through much of the decade, some of it in spite of the politicians and the bungled up policy”.*⁷⁶

Aberdeen is referred to less and less as an “oil capital” and more as an “energy capital” or an “international energy centre”.⁷⁷

Technology and skills are being developed today to use experience from oil and gas “to leverage action on Net Zero”.⁷⁸ The Scottish Government’s Just Transition Commission Oil and Gas and Energy Transition Group members noted that *“oil and gas companies are becoming integrated energy companies and for every ‘buck’ made a significant proportion is invested into energy transition in UK. The industry has a strong drive to diversify and is in line with emission reduction targets”.*⁷⁹

The UK Climate Change Committee, in contrast, reported that the current industry reduction targets are not sufficient for meeting the UK’s climate targets: *“The North Sea Transition Deal and NetZero Strategy committed to a 50% reduction in emissions from offshore oil and gas production by 2030, well short of the 68% we assessed as being feasible in our Balanced Pathway”.*⁸⁰

To this end, not only offshore renewables but also technologies such as hydrogen and CCUS are high on the agenda in Aberdeen and the Shire. There is a strong will to preserve jobs and

⁷⁵ A. Cumbers, Globalization, Local Economic Development and the Branch Plant Region: The Case of the Aberdeen Oil Complex, 34 *Regional Studies* (2000) <https://doi.org/10.1080/00343400050078141>.

⁷⁶ J. Cresswell, Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution (Balmoral Group, 2010) p. 20.

⁷⁷ J. Cresswell, Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution (Balmoral Group, 2010).

⁷⁸ Aberdeen City Council, Net Zero Route Map 2045 (2022).

⁷⁹ Scottish Government, Oil and Gas and Energy Transition Strategic Leadership Group Minutes (March 2022).

⁸⁰ UK Committee on Climate Change, Progress in Reducing Emissions: [2022 Report to Parliament](#), [added source].

capitalise on expertise and human capital.⁸¹ Aberdeen is further considered to be the centre for excellence for subsea engineering with multiple companies operating out of Westhill.

Further, new industrial sectors are spinning out of the oil and gas wind-down, such as decommissioning, with the National Decommissioning Centre established in Newburgh, just 20 minutes north of Aberdeen. One source noted that trade unions *“hope decommissioning can play a role in mitigating job losses in the sector as platforms shut down. Over the next three decades more than 475 platforms, 10,000km of pipelines and 5,000 wells are expected to be removed from the North Sea”*.⁸²

With it – there are concerns about outsourcing labour and not building the supply chain for the new technologies in the North East. For example, a representative of a trade union said:

“All the work that’s getting done on renewables, and in decommissioning, is being done by vessels which carry Filipino, Malaysian crews, exploited on slave labour rates...There’s some lads on these installations have been there their entire working lives. Now they’re being told that ... the curtain will fall on them and they’ll be put off. And all the decommissioning work, which they’re more than able to do, and see the whole thing from cradle to grave, as it were, will be handed over to an outfit from Singapore”.⁸³

A further source argues that *“experience to date shows that the growth of renewable energy generation does not necessarily result in the creation of new manufacturing and engineering capacity and employment in Scotland”*.⁸⁴

4. Oil boom and bust: challenges of being an ‘oil capital’

It is acknowledged that while the benefits of oil developments in Aberdeen have been widely publicised, *“the adverse effects have received much less attention”*.⁸⁵

The local authority book observes:

“The oil industry undoubtedly brought great benefits to the city in terms of employment, prosperity and enhanced opportunity. However, behind this outward show of prosperity lay many of the same problems encountered elsewhere in the

⁸¹ See eg O. Alabi et al., *Could the Introduction of a New CO2 Transport and Storage Industry in Scotland Service Decarbonisation, 'Green Growth' and 'Just Transition' Agendas?* (University of Strathclyde, 2021) <https://doi.org/10.17868/78261>.

⁸² C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018).

⁸³ C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018).

⁸⁴ *Just Transition Partnership, Draft Climate Change Plan (2022)*.

⁸⁵ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

*country. The challenge to local authorities in the 1970s, '80s and '90s was to tackle these problems and to do against a background of public expenditure cuts. In Aberdeen this was made more complex by the pressures of oil. By any measure, that was a formidable challenge indeed".*⁸⁶

There appears to be general consensus in the evidence that the local (or national) authorities were not prepared to deal with the rate and scale of economic development associated with the arrival of oil, which manifested in reactive rather than proactive planning and decision-making. A number of challenges associated with Aberdeen City and Shire being an oil and gas industry host region were identified in the evidence and are discussed below.

4.1 Decline in traditional industries

In the 1960s, most private firms in Aberdeen were locally owned.⁸⁷ When “big oil” arrived, this pattern shifted significantly – *“as few as a quarter of the firms that make up the oil supply industry are owned and controlled locally, and they tend to be the smaller businesses”*.⁸⁸ As noted in section 2 above, traditional industries in the North East were already in decline which prompted the commissioning of the Gaskin Report.⁸⁹

The establishment of the oil industry in Aberdeen is believed to have hastened such decline of traditional manufacturing industry through 1) labour displacement in these industries due to upward pressure on wages, increased demand for commercial/industrial property 2) deterrence of new industries forming in the city.⁹⁰

Some impact on wages have come from the policies associated the Prices and Incomes Act 1966, effectively limiting the ability of traditional industries to offer higher wages.

The growth of the oil sector is believed to have *“both concealed and hastened the decline of employment in the older local industries of traditional engineering, shipbuilding and ship repair, paper making, textiles and fishing”*.⁹¹

⁸⁶ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 74.

⁸⁷ M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>; D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976).

⁸⁸ M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

⁸⁹ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 58; *Aberdeen City Council, The Importance of the Energy Sector to Aberdeen City and Shire* (2010) p.3.

⁹⁰ A. Harris, *Dependence, Displacement and Deterrence: The Employment Implications of Oil in Aberdeen* (University of Aberdeen, 1985).

⁹¹ Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 71.

Aberdeen's traditional manufacturing industries, such as papermaking, fish processing, textiles and clothing did not experience any significant increase in demand. It appears that: *“competition with oil raised the costs and reduced the availability of labour and property to non-oil firms. Those non-oil industries already in decline saw an acceleration of that decline. Other firms seeking to maintain or expand output and employment were unable to do so”*.⁹²

A personal account of that time observes:

“The oil boom saw the decline and cessation of much of the industry that existed before oil, most obvious being fishing; the big fish ponds that used to emanate from the harbour and linger around the city centre have long since gone. Two out of three paper mills have shut to be replaced by housing schemes and the old Crombie woollen mill, which supplied the Confederate army with uniforms during the American civil war, has gone too. The result has been increasing reliance on oil which is not healthy for the long-term economy of the city”.⁹³

It appears the city was divided over new oil:

“Fierce local battles were fought on pro-development and anti-development lines which, as with most such conflicts, were by no means clearly drawn. The former included not only trade unionists and workers seeking jobs but also businessmen and landowners who stood to gain from commercial opportunities and soaring land prices, while the latter included not only sometimes wealthy conservationists wishing to preserve the countryside but also fisherman, farmers and craftsmen who were unwilling to change their traditional patterns of living”.⁹⁴

The city's leadership and commentators were aware of how this created a dependency on the single industry. An academic source from late 1980s observes: *“together, the displacement and deterrence effects on non-oil industries in Aberdeen have contributed to the dependence of the local economy upon oil. While the oil sector has created many new jobs in Aberdeen, the displacement and deterrence effects suggest that oil developments have also led to the loss of a significant number of jobs in traditional industries”*.⁹⁵

A periodical from 1980 notes the local authorities' concern about the *“widening gap between the oil sector and the non-oil sector, particularly the traditional industries, and between the immediate Aberdeen city area and the rural part of the region...Contributing to the problem*

⁹² M.G. Lloyd and D. Newlands, Aberdeen: Planning for Economic Change and Uncertainty, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

⁹³ M. Shepherd, *Oil Strike North Sea: A First-Hand History of North Sea Oil* (Luath Press 2015).

⁹⁴ B. Cooper and T.F. Gaskell, *The Adventure of North Sea Oil* (William Heinemann Ltd 1976) p. 191.

⁹⁵ M.G. Lloyd and D. Newlands, Aberdeen: Planning for Economic Change and Uncertainty, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

*are the costs and availability of skilled labour, the cost of energy, high interest rates, the severe recession in the fishing and fish processing industries and, of course, inflation".*⁹⁶

Between 1977 and 1981, Aberdeen *"lost a quarter of its jobs in food processing and a fifth of its engineering, shipbuilding and textiles jobs. These jobs were lost for native Aberdonians while much of the newly created work in the industry went to incomers"*.⁹⁷

4.2 Removal of regional assistance and lack of 'trickle down' of profits

The oil success has further created a *"prosperous image of Grampian in Whitehall"*⁹⁸ which led to the loss of development status. This in turn led to the loss of regional assistance to the region in 1978-1982 through loss of full Development Area status and later - Intermediate Area status.⁹⁹ In 1982, the whole of the North East was removed from regional policy assistance due to low unemployment. Despite the decline in a number of industries in Aberdeen, the overall unemployment was low and no targeted measures were adopted at the time.

It was expected that the new profits would trickle down into investment for public services and housing, but this process was not straightforward:

*"It's unsurprising then that public investment in infrastructure and housing lagged behind the economic growth during the city's early boom years. From 1982, the influx of wealth meant that the city was no longer able to apply for regional development aid and for most of the decades of rapid expansion in the North Sea road and rail links south were not upgraded. Unlike Shetland, where the local council managed to clinch a crucial deal to impose a levy on every barrel of oil transferred through Sullom Voe Oil Terminal, any direct revenues that did accrue to Aberdeen trickled down from central government".*¹⁰⁰

After the oil price slump of 1986, local authorities campaigned unsuccessfully to have Assisted Area status restored.¹⁰¹

⁹⁶ D. Duffy, *Aberdeen: A Dynamic City Moving into its Second Oil Decade* (1980).

⁹⁷ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

⁹⁸ *Grampian Regional Economic Council, Oil and Grampian: The First 25 years* (1993).

⁹⁹ A. Harris, *Dependence, Displacement and Deterrence: The Employment Implications of Oil in Aberdeen* (University of Aberdeen, 1985).

¹⁰⁰ C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018).

¹⁰¹ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000 p. 63).

Despite the significant amount of tax revenue generated in the North East because of the North Sea, the perception is that *“precious little filtered back in terms of inward investment”*.¹⁰²

4.3 Pressure on housing and local authorities

With increasing population and earning capacity, it was inevitable that the housing market was affected significantly in the early days of oil – and since, by fluctuations in the industry. In the late 1970s and early 1980s, *“house prices in Aberdeen area were rising at an average rate of 18% per annum and at that time Aberdeen had the second highest house prices in the UK after the south east of England”*.¹⁰³ Aberdeen house prices rose faster in that period than elsewhere in Scotland.¹⁰⁴

Between 1975 and 1991, some 15,000 new houses were built in Aberdeen, and many more built elsewhere in the wider region. Most of this new housing was built on the edges of the city at Bridge of Don/Danestone, Dyce, Lower Deeside, Cove Bay and Kingswells – all busy residential neighbourhoods today. It is reported that in the late 1970s and the early 1980s, *“house prices in the Aberdeen area were rising at the rate of 18% a year. Indeed, throughout most of the twenty-year period Aberdeen prices were above the British average, and the second highest in the UK after London and the South East of England. The exceptions were the late 1980s when the fall in the oil price in 1986 and consequent job losses led to a slump in the housing market”*.¹⁰⁵

Not everyone could afford the expensive properties in Aberdeen, the then Grampian Regional Council stated: *“the scale of oil developments...has contributed to difficulties for local population in finding adequate housing by means of increasing the price of private housing and by inflating the demand for limited public sector housing”*.¹⁰⁶

A periodical from 1980s reports: *“already Aberdeen has experienced a greater rise in the number of mobile homes than in any other place in Scotland. 600 of these are scattered around the city on 78 different sites, mostly privately owned. Many of the occupants are long-term, unable to afford to rent or purchase property”*.¹⁰⁷

¹⁰² J. Cresswell, *Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution* (Balmoral Group, 2010) p. 126 (Interview with Sue Bruce, Ex-Chief Executive, Aberdeen City Council).

¹⁰³ J. Payne, *Oil and Housing Aberdeen* (1975).

¹⁰⁴ C. Jones and D. Maclennan, *The Impact of North Sea Oil Development on the Aberdeen Housing Market*, 3(2) *Land Development Studies* (1986) <https://doi.org/10.1080/02640828608723905>.

¹⁰⁵ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 67-68.

¹⁰⁶ *Grampian Regional Council, Oil and Grampian: The First 22 Years* (1991) p. 9.

¹⁰⁷ D. Duffy, *Aberdeen: A Dynamic City Moving into its Second Oil Decade* (1980).

It appears that most affected were vulnerable groups – young couples, pregnant women, young children and the elderly. These are the groups perceived to have been “*most drastically in need of adequate housing, and it’s important to understand that the housing situation in Aberdeen is not a once-off situation caused by a temporary lack of funds but the inevitable result of the contradiction between unplanned economic growth and individual/social need*”.¹⁰⁸ It is reported that the council housing tenants were insulated from higher housing costs in the 1980s, “*but even they have experienced the increase in the prices they have to pay for a wide variety of goods and services*”.¹⁰⁹

The impact of the oil and gas sector on housing is still very much present in the city. In the June 2022 interview in Energy Voice, a local property lawyer said:

“With higher oil prices and continued uncertainty in Europe due to the war in Ukraine, governments are revising their energy policies and the UK is no different in that it will try to extract as much hydrocarbons as possible...This is bound to have an impact on the housing market in Europe’s oil capital and tied in with a huge increase in renewable energy sector activity, Aberdeen will attract an influx of skilled workers who will need new homes”.¹¹⁰

The evidence is consistent on the challenges the local authorities faced in general with accommodating the new industry:

“The abdication by central government of much of the responsibility for the orderly development of this new industry shifted the burden of planning its location on to the shoulders of local authorities inadequately equipped for the task. The consequence was that the oil companies and their major suppliers dictated the pace and pattern of developments from the very beginning”.¹¹¹

Between 1975 and early 1990s, regional council expenditure on oil-related developments was estimated to be “*well over £100 mil per year throughout the Grampian region*”.¹¹²

The regional planning authority “*offered advice to the local authorities on the likely impact of oil and coordinated their planning efforts. ...By the early 1970s the oil industry was making heavy and largely unforeseen demands for harbour facilities, industrial sites, office space, infrastructure, hotels, housing and labour. The scale of expected future development was so*

¹⁰⁸ Oil Over Troubled Waters: A Report and Critique of Oil Developments in North East Scotland (Aberdeen People’s Press 1976) p. 36.

¹⁰⁹ A. Harris et al., The Impact of Oil on the Aberdeen Economy (Avebury, 1988) p.92.

¹¹⁰ Erika Askelland, Oil Prices Put Aberdeen Property Market ‘On Cusp of Rebound’ (Energy Voice, 17 June 2022).

¹¹¹ M.G. Lloyd and D. Newlands, Aberdeen: Planning for Economic Change and Uncertainty, 105(2) Scottish Geographic Magazine (1989) <https://doi.org/10.1080/00369228918736762>.

¹¹² K. Davidson and J. Fairley, Running Granite City: Local Government in Aberdeen, 1975-1996 (Scottish Cultural Press 2000) p. 64; J. Payne, Oil and Housing Aberdeen (1975); Grampian Regional Economic Council, Oil and Grampian: The First 25 years (1993).

great and so imminent that an overall regional strategy and structure plan was urgently required".¹¹³

It is further reported that developers were granted planning permission subject to a number of conditions. While those "were designed to inhibit 'speculative' developments and to protect the environment of the city(...), no one wanted to do anything that was likely to 'frighten' the industry away".¹¹⁴

Shepherd observed:

*"The unsung heroes were the local councils who stepped up to the mark and somehow coped with the influx while still preserving the essential character of the city and region. The villains were and are the national governments, delighted to take billions in tax revenue from the oil bonanza but most reluctant to finance a region, suddenly under stress and requiring resources and assistance to cope with the arrival of a new industry on its doorstep. The result is that the local infrastructure required to accommodate the needs of the oil industry was paid almost entirely from our local rates and council taxes with very little governmental assistance. It's been estimated that between 1975 and the early 1990s that local council expenditure on oil-related infrastructure was somewhere in excess of £100 million per year. According to the Scottish Government statistics for 2012-2013, the municipal debt for the City of Aberdeen is now £619 million and for Aberdeenshire its £473 million. It is ironic that two regional areas elsewhere have been supported by North Sea revenues, but not the Aberdeen region".*¹¹⁵

4.4 Inequality

Although it is clear that the oil and gas industry has provided many benefits to communities in the region, these benefits have not always been distributed equally between men and women and different social classes. It is reported that at the time "there has been no serious attempt by the central government to ensure a more equal distribution just as there has been no action to reduce the adverse effects of oil activity upon Aberdeen's traditional industrial base".¹¹⁶

¹¹³ Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 59.

¹¹⁴ Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 60.

¹¹⁵ M. Shepherd, *Oil Strike North Sea: A First-Hand History of North Sea Oil* (Luath Press 2015) p. 58.

¹¹⁶ A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 99. See also, A. Harris et al., *Who Gains from Structural Change? The Distribution of the Benefits of Oil in Aberdeen*, 23(4) *Urban Studies* (1986), <https://doi.org/10.1080/00420988620080341>.

The studies indicate that the perception in the 1980s was that *“the labour market has not spread the gains from oil developments at all widely. Aberdeen may be a ‘boom town’ for some but many have received little direct benefit”*.¹¹⁷ Data suggested that *“on balance, the creation of jobs in Aberdeen as a result of oil developments has favoured men rather than women, and middle class rather than working class people”*.¹¹⁸

While the average earnings in Aberdeen for men have risen markedly compared to the rest of the country, *“the same is not true...for women, only a comparatively small number of whom are employed in the oil industry”*.¹¹⁹ Women’s earnings *“do not show any discernible improvement, implying that the benefits of oil in terms of higher incomes have been confined largely to men”*.¹²⁰ The survey of earnings in 1971-1986 indicated that *“benefits of oil in terms of higher incomes have been confined largely to men”* with women’s earnings in the North East constituting 67% of those of men in 1971 and 58% percent in 1986.¹²¹

Furthermore, the earnings *“in sectors not involved in the oil developments did not increase to the same extent”*.¹²² A 1988 study reports that after 10 years of oil industry in the region *“male workers in Aberdeen not actually employed in the oil sector still received average incomes well below the British average”*.¹²³ It is further reported that while many of the new well-paid jobs went to incomers, *“the substantial rise in the cost of living manifested especially in the housing market, has meant that the costs have been borne largely by the indigenous population”*.¹²⁴

Such income inequality has impacted life in the city and region:

“The oil boom brought prosperity but it also brought rocketing prices. Dining out became an expensive luxury, except for those on expense accounts, and buying a house put the family budget deep into the red”.¹²⁵

The housing was no longer affordable and in 1970-1980, there was *“a constant migration of families to the dormitory suburbs and to nearby towns, leaving the city centre with an ageing*

¹¹⁷ G. Lloyd and D. Newlands, *The Interaction of Housing and Labour Markets: an Aberdeen Case Study*, 7(1) *Land Development Studies* (1990) <https://doi.org/10.1080/02640829008723996>.

¹¹⁸ A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 99.

¹¹⁹ M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

¹²⁰ G. Lloyd and D. Newlands, *The Interaction of Housing and Labour Markets: an Aberdeen Case Study*, 7(1) *Land Development Studies* (1990) <https://doi.org/10.1080/02640829008723996>.

¹²¹ A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 90.

¹²² C. Jones and D. MacLennan, *The Impact of North Sea Oil Development on the Aberdeen Housing Market*, 3(2) *Land Development Studies* (1986) <https://doi.org/10.1080/02640828608723905>.

¹²³ A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 91.

¹²⁴ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

¹²⁵ R. Smith, *The Granite City: A History of Aberdeen* (John Donald Publishers Ltd. 1989) p. 190.

and dwindling population".¹²⁶ This was further exacerbated by requirements for office space in the city centre.

The division between the rich and the poor has since been stark in Aberdeen:

"The seriously rich lilies could buy a house in Aberdeen's most expensive streets, Rubislaw Den South and the parallel street, Rubislaw Den North. Many of these resembled small castles and had been built by rich merchants in Victorian times. Between the two streets lay the 14-acre private park of Rubislaw Den, owned by residents and available for their exclusive use only. They access the park through their back gardens, the entrance gates for the public having long been padlocked shut".¹²⁷

At the same time, unemployment and consequent poverty existed in parts of the North East and in parts of the city.¹²⁸ Some parts of the city have been and still are affected by this particularly.

The idea of trickle down of benefits did not seem to materialise all throughout the city:

"In 1993, when male unemployment in Aberdeen averaged 7.5%, the proportion out of work exceeded 12% in the wards of Balnagask, Tillydrone, Grandholm. The government's expectation that a healthy free market would see a 'trickle-down' of benefits to everyone didn't seem to offer much to the most deprived areas. Youth unemployment was a particular problem in the city areas of Northfield, Brimmond, Ferryhill, St Machar and Woodside whilst long term unemployment was a problem in Northfield and Seaton. The level of poverty in the city was often overlooked or even denied because of the prosperous image of the oil capital".¹²⁹

In 2009, 27 Aberdeen data zones were among the most deprived 15% of all Scottish data zones (around 8.9% of the population). Aberdeen was the 14th highest deprivation council area in the country out of 32. Most deprived areas were in Tillydrone, Middlefield, Torry, Woodside, Seaton, Cummings Park and Northfield.¹³⁰

In 2016, 22 Aberdeen City data zones were in the most deprived 20% of all Scottish data zones (around 7.9% of the City's total population). The most deprived data zones in Aberdeen City were located in the Torry, Middlefield, Northfield, Seaton, Tillydrone, Woodside, Mastrick, Sheddocksley and George Street neighbourhoods.¹³¹

¹²⁶ D. Duffy, *Aberdeen: A Dynamic City Moving into its Second Oil Decade* (1980).

¹²⁷ M. Shepherd, *Oil Strike North Sea: A First-Hand History of North Sea Oil* (Luath Press 2015) p.62-63.

¹²⁸ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 58.

¹²⁹ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 58.

¹³⁰ *SIMD 2009*. There were 6,505 zones in Scotland, 267 in Aberdeen.

¹³¹ *Aberdeen City Council, Aberdeen Key Facts Deprivation (2018)*.

Today, most of these areas remain among the most deprived in the City, see Figure 9 below.

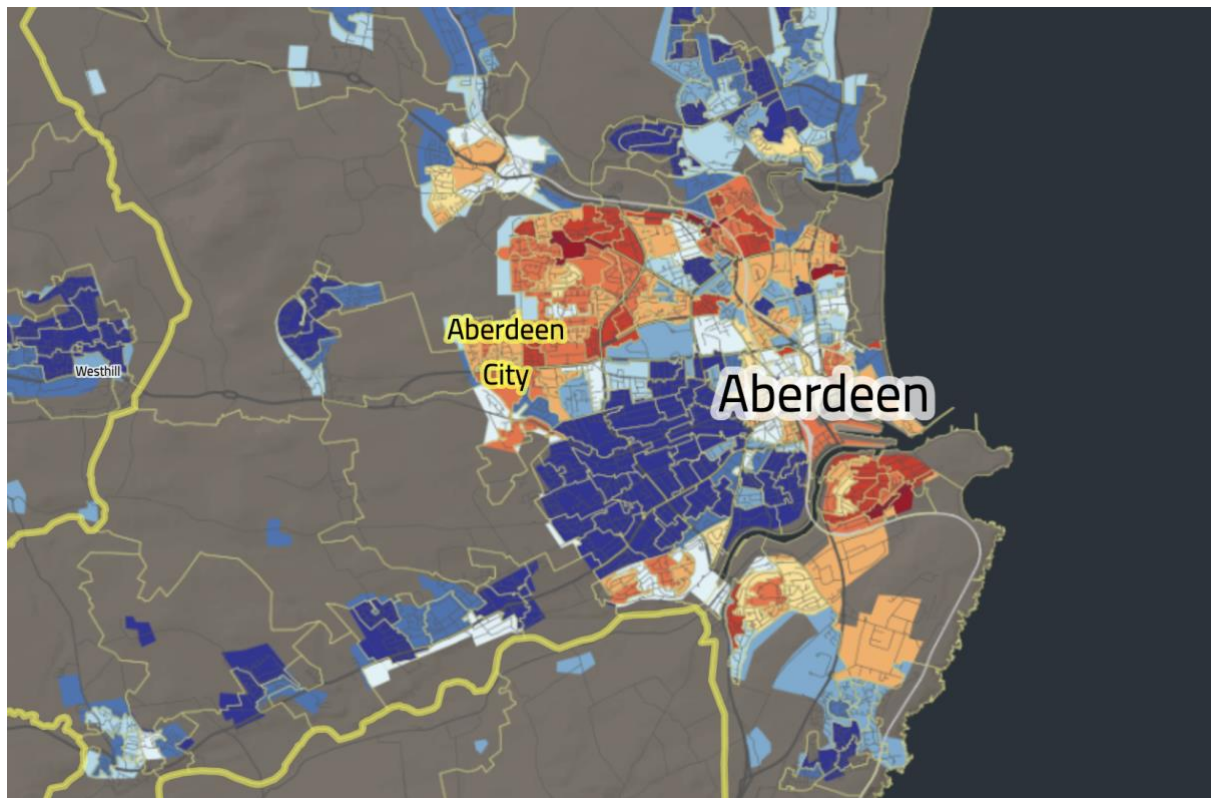


Figure 9: SIMD 2020, Aberdeen¹³²

An area particularly impacted by industrial development in Aberdeen is Torry, marked red on the map in the South East of the city.

In the late 1960s the local council gave to the people of Old Torry a 15-20 year ‘no development’ guarantee. Later In 1971-1972, Shell Exploration Ltd applied to build an oil storage and marine service base on the site. It is reported that *“under pressure from Shell and probably also from the UK Government the Select Committee met and decided to recommend to the full council that the council acquire the land and rezone it for industrial development”*.¹³³

In 1975, the fishing village of Old Torry was bulldozed *“to make way for one of the supply bases; 140 flats and houses were demolished and about 350 people moved elsewhere”*.¹³⁴

Today residents of Torry face a new challenge, this time from an energy transition project. The proposed Energy Transition Zone would be a *“not-for-profit business [with] a core aim to*

¹³² [SIMD, 2020](#).

¹³³ [Oil Over Troubled Waters: A Report and Critique of Oil Developments in North East Scotland \(Aberdeen People’s Press 1976\) p. 15.](#)

¹³⁴ [M. Shepherd, Oil Strike North Sea: A First-Hand History of North Sea Oil \(Luath Press 2015\) p.59-60.](#)

economically reposition the North East by reducing its reliance on oil and gas".¹³⁵ It is acknowledged that the ETZ is *"an important economic opportunity for diversification from fossil fuels and could have real value for the workforce in Aberdeen"*.¹³⁶ However, concerns have been raised by the local community and some MSPs as the proposal involves rezoning St Fittick's Park in Torry, Aberdeen, currently designated urban green space and Doonies Rare Breeds Farm, currently part of the green belt. St Fittick's park, *"squished between industrial land and a sewage works, (..) is the only accessible green space for that community"*.¹³⁷ Despite the overall support for the ETZ, the proposed location raised concerns about disproportionate impacts on the Torry residents as well as lack of potential benefits to Torry directly. Applying historical justice in Torry and elsewhere would introduce an *"assessment process, requiring the analysis not just of the material heritage of a landscape but the historical processes which, over time, have created people's current relationships and interactions with their surroundings"*.¹³⁸

For a place so close to energy infrastructure (oil and gas & renewables), Aberdeen and Shire paradoxically have a lot of people living in fuel poverty. In 2010, around 16.6% of the City's residents spent 10-15% of disposable income on heating, 6.3% - spend 15-20%, 5.6% - spend 20% or greater.¹³⁹ In 2016, around 23% of households in Aberdeen City were in fuel poverty and 5% were in extreme fuel poverty.¹⁴⁰ In a 2014 questionnaire, rising fuel prices was a top financial concern for Aberdeen communities.¹⁴¹ Today, as fuel poverty is a national problem, Aberdeenshire has some of the highest prices in the country.¹⁴²

Finally, gender equality issues were raised in some sources, though this was limited. Two sources considered the work-life balance in the UK offshore installations. One of these considered the mental health impacts on wives from husbands working offshore concluding that the psycho-social impact of offshore work on family life needed more studies.¹⁴³ The second source focused instead on the offshore workers directly and reveals the *"pervasive nature of traditional gendered divisions, cultures and practices in the North Sea oil industry"*.¹⁴⁴ It refers to research acknowledging that *"platform employment placed enormous*

¹³⁵ Scottish Parliament, [Just Transition for Torry](#) (15 September 2021), Liam Kerr MSP.

¹³⁶ Scottish Parliament, [Just Transition for Torry](#) (15 September 2021) Audrey Nicoll MSP.

¹³⁷ Scottish Parliament, [Just Transition for Torry](#) (15 September 2021), Maggie Chapman MSP.

¹³⁸ C. Dalgish, Justice, Development and the Land: The Social Context of Scotland's Energy Transition, 43 *Landscape Research* (2018) <https://doi.org/10.1080/01426397.2017.1315386>.

¹³⁹ Aberdeen Citizens Panel, Aberdeen City Voice. 19th, Questionnaire, Homes, Health and Social Care, Safety (2010).

¹⁴⁰ Aberdeen City Council, Aberdeen Key Facts Deprivation (2018).

¹⁴¹ Aberdeen Citizens Panel, Voice. 31st, Questionnaire, Fairer Mental Wellbeing, Fairer Equality for All, Wealthier and Fairer - Welfare Reform, Additional Questions - Roads, Additional Questions - Fuel Poverty (2014).

¹⁴² R. Hempseed, "Situation is not Sustainable or Acceptable": Figures show Aberdeenshire, Shetland and Orkney Paying among Highest Energy Bills in UK ([Press & Journal](#), 17 July 2022).

¹⁴³ J.K.W Morris et al., Oil Wives and Intermittent Husbands, 147 *British Journal of Psychiatry* (1985), <https://doi.org/10.1192/bjp.147.5.479>.

¹⁴⁴ D.L. Collinson, "Shift-ing Lives": Work-Home Pressures in the North Sea Oil Industry, 35(3) *Canadian Review of Sociology* (1998), <https://doi.org/10.1111/j.1755-618X.1998.tb00725.x>.

pressure on personal relationships, generating considerable marital difficulties and well above average divorce rates”.¹⁴⁵

A 1984 comparative study of gender equality in offshore work in Norway and the UK found *“conclusive evidence of widespread – almost universal – discrimination against women in employment in the British sector of the North Sea oil industry”*.¹⁴⁶ Some factors identified in the study are not directly associated with the oil and gas industry – researchers find that University staff discouraged women from applying for offshore jobs. None of the interviewed service companies employed female geologists offshore, and the interviewed women recounted their personal experiences with discrimination. Although today, more legal protections are in place to protect against discrimination in employment, the share of women offshore remains low, under 4% of all offshore staff.¹⁴⁷

4.5 Vulnerability of regional economy: Impact of oil price fluctuations

The running thread in the evidence is the lack of long-term planning for the oil and gas/energy sector in the UK having direct effect on life in Aberdeen and Aberdeenshire. In discussing the 1987-1990 low oil price, the then Grampian Regional Council said: *“though such a low price may have been of national benefit in terms of reduced manufacturing costs, at the time it led to considerable hardship for the economic structure and lives of individuals in Grampian region”*.¹⁴⁸

From the first days of the industry, to oil price slumps, to energy transition today – planning appears to be short-run and fragmented. Motamen observes:

“Ironically most of the policies proposed and debated in the national press as well as those put forward in the Government White paper, ‘The Challenge of North Sea Oil’, are primarily short-run. It could be that the nature of the political system in Britain prevents the implementation of long-term plans. With governments changing every three or four years, policies on the whole tend to be short-run”.¹⁴⁹

In contrast, planning processes for Just Transition should be comprehensive and long-term. As Rising et al. observe: *“planning for even small disruptions, such as the closing of a single plant, may require years of discussion and evaluation. The transition of the entire coal or oil sector needs a longer timetable. Some of the most successful coal transitions are based on planning processes that began 20 years in advance”*.¹⁵⁰

¹⁴⁵ D.L. Collinson, “Shift-ing Lives”: Work-Home Pressures in the North Sea Oil Industry, 35(3) Canadian Review of Sociology (1998), <https://doi.org/10.1111/j.1755-618X.1998.tb00725.x>.

¹⁴⁶ R. Moore and P. Wybrow, Women in the North Sea Oil Industry (Equal Opportunities Commission, 1984) p. 5.

¹⁴⁷ OGUK, Workforce & Employment Insight (2021) p. 17 [added source].

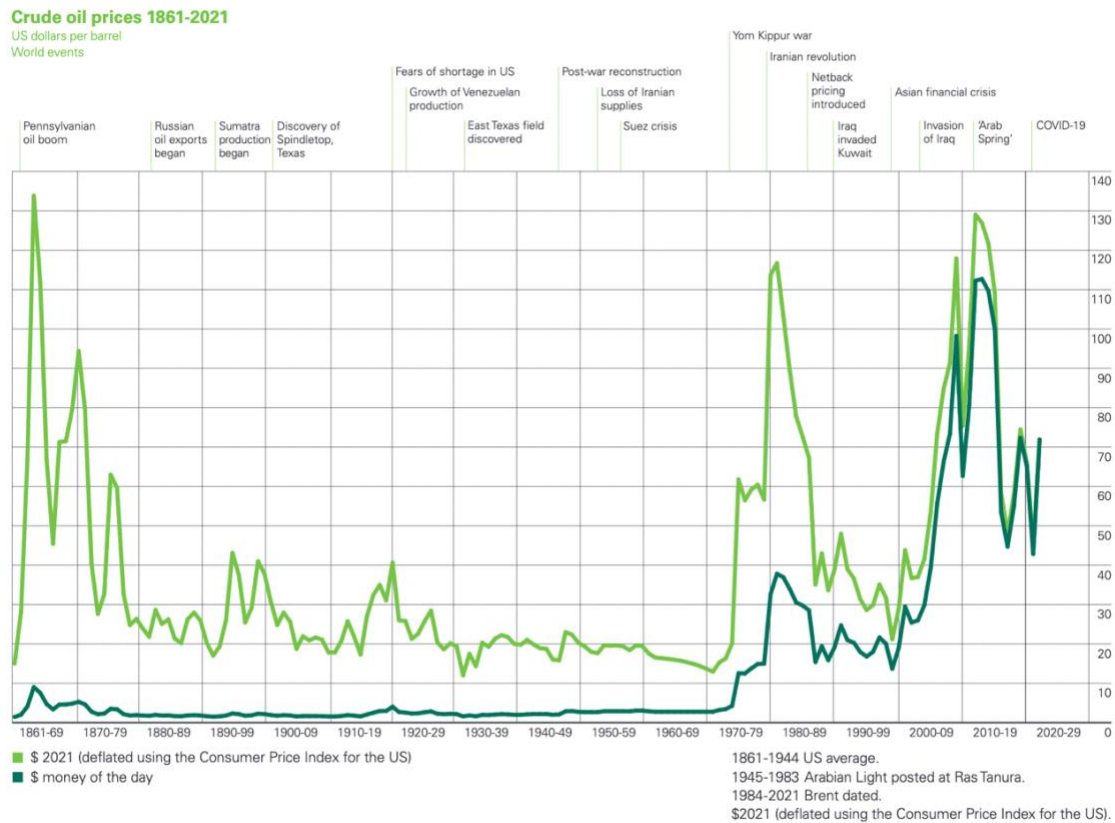
¹⁴⁸ Grampian Regional Council, Oil and Grampian: The First 22 Years (1991) p. 6.

¹⁴⁹ H. Motamen, Macroeconomics of North Sea Oil in the United Kingdom (Heinemann, 1983) p.1.

¹⁵⁰ J. Rising et al., Regional Just Transitions in the UK: Insights from 40 Years of Policy Experience (EDF 2021).

Plans for this transition so far have not been ambitious enough and that progress has been slow except regarding onshore wind. There has been little planning to ensure the protection of the people most affected, in particular those who work in sectors reliant on fossil fuels.¹⁵¹

Figure 10: Crude Oil Prices 1861-2021, BP Statistical Review 2022



Vulnerability to oil price has always been a challenge in the North East.¹⁵² Researchers noted:

*“In 1986 what the experts feared happened: the dollar price fell sharply sending shock waves throughout the Aberdeen economy. In 1981 price peaked at \$40 per barrel. In 1985, it fluctuated between \$28 and \$30. The following year the price fell as low as \$8.40. Late 1987 saw the price back at above \$16, well above the key level at the time for most North Sea producers. In the intervening months jobs were lost; at the worst point recorded redundancies were running at 1,000 per month. House prices fell and the retail and leisure facilities were badly hit”.*¹⁵³

¹⁵¹ Just Transition Partnership, Draft Climate Change Plan (2022).

¹⁵² L. D’Ambruoso, Case Study: Empowerment Approaches to Food Poverty in NE Scotland (University of Aberdeen, TARSC, 2017).

¹⁵³ K. Davidson and J. Fairley, Running Granite City: Local Government in Aberdeen, 1975-1996 (Scottish Cultural Press 2000) p. 63.

Oil price slumps are also associated with job losses although accounts differ as to how many jobs were lost for example during the 1985-1987 oil price slump. One academic source states that *“by 1986, the Wood Group, a local supply firm, had laid off 500 of the 2,100 employees working in 1985... Aberdeen’s unemployment rate increased from 6.3% in April 1985 to 9% in April 1987. The region lost 12,500 of its 52,000 oil industry jobs between mid-1985 and 1987”*.¹⁵⁴

Another account states that *“total job losses in Grampian Region have been estimated to have been of the order of 7,000. These resulted in a sharp increase in unemployment, of nearly 6,000 in the region between the beginning of 1986 and the beginning of 1987 — a rise of 31 per cent. Most of the employment cuts occurred in Aberdeen. Its unemployment total rose by over 4,600 or 42 per cent. In contrast, the Scottish total increased by only 1.4 per cent over the same period”*.¹⁵⁵

A third academic source claims that oil employment in Grampian in 1985-1986 fell by only 4,100, but more jobs were lost in the local economy.¹⁵⁶

A book on local governance in Aberdeen comments:

“The six o’clock news reported that the oil boom was over and that Aberdonians were going back to fishing and farming! The economic future of the area looked to be in the lap of the gods. Cars were seen around the city displaying stickers which read ‘Please God give us another chance and we promise not to throw it away again’”.¹⁵⁷

Prices gradually went back up but *“1986 marked the end of the major expansionary phase for Aberdeen’s oil economy. After the profound psychological shock of 1986 there was more willingness to discuss ‘life after oil’, and to face the fact that one day the valuable resource would eventually run out”*.¹⁵⁸

In 2014, when the third global crash was ignited, the slump led to the *“price of Brent Crude plummeting from \$115 per barrel in June 2014 to under \$35 at the end of February 2016”*.¹⁵⁹

Recovery had barely begun when the impact of the Covid-19 pandemic hammered the oil industry in 2020. Brent tumbled, closing at \$9.12 a barrel on April 21, a far cry from the \$70 a barrel that crude oil fetched at the beginning of that year.

¹⁵⁴ J. R. Feagin, *Extractive Regions in Developed Countries: A Comparative Analysis of the Oil Capitals, Houston and Aberdeen*, 25(4) *Urban Affairs Review* (1990) <https://doi.org/10.1177/004208169002500405> p. 611.

¹⁵⁵ M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>. This data is also referred to in A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 106-107.

¹⁵⁶ A. Harris et al., *The Impact of Oil on the Aberdeen Economy* (Avebury, 1988) p. 106-107.

¹⁵⁷ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 63.

¹⁵⁸ K. Davidson and J. Fairley, *Running Granite City: Local Government in Aberdeen, 1975-1996* (Scottish Cultural Press 2000) p. 63.

¹⁵⁹ C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018).

The combined effects of the third and fourth global slumps were:

“compounded by the ongoing fallout from the 2008 global financial crisis and the period of austerity economics implemented by the British government in its wake. Stories true and apocryphal circulated of people driving to collect food parcels in high-end sports cars and unemployed oil workers with homes too big to sell. The city became a prism through which to understand the longer-term effects of the fossil economy and its volatility, but also a springboard for the development of a nascent renewables sector which—rhetorically at least—promised a new chapter in the region’s economic and energy history and a future appropriate to the material realities and needs of climate change and decarbonization”.¹⁶⁰

Since then, the industry has been in what it refers to as a ‘recovery’ phase. *“The economic shock of 2014 has caused Aberdeen to up its game. In some respects, it has the danger and the depths of the North Sea to thank for this. 40 years as the hub for extracting hydrocarbons from hard to reach wells has buttressed a reputation for excellence, innovation and a raft of specialist expertise. In areas such as diving for example, Aberdeen is second to none”*.¹⁶¹

The impact of the Russian invasion in Ukraine and the concerns over the energy security have contribute to the recovery of the oil price and reignited the calls from the industry bodies to boost exploration and extraction in the North Sea.

Oil price notwithstanding, oil and gas is a finite commodity and the region must be prepared for the production wind down. Even with layers of previous industrial or commercial development, *“the depletion of an extractive commodity can create serious problems, particularly when the primary resource has been depleted without significant generative investments in other sectors such as manufacturing”*.¹⁶² In Aberdeen the economy was locked into oil and there was little evidence of diversification into post oil tech or markets.¹⁶³

Moreover, the climate emergency and the corresponding legal commitments of the UK and Scottish governments suggest that the production might need to be wound down before full depletion.¹⁶⁴

¹⁶⁰ D. Hinde, “Have Car, Can Travel”: Journalistic Practice, Oil Entanglements and Climate Reportage in Aberdeen, Scotland, 8 *GeoHumanities* (2022) <https://doi.org/10.1080/2373566X.2021.1942128>.

¹⁶¹ C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018).

¹⁶² J. R. Feagin, Extractive Regions in Developed Countries: A Comparative Analysis of the Oil Capitals, Houston and Aberdeen, 25(4) *Urban Affairs Review* (1990) <https://doi.org/10.1177/004208169002500405> p. 594.

¹⁶³ A. Cumbers, Globalization, Local Economic Development and the Branch Plant Region: The Case of the Aberdeen Oil Complex, 34 *Regional Studies* (2000) <https://doi.org/10.1080/00343400050078141>.

¹⁶⁴ See eg, *Scottish Parliament Scottish Conservative and Unionist Party Debate: Future of North Sea Oil and Gas (15 September 2021)* [added source].

Some are more optimistic for the future:

“There’s always been a direct correlation between the oil price and Aberdeen happiness,” said Paul de Leeuw, director of the Energy Transition Institute at Robert Gordon University. *“That has changed. People realize it’s a different world. Everything is shifting given what we need to do with the energy transition”*.¹⁶⁵

4.6 Lack of local control

Multiple sources discuss the domination of international majors in the UK system and lack of oil and gas manufacturing in the UK.¹⁶⁶ Historically, the oil and gas policies in the UK were *“aimed at finding and developing North Sea oil as quickly as possible, to help offset a chronic balance-of-payments deficit made worse by the OPEC’s increases in the price of imported oil, while at the same time encouraging British firms to take advantage of the industrial opportunities created in supplying the oil companies with their equipment needs. This was particularly important to Scotland, with its above average rate of unemployment”*.¹⁶⁷

Thus, during the key early years of North Sea development *“the goal of local capability-building was a secondary consideration”*.¹⁶⁸

It appears that the UK Government put in considerable effort into stimulating the creation of a strong supply chain in the 1970s but the need to develop oil and gas fast in response to the oil crisis led to outsourcing some of the platform construction to international partners.¹⁶⁹ For example in 1973, the Offshore Supplies Office was established as a government agency to support British businesses in the offshore sector and increase local content. The Offshore Supplies Office was functioning until 1999. Analysis of the Office’s effectiveness concludes that despite the *“limited means at its disposal”* the Office had a beneficial impact on the UK-based suppliers.¹⁷⁰

American majors operating in the North Sea are reported to have had an *“anti-trade-union culture”*, which led to unions being *“sidelined”* and *“unable to play an effective role in health and-safety policy”*.¹⁷¹ This was in contrast to the industrial-relations culture *“established in*

¹⁶⁵ D. Waite, *Inclusive Growth and City Deals* ([Joseph Rowntree Foundation 2017](#)).

¹⁶⁶ T. Priest, *Offshore Pioneers: Brown & Root and the History of Offshore Oil and Gas* (Gulf Professional Publishing 1997); C. T. Harvie, *Fool’s Gold: The Story of North Sea Oil* (Hamilton 1994); C. Callow, *Power from the Sea : The Search for North Sea Oil and Gas* (Gollancz 1973).

¹⁶⁷ B. Cooper and T.F. Gaskell, *The Adventure of North Sea Oil* (William Heinemann Ltd 1976) p. 190.

¹⁶⁸ S. Hatakenaka et al., *From ‘Black Gold’ to ‘Human Gold’: A Comparative Case Study of the Transition from a Resource-Based to a Knowledge Economy in Stavanger and Aberdeen* ([MIT 2006](#)); D. Hunt, *Responses of Industry within Aberdeen to Oil Related Change: Some Implications for Urban Planners*, 9 *International Journal of Environmental Studies* (1976). p. 273.

¹⁶⁹ A. Kemp, *The Official History of North Sea Oil* (Routledge 2012) volume 2 p. 375-376.

¹⁷⁰ Norman J. Smith, Chapter 7 - Assessing OSO, (7) *Handbook of Petroleum Exploration and Production* (2011) <https://doi.org/10.1016/B978-0-444-53645-7.00007-4>.

¹⁷¹ J. A. McNeish, *Flammable Societies: Studies on the Socio-economics of Oil and Gas* (Pluto Press 2015).

the United Kingdom after the Second World War, when the trade unions were recognised in Winston Churchill's oft-quoted phrase as 'an estate of the realm'¹⁷². However, it is important to note that the take-off of oil production in the UK coincided with the eclipsing of the post-war settlement, with the election of the Thatcher government in 1979, and integral to the new government's agenda was a move to shift the balance of power between labour and capital. A key plank of legislation was, hence, aimed at curbing trade union power and, as such, from that point government policy and oil company labour relations were increasingly in lockstep.¹⁷³

In its early phase (1970 – mid 1980s) oil development was dominated by externally owned companies. Local firms were restricted to supplying basic goods and services and not accessing tech orientated parts of industry (e.g. engineering, drilling). Connections between foreign oil capital and the local economy was "loose and transient" and could fray as oil declined.¹⁷⁴

One of the consequences of the growth of the oil sector, characterised by a high degree of external control, and the decline of Aberdeen's traditional industries has been a "marked shift in the ownership of industry. In little more than ten years the situation in which the majority of industry in the city was locally owned and controlled has been completely reversed".¹⁷⁵

It was acknowledged that while external capital brings its benefits, "reliance upon non-local firms, and particularly large multinational companies, may also involve certain costs. The most obvious is the outflow of profits which are not reinvested in the local area".¹⁷⁶

The region was not in control of its own future: "considerable changes in decision making locations have occurred with the last four years, with major investment and planning decisions being increasingly taken not only outside Aberdeen but outside the United Kingdom".¹⁷⁷

A further consideration was the tension between the UK and Scotland and the rise of Scottish nationalism. One source says: "the people of Scotland were aware that they were providing oil for Britain, but they did not understand that the multinational profits often would not benefit Scotland. Their 'oil brings industry' view was wrong".¹⁷⁸

¹⁷² J. A. McNeish, *Flammable Societies: Studies on the Socio-economics of Oil and Gas* (Pluto Press 2015). See also J. R. Feagin, *Extractive Regions in Developed Countries: A Comparative Analysis of the Oil Capitals, Houston and Aberdeen*, 25(4) *Urban Affairs Review* (1990) <https://doi.org/10.1177/004208169002500405> p. 604.

¹⁷³ B. Towers, *Running the Gauntlet: British Trade Unions under Thatcher, 1979–1988*, 42(2) *ILR Review* (1989) [added source].

¹⁷⁴ A. Cumbers, *Globalization, Local Economic Development and the Branch Plant Region: The Case of the Aberdeen Oil Complex*, 34 *Regional Studies* (2000) <https://doi.org/10.1080/00343400050078141>.

¹⁷⁵ T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985).

¹⁷⁶ M.G. Lloyd and D. Newlands, *Aberdeen: Planning for Economic Change and Uncertainty*, 105(2) *Scottish Geographic Magazine* (1989) <https://doi.org/10.1080/00369228918736762>.

¹⁷⁷ D. Hunt, *Aberdeen and the Oil Boom* (London Business Publications, 1975).

¹⁷⁸ J. R. Feagin, *Extractive Regions in Developed Countries: A Comparative Analysis of the Oil Capitals, Houston and Aberdeen*, 25(4) *Urban Affairs Review* (1990) <https://doi.org/10.1177/004208169002500405> p. 616.

Another notes that “*Scottish interest groups such as the Scottish National Party, trade unions and local business groups criticised the UK government for not setting up a state company to exploit the resources, not establishing a state investment fund that would have led to local employment and investment in a time of need, and not engaging in economic industrial planning that could have revitalised failing Scottish manufacturing and industrial employment*”.¹⁷⁹ Some ideas were expressed at the time about oil revenues being directed to Scotland but deemed to be a “*political, constitutional and administrative challenge*”¹⁸⁰ in terms of a separate Scottish budget.

The same concerns about offshoring the supply chain are prevalent in the discussion of renewables and low carbon technologies today.¹⁸¹ Evidence noted “*multiple failures by the Scottish and wider UK business community to anchor indigenous renewables-related manufacturing capacity based on locally generated intellectual property*”.¹⁸²

5. Just Energy Transition and future visions for Aberdeen and Shire

Despite the relative lack of engagement with climate change in the evidence, the need for transition is clearly understood – due to both climate concerns and the depletion of the UKCS.

Last year, the BBC reported: “*in Europe’s oil capital, everyone knows the boom times are over*”.¹⁸³

However, despite the overall support for climate action and legislation, the climate agenda arrived in Aberdeen quite late and has sometimes been viewed as working against the regional economy. This is also despite the efforts made by Aberdeen’s “energy futures” initiative AREG, which 15 or so years ago originated the European Offshore Wind Deployment Centre operating today in Aberdeen Bay.

At the rise of renewables, the competition with oil or at least the perception of it was stark. An industry-sources book from 2010 recalls that in the headquarters of DECC (now BEIS), one could hardly find any North Sea oil-related imagery. It continues: “*DECC must not sacrifice North Sea oil on the low carbon altar [sic]; to do so would be a gigantic mistake*”.¹⁸⁴

¹⁷⁹ S. Mercier, *Four Case Studies on Just Transition: Lessons for Ireland* ([National Economic and Social Council 2020](#)) p.132.

¹⁸⁰ A. Kemp, *The Official History of North Sea Oil* (Routledge 2012) volume 2.

¹⁸¹ M. Gjelsvik, *The Dynamics of the Regional Innovation around the Oil and Gas Industries: Cases of Stavanger and Aberdeen*, 34 *Revista de Ingeniería* (2011).

¹⁸² J. Cresswell, *Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution* (Balmoral Group, 2010) p. 95.

¹⁸³ K. Keane and N. Rutherford, *The Changing Face of the North Sea Oil Industry* ([BBC News](#), 22 May 2022).

¹⁸⁴ J. Cresswell, *Black and Green Gold: Aberdeen’s Continuing Role in the Energy Revolution* (Balmoral Group, 2010) p. 108.

In a 2022 interview, probably the biggest figure in the UK oil and gas scene, Sir Ian Wood said:

“I spent my life in oil and gas and only about three or four years ago did I begin to get some inkling of how serious the climate emergency was...The main reason is that the North East was far too taken up with oil and gas; it was far too focused on oil and gas. Climate change is a huge issue right now, but people weren’t talking about climate change five years ago”.¹⁸⁵

It is also clear that the climate legislation will affect the labour market in Aberdeen and Aberdeenshire in the years to come. Skills Development Scotland expect a long-term growth forecast for the region to be lower than Scotland and the UK (0.8 vs 1.2 vs 1.4 respectively) over 2024-2031.¹⁸⁶

The University of Aberdeen and Robert Gordon University offer a number of programmes on oil and gas. Despite the reported dwindling numbers,¹⁸⁷ *“at Aberdeen’s Robert Gordon University, drilling and well engineering students are still hopeful of pursuing a career in oil and gas. The vast majority are from parts of the world where energy transition is not so high up the political agenda – and many have no plans to stay in Scotland after they graduate”*.¹⁸⁸

Common for oil and gas hubs, there is *“persistence orientation that is distinct from the transformation energy future orientation in its focus on maintaining the economic viability of oil extraction while accepting the ecological realities of climate change and a changing policy landscape, rather than treating these changes as provocation to substantively transform the oil sector in environmentally reflexive ways”*.¹⁸⁹

5.1 Path dependency: what are we transitioning to?

Just Transition is seen as both the driver for change (energy transition, climate action) and the pleas for business as usual (job preservation).

The evidence presents examples of calls for extension and maximisation of oil and gas production from the UKCS. An OGTC-related source argues there is a *“case to ensure the current Oil & Gas production in the UKCS is extended to maximum economic recovery, assuring*

¹⁸⁵ M. Taylor, Can Aberdeen Rise Again as the Leader of the Energy Transition? ([Holyrood](#) 2022).

¹⁸⁶ Skills Development Scotland, Regional Skills Assessment: Aberdeen City and Shire ([SDS](#), 2021).

¹⁸⁷ H. Penman, Interest in Oil and Gas Courses at Aberdeen Uni Down by More Than a Third, Figures Show ([Energy Voice](#), 9 May 2022) [added source].

¹⁸⁸ K. Keane and N. Rutherford, The Changing Face of the North Sea Oil Industry ([BBC News](#), 22 May 2022).

¹⁸⁹ M.C.J Stoddart et al., Envisioning Energy Futures in the North Atlantic Oil Industry: Avoidance, Persistence, and Transformation as Responses to Climate Change, 69 Energy Research & Social Science (2020) <https://doi.org/10.1016/j.erss.2020.101662>.

part of the global demand, as opposed to abandoning production prematurely just to find the necessity of shifting production to other oil & gas regions to meet the existing demand”.¹⁹⁰

An academic/third sector consortium studying the North Sea oil and gas transitions concludes that although the UK, Denmark, and Norway have the necessary capacity (finance, economic and technical) to enable them to break the path dependency between economic development and oil and gas related industries, there is *“considerable resistance to doing so from companies, governments and communities, largely due to concerns and uncertainties over costs and impacts”*.¹⁹¹

The chief executive of the Aberdeen and Grampian Chamber of Commerce explains in an interview that a fast switch away from traditional oil and gas is unlikely: *“if we start de-investing in oil and gas, no one is going to come in and pick up things like floating offshore wind, hydrogen, carbon capture, etcetera, because right now it is not commercially viable”*.¹⁹²

This is consistent with wider research findings highlighting incumbency and resistance to change. Kenner and Heede conclude that *“it is unlikely that the executives and directors at these four companies will decide to proactively phase out exploration and extraction of oil and gas in line with a 1.5 °C pathway, or even invest aggressively in zero-carbon energy sources or CCS to reach net zero by 2050”*.¹⁹³

Alongside the hope to develop renewables, there are aspirations for driving innovation in new low-carbon technologies, such as hydrogen and CCUS in the region.

It is widely believed that the existing infrastructure supply chain, workforce skills and expertise in the region will benefit such innovation. There is broad recognition that the *“skills currently present within the offshore industries could lend themselves well to low-carbon innovation”*.¹⁹⁴ For example, Hastings and Smith argue that there are benefits of using existing O&G skills and employment for Net Zero technologies: *“it [CCUS] requires the same skills, technology, and safety ethos”*.¹⁹⁵

¹⁹⁰ L. Corradi, *Energy Integration & Industry Transition* (OGTC 2020).

¹⁹¹ L. Linde et al., *North Sea Oil and Gas Transition from a Regional and Global Perspective*. (SEI 2022), <https://doi.org/10.51414/sei2022.012>.

¹⁹² R. Strachan, *Aberdeen: A City in Transition* (Investment Monitor 2021).

¹⁹³ D. Kenner and R. Heede, *White Knights, or Horsemen of the Apocalypse? Prospects for Big Oil to Align Emissions with a 1.5 °C Pathway*, (7 *Energy Research & Social Science* (2021) <https://doi.org/10.1016/j.erss.2021.102049>).

¹⁹⁴ F. Swennenhuis et al., *What Role for CCS in Delivering Just Transitions? An Evaluation in the North Sea Region*, (94 *International Journal of Greenhouse Gas Control* (2020), <https://doi.org/10.1016/j.ijggc.2019.102903>). See also L. Corradi, *Energy Integration & Industry Transition* (OGTC 2020); J. Alcalde et al., *Acorn: Developing Full-Chain Industrial Carbon Capture and Storage in a Resource- and Infrastructure-Rich Hydrocarbon Province*, 233 *Journal of Cleaner Production* (2019), <https://doi.org/10.1016/j.jclepro.2019.06.087>.

¹⁹⁵ A. Hastings and P. Smith, *Achieving Net Zero Emissions Requires the Knowledge and Skills of the Oil and Gas Industry*, *Frontiers in Climate* (2020) <https://doi.org/10.3389/fclim.2020.601778>.

That said, there is recognition of challenges in developing and scaling up these industries: “to ramp up a [CCUS] industry of such a magnitude would mean doubling the size of the oil and gas industry resources of personnel and investment from the level today”.¹⁹⁶

In addition to broader financial and technical challenges identified with scaling up hydrogen and CCUS, some region-specific challenges were identified in research:

- ‘low-carbon’ jobs can appear less appealing in the short term due to lower salaries than oil and gas;
- there is reported perception that some trade unions may find it difficult to come out in support of pro-climate actions if they are perceived as threatening jobs in carbon-intensive sectors;
- scepticism of the motives commercial operators involved in CCUS development and deployment as they can be “perceived as profiteering from government support through taxation regimes and planning support”.¹⁹⁷

The societal perception and support of CCUS has also been further highlighted as a challenge. Regional industrial actors such as Opportunity North East were seen “to accelerate and promote a Scottish CCS cluster”.¹⁹⁸ By contrast, civil society organisations, such as Friends of the Earth Scotland and Greenpeace, were perceived to “have shown increasing scepticism towards the potential of CCS to contribute to a climate change response in either Scotland or the wider UK”.¹⁹⁹ The main concerns were identified around the “lack of trust in the oil and gas sectors to deploy CCS given their track record on decarbonisation to date and the funding that has already gone into CCS to limited output” and the “(mis)use of CCS projections by the oil and gas industries to offset and justify new exploration”.²⁰⁰ The same study referred to the survey of North Sea oil workers undertaken by a collaboration of civil society organisations which noted a “mixed and lukewarm response to CCS as a possible transition strategy for North Sea workers, with some sceptical of the technology’s viability and others seeing its use confined to niche areas such as hydrogen production”.²⁰¹

¹⁹⁶ A. Hastings and P. Smith, Achieving Net Zero Emissions Requires the Knowledge and Skills of the Oil and Gas Industry, *Frontiers in Climate* (2020) <https://doi.org/10.3389/fclim.2020.601778>.

¹⁹⁷ F. Swennenhuis et al., What Role for CCS in Delivering Just Transitions? An Evaluation in the North Sea Region, 94 *International Journal of Greenhouse Gas Control* (2020), <https://doi.org/10.1016/j.ijggc.2019.102903>.

¹⁹⁸ A. Gonzalez et al., Who Wants North Sea CCS, and Why? Assessing Differences in Opinion between Oil and Gas Industry Respondents and Wider Energy and Environmental Stakeholders, 106 *International Journal of Greenhouse Gas Control* (2021), <https://doi.org/10.1016/j.ijggc.2021.103288>.

¹⁹⁹ A. Gonzalez et al., Who Wants North Sea CCS, and Why? Assessing Differences in Opinion between Oil and Gas Industry Respondents and Wider Energy and Environmental Stakeholders, 106 *International Journal of Greenhouse Gas Control* (2021), <https://doi.org/10.1016/j.ijggc.2021.103288>.

²⁰⁰ A. Gonzalez et al., Who Wants North Sea CCS, and Why? Assessing Differences in Opinion between Oil and Gas Industry Respondents and Wider Energy and Environmental Stakeholders, 106 *International Journal of Greenhouse Gas Control* (2021), <https://doi.org/10.1016/j.ijggc.2021.103288>.

²⁰¹ A. Gonzalez et al., Who Wants North Sea CCS, and Why? Assessing Differences in Opinion between Oil and Gas Industry Respondents and Wider Energy and Environmental Stakeholders, 106 *International Journal of*

Participatory research suggests that CCUS should be seen not only as means to maximise oil recovery but rather *“framed within broader narratives of decarbonisation and a managed transition away from fossil fuel”*.²⁰²

Concerns about jobs in low-carbon industries have been raised in a number of other sources, particularly in the context of skills transferability and pay.

With regards to transferability, one respondent in an interview to Holyrood said:

*“only those that don’t have real work experience in oil and gas talk about transferring oil and gas workers into renewables’. ‘Who is going to transfer a driller, drilling engineer, plant operator, measure-while-drilling engineer, mud logger etc into renewables?’ she asked. ‘Maybe those with administrative skills to do administrative tasks can transfer into renewables, but who [is] going to transfer those with technical skills and very specific skills to oil and gas?’”*²⁰³

With regards to pay, another respondent in an interview to Financial Times observed: *“when I told people I was leaving, their first question was: ‘How much are you taking a cut?’”*²⁰⁴ The article goes on to explain that the *“average base salary for an offshore North Sea worker is nearly £62,000 but they can receive almost 30 per cent of that on top in allowances, according to industry data, partly to compensate for the long hours, cramped conditions and weeks at a time away from home”*.²⁰⁵

Hydrogen is hailed to be another industry to replace the declining oil and gas workforce demand but this sector is only at the first stages of development.²⁰⁶

The Scottish government has further announced plans to create “green freeports”. These are large, zoned areas with rail, sea, or airport links where operators and businesses benefit from tax and other incentives as long as they support the *“Just Transition to net zero emissions by 2045 and the creation of high-quality employment opportunities with good salaries and conditions”*. These are envisioned as competitive clusters of manufacturing excellence in green technologies.²⁰⁷ To the disappointment of the local business community, Aberdeen

Greenhouse Gas Control (2021), <https://doi.org/10.1016/j.ijggc.2021.103288>; Platform, OFFSHORE: Oil and Gas Workers’ Views on Industry Conditions and the Energy Transition (Platform, FoE Scotland 2020).

²⁰² L. Mabon and C. Littlecott, Stakeholder and Public Perceptions of CO₂-EOR in the Context of CCS – Results from UK Focus Groups and Implications for Policy, 49 *International Journal of Greenhouse Gas Control* (2016) <https://doi.org/10.1016/j.ijggc.2016.02.031>.

²⁰³ M. Taylor, Can Aberdeen Rise Again as the Leader of the Energy Transition? (Holyrood 2022).

²⁰⁴ D. Sheppard and N. Thomas, Scotland Faces Up to Life After Oil (Financial Times 2021).

²⁰⁵ D. Sheppard and N. Thomas, Scotland Faces Up to Life After Oil (Financial Times 2021).

²⁰⁶ L. Hurst, Net Zero Will Make or Break One of the UK’s Wealthiest Cities (Bloomberg UK 2022).

²⁰⁷ T. Krawchenko and M. Gordon, Just Transitions for Oil and Gas Regions and the Role of Regional Development Policies 15 *Energies* (2022) <https://doi.org/10.3390/en15134834>.

and Peterhead are reported to have lost out on the bid to host such green freeports which favoured instead Cromarty Firth and Forth ports.²⁰⁸

5.2 Measuring Just Transition?

Just Transition as a concept has become increasingly popular in the last few years – in academic literature and policy-making. The question arises – how do we measure Just Transition, against which indicators and using what data?

A natural point of departure would be to seek Just Transition targets/objectives in law and policy. In Scotland, Just Transition principles are incorporated in the Climate Change (Scotland) Act 2009. It requires that the Scottish Ministers have due regard to the Just Transition principles when preparing Climate Change Plans, and that Plans explain how they take Just Transition principles into account.²⁰⁹ The principles are defined as

“the importance of taking action to reduce net Scottish emissions of greenhouse gases in a way which—

(a) supports environmentally and socially sustainable jobs,

(b) supports low-carbon investment and infrastructure,

(c) develops and maintains social consensus through engagement with workers, trade unions, communities, non-governmental organisations, representatives of the interests of business and industry and such other persons as the Scottish Ministers consider appropriate,

(d) creates decent, fair and high-value work in a way which does not negatively affect the current workforce and overall economy,

*(e) contributes to resource efficient and sustainable economic approaches which help to address inequality and poverty”.*²¹⁰

To support the Scottish Government in the application of the Just Transition principles, the Just Transition Commission was established in 2019, and the second Just Transition Commission in 2022. The Commission will support and provide advice to the Scottish Government on the *“production of key just transition plans, in a way that is co-designed and*

²⁰⁸ [Aberdeen and Grampian Chamber of Commerce, Aberdeen and Peterhead Miss out on Green Freeport Status \(12 January 2023\)](#) [added source].

²⁰⁹ [Section 35](#) [added source].

²¹⁰ [Section 35\(c\)](#) [added source].

co-delivered by communities, businesses, unions and workers, and all society”.²¹¹ The Initial report of the second Commission does not address Aberdeen or the North East directly, but discussed the need to plan for the future of energy sector jobs to provide a clear picture of what the new energy economy will look like, to help identify future opportunities, required skills and future job locations.²¹² The Scottish Government delivered a draft of the Energy Strategy and Just Transition Plan in early 2023.²¹³ It highlights the role of the North East as a “*global centre for the energy industry*” with “*more than 50 years of knowledge and experience in offshore energy exploration and production*”. It further acknowledges that:

“Of the 25,000 jobs directly dependent on offshore oil and gas production (2019 figures), 98% are located in Aberdeen and Aberdeenshire. The industry has brought prosperity to the region, transforming the North East into a global energy hub, with many of the sector’s workforce enjoying international careers from a local base. The personal and economic impact of oil and gas on the region has been profound.”

It is not clear if there are wider considerations of changes in legislation/planning beyond Climate Plans. The Government has also developed Just Transition Outcomes although it is not yet clear if these will be measurable and associated with indicators.²¹⁴ References to Scotland’s approach to Just Transition governance are positive, it is seen as ‘best practice’ covering the entire country rather than a specific region/place.²¹⁵

At the local level, the Aberdeen Net Zero Route Map 2045 was adopted in 2022.²¹⁶ It provides for six net zero strategies for the city: Mobility, Buildings & Heat, Energy Supply, Circular Economy, Natural Environment, and Empowerment. Fair/Just Transition is identified as a “co-benefit” in all six of these Strategies. The plan does not define Just Transition but mentions it alongside fuel poverty alleviation, and gender equality. In addition to emission reduction targets, Appendix 1 of the Plan defines milestones to measure its progress, which includes a number of UK, Scotland, and Aberdeen-level documents, projects, events, and goals. None of these directly refer to Just Transition but many are related – e.g. action on fuel poverty, green jobs creation. The Route Map will be reviewed every five years starting in 2025. The Route Map is focused on Aberdeen City and emissions from oil and gas industry are outside the scope.

²¹¹ Scottish Government, [Just Transition Commission \(2022\)](#).

²¹² Making the Future: Initial Report of the 2nd Just Transition Commission ([2022](#)).

²¹³ Draft Energy Strategy and Just Transition Plan –Delivering a Fair and Secure Zero Carbon Energy System for Scotland ([Scottish Government, 2023](#)) [added source].

²¹⁴ Scottish Government, [Just Transition Outcomes \(2022\)](#).

²¹⁵ See eg S. Mercier, [Four Case Studies on Just Transition: Lessons for Ireland \(National Economic and Social Council 2020\)](#).

²¹⁶ Aberdeen City Council, [Net Zero Route Map 2045 \(2022\)](#).

There are some developments in measuring Just Transition in the private sector. The World Benchmarking Alliance has developed methodology for assessing companies against 18 Core Social Indicators in relation to respect for human rights, provision and promotion of decent work, and acting ethically.²¹⁷

5.3 Just Transition for communities and workers in Aberdeen and Aberdeenshire

From the evidence, we have identified three main ongoing/recently completed projects related to Just Transition of communities and workers in Aberdeen and Shire.²¹⁸ These are: 1) Scottish Government Just Transition/Just Transition Fund for North East and Moray; 2) Platform & Friends of the Earth Scotland, Greenpeace: Offshore Oil and Gas Workers' Views on Industry Conditions and the Energy Transition; and 3) University of Aberdeen/NESCAN/University of Strathclyde, Community Participation in a Just Transition in the North East: Regional Priorities. These are briefly discussed below.

[Scottish Government Just Transition/Just Transition Fund for North East and Moray](#)

The Just Transition Fund established by the Scottish Government provided a £500 million ten-year commitment that will support projects in the North East and Moray which contribute towards the region's transition to Net Zero.²¹⁹

Successful year one projects were announced in October 2022, with 22 projects backed by over £50 million.²²⁰ Most of the awards are aimed at industry actors and research institutions for the development of green energy projects, skills and training support. Two projects are community-focused, considering community regeneration and climate assemblies.²²¹ There is also an award to Participatory Budgeting aimed to empower local communities across all three local authority areas to vote on local projects.

[Oil and Gas Workers' Views on Industry Conditions and the Energy Transition](#)

This project led by NGOs Platform, Friends of the Earth Scotland, and Greenpeace, involved surveys and interviews with oil and gas workers on the impacts of Covid-19, the oil price crash

²¹⁷ [World Benchmarking Alliance, Just Transition Methodology \(2021\)](#).

²¹⁸ We have further engaged with Climate Strategies/SEI project Oil and Gas Transitions but did not list it here as it takes a wider North Sea/UK perspective.

²¹⁹ [Scottish Government, Just Transition Fund \(2022\)](#).

²²⁰ [Just Transition Fund: Year One projects \(2022\)](#) [added source].

²²¹ Disclaimer: researchers on this project are part of the funded project on climate assemblies, led by NESCAN.

and their perspectives and priorities in the looming energy transition.²²² 1,383 offshore workers responded to the survey, representing 4.5% of the workforce.

The main recommendations of the report centre around participatory decision making, improving job security, and addressing barriers to entry and conditions within the renewables industry. Campaigners argue for a “worker-led” Just Transition and propose a number of policy solutions, including standardising certification and training, investment in local manufacturing, strengthening employment rights and supporting the unions, finance for skills and training programmes.

Another survey of oil and gas workers was conducted by Gillian Martin MSP in 2022.²²³ This survey, conducted in summer 2021 attracted 569 respondents either currently working or having previously worked in oil and gas.²²⁴ The report does not make any policy recommendations, and instead highlights the challenges oil and gas workers face in the time of transition including precarious employment and difficulty in switching sectors to renewables.

Community Participation in a Just Transition in the North East: Regional Priorities

A recent 2021 project, led by Professor Potts (University of Aberdeen) in partnership with colleagues from NESCAN (North East Scotland Climate Action Network) and University of Strathclyde aimed to understand and distil what a Just Transition meant to communities and civil society in the North East and to focus on building capacity for communities to engage. Traditionally the public dialogue in the North East around Net Zero and the role of the Just Transition has been heavily dominated by the energy industry with limited public space and debate for the alternatives. The project aimed to address this gap and provide a space for new ideas, new debates and socially centric responses to Net Zero for the North East of Scotland.

The project ran over 12 months with the coordination and delivery of three workshop events. These events engaged with over 50 local community stakeholders, SMEs, local authorities and citizens in discussion about what a Just Transition looks like for the region. The first of three workshops explored the framing of a Just Transition as a concept and how that would apply to the region. After provocation from global thought leaders and practitioners, the workshop collectively identified six key areas of action (see Figure 11 below). The second workshop enabled a deep dive into three of these topics exploring options for advancing action on greenspace, fuel poverty and community revitalisation. Underlying this were concerns and

²²² Platform, [OFFSHORE: Oil and Gas Workers’ Views on Industry Conditions and the Energy Transition \(Platform, FoE Scotland 2020\)](#).

²²³ Scottish Parliament, [A Just Transition? The Voices of Oil and Gas Workers \(4 May 2022\)](#).

²²⁴ We could not find the report online but received it through email correspondence with Gillian Martin MSP office.

opportunities around capacity building, reliance on volunteerism, forming partnerships, infrastructure and marginalised groups in society. The third workshop focused directly on capacity building exercises including the first map of community actions and organisations in the North East (<https://www.nescan.org/ongoing-projects>); how to manage and build funding and best practices in social inclusion and diversity.



Figure 11: Identified Priorities for a Just Transition in the NE of Scotland.

6. What we don't know: Gaps in literature and data

The REA engaged with more sources than the project team originally expected. The main reason for this is the breadth of evidence contained in the reference collections of the Aberdeen City Library and Aberdeen University Special Collections, a third of all the evidence. These were mostly books and periodicals and as these are not digitised/easily accessible sources, there is not much engagement with these in the mainstream literature. These sources presented valuable local perspectives and academic research published over decades reflecting the interaction of community and the industry.

Alongside the REA we have conducted a data review to establish the baseline of available social and economic data to measure the future Just Transition indicators. A wide variety of economic data can be used to measure dimensions of a Just Transition. Data for Aberdeen and Aberdeenshire exist for important metrics such as population, employment,

unemployment, income, income inequality, poverty, housing prices and industry makeup of the region. Data exists for other noneconomic indicators, especially around wellbeing and life expectancy. Local data at the Scottish Constituency Level also exists for population, life expectancy and even migration. Thus, there are a number of objective indicators that can proxy for the various dimensions of a Just Transition.

Gaps in the data do exist however that may add to a more nuanced and fuller view of a Just Transition, and these would need further investigation and/or bespoke data collection to get a picture of these more non-economic and community-oriented measures. Such measures could include community cohesion, access to green spaces, access to healthy food and exercise opportunities, etc. More research, with feedback from local community groups, will need to be done to identify whether these or other factors should be considered as other dimensions of measuring a Just Transition.

In terms of research on the regional social impacts of offshore oil and gas industry in the region, some in-depth studies and commentary have been published in the 1980s, but it appears that the main thrust of the literature, then and since, focuses primarily on the economy and jobs, with inequality and impacts on social aspects, such as family life, overlooked. As noted, a lack of affordable housing has been a consistent problem for the North East. We will seek to explore the social, as opposed to purely economic consequences of the oil downturns' impact on the communities.

The lack of long-term planning for industry decline and the impacts of unpreparedness for fluctuations in the rate of activities has been coming up repeatedly in the evidence and warrants further examination. The negative social and economic regional impacts occurred in the 1980s, 1990s, 2014-2015, and are bound to occur in the future. While in Scotland, some Just Transition planning is currently under way, from the national planning and industrial standpoint – it appears that few lessons have been learned.

The analysis of the reviewed sources suggests that the considerations of climate change were not prevalent in the evidence on Aberdeen and Aberdeenshire, in particular evidence relating to or discussing the industry or the regional impacts. A participatory study on CCS in Scotland found that *“84 percent of non-oil and gas sector respondents ‘strongly agree’ that climate change is the result of anthropogenic (i.e. human) interference This percentage decreased among those who belong to the oil and gas sector (50 %)”*.²²⁵

More research is needed to understand the engagement with climate change in the energy industry in the North East, and perceptions on interactions of climate change and Just Transition. There appears to be a significant degree of ‘motivated reasoning’ in the North East

²²⁵ A. Gonzalez et al., *Who Wants North Sea CCS, and Why? Assessing Differences in Opinion between Oil and Gas Industry Respondents and Wider Energy and Environmental Stakeholders*, 106 *International Journal of Greenhouse Gas Control* (2021), <https://doi.org/10.1016/j.ijggc.2021.103288>.

with respect to the latter, presumably in line with a need to reconcile economic interests with the moral obligations associated with climate change and the need to move to Net Zero. Similarly, the advent of the Russian invasion in Ukraine and subsequent energy crisis, as is widely observed, appears to have been advanced as a rationale for continuity in terms of fossil fuel exploration in the region. Given recent increasing evidence of climate change, that has rendered plausible denial less tenable, it may be useful to explore the way in which alternative rationalisations for a continuity position are being advanced and to what effect in terms of wider public opinion.

In a wider context, climate change has arrived considerably late to the industry governance – it was only integrated in the 2021 strategy of the oil and gas licensing body, the North Sea Transition Authority (before March 2022, known as the Oil and Gas Authority). In the same year, the North Sea Transition Deal was adopted setting decarbonisation targets for the industry.

Finally, the gender aspects do not appear to have been comprehensively studied. While there are some statistics on employment in the industry by gender, the REA only brought up one study from the 1980s discussing causes and impacts of the severe gender imbalance. The impacts of rotational shift work on family life and gender roles in the region have also only been studied in the 1990s and would benefit from further exploration.

Aberdeen is not the only place facing the challenges of the energy transition. In the evidence we have analysed some sources relating to Stavanger, Houston, and other ‘oil capitals’. A comparative study considering the common challenges and lessons learned across these cases would be beneficial.

The next step of the project will involve compiling data sets and developing indicators for Just Transition in Aberdeen and Aberdeenshire through a participatory process. This report will inform the next phases of the projects by providing a baseline of available research, assessment and data.

Acknowledgments:

This project is funded by Uplift.

Authors are grateful to the steering group for the rapid evidence assessment comprised: Brook Dambacher (Uplift), Alex Kemp (University of Aberdeen), Leslie Mabon (Open University), Morag McCorkindale (AREG, formerly – Aberdeen City Council), Jake Molloy (RMT), and Alison Stuart (NESCOAN).

Authors are grateful to the wider team of reviewers for their additional comments comprising Jeremy Cresswell, John Paterson (University of Aberdeen), Rachel Bray (Strathclyde University); and other reviewers. All errors are our own.

Authors are grateful to the teams in the Aberdeen City Library (in particular David Oswald) and the Aberdeen University Special Collections for their cooperation in getting access to reference collections.

Appendix: Methodology

In conducting the Rapid Evidence Assessment REA, we have been guided by the methodological approach defined in the DEFRA-NERC Guide.²²⁶ An REA is a 'type of evidence review that aims to provide an informed conclusion on the volume and characteristics of an evidence base, a synthesis of what that evidence indicates and a critical appraisal of that evidence'.²²⁷

REA allows for a transparent, systematic and comprehensive review of the evidence base in a particular and in a more resource-efficient way than a full systematic review by using a pre-defined set of inclusion/exclusion criteria and less reviewers. REA is less costly and takes less time than a systemic review but is wider in scope and adds more critical appraisal of the evidence than a literature review or a quick scoping review (see Figure 2 below).

²²⁶ A. Collins et al., 'The Production of Quick Scoping Reviews and Rapid Evidence Assessments: A How to Guide' (DEFRA, NERC 2015) .

²²⁷ A. Collins et al. (ibid).

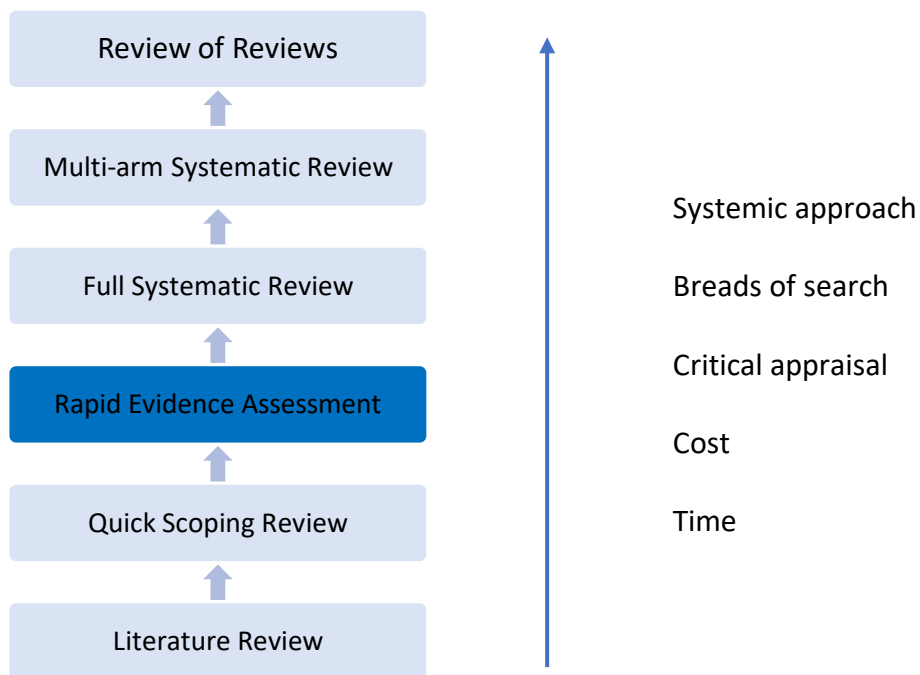


Figure 2: The position of Quick Scoping Reviews and Rapid Evidence Assessments in the hierarchy of evidence reviews, adapted from the Civil Service Guidance on Rapid Evidence Assessments.²²⁸

REAs have been used to support evidence-informed decisions in policy-making, especially in the health sector.²²⁹ REAs has been used in the energy and climate as well,²³⁰ including studies on domestic energy use²³¹ and bioenergy heat pathways.²³²

The main steps of the REA are summarised in Figure 3 and elaborated below.

²²⁸ Reproduced from A. Collins et al. (ibid).

²²⁹ S. Khangura et al. , 'Evidence Summaries: the Evolution of a Rapid Review Approach', 1 (10) Systematic Reviews (2012), doi.org/10.1186/2046-4053-1-10; M. M. Haby et al., 'What are the Best Methodologies for Rapid Reviews of the Research Evidence for Evidence-informed Decision Making in Health Policy and Practice: A Rapid Review', (2003) Health Research Policy and Systems, [doi:10.1186/s12961-016-0155-7](https://doi.org/10.1186/s12961-016-0155-7).

²³⁰ P. Warren, 'Evidence Reviews in Energy and Climate Policy', 16(1) Evidence & Policy A Journal of Research Debate and Practice (2018), [doi:10.1332/174426418X15193815413516](https://doi.org/10.1332/174426418X15193815413516).

²³¹ RAND Europe, '[What Works in Changing Energy-Using Behaviours in the Home? A Rapid Evidence Assessment](#)', (DECC, 2012),

²³² S. Alberici et al., '[Bioenergy Heat Pathways to 2050 - Rapid Evidence Assessment](#)', 2018, (Ekofys for DBEIS).

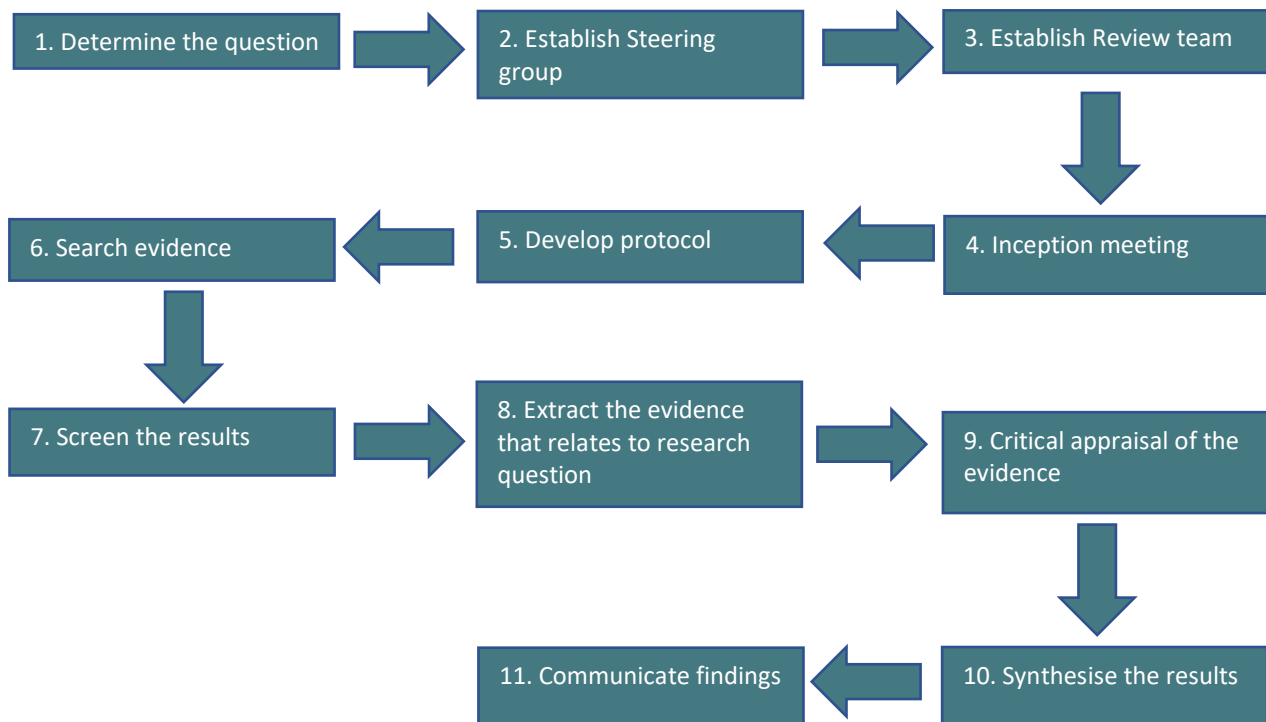


Figure 3: Flowchart of the REA process

Evidence search

To reduce bias and improve transparency of the REA, a steering group was formed consisting of scholars external to the project but having expertise in the areas of energy policy and Just Transition. After the initial protocol was approved by the steering group, the review team proceeded with searching for evidence using pre-defined keywords (see Table 1 below) in the pre-defined databases, namely: Scopus, Google Scholar, Primo and Google for ‘grey literature’. Primo was filtered for books only to capture any books that might be held at the University of Aberdeen library that might not appear on Scopus. Where the search returned more than 50 hits, we used top 50 hits sorted by relevance. For the Google and Google Scholar searches we have extracted the top 50 hits.

Table 1: Keywords to search

Aberdeen, oil and gas	Oil and gas industry and communities
<ul style="list-style-type: none"> • "Just Transition" AND Aberdeen* • "Transition" AND Aberdeen* • "Energy Transition" AND Aberdeen* • "Oil" AND Aberdeen* • "Community" AND Aberdeen* • "Workers" AND Aberdeen* • "Labour" AND Aberdeen • "Community benefit" and Aberdeen • "Governance" AND Aberdeen* • "Just Transition" AND Scotland • "Energy Transition" AND Scotland • "Oil" and "North Sea" • "Silver city" AND Aberdeen* • "Granite city" AND Aberdeen • "Net zero" AND Aberdeen* • "Diversification" AND Aberdeen* • "Skills" AND Aberdeen* • History AND Aberdeen* • Poverty AND Aberdeen* • Scenario AND Aberdeen* 	<ul style="list-style-type: none"> • "Oil and gas" AND "Just Transition" • "Energy transition" AND oil • "Just transition "AND community • "Oil and gas" AND community • "Fossil fuel region" and "transition" • Oil AND industry AND downturn AND community • "Oil city" AND community • Economy AND oil region • "Just transition" AND scenario • "Just transition" AND vision

First-phase screening

Once the search was complete, a database for all evidence was created which contained 4956 sources. After removal of duplicates, this was reduced to 4426 sources. The first screening by title was undertaken based on the exclusion criteria which were pre-defined. These were:

- Geographic region – case study sources included focus on Aberdeen and Aberdeenshire; case studies for comparison - Stavanger, Houston, Perth (Australia); sources mentioning other geographic areas only included where they are significantly relevant for subject matter regardless of geography;
- Subject matter – exclude literature on technological aspects of oil and gas/renewables; exclude literature not relevant to energy sector/climate change/energy transition;
- Language – only sources in English language included;

- Temporal – exclude evidence published before 1968 to ensure relevance of the sources;²³³
- For Google search – sources with inappropriate format will be excluded – e.g. podcasts, videos, organisation or company websites, social media posts, event webpages, short blog entries.

Sources that remained included were marked 1, 2 and 3 for ‘not relevant’, ‘uncertain’, and ‘clearly relevant’ respectively, based on their title only. A subsection of the screening database was moderated by the second researcher to ensure consistency. After the first screening, 415 sources remained in the database.

Second screening involved reading the abstracts of the remaining sources and again, marking them 1 or 3 for ‘not relevant and ‘relevant’ respectively. A subsection of the screening database was moderated by the third researcher to ensure consistency. This phase approved 210 sources as ‘relevant’ following a closer review and consolidation of some sources. These were further reduced to 173 once the extraction began as we have found some sources to be duplicates or having format/subject matter not appropriate for review.

Evidence extraction

After finalising the evidence list for extraction, researchers made the relevant requests to the Aberdeen City Library and Aberdeen University Special Collection Centre to compile the evidence located within their archives. 29 and 27 sources of evidence were identified from each organisation respectively, comprising mostly of books, historic local authority reports, and newspaper clippings. The rest of the sources were available in the general collection of the Aberdeen University Library or online. Three researchers have analysed the evidence with a view of extracting data relating to the questions in Table 2 below.

²³³ We have included one piece of evidence from 1966 as it appeared highly relevant.

Table 2: Data extraction questions

Aberdeen, oil and gas
<ul style="list-style-type: none">• What is the methodology?• What is the geographical focus?• Does it engage with quantitative social/economic data? If yes, what are the sources?• What benefits and opportunities for the region associated with the oil and gas industry does it identify?• What challenges for the region associated with the oil and gas industry does it identify?• Does it consider Just Transition for the region? If yes, what are the main elements of it?• Does it consider net zero and/or climate justice? If yes, in what context?• Does it consider policies to mitigate negative impacts of challenges to Just Transition?• Does it consider any future projections/scenarios associated with energy transition?• If post-2014 – does it consider the impacts of oil price downturn? If so, in what context?

Results overview

This section provides a brief quantitative and contextual overview of the results followed by the rest of the report engaging in more detail with the evidence.

Publication date

The evidence sources ranged by date between 1966 and 2022 (see Figure 4), with a third of the sources published in the last two years, which coincides with a boom in literature published on Just Transition.

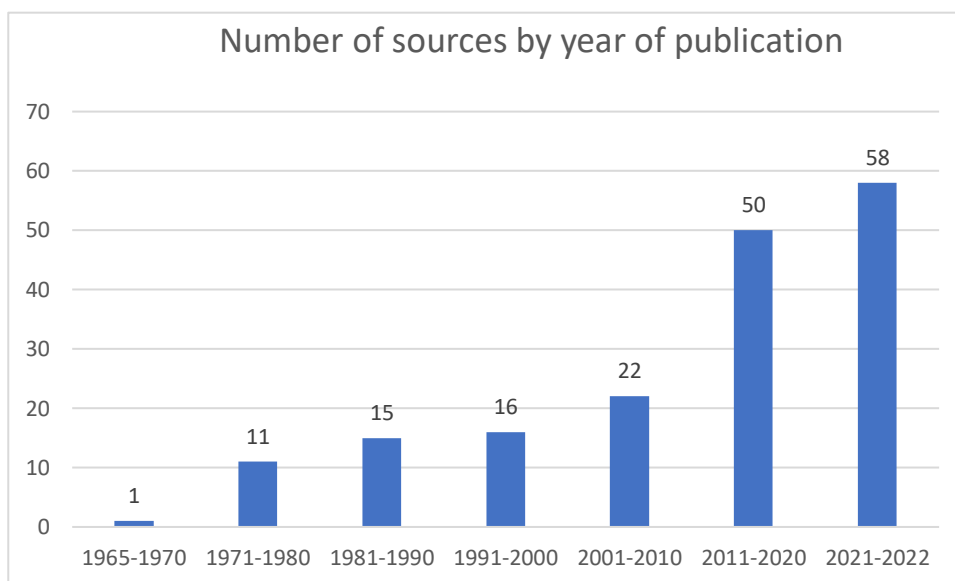


Figure 4: Number of sources by year of publication

Geographic focus

The geographic focus of the sources was primarily on Aberdeen and surrounding areas – Aberdeen city (44), Aberdeen & Aberdeenshire/Grampian²³⁴ (22), the North East of Scotland more broadly (10) and the UK Continental Shelf (22). 15 sources focused more broadly on Scotland and 3 – on the UK. 20 sources focused on case studies, such as Australia (2), Canada (3), EU (3), Ireland (1), Norway (2), Spain (1), USA (8). Further, 37 sources considered multiple cities/countries.

Evidence origin

Evidence came from a diverse range of sources which are represented in Figure 5 below. The majority of sources (91) were from academic sources (journal articles, reports, academic books), 3 of these – in collaboration with third sector. 13 sources came directly from third sector organisations, such as NGOs and civil society organisations. Sources associated with Local Authorities (23) came from reports produced by or for the Aberdeen and Aberdeenshire Councils (and the former Grampian Regional Council). Evidence also includes 5 sources from the Scottish Government documents and 2 Scottish Parliament debates. 15 sources came from periodicals and 13 – from books (non-academic personal or historical accounts). Evidence further includes 8 publications from industry-originated or oriented sources, 3 – from NHS reports and 1 – from international organisations.

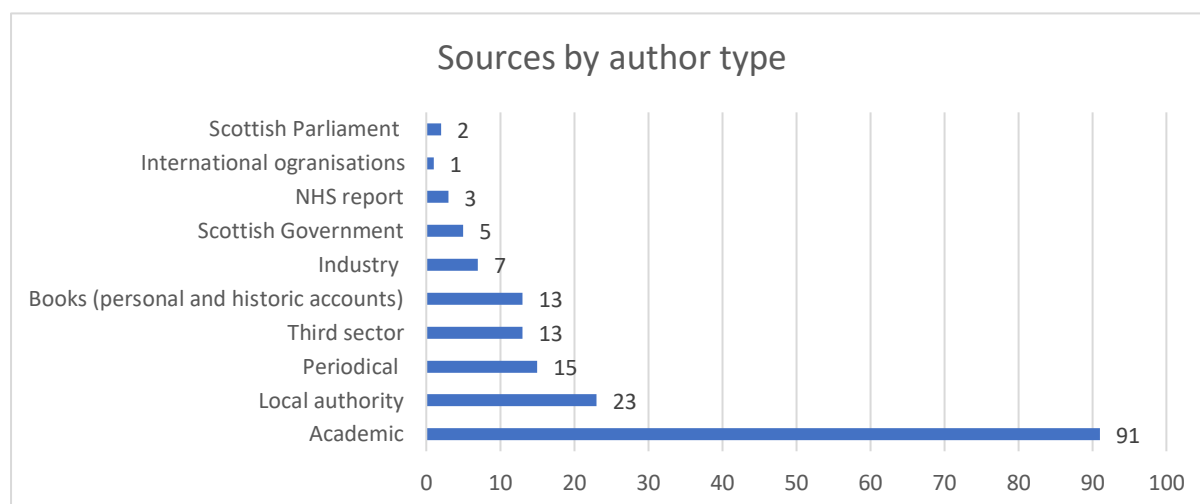


Figure 5: Sources by author type

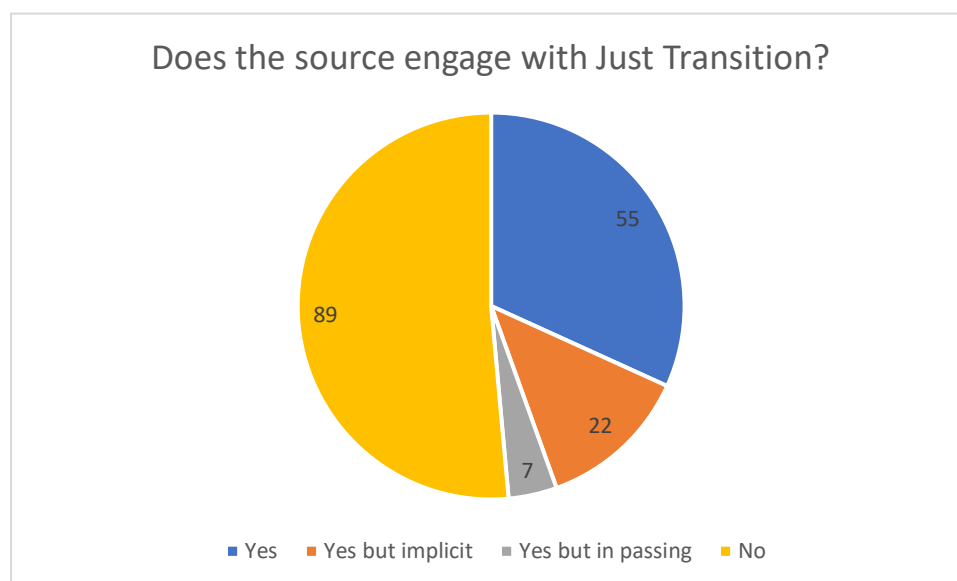
²³⁴ Grampian is one of eight regions in Scotland and is made up of three local areas: Aberdeen City, Aberdeenshire and Moray.

Engagement in discussion of Just Transition and related policies

Just Transition is most commonly understood as ‘a process to achieve the energy/climate transition that respects workers’ and communities aspirations, rights and is fair and inclusive in its approach.’ Workers are understood to be the most directly affected group in the transition from fossil fuels. The review noted 55 sources which engage specifically with Just Transition.²³⁵

A further 22 sources do not mention Just Transition as a term but engage with conceptual aspects of what is now understood as Just Transition. Many of these sources were published before Just Transition became a commonly referenced term and engage with issues such as i) vulnerability of oil and gas regions to rapid change and the need for long-term planning; ii) community engagement and inclusion; iii) social justice and equality; and iv) impact of renewables on communities.

Figure 6: Sources’ engagement with discussion on Just Transition



²³⁵ See eg J. Rising et al., *Regional Just Transitions in the UK: Insights from 40 Years of Policy Experience* (EDF 2021); A. Banerjee and G. Schuitema, *How Just Are Just Transition Plans? Perceptions of Decarbonisation and Low-Carbon Energy Transitions Among Peat Workers in Ireland*, 88 *Energy Research & Social Science* (2022) <https://doi.org/10.1016/j.erss.2022.102616>; J. Mijin Cha et al., *A Green New Deal for all: The Centrality of a Worker and Community-led Just Transition in the US*, 95 *Political Geography* (2022) <https://doi.org/10.1016/j.polgeo.2022.102594>; UNFCCC, *Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs* (UN 2020); C. Silver, *Just Transition — Part Two: City of Oil* (DeSmog, 2018); Platform, *OFFSHORE: Oil and Gas Workers’ Views on Industry Conditions and the Energy Transition* (Platform, FoE Scotland, Greenpeace 2020); Skills Development Scotland, *Regional Skills Assessment: Aberdeen City and Shire* (SDS, 2021).

There were 7 sources mentioning Just Transition in passing, but not engaging with the term in any detail.

Finally, 89 sources do not mention Just Transition. Most of these sources are focused on Aberdeen/North Sea Continental Shelf and have been published before Just Transition became a commonly referenced term (most – before 2011). All but 10 of these sources do not engage with climate change/climate justice either. Notably, only 1 out of 7 considered industry-related sources engages in-depth with Just Transition and climate change; and only 1 out of 20 local authority related sources engages with climate change and Just Transition, while further 4 sources consider Just Transition implicitly.

Around half of the sources made reference to some policy solutions for Just Transition but few engaged in detailed policy analysis.²³⁶ While most sources discuss policy interventions in a more general sense or in relation to coal phase out, some are focused on the North East of Scotland²³⁷ in the present context. There were only a few sources which provide details on the history of policy interventions in the 1970s to increase and maximise benefits to Scotland of new oil economy.²³⁸ Overall, the policies discussed are varied and originate mostly from academic/third sector/government sources. Policies which received the most attention revolved around:

- Labour market policies, including workforce planning, funding for training & reskilling as well as welfare support;²³⁹
- Enhanced consultation and social dialogue involving wide stakeholder groups and citizen assemblies;²⁴⁰

²³⁶ See eg J. Rising et al., *Regional Just Transitions in the UK: Insights from 40 Years of Policy Experience* (EDF 2021); T. Krawchenko and M. Gordon, *Just Transitions for Oil and Gas Regions and the Role of Regional Development Policies 15 Energies* (2022) <https://doi.org/10.3390/en15134834>; R. J. Heffron, *Achieving a Just Transition to a Low-Carbon Economy* (Springer 2021) <https://doi.org/10.1007/978-3-030-89460-3>.

²³⁷ See eg T. Krawchenko, *Managing a Just Transition in Scotland* (Canadian Climate Institute, 2022); R. Ostfeld and D. M. Reiner, *Public Views of Scotland's Path to Decarbonization: Evidence from Citizens' Juries and Focus Groups*, 140 *Energy Policy* (2020) <https://doi.org/10.1016/j.enpol.2020.111332>.

²³⁸ See eg A. Kemp, *The Official History of North Sea Oil* (Routledge 2012); A. Kemp et al., *The Benefits of North Sea Oil* (University of Aberdeen, 1982).

²³⁹ See eg *Just Transition Commission; UNFCCC, Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs* (UN 2020); Platform, *OFFSHORE: Oil and Gas Workers' Views on Industry Conditions and the Energy Transition* (Platform, FoE Scotland, Greenpeace 2020); R. Pollin and B. Callaci, *The Economics of Just Transition: A Framework for Supporting Fossil Fuel-Dependent Workers and Communities in the United States*, 44 *Labour Studies Journal* (2018) <https://doi.org/10.1177/0160449X18787051>; A. Banerjee and G. Schuitema, *How Just Are Just Transition Plans? Perceptions of Decarbonisation and Low-Carbon Energy Transitions Among Peat Workers in Ireland* 88 *Energy Research & Social Science* (2022) <https://doi.org/10.1016/j.erss.2022.102616>; J. Rising et al., *Regional Just Transitions in the UK: Insights from 40 Years of Policy Experience* (EDF 2021); J. Mijin Cha et al., *Workers and Communities in Transition: Report of the Just Transition Listening Project: The Just Transition Listening Project* (Labor Network for Sustainability 2021).

²⁴⁰ See eg *UNFCCC, Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs* (UN 2020); J. Rising et al., *Regional Just Transitions in the UK: Insights from 40 Years of Policy Experience* (EDF 2021).

- Community empowerment and revitalisation, including through direct funding or ownership stakes in energy projects;²⁴¹
- Localisation of decision-making in relation to energy projects.²⁴²

Engagement in discussion on net zero/climate justice

Of the 173 sources of evidence, 109 do not make reference to climate change. In particular, none of the evidence before 2011 refers to climate change. Since 2011, of the documents which refer to climate, 33 do so in a direct and focused capacity and the remaining 29 engage marginally with the topic or discuss it in passing.

Of the evidence referring to climate, approximately two thirds are from academic sources and have an even distribution to whether climate is addressed directly or indirectly. Following from this, the remaining evidence sources are largely from Third sector or Government/policy documents.

Opportunities and challenges of being an oil and gas hub

Around half of the overall evidence, and almost all evidence relating to Aberdeen or North-East Scotland more broadly identified regional opportunities and benefits associated with being an oil and gas hub. These vary depending on the date of the evidence publication – e.g. the earlier sources (1970s-1980s) emphasize the positive impact of the new oil economy on the population growth, reduction in unemployment, creation of indirect and induced employment, higher earnings, investment in regional development (in particular communications and transport). The later sources refer to Aberdeen becoming an international business hub and a centre for excellence and expertise as well as to the contribution of existing local expertise to green transition.

66 sources, focused on Aberdeen or North-East of Scotland more broadly, identified some challenges associated with being an oil and gas hub. These again vary based on the date of

²⁴¹ See eg M. Taylor, *Can Aberdeen Rise Again As the Leader of the Energy Transition?* (Holyrood 2022); *Community Participation in a Just Transition to Net Zero in the North East of Scotland* (SUJII, 2022); *Just Transition Partnership, Draft Climate Change Plan (2022)*; M. M. Cabre and J. Vega-Araujo, *Considerations for a Just and Equitable Energy Transition* (SEI, 2022); H. Baxter, *Creating the Conditions for Community Resilience: Aberdeen, Scotland—An Example of the Role of Community Planning Groups*, 10 *International Journal of Disaster Risk Science* (2019) <https://doi.org/10.1007/s13753-019-0216-y>.

²⁴² See eg J. Rising et al., *Regional Just Transitions in the UK: Insights from 40 Years of Policy Experience* (EDF 2021); In historic Aberdeen context – 2 sources mentioned Shetland’s tighter control on negotiations with oil companies as a positive example. See eg T. Harris et al., *Aberdeen: Management of Change: Oil & Decline of Local Economic Activity* (1985); *Oil Over Troubled Waters: A Report and Critique of Oil Developments in North East Scotland* (Aberdeen People’s Press 1976).

publication. Earlier sources mostly engage with challenges associated with setting up a large-scale oil and gas hub in an area not very well prepared for this endeavour. These sources discuss the pressure on the local authorities, housing, the closure of the traditional industries and income inequality. Sources produced after 1980s (owing to an oil price slump around that time) emphasise the vulnerability of the local economy to fluctuations in the industry and lack of local control over the industry. More recent sources outline the challenges arising from energy/climate transition, such as impacts on workforce and impacts of the proliferation of new technologies (e.g. hydrogen and CCUS). Overall, 48 sources have identified some benefits and opportunities from hosting the oil and gas industry in the region. Evidence originated from a range of sources, academic, industry-related, local authorities, and periodicals. Benefits most commonly identified were:

- employment/jobs brought by the industry (at least 19 sources);
- development of the regional economy (at least 16 sources);
- higher average earnings (at least 12 sources);
- improvement in local services and transport links (at least 11 sources) ;
- Aberdeen's status as a centre for excellence for the energy industry (at least 10 sources);
- population growth (at least 7 sources).

35 sources identified some challenges, mostly originating from academic sources and periodicals. These challenges included:

- decline of traditional industries (at least 15 sources);
- vulnerability to oil price fluctuations (at least 15 sources);
- pressure on housing and local authorities (at least 11 sources);
- unequal distribution of benefits (at least 7 sources);
- removal of regional assistance (at least 4 sources);
- lack of local control (at least 2 sources).