



# OUR POWER

Demand Briefing Paper

**95%** of 1092 offshore workers surveyed support this demand

# INVEST IN DOMESTIC MANUFACTURING AND ASSEMBLY FOR RENEWABLES

## SUMMARY

A thriving renewables supply chain can open up the jobs needed for the transition by re-industrialising the UK, retooling the oil and gas supply chain, creating new opportunities for workers and retaining economic benefits from growing industries. Greater investment into ports and manufacturing hubs alongside stronger local content rules attached to licences and government

contracts can enable renewables infrastructure to be manufactured in the UK, and where possible reuse the steel from decommissioned oil and gas rigs. Investing in domestic renewables manufacturing and fabrication would revitalise yards along the coast of Scotland and England and reduce the carbon footprint of shipping materials and offshored manufacturing emissions.

## CONTEXT

To date, job creation from offshore wind has fallen far short of promises.<sup>1</sup> Manufacturing jobs in particular have not materialised, with key components including foundations, towers, nacelles and sub-stations imported from other countries. Even though the UK has one of the highest levels of offshore wind deployed in the world, it has remarkably failed to build up an associated industrial base.

Part of the problem is the private ownership of ports in the UK, unlike other European countries which hold significant public stakes in their ports. Decades of underinvestment by private owners has left the UK's engineering and maritime support infrastructure with limited capacity and unable to scale up quickly. Private owners of ports or manufacturing sites will only invest into upgrades when there

are signed contracts with offshore wind developers, and then only upgrade in line with imminent guaranteed wind farm deployment – limiting economies of scale and the potential to pre-emptively develop capacity. This means that UK ports are not up to a standard where they can compete internationally, that there are few domestic manufacturing companies engaged in the offshore wind supply chain, and that international manufacturers are hesitant to locate here.

<sup>1</sup> [https://www.owic.org.uk/\\_files/ugd/1c0521\\_a7d1955f12f04b1f8d777568ac93cf47.pdf](https://www.owic.org.uk/_files/ugd/1c0521_a7d1955f12f04b1f8d777568ac93cf47.pdf)

**“ If you are tendering out, there needs to be a regulatory statement saying “you can only tender if you meet Criteria A, B, C, D, E” and these should be written in stone that you do the local infrastructure, x amount of jobs local, you must use x or y, decommissioned steel. Build it into the tendering process. They must benefit the communities they are working around. Create secure and good jobs. ”**

– Jake, Safety Officer

This briefing paper forms part of a collection of resources on **Our Power: Offshore workers' demands for a just transition**. A full report detailing the 10 demands created by offshore workers is available to read online and contains technical information, costs and a complete series of recommendations for decision makers.

A methodology paper is also available for more information on how the demands were created.

To protect their anonymity, all the names of workers quoted have been changed.

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Many coastal regions don't have enough capacity to deliver on multiple offshore wind installation projects simultaneously.<sup>2</sup> Few ports have yards large enough to deliver on the volume of fabrication required. This is part of the reason for the failure of domestic businesses like BiFab in Fife to win significant manufacturing contracts for foundations, with these shipped from around the world instead.<sup>3</sup>

Despite the large offshore wind project pipeline in Scotland, there is not a single major 'hub' port in Scotland providing co-located assembly and fabrication on a scale comparable to the facilities that have been developed in the past 10 years in Denmark, the Netherlands or Germany, where there is much more public ownership of and investment into ports.<sup>4</sup>

The UK Government's free ports agenda was developed partly because of the past failure to grow jobs and activity in the renewable supply chain. But an approach that exempts ports from existing protections will weaken workers rights and jobs quality, undermine environmental protections and reduce community benefits.<sup>5</sup> The "free" element of this programme is forecast to suck in economic activity that already exists or would have been created elsewhere, instead of boosting investment or creating new jobs in the UK.<sup>6</sup>

The UK Government recognised that under-investment into infrastructure had reduced the proportion of local content and domestic job creation, and launched the Offshore Wind Manufacturing Investment Scheme in 2021,<sup>7</sup> and its successor focused on floating offshore wind. But the government's actions remain piecemeal and too small-scale. Transition Economics' analysis of the sites supported by the initial manufacturing investment scheme shows that only five out of eight are going ahead, creating only 1,170 new manufacturing jobs and safeguarding an existing 2,045 jobs. Scotland's efforts to promote local supply chain creation so far also have little capacity to compel the creation of local content, and there are no conditions

placed on licensing rounds (e.g. ScotWind) to guarantee local job creation.

But the UK has not yet missed the boat on offshore wind manufacturing and construction jobs, and can still achieve significant domestic social and jobs benefits. The UK's existing pipeline of planned offshore wind farms stands at 86 GW – eight times current operational offshore wind capacity in the UK, four times that of China, and nearly twice that for the whole world.<sup>8</sup> And the Offshore Renewable Energy Catapult has modelled credible scenarios where 150 GW could be deployed by 2050.<sup>9</sup>

Much of the supply chain servicing the oil and gas industry should be retooled to transition to supporting the offshore renewables industry. Expanded public investment in key supply chain industries should be tied to equity stakes to ensure quality job creation and strategic direction.

Manufacturing the vast majority of blades, cables, foundations, towers and nacelle components domestically would enable the UK to achieve over 80% of local content in its offshore wind turbines. In ports, new and larger quays, extra laydown space, and the ability to lift larger weights will be needed to support the mass production of larger scale wind turbines, particularly for floating offshore wind.

There are potential offshore wind construction and manufacturing hubs in North East Scotland (incl. Aberdeen, the Cromarty Firth and the Inner Moray Firth), North West Scotland (Arnish and Kishorn), Forth and Tay (incl. Methil, Dundee, Rosyth and Leith), North East England (incl. Teesside and Tyneside), Humberside, South Wales (incl. Pembroke, Milford Haven and Port Talbot), and North Wales (incl. Mostyn) and Belfast.<sup>10</sup> These locations were identified based on current activities, limitations on contracts, potential for expansion and improvement in port facilities, location in relation to offshore wind licences and forecast licences where a substantial amount of work will be needed.<sup>11</sup>

2 <https://www.energyvoice.com/renewables-energy-transition/wind/uk-wind/316666/bottlenecks-at-scottish-ports-could-hamper-offshore-wind-developments-warns-industry-leader>

3 <https://committees.parliament.uk/oralevidence/2289/pdf>

4 <https://www.crownstatescotland.com/news/new-research-on-net-zero-opportunities-for-scotlands-ports>

5 <https://www.unite-theunion.org/what-we-do/unite-in-your-sector/docks-rail-ferries-and-waterways/freeports>

<https://www.tuc.org.uk/blogs/brexit-why-free-ports-are-race-bottom-workers-rights>

6 UKTPO (2019) 'What is the extra mileage in the reintroduction of free zones in the UK', available at: <https://blogs.sussex.ac.uk/uktpo/publications/what-is-the-extra-mileage-in-the-reintroduction-of-free-zones-in-the-uk>

Helgadottir, Oddny (2020) 'Freeports: Johnson should look elsewhere for growth enhancements', Social Europe, available at: <https://www.socialeurope.eu/freeports-johnson-should-look-elsewhere-for-growth-enhancements>

7 <https://www.gov.uk/government/publications/offshore-wind-manufacturing-investment-support-scheme-investment-programme>

8 <https://www.renewableuk.com/news/599739/Offshore-wind-pipeline-surges-to-86-gigawatts-boosting-UKs-energy-independence.htm>

9 <https://es.catapult.org.uk/news/new-report-finds-very-high-levels-of-offshore-wind-possible>

10 Belfast is currently the only port in Ireland suitable to support the construction of offshore wind farms.

<https://www.irishexaminer.com/news/arid-40896056.html>

11 This list is based on assessments commissioned by public bodies (e.g. Welsh Government <https://gov.wales/sites/default/files/publications/2021-09/ports-report-non-technical-summary.pdf>, Crown Estate Scotland and UK Government), on statements by port authorities/operators, local authorities, consultants and offshore wind companies in the media and at conferences.

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### PATHWAY

Creating jobs in renewable manufacturing and assembly is essential to ensuring there are sufficient opportunities for oil and gas workers across the UK. Upgrading and expanding the UK's ports can create the baseline infrastructure to ensure offshore wind and marine renewables can be constructed, manufactured, deployed and maintained from UK harbours. Scaling up public investments into fabrication yards and factories for nacelles, towers, foundations, cables, blades and substations can create a large manufacturing workforce in the offshore wind sector, including for floating turbines. Expanding this to new marine energy sectors like tidal stream could lay the foundation for new export opportunities.

To improve the UK's baseline port infrastructure to be able to support growth of jobs in offshore wind construction and manufacturing,

#### THE UK GOVERNMENT SHOULD:

- Clarify that to achieve its two strategic objectives of helping “tackle climate change, particularly meeting the government's net zero emissions target by 2050” and supporting “regional and local economic growth through better connectedness, opportunities for new jobs and higher levels of productivity”<sup>12</sup>, the UK Infrastructure Bank should use its influence as an equity investor (i.e. a part owner), to encourage greater domestic procurement and more local supply chains.
- Expand the scale of the UK Infrastructure Bank, enabling it to make more and larger investments into transition infrastructure.
- Direct the UK Infrastructure Bank to expand on its investment in the South Bank Quay development at Teesworks<sup>13</sup> by investing into and taking equity stakes in more ports.

#### THE SCOTTISH GOVERNMENT SHOULD:

- Clarify that to achieve its existing core mission of supporting “the just transition to net zero emissions by 2045”<sup>14</sup>, the Scottish National Investment Bank can use an active ownership approach towards companies in which it has invested, to encourage greater domestic procurement and more local supply chains.
- Direct the Scottish National Investment Bank to build on its investment into the expansion of Aberdeen Harbour<sup>15</sup> by investing into and taking equity stakes in more Scottish ports. These should prioritise brownfield sites and incorporate community demands for siting.
- Expand the scale of the Scottish National Investment Bank, enabling it to make more and larger investments into transition infrastructure.

To boost domestic manufacturing and support existing oil and gas supply chains to retool,

#### THE UK GOVERNMENT SHOULD:

- Commit to expanding and renewing, on an annual basis, the existing funding initiatives<sup>16</sup> that support sites for offshore wind manufacturing of blades, towers, foundations, cables and other strategic components.
- Provide targeted investment support for large and small workplaces in the oil and gas supply chain like cable manufacturers, scaffolders, vessel support and fabrication yards to retool to support renewable supply chains instead.
- Create public stakes in manufacturing (i.e. rather than providing grants to businesses, invest and take equity stakes in manufacturing sites). Maintaining active equity stakes can ensure that job quality remains high and procurement is supporting further local content from supplier industries.

#### THE SCOTTISH GOVERNMENT SHOULD:

- Use the Scottish National Investment Bank to build on UK investment schemes supporting offshore wind manufacturing and retooling, with additional Scottish support schemes.
- Create public stakes in manufacturing (i.e. rather than providing grants to businesses, invest and take equity stakes in manufacturing sites). Maintaining active equity stakes can ensure that job quality remains high and procurement is supporting further local content from supplier industries.

In addition to investment into infrastructure, stronger rules and more ambitious targets can boost local job creation and economic activity;

#### THE UK GOVERNMENT SHOULD:

- Increase the targets required in Supply Chain Plans when applying for a Contract for Difference.

#### THE UK AND SCOTTISH GOVERNMENTS SHOULD:

- Add conditionality to licensing rounds (administered by the Crown Estate and Crown Estate Scotland), to boost investment into domestic supply chains by making licences conditional on creation of local supply chain jobs.

<sup>12</sup> <https://www.ukib.org.uk/strategic-plan>

<sup>13</sup> <https://www.ukib.org.uk/news/first-ukib-investment-goes-green>

<sup>14</sup> <https://www.gov.scot/news/core-missions-for-investment-bank>

<sup>15</sup> <https://www.thebank.scot/portfolio/port-of-aberdeen>

<sup>16</sup> I.e. the £160mn Offshore Wind Manufacturing Investment Scheme and its successor Floating Offshore Wind Manufacturing Investment Scheme <https://www.gov.uk/government/publications/offshore-wind-manufacturing-investment-support-scheme-investment-programme>

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### COSTS

#### Public investment of £2.2 billion over five years: Upgrading port infrastructure:

Based on existing projects, including the £500 million Able Marine Energy Park on the Humber<sup>17</sup> and the £107 million loan provided by the UK Infrastructure Bank to create a 450 metre quay at Teesworks<sup>18</sup>, we estimate a need for an average of £200 million of public investment per port cluster over the next five years. With 11 clusters, this totals £2.2 billion.

#### Public investment of £1.6 billion over five years: Expanding and upgrading manufacturing sites for offshore wind and other renewables:

This is based on doubling the scale of the existing investment schemes supporting offshore wind manufacturing, and repeating them on an annual basis for the next five years.

### HAS THIS BEEN DONE ELSEWHERE?

Offshore wind manufacturing hubs and ports across Europe and beyond are far more competitive than in the UK because of public ownership and investment, active industrial strategies and more proactive support for local job creation. Across the EU, most ports are publicly owned. As a result, the development of port infrastructure is usually a matter for local, regional and national authorities<sup>19</sup>, some of whom made speculative investments into ports to secure their role in offshore wind installation and manufacturing.<sup>20</sup>

The common practice across the EU of investing into domestic manufacturing with conditions attached related to skills and social benefits demonstrates that this can be consistent with state aid restrictions. Historically, the Assisted Area Map officially enabled subsidy support within held back regions.<sup>21</sup> Now the UK-EU Trade & Cooperation Agreement and the UK's current subsidy control framework allow for subsidies that "pursue a specific public policy objective to remedy an identified market failure or to address an equity rationale such as social difficulties or distributional concerns".<sup>22</sup>

17 <https://www.offshorewind.biz/2021/03/04/able-uk-gets-government-funding-for-offshore-wind-upgrade>

18 <https://www.ukib.org.uk/news/first-ukib-investment-goes-green>

19 And even so, other European ports still need €6.5bn of further investment just to deliver generation capacity planned for 2030 - demonstrating just how far behind the UK is.

<https://windeurope.org/newsroom/press-releases/upscaling-europes-port-infrastructure-critical-for-offshore-wind-development>

20 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/277798/bis-14-578-offshore-wind-supply-chain-capabilities-and-opportunities.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/277798/bis-14-578-offshore-wind-supply-chain-capabilities-and-opportunities.pdf)

21 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/949163/withdrawn-state-aid-introduction-to-assisted-areas.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/949163/withdrawn-state-aid-introduction-to-assisted-areas.pdf)

22 <https://www.gov.uk/government/publications/complying-with-the-uks-international-obligations-on-subsidy-control-guidance-for-public-authorities/technical-guidance-on-the-uks-international-subsidy-control-commitments>

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## INVEST IN DOMESTIC MANUFACTURING AND ASSEMBLY FOR RENEWABLES

### CASE STUDY



Pseudonym: ..... **Phil**

Age: ..... **29**

Job Title: ..... **Marine Technician**

Location: ..... **Grimsby**

I grew up in Grimsby, where the fishing industry was strong before it collapsed. I grew up around the Humber estuary, which is the biggest importer of goods to the UK. I've seen first hand how local communities aren't at the forefront of policy makers' minds when an industry collapses.

Grimsby has been in a downward spiral of poverty and deprivation since the decline of the fishing industry. Even with some offshore wind in the area now, initially a lot of the work was outsourced to companies and workers from elsewhere. Much of the materials and equipment were manufactured and shipped to the area. Although the operators are now starting to train some local people, more could be done to involve the local community, both when they plan and develop the wind farms, right through to maintenance and operations.

There's so much infrastructure built into the North Sea - rigs, subsea infrastructure - and this is one of the concerns as we transition. Is there going to be a route for these assets to be properly recycled or reused in the UK? We could be employing local people to do decommissioning here. Instead, we often shoulder huge costs to tow these rigs and vessels to other parts of the world. You'd hope that manufacturing or decommissioning opportunities would come up since it's such an obvious transition for people already working in the heavy fuel industry, but they haven't.

It's too late to change what happened to industrial towns in the past, but we have the hindsight now. We know there needs to be something in place to protect communities. We need people to be worried about the consequences of not having a plan. Obviously the industry and government should be responsible for the future, but given their track record, the workers need to speak up and rally some support around the transition. It's not easy to grow up in a town that is at the tailend of this sort of thing. There's already enough deprived towns, we don't need more of them.

The oil industry was built as quickly as possible, often with the decommissioning plan as an afterthought, there was so much money to be made. We have the opportunity to demand that the wind industry does it differently. We should be producing the materials and equipment all in the UK. We want to have rigorous plans for decommissioning once materials are at the end of their life cycles. We want to train people and invest in the communities that are going to surround the infrastructure for clean energy in the future.