The role of the global offshore wind industry in ensuring a just transition

Exploring and comparing how a just transition is implemented within the global offshore wind sector

September 2024

About Regen

Regen provides independent, evidence-led insight and advice in support of our mission to transform the UK's energy system for a net zero future. We focus on analysing the systemic challenges of decarbonising power, heat and transport. We know that a transformation of this scale will require engaging the whole of society in a just transition.

As an advocate for both a just transition and the UK offshore wind industry, Regen believes that the offshore wind sector has a significant role to play in reaching net zero in a fair and equitable way. We also see that learnings from the UK offshore wind sector could be used to help support other countries in their pursuit of a just transition.

Authors

Ed Swain, intern – offshore wind

Grace Millman, senior energy analyst gmillman@regen.co.uk

Acknowledgements

Thank you to the interviewees for taking time out of their schedules to talk with us - it is greatly appreciated. Also, thanks are extended to Fraser Stewart and Becky Fowell for their knowledge and expertise shared within the project.

Contents

1 Introduction 1

2 Project context 2

What is a just transition? 2

Offshore wind and a just transition 3

3 Pillars of a just transition within offshore wind 5

Community engagement 5

Community benefit 8

Supply chain development and job creation 11

4 The role of sector-wide organisations 16

Sector-wide guidance 16

5 Conclusions 17

1 Introduction

There is currently 75.2 GW of offshore wind operational around the globe.[i] The sector now has its sights set on achieving a target of 2 TW of installed capacity by 2050, expanding operations across existing and new markets.[i] The global expansion of offshore wind raises questions about how to ensure new technologies are delivered in a fair and just way, unlocking value for people and places. Governments, local authorities and some developers have made growing commitments to a 'just energy transition' - ensuring that the costs and benefits of decarbonising the energy system are shared fairly across society.

The purpose of this report is to explore the existing role of the offshore wind sector in delivering a just transition, highlighting the importance of this issue and identifying potential opportunities for further research in this area.

The aims of the projects can be broken down into the following:

- Understand how the offshore wind industry is supporting a just transition in its operations today
- Understand the support and guidance available to developers from the wider global offshore wind sector when implementing a just transition
- Identify current challenges and opportunities to improve the role of the offshore wind sector in delivering a just transition.

The research conducted within this project has consisted of desk-based research and interviews with six individuals. These individuals consisted of offshore wind farm developers and wider industry organisations; such organisations have been interviewed based on their involvement within the global offshore wind industry.

2 Project context

What is a just transition?

The idea of a just transition is increasingly prominent in climate and energy conversations at both local, national and international levels, evident through its inclusion in the 2015 Paris Agreement.[ii] In the UK, the term 'just transition' has mainly been used within political systems to describe a transition to net zero that occurs in a way that ensures all sectors of society experience the associated social, economic and political benefits, without shouldering disproportionate costs or burdens.[iii] In particular, a truly just transition should include previously under-represented and disadvantaged groups within any associated benefits. These groups can range from individuals, communities and industries, to whole nations suffering most from climate change. This approach strongly advocates for the inclusion of these stakeholders in shaping the net zero transition so that no one is 'left behind'.

Energy justice POINTs (Policy Overview and Impacts for Net-zero Transitions) provide a useful and usable framework to explore the energy justice implications of policies and strategies.[iv] It is based on four tenets of justice: distributional, recognition, procedural and restorative. These explore where injustices lie, who is affected, how injustices can be overcome, and what we can to do ameliorate past injustices and mitigate against future injustices.

The transition to net zero will play out differently in different parts of the world. There is no single transition pathway for countries and regions. Furthermore, justice will look different across the world.[iv] One reason for this is the variance in political processes, governing structures and energy justice goals across different countries and regions. Additionally, different people and places have different socioeconomic experiences, challenges and priorities. As a result, the term 'just transition' is not used to define one singular concept, but as an encompassing term for varying forms of this ideology.

This was evident through conversations with offshore wind developers; definitions were not exactly similar but carried through the same principles of a just transition. Notably, some individuals included concepts of environmental well-being within their definition of a just transition. This is an important area of offshore wind development that can be overlooked when referring to a just transition more generally. It was also noted that the term 'just transition' is widely used and recognised within the UK offshore wind industry, but less so in other countries or other sectors.

International commitments

Dedication towards a just transition has been included in agreements on the international stage. In 2015, the International Labour Organisation outlined 'Guidelines for a Just Transition' providing international governments with a framework for achieving a just transition that alludes to reasonable work, environmental sustainability and poverty eradication.[v]

At COP24 in 2018, this topic received further emphasis through the acceptance of the 'Solidarity and Just Transition Silesia Declaration', highlighting the requirement for the rights of the workforce and the creation of decent employment within sustainable economies aligning with national development plans.[vi]

Both of these commitments outline the importance of a just transition in regulation and showcase the increasing momentum around the concept.

Offshore wind and a just transition

State of the sector

As of December 2023, China is the world leader in offshore wind deployment, with a total of 38 GW operational. The UK has the second largest fleet, at 14.7 GW, with Germany, the Netherlands and Denmark following with a total of 8.3 GW, 4.7 GW and 2.6 GW, respectively. Smaller markets include Belgium, Taiwan, Vietnam, France and Sweden.[i]

Many emerging markets have pledged ambitious capacity targets, including South Korea (14.3 GW by 2030), the USA (30 GW by 2030) and India (30 GW by 2030).[vii] Other countries have outlined impressive project pipelines, including the Philippines (63 GW) and Columbia (5 GW).

The role of developers

Traditionally, offshore wind developers have introduced just transition principles in several ways. These include supply chain development, port infrastructure buildout, job creation, community engagement, community benefit provision and local content targets. However, these actions are essential elements of the development process and are not necessarily a direct result of the momentum around the concept of a just transition. Some of these actions are governed by statutory requirements, such as a prescribed amount of community engagement in the planning process, while others influence commercial decisions, such as the location of port infrastructure.

Many of the developers interviewed noted the concept of being a 'good neighbour', with these activities contributing to the overall capability and reputation of the developer in the global market. In many projects, developers go above and beyond what is expected of them in their statutory requirements. As the industry becomes more mature, greater demands are being

placed upon developers to realise greater value through their projects, beyond energy generation alone. This is evident with some European markets shifting to include non-price factors within their respective development processes.

Offshore developers can also support a just transition through work in emerging markets. Sharing learnings, technologies and finance from more mature markets or organisations can enable less-developed countries – who are also commonly most at risk of climate impacts – to lead their own transitions and capture the associated benefits.

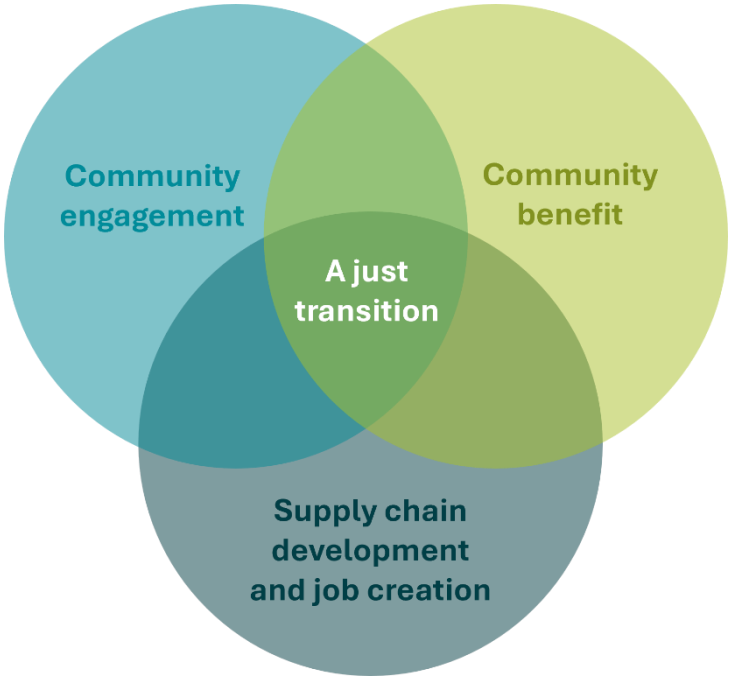
Organisational roles

Whilst the responsibility to implement a just transition can often seen to fall primarily on the developers, the markets in which they operate play an equally crucial role. These market frameworks, typically implemented by governments or national bodies like The Crown Estate in the UK, are used to incentivise desired behaviours from developers and the wider offshore wind sector. These frameworks vary significantly between markets. Therefore, increased government focus on achieving a just transition could directly drive meaningful action.

Market frameworks can also be shaped by guidance from organisations such as the Global Wind Energy Council (GWEC), the Global Offshore Wind Alliance (GOWA) and Ocean Energy Pathway (OEP). These organisations provide direction to the global offshore wind sector and support the worldwide rollout of offshore wind, making them vital to ensuring a just transition at a global scale. However, the developers interviewed as part of this project had not previously accessed direct support from these organisations specifically relating to a just transition.

3 Pillars of a just transition within offshore wind

Through industry engagement and desk-based research, we have identified three main crossover areas between implementing a just transition and developing an offshore wind farm. These are community engagement, community benefit, and supply chain development and job creation. These three areas are thought to enable the most growth and development of people and places. We recognise that there are likely to be further pillars of a just transition within offshore wind, for example, environmental protection and regeneration, which may form the basis of future work.



Community engagement

The overarching purpose of conducting community engagement within the context of a just transition is to ensure that a wide range of voices and needs can be reflected within the development process. This is enabled through effective community engagement that empowers social groups to build upon local strengths and capacities, improve local participation, take ownership and get involved with the development. Well-represented engagement can also promote distributional justice, ensuring that the benefits of the project can be shared using the most optimal methods.

What is community engagement?

This term holds a very broad definition depending upon the context it is used within - this is due to the variability in meaning in the terms ‘community’ and ‘engagement’.

Many groups can be classified as a community: stakeholders, interest groups, local councils, the environment or groups based upon affiliation with industry. Within offshore wind specifically, the communities involved vary based on the project’s location and scale, yet they typically include local regional councils, marine fisheries, environmental impact groups and

tourism industries, among others.[viii] This was explored in greater depth in Regen's *local and community benefit from offshore renewables paper*, which concluded that benefits should extend beyond communities located near the development. They should also include communities of interest, as well as regional and national communities, to address broader social issues.[ix] This was thought to be particularly relevant as more offshore wind farms are expected to be built in similar locations in the future – for example, in the Celtic Sea.

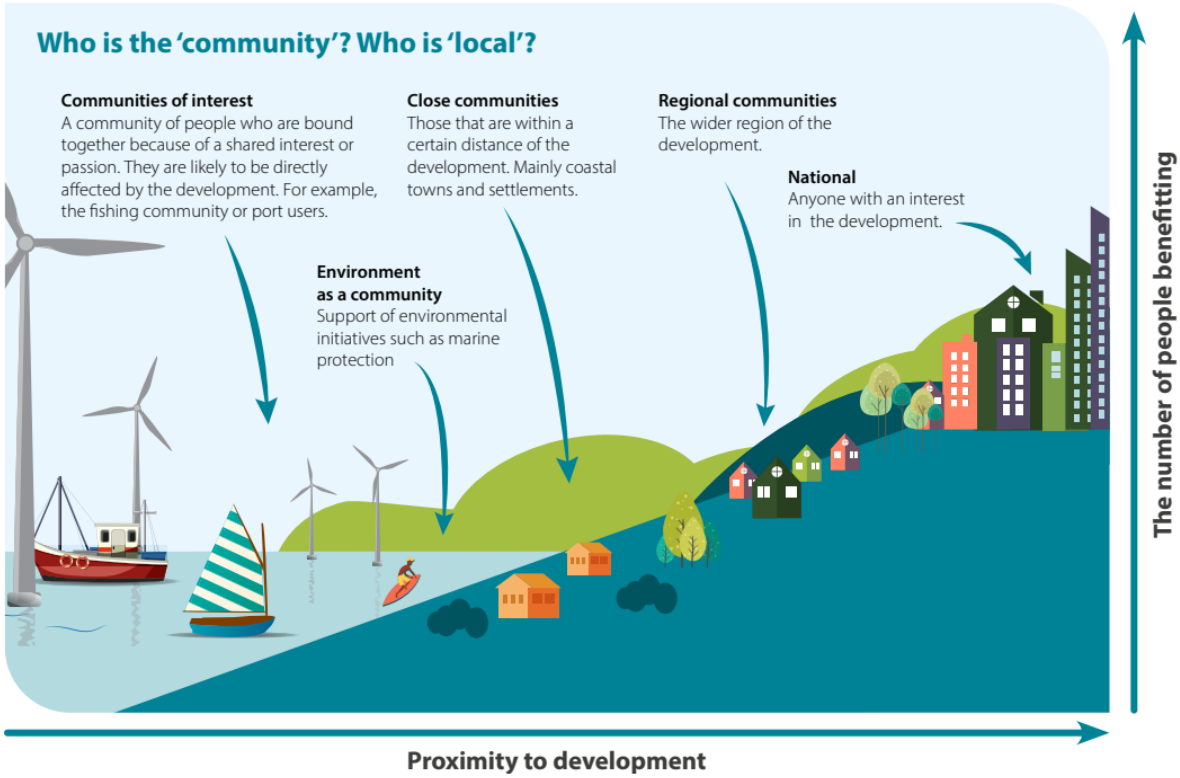


Figure 1: Graphic from Regen's *local and community benefit from offshore renewables* paper

As projects are developed increasingly further offshore, the ability to identify the project's 'community' becomes more difficult, particularly in comparison to other renewable energy generation counterparts such as onshore wind or solar. However, offshore wind projects have the unique ability to engage and benefit communities that other renewable energy projects cannot, such as the marine environment, the fishing industry, and coastal communities.

Once the communities have been identified, the methods used to interact with them determine the definition of 'engagement'. Traditionally, these groups have been engaged through awareness campaigns, consultations and local empowerment efforts. While engagement methods vary from project to project, common approaches include public exhibitions, meetings, questionnaires, webinars and workshops.[x] These methods must be tailored to each community to ensure effective and meaningful interaction.

The role of community engagement within offshore wind development

Effective community engagement is vital to the success of an offshore wind project. The difference between effective and ineffective engagement can often determine the success of the project. For example, it could affect their chances of achieving planning permission – a critical element of the offshore wind development process. A setback of this nature can result in large incurred costs and substantial project delays. Therefore, early, honest and consistent engagement with communities is essential to address concerns and gain meaningful support for the project. Engaging communities early in the development process, before finalising key design elements like cable laying routes, allows projects to incorporate local knowledge into their plans.

Gwynt y Môr

RWE's Gwynt y Môr offshore wind farm off the North Wales coast is a notable demonstration of excellent community engagement.[xi] RWE enabled transparent engagement through in-depth public consultation processes, advisory groups, focus groups and exhibitions, all of which set up a solid foundation of knowledge on which more tailored questionnaires could be built.[x] RWE also conducted additional environmental assessments and re-designed the layout of the offshore wind farm off the back of this engagement to meet the needs of the community and its concerns regarding tourism.

One methodology that is commonly adopted is the specific employment of local individuals with deep and sincere knowledge of the local area in which the wind farm is planned. This gives the developer local insight into the communities they are engaging with, as well as providing the community with a trusted and respected representative within the process. This ensures that effective communication and discussions can be held with the correct stakeholders.

Erebus

Blue Gem Wind's floating offshore wind project, Erebus, located in the northern regions of the Celtic Sea and currently in development, has demonstrated strong and meaningful community engagement. During its planning application process, the project received no objections to the development, an impressive feat for a region that had not previously seen offshore wind development. A key element of this was the company's employment of local people with insight and relationships in the community, along with its focus on early, open and honest engagement with the members of the Angle community.

Employing local people is a particularly prudent issue as the industry looks to expand into more regions globally that have not previously hosted offshore wind. Employing people from within

these communities ensures that the developer truly understands the communities' challenges, concerns, experiences and strengths, helping to ensure they engage with them meaningfully. This can also help minimise 'engagement fatigue', particularly within organisations that are leant upon by the community, e.g. parish councils or community energy groups. By tailoring methods to prioritise the quality of engagement over the quantity of it.[x]

Opportunities to go further

Various developers have outlined that guidance on how to engage with communities would be appreciated, particularly in identifying who the community is – especially relevant as offshore wind farms are increasingly located further away from the coastline. It was highlighted that this could be aided by increased cooperation globally, to share learnings of community engagement methodologies.

While it was not considered helpful to have set rules for community engagement, there are opportunities for governments to incentivise early and meaningful engagement, for example through a fast-track system, similar to that being introduced in the UK for environmental consents, which prioritises cases where quality standards are met. [xii]

Community benefit

By offering direct community benefits, offshore wind developers can facilitate a just transition, ensuring that more people can reap the benefits of the project. Offshore wind developers often provide community benefits as part of their projects. These are currently provided voluntarily and, to date, have tended to focus on the communities that experience the most impact from the physical development, for example, areas affected by onshore cable routes.

What is community benefit?

Community benefits provide a financial aid, of which local populations can decide how these resources are distributed. This empowers the community to address their own needs and challenges whilst investing in a prosperous future.

The method through which community benefits are distributed to the surrounding regions can take different forms; however, they are typically, delivered in the form of an annual fund.

A **community benefit fund** is a voluntary commitment by a developer to contribute to a fund that finances community projects. These funds can provide the local community with access to long-term, reliable and flexible funding, allowing them to directly enhance their local area, economy, society and environment.[xiii] For onshore developments, this is typically provided on an annal basis relative to the wind farm's capacity, expressed as £/MW pa.

Variable annual payments could also be made, which can be linked to the profit, electricity output measures, lump-sum payments or a blend of all three.[xiv] In England, the industry standard for community benefit from onshore wind farms is a minimum of £5,000/MW pa. This

was set out by RenewableUK in its Community Benefits Protocol and was endorsed by the government and a range of governmental and community stakeholders. However, for offshore wind there is no such standard. In addition, funds vary between projects, both in the amount of funding and the point at which these benefits are provided.

These funds are then distributed to the surrounding communities based on engagement efforts that identify the most effective use of financial benefits and address the needs of the specific community. Some developers will do the engagement and distribution themselves, while others will use third-party social enterprises or community structures, such as parish councils. It is important that whoever distributes the funds is trusted by the community and is informed by a panel of community representatives who are able to speak to the needs of the area.

Recently, developers have also explored the realm of community/local ownership, where individuals own a small amount of the wind farm and receive a share of the profits. However, there are many challenges associated with this due to the significant amount of upfront capital needed from the community.[xiii]

The current role of community benefit within project development

Community benefit is vital to the offshore wind development process in two different ways. The first is building local support for the wind farm, which will operate within the community for over 20 years. The second is providing benefits to communities who are most affected by the development, supporting them and making a difference. Overall, the provision of community benefits hopes to create a positive relationship between the developer and the local community. In this way, the project can contribute towards the overall prosperity and sustainability of the area.

Offshore wind developers use community benefits as one method in which they can be 'good neighbours' to the surrounding communities. Within the developers interviewed, there seems to be a sincere care for the local communities and a sense of responsibility to provide them with social and economic benefits stemming from the decision to develop a project in the area. For example, a common motivation for providing community benefit funds was quoted as supporting and empowering communities. If the idea of a just transition is to become intertwined with renewable technology development, this ethos and belief needs to be evident in all development companies. As developers work in multiple global markets, this company-level commitment to implementing a just transition can help to create value, even in differing regulator frameworks. In order to reach a truly just transition, this philosophy should also be present in wider sector organisations.

Within the community fund model, there is the opportunity to create significant positive change in the communities surrounding the wind farm development. Many developers see this as their responsibility to better the surrounding region, including the environment and the community. This is evident through the lasting impact that community-funded projects have had. SSE is a notable example, with 96% of projects funded through its Sustainable Development Fund over the last decade still operating and providing a positive difference in the community.[xv] SSE's

work heavily promotes the idea of a just transition, evidenced by its large online presence endorsing this concept. The company is headquartered in Scotland, which has a country-wide focus on a just transition through Scottish Government. This is likely to influence SSE's work in this area.[xvi]

Beatrice and Dogger Bank

In particular, SSE's Beatrice offshore wind farm and Dogger Bank offshore wind farm both operated a community investment fund, but distributed the funds in differing manners based on the needs of the community. The communities around the Beatrice project required concentrated and on-the-ground support for surrounding infrastructure, such as the developments carried out upon Nigg Harbour[xvii], whereas the communities around Dogger Bank required longer-term investment through schooling and educational support.[xvii,xviii]

The identification of disadvantaged communities and their individual asks was possible through early, transparent and consistent engagement with each of the surrounding communities.

Other methodologies through which the local community can benefit include shared ownership models, which enable local energy groups or individuals to purchase small stakes in the project and share in the profits. This model has been very successful for smaller onshore developments, where the capital required is less.

Some offshore wind farm developers are supportive of the idea of community ownership, recognising the opportunity for meaningful local participation and local wealth creation. However, they noted that there needs to be greater understanding and guidance from the wider industry to truly make this a viable option. This is partially because many existing models are based on onshore renewables, as seen in the development of trust organisations' in Scotland, and have not been adapted to the offshore sector.

There are some financial issues surrounding shared ownership of offshore wind, as significant amounts of capital are needed to purchase even a small share of an offshore development. This can make it unattainable for some communities. There is also additional complexity and risk in constructing and maintaining offshore infrastructure that would need to be accounted for, which may not be a suitable level of risk for local owners.

Opportunities to go further

Our research has highlighted a critical debate over whether there should be standardised to ensure consistency and a level playing field, or if it would be more effective to allow flexibility, tailoring them to individual projects.

While all developers advocated for greater sector-wide guidance, mandating community benefits was not seen as a desired outcome. In particular, it was felt that governments should

be wary of mandating community benefit payments across technologies (which has been implemented in some countries) as this does not properly reflect the differences between the development of these technologies, e.g. onshore wind, solar and offshore wind. Concern was also raised that this would restrict developers to a rigid community benefit fund model, whereas developers have found the most impact to come from working with communities on a site-specific basis to tailor community benefit schemes.

There were also calls for guidance in how to distribute the benefits in a fair and just way to ensure that all parties benefit, ensuring developers were aware of the latest best practice from academia and other on-the-ground organisations. Again, guidance was encouraged as opposed to requirements, as it was not thought that requirements would allow for the tailored approach needed within communities and highlighted that there was a risk that this would turn community engagement and benefit into a 'tick-box' exercise.

One example where guidance was particularly seen to be useful was in engagement with the fishing industry, who are affected by the development process of some offshore wind projects. In this case, it was thought that industry standards on '£ per day of displaced fishing time' would be helpful to ensure consistent expectations and to avoid unachievable precedents being set between projects. This would allow clarity for developers and the fishing industry on this topic and ensure that fishing communities can be appropriately and fairly compensated for the disruption caused.

Supply chain development and job creation

In the development of offshore wind farms, local supply chains can be created that secure a range of jobs in the process, contributing to an area's long-term prosperity and aspirations. In addition, the development of offshore wind can help to ensure a just transition for oil and gas workers, where there is significant cross-over in expertise and skills between the two sectors.

What is supply chain development and job creation?

As with any large-scale development project, building a strong and capable supply chain is critical. This will be influenced by a number of factors, with cost likely to be a priority. Such factors can influence decisions on whether parts of the wind farm will need to be imported or whether they can be constructed near the development, the proportion of local companies that can be used and which ports will be used for the various activities required across a project's lifetime. Many of these decisions will be made in collaboration with a developer's Tier 1 contractor.

The supply chain of an offshore wind farm is a complex and interlinked entity but, at a very high level, can be broken down and simplified into the following categories:

	Supply	Construction	Operation	Management
Example activities / companies	Turbine suppliers	Turbine and foundation installers	Vessel crew	Wind farm operators
	Cable suppliers	Vessel suppliers	Port operators	Transmission network operators
	Foundation suppliers	Port operators	Operation & Maintenance (O&M) managers	Decommissioning
	Substation suppliers	-	-	-

The current role of supply chain development and job creation within project development

Because of the vast supply chain associated with offshore wind, GWEC estimates that for every MW of installed offshore wind capacity, 17.3 direct jobs are created (based on one year of full-time employment).[xix]

Alongside the quantitative impact (i.e. the number of jobs created), it is also important to consider the qualitative impacts, such as the quality of the jobs created or transformed. The UN defines four ways in which employment will be affected due to climate change: job creation, job substitution, job elimination and job transformation and redefinition.[xx] As well as job creation, the development of offshore wind will result in job substitution (where workers may shift from fossil fuels to renewables), job elimination (for example, due to the phase-out of coal) and job transformation and redefinition (including the retraining of electricians and construction workers). An example of this is in Australia where, due to its wide-spread offshore wind resource, a large-scale workforce shift from the oil and gas industry to the offshore wind industry is expected.[xxi] The government is also particularly focused on the inclusion of green hydrogen within the Australian offshore wind industry.

How much of this change in employment is within the remit of the developer's responsibility is up for question. However, the developers interviewed saw a role for them in leveraging value into communities where there are obvious places to do so as part of the development, e.g. through port construction and O&M. While the main focus was on oil and gas jobs, some developers also talked about opportunities to uplift communities that had previously been left behind through various transitions, e.g. previous shipbuilding communities.

South Korea

The South Korean offshore wind sector is already looking to implement coastal regeneration schemes as part of its offshore wind development, requiring widespread mobilisation of offshore infrastructure, ports, surrounding coastal facilities and the wider supply chain.[xxii] These benefits are particularly important for the South Korean community due to the declining population and low birth rates within its coastal areas. GWEC's study on this specific topic determined that a total of 770,200 jobs will be created to meet the country's target of 14.3 GW of offshore wind by 2030. This includes all lifecycle phases of the project, many of which will be locally deployed.

Ports are critical in developing offshore wind. In particular, new floating offshore wind projects require assembly ports closer to the area of development than ever before. These ports will need to be built out and upgraded to facilitate the deeper floating foundations required. Floating offshore wind has also unlocked new areas for offshore wind deployment, for example, the West Coast of the USA and the Celtic Sea region in the UK. Creating regional industrial hubs would be one option for developers. For job opportunities to be realised beyond just port-based roles, there needs to be higher levels of 'local' manufacturing in offshore wind supply chains. This is likely to require greater investment, especially in areas which have not previously seen offshore wind development, and developers need to be able to justify these decisions commercially.

China

The Chinese offshore wind sector has developed an advanced industrialisation model due to the significant locality within its supply chain. As well as providing the standard offshore wind supply chain, including foundation settling, cable laying, substation implementation, and port and vessel employment, China has been able to integrate turbine, nacelle and tower manufacturing into its local supply chain to become the world leader in turbine manufacturing. China produced 65% of all turbine nacelle, gearboxes, generators, power converters and blades used within the offshore wind sector within 2023.[i] This large-scale industrialisation has not only increased the number of jobs within the sector drastically, but it has also achieved vast cost reductions due to a reduced reliance on imports. However, while this has positive social impacts, this is likely to be primarily motivated by the government's focus on energy security and market dominance.

One option that has been deployed in a few markets to help incentivise local investment and supply chain creation is the inclusion of non-price criteria in key development processes. European markets, including the Netherlands, Norway, Germany and the UK, are shifting to

incorporate non-price criteria. Some emerging offshore wind markets, such as Japan and South Korea, have already adopted non-price criteria, even at the early stages of their offshore wind development.[xxiii] Depending on the country, these have been implemented at different stages, ranging the leasing stage to the financial auction stage, as seen in the upcoming UK Contracts for Difference (CfD) auctions.

This means that, in addition to price-based competitiveness, environmental, social and supply chain pledges will be rewarded in the granting of seabed rights and/or the financial support of offshore wind projects. Through the inclusion of non-price criteria, developers are held accountable for these pledges during the development of their projects. One of the aims of including non-price criteria is to ensure that the benefits of the projects can outlast the project itself.[xxiv] As this concept is still being tested within different markets, there is not yet consistency as to the weighting of non-price criteria in comparison to price-based factors.[xxv]

England, Wales and Scotland

The political and governmental arrangements within the UK drastically impact the nation's offshore wind sector, in particular through the devolution of England, Wales and Scotland. The countries contain different political frameworks and, in the case of Crown Estate Scotland, different seabed leasing bodies. This results in varying non-price criteria requirements:

- The 2021 Leasing Round 4, run by The Crown Estate and covering England and Wales, was solely price-based and did not place any non-price criteria on the developers. While this has meant that there are fewer financial commitments expected of the developers in this area, the respective seabed lease option fees were unprecedented, totalling £900 million per year across the six projects.
- The 2022 ScotWind leasing round, led by Crown Estate Scotland, included non-price criteria in the form of a supply chain development plan and high-level commitments. These were taken into account when awarding seabed leases and represent a substantial financial commitment for the developers.
- Most recently, developers bidding into The Crown Estate's Leasing Round 5 in the Celtic Sea will be required to demonstrate how they intend to provide social and environmental value through their projects.[xxvi] There is still a lack of detail on how environmental and social value will be sustained across the lifetime of Round 5 projects – it is understood that Round 5 plans are expected to be 'credible' but will have limited influence on the outcomes of the round.

While these three latest leasing rounds have included varying just transition-related requirements, all projects will likely bid into one central government auction, the CfD. This is a cost-competitive auction and, due to the different non-price criteria expectations, projects in different parts of the UK will be more or less likely to be able to secure a contract.

Additionally, the UK government has consulted on the introduction of Sustainable Industry Rewards (SIRs) into the CfD to place additional supply chain commitments onto offshore wind developers. This mechanism is intended to reward developers who are planning to improve and upgrade supply chain facilities within deprived areas in the vicinity of their projects through extra funding. This has generally been welcomed by developers and the offshore wind industry, as it will hopefully lead to increased employment within the sector.

Opportunities to go further

There are risks associated with using local supply chains, especially if local organisations are less experienced in working in offshore wind compared to more mature market alternatives. Developers interviewed thought that significant focus should be put on centralised, government industrial strategies to build up these supply chains outside of the scope of one development. In particular, a greater focus on upskilling and infrastructure buildout was noted.

These industrial strategies can help developers identify the supply chain strengths of an area quickly, including industries that may have previously diminished, for example, UK shipbuilding. Vessel operation is a key part of the offshore wind industry, whether that be O&M vessels used to service the wind farms or specialised vessels used to install the foundations and turbines. Globally, there is a shortage of the vessels needed to meet the predicted targets for offshore wind. Therefore, a reignition of the UK shipbuilding industry would boost the UK's presence within this market and benefit the offshore wind developers working in the area.[xxvii] This kind of supply chain investment would have knock-on effects on local employment, inward investment and coastal regeneration, which would outlast the wind farm project. Developers interviewed felt that in the UK specifically, the introduction of SIRs was a step in the right direction.

4 The role of sector-wide organisations

Sector-wide guidance

On a global scale, the idea of standardised sector-wide guidance or expectations can prove very difficult. Countries involved in offshore wind development generally lack homogeneity, each with unique government regimes, economic stability and energy market structures. An example of this lies within Asia, where countries range from China, the world leader in offshore wind, to Vietnam and the Philippines, which are at the early stages of development. We were unable to identify any such guidance aiding global offshore wind developers in providing a just transition during this research.

The idea of tailoring activities to each site or country needs to remain a central part of the development process, ensuring that the most benefit is delivered within each project. Sector-wide guidance needs to be applicable to a broad range of markets, while also reflecting the nuances of working in different countries. In order to combat this issue, one interviewee suggested that guidance could be provided based on cross-sections of the market, for example, based on levels of economic development or maturity in the offshore wind sector.

The introduction of this semi-specific guidance would ensure that developers within that region receive recommended procedures and overarching guidance, without limiting their own decisions in their projects or creating additional regulatory hurdles. It is essential that any resources put in place act as strong consistent guidelines, rather than being used as requirements or mandates.

Guidance would also need to take into account regulatory differences between countries, for example, the differences in non-price criteria implementation. Sector-wide organisations looking to develop guidance should have an open dialogue with governments across the world to understand their priorities when it comes to offshore wind and a just transition. These organisations also have a role to play in sharing learnings between offshore wind markets, in particular from more developed markets to emerging markets, accelerating the deployment of offshore wind in a just way. This is a particular focus of GWEC in its attempt to encourage development within emerging markets, working with governments to implement methodologies for economic regeneration linked to offshore wind.

5 Conclusions

Just transition principles are well embedded, but a greater shared understanding of the term is needed.

There is no common definition of a just transition; however, the principles are understood by those working in the offshore wind sector. The term is commonly used within some offshore wind markets but does not translate across all markets and sectors, meaning that many developers did not have specific just transition practices, even if they embody the principles.

Traditionally, offshore wind developers have introduced just transition principles through supply chain development, port infrastructure buildout, job creation, community engagement, community benefit provision and local content targets. These actions are all essential elements of the development process although are not necessarily a direct result of the momentum around the concept of a just transition. That being said, there seems to be a sincere care amongst developers for the local communities, and a sense of responsibility to provide them with social and economic benefits as a result of the decision to develop a project within that specified area. The combination of these two motivations ensures the effective delivery of a just transition within offshore wind development.

Whilst the responsibility to implement a just transition can often be deemed to fall solely, or largely, upon the developers, the markets in which they operate significantly influence the rollout of a just transition. Therefore, the responsibility to implement a just transition through offshore wind sits across multiple organisations, including developers, sector-wide organisations and governments. A greater focus from governments on achieving a just transition would directly translate into action from developers.

Through industry engagement and desk-based research, we have identified three main crossover areas between implementing a just transition and developing an offshore wind farm. These are community engagement, community benefit, and supply chain development and job creation.

Open, honest and early engagement is essential to understanding and addressing the concerns of the community.

The overarching purpose of conducting community engagement within the context of a just transition is to ensure that a wide range of voices and needs can be reflected within the development process of an offshore wind project. This is enabled through effective community engagement that empowers social groups to build upon local strengths and capacities, improve local participation, take ownership and adapt to the development. The interviewees quoted early, open, honest and consistent engagement as critical in understanding and addressing the concerns of the community and gaining meaningful support for the project. The employment of local individuals with deep and sincere knowledge of the local area in which the

wind farm is planned was identified as being an effective method of building trust within the engaged communities.

Community benefits can help to empower communities to invest in their future and cannot be done without meaningful community engagement.

The inclusion of community benefits within an offshore wind project directly links to enabling a just transition as it ensures that communities can reap the benefits of the development. The areas in which the financial resource is distributed can be determined by the local populations themselves, allowing them to address their own needs and challenges and invest in a prosperous future. Common motivations amongst offshore wind developers included empowering communities and being 'good neighbours'.

Developers can help to leverage value into communities through supply chain development and job creation, but full-scale workforce transitions need to be the focus of governments.

Building a strong and capable supply chain is critical to any large-scale development, with cost likely to be a high priority. These factors can impact decisions on whether components of the wind farm will need to be imported or can be manufactured locally, the percentage of local companies that can be employed and which ports will be utilised for various activities throughout the project's lifespan. Supporting local supply chains can generate a range of jobs in the process, contributing to an area's long-term prosperity and aspirations. How much of this is within the remit of the developer's responsibility is up for question. However, the developers interviewed saw a role for them in leveraging value into communities where there are obvious places to do so as part of the development, e.g. through port construction and operations and maintenance.

One option that has been deployed in a few markets to help incentivise local investment and supply chain creation is the inclusion of non-price criteria in key development processes. This means that, in addition to price-based competitiveness, environmental, social and supply chain pledges will be rewarded in the granting of seabed rights and/or the financial support of offshore wind projects. Overall, the trend towards rewarding positive and responsible development was seen as a positive evolution.

Greater guidance on how to implement a just transition is needed for the offshore wind sector.

There is a lack of homogeneity throughout the global offshore wind market due to the variance in offshore wind maturity, and political and economic makeup of the varying countries. As a result of this, the idea of standardised sector-wide guidance or expectations can prove very difficult. We were unable to identify any such guidance aiding global offshore wind developers in providing a just transition during this research.

All individuals interviewed agreed that greater sector-wide guidance in relation to the concept of a just transition would be beneficial. In particular, guidance on how to identify communities

as projects are built further offshore, best practice learnings on how to engage with these communities, and a greater understanding of a just transition and how this can be implemented were called for. The introduction of this semi-specific guidance would ensure that developers within that region receive recommended procedures and overarching guidance, without limiting their own decisions in their projects or creating additional regulatory hurdles. There is a role for sector-wide organisations to develop this guidance, in open dialogue with governments across the world to understand their priorities when it comes to offshore wind and a just transition.

A common debate within this topic is whether these just transition-focused behaviours should be statutory requirements on developers or whether they would be best incentivised through better weighting in the development process. While all developers advocated for greater sector-wide guidance, adding additional mandates or statutory requirements was not seen as a desired outcome, as it was felt that this could restrict developers to a rigid set of procedures and not allow for the tailored approach needed to deliver the most impact for individual communities. Instead, strong, consistent guidance was deemed to be more effective.

6 Appendices

Appendix 1: Interview questions

Principles of a just transition

- What is your understanding of a 'just transition'?
- How do you ensure a just transition is implemented when developing your offshore wind projects?

Methodologies for implementing a just transition (developer focused)

- What methodologies do you put in place to ensure that there is a fair recognition of, and representation from, all stakeholders that can benefit from developing offshore wind projects?
- What procedures do you put in place to ensure that there is transparency and fairness in your decision-making process?
- How do you ensure that the benefits of your projects are distributed in the most effective way possible?

Methodologies for implementing a just transition (sector focused)

- How does the implementation of a just transition vary across different markets?
- What are the key factors that contribute to the successful implementation of a just transition within offshore wind development?
- What are the common barriers to fulfilling a just transition within offshore wind development?

The role of the offshore wind sector in ensuring a just transition

- How is the wider offshore wind sector supporting you in delivering a just transition?
- How can the wider sector help to overcome some of the discussed barriers?
- How could you better be supported by the sector to deliver a just transition through your projects?
- What is the role for the offshore wind sector to enable less-developed nations to benefit from the net-zero transition?

Appendix 2: Who is responsible for delivering a just transition?

		Offshore wind developers	Sector-wide organisations	Governments
Examples of just transition responsibilities	**Community engagement**	Identifying the community	Guidance and support	Setting statutory requirements
		Delivering statutory requirements	Sharing best practice	Guidance and support
		1-1 engagement	Advising governments	Reward/incentives mechanisms
	Community benefit	Community engagement	Guidance and support	Guidance and support
		Design and provision of community benefits	Sharing best practice	Reward/incentives mechanisms
		Impact monitoring and reporting	-	Endorsing standards
	Supply chain development and job creation	Supply chain mapping	Industrial strategies	Industrial strategies
		Local employment and contracting	Convening	Workforce transition planning
		Investment in shared infrastructure	Sharing learnings between markets	Schooling and education
		Education and upskilling	-	Market design
	Other	Environmental protection	Sharing learnings between markets	Policy direction
		Union recognition	-	-
		Local energy supply	-	-

References

[i] *Global Offshore Wind Report 2024* – Global Wind Energy Council, 2024. Available here.
[ii] *Paris Agreement* – United Nations, 2015. Available here.
[iii] *Global Energy Justice - Problems, Principles and* Practices – Benjamin K. Sovacool and Michael H. Dworking, 2015. Available here.
[iv] *Energy Justice POINTs: Policies to create a more sustainable and fairer future for all* – Rachel Bray and Rebecca Ford, 2021. Available here.
[v] *Guidelines for a just transition towards environmentally sustainable economies and societies for all* – International Labour Organisation, 2015. Available here.
[vi] *Implementing just transition after COP24* – Climate Strategies, 2019. Available here.
[vii] *Can India achieve 30 GW offshore wind capacity target by 2030?* – JMK Research & Analytics, 2024. Available here.
[viii] *Considerations for Offshore Wind Industry on Community Engagement* – Australian Government, 2023. Available here.
[ix] *Delivering local benefit from offshore renewables* – Regen, 2022. Available here.
[x] *Wind Farms Community Engagement Good Practice Review: Executive Summary* – University of Edinburgh, 2023. Available here.
[xi] *Gwynt y Môr Fund* – RWE, 2023. Available here.
[xii] *Energy Security Bill factsheet: Offshore wind environmental improvement package* – Department for Energy Security and Net Zero, 2023. Available here.
[xiii] *Community Benefits and UK Offshore Wind Farms: evolving convergence in a divergent practice* – Oxford Brookes University, 2020. Available here.
[xiv] *Community Engagement and Benefits from Onshore Wind Developments* – Department for Business, Energy and Industrial Strategy, 2021. Available here.
[xv] *Sustainable Development Fund: A decade of social impact* – SSE, 2023. Available here.
[xvi] *Embedding a Just Transition: Strategy update* – SSE, 2024. Available here.
[xvii] *Beatrice Offshore Wind Farm Ltd: Sharing the benefit of offshore wind* – Beatrice Offshore Windfarm Ltd, 2023. Available here.
[xviii] *Dogger Bank Wind Farm: Evaluation of the Dogger Bank Wind Farm Community Fund* – ekosgen, 2023. Available here.
[xix] *Global Offshore Wind Report 2020* – Global Wind Energy Council, 2020. Available here.
[xx] *Just Transition of the Workforce, and the Creation of Decent Work and Quality Jobs* – United Nations, 2016. Available here.
[xxi] *Offshore Wind Energy in Australia* – Blue Economy Cooperative Research Centre, 2021. Available here.
[xxii] *How offshore wind development can support coastal regeneration: Global overview and best practices for South Korea* – Global Wind Energy Council, 2024. Available here.
[xxiii] *South Korea unveils updated offshore wind power roadmap* – LSP Renewables, 2024. Available here.
[xxiv] *From Price to Progress: Impacts of evolving offshore wind criteria* – OWC, 2024. Available here.
[xxv] *The Rise of Non-price Criteria in Offshore Wind Tenders* – Guidehouse, 2023. Available here.
[xxvi] *Information Memorandum: Celtic Sea Floating Offshore Wind Leasing Round 5* – The Crown Estate, 2023. Available here.
[xxvii] *Offshore wind vessel availability until 2030: Baltic Sea and Polish perspective* – Wind Europe, 2022. Available here.