Offshore renewable energy export potential for Ireland

Workstream 5: Optimised financial and economic return to state and local communities

A report for the Department of Environment, Climate and Communications

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Workstream 5: Optimised financial and economic return to the state and local communities
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5. Optimised financial and economic return to the state and local communities

5.1. Introduction

In proceeding with its ambitious ORE deployment plans, and the development of the associated electricity interconnection and hydrogen infrastructure to support the export of surplus energy, it will be important for the Irish Government to consider how to maximise the economic benefit to the state and communities, commonly known as ‘community benefit’, to ensure that Ireland’s net zero transition delivers for Irish people.

Maximising local benefit is a key consideration in the development of an ORE fleet, to ensure the extensive resources dedicated to this effort deliver a return on investment to the Irish economy. This helps a government deliver wider socioeconomic and environmental priorities, ensure strong support among local communities and in turn long term, stable political consensus which helps drive investment.

Experience in other markets has shown that renewables deployment can encounter public opposition, especially when coastal communities hosting onshore assets (especially substations, export cables and transmission network cables) feel financial benefits are accruing to others while they are left with local environmental and visual impacts.

A variety of mechanisms exist to deliver community benefit, all of which have been employed in offshore wind in Ireland or elsewhere. In this section, we review models for providing returns to the state and communities, what we can learn from examples of their application, to inform policy development in Ireland.

We first examine financial measures in Section 5.2, which deliver tangible economic benefits to communities. We then go on to address non-financial measures for community engagement and acceptance in Section 5.3, which can achieve some of the aims of financial measures by increasing community acceptance through increased engagement and mitigation of negative impacts without adding to cost burdens on generators and therefore electricity consumers.

Each mechanism for financial benefit has advantages and disadvantages, as we explore in Section 5.2. Certain considerations are relevant to all:

- All mechanisms for extracting community benefit effectively redistribute benefit rather than create new benefit. Any additional costs imposed on industry through community benefit mechanisms can be expected to be ultimately passed on to the electricity consumer in the form of higher prices.

- Despite this, community benefit schemes have value in directing economic benefits where they are judged most needed (or fairly provided), or to increase support for renewables among those most affected, therefore smoothing Ireland’s energy transition pathway.

- Although overall economic impacts of community benefit measures can generally be considered net-neutral, they may have distributional impacts which should be considered carefully in implementation to ensure alignment with wider socio-economic objectives.

- The ‘right’ level of contribution from project developers may vary depending on the nature of the project and its local impacts, but predictability of required contributions between projects also has significant benefits.
5.2. Financial measures

The measures considered in this section share the common feature that they involve financial transfers from asset owners to the state or local communities. These include:

- Community ownership
- Revenue sharing
- Community benefit funds, and
- Royalty structures.

For consideration of non-financial measures to deliver socio-economic impact through ORE deployment, see Section 5.3.

5.2.1 Community ownership

What is it?

Under community ownership models, members of the community local to a renewable project are given the option to buy shares in the project, thereby sharing in the revenue (and also operational risks). Community ownership is a well-established model that has been used in countries such as Denmark and the UK for renewable energy projects for over 20 years. It is sometimes referred to as shared ownership.

Community ownership can take several forms:

- Full ownership of the asset by a community organisation. The community organisation may develop the project, or it may purchase an operational asset from the project developer. It may choose to offer individual community members the chance to share in the proceeds through purchase of shares.

- Part-ownership of the asset by a community organisation through purchase of shares from the project developer. Funds may be sourced through a combination of donations, grants, loans or public funding if the organisation aims to fund community projects. Otherwise, it may be funded through private purchase of shares, with proceeds redistributed to individuals.

- Part-ownership of an asset by individuals from within the community, through purchase of shares by those living close to the project. Typically then these shareholders have come together in an association to represent their position.

Full ownership of typically large ORE projects is highly unlikely. More likely are part-ownership models where the project developer (or operator) continues to play a lead management role and the community shareholders focus on any community-related aspects.

Recognising that benefit flows though the part-owners, we considered the advantages and disadvantages of community ownership in three categories in Table 1:

- Those which apply generally to all community ownership models
- Those specific to community beneficiary models, and
- Those specific to individual beneficiary models.
Table 1 Summary of the advantages and disadvantages of each model in community ownership.

<table>
<thead>
<tr>
<th>Model</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>• Unlike other financial mechanisms for extracting community benefit, community ownership does not necessarily add to the cost of energy, as benefits are extracted via return on investments rather than through additional levies on projects. It may therefore have less negative impact on consumers than other models.</td>
<td>• There is often a lack of expertise within the local community to represent their interests as shareholders effectively.</td>
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<tr>
<td></td>
<td></td>
<td>• Community ownership typically makes up a small percentage of funding but takes a lot of work for the project developer to implement. It can also require an offer of higher return on investment compared to institutional investors.</td>
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<tr>
<td></td>
<td></td>
<td>• Projects delivering lower than expected profits mean lower local benefit. In an extreme case, a failed project could result in loss of initial investment, but it is likely that this is mitigated by developer commitments or insurance. Either way, there is a risk of a negative legacy.</td>
</tr>
<tr>
<td>Community</td>
<td>• Ownership at community level can help ensure the benefits are spread through the local community in a socially equitable manner.</td>
<td>• Shared community ownership can be difficult to implement as it requires reaching commercial agreement with a diverse range of stakeholders who may hold conflicting views.</td>
</tr>
<tr>
<td>beneficiary</td>
<td>• Community organisations often choose to support projects with wider socio-economic or environmental value to the community, such as conservation activities, educational programmes or health and social care initiatives, especially with socially disadvantaged social groups.</td>
<td>• Benefits may be less visible to individual community members, especially where they are allocated to support ongoing spending programmes in the community rather than physical projects.</td>
</tr>
<tr>
<td></td>
<td>• The whole community has an interest in the project’s ongoing success.</td>
<td>• Community organisations may lack capability to spend proceeds in an effective and impactful way.</td>
</tr>
<tr>
<td></td>
<td>• The community organisation can provide a focal point to bring together local people and provide a shared sense of purpose.</td>
<td>• Poor asset performance could lead to negative impacts on local communities and services where funding plans had been developed in expectation of more positive results.</td>
</tr>
<tr>
<td>Individual</td>
<td>• Individuals who have invested receive varying financial benefits annually from the revenue of the project, drawing them to have an interest in its ongoing success.</td>
<td>• Benefits accrue mainly to wealthier community members who have the capital to invest, resulting in negative distributional impacts.</td>
</tr>
<tr>
<td>beneficiary</td>
<td>• Schemes are easier to implement, with developers able to implement a ‘take it or leave it’ approach, not relying on wide community buy-in.</td>
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</tbody>
</table>

Workstream 5: Optimised financial and economic return to the state and local communities
Examples of best practice

Middelgrunden, Denmark

Middelgrunden was the world’s largest offshore windfarm when opened in 2001, consisting of 20 turbines, Half of the wind farm is owned by about 8,500 private individual investors in the Middelgrunden Wind Turbine Cooperative and half by the project developer and operator, Ørsted. The project raised €23 million from community shareholders who have received a 7% return.¹ This is an example of an individual beneficiary model. The project is located close to Copenhagen, so local to significant local wealth.

In 2011, Denmark implemented the ‘buy legal’ system, under which developers must offer shares worth at least 20% of any wind power project to local residents.

Samso Energy Island, Denmark

In 1997, the Danish Island of Samsø, with its roughly 4,000 inhabitants, won a national competition to become Denmark’s “Renewable Energy Island”, announced by the Ministry of Environment and Energy (MEE). The goal was to implement a self-sufficient energy supply based on renewable energy in combination with a reduction of energy demand in a smaller Danish community. Since 2005, the island has produced more electricity than it consumes.²

An organization called Samsø Energy Company (SEC) was founded to implement the project. This company comprised representatives from the municipality, the farmer association, Samsø Energy and Environment Office, and the island’s commercial council.

The island has a series of renewable energy investments including 11 onshore and 10 offshore wind turbines, four local biomass-fuelled district-heating plants, solar panels, and electric vehicles. These assets are 100% locally owned.³ The wind turbines are owned by a combination of private owners, investor groups, the municipal government and local cooperatives with locals raising a total of €1.5 million. Two onshore turbines were purchased with this money and the remaining nine purchased by individuals.⁴

Onshore Wind in the Scottish Isles, UK

There are numerous examples of community-owned onshore wind projects within the Scottish Isles:

- On the island of Gigha, three second-hand wind turbines with a combined capacity of 675 kW were installed in 2004, becoming the first community-owned wind farm in Scotland to connect to the national grid. The Isle of Gigha Heritage Trust owns and operates the turbines and the profits are redistributed into the community where a fourth 330 kW wind turbine has now been installed.⁵⁶

- On the island of Tiree, a single 900 kW wind turbine was built in 2010. The project was developed by a community trust with local participation. The project was financed via bank loan with the profits managed by the Tiree Community Development Trust, which reinvests profits on the island subsidising local shops, care

¹ Steve Rushton, ‘Rebel Cities 26: These Community Wind Farms in Denmark and Scotland are Decentralising Power to the People – resilience’, Occupy, 7 September 2019, available online at https://www.occupy.com/article/rebel-cities-26-these-community-wind-farms-denmark-and-scotland-are-decentralising-power#sthash.b6hDjQNI.hnWLc7Fi.dpbb
³ Samsø: An Island Community Pointing to the Future, Denmark, United Nations Climate Change, available online at https://unfccc.int/climate-action/un-global-climate-action-awards/climate-leaders/samsso
⁶ The Isle of Gigha Heritage Trust, available online at https://gigha.org.uk/home/Community-Trust
for the elderly and other community projects. Over £2 million in funding has been distributed since the turbine was constructed.\(^7\)\(^8\)

- The island of Lewis also installed a community-owned wind turbine financed via a mortgage with a capacity of 900 kW. The profits from the turbine are reinvested into the community via training and education for locals and in minor housing repairs.

- The Orkney Islands already generate 120\% of their energy needs through community-owned renewables, the excess energy exported to mainland Scotland via a new subsea cable. Three new Council-owned wind farms are planned in Orkney by 2028. These projects will generate up to £5.5m annual profit to support local services.\(^9\)

The success of these and other community-owned renewables projects within Scotland has led to Scottish Government plans to more than double Scottish community and locally owned capacity to 2 GW by 2030.\(^10\)

**Summary of best practice lessons for Ireland**

Community ownership models have typically been applied more successfully in smaller-scale, local, onshore renewables than in offshore wind projects. Most offshore wind projects represent multi-billion euro investments, in which communities are likely to lack the financial capability to take a meaningful stake. Although community ownership of a small stake of an offshore asset is possible, there are few examples of this. This is because developers do not see this as an efficient way to raise finance and they can typically secure sufficient local support to obtain permits without it. Studies have suggested that Irish citizens may prefer schemes in which people receive financial compensation without sharing in the ownership and associated risks of project development.\(^11\)

### 5.2.2 Revenue sharing

Under revenue sharing models, the distribution of financial benefits of a project is regulated, usually by local, regional or national governments, to allocate within communities. In contrast to community ownership, whereby communities actively participate financially in projects and are exposed to profits as well as losses, revenue sharing mechanisms do not require the active engagement of citizens and community organisations, and do not expose the community to financial losses in the event of poor project performance or project failure. Poor performance may however lead to lower returns than expected.

Revenue sharing mechanisms are typically implemented either through:

- A levy charged by national or regional governments on a per turbine (or MW) per year or per MWh basis, or
- Discounted electricity bills offered via partnership between the project owner and the local electricity supplier.

In each case the project developer can offset the costs of any such mechanism through increased auction prices.

When a levy model is employed, funds may be re-allocated to central, regional or local governments to fund ongoing budgetary requirements or specific projects. More often, they are redirected toward the creation of a

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7 Tiree Community Development Trust, available online at [https://www.tireetrust.org.uk/what-we-do/](https://www.tireetrust.org.uk/what-we-do/)
9 ‘Community Benefits’, Orkney Community Wind Farms, available online at [https://orkneywindfarms.co.uk/community-benefits](https://orkneywindfarms.co.uk/community-benefits)
community benefit fund, as in ORESS 1. ORESS 1 community benefits funds are discussed in more detail in Section 5.2.3.

Recognising that benefit flows though individuals within the local community, we considered the advantages and disadvantages of revenue sharing in three categories in Table 2:

- Those which apply generally to all revenue sharing models
- Those specific to levy-based models, and
- Those specific to discounted bills models.

**Table 2 Summary of advantages and disadvantages of each model within revenue sharing.**

<table>
<thead>
<tr>
<th>Model</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| General     | • Revenue sharing can be simpler to implement and manage than community ownership, as it does not require active participation and the same degree of consensus among stakeholders.  
• Communities are exposed only to varying degrees of benefits, and are insulated from losses that can apply in ownership models. | • Some funding outcomes may be less visible to communities, resulting in reduced public support.  
• Revenue sharing models represent an additional cost to asset owners, which pushes up operating costs and in turn auction bid prices, ultimately being paid for by electricity consumers. |
| Levy-based  | • Regional authorities typically have the expertise to manage such funds.  
• Offers an opportunity for calibration of redistribution mechanisms to target particular areas of need, allowing for alignment with government’s wider socio-economic objectives.  
• Straightforward to implement as does not require community participation or agreement. | • The communities most impacted may not receive a fair share of benefits if funding is managed by a regional or national authority.  
• Increased governmental income at regional level may be used as a justification to reduce funding from the national government, leading to no net local benefit.  
• Competition for projects between regional governments seeking revenue benefits could lead to erosion of benefits. |
| Discounted bills | • Linking deployment directly to cheaper electricity helps underline the direct consumer benefits of renewable energy. | • Research shows that when financial benefits are offered in the form of a discount rather than a direct payment, this typically has less impact on community attitudes, as benefits are less visible.  
• Typically requires partnership between the asset owner and the local electricity supplier to implement. Where markets are liberalised, as in Ireland, and community is served by a diverse range of suppliers, this is more difficult (and costly) to implement.  
• A discounted bills model does not generally allow benefits to be targeted according to socio-economic criteria and |
Examples of best practice

**Brandenburg wind power levy, Germany**

The North-eastern German state of Brandenburg adopted a law in 2019 which obliges operators of onshore wind projects to pay a special levy of €10,000 per turbine per year to municipalities within a three-kilometre radius of new turbines.  

**Trade tax revenue, Germany**

Under Section 29 of the German Trade Tax Act, the local authority in which the wind farm is located will receive at least 70% of the trade tax revenue from the windfarm. The trade tax (Gewerbesteuer) is a tax on corporate profits. In contrast to Ireland where corporation tax is set and collected at a national level, in Germany the rate is set at a municipal level and the majority of proceeds are used to fund local services. The German trade tax therefore represents an example of a compulsory levy-based revenue sharing mechanism.

- In Ahaus there are 16 wind farms with each local community receiving €25,000 to €30,000 in trade tax revenue per wind turbine per year.
- For Brebek wind farm, the trade tax amounting to around €300,000 annually is divided between three municipalities.
- In Lichtenau, €200,000 from trade tax from a local wind farm is used to fund a foundation to fund community projects.
- In Büttstedt, the tax revenue was used to fund construction of a multi-purpose hall and a local primary school.
- In Helgoland, the tax revenue was used to invest in both new housing and the tourism industry on the island attracted more tourism strengthening the economy on the island.

**Summary of best practice lessons for Ireland**

If implementing a revenue sharing model, the Irish government should bear in mind:

- If assigning benefits at a regional or local level depending on project location, mechanisms should be put in place to prevent regional competition for projects which may see net benefits returned to the industry.
- To deliver benefits in terms of public perception of offshore renewables and support for the green transition, it is important to ensure that revenues are distributed in a manner which is visible to the communities (for example, direct cash payments rather than energy bill discounts) and which is targeted in particular at those communities most impacted by the assets, for example those which host onshore transmission infrastructure.

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• Revenue sharing offers an opportunity for calibration of redistribution mechanisms to target particular areas of deprivation, allowing for alignment with government’s wider socio-economic objectives.

5.2.3 Community benefit funds

What is it?
A community benefit fund is a financial contribution made by the developer to the local community. The fund is usually managed by local authorities or community trusts and used to fund local projects beneficial to the community. Payments can take various forms:
• Fixed annual payments where the developer pays a set amount per MW annually into the fund.
• Variable annual payments dependent on MWh generated, or
• A lump sum contribution at the start or end of the project.

The ORESS 1 auction required bidding developers to commit to contributing to a local community benefit fund during the construction and operational life of the wind farm. The developer must contribute at least €2 per MWh of electricity generated by the project to the community benefit fund during the operational life of the project. Construction phase contributions are calculated as a proportion of the projected contributions which a project is expected to make once operational.\(^\text{15}\)

The community benefit fund is assisted in the allocation of the funding by a dedicated fund administrator (FA). The FA is assigned by an open competition with the generator having to ensure the FA is capable and experienced within this field to ensure maximum impact of the fund for the community. The FA will then form a committee and is responsible for the advertising and community awareness of the funding available before funding applications are due to be submitted.

Recognising that benefit flows through local community, we summarise the advantages and disadvantages of community benefit funds in Table 3.

<table>
<thead>
<tr>
<th>Model</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community benefit funds</td>
<td>• Community benefit funds can deliver socio-economic benefits such as improving local infrastructure, skills and training within the community or other community support programmes.</td>
<td>• There can be difficulties ensuring fair distribution of the funds to the most impactful projects especially if there are overlapping affected communities, though this is well addressed in ORESS 1 through designation of a professional fund administrator.</td>
</tr>
<tr>
<td></td>
<td>• Like revenue sharing models, under community benefit funds communities are exposed only to benefits, and are insulated from losses.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Straightforward to implement, many good practice examples to borrow from internationally.</td>
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</table>

Examples of best practice

Walney Extension Community Fund, UK
Ørsted set up the Walney Extension Community Fund to support local groups and organisations close to the 0.66 GW Walney Extension project. Each year, approximately £600,000 is made available for community projects. This is expected to be made available for the 25-year lifetime of the wind farm. The Walney Extension Community Fund, UK

\(^{15}\)‘Community Benefit Funds’, SEAI, available online at [https://www.seai.ie/community-energy/community-benefit-funds/](https://www.seai.ie/community-energy/community-benefit-funds/)
Community Fund has awarded around £4 million to 220 community projects in Cumbria and Lancashire since its launch in 2016. This has funded community projects, training courses, recreational facilities, conservation activities and medical support services.

**Beatrice community benefit fund, UK**

The 0.59 GW Beatrice offshore wind farm, commissioned in 2018, is one of Scotland’s largest operational wind farms. It’s developer, SSE, established the Beatrice Community Fund (BCF) in 2016-17, to which it contributes almost £300,000 per year.16 The fund has two components:

- The partnership fund, which supports larger projects across the region; and
- Local funds, which focus on nearby community council areas of Caithness, Sutherland and Moray.

As of March 2023, £6m had been donated to the fund, with 361 local projects supported, including apprenticeship programmes, community hubs and elderly care initiatives. 17 Social impact research conducted in 2017 showed that for every £1 invested from the Beatrice Partnership Fund, £3.21 in wider value was generated.18

**Vineyard Wind 1 community benefit fund, Massachusetts, USA**

Through a proposed sales notice for offshore wind farms off Massachusetts from June 2014, the federal institution Bureau of Ocean Energy Management (BOEM) imposed the obligation of ‘community benefit agreements’ between offshore wind developers and communities.19 This is defined as a legally binding contract between a bidder and one or more community based organizations (CBO) where the bidder has committed to provide specified community benefits and the CBO has committed in specific ways to support the project in the governmental approval process. The value and nature of those benefits and support is not mandated.20 The Massachusetts model is an outlier in that it represents an example of legally mandated community benefit fund, in contrast with existing UK and European examples which have generally proceeded on a voluntary basis.21 Vineyard Wind 1, a 0.8 GW project off the Massachusetts coast, was the first project to sign such an agreement and installed the first commercial offshore wind turbine in US waters in October 2023.22 A community benefit obligation was included in both the 2022 BOEM lease auction for floating sites off California and the 2023 BOEM lease auctions in the Gulf of Mexico.

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17 ‘Sharing the benefit of offshore wind’, *Beatrice Offshore Wind Farm Ltd*, available online at https://www.sse.com/media/xnicb0qv/beatrice-impact-report-2023-002.pdf
22 ‘First turbine up at Vineyard Wind’, *ReNews*, 18 October 2023, available online at https://renews.biz/88926/first-turbine-up-at-vineyard-wind/
Summary of best practice lessons

Community benefit funds can be an effective way of delivering positive socio-economic impact to communities affected by offshore wind development. This model has been applied successfully in numerous projects in other markets, in contrast to community ownership, where successful examples are much more numerous in small scale onshore renewables.

If seeking to implement community benefit funds in future ORESS rounds, the Government should:

- Consider carefully whether funds are implemented on a voluntary or mandated basis.
- Note that successful examples of community benefit funds rarely have specifically mandated levels of contribution, or specific requirements for the allocation and management of funding set out in regulation. This helps ensure schemes can be tailored on a case by case basis to the specific feature of the project and needs of the local community.
- Despite this, mechanisms to hold developers to account to ensure proportionate levels of community benefit are delivered are likely to be critical to long term success. Implementation of measures such as social impact assessments and community engagement requirements as discussed in Section 5.3 can be an important tool in this respect, as well as implementing robust requirements for measurement and reporting of community benefit impacts.

5.2.4 Royalty structures

What is it?

Royalty payments within onshore renewable energy projects typically consist of a payment made by the developer to the owner of the land where the developer operates.

The main royalty structures used within onshore renewable energy projects are unit royalty and gross royalty.

- Unit royalty is based on the price per unit that the developer makes on the energy produced by the renewable energy project. This price determines the value of the payment to the landowner. This approach is typically employed onshore for solar and wind projects.
- Gross royalty payments are based on a percentage of the developer’s gross revenue. For offshore renewable energy projects, royalty payments are made to the Government via seabed leasing. These royalty payments can either be revenue based similar to gross royalty payments in onshore projects or a fixed price.
- This model is applied to offshore wind in the UK, where The Crown Estate receives a percentage of developers’ revenue as part of the terms of the seabed lease.

In an Irish offshore context, royalty payments are a condition of Maritime Area Consents (MACs), which provide access rights to the seabed for renewables developers, are provided for within the Maritime Area Planning Act 2021 (MAP Act). The MAP Act requires the Maritime Area Regulatory Authority (MARA) to establish a levy framework establishing a royalty payment structure for use of the seabed. In ORESS 1, the levy will be applied in two stages. An initial development stage levy rate of €20,000 per km$^2$ per year applies during the project development stage. Subsequently, as the project reaches the operational stage the levy payable become 2% of the project’s gross annual revenue. This is in addition to the community benefit fund contributions outlined in Section 5.2.3.

Recognising that benefit can flow through either local community or the wider population, we summarise the advantages and disadvantages of royalty structures in Table 4.

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Table 4 Summary of advantages and disadvantages within the royalty structure model.

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<tr>
<th>Model</th>
<th>Advantages</th>
<th>Disadvantages</th>
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| Royalty structures | - Creates a revenue stream for central government, which can be used to fund infrastructure spending, social projects, or reallocated to community organisations or local government.  
- Straightforward in implementation, well understood by developers and can be built into seabed leasing processes from the outset. | - Royalty payments may be fixed or variable depending on performance of the project creating some uncertainty over the longevity of the payments if there is a technical or financial issue with the project.  
- If funds are used to fund central government spending programmes, and not redistributed to communities or allocated to specific community benefit funds, their benefit is likely to be less visible to communities.  
- Like revenue redistribution models, royalty structures represent an additional cost to asset owners, which pushes up operating costs and in turn wholesale power prices, ultimately being paid for by electricity consumers. |

Examples of best practice

Coastal Community Fund, UK

The Coastal Community Fund (CCF) programme, implemented in 2012, was funded from 50% of the revenue from the Crown Estate’s marine activities. This was divided between England, Wales, Scotland, and Northern Ireland in proportion to the revenue generated in each country. Grants were available for projects creating sustainable jobs within coastal communities.

From 2012 to 2022, the CCF offered grants totalling £188 million to hundreds of projects. This seed investment attracted additional investment, with an evaluation of the CCF concluding that for every £1 spent on CCF grants an additional £1.56 was gathered in match funding.

The CCF was praised for the varied nature of the projects that were funded. Many of these projects created jobs directly within the community but the indirect employment was typically the largest impact. Local businesses spoke of how projects transformed local areas, increased tourism and created economic opportunities.

An evaluation by the UK Government found that although the projects in rural areas and smaller towns created more jobs, these areas tended to have a lower rate of long-term unemployment. The review therefore recommended that the size of a coastal population and level of deprivation should be taken into account when setting geographical targets for grants in order to increase the effectiveness of these funds.25


Workstream 5: Optimised financial and economic return to the state and local communities
Summary of best practice lessons

Royalty structures represent a well-established measure to extract economic benefit from ORE deployment. They are simple to implement and well understood by industry, though they can be expected to have a net neutral impact on overall economic welfare due to the additional cost on projects, which can be expected to be clawed back from the consumer through higher wholesale electricity prices.

The key challenge therefore if seeking to implement a royalty structure is in determining the process for management and allocation of proceeds. To maximise community impact and generate social consensus, it is important to ensure that proceeds are allocated in a manner which is visible to impacted stakeholders and outcomes are perceived to be fair. Community benefit funds as discussed in Section 5.2.3 can be an appropriate vehicle to achieve this.

5.2.5 Quantitative impact

With the exception of community ownership, all the mechanisms discussed above represent an additional levy on renewables deployment, which will have the effect of raising project LCOEs and ultimately consumer prices if implemented.

Despite this, there may be value in implementing such mechanisms to build the necessary levels of community consent and political consensus which will be necessary to deliver an ambitious offshore renewables deployment plan at pace.

If the social cost of implementing financial mechanisms is considered too high, the government could consider implementing non-financial measures to maximise community benefit and build consent, discussed in Section 5.3.

The quantitative impact of different measures relating to specific projects and locations has been described above. Any generic analysis of the impact of different models is complex and of little value.

5.3. Non-financial measures

Aside from financial measures examined in Section 5.2, it is important to consider non-financial measures to promote social acceptance of ORE deployment. Such measures, though they do not deliver economic benefits to local communities, can be important tools to achieve many of the same outcomes financial measures set out to achieve. They can play an important role in mitigating negative impacts, increasing public trust and engagement, as well as making the benefits of ORE more visible to society.

5.3.1 Environmental and social impact assessments

Environmental and social impact assessments (ESIAs) are the process of assessing environmental and social impacts of an activity and proposing mitigating measures. An EIA can be beneficial to communities by increasing transparency in the development process by involving relevant stakeholders including the affected community who can raise specific concerns and issues within the consultation process.

Although environmental impact assessments (EIAs) are a common feature of ORE permitting frameworks, social impacts are often not yet systematically assessed in the same way. At an EU level, Environmental Impact Assessments are a mandatory feature of offshore renewable energy development, as set out in the Environmental Impact Assessment Directive (Directive 2011/92/EU).

In the Irish system, developers who have secured a MAC are required to submit a planning application to An Bord Pleanála, Ireland’s national independent planning body, to receive development consent. As part of this process, An Bord Pleanála to carries out an Environmental Impact Assessment (EIA), on the basis of an

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Environmental Impact Assessment Report (EIAR) prepared by the developer. At present, this process does not include specific consideration of social impacts.

We summarise the advantages and disadvantages of environmental and social impact assessments in Table 5.

Table 5 Summary of advantages and disadvantages of environmental and social impact assessments.

<table>
<thead>
<tr>
<th>Model</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
</table>
| Environmental and Social Impact Assessments | • ESIA’s typically involve community engagement allowing the community to give their input into the development of the project and reducing conflict by addressing concerns at an early stage in project development.  
  • ESIA’s may also consider the cultural heritage within the social impact assessment which helps to protect the cultural identity of the community. | • Despite the community engagement, local communities may feel that this input has limited impact on the development, if developers do not address the feedback given.  
  • Communities may lack the technical knowledge to understand the ESIA reports to give effective input. |

Examples of best practice

Environmental Impact Assessments for offshore wind in the EU

The EU directive for Environmental Impact Assessments was amended in 2014, widening the range of factors included within assessments to prioritise socio-economic impacts. The amendment also required developers to engage significantly with the local community of a project regarding the EIA report for a minimum of 30 days allowing time to consider any concerns raised. Although the implementation of the EIA directive can differ by Member State, the importance of community consultation is clear and consideration of social impacts is a requirement.27

Environmental and Social Impact Assessments for Offshore Wind, UK

The ESIA process within the UK is an example of good industry practices such as:

• Having a clear process with decisions made based on transparent and robust criteria.

• A one stop shop for permitting, the Planning Inspectorate (PINS) manages the permitting process within the UK, consultees with PINS are provided training to ensure they are educated and resourced enough to manage OSW assessments in an efficient and timely manner. As such PINS is held to a strict timeline of 18 months to examine all documentation and make a recommendation to the Secretary of State who then has three months to make their decision.

• Encouraging data sharing for EIA within the UK. The Crown estate established the Marine Data Exchange which is a free database containing a significant amount of data relating to the environmental and social impacts of OSW for developers to use.28

• The Planning Inspectorate views public participation within the ESIA as essential and encourages developers to invest in thorough consultation activities. As part of the Social Impact Assessment developers are required to prepare a Statement of Community Consultation documenting a plan for engagement of the local

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community of the proposed project. The feedback given by the community is then used to inform the ESIA. The developer is required to consider all relevant responses during the formal consultation to build a consensus within the community.\textsuperscript{29}

**Offshore wind Social impact Assessments, Taiwan**

Chan Fang and Xidao OSW farms are located off the coast of Changhua County in the west of Taiwan, with a combined capacity of 0.8 GW. The projects were subject to social impact assessments in 2017, these were developed to align with good practice industry standards including those set out by the International Finance Corporation. \textsuperscript{30}

These projects engaged in significant consultation activities with fisherman and the wider community throughout the development and construction of the project. A grievance management and response task force was set up to respond to any stakeholders’ complaints within twenty business days. Stakeholders were given a range of methods to submit a concern including a dedicated phoneline, website, via letter and verbally during stakeholder meetings. \textsuperscript{31}

Areas of concern that were submitted were addressed by the project and actions agreed upon. The two main concerns being:

- The economic effect on the local community. This has been addressed by the establishment of a Near Shore Sustainability Development Fund for the local community and a commitment to set up a local office employing local community members.
- The effect on surrounding fisheries. This has been mitigated by the agreement of compensation given to local fishermen and the creation of initiatives to support transformation of the fishing industry.
- Monitoring of the effectiveness of both the compensation and transition plan was also agreed.

Throughout the environmental impact assessment, the local community was informed with an Environmental Supervisory Committee (ESC) set up to input on environmental matters regarding the project. The committee was made up of 18 volunteers from local environmental groups, fisherman representatives, researchers and scholars.

**Baltic Power Social Impact assessment, Poland**

The Baltic Power project is a joint venture between PKN ORLEN and Northland Power to develop, construct, operate and maintain an offshore wind farm with a total capacity of up to 1.1 GW.

As part of the ESIA, stakeholder engagement was made a priority. A multi-stage model was used in consulting with the public to collate comments during the planning stage so they could be considered before the project design work commenced. Despite restrictions due to the Covid-19 pandemic the project conducted comprehensive meetings by giving stakeholders the opportunity to sign up for appointments or using teleconferences for individual meetings.

Working meetings were set up with landowners, stakeholders, and local authorities. The purpose of these meetings were to identify areas of importance to local communities including settlement areas and areas valuable in terms of nature and landscape, in order to confirm possible locations for the project worked out in consensus with the community and landowners.


Through collaborative meetings between the working group created for the project and the state-owned transmission system operator (PSE) an agreement was reached for a shared location of the PSE substation infrastructure and substations for the OSW farm. By combining the substations into a single area the impact on the environment and community was minimised.  

**Summary of best practice lessons**

EIAs are a well-established feature of ORE permitting processes in most, if not all, markets. Ireland already has a strong framework in place through its existing permitting framework. In contrast, social impact assessments are an emerging practice with few examples of best practice to draw on in offshore renewables. Nevertheless, they represent a promising avenue for Ireland to ensure that social impacts are appropriately considered from an early stage, and also as a vehicle to assess and compare the impact of community benefit approaches between different projects to add to an emerging body of best practice and inform future policy.

The benefits of a robust ESIA framework include:

- Increasing attractiveness of the market by providing regulatory certainty.
- Improving permitting processes by delivery of appropriate levels of environmental information.
- De-risking projects, as the ESIA is a useful risk identification and mitigation tool.

In accordance with established good industry practice, ESIA should:

- Be conducted on the basis of baseline surveys of the appropriate duration.
- Ensure that a project is designed in accordance with the mitigation hierarchy to avoid and minimize, as far as possible, any potential adverse environmental or social impacts.
- Ensure that any remaining adverse impacts that cannot be avoided or minimized can be restored/rehabilitated or offset to achieve no net loss of natural habitats, or net gain of critical habitats.

**5.3.2 Community consultation and engagement**

Research shows that effective attempts to involve the community in the process of wind farm development increase the perceived justice of the process and generate trust among local stakeholders.

Engagement activities should start early in the process, at a time where genuine adjustments to the project’s approach are still feasible, to listen and properly identify concerns and possible solutions for the good of local communities, not just to facilitate public acceptance.

In Ireland, the Government has established a stakeholder-led approach to marine spatial planning and identification of future zones for development, which includes an Advisory Group comprised of stakeholders from the economic, environmental, social and academic pillars who share expertise, knowledge, and local perspectives. It has also established a Seafood/ORE working group to facilitate discussion between the ORE and seafood industries. ORESS 1 MAC applications were scored against criteria, including the price, whether the applicant is suitable, the level of preparatory work that has already been conducted, and the level of stakeholder engagement done in relation to the project. Although future MAC awards will not be competitive like

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32 Environmental Impact Assessment of the Connection Infrastructure of the Baltica B-2 and B-3 Offshore Wind Farms, PGE and Ørsted, 19 June 2022, available online at https://www.eib.org/attachments/registers/168395870.pdf

33 See https://www.esmap.org/key-factors-for-successful-development-of-offshore-wind-in-


36 Appointment of Chairperson to Seafood-Offshore Renewable Energy Working Group, DHLGH, 25 March 2022, available online at https://assets.gov.ie/218244/66245e30-ca0b-4a4b-882b-8200274ef061.pdf;
this, stakeholder engagement will continue to be part of the assessment process, as extent and nature of stakeholder engagement is stipulated as one of the criteria against which MAC application must be assessed in the Maritime Area Planning Act.37

Examples of best practice

Construction and Operation Plans: USA

In the US, a developer must submit a Construction and Operation Plan (COP) to BOEM following the award of a commercial lease. The COP describes how the developer will construct and operate the project, and it needs to be supported by stakeholder engagement carried out by the developer. Once BOEM has deemed the COP complete and sufficient, there are opportunities for the public to comment on the proposed project. There is a public consultation period of 30 days following BOEM’s announcement to prepare an Environmental Impact Statement (EIS) and a further public consultation period of 45 days once the draft EIS has been released. The EIS assesses the physical, biological and social impacts of the proposed project and makes a recommendation on the approval of the COP, which could be not to build the project. The lesson learned from the US is that the permitting process benefits from allowing stakeholders to engage directly with the developer during preparation of the COP but also throughout the EIS process. Early, continuous, and inclusive stakeholder engagement ensures the interests of all parties are considered in permitting decisions.

Triton Knoll, UK

The example of Triton Knoll, an 857 MW offshore wind farm off the Lincolnshire coast in the UK, demonstrates that in an offshore wind project, particularly those located far from shore, it is often the onshore assets rather than the turbines which are likely to be of greatest social consideration.38 In response to public opposition to the siting of its onshore assets, developer RWE ran a community consultation and gathered feedback to inform its onshore substation and cable siting plans. RWE used this feedback to help reduce the number of potential sites for onshore assets and also implemented a fund specifically targeted at communities around onshore construction works and above ground infrastructure.39 Planning approval was granted to the project in 2013 and it was fully commissioned in 2021.

Summary of best practice lessons

Experience in other markets shows that early engagement and active participation of the community in the development of ORE projects leads greater trust and support among local stakeholders, helping generate fairer outcomes.

Within existing frameworks, Ireland has established a strong focus on community engagement. It should consider how these mechanisms can be maintained and strengthened through future frameworks, and ensure mechanisms to assess the impact of interventions on public attitudes and project success are implemented to facilitate further refinement and implementation of best practice.

39 RWE, https://www.tritonknoll.co.uk/cfconsultation/.
5.4. Conclusions

5.4.1 Summary

Measures to maximise the benefit and minimise harm of Ireland’s ORE rollout to the state and local population can take many forms, whether financial or non-financial in nature. Generally, the ultimate aim of such measures can be classified in one of three ways:

- To redistribute the economic benefits of ORE deployment in a manner which aligns with the socio-economic objectives of the government or community.
- To mitigate the (real or perceived) negative impacts of ORE deployment, such as disruption from construction activity, visual impact of onshore or nearshore assets, or impacts on other sectors such as fisheries and tourism.
- To increase public support for ORE deployment by giving communities, either at a national, regional, or local level, a sense of ownership of the assets and participation in the benefits.

Overall, our analysis shows that financial measures to extract additional community benefit from ORE are unlikely to lead to net economic benefit for Ireland as a whole, as the additional cost associated with the implementation of such measures are likely to be borne by the Irish electricity consumer.

Despite the lack of clear economic rationale for community benefit measures, there is likely to be value in pursuing community benefit measures in some form in Ireland. Experience from other markets shows that ambitious ORE deployment programmes can meet with significant public opposition when action is not taken to ensure communities close to projects feel the benefits.

Our review of the existing literature on community benefit also yields a number of general insights:

- Empowerment of the local community as an active participant in the process to develop the community benefit scheme is a key factor in determining the success of interventions.\(^{40}\)
- Communities often display greater support for ORE installations which are located at greater distance from shore.\(^{41}\)
- Despite this, even far-shore projects can encounter significant opposition at times. The specific socioeconomic characteristics of the local community and the importance of ‘the sea’ as a part of community identity can be seen to play a role in local attitudes to ORE development.\(^{42}\)
- Generally, success of community benefit measures in other markets has been when interventions are rooted in local political cultures and social norms.
- As a result of the above, there is no ‘one size fits all’ approach to community benefit, and measures should be carefully considered with regard to the nature of projects and the specific communities affected.

5.4.2 Recommendations

In light of our review of best practice in community benefit, we recommend:

1. DECC ensures financial community benefit measures should be carefully calibrated to ensure proportionality.
2. DECC designs interventions first and foremost with wider socio-economic and distributional impacts in mind, with a view to enhancing the perceived fairness of ORE deployment in Ireland, and building public support for Ireland’s ambitious deployment plans.

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3. DECC maintains the precedent already established in ORESS 1 of €2 per MWh community benefit contributions in future ORESS rounds. This helps establish a minimal acceptable standard to spur proper consideration of community benefit among industry and to demonstrate continuity and predictability of policy for project development, which is helpful to drive investment.

4. DHLGH and MARA consider how best to ensure royalty fees delivered as a condition of MACs can help build public acceptance of ORE development, for example through redirecting funds to visible community initiatives rather than funding day-to-day budgets.

5. DECC introduces methodologies to ensure robust measurement and reporting against community impact measures should be implemented to ensure visibility of benefits, learning from best practice and continuous improvement of frameworks.

6. DECC strengthens non-financial measures to enhance community benefit and acceptance, with a view to achieving socio-economic objectives whilst minimising cost to the electricity consumer, such as separate social impact assessments as part of the leasing or permitting process or enhanced community engagement requirements.