

# Community Benefits and UK Offshore Wind Farms: evolving convergence in a divergent practice

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## 1. Introduction

The Offshore Wind sector is a major, dynamic, and rapidly evolving renewable energy industry. This is particularly so in Europe, and especially in the UK. The growth has been particularly rapid in the decade from 2010 onwards, and the momentum into the current decade may be even greater. There is also growing interest and development activity in this sector in many other parts of the world, and it has the potential to be an important contributor to a low carbon energy transition.

Offshore Wind Farms (OWFs) are normally large projects, and increasingly very large projects, in terms of spatial spread and development expenditure. Such projects usually require specific planning and assessment procedures in advance of any development consent. The Environmental Impact Assessment (EIA) process is designed to ‘*identify, predict, evaluate and mitigate the biophysical, social and other relevant effects of proposed development proposals prior to major decisions being taken and commitments made*’ (IAIA 2009). The International Association for Impact Assessment (IAIA), in its Social Impact Assessment Guidance (IAIA 2015), promotes an increased focus in the assessment process upon enhancing the benefits of projects to impacted communities. Increasingly there is a focus on major projects earning their ‘*social licence to operate*’, in terms of gaining the support and co-operation of their host communities (Boutilier, 2017)).

In addition, there has been a growth of interest in *community benefits* as voluntary measures provided by a developer outside of the planning and licensing processes noted above. These measures may be in the form of Community Benefit Agreements (CBA) or Community Benefit Schemes (CBS) in some practice. The term refers to those agreements between the various stakeholders involved in a project, in particular between the developer and the host community, which can provide a range of benefits, including financial incentives, infrastructure, and community empowerment measures. There are various arguments for CBAs, for example in recognition of a community’s participation in an energy project perceived as being ‘in the national interest’. Additionally for many large projects there are always likely to be some indirect disturbance effects and changes in lifestyle that are less easy to address. CBAs are becoming a growing element in the life of major projects in the UK, especially for energy projects.

The UK onshore wind farm industry now has well developed approaches to community benefits. For example, in Scotland such onshore projects currently pay host communities £5000 per installed MW pa, index-linked, over the 20-25 years operation and management stage of developments (Scottish Government, 2013, 2019). In contrast, the consideration of community benefits from offshore wind farm projects is relatively new and has been managed more flexibly, reflecting the developing nature of the industry (Glasson, 2017; Rudolf et al, 2017). Some, predominantly near-shore English and Welsh wind farms (eg North Hoyle and Rhyl Flats off the north Wales coast) have followed the pattern of the onshore wind farms, with benefits pro rata to MW size (although at a much lower rate). However, in many cases, and for some of the large North Sea distant offshore wind farms, the benefits packages have been more ad hoc and pro rata much smaller than for onshore projects.

Rudolph et al (2017) note that there is limited experience of applying community benefits to offshore wind farms, partly due to the challenges of defining the relevant community, as well

as the distance between the project and any beneficiaries, and the way in which impact is perceived. They conclude that there should be a tailoring of community benefit schemes to particular contexts, taking into account local circumstances. In an earlier article (Rudolf et al, 2014), they recommend the avoidance of restrictive guidance for this relatively new, developing and risky by nature offshore renewables industry.

However, with a growing number of OWFs, especially in the UK, but also in other countries in the EU, experience in developing and applying community benefits agreements for such projects is increasing. In addition, while in general research notes that there is currently a lack of guidance for developers entering into negotiations with communities, it is noteworthy that the Scottish Government has produced a guide 'Good Practice Principles for Community Benefits from Offshore Renewable Energy Developments' (Scottish Government, 2015, 2018). This highlights principles and practices to follow in designing a community benefit package for offshore renewable energy projects. Scottish local government has also produced some guidance on the subject; for example, see Highlands Regional Council (2013).

This article explores the evolving nature of community benefits for offshore wind farm developments. The focus is on the UK, with practice from some of the major OWF developers in Europe. The following two sections briefly explore the nature of the industry, and of community benefits, before a clarification of key research questions and the research approach. In addition to discussing the case for community benefits for OWFs, their evolving nature and operation, the article notes the dynamics between the key stakeholders — developers, host communities and local and central governments and their agencies. In particular, the research explores the question as to whether it is now timely to consider a shift from a laissez-faire to a more structured, or at least semi-structured, approach. The article explores evolving practice at two levels. The first is in macro terms of trends in the adoption of community benefits approaches, primarily in the UK, but with reference to practice elsewhere. The second is in more micro terms through three recent in-depth case studies which form part of a recent EU/Vattenfall sponsored research project on the local socio-economic impacts of OWFs.

## **2. Offshore Wind—a dynamic renewable energy industry**

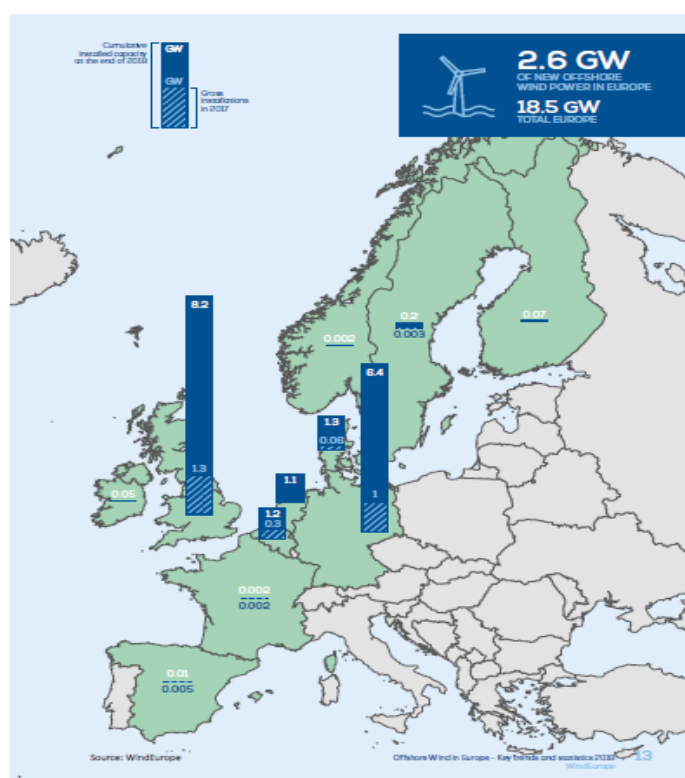
Wind is a rapidly increasing renewable energy sector. In Europe the wind energy sector increased from 2.5GW in 1995 to over 142GW of capacity in 2015 (EWEA, 2016). Over 80% of this capacity was at that time in the form of onshore wind energy projects, but the offshore sector has been growing apace since 2000, especially in the North Sea (EC, 2019). The UK is the global leader in offshore wind energy generation. In 2015 it had over 5GW in operation or under construction, and a further 14.3GW with consent and likely to move into construction by the early 2020s (Higgins and Foley 2014; RenewablesUK 2015). At the end of 2018, the UK had 7.9GW in 38 operational OWFs, with almost 2,000 wind turbines, making the country the nation with the single largest operating capacity in the world (Crown Estate 2019). The forecast is for this capacity to grow to 30GW by 2030, with up to £40bn infrastructure spend (BVG 2016, Crown Estate 2019). Table 2.1 and Figure 2.1 show the dominance of the UK offshore energy sector in Europe, followed by Germany, Denmark, Belgium and the Netherlands, at the end of 2018. Outside Europe, there is a worldwide growing interest in developing offshore wind, with China the country that has moved most quickly from planning to construction and with 43 operational OWFs in early 2020 (4COffshore, 2020).

There has also been a rapid fall in unit cost, with the next generation of UK OWFs expected to cost about £40 for every MW generated. Renewables in total, dominated by wind power, are now outstripping fossil fuels for electricity supply to homes and businesses in the UK for the first time since the nineteenth century. In 2018, renewables accounted for 33% of UK electricity generation, including 9% from onshore wind and 8% from offshore wind (Crown Estate 2019). It is difficult to estimate the total jobs associated with offshore wind, although BVG estimated 13,000 in the sector by 2015, projected to double by 2030.

Table 2.1: Number of wind farms, MW capacity and number of turbines connected at end of 2018, per country (Source: Wind Europe 2019)

COUNTRY	NO. OF WIND FARMS CONNECTED	CUMULATIVE CAPACITY (MW)	NO. OF TURBINES CONNECTED	NET CAPACITY CONNECTED IN 2018	NO. OF TURBINES CONNECTED IN 2018
TOTAL	105	18,499	4,543	2,649	409
United Kingdom	39	8,183	1,975	1,312	222
Germany	25	6,380	1,305	969	136
Denmark	14	1,329	514	61	42
Belgium	7	1,186	274	309	8
Netherlands	6	1,118	365	0	1
Sweden	4	192	79	-10	-7
Finland	3	71	19	0	0
Ireland	1	25	7	0	0
Spain	2	10	2	5	1
France	2	2	2	2	2
Norway	1	2	1	0	0

Figure 2.1: Geographical distribution of cumulative and new (2017) MW capacity per country (Source: Wind Europe 2019)



### 3. Community benefits and major energy projects

Several sources document the evolving debate, and practice, on community benefits and major energy projects over the last 10-15 years. The focus on energy projects, primarily in the UK, reflects the substantial activity on such projects, many of which are controversial. The

relevant projects include large windfarms (onshore and offshore), gas fired power stations, a new generation of nuclear power stations, plus the associated search for a nuclear waste geological disposal facility, and fracking for shale gas. For example, for community benefits and onshore and offshore wind, see in particular CSE 2005, 2009; Walker and Cass 2007; Aitken 2010; Cowell, Bristow and Munday 2011, Aitken et al 2016). Publications in COWAM 2009, and Richardson 2010 – update, cover community benefits and the management of radioactive waste. For offshore wind, see for example Haggett 2008, 2018, Rudolf et al 2014, 2017, Walker et al 2014 and Scottish Government, 2015, 2018. For an overview of large energy projects and community benefits, see Glasson 2017.

A starting point is to clarify the meaning of community benefits -- what they are, and what they are not. Developers provide community benefits normally voluntarily, and additionally, outside of the planning and licensing process for major projects. They are not mitigation measures to manage adverse project impacts, nor are they enhancement measures for increasing positive project impacts, for example for local employment and supply chain benefits—important though those measures are. As such, they are not material considerations in the project decision-making process (Walter, 2012). Developers provide community benefits to communities associated with a development, increasingly in the form of a monetary annual payment, often referred to as a community benefits fund. The community can access this fund for a wide range of local community socio-economic and environmental initiatives. Developers may also provide some community benefits that are for particular projects, which may be more site specific. In total, community benefits usually come together in a community benefits package, incorporated in a community benefits agreement.

A subsequent point is to clarify the justification for having community benefits, and community benefits agreements, at all. *“Views range between the extremes of the altruistic where developer philanthropy meets community interests to the cynical and highly sceptical of CBAs as developer bribes to effectively buy a planning consent”* (Glasson, 2017). Views on justification can vary substantially between stakeholders involved in particular projects. Developers prefer to talk much more about positive motives, being a good neighbour and corporate social responsibility rather than paying compensation (Cass et al 2010). For example, the UK Rampion OWF project sees the Community Benefits Fund *‘recognising the two onshore areas where the project has had a greater presence. It is also in part to show appreciation to the local communities there, for their engagement and support throughout the development and construction of the wind farm’* (Rampion Offshore Wind). Local and central governments, and local communities, argue that communities should share in the benefits of renewable energy projects that are being located in their area; in recognition of a community’s participation in an energy project perceived as being ‘in the national interest’ (Scottish Government 2018, Highland Council 2013). Additionally for many large projects there are always likely to be some indirect disturbance effects and changes in lifestyle that are less easy to address directly.

Overall, this is still quite a fuzzy area, with overlapping motives including being good neighbours, sharing rewards, supporting community engagement, providing compensation, and delivering fair reparations. Cowell et al (2011) talk of ‘constructive ambiguity’ in relation to their study of on-shore wind farms in Wales, *‘in which fluidity of meaning allows the concept to hold together a range of interests’*. In addition, and notwithstanding the attempt to draw clear demarcation lines, there has been an overlapping of CBA roles in some cases with what one might expect through the normal planning and environmental assessment and decision-making process.

For offshore wind projects, a further complication is the often-perceived remote relationship of the projects with local communities. This is particularly the case for those OWFs which are located some distance from the coast, and which are not at all visible from the coast -- *out of sight, out of mind, over the sea and far away*. Of course, many other OWFs are clearly visible.

Yet research has shown there is not a straightforward correlation between acceptance of wind turbines and their distance from the shore (Haggett, 2008). Waldo, 2012) has shown in the context of Sweden that wind power is viewed as a threat to landscape qualities regardless of proximity to the shore. However, on balance, Wiersma and Devine-Wright (2014) conclude that coastal residents and tourists generally prefer wind turbines to be located at greater distances from the coast. In addition, given the specificity of offshore contexts, it has been suggested (Wiersma, 2016) that in analysing attitudes towards OWF, it is important to move away from the factors relevant for onshore developments, and explore the uniquely marine characteristics of OWF and the importance of 'the sea' as an influence on local residents' identity. Further, and very importantly, offshore wind farm projects come onshore in many forms, through their substations, cabling to substations and the grid, and impacts on harbours and other local infrastructure and businesses during construction and operation.

#### 4. Research approach

Writings by government and academics, including Scottish Government (2015, 2018), Rudolf et al (2014, 2017) and Glasson (2017), identify some important questions to be considered in relation to developing and managing community benefit schemes/packages for offshore wind projects. Who should be involved in their design and what factors should they consider; what is the relevant community; what should be the scale of funding; what are eligible projects for funding; how should the operational fund be managed; and how can the total benefits be optimised and maximised?

There is a reminder of the differences of offshore projects from onshore, and the latter's established community benefits approach (Scottish Government, 2015). Operating in often dangerous and increasingly deep water and distant offshore locations, OWFs have major costs and risk factors less faced by onshore projects; they are more complex than onshore projects, to construct, and to operate and maintain. At the same time, there is a drive to reduce costs to be competitive in the energy market and to meet the conditions for government support--and indeed, there are ongoing successes here through major technological efficiencies in this very innovative industry.

What does this mean for evolving community benefits funds for OWF projects? The view to date has been that a more standardised approach is not yet to be encouraged. For example, Rudolf et al (2014) recommended that '*the current framework of non-restrictive guidance should be maintained to retain a high degree of flexibility for developers and communities*'. It is important that CBAs should reflect the variations in the nature of the project (scale, technology, distance from shore) and in the local community. There may be a community of place impacted by the OWF, and this can be specific for example to a location hosting the sub-station, and to coastal communities with a view of the development. However, there may also be a much wider community of interest, including for example people with an interest in renewable energy. Understanding the potentially impacted community can be gained from an initial stakeholder profile analysis, informed especially by local authorities, developers and relevant other agencies, followed by dialogue and empowerment of the community in the development of the parameters of the benefits scheme.

There is also a concern that once funds are established, they should be managed to optimise and maximise their potential for the benefit of the identified communities. This may be reflected in the nature of local access to the funds, participation and trust in the decision-making and allocation processes, the nature of supported projects, and the wider socio-economic multiplier impacts of fund expenditure over the lifetime of supported projects.

In addition to addressing these questions, the article also explores the question as to whether it is now timely to consider a shift from a current laissez-faire to a more structured, or at least semi-structured, approach. In 2014, Rudolf et al recommended the avoidance of restrictive

guidance for this relatively new, developing and risky by nature offshore renewables industry, and that replicable good practice has not yet emerged. However, in the UK alone there are now 38 operational projects, some operating for over 10 years. There is more practice to consider, and from which to learn.

The following main sections of the article now explore evolving practice at two levels. The next macro-section first examines trends to date in the adoption of community benefits approaches for OWFs, primarily in the UK, but with reference to practice elsewhere. This is followed by a more in-depth micro approach, which explores approaches to the research questions noted above that have been adopted in three case studies of recent OWF projects—Aberdeen, Beatrice and the Hornsea Array. These in-depth case studies form part of a recent EU/Vattenfall sponsored research project on the local socio-economic impacts of OWFs (Glasson et al, 2020).

## **5. An overview of evolving UK practice and guidance**

Research by Kerr et al (2017) sought to monitor the incidence and nature of community benefits funds for 24 UK offshore wind farms that were operational in 2016. The projects range in size from the 4MW Blyth OWF (now decommissioned) to the 630MW London Array OWF. Two thirds of the projects are within 10km of the coast, and only two of the projects are more than 20km from the coast, with Greater Gabbard at 36km off the Thames Estuary being the most distant. Their findings showed that only seven of the 24 projects had annual community benefits funds. One of the earliest, the 90MW project at Rhyl Flats, 8km off the North Wales coast, followed the model established for onshore wind farms, with the annual fund allowance related to the MW size of the project, although at £1000 per MW pa this was well below the onshore norm of £5000 per MW pa (Denbighshire CC website). Other annual funds ranged from less than £500 per MW pa to over £2000 per MW pa. Benefits funding support for other OWFs was found to be more ad hoc, with a variety of one off community funds, and in-kind payments (for example, for local schools, RNLI and wildlife projects). For six of the projects, there was no identification of benefits funding, with some projects just citing the local employment and income benefits of project construction and operation.

Five years on from that research, there have been many more UK OWFs. This research identified an additional 24 projects, 14 of which are either operational or under construction, two of which are not going ahead, and eight at various stages of planning and consent (See Appendix 1). The focus in this study is on major projects of 50MW and above in energy generating capacity. They are Nationally Significant Infrastructure Projects (NSIPs) under the National Infrastructure planning and examination regime of the Planning Inspectorate in England, with similar systems in the other countries of the UK. The data on the projects and community benefits come from various websites of the project developers, local communities and agencies (including 4COffshore). What is particularly noticeable about this latest tranche of UK projects is the vast increase in MW size and in their greatly increased distance from the coast – of course, these are likely to be two related findings. Two thirds of the 24 projects are larger, in MW size, than the largest project in the earlier group of projects. Hornsea One, at 1200MW, is currently (mid-2020) the largest operational wind farm in the world, and several much larger ones are under construction or planned, with Hornsea Three planned to be 2400MW. Whilst nine of the projects are located up to 20km from the coast, in contrast with the earlier OWFs, eight of them are between 21 and 70km offshore, and six are at least 100km offshore.

Table 5.1 summarises the community benefits findings from the more detailed data in Appendix 1. Two thirds of the operational or under construction OWF projects have established annual community benefits funding. Three projects, mainly in construction, appear likely to have some form of community benefits funding (*'We aim to outline the format of the community benefit funds in summer 2020'; 'We are looking at developing a community funding scheme to benefit the areas in which we will be working'*). For those projects at an earlier

stage, in planning, examining or consented but not yet under construction, the picture is predictably less clear. For four projects, there is no information currently available, but for the other four it is highly likely that there will be some form of community benefits funding; in the case of the further major Hornsea projects, this is likely to involve piggybacking on an established scheme. As such, it appears that the annual community benefits approach is becoming more established over time.

However, although the incidence of annual community benefits funding has increased over time, the level of funding, as calculated per project MW pa, does not appear to have increased. The largest annual funding per MW of these latest projects is for the European Offshore Wind Deployment Centre (EOWDC) (Aberdeen) project, which, at 2km, is also the nearest to shore project. This has funding of c£1500 per MW pa. Other ‘relatively higher’ funded community benefits are also for more near coastal projects, at Beatrice, Burbo Bank and Walney Extension—respectively £500, £865 and £900 per MW pa. Much of the funding for other projects is around £250 per MW pa, with some lower still. Some projects are packaged together in one generic scheme, for example Orsted’s East Coast Community Fund (ECCF), which includes Hornsea One and Race Bank, and is likely to include future Hornsea projects –possibly (probably?) with increased funding. Overall, this level of funding may reflect the relative negotiating positions of the key stakeholders in an industry that is heading further offshore. Yet, as noted earlier, all projects, however far located offshore, must come ashore somewhere and the larger the project the larger the construction sub-station and other onshore site works. There is also the ongoing operation and maintenance base for the 20-25 years life of the project.

*Table 5.1: Incidence of Community Benefits Funding for the 24 projects (see Appendix 1 for details)*

<i>Stage of project</i>	<i>Annual community benefits funding</i>	<i>Funding currently under consideration</i>	<i>More ad-hoc, one off benefits funding</i>	<i>No identified benefits funding</i>	<i>No Information currently available</i>
Operational or under construction	10	3	-	-	1
Planned, under examination or consented	-	4	-	-	4

Two of the 24 projects (Navitus, and Atlantic Array) did not go ahead

The UK Crown Estate provides another perspective on the evolving community benefits funding. The Crown Estate manages the seabed and foreshore around England, Wales and Northern Ireland. Since 2018, there is a separate organisation for Scotland, Crown Estate Scotland, with the same role. Together, these bodies have a key role in developing and helping to sustain UK energy supply and infrastructure, working with a wide range of organisations. In a recent report, *Offshore Wind Operational Report* (Crown Estate 2019), the organisation comments:

*‘Community benefits schemes are now well established as an integral part of offshore wind energy development – signifying the positive relationships being built between operators and the local communities within which they operate. Whilst much of the development associated with new projects necessarily takes place offshore, developers increasingly recognise their impact onshore, including for those neighbouring the onshore sub-stations and export cable landing sites, as well as at the ports and harbours that host operation and maintenance bases. Early engagement with these onshore communities is therefore an essential part of any*

*offshore wind farm development, and whilst this is voluntary, ‘being a good neighbour’ has become standard practice for operators”.*

The Crown Estate estimates that spending on community benefits in the UK in 2018 was about £3m. Table 5.2 shows the Crown Estate estimate of the distribution of this 2018 funding by category of assisted project. Overall, for the future, the agency estimates that there will be £106m of community benefits available to communities across the lifetime of those projects existing at the end of 2018, with approximately £44m in England, £38m in Scotland, and £24m in Wales. There will also be many new projects coming forward in the decade of the 2020s, which will greatly increase such funding figures.

*Table 5.2. Distribution of 2018 Community Benefits Funding by Category of Project Supported*

<i>Category of Project Supported</i>	<i>% of £3m funding for 2018</i>
Community buildings and facilities	34
Education and jobs	26
Health and wellbeing	17
Community activities and services	13
Nature and conservation	5
Sport and leisure	5

Source: Crown Estate (2019)

As noted above, some developers have pointed to the wider context of the direct and indirect project benefits of OWFs – especially local content in terms of jobs and supply chain opportunities – as a reason for little or no support for community benefits. Such local/regional area benefits can be significant, especially in the often-overlooked operation and maintenance stage, which can average about £15-20m Gross Value Added (GVA) pa for a medium size (c500-600MW) project over 20-25 years and double that for larger projects of 1000MW+ (Vattenfall, 2020). Yet there is a concern that as an industry the UK offshore wind energy sector should take the delivering of UK content and UK economic success much more seriously, especially in the construction stage where there is often very little local/regional content. At an offshore wind summit in Edinburgh in early 2020, the Scottish Energy Minister commented, *‘Scotland is the ideal location for offshore wind, but recent projects have not delivered the significant economic opportunities we want to see for Scottish businesses. The Scottish government has been calling for the offshore sector to do more by awarding contracts to our indigenous supply chain but recent disappointments suggest that more has to be done’* (Scottish Government, 2020).

## **6. Findings from a set of recent UK case studies**

Table z (a-c) includes a set of more micro studies of community benefits, drawing on three recent OWF projects which form part of a recent EU/Vattenfall sponsored research project on the local socio-economic impacts of OWFs (Glasson et al, 2020). The studies provide a range in terms of size, from the relatively small 96MW Aberdeen project, through to the mega Hornsea array. In total, the Orsted Hornsea array of projects, together with Race Bank, should provide c7GW of generating capacity when all operational. The projects also vary in terms of coastal location. The Aberdeen project is only 2km off the coast; the Beatrice project is 13km off the coast; but the Hornsea projects are over 100km off the coast. The projects also show some variations in content, in relation to the eligible benefits funding spatial area, the size of funding per MW, the eligible projects and management approaches. Whilst community benefits schemes should be tailored to local contexts, there are some good practice lessons from these case studies, but also examples of some issues to resolve, both of which are of wider relevance. Key examples from the three projects are now set out.



A crucial issue stressed in government guidance (Scottish Government, 2015), and in the academic literature (e.g Rudolf 2017), is the importance of a positive working relationship between the key stakeholders, and the *empowerment of the local community as an active participant in the process* to develop the community benefit scheme. The Aberdeen process provides a good example. Community engagement between the developer, Vattenfall, and the Aberdeen local authorities, and especially the local community councils, started early in the life of the project, and well before the start of construction. Central to the engagement and consultative project was the role of a fulltime Local Community Liaison Officer (LCLO), raising awareness of the industry, surveying community views and providing associated community funding support for a variety of local causes in advance of the CBA. The design of the actual CBA drew on the Scottish Guidance, supplemented by academic input from Edinburgh and Oxford Brookes universities. The LCLO followed up the guidance and advice with a three-month consultation period, involving discussions with local stakeholders and an online survey of the local community on various options and priorities for the Aberdeen fund. Important online respondent themes included support for funding of a mix of community, enterprise and environment initiatives, and clear preferences on the geographical focus of beneficiaries.

The geographical location of beneficiaries gets to the core of *identifying relevant communities for benefits funding*. For the Aberdeen project, the online community consultation signalled a preference for the whole of Aberdeenshire and Aberdeen City to benefit from the fund, although with sizeable smaller groups favouring the wards closest to the sub-station and cable landfall site. As noted in Table 6.1 [a], this was the actual outcome, with 10% of funding ringfenced for the most immediate onshore works impacted area of Blackdog. There is a similar split for the Beatrice project (Table 6.1[b]) between the two main council areas of Moray and Highland (east coast authorities), and within those areas between the wider council area and more local areas. The East Coast Community Fund for the Hornsea/Race Bank projects applies to a long strip of coastal communities stretching from North Yorkshire, through Lincolnshire to North Norfolk. In general, the geographical distribution of benefits funding from offshore projects tends to have a wider spread than the geographically more concentrated focus on local communities from onshore projects. Guidance from the Highlands Council (2013) provides a clear steer on this, proposing a two-tier system for offshore projects, with 80% of benefits going to a pan-Highland level and just 20% to a local coastal communities' level. In contrast, for onshore projects, the first foundational £100,000 will accrue to the local level, and for further funds above £100,000, there are three tiers, with 55% accruing to a local level, 30% to an area level and 15% to a pan-Highland level.

The management and delivery of the actual community benefits can be contentious. Issues of equity, fairness and distribution are involved in all the key CBA decisions, *including who should manage the scheme*. Again, the Aberdeen project provides a good example. Through the LCLO, a community champions panel advised on the preferred management structure and decision making panel. The panel has local representation, and grant-making charity Foundation Scotland provides the important independent management of the application process. Similarly, the Beatrice Fund has an independent panel chaired by a member of the Scottish Council for Development and Industry, and UK community fund administrator Grantscape manages the Hornsea ECCF.

A clear aim of the community benefit schemes should be to *maximise fund impacts through their focus, reach and significance*. This is now usually recognised through a focus on the sustainability of supported projects, both socio-economic and environmental, and an assessment of the reach of the impacts, for example in terms of the multiplier impact of the initial impacts – on jobs, expenditure etc. In this respect, the Beatrice project is particularly innovative in its calculation of a Social Return of Investment (SROI) on the initial benefits fund expenditure. '*SROI is a methodology that lets you understand the wider value as a result of investing money. It considers the social, economic and environmental impacts of an investment*' (BOWL, 2017). The project used guidance on the SROI approach produced by the New Economics Foundation (NEF, 2017). Crucial to the approach is the interrogation of

stakeholder grant applications to identify anticipated impacts of potential successful applications and the valuation of these impacts over the lifetime of the successful projects. The estimate for the first round of the Beatrice Fund was that for every £1 spent by the fund, there would be £3.21 generated in wider value. On this basis, the £6m fund would create almost £20m of social value when fully distributed.

However, notwithstanding much good practice, these projects, and others noted in the previous section, also raise *some ongoing issues with community benefits funding for offshore wind projects*. Other writers have commented on an unbalanced power relationship between the main stakeholders, with the developer as pre-eminent (Kerr et al, 2017). Whilst there is growing acceptance of the role of community benefits funds, on an annual basis, the size of the funds do not come close to those for onshore projects – the level advocated by some bodies (for example Highland Council 2013). There is also great variation in the level of funding per MW pa, ranging from £1500 for the Aberdeen project to £265 for the Hornsea/Race Bank projects. Explanations of such variations and the levels of funding may include several factors such as nearness of project to the coast, the difference in developer policies and perhaps the incidence of other in-kind benefits, as well as the power relationships between the key stakeholders.

There has been some local scepticism of the level of funding, given the massive scale and expenditure on some of the actual projects. For example, in relation to the Beatrice OWF, the Northern Times Scotland (07/11/2016) reported

*‘Councillor Deirdre Mackay, East Sutherland and Edderton, has worked out that the area will get just £160,000 per annum from the £2.6 billion project. She said it was the “smallest return in the history of industrial development in the Highlands”. An SSE spokesperson said: “The £6 million community fund associated with the Beatrice Offshore Windfarm Limited (BOWL) development, of which SSE owns a 40% stake, has been agreed by the BOWL board following consultation with a number of stakeholders including Highland and Moray councils. It was developed using the Scottish Government’s ‘Good Practice Principles’ and is wholly consistent with both Scottish and UK government guidance. Specific impacts and benefits that Beatrice will bring were considered – including up to £224 million in local socio-economic benefits”. It is understood developers met with Highland Council leaders to discuss the level of community benefit but ultimately set the figures themselves. Councillors have been told the amount is ‘non-negotiable’.*

In a similar vein, the level of funding proposed for another Scottish OWF, Neart na Goithe, was described as ‘small beer’ (Scotsman 21<sup>st</sup> August 2017).

Further issues relate to the accessibility of the funds to local communities. There has been concern about the over focus on narrow environmental sustainability criteria in some cases, and on community criteria in others, perhaps making the case for a more flexible and mixed community and environmental focus. The application process, with for example requirements to specify as fully as possible the likely impacts, can also be daunting to local applicants. Research into community renewable energy projects in low-income areas (CSE, 2018) found that the skills, knowledge, time, resources and links to useful people and organisations were less available in such communities compared to their more affluent neighbours. The assistance of intermediary organisations, as local application advisers, can help to remedy this issue, by providing important catalysts to bolster a community’s project capacity and resilience.

*Table 6.1 (a-c): Examples of recent approaches to Community Benefits Agreements schemes for three UK OWFs – Aberdeen, Beatrice and Hornsea/Race Bank*

<p><b>(a)</b> <b>EOWDC/ Aberdeen</b> - 96 MW; Operational 2019</p>	<ul style="list-style-type: none"> <li>• <b>Origins and consultation:</b> the Aberdeen OWF Community Benefits Fund (2019), known as the <i>Unlock our Future Fund</i>, built on pioneering Scottish work, as well as on other UK and international examples. Edinburgh University provided specific guidance in a report for the project (Haggett, 2018). Two key points included -- as a small project, expectations need to be managed; and, as noted in the Scottish Government Good Practice guidance (2015), the limiting features of the fund (by geography, topic and beneficiaries) “<i>should be driven by the local community, who should play an active role in determining how funds are spent</i>”.</li> <li>• The Local Community Liaison Officer (LCLO) for the project followed up the guidance with a three-month consultation period, involving discussions with local stakeholders, and an online survey of the local community on various options and priorities for the Aberdeen CBF. In terms of the geographical focus of beneficiaries, there was a clear preference for the whole of Aberdeenshire and Aberdeen City to benefit from the fund, although with sizeable smaller groups favouring the wards closest to the site.</li> <li>• <b>Key elements of the CBA are:</b> <ul style="list-style-type: none"> <li>-- <i>Size of Fund:</i> £150,000 pa over 20 years; £3m in total (ie: c£1500 per MW pa)</li> <li>-- <i>Geography:</i> for whole of Aberdeen City and Shire, but with 10% (ie £15,000) pa ringfenced for Blackdog (sub-station local community)</li> <li>-- <i>Structure:</i> two levels of application—small projects, and large projects</li> <li>-- <i>Eligible projects focus:</i> community facilities that are fit for the future and environmentally sustainable; lasting legacy and of wide community benefit</li> <li>-- <i>Management:</i> community champions panel advised on management structure and decision making panel. The application process is independently managed by grant-making charity Foundation Scotland.</li> </ul> </li> <li>• <b>Performance to date:</b> First applications were invited from early 2019 and the eleven first round allocations reflect clearly the high level environmental sustainability and community criteria. At the time of this article it appears that there have been no applications from the Blackdog community; this may be due to the current lack of a residents’ association and /or the perceived complexity of the application process. Hopefully, this will soon be resolved.</li> </ul>
<p><b>(b)</b> <b>Beatrice</b> -588MW; Operational 2020</p>	<ul style="list-style-type: none"> <li>• <b>Origins and consultation:</b> the Beatrice Offshore Windfarm Limited (BOWL) development board agreed The Beatrice Community Benefits Fund, following consultation with a number of stakeholders including Highland and Moray councils. The Fund used Scottish Government ‘Good Practice Principles’. It became operational in 2017, well before completion of the OWF in 2020.</li> <li>• <b>Key elements are:</b> <ul style="list-style-type: none"> <li>-- <i>Size of Fund:</i> £300,000 pa over 20 years; £6m in total (ie: c£500 per MW pa)</li> <li>-- <i>Geography:</i> split between Highland (£4m) and Moray (£2m), and equally between a Beatrice Partnership Fund (BPF) and a Local Fund for each area (i.e £1m BPF and £1m Local Fund For Moray). In contrast to the Partnership Funds, the Local Funds exist to support the community organisations closest to the wind farm to achieve their aims; only groups from the immediate local area to the development are eligible to apply</li> <li>-- <i>Structure:</i> two levels of application—small projects, and large projects</li> <li>-- <i>Eligible projects focus:</i> to be eligible for funding, projects must achieve one or more of the following priority themes--creating opportunities; empowering communities; and building sustainable places</li> <li>-- <i>Management:</i> decisions on the allocation of Partnership Funds are made by an Independent Panel chaired by a member of the Scottish Council for Development and Industry (SCDI)</li> </ul> </li> <li>• <b>Performance to date:</b> For the Highlands region, c45% of the Year 1 available funds were allocated, in a mix of revenue and capital projects, mainly for empowering communities, such as the renovation of an old school house as a community hub. For the Moray region, almost all the available Year 1 funds went to capital projects, and mainly for sustainable places, including the Scottish Dolphin Centre. There has been some concern by local councillors about a perceived low level of funding for such a major project.</li> </ul> <p>The BOWL project has undertaken a wider analysis of the potential impact of the community benefits funds using a Social Return on Investment (SROI) approach for the projects in the first round of grant funding from the BPF in 2017.</p>
<p><b>(c)</b> <b>Hornsea</b> H1 1.2GW – Operational 2019; and Race Bank 580MW-</p>	<ul style="list-style-type: none"> <li>• <b>Origins and consultation :</b> the East Coast Community Fund(ECCF) is set up to ensure that local people benefit initially from the operation of two of Orsted’s (formerly DONG’s) offshore wind farms – the 580MW Race Bank and the 1.2GW Hornsea Project One. There was public consultation on which areas should benefit from the fund.</li> <li>• <b>Key elements are:</b> <ul style="list-style-type: none"> <li>-- the Fund distributes around £465,000 a year to help a wide range of local community and environmental initiatives for each of the next 20 years; £75,000 of the Fund each year is</li> </ul> </li> </ul>

<b>Operational 2018</b>	<p>reserved for a “Skills Fund”; £9.3m in total (c£265 per MW pa)</p> <p>-- geographical areas include coastal communities in Yorkshire, Lincolnshire and North Norfolk Coast from the ECCF, in a coastal strip from Wells-next-the-Sea to the south, and Flamborough Head to the north</p> <p>-- grants from £1000 to £50,000 are available for: community buildings and facilities (eg: Improvement to village halls, community centres etc); community activities and services (eg: projects addressing health and wellbeing, community cohesion etc); environmental and public open space projects (eg: for parks, nature reserves, community growing schemes); and sports, recreation and play (eg: playgrounds, sports equipment etc)</p> <p>-- the Fund is managed by UK community fund administrator GrantScape, on behalf of Orsted</p> <ul style="list-style-type: none"> <li>• <b>Performance to date:</b> the ECCF took its first applications in early 2017. Eligible organisations include voluntary and community groups, charities, parish and town councils, local authorities (working with community organisations, and social enterprises). There have now been five rounds of applications and allocations (ie: two rounds pa). The table below shows the fund allocations in round 5. Allocations to community services and buildings are dominant.</li> </ul>																																													
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## 7. Some conclusions and possible next steps

The rapid growth of the UK offshore wind industry is providing many more examples of community benefits practice. Whilst there is still much divergence in that practice, there are also examples of some convergence, and the development of a more replicable practice. Particularly notable is the adoption of annual community benefits funds, as the key element of community benefits schemes/agreements between developers, local authorities and local communities. There are also some good examples of community empowerment, independent fund management, and approaches to maximising the wider fund impacts. The importance of early engagement with onshore communities is an essential part of any offshore wind farm development with, for example, the Crown Estate seeing this as becoming standard practice for operators. The Aberdeen project provides a particularly good model of early community engagement.

However, although the incidence of annual community benefits funding has increased over time, the level of funding, as calculated per project per MW pa, remains low and indeed very low in comparison with onshore wind farms. As noted, some of the relatively higher funding per MW pa is for the more near coast developments. Some authors have drawn attention to the unbalanced power relationship between the main stakeholders involved in the process, and this may be a significant factor in the level of funding, especially for the increasingly larger and more distant offshore projects (Kerr et al 2017). However, this power relationship may change in favour of local communities over time, as it did for onshore wind projects.

The consideration of the ‘social licence to operate’ for major developers is a factor of increasing significance. Another is some community scepticism at the low funding level for particular impacted communities, and there may be pressure by local authorities on behalf of their communities. For example, the Highland Council asked the Scottish government in October 2016 to help local authorities in setting a recommended level of community benefit for offshore wind developments, although there has been a muted response from that government to date (Scottish Government, 2018).

As estimated by the Crown Estate (2019), the current total level of funding still provides a substantial benefit to local communities, and this is likely to increase substantially with more projects coming on stream. There will always be arguments for some diversity and variations from project to project, by nature of the projects and host communities. However, the new norm may be for a widespread adoption of the annual community benefits approach, higher levels of funding support per MW pa, clearer central and local government guidance, and some shift in the balance of power relationships between the main stakeholders.

## Appendix: Recent UK OWFs and Community Benefits

Project; MW size	Environmental Statement (ES) date	Owner	Distance from shore	Status	Benefits package	Particular details	Summary
Galloper; 353 MW	2011	Galloper Wind Farm Ltd	27km	Operational (Op) - 2019	Galloper Wind Farm Fund; and Galloper Community Fund for charitable, education and environmental projects in the Harwich area.	GWFF -- £187,000 over 17 years to support Suffolk Coast and Heaths AONB; GCF-- £10, 000 pa for 5 years	Annual; c£60per MW pa
EOWDC (Aberdeen); 96MW	2011	Vattenfall	2km	Op--2019	Annual Unlock our Future Fund—from 2019	£150k pa for 20 years; £3m in total. 10% ringfenced for very local area	Annual; c£1500 per MW pa
Triton Knoll; 870MW	2012	RWE	40km	Under construction	Annual Community Fund – from 2016	£40k pa; £10k for landfall area, and £30k for Sub-station area	Annual; c£50 per MW pa
Rampion; 400MW	2012	EON	20km	Op--2018	Rampion Community Benefit Fund – from 2017	£3.1m in total, for an area of the Sussex Coast centred around Lancing	Annual; c£375 per MW pa
Beatrice; 580MW	2012	SSE	13km	Op--2020	Beatrice Community Benefits Fund –from 2017	£300k pa over20 years; £6m in total. Subdivided between two councils, with two types of fund.	Annual; c£500 per MW pa
Race Bank; 580MW	2012	Orsted	20km	Op--2018	See Hornsea 1 below, ECCF	£465kpa; £75k pa reserved for a Skills Fund	Annual; c£260 per MW pa

Dudgeon, 400MW	2012	Equinor	30km	Op--2017	Dudgeon Community Fund	£100k pa over operational life of the project. Educational focus. Additional to £231k made to charitable voluntary and community activities during construction stage.	Annual; c£250 per MW pa
East Anglia 1; 714 MW	2012	Vattenfall /Scottish Power Renewables	43km	Op--2020	<i>"We are looking at developing a community funding scheme to benefit the areas in which we will be working."</i>		Possible Annual?
Near na Goithe; 450MW	2012	Mainstream	20km	Under construction in 2020	Community and Rural Energy Scheme (CARE)	£500k in total. <i>Scotsman— small beer.</i>	Possible Annual; c£55 per MW pa
Sea Green Alpha; 750MW	2012	SSE	27km	Ready to start construction – in 2020?	<i>The experienced Community Investment Team from SSE Renewables are currently consulting with the local Community Councils and key stakeholders to identify what format of community benefit funds would operate successfully in the local area. We aim to outline the format of the community benefit funds in Summer 2020.</i>		Possible Annual; scale unknown
Atlantic Array; 1200MW	2013	RWE	15km	Project cancelled	n/a	n/a	n/a
Burbo Bank extension; 260MW	2013	Orsted	7km	Op--2017	Burbo Bank Extension Community Fund	£225k pa; managed by Grantscape for Orsted	Annual; c£865 per MW pa
Hornsea1; 1200MW	2013	Dong/ Orsted	115km	Op--2019	East Coast Community Fund (ECCF), with Race Bank project	£465kpa; £75k pa reserved for a Skills Fund	Annual; c£260 per MW pa

Walney Extension; 660MW	2013	Orsted	19km	Op--2018	Community Benefit Fund from 2016	£600k pa, £100k pa reserved for a Skills Fund. In total £15 million in social and environmental projects for the 25-year lifetime of the project.	Annual; c£900 per MW pa
Dogger bank Creyke Beck; 1200MW	2013	Forewind	148km	Cons starts --2020	?		No information
Inch Cape; 784MW	2013	Redrock Power	15km	?	?		No information
Dogger Bank Teesside; 1200MW	2014	Forewind	200km	Cons starts --2020	?		No information
Navitus; 970MW	2014	EDF	10km	Permission refused because of visual impacts	.		n/a
East Anglia 3; 1200MW	2015	Vattenfall/ Scottish Power	70km	Consented	See above for East Anglia 1		Possible Annual
Hornsea 2; 1400MW	2015	Orsted	100km	Op-2020	Presumably, will come under (an enlarged [?] East Coast Community Fund)		Possible ECCF Annual
Moray East; 1100MW	2016	EDP	30km	Planning	?		No information
Hornsea 3; 2400MW	2018	Orsted	120km	Consented 2020?	See Hornsea 2 above		Possible ECCF Annual
Hornsea 4	?	Orsted	c100km	Planning	See Hornsea 2 above		Possible ECCF Annual
Norfolk Vanguard/ E. Anglia Array; 1800MW	2018	Vattenfall	47km	Examination decision in mid-2020	Developer support for Community Benefit Fund indicated by developer in response to Breckland Council Local Impact Report (LIR).		Possible CBF

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