



Shellfish
Association of Great Britain

EFF Project - Shellfish Aquaculture in Welsh Offshore Wind farms – Co-location Potential

Scoping Meeting

Park Inn by Radisson, Cardiff
1-5pm, Tuesday 4th December 2012

Report

Shellfish Association of Great Britain
Fishmongers' Hall
London Bridge
London
EC4R 9EL



Y Gronfa Pysgodfeydd Ewropeaidd:
Buddsoddi mewn Pysgodfeydd Cynaliadwy
European Fisheries Fund:
Investing in Sustainable Fisheries



Llywodraeth Cymru
Welsh Government



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About the facilitators

The engagement process forming part of the EFF Co-location project is designed and delivered by Catrin Ellis Jones, of Catrin Ellis Associates (CEA) in line with the needs of the EFF Project Team. CEA is an independent business with many years experience in facilitation, training, partnership working and consensus building in Wales, the UK and internationally.

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About this Report

The workshop involved plenary discussions and presentations. This report records participants' contributions throughout the day. Each section starts with an explanation of the task (in the grey box).

For further information about this project, please contact Martin Syvret at Aquafish Solutions Ltd. (www.aquafishsolutions.com).

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1 Summary of Findings and Next Steps

The EFF Project team are grateful to project partners for their collaboration and interest.

The meeting resulted in lively and interesting discussions. Of particular interest to all was the North Hoyle Wind Farm and mussel ranching co-location trial. The Round 1 offshore projects, including North Hoyle, which has been in operation since 2003, were intended to act as test-beds, building the UK's understanding of offshore wind, and thus it is appropriate that this project is also the site of the first practical application of aquaculture co-location of this kind in the UK. From many operational perspectives, the project was successful, and proved that aquaculture and wind energy generating activities can be perfectly compatible.

Questions, arising from the deliberation of co-location, identified by participants requiring further exploration include:

- ✓ Are partnership agreements and Memorandum of Understanding sufficient to satisfy all stakeholders?
- ✓ Who needs to be signatory to these types of agreement?
- ✓ Who, if anyone, should facilitate such agreements?
- ✓ Is there a role for the regulators and Welsh Government, and or the Crown Estate? How might they facilitate co-location agreements?
- ✓ At what stage in the development of wind-farms should discussions take place about potential co-location options?
- ✓ Are wind farm developers, while they formulate plans and turbine layouts, undertaking liaison with local communities and communities of interest, prior to submitting plans to the consenting processes going to be more receptive to considering co-location of activities, than operators?
- ✓ What sort of benefit (economic and social) might be generated by wind farm operators allowing and facilitating co-location at their sites, if planned in a timely manner, 2-4 years ahead of the onset of generation?

The EFF Project team will be convening again in January 2013, to review progress in the light of the discussions recorded here, and will inform project partners of progress following this review.

2 Meeting Aims and Programme

2.1 Why this event?

In October 2012, following a project application by the SAGB, the EFF Co-location group were awarded a grant under the European Fisheries Fund (EFF) which is administered by the Welsh Government. This grant is to support a short project, to develop a pathway enabling and encouraging the cultivation of shellfish in Welsh offshore wind farms. The project involves desk-top studies and the development of links between the shellfish industry, off-shore renewable operators and developers, regulators, academics and marine resource managers to ensure that the study benefits from and includes the multiple perspectives and interests of many stakeholders.

The study aims to build on a practical mussel cultivation trial undertaken by Deepdock Ltd. with assistance from Seafish, at the North Hoyle Wind Farm site off Rhyl, as well as a project funded by Collaborative Offshore Wind Research Into the Environment Ltd. (COWRIE) describing options and opportunities for marine fisheries mitigation associated with wind farms.

The EFF Co-Location Project originally envisaged, two principal outputs, which were presented for deliberation with key stakeholders at this scoping meeting, namely:

→ **A review of past studies, policy drivers and permission for shellfish cultivation within wind farm sites**

A report on the results of the review of past studies, policy drivers and permission for shellfish cultivation within offshore wind farm sites with recommendations on what shellfish culture options appears most feasible and why will be produced as the first output.

→ **A Guidance Manual on How to Cultivate Shellfish within a wind farm site**

This manual will be relevant to operations involving the type of shellfish cultivation the review (output 1) reveals as most practical in Welsh offshore waters, in the relatively short term. The Manual will focus on the practical aspects of how and what would be required to cultivate shellfish within an offshore wind farm site.

2.2 Purpose of this meeting

This scoping meeting brought together individuals with a range of interests in co-location at wind farms off the Welsh coast to:

- introduce the EFF Project and its aims, and consider whether the project’s proposed outputs will be of practical use to all parties with an interest in developing co-location projects in UK waters
- review the current context and state of political, theoretical and practical understanding regarding wind farm–aquaculture co-location
- consider how, via collaborative means it is possible to deliver the project aims
- agree outline process for delivering the project, and what should be achieved at the next stakeholder meeting
- agree next steps

2.3 Programme

Time	Session
1330	Opening Session Introducing the project, it’s context and aims What are the drivers for undertaking this study, and for achieving co-location projects?
1335	Co-location – the practise What is happening already? What critical issues and compelling opportunities are people encountering?
1410	What outputs & outcomes should we be aiming to achieve as a result of this study?
1440	Who do we need to involve in the dialogue?
1510	<i>Break</i>
1530	How will we take the project forward? What should we do, when?
1600	Next steps
1700	<i>Close</i>

3 Why might co-location of aquaculture and wind farm operations be a good idea?

A short presentation from Mark Gray, Seafish initiated this session.

3.1 Introduction

Co-location, or placing several entities or operations in a single location, for efficiency and mutual advantage is an idea that is increasingly deployed in business, anywhere there is a node of intersection of resource or specialist activity, e.g. data-sourcing, transport interchange systems, inland ports.

In this case we are exploring the co-location of aquaculture – the cultivation of aquatic organisms for all, or part, of their life cycle under controlled conditions – at Welsh offshore wind farm sites.

3.2. Co-location from an aquaculture perspective

Seafish is a UK non-departmental public body that supports the seafood industry for a sustainable profitable future, hence Seafish are primarily focussed at present on the cultivation of seafood at wind farms, though in the future, aquaculture for non-food purposes (e.g. bio-fuel) may also present compelling opportunities. The particular drivers of interest to Seafish for undertaking exploration into the opportunities associated with co-location relate to the efficient use of marine space, and to the UK food security and aquaculture policy. Issues recognised by Defra that amount to a strong case for developing and increasing aquaculture, particularly offshore include:

- Food security
- Population health
- Improved environmental sustainability, and
- Increased socio-economic activity

Sustainable aquaculture projects may facilitate the reaching of a balance between conservation and development of marine resources, particularly where there can be co-location of complementary activities. The designation of more than 35% of Welsh marine territorial areas (out to 12nm) as Marine Protected Areas, means that there is increasingly a need to look at co-location, either in terms of co-location of commercial and restricted operations together, outside designated sites, or the co-location of appropriate operations within designated sites, with appropriate controls and balances in place.

For more information see also:

<http://archive.defra.gov.uk/foodfarm/fisheries/documents/aquaculture-report0904.pdf>

<http://www.defra.gov.uk/consult/files/120112-aquaculture-consult-doc.pdf>

<http://wales.gov.uk/docs/drah/publications/080801walesfisheriesstrategyen.pdf> - The Wales Fisheries Strategy 2008

<http://www.guardian.co.uk/environment/2012/dec/06/doha-most-progressive-country-wales?fb=ative&CMP=FBCNETTXT9038>

The UK Government is committed to generating 30% of its electricity from renewable sources by the year 2020 in order to reduce carbon emissions, combat climate change and secure the UK energy supply. As it is likely a significant proportion of this will come from wind farms sited off the UK coast, studies undertaken by COWRIE Ltd. have focused on opportunities to support commercial fishermen and dependent fishing communities ashore to operate in harmony with wind farms

(<http://www.thecrownstate.co.uk/media/354771/2010%20Options%20and%20opportunities%20for%20marine%20fisheries%20mitigation%20associated%20with%20windfarms.pdf>).

3.3 Practical examples of aquaculture and wind farm co-location – North Hoyle Trial

This session began with a short presentation by James Wilson, Deepdock Ltd. Participants intervened with questions and points, which we endeavour to capture here.

In the summer of 2010, Deepdock Ltd., with support from Seafish, having come to appropriate agreement with the wind farm operators RWE npower renewables and with permission from CCW undertook an aquaculture trial at North Hoyle.

North Hoyle Offshore Wind Farm was the first of the UK's Round 1 offshore wind farm renewable power projects to be developed; it has been in operation since 2003. Situated in Liverpool Bay, North Hoyle covers an area of 10 square kilometres, it is located approximately 7.5 kilometres off the coast of North Wales, between the towns of Rhyl and Prestatyn.

Appropriately perhaps, as the Round 1 projects were intended to act as test-beds, building the UK's understanding of offshore wind, this project is also the site of the first practical application of aquaculture co-location of its kind in the UK



Click on http://en.wikipedia.org/wiki/File:North_Hoyle_Offshore_Wind_Farm_aerial.jpg to access a larger image of North Hoyle Wind Farm, or follow the following link for a description of the site: http://en.wikipedia.org/wiki/North_Hoyle_Offshore_Wind_Farm

The type of aquaculture carried out by Deepdock Ltd. at North Hoyle is known as Seabed Ranching or Seabed Cultivation – essentially this involves harvesting wild mussel stock as spats (approx. 1 year old), moving these to appropriate intertidal and subtidal sites for grow out, and subsequent harvesting (see <http://www.shellfish.org.uk/files/26238Impacts%20of%20Shellfish%20Aquaculture%20on%20the%20Environment.pdf> for explanation).

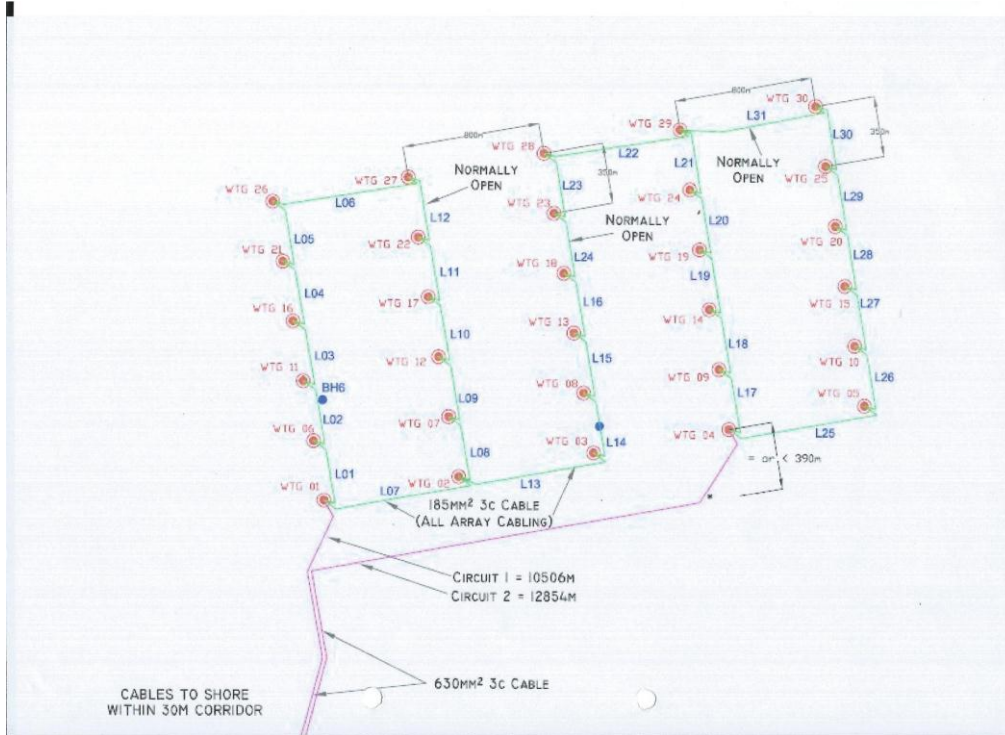
During James Wilson's Presentation of the North Hoyle Trial, the issue of public rights that exists in the marine area, those of navigation and fishery was brought up.

The theme of public rights of navigation arises because under Section 36 of the Electricity Act 1989 consent is sought and consented for wind turbines, offshore substation(s) and inter-array cables. Public rights of navigation exist within and around operating wind farms. Similarly there is a general public right of fishery, which enables the activity of fishing (subject of course to any necessary licence) to take place in the waters around the UK. Neither of these public rights are easily extinguished by law (de jure), without recourse to specific legislation. As such within the wind farm area there is only a limited 50m exclusion zone around each pylon and cabling array. However, given the innate spatial restrictions evident within the framework of sites it is felt that for many mobile fishing activities and much navigation, wind farms may represent a de facto exclusion zone

It was pointed out that this issue of public rights are a challenge for both wind farm operators, and seabed cultivation aquaculturists, where there is no fixing of the "crop" to any gear: each must assess and accommodate to their own satisfaction all risks, including those pertaining to natural processes, associated with tides and sediment dynamics and risks associated with public rights of navigation in the area of their operation. In practical terms, for example, wind

farm operators must seek to safeguard against disruption / damage to under-water (not buried) cables, and protect against scouring around mono-pole turbines, while the aquaculture practitioner needs to minimise the possibility that his crop is disturbed / removed. “Natural” or “normal” operating conditions may be altered by intervention, accidental or otherwise of any third party.

However, there is a benefit for aquaculture to be located within wind farm sites, because movements within these sites are likely to be relatively restricted compared to other subtidal areas – no shipping will navigate between turbines, etc. – therefore the risk of disruption to the crop is reduced.



Before the trials began RWE npower shared relevant information with Deepdock Ltd, including cable-location, detailed bottom conditions and bathymetry (see cable schematic).



Image: Deepdock Ltd.'s fishing vessel approaching the North Hoyle Wind Farm during favourable conditions, at high tide.

The North Hoyle trial provided some interesting results. These can be summarised as:

- ✓ Mussels can grow in seabed cultivation systems, to commercially viable sizes, relatively rapidly in conditions (depth to sea-bed, sedimentary cover, hydro-dynamics) found in / around near-shore wind farms
- ✓ This cultivation and associated operations can co-exist within operating wind farms without inconvenience nor disruption to wind farm operations
- ✓ Careful navigation, in favourable tidal and meteorological conditions, is possible around turbines, despite challenges including minimal lighting of turbines as despite mussel operating vessels being of considerable size (+ 40m), they are flat bottomed and designed to be highly manoeuvrable
- ✓ Working protocols were developed for aquaculture activities within offshore wind farm in addition to protocols agreed with CCW for undertaking activity within the boundaries of a European Marine Site (N Hoyle is within the Liverpool Bay Special Area of Protection)
- ✓ The level of primary production evident in the locale of both North Hoyle and Rhyl Flats at certain times of the year is extremely high
- ✓ Practical lessons learnt to apply to improve future co-location: the aquaculture process requires careful consideration as to the timing of deposition of seed mussels and/or enhanced monitoring of mussel progress and health during grow-on. [Timing of deposition of mussel seed in offshore locations may well be a more important factor than previously realised with respect to successful seabed cultivation. It is now thought that deposition during this trial in the summer months may have resulted in high stress levels within the mussels with consequent high mortality levels towards the latter stages of the trial.]

Particular challenges for the mussel producers were:

- Adapting operational practice to accommodate the considerable water current regime
- Developing a sufficient bathymetric understanding to enable effective deposition and recovery of the introduced stock,

Of particular concern to the wind farm operators were:

- Operations have been on going since 2003, the addition of a new and unfamiliar set of processes, with no apparent material or direct benefit to the on-going operation, and possibly very little control is a difficult one to reconcile with existing pressures and demands of operating in challenging off-shore conditions
- Health and safety issues were a concern – these concerns were alleviated by agreeing in advance, with confirmation given immediately before the fishing vessel approached, the timing and approximate duration of the arrival of the fishing vessel into an agreed part of the wind farm site.

Further assurances and codes of practise agreed in advance, include the following:

- Detailed descriptions of the mussel cultivation trial proposal
- Method statement – how the cultivation would work, the time taken to introduce and extract the mussels from the site, and the proposed degree and undertaking of monitoring of the stock
- Code of Practice – This was bespoke, agreed in conjunction with the relevant contact persons within RWE npower, which built considerably upon industry standard
- Operational plan – this provided detail of vessel and crew and of the coordinates of trial area and time requirements (to enter and to undertake necessary activity)
- Marine emergency response plan
- Risk assessment – This built upon our existing risk assessment and considered the possibilities introduced through operating within the wind farm site

- Vessel Insurance – Our insurance provider was informed and RWE npower were provided with all details prior to operations occurring
- Permission from CCW – Any activity that constitutes a plan or a project that takes place within a European Marine Site is subject to an assessment. North Hoyle lies within the boundaries of the Liverpool Bay SPA, and is designated primarily for the protection of the common Scoter and the Red Throated diver. Deepdock Ltd. operates regularly within the boundaries of EMS sites elsewhere and is well versed in the requirements stipulated through this process.
- Permission from Welsh Government – Whilst there is a general public right of fishery, that allows any suitably licensed vessel to undertake commercial fishing activity, this activity must adhere to fisheries management measures. To undertake this trial, as a novel action, permission was sought from the Welsh Government for a byelaw 1 exemption – which allowed the activity to be enabled under an experimental authorisation.

James explained:

“There is a strong drive from Government in Wales to both develop the aquaculture sector and to look at co-location of activities. This trial marked the first steps in a new direction that we believe will help deliver on these objectives. The North Hoyle site was of interest to us as not only did it allow us to begin the process of understanding about how we might develop operational practices with wind farm operators, but that the site was located in an environment that appeared to have considerable potential for the extensive cultivation of mussels on the sea bed, in that there appeared to be considerable areas of suitable seabed substrate and also high levels of primary productivity evident in the area, which for a filter feeding animal mean lots of food.”

“As a well established and professional seabed cultivating company, we have considerable skill in operating in extremely spatially confined areas and have constructed our vessels specifically to meet the very specific requirements that this presents. We have long and well established lines of communication with CCW and other statutory conservation bodies and with Welsh Government and have a detailed understanding of the how to conduct operations in a sustainable and well structured way. We would like to believe that the limited trial we undertook in 2010 demonstrated the possibilities that exist to operate within wind farm sites that develop the twin agendas of aquaculture growth and co-location but to do so in a consensual way that can manage and mitigate any additional risks for the Wind farm operator (RWE npower in the case of North Hoyle) within an existing legal structure “

3.4 Aquaculture co-located at other wind farms, in the UK and further afield

A short presentation from Andrew FitzGerald initiated this session, by describing options for co-location that are either on-going or are being planned in the UK and beyond.

It should be noted that there is a spectrum ranging between ‘aquaculture’ and ‘fisheries’ with some aquaculture related activities already practiced within wind farm sites (e.g. mussel seed extraction from the Wash). As such there are some limited case studies of operational interactions between the two sectors within the UK. However, no commercially actively producing wind energy and aquaculture co-location projects have yet been determined either in the UK or overseas.

Plans for co-location with fixed aquaculture gear (mussels, oysters and seaweed) are well advanced in Germany following extensive R&D since 2004 through Bela Buck and co-

authors with cross-sector stakeholder negotiations since 2008. There is much to learn from this work which will apply to the UK in terms of stakeholder co-operation and economic modelling.

Preliminary plans for both finfish culture and Artificial Reef fisheries enhancement (which maybe linked to 'ranching' aquaculture) are also being developed in Hong Kong with x2 major offshore wind farm developments. These case studies are interesting due to close parallels with the UK licensing model yet differing perceptions with regards to social-good and Government intervention (i.e. state decommissioning of trawling fleet).

The planned systems encountered in our review of current practise are not limited to seabed cultivation, nor are they limited to shell-fish cultivation. Current EU R&D is focussed upon highly ambitious Multi-Use Platforms where co-location is proposed in partnership between wind farm developers and aquaculturists that involve significant commitment from the wind farm operators, including fixing aquaculture gear to turbines and other structures.

4 Exploration of the opportunities and challenges arising from co-location

Wide ranging plenary deliberation followed. We attempt to capture the salient points here.

4.1 Advantages and challenges of co-location to aquaculture

The advantages to the aquaculture cultivation sector of co-location, particularly in relation to further offshore (Round 2 and 3 developments), include:

- ✓ Access – provided by the option of fixing to solid or moored structures – to deeper waters, with greater currents, more nutrient-rich, cleaner, more quickly dispersed etc.; while at the same time there is a guarantee that mariculture operations will not [under normal circumstances] be disturbed by shipping, which avoid the wind farms
- ✓ The more extreme water regimes, mean that mussels, other molluscs may grow faster, and deliver the possibility of greater returns on investment
- ✓ These waters are thought to be cleaner and free from health-threats prevalent closer to shore such as viral health threats e.g. norovirus (relevant to oyster cultivation in particular)
- ✓ Economies of scale etc.
- ✓ Wind Farm developers will have excellent bathymetric data, which would be of value to aquaculture project

There are disadvantages to the aquaculture cultivation sector of locating further off-shore:

- Harsher high-energy conditions, more safety procedures required, more investment, longer lead-in time, as yet untested technology

4.2 Advantages and challenges of co-location to developers and operators of off-shore wind farms

Advantages cited by offshore wind farm developers of planning co-location activities, include:

- ✓ Social good, CSR
- ✓ Physical stabilisation of infrastructure – e.g. fixed aquaculture gear, and even bottom cultivation can help to reduce scouring and eventually minimise the risk of subsidence of monopoles
- ✓ Shared environmental / ecological monitoring (aquaculture operators undertake surveying and monitoring, during the course of their operations – effective use of skills, equipment and infrastructure)
- ✓ Fixed structures such as rope-mussel farms effectively exclude other activities such as the use of mobile fishing gear
- ✓ Improving community relations, particularly with fishing communities, and fishing lobbies, which are perceived as powerful

Disadvantages cited by off-shore wind farm developers of planning co-location activities, include:

- No obvious added value perceived for manufacturers / suppliers of wind turbines or for the operators
- Attaching mariculture devices to turbine foundations could be a problem that requires third party certification
- Potential to impede the operation and maintenance of wind energy production e.g. risk of disruption to exposed inter-array and off-shore substation cables

- Aquaculture may attract additional birdlife to the operation area, and therefore increase the relative rate of bird mortality associated with the wind farm thus increasing the environmental impact of commercial activities within a wind farm site

4.3 Common ground and mutual benefits

There were discussions around the scale of interests and investments made in respective elements of any potential co-location venture – notably the wind farm operation represents a far greater financial commitment relative to any co-located aquaculture initiative, and therefore there is unlikely to be any direct financial argument, including cost savings during operation, that would incentivise co-location from a wind farm operator’s perspective. Nevertheless, in order for co-location to be a viable possibility, it must make commercial sense from the wind farm developer and/or operator’s perspective. Thus, to a certain extent, it may be necessary or pragmatic in the short term, where there are no external drivers or incentives at play (e.g. marine planning policy drivers do not contribute to the balance of considerations at present), for the aquaculture project to adapt in order to maximise the synergy benefits it offers to the wind farm.



The balance of risk and opportunity factors will vary and be unique to the conditions and context in which any particular co-location project is proposed

For example, some aquaculture projects might offer greater advantages to the wind farm developers than others, e.g. co-location further off-shore:

The further offshore a development is located, the more difficult it is to establish meaningful relations with communities of interest, and show community benefit is derived from the positioning of offshore wind farms, over and above the more universal benefit of the environmental benefits associated with generating lower C-emissions energy. This is confirmed by a study commissioned by the UK Commission for Employment and Skills which indicates that there are real opportunities not currently realised in the UK for maximising employment and skills in the offshore wind supply chain

(<http://www.ukces.org.uk/assets/ukces/docs/publications/evidence-report-34-maximising-employment-offshore-wind-vol1.pdf>)

Thus, wind farm developers are expected to rise to the challenge of identifying effective ways of delivering community benefit to affected communities once operations begin, to mitigate for any adverse local effects of construction and operation. Fishing communities are an obvious community / community of interest expecting compensatory benefits (as the COWRIE Ltd. studies indicate).

Furthermore, many studies, including those focused on Welsh projects such as the Pen y Cymoedd Wind Farm, indicate that local communities benefit significantly and sustainably by the inward investment in skills, services and manufacturing made by the wind farm developers during construction and operation, more than through the 106 agreement Community Funds, as money is circulated locally with multiplier effect.

Another pertinent factor beginning to come to light as the wind farm industry in the UK matures is that the commonly adopted grant-funding type model of community fund management associated with many of the early on-shore wind farms, is problematic to maintain and the contribution becomes increasingly difficult to distribute in a way which satisfies local interests and needs. This creates challenges in terms of the corporate social

responsibility displayed by energy producers, and demanded of them, by themselves, to secure their reputations as developers and energy producers of choice and good neighbours, and demanded of them by regulators, in order for them to continue to grow their share of the UK renewables market, and by the communities in which they wish to operate.

These considerations suggest that delivery of community benefit, at least in part, via business-to-business collaboration (and trading), where all sides are equally committed to effective and efficient delivery of contracts and maximising synergy, may be an attractive option for the developers of offshore wind farms.

Some energy producers e.g. in Hong Kong have chosen to further minimise the operational risks, including non-delivery of an effective benefit, by absorbing the aquaculture project into their own business processes and control – employing local expertise, and taking over local fishing fleets to service this subsidiary function, and undertake monitoring and environmental management at the same time.

In most cases, this consolidation is not likely to be attractive to any stakeholders; rather, effective collaboration might be deemed more appropriate and achievable. This must entail exploration of potential eventualities and anticipation of possible events and incidents, putting operational as well as contingency planning in place, and regularly reviewing plans and procedures.

4.4. Questions for further exploration

Are partnership agreements and Memorandum of Understanding sufficient to satisfy all stakeholders?

Who needs to be a signatory to these types of agreement? Who, if anyone, should facilitate such agreements? Is there a role for the regulators and Welsh Government, and or the Crown Estate? How might they facilitate co-location agreements?

At what stage in the development of wind-farms should discussions take place about potential co-location options?

4.5 The political context in Wales

Welsh Government are consulting on a Welsh approach to marine planning, with the aim of delivering Sustainable Development, maximizing the efficiency and value of ecosystem services, including provisioning, regulating and cultural services. This will build on the UK Marine Policy Statement. The Welsh Government works with the Marine Management Organisation (MMO) on the cross-border areas of the Severn Estuary and the Dee, however its approach to marine planning in Wales may be different to that adopted by the Department for Environment, Food and Rural Affairs (Defra) and the MMO for marine planning in England.

4.6 Can Marine Planning in Wales encourage and facilitate co-location projects?

An advantage available to Wales is that in Marine Planning in Wales there is one layer of government less than in England, and compared to Land use planning, this may facilitate some positive intervention from government.

From a political perspective co-location suggests a win-win scenario. Alun Davies, the Deputy Minister for Agriculture, Fisheries, Food and European Programmes is likely to be interested, as is the The Minister for Business, Enterprise, Technology and Science, who has the responsibility for the Sector Panels. It may be advantageous that the Energy and Environment Sector Panel is chaired by Kevin McCullough, CEO at RWE npower.

5 The EFF Co-location project aims and outputs

This session began with a short presentation by Martin Syvret, Aquafish Solutions Ltd.

5.1 The Project Structure:

- Funding is from the Welsh European Fisheries Fund (EFF) with a contribution in kind from Project Partners
- 45 days are dedicated to deliverable production

Duration:

- 9 month project
- Start date: 01 Oct. 2012 / End date: 30 June 2013

Deliverables:

- Two main reports
- Reports guided by 3 Project Meetings
 - Meeting 1 = Advisory Group (December 2012)
 - Meetings 2 & 3 = Stakeholders (Spring & Summer 2013)

Report 1 – Review of past studies, policy drivers & permissions for shellfish cultivation within wind farm sites

Participants were asked for their thoughts on what topics were appropriate for inclusion in Report 1:

1. What the review should cover?
2. Known past studies & trials
3. Identify suitable forms of shellfish aquaculture
4. Permission & tenure
5. Requirements for a safe & compatible approach to shellfish culture in wind farms
6. Nature conservation interests
7. Key policy drivers from all sectors

Output

- Guidance / recommendations on what shellfish culture types most suitable now or in near future

Report 2 – Guidance Manual on how to cultivate shellfish within a wind farm site

Participants were asked for their thoughts on whether these topics were appropriate for inclusion in Report 2:

1. Infrastructure for shellfish cultivation & installation
2. Husbandry types including deposition and harvesting methods
3. Safe access & development of a Safe Access Protocol
4. Operational compatibility of shellfish cultivation & wind farm operation
5. Shellfish cultivation & nature conservation interests
6. Emergency procedures

Output

- A practical Manual on how to safely cultivate shellfish in Welsh offshore wind farm sites
- Takes into account requirements of wind farm operators & nature conservation designations

The following plenary discussion did not contradict any of the themes suggested for inclusion in the reports, however some key themes were stressed as important by participants:

5.2 Critical questions to be addressed by the study:

What is “in it” (commercial advantage) for the wind farm operators?

What is “in it” (commercial advantage) for wind farm developers?

The answer to these two questions was considered distinct, and there was a strong feeling among participants that until co-location becomes “normal” or standard practise at offshore wind farms, there is significantly more merit for the renewable energy sector to consider co-location during project development stages, pre-consent, than once consents are granted and the wind farm is already in operation (see sections 4.1 – 4.3 above).

There was also an interest in learning about international experience of aquaculture and wind farm co-location, however, mainly where the experience has direct application to the Welsh setting, which is likely to be in the next few years either seabed cultivation or rope grown cultivation of molluscs (including oysters, but more especially, mussels).

It was suggested that issues surrounding methodology of mariculture and it’s compatibility with wind farm operation, permissions and tenure, health and safety, insurances, and nature conservation might be usefully followed-up directly with wind farm operators, while issues encompassing policy drivers should be discussed with regulators and government, and with high level officers among energy companies, charged with expanding the off-shore portfolios of their companies (developers).

Given that there is some flexibility in the project’s structure, it was suggested to the project team that one-to-one discussions, and small working group sessions to focus on particular aspects initially, might be more productive in the first instance to gather the information being sought, before bringing stakeholders together to review and reflect upon interim findings in a final single stakeholder meeting.

5.3 Stakeholders

Individuals and stakeholder groups already contacted by the team were discussed in brief with participants, and participants were asked to suggest any other names or organisations who should also be involved.

The following were identified:

- Individual authors and advisors who have contributed to the Crown Estate and National Grid joint report on Offshore Transmission Feasibility Study
- Paul Haddon
- Willie Cowan

6 Next Steps

Decision	Action	Who	When
<p>There is a need to demonstrate to policy makers and regulators that co-location can work.</p> <p>These key decision-makers & influencers need to be alerted to the possibilities and opportunities co-location provides</p>	<p>Discuss with Welsh Government Marine Policy Unit how they can facilitate progress beyond this study, e.g. further funding streams, the influence of EU marine planning directives, Blue Growth agenda, socio-economic modelling of potential benefits of co-location and in particular illustrate co-benefits to wind-farm operators and developers. Follow-up with Alan Storer, in first instance</p>	<p>Seafish as member of EFF co-location team to lead</p>	<p>Beginning in December, through Spring, 2013</p>
<p>RenewableUK Wales are interested in identifying common ground and mutual benefit for wind farm developers and operators, and others.</p>	<p>Report on this meeting to be shared with Paul Reynolds, and suggest that it be reported to the Off-shore strategy group (comprising 10-15 companies with off-shore interests).</p>	<p>David Clubb</p>	<p>By 7th Dec</p>
<p>Matt Whittles of Defra, is in dialogue with a consultation group regarding the Aquaculture plan for England – it would be useful to hear if they have anything to add, particularly with respect to policy drivers, also relevant in Wales</p>	<p>Enquire & report back</p>	<p>Neil Auchterlonie</p>	<p>Early January 2013</p>
<p>WWF are convening a Marine Planning meeting next Spring – it would be useful to participate and input into the programme</p>	<p>Enquire about suitability / options for this</p>	<p>EFF co-location team</p>	<p>ASAP</p>
	<p>Circulate a report of this meeting and decisions taken by the team, to the advisory group, informed by these deliberations as to next steps, including action planning to deliver the project.</p>	<p>EFF co-location team</p>	<p>Early January 2013</p>

The meeting has usefully stimulated the team to consider both next steps, in terms of completing the current study, (possibly considering greater use of 1:1 interviews, particularly with wind energy professionals – operators & developers) and seeking means to expand the study to facilitate enhanced outputs.	EFF Project team to meet to review project plan. Project partners to be informed of any material changes.	EFF co-location team	Early January 2013
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7 Participants

Project Partners	
The Crown Estate	Alex Adrian, Aquaculture Operations manager
Centre for Environment, Fisheries & Aquaculture Science	Dr Neil Auchterlonie, Programme Director (Aquaculture and Food Security)
RenewableUK Cymru	Dr. David Clubb, Director
Centrica	Dr. Cathal Linnane, Fisheries manager
Welsh Government	Alan Storer, Marine Planning Officer
Countryside Council for Wales	Glyn Lloyd-Jones, Marine Fisheries
EFF Co-Location Project Core Group	
Deepdock Ltd.	James Wilson
Sea Fish Industry Authority	Mark Gray
Aquafish Solutions Ltd.	Martin Syvret, Andy FitzGerald (working with ASL)
Catrin Ellis Associates	Dr. Catrin Ellis Jones (facilitator)
Matt Ashley	Plymouth Marine Laboratory

Note: Apologies received from David Jarrad (SAGB); Jon King & Lewis LeVay (Bangor University); Paul Carter (RWE npower Renewables Ltd.); Colin Charman (CCW)