



# **Internship Report**

**Investigating public attitudes towards marine renewable energy and guidance on the development of public engagement strategies**

**Jiska de Groot**

**in partnership with 40SouthEnergy**



# Investigating public attitudes towards marine renewable energy in the Isles of Scilly and developing guidance on public engagement strategies

---

## NERC MREKE Internship report

Jiska de Groot

October 2014

## Contents

|   |    |
|---|----|
| 1. Project overview.....  | 5  |
| 1.1 Introduction and background to the project.....   | 5  |
| 1.2 Aims and objectives of the research conducted.....  | 5  |
| 1.3 Achieving the objectives.....   | 6  |
| <br>  |    |
| 2. Location of the research conducted: the Isles of Scilly.....   | 7  |
| 2.1 Socio-economic background.....  | 8  |
| 2.2 Marine renewable energy potential and development.....  | 10 |
| <br>  |    |
| 3. Methods.....   | 11 |
| 3.1 Questionnaire survey.....   | 11 |
| 3.2 Interviews.....   | 12 |
| <br>  |    |
| 4. Achieving objective 1: attitudes and perceived impacts.....  | 12 |
| 4.1 Attitudes in the Isles of Scilly towards marine renewable energy.....   | 12 |
| 4.1.1 Characteristics of survey respondents.....  | 12 |
| 4.1.2 The local context in which attitudes are formed.....  | 14 |
| 4.1.3 Attitudes towards different types of MRE.....   | 15 |
| 4.2 Perceived impacts of Marine Renewable Energy developments.....  | 17 |
| <br>  |    |
| 5. Achieving objective 2 and 3: Engaging with the Isles of Scilly community.....  | 18 |
| 5.1 Indicated preferences for engagement.....   | 19 |
| 5.2 Community interest in involvement in Wave Park management.....  | 27 |
| 5.3 Community interest in economic and financial involvement in the project, and the use of revenues arising from the management..... | 29 |
| 5.4 Community interest in environmental data provided by 40South Energy.....  | 31 |
| <br>  |    |
| 6. Conclusion: Engagement strategy.....   | 32 |
| <br>  |    |
| References.....   | 34 |
| Appendix 1 Questionnaire survey.....  | 36 |
| Appendix 2 List of interviewees and affiliations.....   | 44 |

## List of Figures

|   |    |
|---|----|
| Figure 1 Research locations   | 7  |
| Figure 2 Marine renewable energy potential in the isles of Scilly   | 10 |
| Figure 3 Education level Isles of Scilly  | 12 |
| Figure 4 Employment status in the isles of Scilly   | 13 |
| Figure 5 Survey respondent's overall attitude towards marine renewable energy   | 15 |
| Figure 6 Attitudes towards different types of MRE in the Isles of Scilly  | 16 |
| Figure 7 Indicated considerations to participate in a community survey  | 22 |
| Figure 8 Indicated consideration to join a protest group and respondent's age   | 22 |
| Figure 9 Indicated considerations to attend an information evening and respondent's age   | 23 |
| Figure 10 Indicated considerations to provide a written or oral contribution during the consultation phase and respondent's age | 23 |
| Figure 11 Indicated considerations to participate in information giving and respondent's highest level of education             | 24 |
| Figure 12 Indicated considerations to participate in information gathering and respondent's highest level of education          | 24 |

## List of tables

|   |    |
|---|----|
| Table 1 Isles of Scilly: Place characteristics, protection and change                       | 14 |
| Table 2 Main five explanations for positive attitude towards marine energy                  | 16 |
| Table 3 Potential effects that the majority of respondents was unsure about                 | 17 |
| Table 4 Potential effects that the majority had a clear opinion about                       | 17 |
| Table 5 The AIP2 Spectrum of Public Engagement  | 19 |
| Table 6 Percentage of respondents that considers participating in engagement strategies     | 20 |
| Table 7 Chi square test results investigating differences between age, gender and education | 21 |

## **1. Project overview**

### **1.1 Introduction and background to the project**

To achieve renewable energy targets and energy security, marine areas around the British Isles are becoming an important space for energy generation. Large, high capacity wind parks are being planned, whilst other technologies, such as wave and tidal are also being developed. Despite strong public support for renewable energy in principle, around 80% (Bell, Gray et al. 2005), delivery of targets is held back due to a number of constraints, including time spent in processing applications and high transaction costs for developers and the public sector (Cotton and Devine-Wright 2011).

Public opposition has long been recognised as a major barrier to commissioning of onshore renewable energy projects, and around 60% of onshore wind power planning applications are rejected by councils in England/Wales. Although the physical separation of marine renewables from centres of population intuitively removes many of these tensions, recent studies argue that offshore sites not unproblematic alternatives (Bailey, West et al. 2011; Haggett 2011).

Councils and other levels of government in the UK are faced with scrutinizing and decisions about several multimillion round 3 offshore wind farm projects and increasingly with several wave and tidal proposals, all set against a background of limited experience of these new technologies. In addition, project developers have to comply with a range of requirements for impact assessments as well as stakeholder engagement regulations.

Although a wealth of literature exists in the literature on stakeholder engagement with renewable energy technologies such as onshore wind and solar energy, less information is available about whether local communities support or oppose marine renewable energy development in particular and underlying reasons. More detailed knowledge about local acceptability aids developers and decision makers in defining suitable stakeholder engagement processes and their implementation.

This lack of knowledge has also resulted in the absence of guidance for 40SouthEnergy, the project partner, for developing public engagement strategies and the specific opportunities and barriers it presents to their local areas. For 40SouthEnergy, along with other private and public organisations involved with marine energy, it is important to understand public attitudes towards marine renewable energy schemes. The project partner needs this information at the local level where they will be built. This can mitigate some of the problems that have been experienced with onshore technologies, and avoid potential failure to deploy technologies and abandoned projects.

### **1.2 Aims and objectives of the research conducted**

The aim of this internship is to work with 40SouthEnergy towards the de-risking of the consenting process for a marine renewable energy (MRE) development (The Isles of Scilly Wave Energy Park) by investigating public attitudes towards MRE and providing guidance on the development of public engagement strategies with marine energy. Further understanding of these issues can assist in promoting community engagement with MRE proposals while encouraging communities and other stakeholder to contribute valuable information about their local marine environments.

The ambition is to enable the project partner as well as businesses and policy makers involved in marine renewable energy consenting to make use of the NERC research and to develop effective community engagement strategies whilst ensuring appropriate management of the socio-economic impacts of marine renewable energy.

This has resulted in the following objectives:

- 1) Investigate public attitudes, of both residents and visitors, to MRE in the Isles of Scilly which is the prospective site for the Scilly Airport Wave Energy Park, and use this knowledge to provide guidance to the partner organisation on engaging the public to mitigate public opposition during the consenting process.
- 2) In consultation with, and based on the specific information needs of the partner organisation, identify an approach for development of a public engagement strategy and community involvement incorporating the findings of the first objective
- 3) Facilitate knowledge exchange between the marine energy industry, the public sector and the scientific community on appropriate guidelines for public engagement strategies that take appropriate consideration of public attitudes to MRE to reduce uncertainty and risk during consenting processes for MRE developments, combining insights from the project with research conducted as part of the applicant's PhD study, that can be applied outside the academic environment. This goal will be further promoted by combining the insights from the above activities with relevant expertise on social attitudes towards MRE in Plymouth University's School of Geography, Earth and Environmental Sciences and Marine and Coastal Policy research group.

### **1.3 Achieving the objectives**

The objectives discussed above have achieved by working with 40SouthEnergy, a private sector partner. The private sector partner, 40SouthEnergy is a wave device developer that is aiming to establish the first UK Wave Energy Park in the Isles of Scilly and has started the consenting process. 40SouthEnergy has a strong focus on innovative involvement of local communities, and is exploring stakeholder engagement and community ownership for current projects. When developing a project, the project partner must ensure social, economic and environmental characteristics of the area are not unacceptably harmed. As a result, 40SouthEnergy required information about the public's attitudes towards marine

renewable energy and how its impacts and benefits are perceived locally. This project aimed at helping 40SouthEnergy to achieve these objectives by:

- 1) delivering critical information about public attitudes and community involvement
- 2) provision of practical guidance for 40SouthEnergy on the development of strategies for community engagement based on the NERC-funded research findings

This internship also facilitated knowledge exchange by applying the research expertise of Plymouth University (School of Geography, Earth and Environmental Sciences; the Marine and Coastal Policy Research Group, and the MERiFIC project). Knowledge and on-going research exists within the School of Geography, Earth and Environmental Sciences of Plymouth University, which can assist in developing strategies for reducing risk and uncertainty in consenting processes, while analysis of public attitudes and engagement preferences are being approached within the applicants PhD study.

To deliver the objectives, two methods have been employed, a questionnaire survey and semi-structured interviews.

## **2. Location of the research conducted: the Isles of Scilly**

The internship was based on research in two locations in the South West of England; the Isles of Scilly and Hartland (Figure 1).



Figure 3 Research location (MET Office 2007).

The Isles of Scilly are an island community located 28 miles off the most south-western extremity of the UK and consist of many islands and islets, of which 5 are inhabited (Figure 1). It is the smallest unitary authority in England, and in the 2011 census, the islands had a population of 2203, with the majority of the island population living on St Mary's. The Isles have an even spread of males and females, with an average age of 45 years (Office for National Statistics 2011). Until 1985, the only island with public electricity was St Mary's, the largest island, and the price of electricity was much higher than on the mainland. In 1988, the South Western Electricity Board approved the connection between the Isles of Scilly and the UK mainland through a subsea cable. Since its connection to the mainland, energy consumption has risen significantly and current energy requirements of the islands are met by a diesel powered generating station on St Mary's as well as the mainland cable connection, which is expected to be replaced in 2028 by Western power distribution. The majority of this increase can be attributed to the use of electric heating now the electricity prices are equal to the mainland.

The Isles of Scilly sustainable energy strategy recognises the potential of the Isles of Scilly to become an integral driving force for the islands' economy (Council of the Isles of Scilly 2007).

## 2.1 Socio-economic background

The Isles of Scilly have a very narrow economic base, with a high dependence on tourism (mainly micro-businesses) and public administration. Historically, fishing and flower farming



were dominant industries on the islands. However, similar to the rest of the country, the importance of fisheries declined, and an increasingly competitive market has led to a decline in the flower sector (Council of the Isles of Scilly 2005).

Tourism particularly focused on the coastal environment and bird watching, now is the main economic driver for the islands, and accounts for over 85% of the isles' income. The Islands' high quality of the natural environment is a mayor asset, and as a result, most of the islands' natural environment has a protected status. In 1975, the isles were made a conservation Area, and since 1976, the isles are considered an Area of Outstanding Natural Beauty (Bowley 2004), the islands are home to 27 Sites of Scientific Interest, and wildlife is protected under the EU Habitats and Birds Directives, as well as a RAMSAR Site and Special Site of Conservation. Most of the freehold land of the isles is owned by the Duchy of Cornwall, who leases it to *inter alia* the Scilly Wildlife Trust (Duchy of Cornwall 2006). However, tourism has been in decline for the past decade, due to overall economic decline and accessibility of the islands. the loss of the helicopter service, providing an easy connection to the mainland has hit the tourism economy, as simultaneously flight patterns to the islands changed. This is causing considerable economic impact on the islands currently.

As a result of the islands unique location and dependence on wildlife tourism, nature conservation is very important on the Isles of Scilly and the prominent role of the natural environment in the islands' income is recognised in the Sustainable Energy Strategy, as it indicates that *'the emphasis is on seeking to meet the energy needs of the Islands without impacting on their character and distinctiveness and therefore the success of tourism, the crucial economic input'* (p. 22) (Council of the Isles of Scilly 2007). Although protection designations constrain new development opportunities, the isles' Strategy recognises that a balance must be struck between protecting local environments and global environments, but for renewable energy siting the sensitivity of environment and landscape to renewable energy development was considered a key factor in assessing its suitability: *'the importance of conserving the quality and character of much of Scilly's environment and landscape means that any renewable energy development must not have an adverse impact'* (p.22) (Council of the Isles of Scilly 2007). As a result, the Isles' preference lies with small-low impact projects, which may be permitted in protected areas, as set out in Planning Policy Statement 22. These are desirable circumstances for companies such as 40SouthEnergy to develop.

The Penzance and Isles of Scilly Strategic Investment Framework indicates that 'maintaining the viability of the islands depends on two key issues: a) its capacity to be as self-sustaining as possible; b) its ability to maintain strong transport links to the mainland and communications with the wider world (Cornwall Development Company 2009).

Cost of living on the islands is high, with prices of property, consumer goods and transportation much higher than in the rest of the united kingdom (e.g. consumables at more than 20% above mainland prices) (Council of the Isles of Scilly 2007). The Isles of Scilly are highly dependent on goods and services shipped in by sea. Despite this strong dependence

on transport links to the mainland, the Isles lost its helicopter connection in November 2012, and the passenger ferry (around 2 hours and 40 minutes traveling time) sails only from March to November. As a result, the islanders are highly dependent on domestic flights running to three airports in the South-West.

Although population numbers remain relatively constant, the last three decades have shown considerable demographic change. Similar to many other island communities, younger people tend to leave the islands as a result of education opportunities (education is available on the islands up to age 16) and job opportunities for them and their families. They only return in limited numbers. As a result, the islands attract economically inactive people, such as retirees (Council of the Isles of Scilly 2007; Cornwall Development Company 2009), and has resulted in a skill and employment shortage in a variety of service areas. Furthermore, much employment is low paid, often part-time or seasonal (Council of the Isles of Scilly 2007).

## 2.2 Marine renewable energy potential and development

Of the three case study sites, the Isles of Scilly have the least experience with MRE. In 2004, the South West Regional Development Agency sponsored a study Seapower South West review, indicating the islands' potential for wave and tidal technologies. It was suggested by the Renewables Advisory Board that around 10 full-time jobs can be sustained for each MW of installed renewable energy capacity on the islands. With a current demand of around 4MW, RE generation could potentially contribute around 40 jobs to the local economy (Council of the Isles of Scilly 2007).

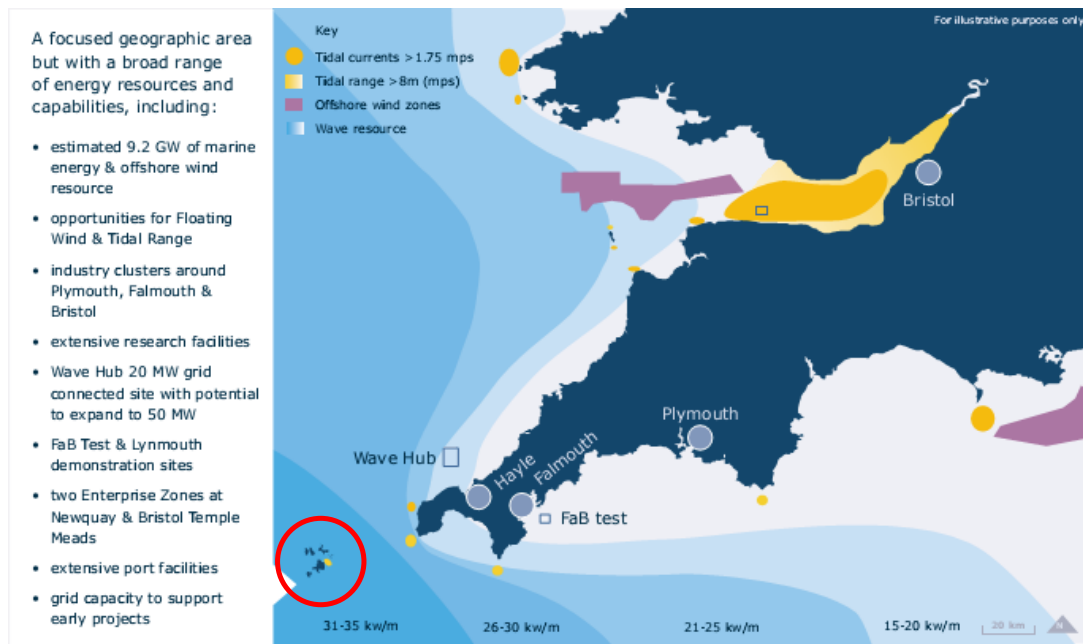


Figure 4 Marine renewable energy potential in the isles of Scilly (Marine Energy park Prospectus 2012)

Despite this indicated renewable energy potential, the marine renewables industry until recently has shown little interest in deploying marine energy devices in the area. To date, no interest has been shown for large scale wave, tidal or wind power. A scoping study was conducted in 2008 by a marine energy company called Orecon. Since the start of this research, wave device developer 40SouthEnergy, the industry partner of this knowledge exchange internship has proposed a small-scale wave energy pilot project: Up to three wave machines will be positioned near shore, and plans are there to expand the installation with more machines further offshore. Focus is on innovative involvement of the community in the ownership structure (40South Energy 2013).

### 3. Methods

#### 3.1 Questionnaire survey

A questionnaire survey was conducted in the Isles of Scilly to gather attitudes of residents and visitors towards marine renewable energy developments and their perceived effects, as well as preferred engagement strategies. Because the survey served a dual purpose, that of contributing to a PhD research and this internship, attitudes were explored to not only to wave energy, but also to tidal, and offshore wind energy. Some of the discussion of the results therefore should therefore be taken in this wider context.

In the Isles of Scilly, 420 questionnaires were distributed, a total of 134 questionnaires were collected, resulting in a 31.9% response rate. The small size of the communities made it possible to reach a large number of households.

The survey results provide insight for 40SouthEnergy in acceptability and attitudes in the two locations as well as guidance on development of public engagement strategies based on both the needs of the marine energy sector and local communities.

The drop-and collect method was the main method of distribution. Each survey was delivered personally to the household where possible. The small scale of the islands, made at this method possible and effective. When people were not at home, the survey was left at the front door with the self-explanatory cover letter attached. The sampling design for the Isles of Scilly was based on systematic sampling, which was used to select households on street level, using every  $n$ th house to facilitate collection of a cross-selection of views from a broader geographical area. The small size of the islands, however, ensured that a large area of the islands was covered.

The survey contained both closed and open questions. The close questions were analysed with SPSS and descriptive statistics were used to summarize the sample. The main type of variables resulting from the survey were categorical variables. To find factors that are related, chi-square tests were used to investigate whether there were significant differences

between various categories of answers to establish whether two random variables are dependent on each other. The open questions with qualitative data analysis software package NVivo to identify patterns and themes. Open coding, an inductive approach to coding, which is not based on pre-defined themes, was applied to the answers of the open questions to identify key themes and issues.

### 3.2 Interviews

A series of semi-structured interviews was conducted as part of PhD research to gain insight into engagement processes as well as perceived benefits and threats to the island. Furthermore, a series of targeted interviews was conducted with local organisations to answer the specific queries of 40SouthEnergy about involvement in a wave energy park and financial involvement.

Extensive notes were taken during the interviews and the interviews were transcribed. The transcripts were coded, which is the process of categorising the data. Because of the clear questions of 40SouthEnergy, and existing research, key themes were identified. Thematic analysis was applied to the codes from the interviews which in qualitative research involves identification of recurrent issues in the data (Creswell 1994; Joffe and Yardley 2004). Themes are clusters of linked categories which convey similar meanings, and allowed for the nuances of the themes to be explored in-depth. Although software is available (such as NVivo), to aid the process of searching through the data, the identification of themes remains dependent on human effort, and was achieved through systematic reduction of the texts and notes into separate units.

## 4. Achieving objective 1: attitudes and perceived impacts

The study results here comply with the first objective of the internship which is to:

*Investigate public attitudes, of both residents and visitors, to MRE in the Isles of Scilly which is the prospective site for the Scilly Airport Wave Energy Park, and use this knowledge to provide guidance to the partner organisation on engaging the public to mitigate public opposition during the consenting process.*

The sections below discuss public attitudes in the Isles of Scilly. The survey data will contribute to the provision of guidance later in this report.

### 4.1 Attitudes in the Isles of Scilly towards marine renewable energy

#### 4.1.1 Characteristics of survey respondents

Of Isles of Scilly respondents 42% were female and 58% male. Compared to the 2011 census (Office for National Statistics 2011), the sample is somewhat skewed towards males. Respondent profiles further showed some bias towards older respondents: 6% of

respondents were between 18-28 years old, compared to an actual 12% according to the 2011 Census. Almost a quarter of respondents (24.1%) were between 65 and 78 years old. A further 23.3% was between the ages of 53 and 64, and 10.5% of respondents was older than 79. Comparison of these numbers with the 2011 Census data (Office for National Statistics 2011) confirms this bias.

Respondents were generally highly educated, as can be seen in Figure (3), which shows that 26.9% of respondents were educated up to degree level or higher. 11.5% had no formal educational qualifications this is slightly lower than the 14.2% found in the census data (Office for National Statistics 2011). This same data indicates that 33% of people hold a level 4 qualification or higher<sup>1</sup>. The majority of respondents, however, were educated up to A-levels at 20%, and GCSEs at 20.8%.

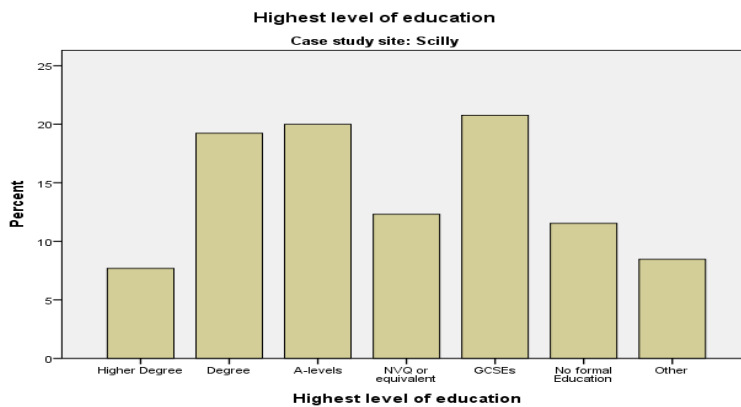


Figure 3 Education level Isles of Scilly

The ageing population of the Isles of Scilly is reflected in the sample, and 31.6% of respondents were retired; 34.6% were self-employed or Freelance, whilst 32.3% were employees (Figure 4). Compared to the Isles of Scilly census data, the number of self-employed is somewhat overrepresented (Office for National Statistics 2011). Although this sector has a slight over-representation in the sample, the high number of self-employed people can be explained by the large number of micro-businesses (such as bed and breakfasts) as part of the tourism industry, that often are compared with other employment or in addition to retirement. The employment status on the Isles of Scilly is depicted in Figure 4 below. The Isles of Scilly show fewer categories of employment than the other case study sites, confirming the narrow economic base. There are no students, for instance, and none of the respondents was unemployed. It also will have consequences for comparing, as the population of the Isles of Scilly is clearly narrower than that on the other islands, in terms of employment, but also for age. It also makes the case study sites more difficult to compare, but nevertheless reflects the existing situation in this type of community.

<sup>1</sup> This includes degree level and up and NVQ 4-5.

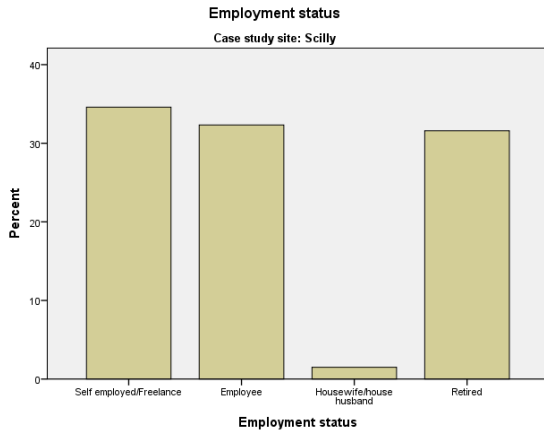


Figure 4 Employment status in the isles of Scilly

#### 4.1.2 The local context in which attitudes are formed

As part of this research, and certainly of importance for the industry partner to be aware of the specifics of the places in which developments are proposed. To provide an overview of how the places are perceived and how people identify their place, the survey included several context questions: the main positive and characteristics of the place, which aspect of place they would like to protect most; and what they would like to change most about their place. Survey respondents were asked to give three main characteristics about their place, either positive or negative. This yielded 337 positive and 38 negative characteristics. Table (1) shows the most given characteristics, and implies that the respondents positively identify their communities as revolving around the natural beauty, community spirit, scenery and tranquillity. The highest ranking negative characteristics were isolation/remoteness, followed by the islands’ expensive cost of living and travel costs. Interestingly, isolation ranked highly in as both a negative and a positive characteristic.

Table (1) Isles of Scilly: Place characteristics (N=375), protection (N=121) and change (N=106)

| Positive          | N            | Negative              | N           | protect              | N            |
|-------------------|--------------|-----------------------|-------------|----------------------|--------------|
|                   | <b>(337)</b> |                       | <b>(38)</b> |                      | <b>(121)</b> |
| Natural beauty    | 49           | Isolation/remoteness  | 13          | natural environment  | 23           |
| community spirit  | 45           | expensive             | 9           | community spirit     | 20           |
| Scenery/landscape | 36           | Transportation issues | 6           | wildlife             | 14           |
| Tranquil/peaceful | 27           | reluctance to change  | 5           | beaches              | 12           |
| safety            | 25           | nosiness              | 5           | level of development | 7            |
| isolation         | 14           |                       |             | everything           | 7            |
| sea               | 11           |                       |             |                      |              |
|                   |              |                       |             | <b>Change</b>        | <b>(106)</b> |
|                   |              |                       |             | transport links      | 36           |
|                   |              |                       |             | Travel cost          | 11           |
|                   |              |                       |             | Council              | 9            |
|                   |              |                       |             | fewer cars           | 6            |
|                   |              |                       |             | housing              | 5            |

Subsequently, respondents were asked to name one characteristic of their islands they want to protect (Table 1). The natural environment ranked highest, closely followed by community spirit. These are thus the two most mentioned characteristics that respondents would like to see protected most. Transportation was undoubtedly the main thing that people would like to see changed, with transport links ranking the highest, followed by the cost of transportation (Table 1).

This community characterisation demonstrates that all attitudes towards MRE are formed within this framework. For example, if a person thinks that MRE might think that a development will affect the natural environment, this may affect their support. On the other hand, if a development is perceived to, for example, lead to lower electricity costs, this may increase support, depending on the community characterisation. This community characterisation also demonstrates where possible alignment of the project lies with community values and dominant features. Finally, this shows where it is possible to negotiate if a developer were interested in providing community benefits. For 40SouthEnergy, these data would suggest that one way to provide benefits for the community could be to explore potential interaction with the transport section, mitigate impacts on the natural environment or community spirit.

#### 4.1.3 Attitudes towards different types of MRE

Attitudes towards MRE in general as well as deployment different types of MRE in the local area were explored in the survey. Of the respondents, 84.1% support the concept of renewable energy in general, 2.3% opposes, and 13.7% is unsure. This corresponds with other research on this topic and largely reflect national data, which was around 80% (Bell et al. 2005).

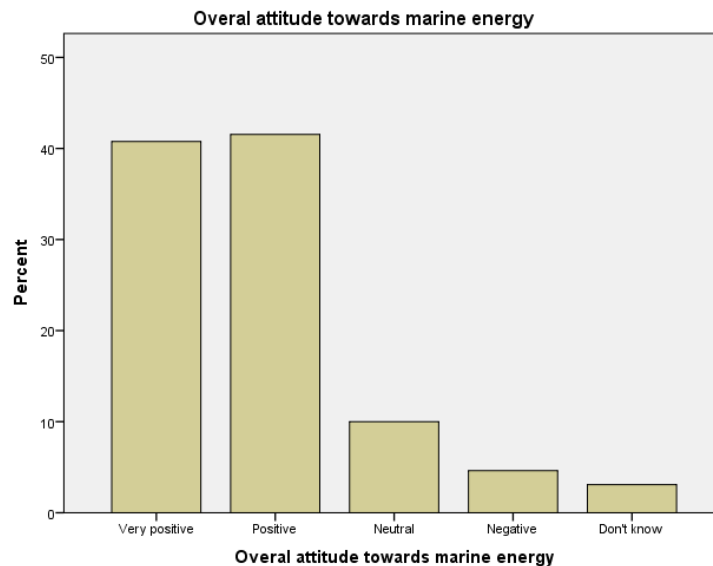


Figure 5 Survey respondent's overall attitude towards marine renewable energy

A distinction was also made between supporting wave energy in general and supporting it locally. With 82.3% of respondents indicating support for MRE in general (Figure 5), the Isles of Scilly are slightly higher in their support than the mean support than the other sites. When asked whether the UK should develop wave energy, 69.7% responded definitely, and a further 22% maybe. Only 2.3% indicated definitely and 6.1 % did not know. Support diminished only slightly when respondents were asked to indicate their support locally. Support for wave energy development drops to 78.5% and tidal to 73.8%. Support for offshore wind dropped the most to 50% support and 26.9% opposition. This suggests that respondents from the Isles of Scilly are most positive towards wave energy out of the various technologies available, and most negative towards offshore wind.

Differences between different type of MRE technologies were investigated, to get an idea of acceptability of different technologies. A Chi-Square test found significant differences between respondents' attitudes towards offshore wind and wave and tidal ( $\chi^2$  161.56, df25 p=0.00) for tidal and ( $\chi^2$  158.27 df25 p=0.00) for wave. However, more negative issues related to offshore wind also emerged in the interviews, particularly related to visual intrusion and environmental impacts on the landscape. One interviewee indicated that

*Wind turbines would need to be very carefully sited and located because of the potential impact on the environment (Interview 1).*

Although 40SouthEnergy is proposing a wave development, awareness of the reluctance of supporting wind farms is important. It also emphasizes the importance of clearly communicating the type of device that is proposed, emphasizing that it is not visually intrusive. This issue was also discussed in both the formal and informal interviews, and several interviewees appeared confused about which devices are deployed underwater and which are above the water and therefore have more visual impact.

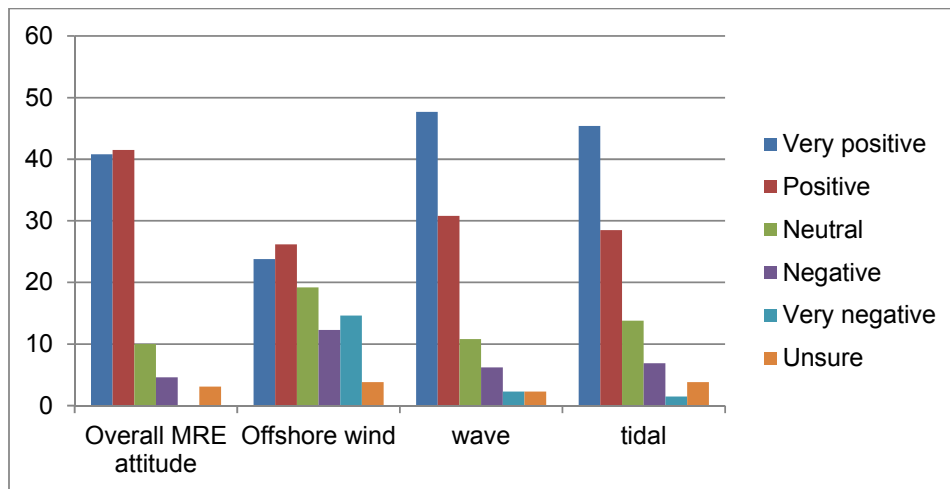


Figure 6 Attitudes towards different types of MRE in the Isles of Scilly



Survey respondents were invited to explain their answer. The main explanations given are shown in Table (2). The table shows that the main reasons positive attitudes towards MRE are the abundance of the resource, the perception that it is not visually intrusive, the availability of the resource, and the fact that it is a good use of natural resources.

**Table 2 Main five explanations for positive attitude towards marine energy (% of total responses)**

| Explanation                   | %    | Examples of explanations   |
|-------------------------------|------|--|
| Resource abundance            | 19.4 | <i>'the incredible energy of the sea and wind is so evident living on Scilly. We need to harness it'</i> |
| Not visually intrusive        | 15.7 | <i>'marine energy can be tucked out of the way easier'</i>   |
| Resource availability         | 14.8 | <i>'to be able to use the natural resources available on our own doorstep'</i>                           |
| Good use of natural resources | 11.1 | <i>'using something that is natural to make energy is a good thing'</i>                                  |
| Reliable resource             | 11.1 | <i>'It is there all the time and NEVER goes away = good way to go'</i>                                   |

Because there were limited numbers of respondents that indicated reasons for opposition (this is primarily because there were low numbers of respondents that opposed MRE. Of those opposing, only few explained their answer. Reasons given for opposition are the perceived negative impacts of technologies on the local landscape and how this impacts the local economy.

People appear thus more positive about wave energy than about wind energy, because wave devices such as 40SouthEnergy's are not seen as visually intrusive.

## 4.2 Perceived impacts of Marine Renewable Energy developments

In addition to attitudes towards development of MRE developments in general, survey respondents were also asked to indicate their perceived effects. Several important trends can be identified. Firstly, respondents were undecided about many effects. Table (3) shows the potential effects for which the majority of respondents was unsure about its potential effects. The table shows that respondents were most unsure about MRE's potential impact on fish and wildlife impacts, closely followed by impacts on local fisheries and seascape impacts. Importantly, these are exactly some of the main issues discussed previously, where respondents indicated that the main characteristic, as well as the main thing they wanted to protect is the natural environment. Thus although the survey currently shows support for the development, the fact that many were unsure about these potential impacts could result in changes of opinion if it turns out that the development will have some of the effects discussed below. The same applies for the other potential effects that respondents were unsure about: being unsure about the potential effects on the attractiveness of the islands for tourists and marine recreation. This is an important aspect to consider, as tourism is the main generator of income for the islands.

| Marine energy will   | Strongly agree | Agree | Unsure | Disagree | Strongly Disagree |
|--|----------------|-------|--------|----------|-------------------|
| Impact positively on fish and wildlife habitats                  | 4.0            | 16.0  | 56.8   | 21.6     | 1.6               |
| Impact negatively on local fisheries                             | 2.4            | 16.8  | 52.8   | 27.2     | 0.8               |
| Negatively affect marine recreation                              | 1.6            | 18.4  | 45.6   | 32.8     | 1.6               |
| Negatively impact the tranquillity of the islands                | 6.4            | 18.4  | 43.2   | 30.4     | 1.6               |
| Positively impact the attractiveness of the islands for tourists | 3.2            | 9.6   | 46.4   | 33.6     | 7.2               |
| Negatively impact the seascape                                   | 8.8            | 20.8  | 52.0   | 16.8     | 1.6               |

Table (3) Potential effects that the majority of respondents was unsure about

Several factors were also identified where survey respondents had a clear opinion on the potential effects of a MRE development (Table 4). Firstly, the large majority of respondents agreed that MRE would benefit the wider society. Secondly, MRE was thought to provide benefits for local communities.

| Marine energy will                             | Strongly agree | Agree | Unsure | Disagree | Strongly Disagree |
|--|----------------|-------|--------|----------|-------------------|
| provide cheap energy in the future             | 6.4            | 45.6  | 35.2   | 11.2     | 1.6               |
| Provide benefits for local communities         | 9.6            | 58.4  | 27.2   | 4.8      | 0                 |
| Benefit the wider UK society                   | 9.6            | 62.4  | 24.0   | 3.2      | 0.8               |
| Increase business opportunities on the islands | 2.4            | 44.8  | 42.4   | 9.6      | 0.8               |
| Lead to more jobs on the islands               | 4.0            | 44.8  | 40.8   | 8.0      | 2.4               |

Table (4) Potential effects that the majority had a clear opinion about

Although many respondents indicated that they were not sure (42.4%), the majority (47.2%) thought that it would bring benefits. Similar results were found for job creation as a result of MRE, where 40.8% was unsure but 48.8% agreed that it would lead to more jobs on the islands. The majority of respondents also thought that MRE will provide cheap energy in the future. This is an important issue that will be discussed later in relation to community benefits and engagement with MRE.

## 5. Achieving objective 2 and 3: Engaging with the Isles of Scilly community

This section fulfils the second objective, which is to:

*In consultation with, and based on the specific information needs of the partner organisation, identify an approach for development of a public engagement strategy and community involvement incorporating the findings of the first objective.*

Communication with 40SouthEnergy identified specific needs to investigate:

- 1) Whether and under what terms the local community is interested in an involvement in Wave Park management (1st level O & M, for example);
- 2) Whether and under what terms the local community is interested in the economic and financial involvement in the project (eg. through a crowdfunding model or other financing arrangements); and the use of revenues arising from this;
- 3) Whether and under what terms the local community is interested in obtaining wave and, more generally, environmental data provided by 40South Energy.


The following sections will also contribute to achieving objective 3:

Facilitate knowledge exchange between the marine energy industry, the public sector and the scientific community on appropriate guidelines for public engagement strategies that take appropriate consideration of public attitudes to MRE to reduce uncertainty and risk during consenting processes for MRE developments, combining insights from the project with research conducted as part of the applicant's PhD study, that can be applied outside the academic environment.

These issues will be addressed in the next few sections, as well as preferences indicated for engagement.

## 5.1 Indicated preferences for engagement

This section discusses the interest of the local community in involvement in a potential project. Respondents were provided with a list of potential methods for engagement and asked to indicate whether they would consider participating in them. The list of activities was adapted from the spectrum of public participation provided by the IAP2, the International Association for Public Participation (See Table 5). The spectrum of engagement identifies multiple modes of engagement ranging from providing the public with information, obtaining feedback from the public, towards collaboration with the public and empowerment to make the final decision. For each mode of public engagement, examples are given for activities that a developer can conduct, depending on the goal of the public participation as well as the promise to the public.

| <b>Table (5) The AIP2 Spectrum of Public Engagement (IAP2 2013)</b>                  |   |  |   |   |   |
|--|---|--|---|---|---|
| <b>Increasing level of public impact</b>   |   |  |   |   |   |
|  |   |  |   |   |   |
|  | <b>Inform</b>   | <b>Consult</b>   | <b>Involve</b>  | <b>Collaborate</b>  | <b>empower</b>  |
| <b>Public participation goal</b>   | To provide the public with balanced and objective information to assist them in | To obtain public feedback on analysis, alternatives and/or | To work directly with the public throughout the process to ensure | To partner with the public in each aspect of the decision including the development of alternatives and the | To place final decision-making in the hands of the public |

|                              |   |  |   |  |  |
|------------------------------|---|--|---|--|--|
|                              | understanding the problems, alternatives and/or solutions | decision   | that public issues and concerns are consistently understood and considered  | identification of the preferred solution   |  |
| <b>Promise to the public</b> | We will keep you informed                                 | We will keep you informed, listen to and acknowledge concerns and provide feedback on how public input influenced the decision | We will work with you to ensure that your concerns and issues are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision | We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decision to the maximum extent possible | We will implement what you decide                |
| <b>Example tools</b>         | Fact sheets<br>Websites<br>Open houses                    | Public comment<br>Focus groups<br>Surveys<br>Public meetings   | Workshops<br>Deliberative polling   | Citizen advisory committees<br>Consensus-building<br>Participatory decision-making   | Citizen Juries<br>Ballots<br>Delegated decisions |

The IAP2 Spectrum provided the primary input for the survey questions related to community engagement. Survey respondents were asked to indicate whether they would consider participating in a particular engagement strategy. To avoid confusion about what each strategy entails, specific examples of activities were given where relevant. Below the survey responses for each type of activity as well as for specific examples of activities are given.

**Table 6 Percentage of respondents that considers participating in engagement strategies**

| Community engagement strategy                            | Respondent considers participating in:<br>% of respondents |      |       |        |
|--|--|------|-------|--------|
|  | Yes  | No   | Maybe | Unsure |
| Information giving:                                      | 50.4   | 14.9 | 26.4  | 8.3    |
| Information giving/ information evening                  | 51.2   | 7.4  | 35.5  | 5.8    |
| Information gathering:                                   | 38.8   | 20.7 | 29.8  | 10.7   |
| - community survey                                       | 57.0   | 11.6 | 23.1  | 8.3    |
| - small unofficial discussion group                      | 17.2   | 27.9 | 42.6  | 12.3   |
| Consultation:  | 34.7   | 18.2 | 35.5  | 11.6   |
| - public meeting   | 45.5   | 12.4 | 36.4  | 5.8    |
| - written or oral contribution during consultation phase | 32.2   | 19.0 | 38.0  | 10.7   |
| Involvement:   | 16.5   | 28.1 | 42.1  | 13.2   |
| - official workgroup for discussing a development        | 13.2   | 43.0 | 33.1  | 10.7   |

|                         |      |      |      |      |
|-------------------------|------|------|------|------|
| Partnership             | 13.2 | 42.1 | 30.6 | 14.0 |
| Empowerment             | 19.0 | 33.1 | 32.2 | 15.7 |
| Joining a protest group | 5.0  | 53.7 | 26.4 | 14.9 |

The results reveal that less intensive forms of engagement gained much higher ratings in terms of respondents' declared willingness to participate (Table 6). Highest levels of intention to participate were found for information giving and information gathering. Under information gathering, most respondents considered to participate in a community survey (57%). This suggests that the more involvement is required from participants, the fewer respondents were likely to immediately consider participating in this activity. A striking difference found in the survey in the way that people perceived information gathering was the difference between the 57% that would consider participating in a survey versus the 17.2% that would consider participating in a small unofficial discussion group<sup>2</sup>. The high percentage of maybe's (42.6%) illustrates that this may be context dependent.

The most unpopular approach appeared to be an official workgroup for discussing a development. Interestingly, many survey respondents indicated that they would not personally be considering participating in a partnership approach, with 42.1% indicating they would not. However, interview data suggest otherwise. These will be discussed later.

Demographic factors were investigated that may be of influence in respondent's consideration to participate in a particular form of engagement<sup>3</sup>. The results of the chi-square tests used to investigate differences are shown in Table (7)

**Table 7 Chi square test results investigating differences between age, gender and education**

|   | <i>age</i>                          | <i>Gender</i>                     | <i>Education</i>                   |
|---|-------------------------------------|-----------------------------------|------------------------------------|
| <b>Information giving</b>               | ( $\chi^2= 32.235$ df18<br>p=0.021) | ( $\chi^2= 0.507$ df3<br>p=0.917) | ( $\chi^2=57.595$ df18<br>p=0.000) |
| <b>Attending an information evening</b> | ( $\chi^2=45.821$ df18<br>p=0.000)  | ( $\chi^2=0.073$ df3<br>p=0.995)  | ( $\chi^2=40.517$ df18<br>p=0.002) |
| <b>Information gathering</b>            | ( $\chi^2=31.620$ df18<br>p=0.024)  | ( $\chi^2=0.339$ df3<br>p=0.953)  | ( $\chi^2=62.326$ df18<br>p=0.000) |
| <b>Community survey</b>                 | ( $\chi^2=46.781$ df18<br>p=0.000)  | ( $\chi^2=0.888$ df3<br>p=0.828)  | ( $\chi^2=50.033$ df18<br>p=0.000) |

<sup>2</sup> Please note that this applies specifically to this survey held under the general public. Particular stakeholders may be more positive towards discussion groups

<sup>3</sup> Because no significant differences were found between case studies in the demographic factors influencing attitudes, the results discussed here are the results for the complete survey conducted in Orkney, Shetland and the Isles of Scilly.

|  |                                     |                                    |                                     |
|--|-------------------------------------|------------------------------------|-------------------------------------|
| <b>Small (unofficial discussion group)</b>                             | ( $\chi^2=30.631$ df18<br>p=0.032)  | ( $\chi^2=1.726$ df3<br>p=0.631)   | ( $\chi^2=25.692$ df18<br>p=0.107)  |
| <b>Consultation</b>  | ( $\chi^2= 29.802$ df18<br>p=0.039) | ( $\chi^2=3.064$ df3<br>p=0.382)   | ( $\chi^2=45.003$ df18<br>p=0.000)  |
| <b>Public meeting</b>  | ( $\chi^2=57.516$ df18<br>p=0.000)  | ( $\chi^2=3.651$ df3<br>p=0.302)   | ( $\chi^2=31.600$ df18<br>p=0.025)  |
| <b>Written or oral contribution during consultation phase</b>          | ( $\chi^2= 40.399$ df18<br>p=0.002) | ( $\chi^2=2.651$ df3<br>p=0.449)   | ( $\chi^2=46.309$ df18<br>p=0.000)  |
| <b>Involvement</b>   | ( $\chi^2=18.527$ df18<br>p=0.421)  | ( $\chi^2= 11.651$ df3<br>p=0.009) | ( $\chi^2=51.596$ df18<br>p=0.000)  |
| <b>Official working group for discussing a development partnership</b> | ( $\chi^2= 20.188$ df8<br>p=0.322)  | ( $\chi^2= 9.574$ df3<br>p=0.023)  | ( $\chi^2= 40.491$ df18<br>p=0.002) |
| <b>Empowerment</b>   | ( $\chi^2= 15.489$ df18<br>p=0.628) | ( $\chi^2=9.050$ df3<br>p=0.029)   | ( $\chi^2= 43.263$ df18<br>p=0.001) |
| <b>Joining a protest group</b>   | ( $\chi^2= 20.047$ df18<br>p=0.330) | ( $\chi^2=3.805$ df3<br>p=0.283)   | ( $\chi^2= 43.637$ df18<br>p=0.001) |
|  | ( $\chi^2= 30.268$ df18<br>p=0.035) | ( $\chi^2=0.728$ df3<br>p=0.867)   | ( $\chi^2=27.103$ df18<br>0.077)    |

Highlighted p-values mark significant differences

---

The table shows that no significant differences were found between consideration to participate between the different age categories and: involvement, official working group, partnership and empowerment. However, significant differences were found between age and all other categories. The results show that mainly the youngest two categories were less likely to participate in activities that required more input from them and were more time consuming. In particular for participating in a category information gathering (which includes a community survey and a small unofficial discussion group), younger respondents were more likely interested in participating, especially in a community survey (Figure 7).

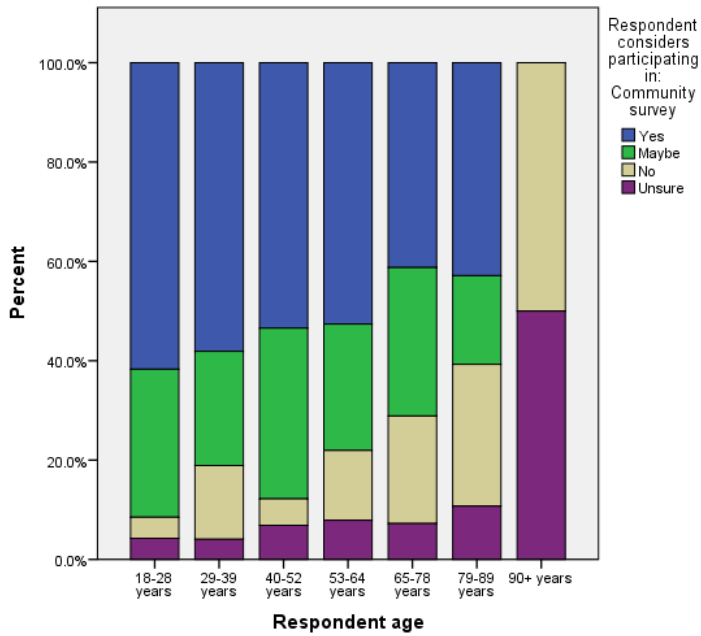


Figure 7 Indicated considerations to participate in a community survey

Apart from in a community survey, the 53-64 age category generally considered participating in activities the most. It was this same category that also indicated the highest likelihood of joining a protest group (Figure 7 and Figure 8).

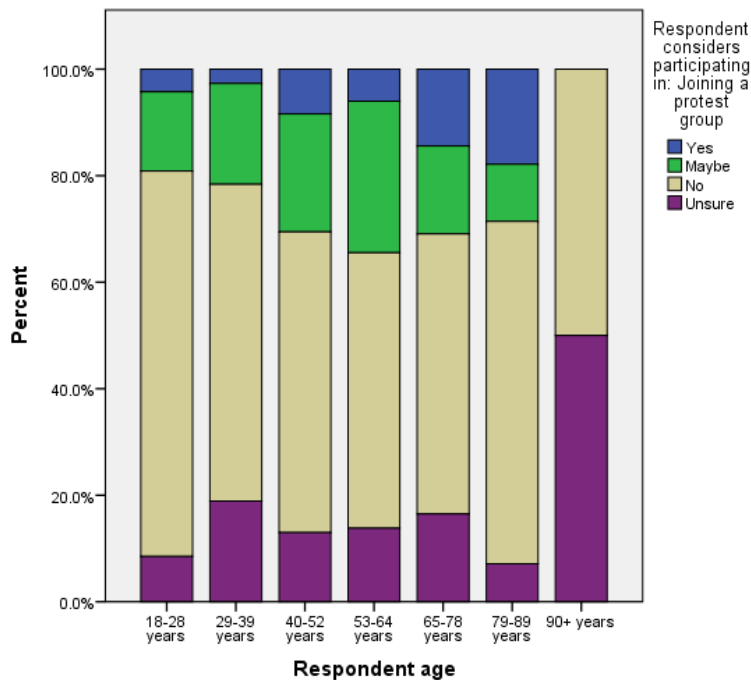


Figure 8 Indicated considerations to join a protest group and respondent's age

The very small 90 years and above category either not interested or unsure about participating, but the category below, consisting of those between 79-89 where a slightly more likely to consider participation.

Respondents' level of education and consideration to participate in engagement activities was also an area where significant differences were found for most activities. The most striking observation was that generally, the higher the level of education, the more likely the respondent was to engage in all activities. Figure (9) shows this for activity of activity of being provided with information in an information evening, and Figure (10) shows this for engaging via a written or oral contribution during the consultation phase.

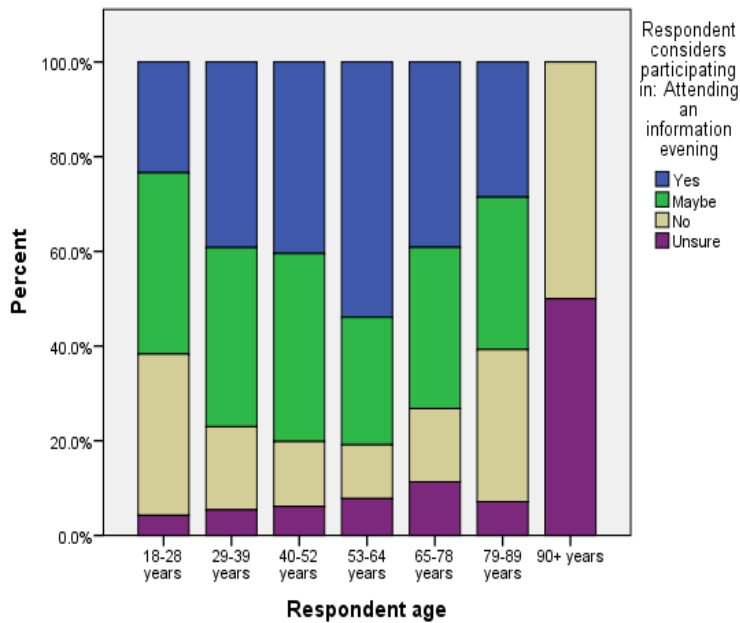


Figure 9 Indicated considerations to attend an information evening and respondent's age



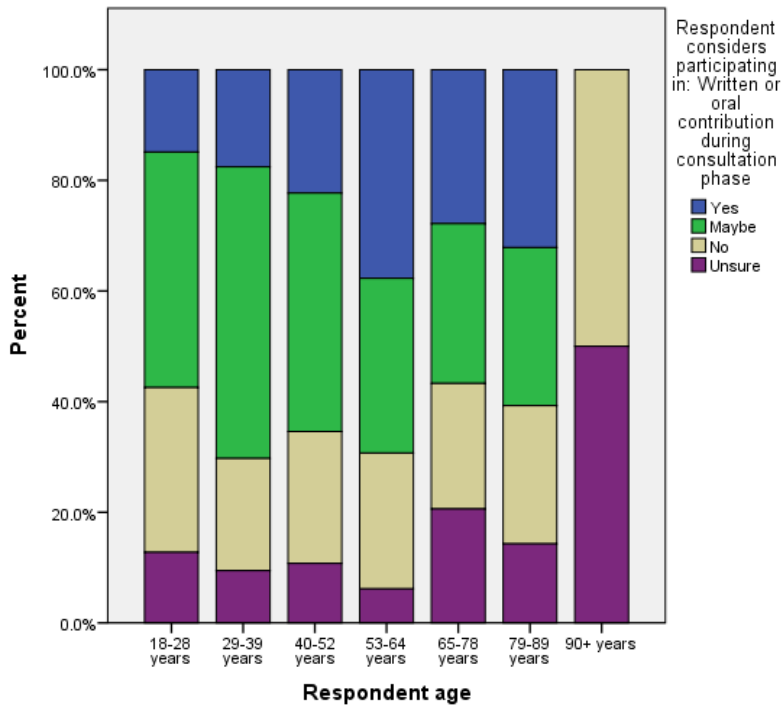


Figure 10 Indicated considerations to provide a written or oral contribution during the consultation phase and respondent's age

People with a degree were the most likely to be active in engagement, such as information giving (Figure 11) and information gathering (Figure 12). This could explain the skewing found in the demographics of the survey respondents towards higher educated respondents.

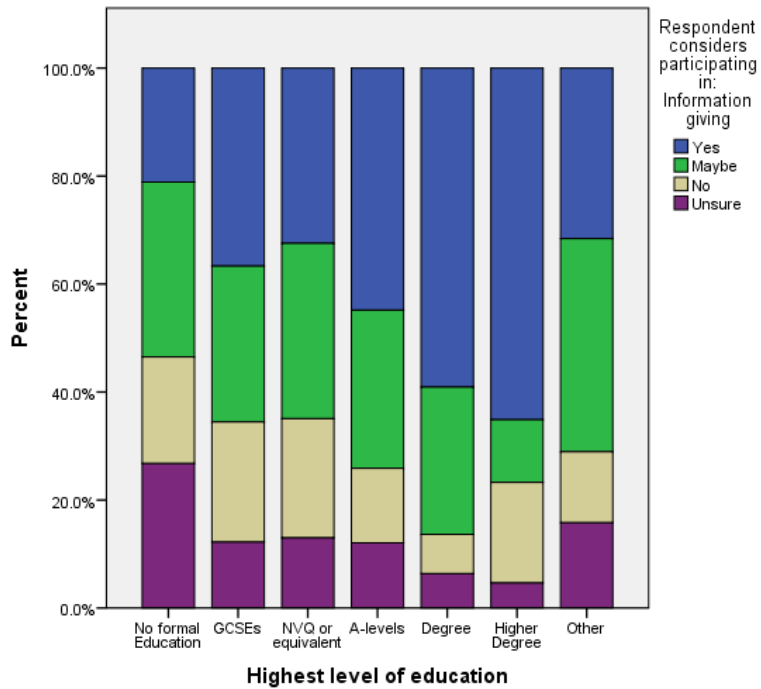


Figure 11 Indicated considerations to participate in information giving and respondent's highest level of education

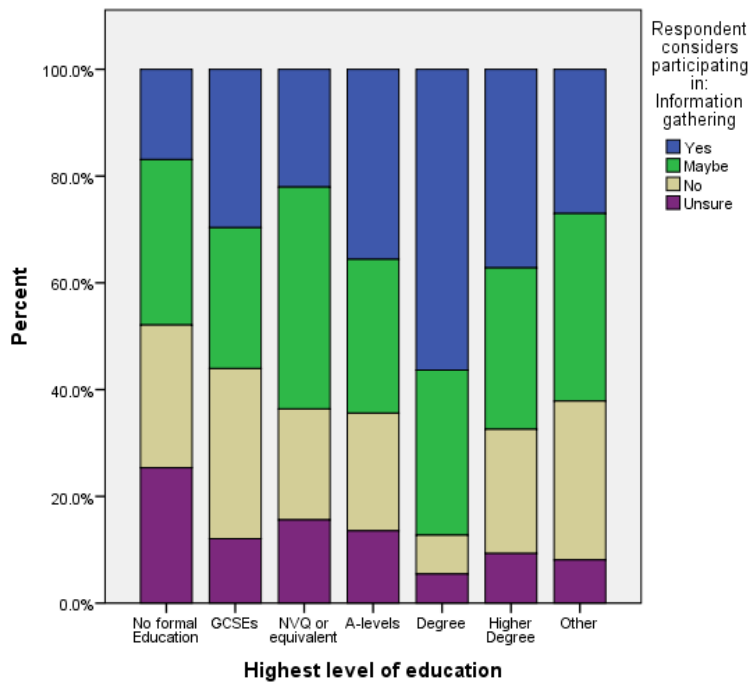


Figure 12 Indicated considerations to participate in information gathering and respondent's highest level of education

Because of the nature of the procedures, interest in participation in being provided with information may not impact engagement processes much. However, the intention of many

more degree and higher degree respondents to participate in information gathering (where the developer asks them for information) could affect engagement and representation of communities in decision making processes. Appropriate methods that include a wide range of people could overcome these issues. An example here could be combining a community survey with public meetings and consultation reach out to range of age groups, educational levels and interests.

These results are important for 40South energy, and being aware of the type of community members that are likely to attend specific engagement activity could influence the company's choice for engagement method, depending on the goals and intention of the engagement strategy, and target the widest range of people.

## 5.2 Community interest in involvement in Wave Park management

The following sections of the report investigate the specific queries of 40SouthEnergy in relation to community involvement in a Wave Park in the Isles of Scilly.

Across all interviews, there was strong consensus that the Isles of Scilly community should be involved in any development near the islands. During the interviews, several organisations in the Isles of Scilly expressed a desire to become involved in a potential wave park. A first important reason given was that the isles are interested in renewable energy from an energy security and self-sufficiency perspective, which is taken up in various policy documents. The following statement illustrates this:

*So it is a policy objective/statement that we support renewables, but dependent on the nature, scale, design, location and so forth. There are limits clearly on what we can accommodate. But the key message is that the door is always open to have these conversations (Interview 2)*

The most important reason given, however was the desire to keep a sense of control over what is happening on and around the isles.

*How we get involved in the process I think is interesting. The other issue that, because obviously economic development fits within the department, we could be quite useful in terms of looking for funding streams or funding sources. The other issue is that there will be some terrestrial impact as well because there would need to be issues around substations, cables, and all those other things to get it back to the mainland. So again, that would our kind of foot in the door if you like to ensure that any negotiations would be to the benefit of the islands, both in terms of its community and the economy as well as the environment (Interview 4)*

*I would like to think though that any potential operator would work very closely with us for a number of reasons: one is obviously in terms of engaging with the community and other key stakeholder as well, including some of the statutory*

*consultation such as English heritage and natural England who we have very close relationships with (Interview 1).*

From an environmental point of view, there was interest in involvement because this could mean that there would be some kind of control over development and its potential impacts on the local environment. Fear was expressed about offshore developments damaging the area's AONB, which was considered a reason to be closely involved. A representative of one of the organisations described this situation in the local context:

*I think offshore wind, again, the sensitivities. Because obviously, because of the issues again around seascape, inter visibility, again, even offshore wind potentially could have quite a negative impact on the landscape and the environment. So we have always been very cautious I think about wind energy, whether at a quite domestic level through to the macro level, whether terrestrial or offshore. In terms of marine renewables, we actually do see our wave power as being a mayor asset, but would like to be closely consulted (Interview 1).*

From an organisational perspective, interest was certainly expressed for involvement in wave park management. One of the representatives of a community organisation described certain distrust towards outside organisations coming and developing something on the islands:

*People are resentful of so called 'experts' coming into the community. Go through the local channels (Interview 6)*

And another emphasized the importance of openness in scope of the involvement and influence of an organisation:

*I think as long as you are open from the start. And say, look, this is the issue, we come to you to let you know what the issue is, and we want your cooperation and help in going forward or not (Interview 8)*

Examples of organisations are Transition Scilly and the AONB Partnership, and the local IFCA.

However, strategies to engage the wider public revealed a different pattern: the majority of respondents were most interested in getting information about a project, and providing some input via surveys or open meetings in which they can engage in dialogue. Despite organisations expressing an interested in involvement and management of a potential wave park, there seemed little appetite from the general public to join in partnership approaches, or to drive a development themselves. Part of this can be attributed to the small size of the community, which causes people to often be engaged in many activities already, and a MRE would only add to this load, causing volunteer fatigue.

The above illustrates the importance for developers to tread carefully and find a balance between engaging the wider public, existing organisations on the islands that have a

mandate from the community, developing the project, and providing enough information to keep support. Lessons learnt from other research indicated that a way to avoid over consultation in the future was to approach the community via its community organisations, to ensure that engagement is already tailored to the local circumstances. Through this approach, developer and community can get most out of the engagement process.

By far the most important issue identified with community involvement in projects related to the potential to provide jobs and contribute to skill development in the community. Interviewees identified a serious issue in the community where young people are forced to leave the island for education and employment. Most of these cannot return to the islands due to the high prices and a lack of jobs. Interviewees described that it would be very desirable if developments could contribute to resolving this situation. Interviewees suggested dialogue about possible training and skill development within the community, in order to create meaningful involvement in management of a wave park. This would not only involve short to medium term training, but ensure that the community is prepared for involvement in the long term. Furthermore, strong connections and collaboration between the community and 40SouthEnergy was also suggested to increase for a development by creating a sense of ownership development.

### **5.3 Community interest in economic and financial involvement in the project, and the use of revenues arising from the management**

Interviewees agreed that there would be an appetite for financial involvement in the project at several levels. Interviewees representing official organisations responded positively to the idea of being financially involved but also indicated that they would like this to come with (financial) benefits for their organisation or for the wider community.

Before start offering potential investment, interviewees indicated that a developer coming in would need to be very clear about what is planned and what stage the development is at, and communicate this widely with the community. It was discussed that financial involvement is very different from delivering community benefits. One of the reasons to become involved with marine renewable energy of the Isles of Scilly was expressed by a government representative:

*And also, to seek to benefit the isles of Scilly. The worst case scenario would be: somebody would build a big wave installation or tidal installation off the isles of Scilly and almost bypasses the isles of Scilly and almost bypasses the isles of Scilly and goes straight back to the main land without any social or economic benefits to the islands. So all we got is the potential impacts of the development. And that potentially could be an issue for us (Interview 1)*

The following comment from an interviewee who discusses the Orecon development illustrates this:

*Unfortunately, they ran out of funding before this could happen: a shame really. But it was seized really wholeheartedly by the whole community, especially when they said: off course it will mean a reduction in your electricity charges. This will be lowering your electricity bills. This gets people on board. We were willing to have a contract with them 50-50 so that we would be an equal partner with the firm that developed these. In return, they would supply the islands with electricity. A pretty good idea, don't you think? So I think the reaction from locals would be positive to the new interest we have. (Interview 3)*

*I am sure they will be positive. I mean it hasn't been tested with the community, apart from in an informal way, but if it is pointed out that it will make a great saving on the electricity charge they might think: this is not a bad idea after all. (3)*

The community certainly is interested in the economic and financial involvement in the project. Areas of interest identified were supporting community groups via small grant schemes funded by either revenues of the project or contributions to the community for hosting a development. Crowdfunding was also received favourably. However, a strong need for early and clear communication from the developer was considered required for such a scheme to take off. It was considered that this awareness in the community was currently largely absent.

A difference was identified between financial involvement in the project and the community benefiting from hosting a development. The survey results as well as interview results demonstrate that communities expect to benefit from hosting a development, whether this consists of financial benefit or through other means. Discussing these issues frankly and upfront was considered important to identify parameters of the discussion and explore options.

Financial involvement in marine renewable energy developments was distinctly different from bringing economic benefits to the islands. Survey respondents expected a development to bring economic benefits to the islands. The importance of providing economic benefits was further discussed by all interviewees, and considered an important factor not only for establishing initial support for a MRE project, but also to help the community in its development. Any engagement that is likely to bring direct financial benefits or long term economic advantages for the community appears therefore much more acceptable. Community funds, contributions to community projects, schools and education, or any issue of importance identified by the community. Partnership approaches with organisations on the islands were suggested as ways to ensure community benefits. Examples of this can be found in other areas of the country, such as the Trust fund established in Shetland to provide community benefits when oil was found in the area, several wind farm projects (e.g. the island of Westray in Orkney), and the North-Yell tidal development. A member of various community organisations summarised the suggestions made by the interviewees:

*Ask opinions on the project. If all is favourable. I think there are definitely opportunities for development. Definitely good PR for a developer thinking along the*

*lines of offering wider community investments, a pot of money that would take say 1% of income and would put it into community projects. That would be a good sweetener. That is what we would be looking at for solar as well as wind. Whether it is something for kids or sport clubs, grant sort pot, environmental, whatever (Interview 11).*

One area identified where there would be room for negotiating community benefits is in the transportation area. Poor transport links and high costs of transportation were identified by survey respondent as a main area in which they would like to see change. Poor transport links and high costs of transportation were mentioned as negative characteristics that people would like to see changed. Engagement with the community and dialogue on the potential contribution of 40SouthEnergy to help improve this situation could for example be explored during engagement.

Interviewees emphasized the various funding streams coming into the islands to stimulate development, such as EU development funds and community funds. In the past, any business or organisation could apply to it to get money and conduct community focused, but not necessarily community projects. It was suggested that through thorough engagement with community groups, collaborative projects could be brought about between the community and developers, benefiting both.

## **5.4 Community interest in environmental data provided by 40South Energy**

Although discussed by some interviewees, obtaining wave and environmental data was not considered a major issue of importance compared to financial involvement or community benefits. However, it was discussed most often in relation to Marine Spatial Planning. Interviewees described that environmental data provided by 40SouthEnergy could be beneficial for developing of the local marine spatial plan, which is part of a system of marine spatial planning being implemented throughout the country. For this plan, data is needed not only about who uses what area of the sea, but also location of resources as well as marine features. The MCZ process was thought to have contributed to this to a certain extent, but there were many unknowns. One interviewee suggested that input from offshore renewables developers could potentially provide an input into the MSP process and work closely with communities.

Depending on the type of information, various organisations and institutions could be approached depending on the information available. A further potential for collaboration on this issue was identified, based on examples on the Isles of Scilly and other areas in the country (the North-Yell Development Company), where data was gathered collaboratively and with various members of the community. Dialogue between the organisations on the islands was suggested to solve these issues.

## **6. Conclusion: Engagement strategy**

The investigation conducted above indicates several lessons and recommendations for engagement strategies of 40SouthEnergy.

### **1. Create awareness and prime the community for engagement**

Early engagement has been identified in many guidance documents for stakeholder engagement. And although in the marine area in many cases it is not a prerequisite, most developers recognise the importance of engaging with the community at an early stage. In the case of 40SouthEnergy, although well-conducted early engagement had taken place with for example the fishers, there was a large absence of awareness of 40SouthEnergy and their activities in general. To fulfil 40SouthEnergy's objective to work closely with communities in deploying wave developments, it is important that early report will be built with communities. This process has already been initiated by 40SouthEnergy, but for reasons that are not completely understood, awareness of 40SouthEnergy and a potential development remained limited. An important lesson learnt from this experience would be that early discussions with local councils or stakeholder organisations gives no assurance that this information is disseminated to other stakeholders or the wider public. A blanket approach to engagement that covers all organisations would therefore be more appropriate.

The importance of early engagement also shows from the strong support found for marine renewable energy and wave energy in the Isles of Scilly, which was coupled with admitted unfamiliarity and lack of knowledge on the potential impacts of such a development. An important factor to consider when developing MRE in this community is that it is those things that respondents were unsure about are exactly the factors of the community that are valued the most. Tranquillity, tourism, seascape, are all important factors. It is therefore recommended that potential effects on these factors are clearly communicated to promote informed support and avoid kick-back if more negative effects are experienced than were anticipated. In a broader sense, it is important to recognise the great importance of the natural environment as well as community spirit for those living on the islands. Being cognisant of these issues and respecting their importance is key. Sensitivity to what is important to communities could certainly contribute to good relations with communities. Entering into negotiations through this is a good idea.

### **2. The community and the wave park: terms of involvement**

Particularly if the company's aim is to prime the community to become involved in a project: ideally, engagement starts as soon a broad location for the development is identified. This way, different stakeholders can potentially contribute to ideal site selection, engage in information gathering for a project. Priming the wider community with information and mitigate concerns will also contribute to this. Whilst this is taking place, discussions can be had about involvement in management in the park; the potential use of data; financial involvement; and use of any revenues.



Broad terms of involvement can be defined from this study:

- Contributions to community finances. It is important to note here that financial involvement in a project is not the same as community benefits. A dialogue about both is recommended. Providing community benefits was thought to increase support from the community
- Long term contribution to deliver jobs and skills to young islanders. This could improve both acceptance and prolonged involvement, especially developing the skills and experience required to become involved in wave park management. Once skills have been developed in the community it is possible to discuss further involvement and management.

### **3. Financial involvement and the use of revenues**

The interviews revealed a strong overall interest in economic and financial involvement in a project, in both the sense of community benefits (as discussed under point 2) and financial involvement. Suggestions made for financial involvement included partnership approaches where there is a community organisation present to work with, this can be explored during exploratory discussion with communities, joint funding applications, and shareholding of certain aspects of a development. There was clear consensus, however, that for this to happen, the community must first become more aware of the project (See point 1). Crowdfunding was thought by all interviewees a very interesting way of creating financial involvement for whoever is interested. However, before any crowdfunding campaign could take place, all interviewees agreed that the community must become much more aware of 40SouthEnergy and its activities.

Suggestions for use of the revenues included: community projects, local environmental projects, lower electricity prices, as well as potential contributions to manage transportation prices and availability.

### **4. Environmental data**

There is an interest in obtaining and sharing environmental data. During engagement, discussions can be had about what data is useful in for example the Marine Spatial Planning process, but also about how the community could participate in gathering data, following for example the RSPB's Big Garden Bird Watch. Detailed discussions were suggested between various organisations once they are more aware of the project and are engaged in the process.

## References

40South Energy (2013). "United Kingdom - Scilly airport WEP." Retrieved 1 November, 2013, from <http://www.40southenergy.com/wave-parks/uk-scillyairport-wep/>.

Bailey, I., J. West, et al. (2011). "Out of Sight but Not out of Mind? Public Perceptions of Wave Energy." Journal of Environmental Policy & Planning **13**(2): 139-157.

Bell, D., T. Gray, et al. (2005). "The 'Social Gap' in Wind Farm Siting Decisions: Explanations and Policy Responses." Environmental Politics **14**(4): 460-477.

Bowley, R. L. (2004). The fortunate islands - The story of the Isles of Scilly. St Mary's, Isles of Scilly, Bowley Publications.

Cornwall Development Company (2009). Penzance and the Isles of Scilly Strategic Investment Framework.

Cotton, M. and P. Devine-Wright (2011). NIMBYism and community consultation in electricity transmission network planning. Renewable energy and the public. P. Devine-Wright. London, Washington DC, Earthscan.

Council of the Isles of Scilly (2005). The Isles of Scilly Local Plan- A 2020 Vision. St Mary's, Council of the Isles of Scilly,.

Council of the Isles of Scilly (2007). Sustainable Community Strategy 2007-2020. Isles of Scilly, Council of the Isles of Scilly.

Council of the Isles of Scilly (2007). A sustainable energy strategy for the Isles of Scilly, Council of the Isles of Scilly.

Creswell, J. (1994). Research design: Qualitative and quantitative approaches. London, Sage.

Duchy of Cornwall (2006). "Around the Duchy - Isles of Scilly." Retrieved 6 November, 2012, from [http://www.duchyofcornwall.org/aroundtheduchy\\_islesofscilly.htm](http://www.duchyofcornwall.org/aroundtheduchy_islesofscilly.htm).

Haggett, C. (2011). "Understanding public responses to offshore wind power." Energy Policy **39**: 503-510.

IAP2 (2014). "IAP2: Good public participation results in better decisions." Retrieved 11 July, 2014, from <http://www.iap2.org/>.

Joffe, H. and L. Yardley (2004). Content and thematic analysis. Research methods for clinical and health psychology. D. F. Marks and L. Yardley. London, Sage: 56-68.

MET Office (2007). "South-West England: Rainfall." Retrieved 6 November, 2012, from <http://www.metoffice.gov.uk/climate/uk/location/southwestengland/rainfall.html>.

Office for National Statistics (2011). "Highest level of qualification." Retrieved 26 February, 2014, from <http://www.neighbourhood.statistics.gov.uk/dissemination/LeadTableView.do?a=7&b=6275139&c=Isles+of+Scilly&d=13&e=61&g=6410892&i=1001x1003x1032x1004&m=0&r=1&s=1390387148285&enc=1&dsFamilyId=2514>.

Office for National Statistics (2011). "Isles of Scilly." Retrieved 26 February, 2014 from <http://www.neighbourhood.statistics.gov.uk/dissemination/barChart2.do>.

Office for National Statistics (2011). "Neighbourhood statistics: Isles of Scilly (Local Authority)." Retrieved 26 February, 2014, from <http://www.neighbourhood.statistics.gov.uk/dissemination/LeadKeyFigures.do?a=7&b=6275139&c=Isles+of+Scilly&d=13&e=62&g=6410892&i=1001x1003x1032x1004&m=0&r=1&s=1390386707254&enc=1>.

## Appendix 1 Questionnaire survey

### Marine energy in the Isles of Scilly



#### Introduction

Please would you help with a research project on public opinions towards marine renewable energy in small island communities by filling out this questionnaire. The survey is part of a PhD project at Plymouth University and is funded by the MERiFIC project, which investigates marine energy in rural and island communities.

The survey seeks to explore your opinions about marine energy (wave, tidal, offshore wind) in general, your views on marine energy on the isles of Scilly, and what informs your opinions. We also hope to gather your thoughts on the possible benefits and impacts of marine energy on the Isles of Scilly. We are interested in your genuine hopes and concerns, and how you think marine energy might affect you. There is no marine energy development planned for the Isles of Scilly, and this research is not industry related. However, your views are really important in helping us understand local communities' feelings towards marine energy and the wider context of renewable energy.

We appreciate your help with this survey. If you would like more information about the project, please contact Jiska de Groot by email: [Jiska.degroot@plymouth.ac.uk](mailto:Jiska.degroot@plymouth.ac.uk).

ALL INFORMATION YOU PROVIDE IN THE QUESTIONNAIRE WILL BE CLASSIFIED AS ANONYMOUS AND CONFIDENTIAL

#### **Section A:** *This section explores your opinions on the Isles of Scilly*

##### **A1. Which of the following best describes your residential status on the Isles of Scilly?**

Full-time Resident  (PLEASE GO TO A3) Part-time resident  (PLEASE GO TO A2 AND A3) Visitor   
(PLEASE GO TO A2)

##### **A2 If you are a part-time resident or a visitor, how much time do you spend each year on the Isles of Scilly?**

|                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| One-off visit            | Less than a month        | 1-3 months               | 4-6 months               | 7-9 months               |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

##### **A3 How long have you been lived/spent time on the Isles of Scilly as a resident/part time-resident?**

|                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Less than a year         | 1-5 years                | 6-10 years               | 11-20 years              | 21-30 years              | 30+ years                |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**A4 Each statement on this page refers to the Isles of Scilly. How important are each of these things to you?** (FOR EACH STATEMENT PLEASE TICK THE BOX THAT BEST MATCHES YOUR PERSONAL RESPONSE)

|   | Strongly Agree           | Agree                    | Un-decided               | Disagree                 | Strongly Disagree        |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| I come to/live on the Isles of Scilly because of the natural surroundings | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The Isles of Scilly have a strong sense of community togetherness         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| My employment ties me to the Isles of Scilly                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am on the Isles of Scilly because of family ties                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| From time to time, I rediscover new things about the Isles of Scilly      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The Isles of Scilly mean a lot to me                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I feel a strong connection with the Isles of Scilly                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|   |                          |                          |                          |                          |                          |
|   | Strongly Agree           | Agree                    | Un-decided               | Disagree                 | Strongly Disagree        |
| I like to be involved in what is going on in the Isles of Scilly          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I am keen to leave the Isles of Scilly                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The tranquillity of the Isles of Scilly is important to me                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I approve of change on the Isles of Scilly                                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| I have never considered how I think of the Isles of Scilly                | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**A5 What are the three main characteristics of the Isles of Scilly?** (PLEASE GIVE UP TO THREE DISTINCTIVE FEATURES OF THE ISLES OF SCILLY, EITHER POSITIVE OR NEGATIVE)

|    |                                   |  |
|----|-----------------------------------|--|
| 1) | Negative <input type="checkbox"/> | Is this: Positive <input type="checkbox"/> |
| 2) | Negative <input type="checkbox"/> | Is this: Positive <input type="checkbox"/> |
| 3) | Negative <input type="checkbox"/> | Is this: Positive <input type="checkbox"/> |

**A6 If you could protect one aspect of the Isles of Scilly, what would it be (e.g. beaches, wildlife, community spirit, etc.), and why?**

**A7 Do you think there is anything that needs changing on the Isles of Scilly, if so, do you have any suggestions?**

**Section B: This section explores your opinions on renewable energy *in general***

**B1 Generally, do you support the idea of renewable energy?**

Yes  No  Unsure

**Why do you feel this way?** (PLEASE EXPLAIN THE ANSWER GIVEN ABOVE)

|                                       | Definitely               | Maybe                    | Definitely not           | Indifferent              | Don't know               |
|---------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Solar/photovoltaic                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Onshore wind                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Hydro-electric power                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Biomass (e.g. crops grown for energy) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Offshore wind                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tidal power                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Wave power                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Other, please specify ...             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**B3 How important do you think the following reasons are for developing renewable energy in the UK?** (FOR EACH STATEMENT PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR OPINION)

|                                  | Very important           | Important                | Neutral                  | Unimportant              | Very unimportant         |
|----------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| A secure energy supply in the UK | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Affordable energy for consumers  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| A competitive UK economy         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tackling climate change          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Section C: This section explores your opinions on marine energy**

**C1 What is your overall attitude towards marine energy such as offshore wind, wave and tidal energy?**

Very Positive  Positive  Neutral  Negative  Very Negative  Don't know

**Why do you feel this way?** (PLEASE EXPLAIN THE ANSWER GIVEN ABOVE)

**C2 What is your attitude towards developing different types of marine renewables around the Isles of Scilly?** (FOR EACH OPTION PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR OPINION)

|               | Very positive            | Positive                 | Neutral                  | Negative                 | Very Negative            | No opinion               |
|---------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Offshore wind | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Wave          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tidal         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Section D:** *This section explores reasons for the opinions given in the previous sections*

**D1 How much do you agree with the following statements about the environment?** (FOR EACH STATEMENT PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR OPINION)

|  | Strongly Agree           | Agree                    | Un-decided               | Dis-agree                | Strongly Disagree        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| The Earth has plenty of natural resources if we just learn how to develop them | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Humans are seriously abusing the environment                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| We are approaching the limit of number of people the Earth can support         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Human ingenuity will ensure that we not make the Earth unliveable              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Humans were meant to rule over the rest of nature                              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The so-called 'ecological crisis' facing humankind is greatly exaggerated      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Humans have the right to modify the natural environment to suit their needs    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The balance of nature is very delicate and easily upset                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Plants and animals have as much right as humans to exist                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

|   | Strongly Agree           | Agree                    | Un-decided               | Dis-agree                | Strongly Disagree        |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| When humans interfere with nature it often produces disastrous consequences                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Humans will eventually learn enough about nature to be able to control it                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The Earth is like a spaceship with very limited room and resources                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| If things continue on their present course, we will experience a major ecological catastrophe | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Despite our special abilities, humans are still subject to the laws of nature                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Nature is strong enough to cope with the impacts of modern industrial nations                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**D2 To what extent do you agree or disagree with the following statements?** (FOR EACH STATEMENT PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR OPINION)

|  | Strongly Agree           | Agree                    | Un-decided               | Dis-agree                | Strongly Disagree        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| We can achieve environmental protection and economic growth at the same time                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| National energy choices should not only depend on economic factors but also on environmental factors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

|   |                          |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Protecting social and natural environments should be given top priority even at the risk of curbing economic growth | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| The most important role for the marine area is providing economic benefits  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| It is important that the UK invests in the most environmentally sound energy supply, even if it is more expensive   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| We must relax environmental standards to achieve economic growth  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**D3 To what extent do you agree or disagree that marine energy will...** (FOR EACH STATEMENT PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR OPINION)

|  | Strongly Agree           | Agree                    | Undecided                | Disagree                 | Strongly Disagree        |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Provide cheap energy in the future                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Provide benefits for local communities                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Impact positively on fish and wildlife habitats                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Benefit the wider UK society   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lead to large changes on the Isles of Scilly for residents           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Negatively impact on local fisheries                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Increase business opportunities on the Isles of Scilly               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Negatively affect marine recreation (e.g. surfing, angling, boating) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Lead to more jobs on the Isles of Scilly                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Negatively impact on the tranquillity of the Isles                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Positively impact the attractiveness of the Scillies for tourists    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Negatively impact on the seascape                                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Section E: This section explores community consultations on marine energy**

**E1 Below six forms of involving communities in decision making are described. How suitable do you think they could be for including the Isles of Scilly community in discussions on marine energy projects?** (FOR EACH ACTIVITY PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR OPINION)

|   | Very good                | Good                     | Neutral                  | Bad                      | Very bad                 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>Information giving</b> ( <i>Information is provided to the public and other interested parties on relevant issues</i> )  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <b>Information gathering</b> ( <i>detailed information on attitudes, opinions and preferences is collected to aid decision making by gaining an understanding of issues that are important to the community</i> ) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



- Consultation** (detailed feedback is asked on evidence presented about marine energy and alternative options are proposed)
- Involvement** (participants are involved in analysing and developing options)
- Partnership** (direct involvement in decision making, including the development of alternatives and choosing a preferred solution)
- Empowerment** (Decisions, resources and control are given to local communities)

**E2 If the ways of involving the community described above would be offered to you, which ones would you consider participating in?** (FOR EACH ACTIVITY PLEASE TICK THE BOX THAT BEST DESCRIBES YOUR CONSIDERATION)

|   | Yes                      | Maybe                    | No                       | Unsure                   |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| Information giving (SEE QUESTION E1 FOR AN EXPLANATION OF THIS ACTIVITY)    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Attending an information evening  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Information gathering (SEE QUESTION E1 FOR AN EXPLANATION OF THIS ACTIVITY) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Community survey  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Small (unofficial) discussion group   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Consultation (SEE QUESTION E1 FOR AN EXPLANATION OF THIS ACTIVITY)          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Public meeting  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Written or oral contribution during official consultation phase             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Involvement (SEE QUESTION E1 FOR AN EXPLANATION OF THIS ACTIVITY)           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Official workgroup for discussing the development                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Partnership (SEE QUESTION E1 FOR AN EXPLANATION OF THIS ACTIVITY)           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Empowerment (SEE QUESTION E1 FOR AN EXPLANATION OF THIS ACTIVITY)           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Joining a protest group   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

**Section F:** This section asks you for some details to help analyse and interpret the data

**F1 What is your age?**

- 18-28       29-39       40-52       53-64       65-78       78-89   
 90+

**F2 What is your gender?**

- Male       Female

**F3 What is your highest level of education or qualification?**

- GCSEs       A 'levels       Higher Degree (eg. MSc, PhD)

Degree                       NVQ or equivalent                       No formal education   
 Other,   
 please indicate...

**F4 Are you...?**

Retired                       Housewife/husband                       Unemployed   
 Self-employed/freelance                       Student                       Employee   
 Other,   
 please indicate...

**F5 If you are employed, self-employed or student, what sector matches your situation most?**

|  |                                      |   |
|--|--------------------------------------|---|
| Manufacturing <input type="checkbox"/>         | Tourism <input type="checkbox"/>     | Finance/IT/other business activities <input type="checkbox"/> |
| Construction <input type="checkbox"/>          | Transport <input type="checkbox"/>   | Retail <input type="checkbox"/>                               |
| Public administration <input type="checkbox"/> | Fisheries <input type="checkbox"/>   | Arts/culture <input type="checkbox"/>                         |
| Education <input type="checkbox"/>             | Agriculture <input type="checkbox"/> | Oil and gas <input type="checkbox"/>                          |
| Other, <input type="checkbox"/>                |                                      |   |

please indicate

Thank you very much for your participation in this survey. Are there any other issues that you would like to raise? Please use the box below to describe these.

If you would like to be contacted with the feedback and results of this study or wish to be contacted for a small discussion group to discuss your views about marine energy please provide contact details below.

Would you be available to explain your opinions in more detail in a small discussion group?

Yes                       No

Email address:

Telephone:

---

PLEASE TEAR ALONG THE LINE ABOVE IF YOU WOULD LIKE TO KEEP THE REFERENCE NUMBER WITHDRAWAL INFORMATION

ALL THE INFORMATION YOU PROVIDE IN THIS QUESTIONNAIRE WILL BE CONFIDENTIAL, AND THAT BY COMPLETING THIS QUESTIONNAIRE YOU GIVE CONSENT FOR THE INFORMATION PROVIDED TO BE USED IN ANALYSIS OF THE SURVEY. IF YOU WANT TO WITHDRAW FROM THE RESEARCH PLEASE CONTACT JISKA.DEGROOT@PLYMOUTH.AC.UK, AND MENTION THE CODE BELOW

Code:



## Appendix 2 List of interviewees and affiliations

**Type of organisation ( to respect privacy of interviewees and compliance with the ethics approval, no specific names of individuals or organisations can be given).**

|                        |              |
|------------------------|--------------|
| Government             | 3 interviews |
| Third sector           | 3 interviews |
| Power distribution     | 1 interviews |
| Community organisation | 2 interviews |
| Duchy of Cornwall      | 1 interviews |
| Local business owners  | 4 interviews |
| Estate manager         | 1 interviews |
| Fishing organisation   | 1 interviews |