COMMUNITY BENEFIT FUNDS AND WIND POWER:
A SCOTTISH CASE STUDY

Dissertation in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE WITH A MAJOR IN WIND POWER
PROJECT MANAGEMENT

UPPSALA
UNIVERSITET

Uppsala University
Department of Earth Sciences, Campus Gotland

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ABSTRACT

The Scottish government’s aim of deriving 100 per cent of the nation’s electricity from renewable sources is dependent on the utilisation of wind energy. Social barriers, however, have continued to threaten these targets. Community benefit funds have often been paraded as the most common way of improving public attitudes towards wind farms in the United Kingdom, although little empirical evidence exists to support this notion. Using the proposed Ourack wind farm, approximately three and a half miles north of Grantown-on-Spey in the Scottish Highlands, this case study, consisting of a sequential explanatory research design comprised of an initial close-ended survey followed by in-depth semi-structured interviews, sought to explore the community’s perceptions of community benefits, identify the type of fund that the community wanted, and investigate the role of such benefit provisions in altering perceptions of wind farms. The key findings indicated that the majority of participants were in favour of benefits being provided, they preferred funding to be directed towards community organisations, and approximately one third of research participants (31.6 per cent) perceived the proposed wind farm in a more positive light after considering the possible benefits the region would accrue. Furthermore, the research indicated the need for community benefits to become a standardised part of the planning process, thus reducing the likelihood of financial benefits being perceived as bribes, and allowing developers to provide greater information about any proposed benefits scheme prior to applying for planning permission. There are implications of this study for academics researching the
role of community benefits in wind farm planning, and policymakers and developers for understanding the wants and needs of community members.
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<td>Not-In-My-Back-Yard</td>
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<td>SSE</td>
<td>Scottish and Southern Energy</td>
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<td>YMCA</td>
<td>The Young Men’s Christian Association</td>
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CHAPTER 1. INTRODUCTION

In the Scottish Government’s Programme for Scotland 2017-2018, Nicola Sturgeon, the First Minister of Scotland, claimed that “we have a moral responsibility to tackle climate change and an economic responsibility to prepare Scotland for the new, low carbon world” (Scottish Government, 2017a: 3). An integral aspect of this has been the rapid deployment of renewable energy infrastructure, leading to a 2020 target of 100 per cent of the nation’s electricity deriving from renewable means.

Due to Scotland’s unrivalled wind resources, the utilisation of wind energy has been instrumental in putting the government on track to meet its energy targets, with wind power accounting for 76 per cent of installed renewable energy capacity in 2017 (Scottish Government, 2017b: 47). The rapid uptake of wind power has not been without problems, however, with significant public opposition being reported in various newspapers and academic articles.

Using a case study in Scotland, this thesis explored the perceptions of community benefit funds, and their role in altering attitudes towards an onshore wind farm development. A mixed methods approach consisting of 19 quantitative close-ended surveys and qualitative semi-structured interviews were adopted to create robust and intriguing results.

Research Aims

The reason for this research, therefore, was to investigate the role that community benefit packages play in the formation of wind farm perceptions. The aims of the thesis were fourfold. First, to critically review the established literature on community benefits in the wind energy sector. Second, to empirically explore the perceptions of community benefit packages in relation to a proposed onshore wind farm. Third, to identify the favoured structure of a community benefit fund. Finally, to investigate the impact of community benefits, if any, in altering attitudes toward the
development. The findings of this research will provide practical assistance to wind farm managers and policymakers alike.

**Dissertation Structure**

Chapter one will introduce the reader to the central debates within the established literature on community benefits in the wind power sector. The literature review begins by briefly summarising the perceptions of wind farms literature, before exploring community benefits, and their role in altering wind farm perceptions, more comprehensively. Chapter two examines the thesis’ chosen mixed methods research design, including the philosophical and practical reasons for employing both qualitative and quantitative methods, the research location and participants, and the methodological limitations to the study. Chapter three introduces and discusses the research findings, placing them in a wider literature context where applicable. Finally, the conclusion compounds the key elements of the previous chapter, culminating in recommended actions for industry and government, and recommended future research for academia.
CHAPTER 2. LITERATURE REVIEW

The aims of this literature review are threefold: to briefly summarise the perceptions of wind power literature, to discuss the key arguments in the community benefits literature, and to introduce and consider the studies that specifically explore the relationship between community benefits and altering attitudes toward wind farm developments.

Perceptions of Wind Farms

Social barriers to the implementation of wind energy have been routinely discussed in the perceptions of wind power literature, with several studies citing public opposition as being the principal threat to an increase in installed wind power capacity (Wolsink, 2000; Van der Horst, 2007). Several reasons for this public opposition have been cited in the literature, such as the impact of wind turbines on birds and bats (Bell et al., 2005; Pasqualetti, 2011), the role of wind farms in discouraging tourists (Warren et al., 2005; Haggett, 2008), the general visual impacts (Krohn and Damborg, 1999; Johansson and Laike, 2007) and place attachment (Devine-Wright and Howes, 2010; Devine-Wright, 2009; Janhunen et al., 2014), for example. It is clear, therefore, that perceptions of wind farms are a particularly multi-faceted issue, with what appear to be various, interlinking issues causing communities to oppose the development of wind farms (Groth and Vogt, 2014: 7).

Community Benefits

Regardless of why certain attitudes are formed, developers are tasked with altering these negative perceptions - or, if possible, preventing them from the outset - which can pose significant risks to their proposed projects, especially in the United Kingdom where social acceptance risks are seen as particularly concerning (Noothout et al., 2016: 152). Community benefits, in one form or another, have become increasingly popular, partially, according to some researchers, as it is seen as a means of fostering greater support within communities for wind power developments in their proximity.
What are community benefits?

Unlike some other European nations, such as Germany and Denmark, the United Kingdom does not have a long, or prominent, tradition of community ownership of onshore wind projects. Instead, the onshore wind sector has been dominated by large energy companies, with very little community ownership (Stenzel and Frenzel, 2008: 2649; Aitken, 2010b: 6066; Strachan and Jones, 2012: 174). There have, however, been some examples where communities have taken full or partial ownership of wind developments. One particular example, which generated significant attention within the British media and energy sector, was the Earlsburn Wind Farm in central Scotland. In the mid-2000s Falck Renewables came to an agreement with a small community, Fintry, which would see Falck add an additional wind turbine to their proposed fourteen turbine wind farm. In return, the Fintry community would own one-fifteenth (1/15th) of the wind farm’s energy output. The community, under the newly-formed ‘Fintry Development Trust’, negotiated a loan with the developer to allow them to make the purchase of one wind turbine. According to Gordon Cowtan, one of the two founders of the Fintry Development Trust, “Rather than saying to the development, we don’t want these things; we said, can we have some more please?...We grabbed the agenda; we saw this was potentially a great things for the village. Only one person objected” (Scott, 2009). It was estimated that Fintry was expected to “gain revenues of £50-100,000 per annum, rising to £400-500,000 per annum once the capital [was] paid off” (Munday et al, 2011: 9). Additionally, community ownership of wind energy projects can be realised through opportunities for members of affected communities to purchase shares on an individual basis in nearby wind developments. Although several other European countries make it compulsory for energy developers to offer local residents the opportunity to buy shares in a new development, the U.K. sets no obligation for developers to offer community ownership. Strachan et al (2010), for example, found that the bulk of onshore wind
projects in Denmark and Germany were owned by the community through cooperatives or individuals. In addition, Strachan and Jones (2012) claim that approximately half of all onshore wind capacity in the Netherlands is owned by farmers and other local investors (178). Due to the relative scarcity of community-owned wind energy projects in the U.K., this study focusses on community benefit packages, which, although closely related to community ownership, are usually considered a separate type of benefit.

The community benefits literature has, according to Strachan and Jones (2012), received greater attention in the U.K. than in other European countries due the “absence of community ownership” (180). Community benefit packages, unlike community-led schemes, usually do not enable local residents to purchase any stake in an onshore wind farm. Instead, “the developer offers a fund, per annum, per megawatt of installed capacity, to community organisations, for spending on local projects” (Cowell et al, 2011: 540). This form of the benefit package dominates the British onshore wind energy landscape, which has resulted in several articles being written pertaining to community benefits.

That being said, however, the literature remains relatively bare with regards to the ways in which community benefits packages are perceived by the general public, and, particularly, their role in altering attitudes toward onshore wind developments. Strachan and Jones (2012), for example, found that although there has been an increasing tendency for developers to offer community benefit packages as a means of improving developer-community relations, “community benefit funds are only playing a very small part in winning wider community acceptance” (189-190). Similarly, Cass et al (2010) in a mixed-methods study involving developers, key local stakeholders, and other local members of communities, identified high levels of doubt and suspicion surrounding community benefits packages, thus implying the minimal effect of their application: “While we see a mix of views across the focus group discussion, there is much questioning, much skepticism and a significant degree of dismissal of the significance of any local benefits that are being offered or claimed” (270). Devine-Wright (2012) also argued that “while this [community benefit] provision is typically
driven by an instrumental rationale that presumes greater levels of social acceptance to flow benefit provision, there is little evidence to suggest that this is the case”. Furthermore, Aitken (2010b), in her longitudinal study, claimed that it was “unclear whether those who were strongly opposed to the wind farm would ever have accepted the community fund as a positive feature of the development” (6073). Such empirical studies – although particularly scarce – appear to be at odds with the mainstream view that “local financial gain is critical to the acceptance of new turbines” (Devlin, 2005: 507). My research seeks to challenge the assertion that community benefit packages influence social acceptance of onshore wind farms.

Although, due to the paucity of empirical studies, it is unclear as to the viability of community benefits packages as means of altering project perceptions, the literature does, however, discuss in greater depth the key challenges involved in providing community benefits. Two key questions arise in the literature, and these will briefly be discussed in turn.

1) Who is the affected community?

‘Community benefits’ in the wind energy sector has been identified as a particularly ambiguous term within the literature (Goedkoop and Devine-Wright, 2016: 136). Munday et al (2011) for example claim that “attempts to define ‘community benefits’ in the context of wind energy development immediately fall foul of the complex and contested nature of ‘community’ (2). ‘Community’, according to Simcock (2016: 467), is a particularly “fuzzy term” (467). The UK government’s Department of Trade and Industry (DTI) published a report in 2005 looking into the provision of community benefits in the UK compared with neighbouring European nations. The DTI distinguished two primary types of ‘community’: Communities of locality, which include areas surrounding, and affected by, the wind farm, and communities of interest, which include all ‘users’ of – or those who gain utility from – the land, regardless of where they live (DTI, 2005: 20). The former is, however, the most common way that
wind energy developers define ‘community’ (Strachan and Jones, 2012: 181). Defining the boundaries of ‘communities of locality’ have, however, caused significant issues (Strachan and Jones, 2012: 180; Munday et al, 2011: 2; Aitken, 2010b: 6071). It is clear from the literature and recent projects that wind farm developers predominantly use proximity to site as the primary means of defining the affected community. Although understandable in theory, in practice this can conjure up a scenario where those directly affected by the visual element of wind developments receive the same amount – or perhaps less, if any at all - of community benefit as those who are unable to see the wind turbines but live within a certain radius of the development. Aitken (2010b) in a longitudinal study over five years of an onshore wind farm in rural, Central Scotland, found that some objectors questioned the distribution of the community benefits package due to this reason. As one objector argued: “...It is ironic that the communities...actually benefiting...can’t even see the wind farm and it doesn’t even affect them in any way at all” (6072). Therefore, it is evident that even prior to the establishment of the benefit package that will be offered to the affected community, distributive justice, which “concerns the ways the distribution of costs, risks, and benefits between different actors is perceived”, must be considered (Goedkoop and Devine-Wright, 2016: 137).

2) What type of benefits should be provided?

Once the affected community has been identified and defined, arguably the most salient and contentious aspect of community benefits packages is what the packages themselves should consist of. As briefly discussed earlier in the review, community benefit funds have become the most popular type of community benefit provision in the U.K.. Cowell et al (2008) reviewed the provision of community benefit provision in Wales and found that most developers offered packages, with community benefit funds being by far the most popular. The study, which is now ten years old, included both older (pre-1999) and more recent (post-1999) developments, showed an obvious
movement towards all of the newer onshore wind developments offering community benefits of some type. Munday et al (2011) refer to such benefit packages as “flows of financial benefits to local community”, which could be in the form of a community fund, subsidised electricity or the sponsorship of events in the area, for example, and, according to them, is merely one type of five potential ‘community benefit’ categories (2-4). The remaining types of community benefits include ‘conventional economic benefits’, which pertain to rental fees being paid to landowners, or the use of local contractors and materials; ‘contributions in kind to local assets and facilities’, which can involve the creation of access roads that others users can make use of, ecological enhancement measures, or wind farm visitor facilities, for example; ‘provision of other local services’, such as educational programmes; and ‘involvement in the development process’, which Munday et al (2011) define as “various forms of liaison activity” (3). The study found that 21 of the 29 existing onshore wind farm developments offered community benefits, with 8 out of the 14 post-1999 developments channeling funds to sustainable energy projects. This, according to Munday et al (2011) “plays to their expertise in the energy field, and provides an overall green energy narrative for their development” (7). Few researchers have empirically explored communities’ wants with regards to benefit packages. Strachan and Jones (2012) argue that “what is clear from the available evidence…is that the developer, based on their own internal assessment of likely financial gain, is the principal agent in shaping the community benefits provision” (183). SSE, for example, has a uniform community benefit model that they roll out for each wind power development, according to Strachan and Jones (2012: 183), which indicates that the ‘affected’ communities have limited say in deciding what form the benefits package will take. Furthermore, Aitken (2010b), in a comprehensive case study analysis of community benefits, discusses with interviewees what the community benefit fund was spent on, but fails to explore whether the research participants were content with the type of benefit package that had been, it appears, chosen entirely by the developer. Vattenfall, although yet to disclose their community benefit plans for the Ourack development, have mentioned that they are “committed to working…with local
communities and stakeholders to consider the opportunities that a wind energy project might offer in the area – from the community benefit fund to community ownership and any other ideas you may have” (Vattenfall, 2015a). A key component of my study was to explore the true wants from a community benefit package, if any, of the Grantown and Dava community.

Cowell et al (2008) found that, on average, £1000 to £2000 per installed megawatt (MW) was paid by developers to the local communities in Wales. Similarly, Miner (2009) claimed that British council areas with less formal planning processes saw community funds of approximately £1000 per MW, compared to £2000 for certain council areas within Scotland that had more formalised planning processes. These figures correspond with the Scottish Government’s (2010) research that identified the average Scottish figure as £1700 per installed MW. The Highland Council, whose boundaries the Ourack Wind Farm fall within, stated that developers should be contributing £5000 per installed MW to community funds for onshore wind farms in its region (Highland Council, 2013: 1). This figure is echoed by the Scottish Government (2013), who have asked for a “national rate equivalent to at least £5,000 per MW per year, index linked for the operational lifetime of the onshore wind development” (7).

Perceptions of Community Funds

My study seeks to explore community members’ attitudes toward community fund provisions and identify if community funds have the potential to alter perceptions of onshore wind developments. Aitken (2010b) argues that the concepts of ‘trust’ and ‘fairness’ are central to debates around proposed renewable energy developments, however, these concepts are complex, ambiguous and interrelated” (6066). Several other studies within the literature, for example Wolsink (2006) and Walker et al (2015), have emphasised the importance of generating trust and perceptions of fairness in wind energy developments. Most researchers agree, to differing extents, that the presence of both distributive and procedural justice in wind energy developments are integral to the success of such projects (Walker and Baxter, 2017: 160; Simcock, 2016: 467-468). In
addition to distributive justice, which was briefly discussed earlier, procedural justice can be defined as “the perceived fairness of a decision-making process” (Goedkoop and Devine-Wright, 2016: 137), or as Frey et al (2004) state, “procedures which are seen as fair are...those that give individuals ‘voice’”. It is argued, therefore, that the benefits which could accrue to a particular community from a nearby wind farm development, or whether the development was allowed to be constructed at all, is not the only defining aspect of what makes a development ‘just’; stakeholders need to perceive the entire planning and engagement process as ‘fair’ and ‘just’. Gross (2007), in fact, claims that communities may accept unfavourable outcomes if the process leading to those outcomes were perceived as fair. My survey and interview questions included both distributive and procedural elements.

Aitken (2010b), from what I can find, is the only example of a researcher exploring the perceptions of community benefits on offer by researching one particular community during the three stages of a wind farm’s development (planning, construction, and operation). Aitken (2010b) found that differentiating distributive justice, or the benefits package, from procedural justice, or the decision-making process, was particularly arduous, as they were effectively intertwined concepts; initial suspicions of the developer’s motives, and feelings of a lack of fairness in the planning process, led research participants to consider the benefits package as a bribe, thus highlighting the inextricable link between procedural and distributive justice. Considerations of community benefit packages as ‘bribes’ is a common feature in the literature. Cowell et al (2011), for example, in a study analysing the impact of wind energy community benefits packages in Wales, found that many community members contested the legitimacy of community benefits as “no amount of money can compensate for the loss of the Welsh landscape” and that community benefits are “...a bribe for the loss of something priceless” (551). Similarly, Cass et al (2010) claimed that the notion of bribery “permeated much of the discussion of community benefits and appeared as a constant tension in how their provision should be implemented” (262). Furthermore, Bell et al (2015) claimed that community benefits can be seen as bribes when a financial
package is not offered to the affected community at the outset of the development, but only after a “division between developers and opponents emerges” (473). On the other hand, however, wind farm developers are often reluctant to define community benefit plans prior to planning permission being granted at risk of being perceived as attempting to influence, or ‘buy’, planning permission (Meacham, 2012: 5; Aitken, 2010b: 6070). This dilemma as to when, if at all, wind farm developers should disclose community benefit plans has led to several academics suggesting that community benefits should become standardised and compulsory for all new wind farm developments in the U.K (Strachan and Jones, 2012: 190; Aitken, 2010b: 6070). Although this policy amendment has yet to be made, the Scottish Government and various local councils, including the Highland Council, have attempted to define a standard amount per installed MW capacity, as discussed previously, as a means of reducing uncertainty in the planning process. Neither the Scottish government nor the Highland Council state how they would like that sum of money to be spent, however, which creates another dilemma for the developer.
CHAPTER 3. MATERIALS AND METHODS

This thesis investigated the perceptions of community benefits, and their role in creating opposition or support for the development of a proposed wind farm. It was decided that qualitative research methods comprising of 19 in-depth, semi-structured interviews and a basic quantitative survey, in conjunction with a literature study, would create the most robust findings.

Methodology and Research Methods

Snider (2010) argues that “numbers impress. But they also tend to conceal more than they reveal” (20). The chosen research questions primarily sought to explore ‘why’ people thought what they did. As a result, semi-structured interviews enabled me to “reveal” what quantitative methods may have “conceal[ed]”. In other words, semi-structured interviews created a two-way dialogue between myself and the research participants, allowing them to explain their points of view in greater depth, whilst simultaneously providing me with the opportunity to engage with whichever salient themes arise (Dunn, 2010: 103). In a similar vein, Valentine (1993) believes that “the [qualitative] material generated…is rich, detailed and multi-layered, producing a ‘deeper picture’ than a questionnaire survey” whilst “the explanatory power of questionnaires can be limited” (111).

Opting for the inclusion of qualitative methods in the research design was also based on recommendations from the wind power literature. Aitken (2010a), for example, who reviewed the literature on attitudes towards wind power, argued, like Valentine (1993) prior, that the explorative capabilities of qualitative methods allow for a ‘deeper picture’ than quantitative methods, thus making them particularly suited to researching public perceptions in the wind power sector: “Recent studies have drawn attention to the value of qualitative methods for exploring how energy technologies are perceived and experienced by members of the public attitudes and responses…Rather than relying on
brief citations of opinion poll data the literature ought to base its central arguments on more detailed, qualitative analyses” (1835).

With all of that being said, however, quantitative methods were also seen as a useful addition to this study. Qualitative methods, as discussed above, allow an in-depth conversation with the research participants, thus enabling me to probe and form new questions in that particular moment. On the other hand, quantitative methods can allow a ‘snapshot’ of the participants’ opinions, which “appeals to people’s preferences for numbers” and visual representations of data (Creswell, 2015: 5). Furthermore, such a ‘snapshot’ gives the researcher an idea of what to expect, and allows her or him to tailor interview questions accordingly. Additionally, Groth and Vogt (2014), in a study on the perceptions of social, economic and environmental costs and benefits of a Michigan wind farm, found that the survey and interview findings differed significantly, thus prompting me to not rely on only one method for my data. As a result, this study sought to combine both quantitative and qualitative methods by adopting a “sequential explanatory design”. This design, which utilises quantitative methods to provide initial data before turning to qualitative methods to further substantiate and question that data would allow me to “obtain a more comprehensive view and more data about the problem than either the quantitative or the qualitative perspective” (Creswell, 2015: 15).

First, a closed-ended survey with ten questions, predominantly comprising of five-point Likert-scale questions from 1 (strongly agree) to 5 (strongly disagree) and simple ‘yes’, ‘no’, or ‘maybe’ questions. Two questions, however, allowed some more flexibility, giving the participants the chance to state their main concerns about the wind farm development, and how they would prefer a potential benefits package to be spent in the community. Furthermore, two questions asked the participants to estimate the annual community benefit provision of a neighbouring wind farm, and to estimate the likely benefits to be accrued from the proposed Ourack wind farm. The survey questions were largely centred on notions of procedural and distributive justice. Questions relating to procedural justice, for example, sought to explore perceptions of inclusion and influence (e.g. Question 8: “How would you feel about the community being given the chance to
vote on the wind farm proposal?”), and information provision (e.g. Question 3: “Are you aware that Vattenfall (the developer) is interested in providing community benefits?”), which Simcock (2016) suggests are the three most salient themes to discuss when interrogating perceptions of procedural justice. Survey questions pertaining to notions of distributive justice, on the other hand, focussed on two main themes: Who should receive benefits? And what benefits should be received? These questions led to multiple further, and interrelated, questions during the interview stage of the research.

These survey questions then formed the basis for my interview questions, allowing some degree of flexibility to deviate slightly depending on the interviewees’ survey responses and other intriguing discussions brought up during the interviews.

**Site and Population**

The Grantown-on-Spey and Dava region in the east of the Scottish Highlands was selected as the ideal location for carrying out this research for three reasons. First, in 2015 Vattenfall expressed interest in developing a wind farm to the north of Grantown-on-Spey and to the south of Dava (Vattenfall, 2015a; See Fig.1.). Since then, a scoping phase has taken place, which included applications for the temporary installation of two 90 metre tall met masts to gain a more in-depth understanding of local wind conditions being rejected by the Highland Council in February, 2015. Vattenfall lodged an appeal to the Scottish Government, as is standard procedure in such a scenario, and in September, 2015 this appeal was upheld, allowing the installation of said masts (Candlish, 2015). This resulted in recent media coverage and assumed greater knowledge of the proposed development within the region, which, in turn, would enable me to discuss key topics in greater depth with the interviewees. Second, the proposed site straddles the Cairngorm National Park, an area with outstanding landscapes. Such controversial siting was expected to produce a more vociferous set of research participants. Third, the Dava Moor is currently garnering attention from multiple wind farm developers, and over the last three years has seen two wind farms erected, two currently being constructed, and the Ourack development entering the planning phase. As a result, it was hoped that these
developments would create greater awareness of the possibility – and impact – of community benefit packages.

Fig.1. The Position of the Ourack Wind Farm, Grantown-on-Spey and Dava

The yellow line constitutes the Cairngorm National Park; the red circles are the villages of Grantown-on-Spey and Dava; and the blue shaded area is the proposed Ourack Wind Farm (Edited by author; Vattenfall, 2015a).

During a week-long period in July, 2017, I ‘recruited’ research participants from the village centre of Grantown-on-Spey. The willing participants were provided with an information sheet and the initial survey. Although Grantown-on-Spey is where I am from, and several research participants were at least somewhat familiar with me, I struggled to ‘recruit’ the number of research participants that I had originally planned, with only 19 individuals signing up. All interviews were conducted at the participants’ homes.
Data Analysis

Glaser and Strauss (1967) developed grounded theory methodology to “clos[e] the embarrassing gap between theory and empirical research” (vii). Unlike the traditional hypothesis-testing methodologies, grounded theory employs a ‘bottom-up’ design with theories developing, or emerging, from the data (Strauss and Corbin, 1994: 273). Where grounded theory differs most dramatically from other qualitative methods is its iterative process, where data analysis “begins as soon as the first bit of data is collected”, allowing the researcher to adjust questions and topics interview-to-interview based on emerging theories (Corbin and Strauss, 1990: 6). In a more metaphorical manner, Charmaz (2014) considers grounded theory to be “similar to a camera with many lenses, first you view a broad sweep of the landscape. Subsequently, you change your lens several times and shorten your focal points to bring key scenes closer and closer into view” (26). The ‘bottom-up’ research design is aided by carrying out only a surface layer analysis of the established literature prior to entering the field. This, in the minds of Glaser and Strauss (1967), ensures that the researcher does not attempt to force research results into preconceived theories. Although several studies (Cutcliffe, 2000; Urquhart, 2007; Clarke, 2005; Eisenhardt, 2002) have dismissed the practicalities of initiating research free from any preconceived ideas or influence from the literature, for this research an extensive literature review was performed after the survey data collection and analysis had been carried out, but before the interviews were undertaken. The interviews were then transcribed and analysed, with all research participants given pseudonyms to ensure anonymity, which was particularly necessary due to the community being relatively small and close-knit.

As the survey was standardised, unlike the semi-structured interviews which had the potential to alter interview-by-interview, all the results were collected, aggregated and put into a graph, thus allowing me to observe the number – and percentage – of responses. As discussed previously, the survey was analysed prior to the interviews being undertaken, which allowed me to develop the interviews based on the survey responses.
Limitations

This thesis concentrated on the provision of community benefit funds, the perceptions thereof, and their role in altering perceptions of wind farms. As a result, the research would have likely benefited from including the project developer and a relevant member of the Highland Council. This would have allowed a ‘dialogue of values’ to take place, resulting in a deeper understanding of how all stakeholders perceive the fund and
its role in shaping wider attitudes toward the project. Goedkoop and Devine-Wright (2016) claim that the community energy literature is dominated by research concerned solely with one type of actor (for example, ‘community members’), as opposed to a more holistic approach involving various actors (for example, ‘community members’, ‘developers’, and ‘state representatives’) (136). Initially, this study sought to explore the perceptions of both community members and the developer, Vattenfall. However, after struggling to make contact with the developer, it was decided to explore the community members’ perceptions in greater depth. Although a different perspective may well have added more diversity to the research, due to the scarcity in the literature of studies involving perceptions of community benefits, as was discussed in the previous chapter, focusing on one stakeholder, or actor, is not considered a great limitation of the research.

It must be emphasised that as the quantitative survey was not the principle method, but, instead, employed to provide a ‘snapshot’ of the participants’ feelings, and a means of allowing me to better frame my interview questions for the particular participants. A more detailed statistical analysis including a regression analysis, for example, was considered neither necessary nor useful. As a result, however, I refer to my research design only tentatively as mixed methods. Furthermore, the number of participants willing to be involved in the study was far less than expected. Although additional survey responses would have allowed for greater depth from the survey data, it could be argued that additional interview participants would not have yielded very much more, if any, rich, qualitative data. Glaser and Strauss (1967) argued that “theoretical saturation” occurs in grounded theory data collection when the researcher sees “similar instances over and over again [and]…that no additional data are being found” (61). Although further interviews would have been needed to ensure that “theoretical saturation” had taken place, it was becoming increasingly clear as the interviews progressed that no “additional data [were] being found”, thus making it particularly likely that “theoretical saturation” had, indeed, taken place. In addition, Charmaz (2014: 15) states that all “interviews take place within a culture at a specific
historical time and social context” and, as such, it is possible that the findings from this study may not be replicable in other studies.
CHAPTER 4. RESULTS AND ANALYSIS

Questions one and two of the survey and interview were to gauge general opinions of the proposed development. Question one asked how participants felt about the wind farm, whereas question two allowed them to qualify their concerns, if they had any.

**Question 1: How do you feel about the proposed Ourack development?**

![Bar chart showing the perceptions of the proposed Ourack wind farm development.](Fig.3. Ourack Wind Farm Perceptions)

The results of question one indicated that although there was a spread of views on the proposed wind farm, the majority of participants were either ‘in favour’ or ‘uncertain’. Seven people were in favour of the development, either strongly or more generally, six were against, either strongly or not, and six were uncertain. Those with the ‘strongest’ views, however, primarily fell into the ‘strongly against’ camp.
Question 2: What are your main concerns about the development?

![Chart showing concerns]

Fig. 4. Ourack Wind Farm Concerns

The second survey question sought to unravel the primary reasons behind the participants’ attitudes toward the proposed wind farm. Ten options (including ‘none’) were chosen based on the most well-documented concerns from the established literature. The eleventh – ‘vehicular impacts’ – was an additional concern raised by a research participant. Research participants could select any, all or none of the options listed. The results indicated that the visual impacts and local environmental damage, which are interlinked, were of primary concern to the locals. Other concerns, such as bird and bat mortality, tourism impacts, and the impact of the wind farm on local house prices also concerned several individuals.

The interviews highlighted that although those against the development had numerous concerns, they perceived visual intrusion of the wind turbines as most concerning. Janet, for example, who resides within one mile of the proposed wind farm boundary, was concerned by all of the available options, but her exasperated final statement implied that the visual impact was the principle reason for her negative perception of the development:
Interviewer: You stated that you are against the development for numerous reasons. Why?

Interviewee (Janet): Yes. Well, let’s start with the noise. If you stand under a wind farm, it doesn’t matter if you’re half a mile away you’ll still hear the “woomph”; birds don’t know that there are windmills going round, so they may miss one but they’ll be hit by another one; peat bogs - I think about 80 tonnes or more of concrete will be put in, and I believe they only last 20 years; the landowners are jumping to it because they get a lot of money per wind tower, so this is why they want to do it. Ach, I don’t know, they are just so ugly and intrusive, and will ruin this area. They look awful.

Burningham (2000) claims that research participants are often aware of being categorised as a NIMBY (Not-In-My-Back-Yard) – which refers to those who are in favour of wind power in general, but against developments in their “backyards” - and attempt to define a more wide-ranging basis for their objections, such as environmental conservation. In this example it is possible that the participant was attempting to steer clear of being identified as a NIMBY and, instead, documented multiple more ‘rational’, or objective, reasons for being against the development.

Other participants, including Eileen, Hamish, and Robert, for example, focussed more specifically on the impact of the wind farm on the surrounding landscape:

Interviewee (Eileen): “I don’t fancy them, you know, driving past and seeing these monstrosities on the roadside ruining our countryside”

Interviewee (Hamish): That’s a beautiful area. Very unspoilt. I spent my childhood out there and it is a wilderness. I feel it’s in the wrong position”

Interviewee (Robert): “I feel very strongly about the landscape effect, because that’s a beautiful area. Very unspoilt. I feel it’s in the wrong position”
Some participants took the opportunity to explain why they had few, or no, concerns about the proposed development. Rebecca and Bruce, for example, took a more global perspective and considered the potential global positives of the wind farm to outweigh any potential local negatives:

Interviewee (Rebecca): “Sustainable energy is good. We need to encourage more of it. Unless it’s going to take away people’s farming lands or anything I think it should always be encouraged”.

Interviewee (Bruce): “I’m for renewable energy in general, there are going to be pros and cons with everything, and it’s taking the bigger view and deciding what is most important. Is it most important that we have sustainable energy, or renewable energy, because we are going to run out of resources, or is it more important that we are going to look after our own little corner? And in the big picture, the most important thing is to provide energy safely”.

These findings were consistent with other studies in the perceptions of wind farms literature, with visual and landscape impacts being the most commonly cited concern (Toke et al, 2008; Wolsink, 2006; Johansson and Laike, 2007). The local environmental damage and effects on local wildlife populations results appear to be more of a concern in this study than in others. Bergmann et al (2006) found that rural people valued wildlife benefits much more highly than those in more urbanised areas (1014). Furthermore, Toke et al (2008) argued that environmental impact, such as impact on wildlife, for example, was not a widespread concern like visual impact, but instead “may become significant depending on the location” (1136). It is likely, therefore, that due to the particularly rural location of the proposed wind farm and its bordering of the largest national park in the U.K., and the increased attention to the natural environment that this brings, the local population does place greater importance on the local environment and wildlife than perhaps in other regions.
Question 3: Are you aware that Vattenfall (the developer) is interested in providing community benefit?

![Chart showing responses to Question 3]

Fig.5. Community Benefit Awareness

Intriguingly - particularly so as it was assumed that recent media coverage surrounding the planning permission for met masts on the site would have increased knowledge of the potential for community benefit provisions, or at least the development itself – awareness of Vattenfall’s interest in providing community benefits was extremely low, with only 1 of the 19 participants (5.2%) claiming prior knowledge of the developer’s intentions, with the bulk of participants (13, or 68.4%) merely being aware of previous examples of benefit funds being setup with other wind farms.

On the 21st and 22nd of January, 2015, Vattenfall held two six-hour long “meet the team” sessions in Inverallan Parish Church Hall, Grantown-on-Spey (the largest settlement within the immediate vicinity of the proposed Ourack development), and Edinkillie Community Hall, Dunphail (a hamlet to the north of the proposed wind farm). The purpose of these meetings was to “discuss the important issues and priorities for you…from the significant community investment opportunities that would be associated with a project such as this, as well as our intention to work with communities and stakeholders to explore other wider benefits to the economy and environment, we recognise the significant potential to explore all kinds of options through this investment” (Vattenfall, 2015b: 3-4). The interview stage of the research allowed me to
ask several follow-up questions regarding the availability of information pertaining to the possibility of community benefit provisions. The sole individual who was aware of Vattenfall’s desire to provide a community benefit package had attended one of the meetings in 2015; two others had attended the same meeting but were unaware of community benefits having been spoken about.

Vattenfall attempted wide-ranging methods to improve attendance at the two information sessions: all “residents, businesses…local stakeholders, including key statutory consultees, elected members and community councils” within a ten kilometre radius of the site were sent via post on the 7th of January, 2015 an invitation to attend, approximately two weeks prior to the events; a website containing information pertaining to the development; an advertisement was placed in the Strathspey and Badenoch Herald on the 8th and 15th of January, and in the Forres Gazette on the 13th of January; posters advertising the public information sessions were displayed in four key locations in Grantown-on-Spey; and Vattenfall’s UK Twitter account shared information about the events prior to their commencement. 53 individuals attended on the 21st of January, and 31 attended on the 22nd of January (Vattenfall, 2015b: 3-5).

When asking interviewees how Vattenfall could better promote the possibility of providing community benefits, some suggested that more detailed information should be provided in the local newspaper. However, multiple interviewees claimed that although they purchase the weekly paper they do not recall any advertisement from Vattenfall, thus indicating that the community meetings could have been better advertised, perhaps further in advance, or just more regularly:

*Interviewer: You haven’t been given, or seen, any information about this particular development and the developer’s community engagement meetings?*

*Interviewee (Mary): Not at all. It must have been in the local paper, surely? I buy it weekly, but It’s definitely passed me by, then.*
Like in this study, Groth and Vogt (2014: 2) found that “the majority of individuals...do not attend public meetings” about proposed wind farms, thus highlighting a need for developers to identify new ways of engaging with communities. One particular suggestion from two of the younger of the research participants, Rebecca and Grant, was the inclusion of advertisements on social media. Although Vattenfall has a UK Twitter account, interested individuals would have to actively search for this account, thus requiring initial knowledge of, and interest in, the proposed development. Instead, two interviewees suggested placing a notice on the ‘Grantown on Spey’ Facebook group, which is followed by the majority of the community (3,046 people as of 29/08/2018):

**Interviewer:** What do you think they [Vattenfall] can do to maximise their outreach? Were you the developer how would you get in touch with people?

**Interviewee (Rebecca):** Well for one thing I’d get in touch with the Grantown Facebook group. Put it on there, there are loads of people who look at that, I follow that even if everyone doesn’t watch it chances are that most people have a relative who’s looking at it and if they’re aware that their older relatives have a concern, you know it’ll spread around in that way. I don’t think they should have to go out of their way but that’s not hard, and if people aren’t aware of it after that then that’s their problem. They shouldn’t have to go door to door and ask people.

**Interviewee (Grant):** It’s difficult, isn’t it? I’d say a slot in the Strathy, but many people don’t bother reading it, so that may not do much good. For many, Grantown’s Facebook group is probably the best place for grabbing folks’ attention. Although, the older generation may not have access to that, of course.

It was clear from the interview stage that research participants lacked the necessary information to construct a well-informed opinion about the provision, and type, of community benefits. One research participant, Laura, who although unaware of Vattenfall’s desire to provide benefits, had heard that affected communities do often
receive financial packages, indicated that the developer needs to be more proactive and
detailed with the types of benefits that they would be willing to provide, as this would
then allow community members to have an idea of what could be on offer:

*Interviewee (Lauren):* Could they not send leaflets out saying that there is going to be a
meeting and detailed information about what the meeting is going to be about, so the
people can go to the meeting and see how it is going to benefit them, rather than just
being a leaflet saying “please come to this meeting”.

*Interviewer:* You would want the leaflet plus some additional information, for example?
*Interviewee (Lauren):* Yeah. They should mention, on paper, the possible benefits to the
community.

Vattenfall did produce a leaflet indicating the location, the time, and the purpose
of the meeting, which was a chance to meet the development team and an opportunity to
influence the project. They did not, however, explicitly state a willingness to provide
community benefits, which, according to Lauren, may have increased the attention of the
public.

**Question 4: How do you feel about Vattenfall offering community benefits?**

![Fig.6. Community Benefit Attitudes](image-url)
Perhaps unsurprisingly, the majority of participants (13, or 68.4%) were in favour, overall, of Vattenfall offering community benefits to the region. Two people were against such a provision, but nobody was strongly against a benefit fund. Bruce, for example, claimed that it may well be a selfish viewpoint to hold, but the area could do with additional money, and receiving money from a wind farm development would not be a particularly bad idea:

*Interviewer: You said that you were in favour of the developer offering community benefits. Why?*

*Interviewee (Bruce): This is possibly selfish. It’s not a case of this being a trade off because that’s almost like accepting a bribe, that I’ll say “Yes this wind farm’s OK if you put money into the local school or whatever”. If something’s important it should be self-standing without having to bribe folk. It’s just simply that there isn’t enough money to go around for clubs and things that do good for other people, so if someone who is making a profit is willing to put a proportion of that profit into a local community, I’m for it.*

It is, however, clear from his comment that it is rather difficult to define what constitutes a “bribe” and what does not. It can be deduced from his statement that as long as the project is evaluated as being important and necessary without considerations of community financial benefits, then a proportion of the company’s profit being fed back into the region would be seen as a positive addition, and not a bribe. Rebecca believed that community benefits would be beneficial, as it would likely improve the developer-community relationship, which may lead to better public acceptance of this development and others. This is argued in the literature as one of the key reasons for community benefit provision:

*Interviewee (Rebecca): I think it’s a good idea because I people are instinctively wary of new developments, but I think if people were getting something out of it, no matter how
little, if they knew that something is being done for the community, even if they weren’t actually benefitting, I think it would go some way to improving relations which would mean it would be a better success which might mean further developments might be accepted more readily.

When asked if this could constitute a bribe, Rebecca considered it to be irrelevant as, in her eyes, it is effectively a win-win situation:

_Interviewer: Could that be perceived as a bribe?_

_Interviewee (Rebecca): Oh God yes, totally. I think it pretty much is, but I don’t think that’s necessarily a bad thing, you know if it helps the community and it helps the company, well so what?_

Similarly, Robert, who was against the development, appeared to dismiss the importance of community benefits being described as bribes:

_Interviewer: You said that you were strongly in favour of community benefits. Why do you feel that way?_

_Interviewee (Robert): Why not? Get what you can. It wouldn’t be my main criteria, but if this development goes ahead then you are just as well to get the benefits._

Mary, however, believed that by offering community benefits the developer would be “buying favour” with the community, which would therefore be a bribe, and that concerned her:

_Interviewee (Mary): I feel it is a bribe. It’s a way of getting into the community and buying favour. It’s a bribe.

Akin to other studies, such as Cass _et al_ (2010) and Cowell _et al_ (2011), notions of bribery were present throughout the interviews. However, unlike Cass _et al_ (2010),
the majority of the research participants, although aware of the potential to perceive such community benefits as bribes, did not consider them as such, or believed them to be somewhat benign. It did, however, become evident during the following question that these perceptions of bribes being harmless were dependant on other factors, such as trust in the council’s planning process.

**Question 5: Should Vattenfall disclose their community benefit plans prior to planning permission being granted/refused?**

![Fig.7. Community Benefit Disclosure](image)

As discussed in the literature review, at what stage wind power developers disclose their community benefit plans is one of the most contentious aspects of benefit provisions. My survey results indicated that almost the entirety (84.2%, or 16/19) of those surveyed believed that Vattenfall should inform the community of their intentions prior to seeking planning permission. On the other hand, only one individual believed that early disclosure would be a negative feature in the planning process. My questions, without explicitly stating so, sought to tease out not only opinions on when plans should be announced, but also if plans should be part of the formal planning process, which is a separate, but equally contentious, issue.
As the survey results indicate, both those in favour and against the proposed wind farm argued for the same early disclosure. Several participants claimed that early disclosure of the plans for community benefits would allow the community to hold Vattenfall to account, thus ensuring that the developer could not go back on their word, or, in other words, reduce the amount of funding given to the region, once planning permission had been granted:

*Interviewee (Grant): Yes, you can weigh up your options that way. If they say that they are going to give you a benefit for the wind farm being here, and then it turned out that they were just going to cut your grass once, or something, which isn’t really going to make a difference, then that’s not really a benefit.*

*Interviewee (Jane): Because then they would maybe have to stick to it. If they said they would give money to certain causes therefore they’d more likely have to stick to it, not just say “Oh but we’ll do this, that and the next thing”, then it could all be changed.*

Those who were against the early disclosure of the community benefit package, or those who were unsure about it, all cited a fear of the planning process becoming jeopardised once community money was on the table:

*Interviewer: You weren’t sure if the company should disclose their benefit plans prior to permission being granted or rejected for the building of the wind farm. Could you say why?*

*Interviewee (Sarah): That’s a difficult one...are they [the Highland Council] going to vote for it [the Ourack Wind Farm] because they want it or are they going to vote because they realise maybe the YMCA [a youth charity] in Grantown will benefit, which they’re desperate to get money for. They [the Highland Council] may not consider the effect of the development on the environment, or other things.*
Eileen, however, considered early publication of Vattenfall’s community benefit plans as the equivalent of a “bribe”:

_I interviewee (Eileen): I think that this is a bribe to say that we want the wind farm and we will do X Y Z to get us planning consent._

Bruce, who was part of the majority, explained that, in addition to holding the developer to account, earlier publication allows for greater transparency, and that whether or not this constitutes a “bribe” is rather irrelevant, or should be irrelevant, as the council should be capable of remaining objective and ensuring all planning concerns are suitably dealt with:

_I interviewee (Bruce): I’d hope that a planning authority would look at something as self standing and say “this is good for the following reasons”, not “this is good because they are willing to put money into the community”. If they are planning to do things for the local community it would be very easy at this stage for them to say “we’re going to do things for the local community” then once they’ve got their planning permission if it’s unspecified, they could say “well we’re going to give ten pounds to Bernardos or something like that whereas if they’re up front at the beginning and say “we will put one percent in or we will give two thousand pounds to the local school to buy books” then we’ve got it there in writing, we know they’re going to do it. It’s just transparency and keeping them to their word, not to do with gaining or losing planning permission because I think that’s irrelevant. It should be irrelevant. If it is relevant then I think it’s wrong._

The debate over when community benefit plans should be published is well-discussed in the literature. My findings indicate that the clear majority of research participants would have preferred a more comprehensive community benefits plan to have been published prior to Vattenfall seeking planning permission, which has not been done. These findings are at odds with other studies, such as Cass _et al_ (2010), Aitken (2010b) and Meacham (2012), that claim early disclosure of benefit plans are effectively
perceived as bribes, or the developer buying planning permission. In this case, research participants appear more content with greater transparency in the planning process, and knowing exactly what the community can expect from the developer before they have been given permission to build the wind farm. Furthermore, the findings indicated that a standardised community benefit process that was part and parcel of the wider consents process may reduce feelings of distrust in the developer whilst also reducing the likelihood of a benefits package being perceived as a bribe. A compulsory community fund would mean that community members would know exactly how much the developer would offer, which cannot change on a whim, and it would also become a box-ticking exercise for the council, meaning that all wind developments would need to offer the same amount of funding per installed megawatt, thus reducing its novelty factor in the planning process, leaving the council to consider differing projects on their environmental and social impacts, not just their economic benefits to the region. Aitken (2010b) argues that increased institutional guidance with minimum requirements for developers “would mean that there may be less likelihood that these [community benefits] would be considered as bribes on the part of developers and might instead be accepted as a routine part of renewable energy development” (6073). I do not, however, believe that creating a compulsory “minimum requirement” would be sufficient, as this could allow some developers to offer additional money on top of the minimum requirement, and therefore, in my opinion, placing the perception of the planning process in jeopardy once more. Instead, a set amount per installed megawatt, in whatever form the developer and community agree on, should be compulsory. The Scottish Government has argued that a “national rate…of at least £5,000 per MW per year” should be set (Scottish Government, 2013:4). This statement, however, implies that the proposed rate is merely a minimum requirement, not a compulsory figure.
Question 6: How would you like a community benefits package to be spent in the community?

![Bar chart showing distribution of answers to Question 6]

The literature review highlighted the somewhat surprising fact that very few studies asked community members what they wanted from a community benefits package. My findings showed that just over half of all participants (57.9 per cent) favoured the payments to go to community clubs and infrastructure; approximately a third of the participants (31.5 per cent) favoured subsidised electricity for local residences and community centres; one participant (5.3 per cent) favoured energy efficiency measures and the installation of home energy systems; and one participant (5.3 per cent) favoured environmental enhancement and protection.

The most common reason for choosing community club and infrastructure investment, with eight participants citing this reason, was to provide opportunities for the region’s youth, which are currently lacking. Mary, for example, who is both against the development and the provision of community benefits, claims that although she believes it to be improper the youth of the area could certainly do with additional infrastructure:
Interviewee (Mary): “I think the young need it the most. I mean, there’s very little to do in Grantown. So, if you had a good going community centre at the YMCA or more clubs, and go down that route, it would make a difference”.

Two individuals also identified this option as having the potential to offset any negative consequences of the wind farm on tourism in the region. Although investment in private ventures was not what was intended with this option, both participants believed that it should be included:

Interviewee (Grant): “If it is going to affect tourism, you could try and offset that by improving all your local facilities, then maybe give yourself a better chance”.

Interviewer: “What sort of local facilities?”

Interviewee (Grant): “Erm, I guess anywhere that tourists spend money. So, shops, restaurants, hotels, and all tourist attractions”.

This notion of community benefit funds investing in profit-making ventures has been mentioned in previous studies (for example, Munday *et al*., 2011: 10). However, several issues have been cited with this form of investment, such as perceptions of too much money being spent on individuals with little or no benefit to the wider community. Aitken (2010b), for example, discussed the contentious purchase of a village shop by a community group with money provided by the local wind farm developer, which irritated community members as individuals were benefiting from money that they believed could have been put to better use (6073). Munday *et al* (2011), for example, claim that the whilst the charitable status of community benefit funds reduces the potential for lasting economic development in the region as “direct beneficiaries are rarely individuals or businesses” (8), money could be best spent on improving tourist attractions, as suggested by Grant and others, as this could provide greater economic outcomes. Similarly, Cass *et al* (2010) discussed a wind development that created a “tourism package (sponsorship, a tourism officer and advertising)” as a community
benefit, as all of the affected communities had a high level of dependence on the tourism industry, and the impact of the wind farm on tourism was a key debating point (261). In a similar vein, several participants indicated that they were afraid of money being squandered on small projects that would not encourage long-term sustainability:

*Interviewee (Brian): “I’d definitely prefer money to be spent on community clubs as I think it is badly needed, but I imagine most of the money would be squandered on little things that provide no real benefit to the people or the area in the long run”.

The second most popular option was subsided electricity for local residences and community centres. Three participants believed this to be the fairest option, as not all individuals would use community facilities whereas all individuals require electricity:

*Interviewee (Lauren): “It’s not like everybody wants to go to the sports centre or the YMCA, but everybody wants cheaper electricity. Energy is expensive. A lot of people, especially older folks, struggle to afford power in the winter time”

One participant, Leslie, similarly argued that cheaper electricity would allow all residents to benefit from the wind farm, but she also implied that it could cause additional benefits to those involved in clubs as cheaper electricity could, perhaps, lead to more options for community members as money is saved elsewhere:

*Interviewee (Leslie): “I think we could do with a boost for sports and community centres, but also the local people. Cheaper electricity could allow the clubs to offer more to the community”.

Alec, however, claimed that cheaper electricity for affected communities should be the norm, as billpayers have been paying subsidies for wind power generation for many years with little benefit in return:
Interviewee (Alec): “I think the British public have been paying through the nose for their electricity for a long time now, and if there was the possibility of rebates back from these big, foreign companies then go for it. I think cheaper electricity’s the most even way of distributing the excess to every household”.

Most participants were against the idea of energy efficiency measures, particularly as they believed there to be sufficient government schemes available for purchasing solar panels and increasing insulation, for example. Rebecca, however, believed that the company should invest in further renewable energy developments in the town, as it was “their expertise and it could provide sustainable, low electricity prices for the foreseeable future for the region”. This indicates that the increasing prominence of such provisions within community benefit funds is not, perhaps, favoured by the local community. Mundy et al (2011) found that approximately 60 per cent of all post-1999 wind farms in Wales directed at least some funds to local sustainable energy projects (7). Bruce found the prospect of funding for community clubs and cheaper electricity enticing, but not particularly relevant. Instead, he argued that only the natural environment is going to be truly affected by the development, therefore money should be spent on environmental protection:

Interviewee (Bruce): “I’m not losing out on it so why should I get cheaper electricity. I would love that but I don’t understand why there’s the need for that. Equally so, local clubs and so on, it’s not going to affect them. Nobody’s going to be put off coming to Grantown because there’s a wind farm four miles out into the Dava. So I think again it’s looking at the bigger picture. What damage is this doing locally, what can we do to somehow modify that or limit that damage? If this is damaging the local environment I think the money should be put into sustaining that local environment as much as possible.”

‘Environmental compensation’ is a planning requirement in Germany, but not in Scotland. Instead, and although planning policy requires strict environmental mitigation,
any habitat enhancement, or ‘environmental compensation’, is voluntary (Scottish Government, 2013: 13). Wilding and Raemaekers (2000), however, argued that the U.K. should adopt German-styled ‘environmental compensation’ for onshore wind farms, where there is a “universal obligation to compensate losses of environmental capital incurred by the development of a previously undeveloped site” (198). Although only one individual preferred environmental protection over the other benefits, it should be noted that several participants deliberated between their choice and “environmental protection”, thus indicating that directing some of the benefit fund to environmental causes would likely be generally accepted by the community. Grant, for example, was one of these individuals:

*Interviewer:* You wavered on ‘environmental enhancement’. Why did you think that would also be worthy, and why did you choose “community clubs” in the end?

*Interviewee (Grant):* It’s the environment, isn’t it? It’s such an important thing. We all live in it. People almost don’t really care about the environment, but it was here before us and it’s going to be here after us, so we need to look after it. I guess, having seen the financial struggles of so many clubs and the demise of so many community buildings in the area, money should probably be primarily be spent there, which is actually quite unfortunate as the environment also needs it.

As previously mentioned, few studies appeared to ask communities what sort of funding they would like to receive. Cass *et al* (2010: 272), in the only study found that sought to uncover what communities wanted, claimed that focus groups with community members usually centred around the provision of cheaper electricity. This is at odds with my findings, as cheaper electricity, although liked, was not the favoured option.
**Question 7: How would you feel about the community being given the chance to vote on the wind farm proposal?**

This question was included in the survey to help tease out issues surrounding the ‘ability to effect outcomes’ elements of procedural justice. The survey results indicated a general consensus that the community would be in favour of a vote being offered on the development. Although it is extremely unlikely that a private developer would entertain the idea of offering community residents a vote, the question was included in this survey as Simcock (2016), in a study examining procedural justice in a community-owned wind farm development in South Yorkshire, England, asked the community a similar question, as the developer in this instance had indicated a willingness to conduct a poll. Those in favour of a community vote indicated that they believed it to be a particularly fair means of gauging genuine public attitudes towards the development, especially considering the size of it. Eileen, for example, stated:

*Interviewee (Eileen): “I think it [a community vote] is the fairest way. So many people are complaining [about the development] and a vote would be the best way to find out exactly how many are truly against it”.*
In addition, Robert claimed that he had heard of examples of large housing developments being voted on by members of the public prior to being given the go ahead:

*Interviewee (Robert):* “I think I have heard of it happening in other large development, like housing developments, so I don’t see why this shouldn’t be the same, because both have major impacts on the environment and this area”.

This claim gives the impression that to some individuals wind farms and large housing developments, for example, are not particularly different, as both are large developments that will likely alter the environmental, and perhaps socioeconomic, fabric of the area. Robert, Eileen and other participants were then asked if their desire for a community vote suggested a lack of confidence in the regional council. The responses, however, indicated that although there appeared to be sufficient confidence in the council, the participants felt that particularly large developments, such as the Ourack Wind Farm, should be voted on by the public, as this, according to one participant, would provide a “second-tier to democracy”:

*Interviewee (Robert):* I think the council are elected members, but they have to reflect what the individual people think

*Interviewer:* Do you think that they don’t always reflect what the constituents think?

*Interviewee (Robert):* Not always, but in this case I think that they will. A public vote would give a second-tier to democracy, as these developments are huge.

It quickly became clear that for the research participants information provision, which was also identified as salient during the discussions in the previous questions, was particularly important to the community, especially if a vote were to occur. All participants mentioned how a community vote would allow for greater information about
the proposed development to be spread throughout the community, ensuring that all residents were aware of what the development were to consist of:

*Interviewee (Mairi): A lot of people just see the wind farms and they don’t really know the benefits of them and they don’t know...anybody who’s ever said to me anything about them has just said “they look so ugly on the landscape”, you know, and if people maybe understood more about them, but they just go up and we don’t know enough about them.*

*Interviewer: So you think then that a vote would be good but only if a lot of information was provided for folk to think about it?*

*Interviewee (Mairi): Yes, you know, you need to inform people, just to let people know this is what they’re doing, how they benefit and everything else.*

Furthermore, several participants implied that the vote should not be decisive, but merely a means of highlighting to the developer and the council the level of support for the proposal, thus ensuring that the proposal could be altered if the community was not content with what had been planned:

*Interviewee (Jane): I think if there was just more openness and you feel that you have got a part to play and it’s not just going to go up regardless. Maybe it should not be a vote to say yes or no but a vote to put your point forward so that people are aware of how you’re feeling. If sixty per cent of people said no they really don’t want it, maybe that isn’t a vote to say yes or no it won’t happen, maybe it’s just an indication that they don’t want it in its current form.*

*Interviewer: So you’re saying the vote could happen, then the developer could go back and look at the proposal again?*
Interviewee (Jane): Yes it’s not to say “no we’re not having it”, but maybe they could think “well they’re obviously not very happy, is there some other way we could do that would make them happier?”.  

A fellow participant also implied that a vote should not be binding, but allow for greater procedural justice by increasing the dialogue between developer and community:

Interviewee (Bruce) “The vote shouldn’t be legally binding; it shouldn’t result in a moratorium. I do, however, think it would open negotiations, it would lead to more talk, more thought, and that can only be a good thing”.

Rebecca, in addition to having concerns about false information being spread, would be concerned that a vote, or “more talk”, could cause the community to become fractured:

Interviewee (Rebecca): I really don’t know if people should get a vote, but my feeling is that people would vote emotionally without any facts. You hear big reports – “oh they did all this damage” - and they then looked into it and it wasn’t. People said they were so noisy, they’re really not. I think if they were given an actual vote it could lead to an awful lot of unrest if, for example, there were prominent figures on either side I think it could split some sections of communities.

One participant, Hamish, was staunchly against the vote as he believed, like Rebecca, that those voting would not have sufficient knowledge to approve or reject the proposal, thus indicating the importance of information provision once more. The government, he argued, is in a far better position to make that decision:

Interviewee (Hamish): “I just don’t agree with it [a vote]…it’s like the old expression why keep a dog and bark yourself? Why keep a government and do all the voting? I’m just completely against that. Once you’ve voted a government in then they take the decisions and you just go and have a cup of tea.”
Although comments regarding where power should be held - with ‘the people’, the local council or the national government, for example - were discussed by most participants, the provision of information dominated the interviews. Multiple participants expressed their fear of a vote being held, on the basis that the electorate may not be particularly well-informed of the project, and, perhaps, the importance of renewable energy more widely. However, what was particularly intriguing was that several interviewees were actually in favour of holding a vote on the basis that the electorate were currently lacking information about the proposed project. Although often implicit, comments indicated the belief that enhanced information provision would arise as a result of a vote being organised, as both sides (i.e. those in favour of the development, and those not) would be forced to be more forthcoming with information. Simcock (2016) claimed that “access to ‘sufficient and accurate’ information about the Norton project was considered to be essential by every local resident…Origin [the developer] broadly shared this view, although they did not emphasise the importance of information quite as strongly” (474). It is well-noted in the literature that a lack of information provision can lead community members to perceive developers as untrustworthy, and increase public opposition to the project (Gross, 2007; Walker and Baxter, 2017). However, this also appears to be the case with community benefit funds, with the research participants in this study often considering the lack of information available about a potential community benefit fund as a means of excluding community members from open and transparent discussions.
Question 8: How much do you think the Berry Burn wind farm gives to the Grantown-on-Spey area per annum?

Question 8 and 9 were included in the survey as a means of gauging the public’s knowledge of existing – and potential – community benefit fund sizes. The example used was Berry Burn, a 66.7 MW wind farm approximately 12 miles north east of Grantown-on-Spey and 7 miles north east of Dava. These questions were added to the structure due to the surprisingly high number of participants who said that they were aware of other wind farms providing community benefits. Although relatively far away from the aforementioned wind farm, the Grantown-on-Spey area is eligible to receive payments for community causes. The community fund was set up in 2015 and has paid out £758,922.76 as of August 2018. The Grantown-on-Spey area has received approximately 20 per cent of this total at £153,472.00, which works out as £43,849.14 per annum, on average. The community benefit financial awards are recorded on Statkraft’s Berry Burn Wind Farm website (Berry Burn Community Fund, 2018).

Having spoken to the research participants it was clear that very few had any real idea of how much money communities can receive from wind farm community benefits.
The majority of individuals spoken to were unaware that Berry Burn wind farm provided any financial benefits to the Grantown-on-Spey area. Some, in fact, were not even aware of Berry Burn wind farm’s existence due to the hills in-between the town and the development, even though it is the closest wind farm to the town. Only one interviewee, Robert, came close to estimating the average annual financial package received by the area, as he is a key member of the tennis club, which received £10,000 from the community fund for the installation of new windows:

_Interviewer_: You estimated that approximately £50,000 is given to Grantown region annually from the Berry Burn Community Fund, which is pretty close to the actual figure of £43,849. What brought you to that figure?

_Interviewee (Robert):_ Well, I assisted with a successful application for new windows at the tennis club, and I had also heard that the Cromdale hall had received money for a replacement roof, so guessed there was probably a bit more money going around also.

It was evident that most of the research participants were aware of several clubs, buildings, and other causes having received substantial money in recent years, but apart from Robert nobody had any knowledge of the wind farm developer’s involvement in these payments. Brian, for example, who was against the development of the Ourack wind farm, resides within the immediate vicinity of Grantown’s YMCA (a youth charity) and had heard that the charity had received a grant, but was unaware of the grant provider:

_Interviewer:_ The Grantown area has received, on average, £43,839 per year from the Berry Burn community fund. Were you aware of that? The YMCA, for example, received money in 2015 from the fund.

_Interviewee (Brian):_ That is fact? No I wasn’t aware of that. I did know that they [YMCA] had been given some thousands, which is great. I’m all for that, but I did not know that they [Statkraft] had given it.
Rebecca was similarly unaware of the community fund’s presence in the local area:

*Interviewee (Rebecca):* I have absolutely no idea [how much the area receives]. I guessed roughly £1000 per year, but I really do not know. I can’t imagine they’d give very much.

*Interviewer:* It’s approximately £43,839 per year.

*Interviewee (Rebecca):* You’re joking? The town’s crying out for investment and a wind farm miles away, that we can’t even see, is giving us that much?

As was discussed earlier, community members wanted additional information regarding the Ourack wind farm’s community benefit fund plans prior to the developer seeking planning permission. It may well have been the case that Vattenfall had assumed, as I did, that community members would have had some knowledge of standard onshore wind farm community funds, particularly due to the Berry Burn wind farm’s annual contributions. However, this lack of information appeared to encourage research participants to believe that the developer is likely to act untrustworthy or not in the best interests of the community, hence their strong concerns about planning permission being granted before a community benefit fund had been agreed on by the community. Aitken (2010b) claims that “due to communities not having access to sufficient information about benefits packages, this can mean that “far from serving as a mechanism to engender trust in developers, the community benefits package can instead become another aspect of renewable energy development which arouses public suspicions and has negative impacts on perceptions of ‘fairness’” (6066).

The Scottish Government has made great strides in this area by creating an online register documenting the benefits packages each community receives (Local Energy Scotland, 2018). It is apparent, however, from the interviews that not one of the research participants was aware of this register. The register itself allows power to be shifted from the developer to the affected community, allowing communities to negotiate the benefits
package with the knowledge of other benefits packages currently in operation. More needs to be done, however, in informing the local community of this valuable resource. With this in mind, this research recommends that each household within the affected communities of a proposed wind farm should be sent details of the register when a developer shows formal interest in a project.

**Question 9: How much do you think the Ourack wind farm would give to the area per annum?**

![Participant Answers](image)

**Fig.11. Potential Ourack Benefits**

After discussing the current benefits provided by the Berry Burn wind farm, I sought to re-introduce the possibility of Ourack benefit provisions. Although Vattenfall has not released any formal community benefit plans, using the proposed size of the site (50 wind turbines, according to the scoping report), the average wind turbine capacity in the region (2.3 MW), and the Highland Council’s request of £5000 per installed megawatt to be put into a community fund, I estimated the potential annual value of the community benefit fund as £575,000 (Number of wind turbines x wind turbine rated power x £5000) (reNEWS, 2015). This figure is, however, dependent on the above assumptions being correct, and all participants were made aware of this fact. Vattenfall’s
scoping report implied that the urban settlements of Forres and Nairn would most likely not be within the “affected” area, thus leaving Grantown-on-Spey as the largest “affected” settlement. Although this scenario would leave Grantown-on-Spey with the lion’s share of the benefit package, the research participants were told that this estimated figure would be for the entire region, including Grantown-on-Spey and Dava.

Similarly to the question prior estimates proved to be wildly short of what the region is likely to receive. Robert, whose community club had benefited from a Berry Burn wind farm grant, was the closest with £120,000 per annum. The rest of the estimates, however, ranged from figures as low as £1,000 per year to £100,000 per year, with the average being just short of £36,000. Although the total community fund figure is an estimate, participant estimates highlight the severe lack of public knowledge about the wealth available to communities through such funds. Lauren and Hector, for example, believed such a sum to be a vehicle for greater prosperity in the area:

*Interviewee (Lauren):* How much!? That much money would completely change this area, and for the better. We’ve been dependent on tourism for far too long.

*Interviewee (Hector):* I’d bite their arm off for that. With the ski season getting shorter and shorter, this sort of money would regenerate the whole town, especially because there’s no money in the council anymore.
Question 10: After considering the effects of a community benefit package, how do you feel about the proposed Ourack development?

Fig.12. Post-Discussion Perceptions

One of the key questions of this research was to explore whether or not community benefits packages can alter the attitudes of local residents to onshore wind farms. My findings indicate that there is a degree of maneuverability in all groups apart from those “strongly against”, whose attitudes appear to remain unchanged regardless of what benefits could be on offer. The greatest movement appears to take place between those who are “uncertain” about the development moving to being “in favour” once they have considered the benefits of a community fund, with three participants following this path. Furthermore, two individuals moved from “in favour” to “strongly in favour”, and another individual moved from “against” to “uncertain”. Therefore, approximately a third of participants (31.6%) altered their positions to a more positive stance once discussions regarding community benefit packages had taken place. This research provides opposing results to Cass et al (2010) who claimed that research participants were rather ambivalent to the idea of a benefits package, particularly due to associations
of bribery, and Strachan and Jones (2012) who found that community funds played only a “very small part in winning wider community acceptance” (190).

Aitken (2010b) claimed that she was unsure “whether those who were strongly opposed to the wind farm would ever have accepted the community fund as a positive feature of the development” (6073). My findings indicated that all participants who originally identified themselves as being “strongly against” the wind farm remained “strongly against” after considering a community benefits package, and it did not appear as though any provisions could alter these attitudes. That being said, however, not one of those four individuals stated that they were, in fact, “strongly against” the provision of such benefits, with one being “against”, two being “uncertain” and one being “strong in favour”. This implies that community members against the development can accept that such funds could benefit the region were the wind farm to go ahead, but they envisage the negative consequences to the region to outweigh those potential benefits, as discussed by Robert and Jill, for example:

Interviewee (Robert): Although I’m all for benefits being provided by the developer, it’s just a matter of priority. I prioritise the environment and landscape. I don’t want that ruined.

Interviewee (Jill): I just don’t like wind farms. No matter what they offered I wouldn’t accept it. I think tourism is more important and the benefits you get from tourism are great, especially in Scotland like this but tourists are not going to come to see acres and acres of wind farms.

Gallagher et al (2008: 234) claim that “existing empirical evidence is conflicting as to whether or not compensation-based siting has reduced opposition…in the process of siting LULU [Locally Undesirable Land Use] developments”. My research indicates that although community benefits packages, or “compensation”, may not reduce opposition, it certainly has the ability to increase support.
CHAPTER 5. CONCLUSIONS

The purpose of this research was to explore public perceptions of community benefit funds, and to investigate whether such funds do influence attitudes towards onshore wind farms. A mixed methods approach consisting of 19 quantitative close-ended surveys and qualitative semi-structured interviews were adopted to create robust and intriguing results.

The research was deemed useful for two reasons. Scotland is currently undertaking an adventurous and fast-paced ‘greening’ of its energy infrastructure. Social barriers to the implementation of wind farms, however, continue to challenge the realisation of Scotland’s wind energy potential, thus putting the 2020 energy targets at risk. Understanding the role of community benefit funds in shaping public opinion could be imperative to not only realising this target, but also enabling future renewable energy development, onshore wind or otherwise, to take place on Scottish land and waters. Second, the established literature has, for the most past, assumed that community benefit packages are essential in improving perceptions of onshore wind developments. However, very few studies exist to prove this statement, empirically. As a result, this research had three key questions that it wished to answer: How do community members perceive community benefit funds? What is the favoured community benefit type? And how does greater awareness of the potential impact of a community benefit fund affect their perception of the proposed onshore wind farm development?

How do community members perceive community benefit funds?

The majority of the research participants were in favour of Vattenfall offering community benefits, as they believed that the region could do with additional funding. Although several individuals considered benefits to be a means of the developer bribing the community, only two participants considered that to be a particularly major issue; the rest perceived it to be a means of both parties – the developer, and the community – having a successful outcome. That being said, the latter attitude was predicated on
individuals having confidence in the regional council to not allow the financial gains of the community to influence planning procedure, which concerned participants. Furthermore, nearly all participants argued that a community benefit package should be disclosed prior to planning permission being decided, thus removing the possibility for the developer to renge on its promise of a particular benefits package being delivered to the community. This particularly difficult combination of community members wanting early disclosure of the benefits package, whilst also being concerned about the planning process becoming jeopardised once community funding has been announced, lends weight to the argument put forward by numerous studies (for example, Cass et al, 2010: 272; Aitken, 2010b: 6074) that the provision of community benefit packages should become a standardised part of the planning process. This, it is argued, will reduce perceptions of benefit funds as bribes as it will be a requirement of the developer to provide a minimum amount of money to the community per development. Unlike studies such as Aitken (2010b) and Cass et al (2010), for example, my research argues for there to be a compulsory set financial amount per installed capacity, not merely a minimum amount, as this could lead to a similar situation where particular developers offer additional financial benefits, thus creating a scenario whereby communities could, once more, perceive community benefits as bribes.

**What is the favoured community benefit type?**

Few studies have explicitly asked community members what type of community benefits they would like to see implemented in their area. The majority of studies indicated that developers commonly create a community fund that local organisations can apply to for funding. My findings indicated this to be the preferred option amongst the research participants, with 57.9 per cent community support. In addition, it is recommended that Vattenfall discuss the option of cooperating with Statkraft (Berry Burn Wind Farm), Belltown Power (Tom Nan Clach Wind Farm), and RES (Cairn Duhie Wind Farm) in creating long-term economic, social, and environmental
sustainability in the Grantown/Dava region by combining community benefits to create larger community projects.

How does greater awareness of the potential impact of a community benefit fund affect their perception of the proposed onshore wind farm development?

Although there was widespread support for a community benefit fund, awareness of what that fund may look like and how much money would be included was extremely low. This increased levels of distrust as research participants expected the developer to offer a pitifully low amount of money in relation to the profits that they would accrue from the development. Once discussions had taken place consisting of the type of benefits they would like to see in the community, the benefits that the region had already realised from a neighbouring wind farm development, and the possible amount of money that the Ourack development could generate in a community benefit fund, approximately one third (31.6 per cent) of research participants perceived the proposed wind farm in a more positive light.

The findings showed that those who were uncertain about the proposal or generally in favour of the proposal were most likely to positively strengthen their opinions with the inclusion of a suitable community benefit fund. Those who were generally against the project could alter their position also. However, those who were firmly against the project would not change their position regardless of what the community benefit fund consisted of.

Implications

This research has implications for wind power developers and policymakers alike. First, it highlights the key importance of information provision. Wind power developers need to do more to provide information about the possible benefits to the community. It is recommended that the developer should provide each household with a list of financial awards made from the community fund each year, thus allowing additional community members to become aware of, and interested in, the community
benefit fund. Policy makers need to ensure that residences in affected communities have access to the Scottish online register of community benefit funds currently in existence. Second, creating a mandatory amount per installed capacity community benefit fund would allow discussions regarding the specifications of such a benefits package between developers and communities to take place at a much earlier date, thus reducing the likelihood of perceptions of bribery. Third, this research encourages the developer to provide funding for community organisations, as it was the preferred option amongst research participants. Finally, Vattenfall should consider liaising with the developers of nearby wind farms to ensure that financial benefits are creating long-term benefits to the area.

Recommendations for Future Research
This case study is a snapshot of a particular area at a particular time. Additional research may investigate how attitudes towards community benefit funds change during the various stages of the wind farms development. Furthermore, as was the original intention with this research, research should attempt to include the developer and council members in the research. This could, subsequently, allow for a “best practice” guide to providing community benefit funds in the Highland region, or Scotland more widely.
REFERENCES


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APPENDIX A. OURACK WIND FARM QUESTIONNAIRE

Name:

Answer the following questions by circling the most appropriate answer

1. How do you feel about the proposed Ourack development?
   - Strongly in favour
   - In Favour
   - Uncertain
   - Against
   - Strongly Against

2. What are your main concerns about the development? – Circle/mark all that apply
   - Local environmental damage
   - Noise impacts
   - Visual/landscape impacts
   - Shadow/flicker effect
   - Bird/bat mortality
   - Tourism impacts
   - Type of technology
   - Impact on house prices
   - Other [ ]

3. Are you aware that Vattenfall (the developer) is interested in providing community benefits?
   - Yes
   - No
   - No, but I know that is common with such developments

4. How do you feel about Vattenfall offering community benefits?
   - Strongly in favour
   - In favour
   - Uncertain
   - Against
   - Strongly Against

5. Should Vattenfall disclose their community benefit plans prior to planning permission being granted/rejected?
   - Yes
   - No
   - Maybe
6. **How would you like a community benefit package to be spent in the community?** – Circle your favoured option.

- Environmental enhancement/protection
- Energy efficiency measures (e.g. insulation)/sustainable energy developments (e.g. solar panels)
- Subsidied electricity for local residences and community centres
- Community organisations (e.g. sponsorship, equipment etc) and infrastructure (e.g. new sports hall, improvements to existing buildings etc)

7. **How would you feel about the community being given the chance to vote on the wind farm proposal?**

Strongly in Favour | In Favour | Uncertain | Against | Strongly Against

8. **How much do you think the Berry Burn wind farm gives to the Grantown-on-Spey area per annum?**

9. **How much do you think the Ourack wind farm would give to the area per annum?**

10. **After considering the effects of a community benefit package, how do you feel about the proposed Ourack development?**

Strongly in Favour | In Favour | Uncertain | Against | Strongly Against