



Citation for published version:

Walker, BJA, Russel, D & Kurz, T 2017, 'Community benefits or community bribes? An experimental analysis of strategies for managing community perceptions of bribery surrounding the siting of renewable energy projects', *Environment and Behavior*, vol. 49, no. 1, pp. 59-83. <https://doi.org/10.1177/0013916515605562>

DOI:

[10.1177/0013916515605562](https://doi.org/10.1177/0013916515605562)

Publication date:

2017

Document Version

Peer reviewed version

[Link to publication](#)

Walker, Benjamin J. A. ; Russel, Duncan ; Kurz, Tim. / Community benefits or community bribes? An experimental analysis of strategies for managing community perceptions of bribery surrounding the siting of renewable energy projects. In: *Environment and Behavior*. 2017 ; Vol. 49, No. 1. pp. 59-83. (C) 2015 Sage Publications. Reprinted by permission of SAGE Publications.

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**Community benefits or community bribes? An experimental analysis of strategies for
managing community perceptions of bribery surrounding the siting of renewable
energy projects**

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Abstract

The provision of financial incentives to local communities by energy developers has attracted cynicism across many localities, with some suggesting such community benefits are akin to ‘bribery.’ The current study used an experimental design embedded within a community postal survey to explore whether potentially damaging effects of bribery rhetoric upon local support for a wind farm can be overcome through: i) portraying community benefits as a policy requirement (rather than a discretionary gesture by developers); and/or ii) the deployment of different discursive strategies by developers to manage their stake in the outcome of the project. Participants told about community benefits as being a policy requirement showed significantly higher support for the wind farm, an effect that was mediated by heightened perceptions of individually and collectively favourable outcomes from the development. We discuss our results in relation to their implications for government policy approaches to promoting renewable energy supply.

Community benefits or community bribes? An experimental analysis of strategies for managing community perceptions of bribery surrounding the siting of renewable energy projects

Renewable energy technologies are anticipated to comprise an increasingly large share of the global energy mix over the coming decades (International Energy Agency [IEA], 2014). The advantages of expanding the use of renewable energy technologies include the potential to reduce greenhouse gas emissions, improve air quality and enhance energy security (Intergovernmental Panel on Climate Change [IPCC], 2011). In particular, it is anticipated that there will be strong future growth rates in the development of offshore wind technologies across a number of countries and regions (Department for Energy and Climate Change [DECC], 2010; Office of Energy Efficiency and Renewable Energy [EERE], 2014; The European Wind Energy Association [EWEA], 2011; O’Keeffe & Haggett, 2012; Makridis, 2013). However, historically, the deployment of wind energy technologies has been shaped by a plethora of social, economic and political circumstances (Devine-Wright, 2011; Petrova, 2013). For instance, rates of local ownership, differential planning systems and the influence of landscape protection organisations are just a few factors that can influence the installation of wind farms (Toke, Breukersm & Wolsink, 2008).

It is well documented that public support or opposition is one potential factor that might shape deployment rates of wind energy (e.g. Devine-Wright, 2007). Yet in many instances there appears to be a paradox in public support for wind energy. Higher levels of opposition to wind energy developments have often been observed at a local level, with much higher support being found at a broader, national level (Bell, Gray, Haggett & Swaffield, 2013; Jones & Eiser 2010). The reasons behind these ‘heightened’ levels of opposition within a localised context are contested. The explanation that has typically received the most

attention classifies local opponents to wind energy developments as ‘NIMBYs’ (Not In My Back Yard). These are individuals who may claim to support wind energy yet oppose any such developments in their local area due to concerns over impacts on personal utility. It is now widely argued that NIMBYism theories are an overly simplistic representation of the nature of local opposition towards wind energy developments (e.g. see Petrova, 2013). For example, local perceptions of wind farm developments can also be shaped by concerns over procedural and distributive justice (e.g. Gross, 2007), place attachment (Devine-Wright, 2009) and ‘qualified support arguments’ (whereby individuals’ support for wind farms at a broad level is based upon conditionalities that might have been infringed upon within a localised context) (Jones & Eiser, 2010). Moreover, studies have shown that the development of relationships between wind farm developers and communities, particularly in facilitating trust and reciprocity, is also a factor that commonly shapes local attitudes towards wind farms (Hall, Ashworth & Devine-Wright, 2013).

As a result of such local opposition to the siting of renewable energy projects, an increasing focus has been placed on the identification and evaluation of strategies that might help to raise local support for wind energy developments (and so-called ‘locally undesirable’ energy generation facilities in general) (e.g. Hall et al., 2013; Peel & Lloyd, 2007; Strachan, Lal & Malmberg, 2006). In many countries it has become common for energy developers to provide voluntary offers of community benefit packages that provide payments to local communities affected by wind energy developments (e.g. see Clean Energy Council, 2012; NextEra Energy, 2014; RenewableUK, 2013). In the UK, commercial wind farm developers usually provide these community benefits through the form of a community benefit fund, which is then managed and spent by an organisation accountable to the local community. Community benefit packages can be used to finance a diverse array of initiatives ranging

from benefits at an individual/household level (e.g. reduced energy bills) through to community-wide schemes (e.g. supporting local clubs).

However, cynicism vis-à-vis developers' underlying motives for providing these community funds has often emerged. In the UK, community benefits have regularly been portrayed and seen as an attempt by local developers to 'bribe' local communities in order to 'buy' support for their wind farm development and ease the passage through the planning process (e.g. see Aitken (2010), Cass, Walker & Devine-Wright (2010), Walker, Wiersma & Bailey (2014) for fuller discussions of this). An illustrative example of this can be clearly shown within article headlines written in two major national UK newspapers: "*Wind farm developers resorting to 'little short of bribery'*" (The Telegraph, 2012) and "*Great green bribe: Say Yes to a windfarm in your neighbourhood and get 20% off your power bill*" (Daily Mail, 2013)ⁱ. The portrayal of compensatory payments by energy developers as bribery has also been salient in relation to other energy developments such as hydraulic fracturing sites (e.g. see The Independent, 2014). Thus, it is unclear at present whether the provision of community benefits is able to increase local support for wind farms in situations where these critical bribery perspectives are also prominent across local communities.

This paper seeks to establish whether there might be particular conditions under which the provision of community benefits can enhance local support for wind energy developments, particularly in a context in which bribery rhetoric has been made salient. Specifically, it tests whether institutionalising community benefits (making community benefits a policy requirement) and the discursive deployment of stake management strategies by developers (e.g. whether developers deny or confess that community benefits are provided to help achieve commercial ends) can prevent the portrayal of community benefits as bribes from undermining local support for an offshore wind farm. In pursuing this aim, this research provides valuable wider insight as to how the provision of community benefits and

compensatory payments that often accompanies locally unpopular energy facilities might be most effectively designed and discussed.

Community Benefits and Local Support for Wind Farms

There has been a tacit assumption by policy makers and energy developers that the provision of community benefits will help to foster local support for wind farms (Cowell, Bristow & Munday, 2011, 2012). This assumption has been called into question by a small body of research that has examined public perceptions of community benefits. Both Cass et al. (2010) and Aitken (2010) found that critical viewpoints regarding the reasons why developers provide community benefits were commonplace among local publics and that these critical viewpoints can undermine the ability of community benefits to be associated with heightened support for energy projects

The studies by Cass et al. (2010) and Aitken (2010) showed a number of reasons that potentially appeared to underpin the cynicism associated with community benefits. Focus groups conducted by Cass et al. (2010) found participants to frequently question the likely scale of community benefits that developers would provide to local people. Additionally, focus groups participants appeared to have low levels of trust in energy developers and often questioned the underlying reasons for why community benefits were provided. Some participants felt that developers might provide community benefits for 'PR reasons' and many felt that they were being provided as 'sweeteners' or 'bribes', a viewpoint that the authors found energy developers to be very aware of, and concerned about, in separate interviews. Similarly, Aitken (2010), focusing upon a Scottish case study over a five year period, found that community benefits were a continuing, controversial issue. Concerns were raised by the local community about the underlying motives behind the provision of community benefits as well as how the funds are spent.

Walker et al. (2014) conducted an experimental analysis of the relationships between community benefit provision and local support for a potential offshore wind farm. The authors looked at the impact of different framings of community benefits. Communication framing relates to the way in which speech, text, images and other presentation methods are used to convey information to others, most classically through putting a ‘spin’ on particular issues (see Druckman 2001). The study provided participants with one of three framing conditions: a no-framed condition that provided details of a potential wind farm but no information on community benefits; a community benefit framing condition informing participants of the likely community benefits that would accompany a wind farm development; or a dual framing condition that presented participants with details of community benefits but also that these had been construed by some as an attempt by developers to bribe local communities. Those exposed to the community benefit frame had significantly higher levels of support for the wind farm, compared to those in the no-framed condition and the dual framing condition. This demonstrates that the salience of bribery rhetoric can undermine any increased local support for a wind farm that might otherwise have been accrued through the provision of community benefits.

Indeed Cass et al. (2010), Aitken (2010), Cowell et al. (2011) and Walker et al. (2014) all express doubts that community benefits are likely to increase local support for a wind farm, particularly given that residents are often cynical about the motives behind the provision of community benefits. Echoing wider research on attitudes to energy projects as a whole (discussed previously), it appears that perceptions of community benefits have complex associations with public trust in developers, perceived fairness and individual perceptions of benefit for themselves and the community as a whole (Aitken 2010; Cowell et al. 2011; Walker et al. 2014). In light of this, the current research seeks to move this important debate forward by testing whether purposive strategies can prevent cynical

perspectives of community benefits from undermining local support for wind farms. The first of these that we examine is whether institutionalising community benefits as a government requirement might result in community benefits leading to increased local support for wind farms, even when bribery rhetoric is salient.

Institutionalising Community Benefits

A community benefit package that is provided by developers on a discretionary basis may always be met with a large amount of scepticism (Aitken, 2010). As such, Aitken (2010) has suggested that institutionalising community benefits might help to overcome common perceptions that community benefits are akin to ‘bribes.’ Aitken argues that, under an institutionalised scheme, the funds will more likely be acknowledged as a routine part of wind farm development, rather than an attempt to ensure a successful planning outcome. If developers were required to provide a certain level of community benefits then local community members might see these as developers as complying with policy rather than purposely trying to buy local acceptability. Conversely, it is also important to consider that a potential risk of institutionalising community benefits is that individuals could still see these as an attempted bribe, but simply as a bribe from the government rather than wind farm developers.

Institutionalising community benefits could feasibly enhance public perceptions of how beneficial a wind farm development will be on a personal level (perceptions of personal benefit) or at a community wide level (perceptions of benefit for the community) (see Walker et al. 2014 for a similar categorisation). Studies within the fields of behavioural economics and social psychology have shown that individuals’ perceptions of benefit and loss can be shaped through framing, despite there being no change in the absolute levels of benefit or loss (e.g. Tversky & Kahnemann, 1981). In relation to community benefits, local community members might doubt that ‘profit seeking’ developers have the interests of local people at

heart and thus be sceptical about whether discretionary community benefit gestures will secure a good deal for local community members. Conversely, policy makers might be viewed as acting in the interests of local communities and pursuing social objectives. Thus institutionalised community benefits may be associated with securing a better deal for community members (although the UK public also seems to be getting more distrustful of politicians and governments (Park, Bryson, Clery, Curtice & Phillips, 2013)). Indeed, there appears to be an increasingly prominent attitude within the UK public that a key role of government is to ‘stand up’ to big business (e.g. see YouGov 2015). If community benefits are mandatory then it may also be that individuals are more likely to believe that these will actually be delivered than when developers claim they will voluntarily provide them. Moreover, a standardised and institutionalised system of benefit provision may also have the further advantage of avoiding a perception on behalf of the local community that a developer is being particularly generous in their case because the outcomes of the specific development in question will be very high return for the developer but very high cost to the local community. Thus, changing the motivational parameters surrounding the provision of community benefits could shape perceptions of how beneficial these community benefits will likely be at both an individual and community-wide level.

Consequently, the current study examines the effect that institutionalising community benefits might have upon local support for a wind farm, including when competing bribery rhetoric is made salient. Specifically, the following hypothesis is tested:

H1: Community benefits are more likely to increase support for wind farms when they are portrayed as a policy requirement rather than a voluntary gesture.

Importantly, given the above discussion, this research also contributes to emerging debates around community benefits through exploring the underlying reasons *why*

institutionalising community benefits might enhance local support for wind farms. We utilise mediational analysis to explore whether perceptions of ‘developer bribery’, ‘government bribery’, ‘perceptions of benefit for the community’ and/or ‘perceptions of personal benefit’ explain why institutionalised community benefits might be associated with heightened support for a wind farm (see Methods section for more details).

Stake Management Strategies

Wind farm developers face an important challenge in deciding how to portray their potentially ‘vested interests’ when providing and communicating community benefits. Communications from developers with regards to how beneficial a wind farm will be for a community might be discounted or dismissed by local residents if they believe that the developer has a vested interest in them believing that story. Subsequently, the use of discursive ‘stake management’ strategies by developers may offer the opportunity to tackle perceptions of bribery. In particular, we focus on three potential ‘stake management’ strategies (stake confession, stake inoculation and no stake proclamation strategies) that developers might employ when communicating community benefit funds.

A well-established discursive strategy that developers might employ is that of stake inoculation (e.g. Antaki & Wetherell, 1999; McGuire, 1964; Whittle & Mueller, 2011). This occurs when an actor attempts to rebut or counter any possible criticisms that may surround their motives behind pursuing a particular course of action. For instance, studies by both Cowell et al. (2011) and Cass et al. (2010) conducted interviews with wind farm developers and reported that these actors rebuffed any suggestions that community benefits are a form of bribery. Developers were very alert to the potential for cynical interpretations of community benefits to emerge and of the damage these can do in local debates and politics (Cass et al., 2010). Developers were resolute that the provision of community benefits was driven by ‘good’, intrinsic motivations and their desire to be a ‘good neighbour’ (Cowell et al., 2011;

Cass et al., 2010). The wider literature on framing and persuasion does provide some indication that such a stake inoculation strategy might be effective in some instances. For example, studies have shown that an actor's argument can actually be stronger when it challenges and successfully refutes opposing arguments, rather than if it were unchallenged (i.e. it is more effective in a context of a two-sided argument rather than a one-sided argument) (e.g. Allen, 1998; Druckman, 2011). Although, what makes one argument or frame stronger than a competing one is largely unknown at present (Druckman 2011). Thus, it remains unclear as to whether the deployment of stake inoculation strategies is actually likely to be the most effective strategy for developers to manage the bribery rhetoric that often surrounds the provision of community benefits.

In many instances the underlying stake behind a particular course of action might be so salient that trying to inoculate or ignore this is an inadequate strategy (Potter, 1996). Therefore, an organisation might employ 'transparency' and confess their stake when pursuing a particular action (stake confession). This approach might involve an attempt by an actor to pre-empt criticism through portraying 'honesty' and simply admitting that they have an underlying interest when pursuing a course of action (Potter, 1996). In employing a stake confession strategy, a wind farm developer might confess that they are providing community benefits in order to make the development acceptable for local communities to enhance their chances of receiving planning permission. This may help a wind farm developer to be perceived as more honest. Indeed, perceptions of procedural justice, of which transparency is one core aspect (Levanthal, 1980; Lind and Tyler, 1988), have been identified as an important determinant of individual attitudes towards renewable energy developments (Aitken, 2010b; Walker et al., 2010; Wolsink, 2007).

Alternatively, a firm might adopt a 'no stake proclamation' strategy. Arguably the most prominent message within the emerging field of corporate social responsibility

communication is that it may be in the best interests of businesses to not communicate their socially responsible efforts (Lindgreen & Swaen, 2010; Morsing, Schultz & Nielsen, 2008; Schlegelmilch & Pollach, 2005). The argument here is that any attempt to communicate socially responsible actions can breed cynicism and suspicion by customers and stakeholders given it is in a firm's self-interest to be seen as socially responsible. Instead, it is common for companies to embody the principle of being socially responsible but choose to avoid communicating socially responsible initiatives and instead depend on others to talk about these (Kotler & Lee 2005; Lindgreen & Swaen 2010). Thus, it might be most effective for developers to adopt a 'no stake proclamation' discursive strategy and not provide any communications with regards to the provision of community benefits. In light of the above discussions, the current study explores whether energy developers might be best placed in adopting 'stake confession' or 'no stake proclamation' strategies, rather than the current tendency to employ 'stake inoculation' strategies.

Finally, it is plausible that the effectiveness of discursive strategies may depend upon whether community benefits are perceived as being an institutionalised requirement or a voluntary act by wind farm developers. It seems feasible that discursive strategies by developers will only have an effect when community benefits are provided on a voluntary basis. For instance, statements from developers regarding their motives for providing community benefits might be seen as irrelevant if the provision of community benefits is seen as complying with government legislation. Thus, a further hypothesis to be tested is:

H2: Stake disclosure communications will only affect support when community benefits are presented as discretionary gestures by energy developers rather than required under government policy.

Method

Participants and Design

The study was implemented within the area of Torbay, UK. Torbay is a popular tourist destination in the South West of the UK that is characterised by having an east facing natural harbour and is a popular tourist destination. The UK provides a useful context for this study as it is a country where the provision of community benefits is commonplace and ‘bribery’ debates surrounding these have become salient across a number of UK communities (e.g. see Walker et al., 2014). A mailbox survey of 1,750 households was conducted in the Torbay towns of Paignton and Torquay. This represented 3.5% of households within the sampled area (Census, 2011). Torbay was sampled as it was deemed a good location for exploring support for an offshore wind farm in an ‘upstream context’ (see Walker et al., 2010) as there were no publically available plans to develop an offshore wind farm in the local area, although participants were made aware that ‘it is not impossible that one [offshore wind farm] could be proposed in the area at some point in the future.’ Such a location was targeted because it is increasingly recognised that developers should engage with local communities at an earlier stage in planning processes, whereas at later stages in the development process local views towards a development could feasibly be more deep-rooted. Surveys, 4 sides of A4 paper in length, were hand delivered, together with a pre-paid envelope. A prize draw incentive was included to help boost participation (see Dillman (2000) and Anseel et al (2010)).

A fractional, between-subjects factorial design was used in this study (see Box, Hunter & Hunter (2005) for more information on fractional factorial designs). All participants received basic information about a hypothetical future wind farm in the area of Torbay, United Kingdom. However, using random allocation through mixing up all questionnaires prior to putting them in envelopes, participants were exposed to one of seven framing conditions that determined the information they received about the likely provision of community benefits alongside any potential wind farm (see online appendix for details of

framing text). Participants were made aware that the researchers had no knowledge of any current plans to develop a wind farm in the local area. The design of the study tested whether the mechanism behind the provision of community benefits (institutionalised vs voluntary) and discursive stake management strategies (stake confession vs stake inoculation vs no stake proclamation) could influence local support for a wind farm development. Additionally, a no-framed condition (control group) was included as a seventh framing condition.

A total of 236 participants responded to the postal survey. Seven surveys were incomplete, leaving 229 responses (representing a 13.1% response rate) suitable for analysis. There was a good spread of participants across the framing conditions with each of the seven framing conditions receiving between 29 - 38 completed responses. The age of participants ranged between 18 and 80 years old, with there being an average age of 52.2 years old ($SD = 15.0$). Of participants that stated their age ($n=210$), 9.2% were aged under 30, 14.4% aged 30-44, 37.6% aged 45-59, 25.8% aged 60-74 and 4.8% were aged 75 or over. In terms of the gender mix of the respondents, 54% were female. 141 participants (61.6%) believed humans were a substantial cause of climate change whilst 72 participants (31.4%) were sceptical of anthropogenic climate change (based on a categorisation method used by Bain et al. (2012)) – 16 participants were unsure or preferred not to say (7%). There were no significant differences in age, gender, political ideology or climate change beliefs across the seven conditions (all $p > .15$).

Materials and Procedure

Participants were first exposed to a descriptive piece of text, which varied depending upon the framing condition that they received. The community benefit mechanism variable had two levels. Individuals were either informed that community benefits are voluntary contributions from wind farm developers, or were told that community benefits are provided by wind farm developers in order to comply with government guidance. The stake

management variable contained three levels: i) stake confession, where a quote from a wind farm developer acknowledged that inevitably some will perceive community benefits to be bribes; ii) stake inoculation, whereby participants received a quote from a wind farm developer denying that community benefits are bribes and instead these funds are provided as they want to be ‘good neighbours’; and iii) no stake proclamation, whereby no statement from a wind farm developer was made with regards to claims of bribery. The developer quotes were extracts from interviews with wind farm developers conducted by Cass et al. (2010). All participants within the associated six framing conditions received information about community benefits that would likely accompany the wind farm and that these community benefits have been portrayed by some as an attempt to bribe local communities.

Participants who received the control group framing text only received information about a potential wind farm and were not told about community benefits or that these are described by some as an attempt to bribe local populations. This control group was incorporated within the research design to act as a reference point from which to test for any framing effects (see Chong and Druckman, 2007). Comparison to the control group enables the direct assessment of whether institutionalising community benefits or the deployment of stake management strategies can help community benefits to increase support for a wind farm, compared to a situation where information on these funds is not provided.

After reading the framed information, participants completed a short survey. This measured participants’ support aforementioned for the wind farm development by averaging participants’ responses to two associated questions (Spearman-Brown $r = .89$). These items asked participants to rate how strongly they agreed with the statements ‘I would support such a development’ and ‘I would rather this development was not built in the Torbay area’ (reversed). Potential mediation variables of ‘developer bribery’ⁱⁱ (e.g. ‘I am cynical about the motives behind the provision of community benefits by wind farm developers’), ‘government

bribery' (Spearman-Brown $r = .65$) (e.g. 'I think that the government are trying to bribe communities to accept wind farms'), 'perceptions of personal benefit' (Spearman-Brown $r = .74$) (e.g. 'such a development would bring me personal benefit') and 'perceptions of benefit for the community' (Spearman-Brown $r = .88$) (e.g. 'such a development would do more damage than good to my local community'[reversed]) were also measured within the survey using two-item measures to explore the underlying mechanisms driving any framing effects.

To analyse the results of the study, all statistical analysis was conducted using the macro 'PROCESS' (described by Hayes 2012, 2013). PROCESS is the most suitable test for analysing these results as it enabled the simultaneous analysis of multiple mediators and moderators. PROCESS was used to test for mediation of any effects across the 'community benefit mechanism' and 'stake management' independent variables upon support for the wind farm, as well as any interactions between these two variables. This involved dummy coding the independent variables and measuring any effects relative to the control group separately because, due to the incomplete factorial design, it was not possible to analyse the control group in the same model as the 3 x 2 factors. Participants' age and perceptions of how trustworthy they believed a developer would likely be were included within the statistical model as covariates due to their strong, independent relationships with their support for the development.

Results

Figure 1 shows the estimated marginal mean levels of support for the wind farm across the control group ($M = 4.15$, $S.E. = .31$), institutional no stake proclamation ($M = 5.12$, $S.E. = .34$), institutional stake confession ($M = 4.97$, $S.E. = .34$), institutional stake inoculation ($M = 4.74$, $S.E. = .33$), voluntary no-stake proclamation ($M = 4.44$, $S.E. = .30$), voluntary stake confession ($M = 4.50$, $S.E. = .33$) and voluntary stake inoculation ($M = 4.00$,

S.E. = .33) framing conditions. The following sections set out the statistical analysis of these results.

Effects of Community Benefit Mechanism (voluntary vs institutionalised)

The results of the PROCESS mediational model (Figure 2) found that there was a significant increase in support for the developments amongst participants who received the institutionalised community benefit frames (total effect = .63, $p = .014$), relative to those in the voluntary community benefit framing groups [supporting H1]. This main effect diminished when the four potential mediators were simultaneously included within the model (direct effect of framing conditions = .12, $p = .49$) suggesting the presence of significant mediation. The model found that perceptions of personal benefit, with 95% bias-corrected bootstrap confidence intervals of .0903 to .4585, significantly mediated the effect of increased support under the institutionalised frame compared to the voluntary frame. Perceptions of benefit for the community (bias-corrected bootstrap confidence intervals of -.0527 to .6047), perceptions of community benefits as political bribes (bias-corrected bootstrap confidence intervals of -.1253 to .0149) and perceptions of community benefits as developer bribes (bias-corrected bootstrap confidence intervals of -.0105 to .1515) did not mediate at a 95% confidence level. Table 1 also provides an overview of the correlations among the four mediational variables, control variables as well as the dependent variable. Tests indicated that multicollinearity was not a concern amongst the mediator variables (perceptions of personal benefit, Tolerance = .61, VIF = 1.64; perceptions of community benefit; Tolerance = .49, VIF = 2.01, perceptions of political bribery; Tolerance = .61, VIF = 1.64; perceptions of developer bribery, Tolerance = .54, VIF = 1.84)ⁱⁱⁱ.

Additional mediational analysis shown in Figure 2 explored whether the institutionalised frame was also associated with significantly higher levels of support compared to a no-framed group that received no information about community benefits.

There was a significant, positive effect of the institutionalisation frame upon participants' support for the wind farm (total effect = .79, $p = .030$), compared to the no-framed condition [supporting H1]. This effect dissipated once the mediators were incorporated within the model (direct effect of framing conditions = -.25, $p = .27$). Additionally, the statistical model found with 95% confidence that the increased support that occurred under the institutionalisation frame was mediated by perceptions of personal benefit, with a 95% bias-corrected bootstrap confidence interval of .0772 to .9069, and perceptions of benefit for the community, with a 95% bias-corrected bootstrap confidence interval of .1040 to 1.300. Perceptions of community benefits as bribes from politicians or developers were not included as mediators given that participants in the control group were not provided with any information about community benefits.

There was not a significant difference in support between the frames that portrayed the provision of community benefits as a voluntary act and the no-framed condition (total effect = .19, $p = .59$).

Effect of Stake Management Strategies upon support for the development

The PROCESS model did not find any significant differences in support for the wind farm across the stake management framing conditions. Participants exposed to the stake confession strategy had similar levels of support to those exposed to the no stake proclamation strategies (total effect = .02, $p = .95$). The stake confession frames were associated with higher mean levels of support than the stake inoculation frames, however this was not significant at a 95% confidence level (total effect = .47, $p = .127$). The stake inoculation strategy was associated with less support for the wind farm than the no stake proclamation strategy, but not at a significant level (total effect = -.45, $p = .15$). The model did not find any significant indirect mediation across the stake management strategies by

perceptions of personal benefit, perceptions of benefit for the community, political bribery or developer bribery (all 95% confidence intervals included 0).

Interactions between community benefit mechanisms and stake management strategies

The effectiveness of the stake inoculation ($p = .81$), the stake confession ($p = .72$) and no stake proclamation ($p = .89$) framing conditions did not depend on whether the provision of community benefits was portrayed as being institutionalised or voluntary. Thus there were no significant interactions between the communicated mechanism behind the provision of community benefits and the discursive stake management strategies.

Discussion

Existing research has shown that community benefits are unlikely to increase local support for wind farm developments when critical, bribery perceptions are salient (Aitken, 2010; Cass et al., 2010; Walker et al., 2014). However, importantly, the findings of the current research show that this need not necessarily be the case. The current findings show that it may be possible to implement strategies to ensure that the provision of community benefits can increase local support for offshore wind farms, even when these funds are portrayed by some within a local context as ‘bribes.’ Local community members who were told about *institutionalised* community benefits had significantly higher levels of support for a potential offshore wind farm compared to participants who did not receive information about community benefits and participants who were told that community benefits are a voluntary act by developers (as is currently the case in the UK). Consequently, this research provides empirical evidence in support of Aitken’s (2010) tentative suggestion that the institutionalisation of community benefits might help to prevent bribery perspectives of community benefits from affecting local perceptions of wind energy developments.

Importantly, there was little difference in support for the wind farm across participants who were told that the provision of community benefits accompanying a wind

farm was a discretionary act by developers and those in a control group that were not informed of any community benefits. This further reinforces the findings of Aitken (2010), Cass et al., (2010), Cowell et al., (2011) and Walker et al., (2014) who all infer that the voluntary provision of community benefits is unlikely to be associated with an increase in local support when competing ‘bribery’ perspectives of community benefits are salient.

It can therefore be recommended on the basis of the findings of this research that efforts should be made to institutionalise community benefits or compensatory benefits that accompany locally unpopular energy developments. Greater consideration as to how this might be best achieved is required and, inevitably, will vary across localities and energy technologies. For instance, the form by which community benefits are provided (if at all) by wind energy developers varies greatly across countries (e.g. see Richardson et al., 2009). In countries such as Spain, Germany and Denmark, community benefits have historically been more institutionalised than they have been in the UK. Within these countries benefits to local communities have been ascertained through formal local taxation payments and opportunities for local ownership and thus ‘local dividends’, rather than through discretionary cash payments by developers (DTI, 2005). Movement towards the more formalised models utilised in these countries may offer opportunities to enhance local acceptability of wind farms in other national contexts. Notably, in recent years there has been an adoption of a voluntary ‘Community Benefits Protocol’ by some onshore wind farm developers in the UK (RenewableUK, 2013). The protocol sets out commitments from wind farm developers that are members of RenewableUK to offer a minimum of £5000 per megawatt of installed capacity. However, even with this protocol, community benefits remain a voluntary act and standards for community benefit provision for offshore wind farms are even less well established. The recommendations made here to institutionalise community benefits further may also not be as clear-cut as the results from this research might suggest. Greater

consideration about wider stakeholder views of such an approach and potential negative consequences (e.g. costs to developers and thus of energy production) have not been considered in this article and should be analysed going forward.

It is also important to note that the research set out in this paper has important implications for wider theoretical research in the field of framing. Framing research has shown that portraying an object in a positive or negative light can influence individuals' attitudes. For instance, public views of a hate rally can be significantly shaped depending on whether they are presented with positively (e.g. exercising rights to free speech) or negatively (e.g. rallies pose a risk to safety) framed information (e.g. Chong, 1993; Nelson, Clawson & Oxley, 1997). However, recent framing research has suggested that the simultaneous provision of opposing framing conditions (e.g. positive and negative frames) often neutralises any effects on individual attitudes that might have occurred through providing participants with an unchallenged frame (e.g. Aklin & Urpelainen 2013, Druckman 2011, Chong & Druckman 2013). Our research here has added to these existing debates in the academic literature by showing that strategies (institutionalising community benefits in this instance) can be developed to counteract any neutralising effects that the provision of opposing frames might have. Subsequently, the findings of this study suggest that a key, largely unexplored, challenge for framing researchers is to understand how strategies might be developed to overcome any negative effects of opposing framing conditions.

Institutionalising Community Benefits and Perceptions of Benefit

Mediational analyses also provided important insight in to why the institutionalised community benefit frames were associated with the highest levels of local support for a potential wind farm. It was expected that institutionalising community benefits might reduce participant perceptions of community benefits as bribes by developers, with these funds instead coming to be seen as developers complying with policy. However, perceptions of

developer bribery did not mediate the framing effects that were found. Instead, increased support under the institutionalised framing condition was mediated by heightened perceptions of how beneficial the wind farm would be at an individual level (compared to the control group and voluntary frames) and at a collective level (compared to the control group). Therefore, even though the material size or characteristics of community benefits did not change across the voluntary and institutionalised framing conditions, perceptions of how beneficial a wind farm would be did change. This might be because participants were sceptical that developers would be motivated by securing a good deal for local community members. Put simply, it seemed that when community benefit packages were offered up as voluntary acts on behalf of developers, community members became sceptical about whether the proposal, overall, would bring them (or their local community) net benefit—perhaps suggesting that they imagined that the negative impacts of the development must be very large. It also seems plausible that individuals might have higher expectations that community benefits will actually be fulfilled under an institutionalised context compared to when developers claim that they will voluntarily provide them.

Stake Management Strategies

This research did not find the implementation of discursive stake management strategies by wind farm developers to have an effect upon local support for the wind farm development. Nor did the effectiveness of stake management strategies significantly depend upon community benefits being portrayed as a voluntary goodwill gesture by developers [providing no support for H2]. Thus, no recommendations can be made in terms of how wind farm developers should seek to communicate their stake when providing community benefits. However, it is interesting to note that the lowest average support of the seven framing conditions was the one that presented community benefits as a voluntary gesture and exposed participants to stake inoculation rhetoric from developers. Ironically, this is currently the

most likely type of communication regarding a proposed local renewable energy development that individuals will be exposed to within the UK context. This situation is due to community benefits remaining a voluntary act and developers frequently being keen to dismiss that they are trying to buy the support of local communities, emphasising instead that they are trying to be ‘good neighbours’ (e.g. see Cass et al., 2010). Even though this effect fell short of statistical significance, experimentally analysing the effect of stake management strategies identified within the field of discursive psychology remains a useful cross-disciplinary avenue for future research.

Limitations and Future Research

It is necessary to acknowledge some limitations to this research. Firstly, in conducting a study of this nature there is a clear need to ensure that the research design adheres to ethical standards. In this study efforts were made to avoid fabricating the information that was presented to participants. For example, actual quotes by wind farm developers were used rather than the fictitious quotes that we as researchers could otherwise have developed in a manner that would have more potently tested the hypotheses. This is particularly true for the stake confession manipulation whereby the framing text quoted a developer stated “*wind farm developers acknowledged that it was inevitable that ‘somebody can say it’s bribing the local community.’ However, they stressed that these funds can provide ‘an awful lot of benefit’ to communities.*” If the study were to have used fabricated developer quotes then there would have been the opportunity to develop a stronger manipulation of ‘stake confession.’ However due to ethical considerations this was deemed inappropriate to do in a postal survey as there were concerns that making participants aware of fabricated material in a debrief at the end of the postal survey could cause respondents to change their responses retrospectively. Another limitation is that participants were presented with details of a

hypothetical wind farm and thus their responses might be slightly less extreme than if they were provided with details of a real wind farm where the situation is of higher relevance.

It is also possible to identify a number of potentially useful avenues for further research by recognising the limitations of the research design used in this paper. Firstly, it is important to acknowledge that conducting an experimental study of this type imposes some constraints upon one's ability to understand the underlying reasons and psychological processes that underpin the mediational findings of this study. Future research that provides further exploration of these issues would be useful. This could explore the reasons that underpinned why institutionalising community benefits resulted in heightened perceptions of personal benefit. For example, it could be that policy makers are likely to be viewed as acting more in the interests of a local community than wind farm developers or people may believe community benefits are more likely to be delivered when they are a policy requirement. It is also possible that the size of some of the effects (e.g. the effects of stake management strategies) might have been of a magnitude that the current sample size was unable to detect at a level of statistical significance. Additionally, the current study has not explored whether different ways of developers offering 'voluntary' community benefits can impact upon local perceptions of energy developments. For example, Cowell et al. (2011) and Aitken (2010) suggest that community benefits might be more likely to influence local perceptions of a wind farm if community members feel that they are able to influence decision making with regards to the siting of the development. This is because local residents might be more likely to feel that community benefits have been a two-way negotiable process and offer the opportunity to agree a 'good deal' for the community. These more subtle variations in the provision of voluntary benefits represent potentially interesting areas for future research.

Conclusion

The provision of community benefits by energy developers is common across a range of countries and energy technologies (e.g. DECC, 2013; Idemudia & Ite, 2006; NextEra Energy, 2014). It is of clear importance to understand the effects (if any) that the provision of such community benefits are likely to have upon local acceptability of less desirable energy generation facilities. The UK experience has demonstrated the potential for critical and cynical perspectives of community benefits to emerge (i.e. notions of ‘bribery’) and existing research has indicated that these critical framings can neutralise any potential increase in local support that might otherwise have resulted from the provision of community benefits. However, the current study has furthered these debates by demonstrating that if community benefits are portrayed as a policy requirement then they can increase local support for a potential offshore wind farm, even when local community members are aware that these have been portrayed (by some) as bribes. This effect was due to the heightening of perceptions of personal and collective benefit when the provision of community benefits was institutionalised rather than voluntary. A clear policy message can be extracted from the findings of this work – if communities are to believe that they are getting a ‘good deal’ through the siting of wind farms then this needs to come through government legislation and not discretionary acts by developers. Future work testing whether institutionalising community benefits can increase local support for other locally unwanted land uses, across different international environments and for projects in a downstream context would be valuable for policy makers, researchers, energy developers and communities alike.

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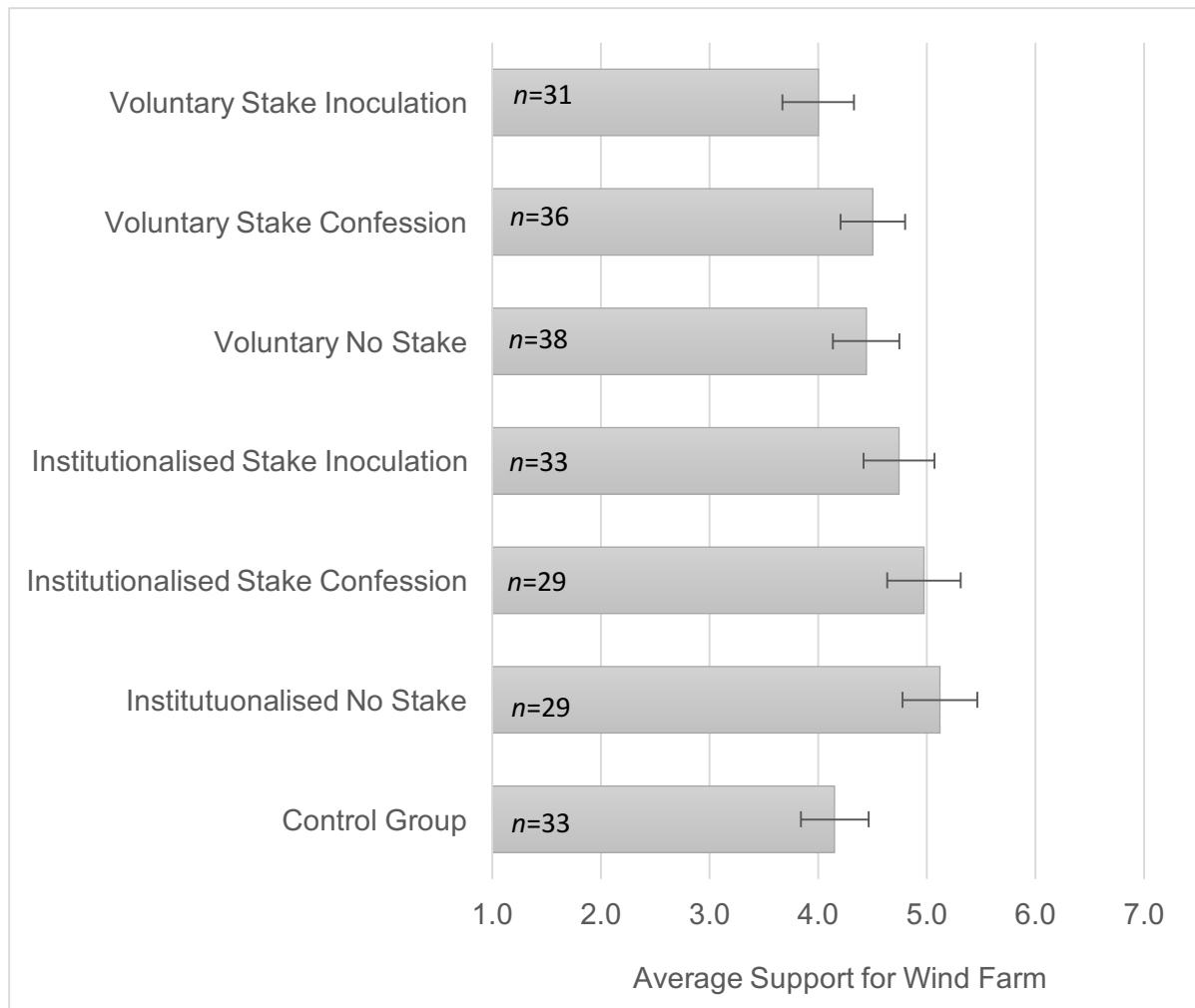
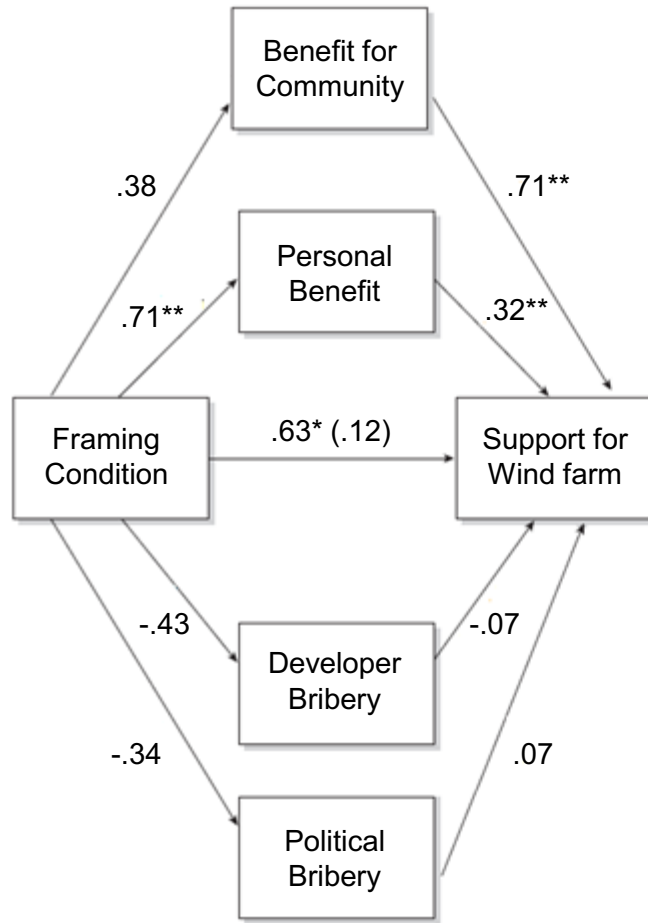
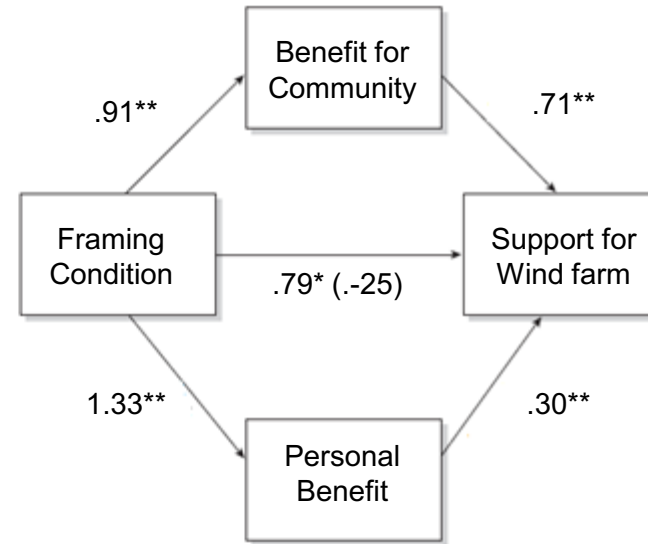


Figure 1. Estimated marginal mean levels of support for the wind farm (1 = strongly oppose; 7 = strongly support) (with standard error) across the framing conditions.

1. Institutionalised vs Voluntary Community Benefits



2. Institutionalised vs No-Framed Condition



* $p < .05$, ** $p < .01$

Figure 2. Results of the PROCESS mediational analysis that compares participant attitudes towards the wind farm under i) the institutionalised (Coded 1) vs voluntary framing conditions (Coded 0); and ii) the institutionalised (Coded 1) vs the no-framed condition (Coded 0). The reported path values are the unstandardized regression coefficient. The total effect of the framing condition upon support for the wind farm before the inclusion of potential mediators lies outside the parentheses. The direct effect of the framing condition after the inclusion of the potential mediators lies within the parentheses.

	1	2	3	4	5	6	7
1 Perceptions of personal benefit							
2 Perceptions of benefit for community	.628**						
3 Perceptions of political bribery	-.520**	-.621**					
4 Perceptions of developer bribery	-.447**	-.550**	.649**				
5 Age	-.229**	-.232**	-.189*	-.262**			
6 Level of developer trust	.371**	.544**	-.566**	-.596**	-.152*		
7 Support for Wind Farm	.683**	.860**	-.566**	-.557**	-.245*	.533**	

Note * $p < .05$, ** $p < .01$.

Table 1. Correlations between the mediational, control and dependent variables.

Notes

ⁱ It should be noted that these newspapers are known for having a right wing ideology.

ⁱⁱ Two questions also sought to measure whether participants perceived community benefits to be bribes by wind farm developers but did not have an acceptable reliability (spearman-brown $r = .30$). In hindsight this is likely to be due to the wording of one of the questions that asked participants for their agreement with the statement 'I doubt that the reason wind farm developers provide community benefits is to 'bribe' local communities', which had low consistency with other relevant measures. Consequently, it was deemed appropriate to use a single-item measure of perceptions of developer bribery.

ⁱⁱⁱ These statistics fall within recommended acceptance levels of VIF and tolerance (e.g. see Hair, Anderson, Tatham & Black., 1995; Tabachnick & Fidell., 2001).