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1 **Uncommon ground: The role of different place attachments in**
2 **explaining community renewable energy projects**

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22 **Uncommon ground: The role of different place attachments in**
23 **explaining community renewable energy projects**

24

25 **Abstract**

26 For rural communities, energy projects can provide a host of benefits, and yet also be a
27 source of significant conflict. Place attachment has become an increasingly popular
28 concept for understanding local responses to large scale renewable energy installations.
29 However, there has been significantly less attention paid to how place attachment
30 influences local responses to community-led developments. This study contributes to the
31 body of research on place attachment by examining its role in shaping opinions on two
32 locally initiated projects. Interviews were conducted with residents in two rural
33 communities in the Scottish Highlands, where community organisations are developing
34 renewable energy projects. The findings show that place attachment was an important
35 motivator for the development of these projects, but that different types of place
36 attachment also formed a key source of disagreement. Finally, the implications of these
37 findings for rural communities engaging in community-led development initiatives will
38 be discussed.

39 **Keywords:** community-led development, rural Scotland, place attachment,
40 renewable energy, rural development

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45

46 **Introduction**

47 This paper focuses on the role of place attachment in shaping community-led energy
48 projects in remote rural Scotland, and local responses to them. We demonstrate the value
49 of this concept for considering endogenous development-related conflicts within rural
50 communities, and for providing a nuanced understanding of the way in which responses
51 are formed.

52 We chose Scotland because of the preponderance of remote rural communities,
53 and the associated policy focus (Markantoni and Woolvin 2015, Skerratt and Hall, 2011).
54 The Scottish Government has developed programmes to support community-driven
55 development and engage communities in the transition towards low-carbon futures
56 (Creamer 2014, Markantoni and Woolvin 2015). This includes the Scottish Government's
57 Routemap for Renewable Energy, which sets a target on 500MW in community and local
58 ownership by 2020; and the Scottish Government's Local Energy Challenge Fund (2014),
59 with £20m available to support community energy projects. However, our analysis has a
60 broader relevance beyond the Scottish context. Local movements promoting small-scale
61 renewable energy have emerged across Europe (Harnmeijer *et al.* 2012, Kunze and
62 Becker 2014), and issues around local acceptance based on competing visions of (rural)
63 places are therefore also anticipated to be pertinent elsewhere.

64 One factor to account for policy makers' support for community renewable energy
65 is the assumption that such projects will enjoy greater local acceptance (Warren and
66 McFadyen 2010). While the definition of 'community' in community energy continues
67 to be a source of discussion (Rudolph *et al.* 2015, Walker 2011), community energy
68 projects are likely to have several key characteristics which are deemed to garner support.
69 First, they are likely to be small: projects are often at the meso-level, smaller than
70 technologies that are generally associated with a centralised energy system, but larger

71 than a single household/building (Devine-Wright and Wiersma 2013, Walker and Cass
72 2007). Second, the community label indicates a set of social relations expected to
73 influence how these technologies are developed and the outcomes distributed. There is
74 the presumption that participants play an active role in the development of the project and
75 that benefits will be experienced collectively (Devine-Wright and Wiersma 2013, Walker
76 and Devine-Wright 2008). Such benefits can be wide-ranging and include income
77 generation, tackling fuel poverty, community regeneration, increased social cohesion,
78 addressing inequalities, and skills development for local people (Capener 2014,
79 Middlemiss and Parrish 2010, Murphy 2010, Walker 2007). Third, from these
80 expectations of scale and local involvement, it is often presumed that community projects
81 are more sensitive to local concerns, and therefore more acceptable to the communities
82 in which they are situated (e.g. Bomberg and McEwen 2012, Hielscher 2011, Walker *et*
83 *al.* 2007, 2010, Warren and McFadyen 2010).

84 This assumption has ensured that local acceptance of community projects has
85 received only limited empirical attention (see Otto and Leibenath 2014 for one recent
86 exception); or has meant a focus on the strength of support and opposition, rather than
87 the contributing factors (e.g. Haggett *et al.* 2013, Warren and McFadyen 2010). Here, we
88 move beyond the assumption that such projects will be well-received and present a novel
89 focus on the contexts of rural community energy schemes. We use the lens of ‘place
90 attachment’ to do so. Research focused on large scale renewable energy projects, has
91 found that place, and related concepts of attachment and identity, plays an important role
92 in forming opinions of energy developments (Bell *et al.* 2013, Devine-Wright 2009, van
93 der Horst 2007, Vorkinn and Riese 2001). Yet, little is known regarding community
94 projects and the impact of ‘place’ on their acceptance. By considering the complex role

95 that place plays, a more complete understanding of community responses can emerge
96 (Manzo and Perkins 2006).

97 This matters because of the location of community energy projects. Although
98 found across Scotland, many are located in remote rural areas renowned for their natural
99 beauty and unspoiled character. These are also often places where communities are
100 “fragile” or “in decline” (Murphy 2010, p. 10) and in need of an economic boost
101 (Mackenzie 2012). Furthermore, the rise of community energy initiatives has coincided
102 with land reforms aimed to redress the historic inequalities of land ownership, by
103 promoting a collectivist, place-based community development model (Shucksmith,
104 2010). These coinciding movements are both argued to help write people ‘into the land’,
105 challenging dominant discourses of who and what rural land is for (Mackenzie 2006a,
106 2006b, Shucksmith 2010). In this context, we explore two rural community energy
107 projects with different landownership arrangements, aiming to further a sociological
108 understanding of how different perceptions of place shape rural visions which inform
109 both the motivations for, and responses to, such projects.

110

111 **Place and place attachment**

112 There has been a range of sociological work examining communities, local responses,
113 and energy projects (Aitken 2009, 2010, Haggett 2008, 2010, Woods 2003), and
114 sociological work positing the value of a place based approach (for example, Gieryn’s
115 seminal paper in 2000) but little which has brought these two traditions together. In much
116 sociology, place “remains invisible only because it is rarely framed in this way” (Gieryn
117 2000, p. 464). We aim to make place visible in this study, and explicitly demonstrate the
118 value of incorporating ‘place’ when considering responses to rural energy projects. We
119 therefore draw on concepts from across disciplines to explore the way in which place can

120 be understood in the broader context of human-environment relations (Lin and Lockwood
121 2014a, 2014b) as well as contributing to an understanding of how those relations are
122 perceived and constructed (Greider and Garkovich 1994, Hannigan 2006).

123 We follow Devine-Wright's (2009, p.427) lead in considering 'place' as both the
124 physical aspect of a location, but also as the "variety of meanings associated with that
125 location by individuals or groups". The community groups at the centre of this study
126 define themselves in terms of geographical area, which overlap with historic parish
127 boundaries. Although these 'places' are both administrative and geographically bounded
128 areas, they are not static pre-given entities. Rather, their meanings are contingent and at
129 times controversial, produced through the practice of social relations both within and
130 external to the location (Harvey 1996, Massey 2004, Mackenzie 2006b).

131 There are numerous strands of research concerning people-place relations,
132 including those focused on sense of place (Convery *et al.* 2012, Shamai 1991, Tuan
133 1980); place identity (Proshansky *et al.* 1983); and place attachment (Devine-Wright and
134 Howes 2010, Lewicka 2011), described as a distinct form of sense of place (Convery *et*
135 *al* 2012, Jorgensen and Stedman 2001) and a precursor to place identity (Hernández *et al*
136 2007). The different disciplinary traditions from which these research strands have
137 emerged has, however, contributed to a lack of consensus regarding the meaning, and
138 interpretation of these concepts, as well as the precise relation between them (Convery *et*
139 *al* 2012, Hidalgo and Hernández 2001, Horlings 2015). What they have in common is a
140 concern with the – generally positive – meaning assigned to a particular location (Vorkinn
141 and Riese 2001).

142 In this paper we focus on place attachment, most simply defined as the bonding
143 between "individuals and their meaningful environments" (Scannell and Gifford 2010,
144 p.289). Early literature was often concerned with the role of (shared) social bonds,

145 processes and connections that contribute to people's attachment to their neighbourhood
146 (Lewicka 2011, Scannell & Gifford 2010). There, the physical aspects of a place are
147 merely a setting for social interactions. More recent research however, has tended to
148 conceptualise place attachment as having two dimensions: the physical and the social
149 (e.g. Devine-Wright and Clayton 2010, Gunderson and Watson 2007, Hidalgo and
150 Hernández 2001, Vorkinn and Riese 2001). The physical dimension of place attachment
151 can include both functional attachment – the direct reliance of people on a place's
152 physical attributes or resources to support specific goals or activities (Lin and Lockwood
153 2014a) – and emotional attachment: the socially constructed meanings given to landscape
154 features, enabling aspects of a location to become part of an individual's identity (Greider
155 and Garkovich 1994, Hernández *et al.* 2007, Lewicka 2011, Proshansky *et al.* 1983).

156 This contrasts with the second dimension of place attachment, which refers to the
157 presence of current social ties, as well as an emotional connection based on personal,
158 historical or cultural connections to the area (Hidalgo and Hernández 2001, Lin and
159 Lockwood 2014b, Raymond *et al.* 2010). This social attachment can be experienced at an
160 individual level, but also as part of a collective community identity, based on a shared
161 locality, history and sense of belonging (Heiskanen *et al.* 2010, Walker and Devine-
162 Wright 2008).

163 Thus, research on place attachment has encompassed a variety of different
164 contexts and disciplines. We suggest it can be adapted to explore issues relevant to
165 community development projects: the attachments formed to places, the relevance of the
166 social context, and how these issues influence perceptions of change. We focus in what
167 follows on the effect of place attachment on the development of community energy
168 projects.

169

170 **Place and renewable energy**

171 An interesting and emerging body of research has applied these ideas about place
172 attachment to explain local responses to energy infrastructure (e.g. Devine-Wright and
173 Howes 2010, Vorkinn and Riese 2001). Early research often focused on how material
174 factors (such as type of technology and physical proximity) influence opinions of a
175 particular development (Lee *et al.* 1989, Thayer and Freeman 1987, Wolsink 1989). More
176 recent work has suggested a place-based perspective which moves beyond the
177 prominence assigned to physical proximity on shaping opinions. Instead, this place-based
178 perspective highlights the socially constructed, symbolic aspects of places – informed by
179 previous and current human-environment interactions – and how development proposals
180 ‘fit’ with these (Devine-Wright 2011, Devine-Wright and Howes 2010, Haggett *et al.*
181 2014, van der Horst 2007). The place-based perspective adopted by this body of research
182 refers both to the specific sites where developments are proposed, but also to the
183 transformation of wider landscapes through “the extension of industrial and extractive
184 components of the energy system into places and communities that previously were
185 unaffected” (Bridge *et al.* 2013, p. 335). The ongoing expansion of renewable energy into
186 remote rural landscapes therefore requires a re-evaluation of not only the use and form of
187 these landscapes, but also the cultural meanings and emotional attachments embedded in
188 them (Bridge *et al.* 2013).

189 Research using a place-based approach has primarily focused on large scale,
190 commercial energy projects. Local acceptance is therefore often framed as resistance to
191 developments proposed by ‘outsiders’, deemed insensitive to local, place-based, attitudes
192 and concerns (Dalby and Mackenzie 1997, Devine-Wright 2009, Haggett 2009, Murphy
193 and Smith 2013, Scannell and Gifford 2010). Whilst this literature tends to consider these
194 critical responses to development project as place-protective action, those drawing on

195 relational notions of place have argued that these responses can also be seen as multi-
196 scale and network-oriented strategies to redefine and reproduce 'place' (e.g. Escobar
197 2001, Massey 2004) in ways that avoid what Swyngedouw (2004, p.43) sees as the
198 dangers of 'militant particularism'. As such, these places can be framed not only in terms
199 of resistance, but also as places of possibility (Mackenzie 2012, Massey 2004).

200 Community-led projects present an interesting and different dynamic for the study
201 of responses to proposed developments and the role 'place' plays as these projects have
202 arisen from within communities, rather than being 'imposed' upon them. Studies suggest
203 that community-ownership of renewable energy creates higher level of local acceptance
204 (Barry and Chapman 2009, Bell *et al.* 2005, Toke 2005), but how place might contribute
205 to this higher level of acceptance is not well understood. In this paper, we therefore apply
206 the ideas presented above to analyse responses to community-owned projects.

207

208 **Different people, different attachments**

209 As well as a greater empirical discussion of the role of place in acceptance of community-
210 led projects being warranted, we suggest a more nuanced understanding of place
211 attachment is also required. Others adopting a place-based approach to understand local
212 acceptance have considered the importance of distinct characteristics and associated
213 meanings of different places (e.g. Batel and Devine-Wright 2015, Devine-Wright and
214 Howes 2010). Attachment is not necessarily experienced in a uniform manner by
215 residents of one place, however, and differences within places should not be neglected.
216 One approach is to explore the personal characteristics that influence an individual's place
217 attachment (Haggett *et al.* 2014, Lewicka 2011). This is especially relevant in the context
218 of rural areas, where 'incomers' or second home owners are often juxtaposed with long-

219 term residents regarding their values and attitudes towards rural landscapes (Pitkänen *et*
220 *al.* 2014).

221 Previous research has often equated length of residence, through notions of
222 ‘insidedness’ (Relph 1976) or ‘rootedness’ (Hay 1998), with increased levels of place
223 attachment (Lewicka 2011, Stedman 2006). Through greater use of local areas, local
224 residents are ‘expected to develop attachment to the areas to a larger degree’ (Vorkinn
225 and Riese 2001, p.250). Hence, levels of ‘insidedness’ (Relph 1976) or ‘rootedness’ (Hay
226 1998) are often used to explain different degrees of place attachment. Additional research
227 has equated ‘insidedness’ not with strength of attachment, but with different aspects of
228 place attachment. For example, length of residency may affect the shape of social place
229 attachment, with long-term residents being more concerned with the long-term future for
230 their communities, whereas ‘incomers’ may be more focused on short-term desires and
231 priorities (Bomberg and McEwen 2012 Walker *et al.* 2010). Others have suggested that
232 ‘incomers’ may have inherently different environmental values and different perceptions
233 of the land than long-standing residents (Hernández *et al.* 2007, Stockdale *et al.* 2000).

234 In the Scottish Highlands, these issues have particular resonance. Discussions
235 around community energy revive long-standing debates surrounding land use in the
236 Scottish Highlands. These debates invariably revolve around competing views of those
237 ‘outwith’ and those ‘within’, where the environment becomes a “proxy battleground” for
238 broader issues of demographic changes, social cohesion, economic inequalities and
239 identity (McIntosh 2014, p. xxi, also Hunter 2014, Wood 2003). The expansion of
240 renewable energy projects in these areas provides a new dimension for this debate, as
241 newer residents may be more sensitive towards new developments (Bomberg and
242 McEwen 2012), and more concerned about their visual impact (Toke 2005). This
243 discussion is not limited to large-scale energy developments. Some small-scale

244 community-led developments have also been perceived as potentially at odds with the
245 conservation of ‘natural heritage’ or ‘wild land’ (Mackenzie 2006a, 2012). This research
246 explores the importance of how different perceptions of place influence individual
247 opinions.

248

249

250 **Methodology**

251 Several frameworks (e.g. Devine-Wright 2009, Walker *et al.* 2011) have been
252 developed for understanding public responses to renewable energy developments, the role
253 ‘place’ plays in informing these responses, and their evolution throughout the
254 development process. We drew on Walker *et al.*’s (2011) framework as it emphasises
255 contextuality, such as the characteristics of local places, and pays attention to the actors
256 involved in promoting developments as well as the wider public. Whilst we limited the
257 contextual variables to focus primarily on the role of place, this contextual factor is
258 particularly pertinent to explore in connection to community projects, as both groups of
259 actors (‘developers’ and ‘public’) are situated in the same places, ensuring that both the
260 proposals for development and the responses to it are informed by a particular spatial and
261 cultural context. The community-led nature of our projects therefore required the
262 incorporation of an additional analytical dimension; how place attachment is mobilised
263 to *initiate* renewable energy developments, rather than a sole focus on the role it plays in
264 informing *responses to* these developments.

265 Different methods can be used to understand place-related meanings (Lin and
266 Lockwood 2014b). Whilst a longitudinal approach can reveal the evolution of responses
267 to place changes over time, the majority of studies to date have focused on one particular
268 aspect of understanding these responses (Devine-Wright 2009). Our chosen methods

269 complement the, often quantitative, research in this field to date (e.g. Scannell and Gifford
270 2010, Vorkinn and Riese 2001). Based on the assumption that physical places obtain their
271 meanings through a variety of ways, such as through individual and group memories, and
272 symbols associated with a place (Lewicka 2011), we adopt a qualitative approach to
273 highlight the subjective ways in which people form relationships to an area (Gunderson
274 and Watson 2007) and the role this plays in both initiating community-led developments
275 and in interpreting and evaluating proposed changes to places.

276 This study is based on a series of semi-structured interviews across two case
277 studies, allowing for flexibility whilst also providing a structure that enables cross-case
278 study comparability (Bryman 2012). Participants were selected using a snowball
279 sampling strategy. A total of nineteen interviews were conducted during summer 2013:
280 seven with active members of the community organisations developing the energy
281 projects, eight with local residents not actively involved, and four with key stakeholders
282 including consultants and agency workers. All names have been removed to ensure
283 participants' anonymity.

284 Whilst aware of the limitations of a small-scale qualitative study, we believe this
285 approach is valuable as interview participants often share information that extends
286 beyond what is captured by quantitative research (Brandenburg and Carroll 1995). We
287 suggest, accordingly, that this qualitative inductive approach generates illuminating data
288 based on participants' expression of place attachment through their own words, allowing
289 their subjective, lived-experiences to be better understood (Davenport and Anderson
290 2005). In reporting our findings we have chosen to make extensive use of participants'
291 own words and provide descriptive contextual details, enabling the reader to assess the
292 applicability of our findings to other contexts (Creswell and Miller 2000).

293 An initial range of topics were used in the interviews, with additional questions
294 and prompts chosen depending on the respondent. As our emphasis is on respondents'
295 meanings and interpretations of issues and events, there was significant space for
296 interviewees to pursue topics of particular interest to them (Blaikie 2000). Analysis of the
297 interviews started with open coding, through which the data was broken down into eight
298 categories and nineteen sub-categories. Following this, relationships were established
299 between categories and the data was put back together thematically, with key themes
300 identified for further analysis (Bryman 2012, Straus and Corbin 1990).

301

302 **Case studies**

303 Two community groups in neighbouring areas in the Scottish Highlands were identified
304 as case studies. This region was selected because of the significant institutional context
305 provided by Scottish Government policy and targets, and previous research suggesting
306 that the use of shared symbolic resources, such as place attachment, by community groups
307 in the Highlands can be particularly successful in garnering support for community-led
308 energy projects (Bomberg and McEwen 2012).

309 Both case studies are located in the northwestern part of the Scottish Highlands.
310 Case study 1 is a community organisation that represents an area with approximately 300
311 residents spread out over five settlements. Case study 2 is a community organisation in
312 the geographical area directly to the north of case study 1. Its main town has
313 approximately 600 citizens, close to half the area's total population. Both areas are
314 located more than 70 miles away from the nearest city, and are classified by the Scottish
315 Government as 'remote rural' (Scottish Neighbourhood Statistics n.d., a,b,c). They are
316 highly valued for their landscape and natural environment: both are part of a designated
317 National Scenic Area and are home to a number of sites with environmental designations

318 (SNH 2011, 2014a). Additionally, the location of case study 2 is designated as ‘wild land’
319 by Scottish Natural Heritage (SNH 2014b). These areas are also home to small
320 communities with a strong sense of identity (MacPhail 2002, Scotland Office 2013).
321 Therefore the effects of both physical and social dimensions of place attachment in
322 shaping people’s opinions on the proposed developments are valuable to study.

323 One relevant key difference between the two communities is that of
324 landownership. Landownership arrangements are key to the development of community
325 energy – “who owns the land can work the wind” (Mackenzie 2006b, p.386) – and also
326 indirectly through influencing people’s perceptions of place (Hunter 2012, Murphy
327 2010). The areas represented by the two community groups have different landownership
328 arrangements. The community organisation in case study 2 owns the land on which they
329 propose to develop a hydro project. In case study 1, the land on which the energy projects
330 are to be built is owned by a national conservation charity. We explore the impacts of
331 these different arrangements in this study.

332

333 *Project description*

334 Both case studies focus on projects developed by the community, for the community; the
335 communities are taking the lead in developing these projects, and the financial returns are
336 to be used to fund further community projects.

337 Case study 1 are developing a 100% community-owned 900kW wind turbine and
338 a joint 435kW hydro project (together with the landowning charitable body), in which the
339 community group will have a 50% share. Case study 2 had previously proposed a three-
340 turbine wind project, but due to vocal local objections the community group changed this
341 to a 100% community-owned 2MW hydro scheme.

342 At the time of research the projects were in the pre-planning stage. Previous
343 research has found that the stage of the development affects public opinion, with support
344 at its lowest when a project has been proposed, but not yet built (Devine-Wright 2005,
345 van der Horst 2007, Warren and McFadyen 2010, Wolsink 2007). This temporary dip in
346 support has been attributed to people who are generally weakly pro-renewables but who
347 change their mind in response to project-specific issues, such as proposed technology, or
348 concerns with the development process (van de Horst, 2007). This is followed by a return
349 to more positive attitudes once a project is operational. It is therefore anticipated that the
350 opinions expressed by our interviewees may be more critical than if the projects had been
351 at other stages in the development process.

352

353

354 **Findings**

355 Our analysis shows that place attachment was important for informing opinions on
356 community energy projects in two ways. Firstly, it can be mobilised as a driver to start a
357 project. Secondly, and conversely, it can also form a source of protest against community
358 energy projects. We consider both of these roles of place attachment below.

359

360 *Place attachment as impetus to develop*

361 Our data indicates that place attachment not only informs responses to community-led
362 energy developments, but also plays an important role in providing the *impetus* for these
363 developments. As in other parts of rural Scotland (Creamer 2014), these communities
364 have experienced significant social changes which have brought a number of challenges
365 to residents' ways of life. Interviewees in both case studies considered their communities
366 to be under threat, due to fewer employment opportunities, high cost of living, and the

367 closure of local businesses (threats to functional attachment) and associated changes in
368 demographics (threats to social attachment). This is significant because the preservation
369 of these attachments is what mobilised some residents to take action:

370

371 “I suppose I feel a big stake in it all... I don’t want the school to close, I
372 don’t want to see the shops go. [...] I don’t want to be living here all on
373 my own.” (Community representative, case study 1)

374

375 These threats motivated one community group to run a visioning exercise: where do we
376 see ourselves, as a community, in 5/10/20 years? This mix of threats to existing place
377 attachment and the development of alternative place-based visions for the future led the
378 group to consider its options. Supported by stories from other communities who had
379 managed to ‘turn the tide’ as a result of having a regular income stream, the group began
380 to pursue the possibility of setting up a community energy scheme.

381

382 As a result of a similar process community group 2 had initially purchased part of
383 the local estate – to create new opportunities to benefit the local population. However,
384 this also created new challenges, specifically the income needed to run the estate:

385

386 “You can’t eat landscape. You can’t sell it to people. [...] I don’t know
387 how you can make the ground pay except by exploiting it.” (Resident, case
388 study 2)

389

390 As is evident from the large number of community-owned estates who are in the
391 process or have developed renewable energy technologies, this is a key way of ‘making

392 the ground pay'. Although some interviewees emphasised the desire to develop
393 renewables from an environmental-perspective, ultimately, the decision to embark on a
394 renewable energy scheme was based on its potential to provide a long-term, relatively
395 stable income stream, which in turn could be used to create new opportunities:

396

397 "The key driver [for exploiting renewable energy] is an economic one. It's
398 what it can do for the organisation." (Community representative, case
399 study 2)

400

401 For the community group in case study 2, landownership therefore provided an
402 impetus for pursuing renewable energy. However, in our case studies, physical ownership
403 was not as important as we had anticipated based on the literature (e.g. Mackenzie's
404 2006b, 2008). Indeed, the land-owning organisation in case study 2 decided to abandon
405 an initial proposal for a wind project after encountering significant local opposition. On
406 the contrary, the organisation in case study 1 was encouraged by the conservation charity
407 that owns the land to develop a second, joint ownership, project, which received
408 significant support from the local community. Hence, in these case studies having
409 ownership of the land was not the decisive factor in determining the success of these
410 projects.

411 Nonetheless, the community landownership movement seems to have had an
412 important *indirect* impact on the development of these projects, through changing
413 people's relation to places and creating a context where confidence and local people
414 taking charge are encouraged (Mackenzie 2006b, Murphy 2010). As the director for one
415 community group indicated:

416

417 “It is all part of something bigger isn’t it? Community energy projects,
418 communities’ quests for landownership, Scottish independence... it all
419 stems from a desire to take control of our own affairs.” (Community
420 representative, case study 1).

421

422 To summarise, different forms of place attachment were found to play a role in
423 providing an impetus for the development of community renewable energy: perceived
424 threats to both functional and social place attachment and emergent, alternative visions
425 for the future were catalysts in both case studies. In case study 2, action had initially taken
426 the form of a community land buy-out. Nonetheless, physical attachment to the land – in
427 the form of landownership - was not sufficient in itself for the successful development of
428 an energy project, and, as we will discuss, other factors were also important. However,
429 landownership did inspire new forms of emotional place attachment in both case studies.
430 These emerging place-based meanings – formed around the idea of local people taking
431 charge - were found to be a key impetus for both communities to pursue renewable
432 energy.

433

434 *Place attachment as the motivator for opposition*

435 Support for the community projects was not unanimous, however; and opponents would
436 also often draw on place-based factors to explain their opposition. Place attachment
437 determined perceptions of what ‘fitted’ in a landscape; and perceptions of this fit were
438 often more important than ‘actual’ environmental impact.

439 For example, it became evident in both cases that wind energy was a significantly
440 more controversial development proposal than hydro, based on the perceived differential
441 impacts of these technologies on the landscape. The proposed hydro schemes were

442 expected to have a greater impact on the land and local ecosystems, due to the need to
443 construct pipes and cables all the way down the hills. Nonetheless, despite the potentially
444 smaller impact of wind turbines on the *land* they were interpreted to have a potentially
445 bigger impact on the feel of the wider *landscape*. Accordingly, the proposed wind
446 turbines were far more controversial, with some of our participants opposing those whilst
447 supporting the hydro projects. Concerns about wind turbines were primarily related to
448 their visibility, and how they would ‘fit’ within the wider landscape:

449

450 “People come up here not to see a bloody turbine, but for the landscape.”

451 (Resident, case study 1)

452

453 “I was one of the people that signed the petition saying ‘no wind’. It would
454 have been a complete mar on the landscape. Although there will be some
455 visual impact with the hydro, it’s absolutely minimal.” (Community
456 representative, case study 2).

457

458 It became clear through our interviews that local opponents to wind energy felt a
459 strong emotional attachment to a landscape, which they saw as ‘natural’ or ‘unchanged’.
460 This emotional attachment shone through in the language that interviewees used in
461 reference to the landscape. For example, the interviewee quoted above said he considered
462 the landscape in the area to be the “*the scenery of the soul*” (Community representative,
463 case study 2).

464 Thus, opposition to wind energy was to a large extent influenced by emotional
465 attachment to the visual landscape, which opponents interpreted to be under threat.
466 However, it would be shortsighted to dismiss this as NIMBYism. Instead it is clear from

467 our interviews that the visual aspect of the landscape is associated with deeply rooted
468 meanings attached to the place:

469

470 “When I am actually choosing my subject [for my paintings] within the
471 landscape it tends to be very much about the emptiness of it. It’s my
472 emotional response to that vastness [...] it tends to be about land that hasn’t
473 changed for millennia. That’s what fascinates me.” (Resident, case study
474 1)

475

476 From our interviews with opponents to the wind turbines it was clear that for them,
477 the emptiness or naturalness of the landscape was a key source of the meaning they
478 attached to the place. For them, the visual landscape is what made the place unique:

479

480 “There is a lot of stuff written about the mountains in the background,
481 they’re unique. Not just in Britain, but in the world.” (Resident, case study
482 1)

483

484 “We came here because we were sick and tired of a landscape that was
485 dominated by farming. [...] We thought we’d like to retire somewhere
486 where there isn’t quite the strain on the landscape. ” (Resident, case study
487 2)

488

489 Thus, the construction of the local ‘place’, in which the development should ‘fit’,
490 was through strong emotions inspired by the particularities of the landscape, which stands
491 in contrast with a wider and less specific landscape and scenery elsewhere. Nonetheless,

492 for some the *social dimension* of place attachment mitigated concerns about the projects'
493 impact on emotional attachments to the land:

494

495 “Inevitably, like all places where there’s very little work, you put up with
496 an oil rig or a salmon farm. We have all these things of which people think
497 ‘mweh’, but if they weren’t there, it would take something away from the
498 community. The community, whilst you have this incredible relation with
499 the landscape you also require people to be there, otherwise it falls flat
500 very quickly. It’s just a bit of give and take.” (Resident, case study 1)

501

502 This returns to our point made in the previous section, that the potential impact of
503 a community-owned energy on the preservation of social place attachment was an
504 important source of support for these projects. What varied between participants was the
505 importance assigned to either social or physical attachment, with those emphasising
506 social attachment to the place more likely to support the project. Indeed, Hidalgo and
507 Hernández (2001) found that when attachment to a place is more concerned with the local
508 community rather than the local environment, opinions about development projects are
509 more likely to be based on the effects on the local population rather than the
510 environmental impact; a finding we see reiterated here.

511 Acceptance of the projects was related to their perceived ‘fit’ within both the
512 physical and social dimension of the place. The, perceived, dichotomy between landscape
513 preservation and supporting local communities arose regularly in interviews, with most
514 participants prioritising one over the other. This affected the symbolic meanings they
515 attached to the proposed development. For some, a community-owned project was
516 viewed through a lens of possibility, of social and economic recovery. For others, it was

517 an industrial element, another reminder of unwanted human presence in an otherwise
518 ‘untouched’ landscape. Even for some proponents, the development of a community
519 energy scheme is not something that is necessarily *wanted*, but rather something that is
520 *needed* for the community’s sake: a means to achieve other ends. In the next section we
521 develop this further and consider whether people’s views of these developments are
522 correlated to any specific personal characteristics.

523

524 *The role of personal characteristics in explaining different attachments*

525 Much is made in the (community) energy literature of the concept of the ‘local’ and ‘local
526 acceptance’, but there is less attempt to question who or what is ‘local’ (Batel and Devine-
527 Wright, 2014). We found little evidence for any clear differences of opinion on the
528 proposed developments based on people’s location of residence or proximity to the
529 development. Of those interviewed only one resident expressed an opinion of the turbine
530 that appeared to be directly related to their place of residence, or more specifically, their
531 physical distance from the turbine:

532

533 “I don’t want to have anything more to do with [the wind turbine]. It’s not
534 in my area anyway, it’s at the other end.” (Resident, case study 1)

535

536 We did find very different opinions between residents within a single location.
537 When asked to explain this, interviewees hinted at the different meanings people attach
538 to the area based on an individual’s ‘localness’. This follows previous research, which
539 argued that rather than well-known social divisions like race or class, the most important
540 division in the Scottish Highlands is that between ‘locals’ and ‘incomers’ (Creamer 2014,
541 MacLeod and Payne 1994).

542 Both case study areas have a large number of holiday homes, and are also popular
543 destinations for migration from other parts of Scotland or England (Scottish
544 Neighbourhood Statistics n.d., a,b,c). Two different, but related, explanations emerged
545 from our data that could explain why ‘locals’ may have a different opinion of energy
546 developments than those who have moved into the area. The first explanation is that
547 locals and incomers view the environment in ways that are different. It has been
548 suggested in the literature that interpretation of the Highland landscape by ‘locals’ is
549 likely to be influenced by their historical understanding of the place. For ‘locals’, Hunter
550 (2014) argues, the emptiness of the Highlands is “...every bit as symbolic of the
551 eradication of human communities as [it is] suggestive of wild nature” (Hunter 2014,
552 p.37). These words were echoed by one of our interviewees:

553

554 “There is no wild land. These are places that used to have people and now
555 just have ruins.” (Resident, case study 1)

556

557 Additionally, to account for different views of the environment, it was suggested
558 to us that ‘locals’ are more likely to have a functional, rather than emotional attachment
559 to the landscape, adhering to the view that “*landscape is what you get your living from*”
560 (Resident, case study 2). According to this view, locals may be more likely to support
561 renewable energy development, as it is simply another way to make a living. These long-
562 term residents thought that the place attachment drawn upon by (those described as)
563 incomers was primarily emotional, based on a meaning they ascribed to the place when
564 they first encountered it, often rooted in romantic notions of the environment as ‘wild’
565 and ‘untouched’.

566 The second, related, possible explanation for different views on the proposed
567 developments is that those who considered themselves to be local were more ‘tuned in’
568 to the socio-economic challenges the communities face. Here, respondents argued that
569 the people who move into the area are often retirees, well-off and therefore described as
570 having different concerns and priorities:

571

572 “...people who bought a house here, they fell in love with everything, they
573 remember that magic moment in time and they always want it to be like
574 that. If you only come here for a couple of weeks to your rural paradise,
575 [...] it’s neither here nor there whether there’s a primary school or not.”

576 (Community representative, case study 1)

577

578 Although long-term residents are likely to value the scenery, we found that
579 generally their primary source of place attachment is based on the social bonds they have,
580 and which they perceive to be at risk. Therefore, they felt dependent on the development
581 of a community energy project to aid the community’s viability and help to preserve their
582 social and functional attachment:

583

584 “I think, ultimately, that is the most important thing, what the community
585 is going to get out of it. [...] With the amount of money that we are going
586 to get from these projects we can actually make a difference here for the
587 future.” (Community representative, case study 1)

588

589 However, most interviewees also emphasised the complexity of the situation. Not
590 all ‘incomers’ are against the proposed developments, and not all ‘locals’ are in favour,

591 and a number of interviewees questioned the basis of the local/incomer division. When
592 interviewees spoke of differences between ‘locals’ and ‘incomers’ and how this impacted
593 upon their perception of new developments, this division was not necessarily based on
594 how long someone had spent in the area. Rather, our data support Kohn’s (2002)
595 argument that ‘localness’ is not simply a product of time spent in the area, but that through
596 participating in local activities and developing social ties one can ‘become’ local (also
597 see Brunett 1998, Kohn 2002, MacLeod and Payne 1994). In addition, views differed on
598 who was considered to be local or an incomer, further problematising this division.

599 From our interviews it was therefore evident that there can be significant
600 differences in place attachment within a single settlement. While this may in part be
601 related to length of residency or role or involvement in the community, like our
602 interviewees, we would caution against overstating this local/incomer division. The point
603 is that site- or place-based characteristics alone do not determine attachment, and that an
604 understanding of how individuals’ characteristics may affect attachments within a single
605 place, can be of value.

606

607 **Discussion**

608 *The role of place in community energy: place as mobilisation tool*

609 Previous research examining the role of place attachment in mobilising action and
610 influencing opinions to energy projects has generally focused on large scale
611 developments that can be deemed to be detrimental to one’s sense of place (e.g. Devine-
612 Wright 2011, Devine-Wright and Howes 2010, Haggett 2008, Rich *et al.* 1995, Woods
613 2003). In this body of literature, and the analytical frameworks it uses (e.g. Devine-
614 Wright 2009) the role of place attachment has often been studied in relation to reactions
615 to proposed developments. However, in our case studies it was evident that place, and

616 attachments to it, played an important role, and at a much earlier stage: perceived
617 detrimental changes to place and people's attachment to it, and the development of
618 alternative visions for the future were important motivators for developing these projects
619 in the first place. As they were developed by members of the community rather than
620 'outsiders', local action was not as much an act of resistance, as a way to build alternative
621 futures (also see Massey 2004).

622 The construction of 'place' in the Highlands has often been dominated by views
623 from outwith the area, whether as an area full of deer and salmon ready for the taking, or
624 as an area of untouched wildness, there to be visually consumed (Macdonald 1998).
625 Community landownership has been suggested as one opportunity for people to
626 reconstruct rural development set within locally prescribed narratives of place (e.g.
627 McMorran *et al.* 2014).

628 In our case studies, ownership of the land did not play a decisive *direct* role in the
629 development of community energy. Despite owning the land, the community group in
630 case study 2 encountered substantial local resistance to their proposed wind development,
631 based on perceived impact on the wildness of the landscape – as a result they cancelled
632 their turbine proposal. Nonetheless, the broader land reform movement did play an
633 important indirect role in fostering these community energy projects through shifting
634 perceptions of 'what is possible' in both our case studies, landowning or not.

635 Many of our interviewees saw community ownership of land as the start of a trend
636 to give communities greater control over their future (also see McMorran *et al.*, 2014).
637 Thus, among our interviewees, whether from a landowning community or not, there was
638 a strong narrative which considered the community landownership movement to have
639 enhanced their feelings of self-belief and fostered alternative, locally-determined, place-
640 based visions for the future.

641 For example, as a result of community of land and energy in other areas,
642 community group 1 had run a visioning exercise to consider the priorities for their area
643 and the steps needed to realise them. Here, the development of community energy was
644 seen as an opportunity to counter threats to social and functional place attachment, such
645 as rising house prices, the closure of schools and businesses, and changing
646 demographics. In other words, it prioritised the possibility to (re)create a healthy and
647 vibrant community over the preservation of a ‘wild’ landscape, to be visually
648 consumed. As such, it was based on both a desire to protect existing, primarily social,
649 place attachments as well as to create new place meanings, defined from within rather
650 than outwith the Highlands.

651 Thus, whilst community group members in our case studies often drew on
652 threats to the *local* place to explain their motivation for setting up a community-owned
653 energy project, they also felt their actions were part of ‘something bigger’. This
654 indicates that these groups activities’ transcend locally-based, place-protective action to
655 engage in what Escobar (2001, p. 161) calls ‘coalition making with other place-based
656 struggles’.

657

658 *Whose place? One location, many meanings*

659 In previous analyses of the role of place attachment in local acceptance of
660 renewable energy, comparisons of local acceptance were often based on place-based
661 characteristics, such as whether locations were known primarily for their industrial or
662 natural heritage (e.g. Batel and Devine-Wright 2014, Devine-Wright and Howes 2010,
663 Haggett 2008). This, however, can ignore the possibility that there are different factors
664 that shape individuals’ place attachment. In our research we found that individuals living
665 in the same places formed different types of attachments to the area which influenced

666 their opinion on energy developments in the area. Confirming previous research, we
667 found that those who emphasised emotional attachment to the land, which was associated
668 with notions of “wildness” or “unspoiled beauty”, were more likely to oppose new
669 developments, unlike those who emphasised the human-dimension of their environment
670 or represented it as a ‘community of neighbours’ (Stedman 2002, p. 570-571, also see
671 Hidalgo and Hernández 2001, Scannell and Gifford 2010, Vorkinn and Riese 2001).

672 In addition we analysed why people within a single location might have different
673 forms of place attachment. Previous studies have sometimes argued that there is a
674 structural difference in feelings towards the landscape between those who ‘have roots’ in
675 an area and those who ‘fell in love’ with it (Jedrej and Nuttall 1996, Kohn 2002). Some
676 interviewees would indeed argue that those who had moved into the area sometimes
677 identified with it through what Kohn (2002, p.153) has called “an almost romantic love
678 of the place as a wonderland”, prioritising the preservation of this visual wonderland over
679 what others considered to be pressing socio-economic problems.

680 Nonetheless, although some interviewees appeared to fit this locals/incomers
681 division and the importance they assign to different aspects of place, overall the reality
682 was more complex. Place attachment is not static, as evidenced by interviewees who had
683 moved to the area for the landscape, but remained – many years later – because of the
684 strong social attachment they developed over time. This social attachment was formed
685 through participation in local activities and the development of social ties; part of the
686 process of ‘becoming’ local (also see Kohn 2002).

687 Accordingly, many residents indicated that they had multiple attachments to the
688 area. What varied was the importance assigned to different types of attachment. Here, our
689 data also indicates that community ownership could make *some* difference in terms of
690 local acceptance. For some, but certainly not all, interviewees community ownership

691 increased the proposal's acceptability, as its perceived potential to maintain or enhance
692 the community through community-led development aligned with their social attachment
693 to the place, overriding concerns regarding projects' impact on their emotional attachment
694 to the landscape.

695 Harvey (1996, p.182) argues that all proposals concerning the environment are
696 also proposals for social change: they are never neutral (also: Yearley 2009). These case
697 studies highlighted a dichotomy (which sometimes, but not always, overlapped with the
698 incomers/local division) between those who considered the current socio-economic
699 situation to be unproblematic, and those who thought that substantial change was needed.
700 Accordingly, project opponents were sometimes characterised as being out of touch, and
701 not being fully part of the place, irrespective of time spent in the area. The use of these
702 dualisms in relation to proposed developments is not uncommon (Devine Wright 2009),
703 but it shows that 'reconstructing' place, even when led by local people, is not without
704 controversies.

705

706 **Conclusion**

707 Notions and narratives of community energy are filled with expectations that local
708 action can and will be effective, that communities can function as the site of cooperative
709 action as well as being the recipient of collective benefits (Haggett *et al.* 2013, Walker *et*
710 *al.* 2010). However, we need to guard against simplistic ideas of 'what works' and
711 assumptions that community projects can simply be replicated from place to place
712 (Walker *et al.* 2010). What is possible in one place might not be in another, and
713 understanding place attachments in context is therefore as important as projects' technical
714 dimensions.

715 This paper has highlighted the role place attachment plays in the development of
716 two community groups' energy projects. It shows that, when applied to community
717 projects, place attachment not only influences acceptance of these projects, but also acts
718 as an important motivator for establishing them. Furthermore, whilst community
719 ownership may positively affect acceptance for some people, local acceptance of
720 community-led projects should not be presumed and exploring ideas around place are one
721 way to understand differentiated responses. Support for these projects was driven by
722 threats to functional and social place attachment and a perceived opportunity to
723 reconstruct rural development set within locally prescribed narratives of place. However,
724 not everyone shared this common visioning of 'place'. Those who expressed a strong
725 emotional attachment to a landscape that they saw as 'unspoiled' opposed what they
726 considered to be the 'industrialisation' of the land through the development of renewable
727 energy.

728 Finally, as is evident from our previous point, different people within the same
729 community can form very different types of place attachment. Our research has focused
730 on some of the different opinions expressed within settlements and, whilst this is a
731 complex issue, found some evidence for the idea that 'incomers' and 'locals' hold
732 different opinions based on different types, rather than necessarily different strengths, of
733 place attachment.

734 These differences in place attachment and their effect on acceptance of
735 community energy projects have thus far received little attention. Whereas previous
736 research into the role of place attachment has largely focused on how it mobilises and
737 unites communities against external threats, this research shows that mobilisation can also
738 emphasise existing differences in perceptions of place within the local population. Some
739 community group members viewed these projects as part of a wider process of

740 communities taking action to create alternative futures through redefining and
741 reconstructing rural places and development. However, ‘constructing’ place is never
742 straightforward, and these changes also mean that old sources of place attachment may
743 be disrupted, creating local tensions around preservation of the current distinctiveness of
744 place (based on perceived uniqueness of the landscape) versus creating a new sense of
745 place. While others have also considered competing visions of place in relation to
746 proposed energy developments (e.g. Horlings and Kanemasu 2015), these issues have
747 received less attention when concerning fully community-owned projects.

748 These findings are therefore relevant for the body of research on local acceptance
749 of renewable energy, but also more broadly regarding the possibilities and challenges of
750 community-led development projects in (re)defining place. Whilst such processes have
751 previously been considered as multi-scale and network-oriented strategies to redefine and
752 reproduce ‘place’ (e.g. Escobar 2001, Massey 2004), this research emphasises the
753 tensions involved in this, and raises questions around whose visions for the future are
754 deemed valid.

755 The qualitative approach adopted in this research enabled us to highlight the
756 subjective and complex ways in which people form attachments to an area and interpret
757 changes to these places. Further research on acceptance of community energy projects
758 could take a longitudinal approach to understand how different stages of development
759 affect acceptance of place change, whilst ethnographic approaches could help deepen
760 understanding of the intra-community negotiations around the process of (re)constructing
761 place in light of community-led development proposals.

762

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767

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