

What is wrong with NIMBYs? Renewable energy, landscape impacts and incommensurable values

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Abstract: Local opposition to infrastructure projects implementing renewable energy (RE) such as wind farms is often strong even if state-wide support for RE is strikingly high. The slogan “Not In My BackYard” (NIMBY) has become synonymous for this kind of protest. This paper revisits the question of what is wrong with NIMBYs about RE projects and how to best address them. I will argue that local opponents to wind farm (and other RE) developments do not necessarily fail to contribute their fair share to producing a desirable public good (clean energy). In fact, with landscape concerns being at the heart of much protest, the question of fair burden distribution becomes sidelined: landscape impacts cannot be distributed nor compensated for. Protests may be attempts to express a true conflict of (incommensurable) values. Understanding them as such will help us better address NIMBY concerns and overcome such opposition through ensuring procedural justice.

Keywords: Renewable energy, landscape values, non-standard accounts of rationality, NIMBY, climate change, value incommensurability

0. Introduction

A frequent phenomenon with regard to renewable energy (RE) infrastructure projects such as wind farms is that local opposition is strong even if state-wide support is strikingly high. In the UK, for example, public support for wind energy is 80%, but only 25% of wind power capacity is commissioned (Bell et al. 2005: 460). This would suggest that opposition to RE projects such as wind turbines is by and large not motivated by objections to wind energy or renewable energy as such. Rather, local resistance regularly focuses on the specific project proposed, with protesters preferring RE plants to not be built in their backyard. Many of those who oppose local renewable energy projects seem to do so *because* these would be built in their vicinity, or virtually in their backyard. The slogan “Not in my backyard” (NIMBY) has become synonymous with local communities’ resistance to such developments.

For the purpose of this paper, I take the term NIMBY to encompass all those protesters against infrastructure projects (*X*) whose first preference out of a set of preferences is that a particular project be realized, but not in their immediate vicinity (metaphorically speaking, their ‘backyard’). The term NIMBY, as I use it here, includes both ‘weak’ and ‘strong’ NIMBYs:

Preferences of NIMBYs

1 st preference:	<i>X</i> is built, but not in my backyard.	
	Strong NIMBY¹	Weak NIMBY
2 nd preference:	<i>X</i> is not built at all.	<i>X</i> is built in my backyard.
3 rd preference:	<i>X</i> is built in my backyard.	<i>X</i> is not built at all.

While there may be protesters who reject a project in question altogether, that is, wherever it is built, as is the case with many protesters against nuclear power, the term ‘NIMBY’ is normally reserved for those who do not reject a project as such, but only oppose its realization in their

¹ This definition is similar to Feldman & Turner’s definition of ‘genuine’ NIMBYs in their 2010 paper and identical to the one they use in their 2014 paper. They do not cover ‘weak’ NIMBYs, in contrast to Crozier & Hajzler (2010), who seem to cover only ‘weak’ NIMBYs. I think it is important to include both sub-types, seeing that their (shared) first preference is the most characteristic feature of NIMBYs.

vicinity². It will usually not be possible to determine whether a particular NIMBY is of the strong or the weak kind, so I will not focus on the distinction here. For my purposes, a NIMBY is someone who leads or participates in campaigns aimed at preventing particular infrastructure construction projects in their vicinity, including RE projects. The immediate and central aim of NIMBY campaigns is to prevent that such projects go ahead.

This paper revisits the question of what is wrong with NIMBYs about RE projects with a view to successfully addressing their concerns while implementing a clean³ energy regime. The first two sections discuss different ways of construing the wrongness of NIMBYs, showing that it is not clear that we are faced with a type of prisoner's dilemma, that they are free-riders on a public good, or that they necessarily fail to contribute their fair share to a collective endeavour. The upshot of section two will be that some of the burdens imposed on local residents – landscape impacts – simply cannot be distributed nor compensated for. Section three suggests that protesters might be attempting to express a conflict between incommensurable values and it proposes a variety of ways to address such conflicts. The upshot of the discussion is that such value conflicts are best resolved through stakeholder engagement and adhering to good standards of procedural justice.

1. NIMBYs, free-riding and prisoner's dilemmas⁴

Frequently, NIMBYs are regarded as unfair and selfish, in particular where there is a strong consensus on the general societal importance of the developments in question, as is often the case with RE projects. Derek Bell et al. have argued that NIMBYs' opposition to infrastructure projects that the general public – in principle – approve of, such as wind farms, reflects a

² See, for instance, Hermansson: "... NIMBY is described as opposition against something one believes to be good for society at large: something that one would not like to be without, like railways and rehabilitation centres." (2007: 25).

³ I use 'clean' energy and 'renewable' energy synonymously here, though there are some non-renewable technologies that are usually counted as 'clean', such as carbon capture and storage. My use of 'clean' energy does *not* include these fossil-fuel based technologies, but only energy from renewable sources such as wind and solar.

⁴ I am grateful to David Butler for helpful comments on an earlier draft of this section.

particular kind of collective action problem. They argue that opposition to wind farms is individually rational while it is collectively rational to have renewable energy:

“In a multi-person prisoner’s dilemma it is collectively rational for the public good (wind energy) to be produced, but it is individually rational for each individual to ‘free-ride’ on the contributions of others (not have wind energy in their area). The individual’s contribution to the public good (a few megawatts of wind energy from the local wind farm) is negligible, while the cost of making that contribution may be considerable.” (2005: 465)⁵.

Bell et al. characterise NIMBYs as akin to defecting agents in a prisoner’s dilemma and as free-riders. Is NIMBYism a kind of prisoner’s dilemma? Here is the pay-off matrix for a two person prisoner’s dilemma game where $T > R > P > S$.

	Player 2 cooperates	Player 2 defects
Player 1 cooperates	Reward/Reward R/R	Sucker/Temptation S/T
Player 1 defects	Temptation/Sucker T/S	Punishment/Punishment P/P

Table 1

Both the weak and the strong NIMBY prefer for wind farms to be built, but they prefer not to contribute to the good of renewable energy. Let us use a massively simplified scenario where in order to provide a political community X with clean energy two wind farms have to be built. X consists of only two towns, our two ‘players’ in this game. Either both towns have one wind farm each in their vicinity, or one town hosts both wind farms, or none of them has any wind farm at all. In order for that scenario to have the structure of a prisoner’s dilemma, it would have to be the case that the people of each town prefer if both wind farms are located near the *other* town (Temptation). Their second preference would be for them to host one wind farm each (Reward), which is better than having no wind farm at all (Punishment). The worst case for each town is to have both wind farms in their vicinity while the other town has none (Sucker).

Each individual player has reason to defect as a way of minimizing her risk of being the ‘sucker’ in the game. The best outcome for her is to defect while the other cooperates (Temptation). Being aware that this is the best outcome for the other player, too, ‘defecting’ is also safer in case the

⁵ See also the discussion in Hermansson (2007): 24ff.

other player chooses *not* to cooperate. Defecting is the dominant strategy: it will leave a player better off, regardless of what the other player does. N-player public goods games are based on prisoner's dilemma games in that the overall benefit is highest if everybody contributes, but individual benefit is highest if everybody else contributes except oneself. Individuals then have reason to free-ride on the others' contributions. With everybody adopting this strategy, the public good is diminished up to the point where no one benefits even individually.

But are NIMBYs like the 'tempted' player in our two-player prisoner's dilemma or in an *n*-player public goods game? This would very much depend on the value they attach to the two main factors at play: the provision of RE and the absence of wind turbines in their vicinity. We introduced NIMBYs as agents whose first preference is that RE projects such as wind farms be realised as long as this does not impact on their quality of living. Their preferred outcome, one might say, is to defect while others cooperate. This resembles the 'temptation' (T) payoff in prisoner's dilemmas. For the strong NIMBY, though, the second preference would not be to cooperate (R), but to defect (P). This is because the strong NIMBY attaches great value to an absence of wind farms in her vicinity: she prefers to defect, regardless of what others do. Let us assume that between the two remaining scenarios she has a preference for the one where all cooperate over the one where she is the only one who does. That is, the strong NIMBY prefers 'reward' (R) over 'sucker' (S). Their preference structure is: $T > P > R > S$. This is not the preference structure of players in a prisoner's dilemma.

But would a game involving strong NIMBYs have the same dominant strategies as a prisoner's dilemma? Below I have chosen exemplary payoffs for a game involving a strong NIMBY and a cooperative non-NIMBY with a sense of justice, meaning that she prefers equal contributions (R) to the two scenarios where only one contributes (T/S), but she is neutral between the two cases of unilateral contribution. To the cooperative non-NIMBY having no wind farm is the worst case, though. Her payoff structure is: $R > T = S > P$.

	Non-NIMBY cooperates	Non-NIMBY defects
Strong NIMBY cooperates	0/100 R/R	-50 / 25 S/T
Strong NIMBY defects	100 / 25 T/S	25 / -50 P/P

Table 2

If the strong NIMBY encounters such a fairness-loving impartial non-NIMBY, RE developments are likely to go ahead: the strong NIMBY will defect, but the non-NIMBY's dominant strategy will be to cooperate (as long as she does not mind too much being the sucker).

What about our weak NIMBY? In contrast to the strong NIMBY, the weak NIMBY prefers to cooperate to having no wind farms at all (P). So she prefers both 'reward'(R) and 'sucker' (S) to 'punishment' (P). Let us assume that she prefers the scenario where all contribute (R) to the one where only she contributes (S). We arrive at the following payoff structure for the weak NIMBY: $T > R > S > P$. This payoff structure is also different from that of the prisoners.

The exemplary payoffs for being the sucker are still higher than those for 'punishment', because even though the weak NIMBY does not want a wind turbine in her backyard, she prefers this to having no wind turbines at all. Here is what a game between the weak NIMBY and the cooperative non-NIMBY might look like:

	Non-NIMBY cooperates	Non-NIMBY defects
Weak NIMBY cooperates	50/100 R/R	0 / 25 S/T
Weak NIMBY defects	100 / 25 T/S	-50 / -50 P/P

Table 3

The non-NIMBY's dominant strategy is to cooperate, while the weak NIMBY does not have a dominant strategy. If she figures that the non-NIMBY will usually cooperate, she would usually choose to defect. Hence the likely outcome for this kind of conflict is the same as for the one involving strong NIMBYs.

Of course, it is perfectly possible that some NIMBYs have preferences akin to those of the prisoners, that is, that they prefer 'punishment' to being the 'sucker'. It would point out though that this prisoner-like NIMBY has mildly inconsistent preferences: if she really thinks that RE is important, she should prefer S to P. If she really thinks that justice is important, she should prefer R to T. Hence, I think that the weak NIMBY is more consistent than the prisoner-like NIMBY who likes to take advantage of others but then rather defects than allowing others to take

advantage of her. But people do not always have consistent preferences and we should not exclude the third NIMBY-type. Let us call her the “ambivalent NIMBY”.

The ambivalent NIMBY is really in favour of clean energy and wind farms, but she also likes getting a good deal. If she had the choice between having wind farms in her vicinity or not, she would choose not to: $T > R$ and $T > S$. If she must have them in her vicinity, she prefers that others make a sacrifice, too: $R > S$. If she finds herself to be the only one making a sacrifice her sense of injustice overpowers her desire for clean energy: $P > S$. Renewable energy – yes – but not at *her* cost alone:

1st preference: X is built, but not in my backyard.

Ambivalent NIMBY

2nd preference: X is built in my backyard but *some* X is also built in someone else’s backyard.

3rd preference: X is not built at all.

4th preference: X is built only in my backyard.

In short, NIMBY payoff structures *can* resemble those in a prisoner’s dilemma and it is possibly the ambivalent NIMBY who most resembles the image of the ‘selfish’ NIMBY, because she is not concerned with injustice as long as she benefits from it. The strong NIMBY prefers no wind farms (defection) to any scenario involving her cooperation and the weak NIMBY prefers to be the sucker to having no RE at all. In a world full of strong NIMBYs and ambivalent NIMBYs, defection will be the dominant strategy.⁶ In a world full of weak NIMBYs, players would not have a dominant strategy and cooperation is more likely.

⁶ Here is an exemplary game between an ambivalent NIMBY and a non-NIMBY:

	Non-NIMBY cooperates	Non-NIMBY defects
Ambivalent NIMBY cooperates	50/100 (R/R)	-50 / 25 (S/T)
Ambivalent NIMBY defects	100 / 25 (T/S)	0 / -50 (P/P)

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The ambivalent NIMBY’s dominant strategy is to defect in this game, but the non-NIMBY cooperates. If she were playing against another ambivalent NIMBY, both have ‘defect’ as their dominant strategy (just like the prisoners) and no wind farms (or other projects) would go ahead.

But we must be careful not to confuse our game-theoretic analysis with an ethical analysis: defecting in a strategic game is not the same as acting immorally. Neither should we treat players' preferences simply as a given. One important conclusion to take away from the discussion of NIMBYism as strategic interaction is that if we want to successfully change outcomes we need to change preferences. Further down we will discuss in more detail the moral implications of a refusal to host wind farms and discuss how preferences can be accommodated and modified.

But regardless of whether or not NIMBYism is a kind of prisoner's dilemma, are not NIMBYs aptly described as free-riders? According to Dave Toke, opponents to wind farm developments (and comparable projects) do not want to contribute to a common good that they acknowledge to be desirable and that they are happy to benefit from. He argues that “[t]here is a great temptation for people to act as ‘free riders’, continuing to consume polluting energy sources but making little effort to support what they may perceive to be clean energy sources” (2002: 89).⁷ Bell et al. and Toke suggest that local opposition to wind farms is immoral: After all, free-riding on the contributions of others to a public good is unfair. Opposing wind farms (or other renewable energy plants) in one's vicinity would then be a refusal to contribute to the public good of clean energy⁸.

What is meant by ‘public good’ here? The literature on public goods has produced several definitions of such goods. Yet, one aspect seems to be central to most accounts of public goods. A public good is a good that is in joint supply to a certain group (Cullity 2008: 9). Economists define a pure public good as one satisfying two conditions: non-rivalry in and non-exclusion from consumption. Once a public good is supplied, one person's consumption of that good does not detract from another person's consumption of the same and one cannot exclude others from consuming it or benefitting from it.

⁷ Crozier and Hajzler (2010) also discuss the possibility of NIMBYs being free-riders.

⁸ ‘Clean energy’ and ‘renewable energy’ are arguably not the same. ‘Clean energy’ is energy that generates low or no GHG emissions or air, soil and water pollution generally, but this could include fossil-fuel based energy, such as carbon capture and storage systems as well. In this paper, I will focus on renewable energy only, that is, energy harvested from renewable sources such as wind, sun, water.

It is generally assumed that individuals are under some kind of moral obligation to contribute their fair share to such goods and that free-riding on other people's contributions is unfair. The prototypical free-rider on public goods is the fare-evader whose refusal to pay for a train ticket is seen as unfair even if his failure to contribute does not diminish the good in question (Cullity 1995, Cullity 2008).⁹

But clean, renewable energy, is not an existing public good, because it is not in joint supply in any industrialized country (with the exception perhaps of Iceland¹⁰). At best, we are in the process of establishing or creating this morally important good. Free-riders are commonly framed as someone taking advantage of an *existing* or established good without contributing to it. Because the free-rider does not normally diminish the good in question it is difficult to explain what exactly is wrong with free-riding. NIMBYs, in contrast, *do* jeopardize the good in question. Protests may delay the shift to RE or simply diminish the proportion of energy that is renewable or clean. But even if NIMBYs are not free riders on a public good that is in joint supply, they could still be seen as (wrongfully) refusing to participate *in the production* of this desirable public good.

This is the angle from which the 'wrongness' of NIMBYism will be discussed in the next section, using the example of wind farm siting. The discussion will reveal that focusing on distributive justice alone is insufficient, because (some of) the burdens arising from the erection of wind farms cannot be justly shared or compensated. We must turn to procedural justice.

⁹ A lack of partiality is not wrong *per se*. As Feldman & Turner (2010: 256-260) point out, partiality and a lack of impartiality are not necessarily unjustifiable. According to Cullity, it is the lack of appropriate standards of impartiality that makes the free-rider's actions unfair. Cullity's account is compatible with the view that some partiality in one's decisions is not only acceptable, but an integral part of a good life.

¹⁰ According to the 2012 Iceland Energy Statistics published by Orkustofnun, the National Energy Authority, 100% of Iceland's electricity came from geothermal sources or hydropower. See http://www.os.is/gogn/os-onnur-rit/orkutolur_2012-enska.pdf.

2. Do NIMBYs fail to contribute their share?

Even if people who oppose RE developments such as wind farms in their vicinity do not free-ride on an existing good, their resistance still seems to jeopardize the *production of* several highly desirable public goods: a clean domestic energy regime and global emissions reductions (as a necessary condition for a stable climate) (Diesendorf 2010, Jamieson 2001, Schwenkenbecher 2014, Shue 2005a & 2005b)¹¹.

In addressing this question, I will focus on NIMBYs concerned with *wind farms* for several reasons: wind energy is a crucial component of most roadmaps for transitioning to RE, there has been significant protest around siting decisions, and there has been extensive research into protesters' motivations and conflict resolution strategies. However, most of what will be said applies to other RE technologies, too.

From the outset, it is important to note that wind farm sites need to be carefully chosen and not many locations qualify as ideal wind farm spots. Selecting the right location for wind farms is essential for providing high levels of energy security. Installing wind farms in locations where the impact on humans is minimized but efficiency is compromised imposes additional burdens on all, jeopardizes reliable energy supply and potentially compromises the aim of shifting swiftly and completely away from fossil fuels.

Costs associated with such a shift should be distributed as fairly as possible.¹² But what exactly are the burdens of implementing renewable energy, which must be fairly distributed? Some of these are economic burdens, such as increased electricity prices, which affect all those connected

¹¹ I am assuming the following to be true: the shift to renewable energy is morally mandatory as a means to mitigating climate change. Immediate and comprehensive action is warranted above all for historical emitters and high-emission nations (see for instance Shue 2011, UNEP 2011) and the refusal to cooperate now is likely to be irreversible (Miller 2011, Schwenkenbecher 2013). I am also assuming that achieving 100% renewable energy supply is achievable (Diesendorf 2010). Expert opinions on the viability and capacity of the currently available low-emission and zero-emission technologies differ, but these differences concern merely the timeframe within which conventional energies can be completely substituted by low-emission and zero-emission technologies, they do not usually doubt that this substitution is feasible.

¹² For instance, if the cost of the transition to more renewable energy is paid through a special 'green' tax or through spending cuts in other sectors of the economy, caution should be taken to ensure that taxes are not regressive and that spending cuts do not affect mostly those who are already worse off (Ekins & Dresner 2004).

to the grid (though not all of them equally). But there are also burdens, which only affect people living in the vicinity of RE plants.

Burdens imposed by wind farms include the audible noise generated by rotor blades and the visual impact turbines have on the landscape.¹³ According to the German Advisory Council on Global Change, “[p]rovided adequate distances to settlements are maintained, noise emissions from modern wind power plants are ... no longer a problem.” (WBGU 2004: 64). In other words, noise pollution can easily be avoided and will only pose a burden on the local population if regulations concerning minimum distances are not adhered to. Health problems have been alleged to result from inaudible infrasound caused by the rotation of turbine blades. However, several studies suggest that these allegations lack evidence and that health problems such as the so-called ‘wind turbine syndrome’ are not the result of the impact of the infrasound as such (Australian Greenhouse Office and Australian Wind Energy Association 2004). Rather, it seems that the syndrome is a condition resulting from anxiety surrounding wind turbines (See NHMRC 2010 study, CSIRO 2012).

However, one of the most profound impacts of wind farms cannot be easily mitigated: their visual impact on the landscape. Wind farms often significantly alter the visual composition of their surroundings. They usually feature prominently in the landscape and are visible from large distances. Cowell et al. write that

“[i]t is undeniable that visual and landscape impacts of wind turbines greatly affect public responses to them, especially where they are seen as violating valued qualities such as openness, quietness and absence of technological structures, but there is boundless scope to dispute the significance of those impacts.” (2012: 5)

They continue:

“Wind energy facilities do create impacts that are widely seen as significant and adverse – even if the effects are often sensory rather than toxic. By their nature, wind farms can gravitate towards spaces valued for their openness. The fact that most governments go to great lengths to protect special landscapes (like

¹³ There is also an impact on local fauna, see for instance Baisner, A. J. et al. (2010). Minimizing collision risk between migrating raptors and marine wind farms: development of a spatial planning tool. *Environmental management*, 46(5), 801-808.

National Parks) from major industrial developments like wind farms is, in some way, a recognition of the potential of such facilities to harm particular environmental qualities.” (ibid., 6)

Landscape impacts constitute a burden on local stakeholders to the extent that they diminish or degrade something that is valuable to them. Landscapes – just like certain natural monuments, buildings or streetscapes – may be of cultural, historical or spiritual value, holding significance for communities and individuals. We should therefore consider concerns regarding the preservation of particular landscapes to be legitimate concerns in principle.¹⁴

Henceforth, I will focus on visual or aesthetic impacts of wind farms as the most substantial burden they impose on local residents, because it cannot be mitigated and is necessarily unequally distributed. Only some communities will be thus affected and it will often be those communities that are already at a disadvantage.¹⁵ The (morally relevant) burdens resulting from visual impact *cannot* be other than unequal: by their nature they have to be carried by some and not by others. Should they be borne regardless? Could NIMBYs argue on the basis for unfairness that they need not accept wind farms (or RE developments generally) in their vicinity?

Generally speaking, where something morally important is at stake, unfairness in the distribution of burdens need not undermine a moral obligation. If coincidence puts person *A* rather than person *B* in a position to help prevent a morally bad outcome at some acceptable cost then *A* may not refuse help merely because she must bear this burden unilaterally while *B* is ‘lucky’ to have no obligation to help and to bear costs. Similarly, if both *A* and *B* could each prevent the same bad outcome, but the required action can be performed by one person only, none of them may simply refuse help on the basis of unfairness.

Visual burdens imposed by wind farms will be borne by those living near suitable sites, while others will be spared. But this fact alone is no legitimate reason to refuse hosting wind farms.

¹⁴ In a similar vein, Feldman and Turner argue that NIMBYs may be expressing what they call *geographical partiality*: “Importantly, partiality to place is not in itself a form of selfishness, and it need not mean that the person’s ... motivation for caring about the place is self-interest”. And “NIMBY claims typically express a special concern for a particular place.” (2010: 256).

¹⁵ See also Cowell et al. (2012: 7) and Bell et al. 2005.

After all, something morally important is at stake: the public good of clean energy and the substitution of conventional fossil fuel based energy technologies with renewable energy technologies.¹⁶ However, an agent who unilaterally provides help may often qualify for compensation of the loss suffered. Similarly, wind-farm communities may qualify for compensation from the remaining communities, even more so since the latter will benefit from clean energy generated by wind farms¹⁷. I will come back to this point in a moment.

According to Maarten Wolsink, NIMBYs regularly appeal to fairness- or justice-related reasons:

“Local opposition cannot be explained by the egotistical motives of local residents. When the inclination to behave according to (supposed) backyard motives is investigated, the scale to measure this phenomenon appears to indicate commitment to equity issues and fairness of decision-making. Hence, for wind power, local involvement to represent the local values of site-specific landscapes is crucial. For other renewables the source-specific features are different, but conflicts can be expected as well because the fairness of implementation decisions will be equally significant.” (2007: 2692).

Wolsink argues that NIMBYs often view themselves as victims of an injustice (*ibid.*)¹⁸, having to carry a disproportionate share of a burden that decision-makers have shifted onto them without consultation. NIMBYs argue that they should be engaged in planning decisions that will impact on their lives and well-being (*ibid.*). Is their refusal to contribute to the common good a refusal to endure unfairness for the sake of what is overall morally mandatory?

¹⁶ Sometimes the failure of key RE projects can be in an important sense irreversible: it can lock in fossil-fuel-based energy technology for decades to come, making it ever harder to shift to renewables. Similarly, some of the other effects of slowing down the shift to renewables are irreversible. A delayed shift will mean a greater total amount of harmful emissions as well as of local co-pollution associated with conventional fossil-fuel-based energy generation.

¹⁷ This is assuming that the benefits of clean energy will be available to all.

¹⁸ Whether their complaints are legitimate would depend on several factors, including on whether or not affected communities are already disadvantaged. Economically disadvantaged communities are more vulnerable and are therefore often targeted as potential sites for wind farms and other schemes (Bell et al. 2005: 473). Ironically, more affluent communities are usually better equipped for effectively opposing such schemes than less affluent ones (see also Feldman and Turner 2010: 263f).

If so, it seems that where communities are granted economic compensation for the visual impacts by wind farms (or where these burdens are mitigated or minimized) they are no longer justified in refusing to accept them in their vicinity. Or are they?

It is important to qualify this claim in two ways: First, it depends on the level of burden imposed on such communities and the nature of their refusal to allow for wind farms in their vicinity. In some cases, the aim of one's refusal to co-operate in the production of a common good is to enforce standards of fairness; in others it is a categorical refusal. A categorical refusal may be justified for a community that lives off tourism, the surrounding natural landscape's integrity being essential to its economic wellbeing.

Second, it is not clear that all burdens *can* be compensated. When Cowell et al. write that where possible local communities should be compensated for the loss of "environmental qualities that people might otherwise have expected to keep" (Cowell et al. 2012: 12), the question arises to what extent it is even possible to compensate the loss of environmental qualities such as negative visual impacts on valued landscapes? Without claiming that all – or even most – NIMBYs are concerned with landscape values, the fact that protests can be about the loss of landscapes reveals a difficulty of the compensation approach, and, in fact, of the distributive justice approach as such.

Approaching NIMBYism as a problem of distributive justice – as protests against an unequal distribution of costs and burdens – compensation schemes appear to be the obvious solution. However, this perspective may (partially) miss the point. When an object is irreplaceable, it is not possible to fully compensate people for its loss (see e.g. Goodin 1989: 73). Landscapes, in fact, *are* irreplaceable. If Bell et al. (2005) and Wolsink (2007) are correct, then concerns about the *preservation of a particular landscape* are at the heart of many protests against projects like wind farms. Often, people do not want to be compensated for the loss of a valued landscape, but they want to preserve it. This reveals a completely new dimension of the problem discussed here. While economic disadvantages can be compensated, loss of landscapes possibly cannot. Are

preservation concerns sometimes incompatible with the obligation to shift to clean energy? And if so, how should we reconcile them?

One way to account for such concerns is to simply stipulate the overriding importance of shifting to RE: if impacting on valued landscapes is the only way of achieving the shift then some of us will just have to bite the bullet. But perhaps there are other ways to address potential conflicts between both concerns. Bell et al. (2005) have argued that “there is no ‘technical fix’ for the problem of landscape impact” (p. 470). “Instead, the only way of accommodating people’s landscape concerns is to site wind farms in places that people find more acceptable” (ibid.). They suggest that we need to approach the problem as one of procedural justice. In the following section, I show that we need procedures that allow for non-standard decision making.

3. More than a matter of distribution?

How should landscape values figure in the decision-making for wind farm siting? In this section, I argue that we have to abandon the idea of ranking and trading off competing concerns. Rather than merely engaging stakeholders in a process where they can express their (pre-conceived) set of preferences and include those preferences in siting decisions, we should start thinking about community engagement as a process that permits preferences to be formed and adjusted. As I will explain further down, non-traditional accounts of rational choice may be best suited to solving the kind of conflicts in question.

The standard way to solve conflicts of competing concerns (and obligations) is to trade off one concern against the other, establishing which concern is relatively more important: for instance, that of transitioning to renewable energy or that of preserving a particular landscape valuable to a particular group of NIMBYs? The trade-off approach compares and ranks the options available. This does not mean that the landscape concerns will go unheard; the ranking can account for them:

- Best option: RE is implemented and valued landscapes are preserved.¹⁹
2nd best option: RE is implemented without preservation of valued landscapes.
3rd best option: RE is not implemented and valued landscapes are preserved.

The underlying assumption of this approach is that there is a single umpiring principle or priority rule, which establishes how options rank in comparison. If a transition to RE is significantly more important than landscape concerns, the former will trump the latter whenever a choice must be made between these two. But is the former more important than the latter in every single instance? Or is there something wrong with this approach as such?

The immediate worry is that landscape concerns can easily be construed as detrimental to RE implementation. Efforts to preserve landscapes will usually impose (additional) cost on the process of RE implementation (for example the cost of having to find an alternative – equally suitable – location or the cost of constructing a wind farm in a less suitable location where it generates less energy or does so less reliably). Assuming that implementing RE is not only morally important but also urgent, such cost can almost always be understood as undermining the aim of a timely implementation of RE. The worry is that in this trade-off, landscape concerns are likely to lose out against RE developments in most cases. Clearly, the good done by a shift to clean energy (and the mitigation of dangerous climate change) outweighs the importance of individual landscapes. Or does it?

Several authors (O'Neill 1998, Holland, Light and O'Neill 2008) have criticised the trade-off approach to environmental decision-making arguing that it wrongly assumes value commensurability. These authors maintain that values attached to landscapes and our natural environments may be incommensurable with the values promoted by renewable energies, including those values that climate change mitigation helps us protect. They have argued that the

¹⁹ According to Claire Hagggett (2010: 314), it is important to distinguish between NIMBYs, who are concerned with impacts on their place of residence, and therefore face a personal sacrifice, and protester who want to preserve far-away landscapes. However, Feldman and Turner (2014: 107) are quite right to point out that “one can have NIMBY style preference rankings with respect to places that are far from one’s current home”. I would add that individual well-being may well be impacted by the destruction of valued *far-away* landscapes.

expression of concerns for valued landscapes in the form of NIMBYism may sometimes constitute an instance of resisting the logic of commensurability.²⁰

O’Neill has argued that “the major source of assumption of commensurability in economics lies in the supposition that the rational resolution of practical conflicts requires a common measure through which different options can be compared” (O’Neill 1998: 122). O’Neill does not only think that practical conflict can be solved *without* such a common measure. He also argues that contemporary accounts of cost-benefit analysis make a mistake in assuming that there must exist one method for solving any practical conflict if such conflict solving is to be rational. O’Neill argues that rationality does not require a single general umpiring rule.²¹ Instead of commensurability, all that is needed is weak comparability of goods.²² This means that even if some values are incommensurable, we can still arrive at solutions to value conflicts. The idea is that it is precisely the exercise of practical judgement in particular contexts, which helps us resolve such conflicts. The way we resolve them may not be transferable from one context to another, though. Importantly, we need not make a judgement of the form that one consideration is always more important and overrides another consideration, for instance. In different contexts, values may have more or less weight, depending on the circumstances.

²⁰ In a similar vein, Martin Drenthen argues that “Many NIMBY protests cannot be solely seen as attempts by local inhabitants to promote their interests and preference in the political arena. The more radical issue is another: whether the place at stake in all its particularity is a particularly valuable, meaningful place, not to be compared to or replaced by other places.” (2010: 323).

²¹ To say that it does, involves an invalid shift in the scope of a quantifier (O’Neill 1998: 123):

UE. For any putative practical conflict rationality requires that there be a way of resolving the conflict.

However, it does not follow that a single general umpiring rule is required:

EU. Rationality requires there be a method such that for any practical conflict the method resolves the conflict. (ibid., 123)

The inference from UE to EU involves a shift in the scope of the quantifiers from

UE. $\forall c \exists m Rmc$

to

EU. $\exists m \forall c Rmc$.

²² O’Neill (1998) defines ‘weak comparability’ like this: “at any time *t* in context *c* given a putative practical conflict of goods there is a way of comparing the different goods to arrive at an outcome that resolves the conflict... We exercise practical judgement in a particular context to resolve conflicts between different values which present different standards and measures of value.” (ibid., 124)

So how should we decide between competing moral imperatives? Let us have a look at the following example: Assume that we must choose between three different wind farm sites A, B and C, which have different strengths:

- **Mitigation and clean energy impact:** The site’s energy capacity and as a result the extent to which it contributes to substituting fossil fuel based energy generation;
- **Efficiency:** The forecast energy output in relation to construction and running cost; and
- **Landscape impact.**

Location	Mitigation impact	Efficiency	Landscape impact
A	1 st	2 nd	3 rd
B	2 nd	3 rd	1 st
C	3 rd	1 st	2 nd

Table 4

- It is *rational to prefer A over B*, because A has the biggest mitigation impact and is more cost efficient than B.
- It is *rational to prefer B over C*, because B’s impact on the landscape is smaller and it has a higher mitigation impact.
- It is *rational to prefer C over A*, because C it is more efficient than A and it has a less severe impact on the landscape.

If equal weight is assigned to all three considerations then these preferences will be intransitive without any failure of rationality. In order to come to a decision, we must rank the options. According to O’Neill, this need not be a ranking of values valid *for all possible conflicts* and which can resolve the conflict in advance (O’Neill 1993: 113). Rather, the weight given to the different considerations is specific to that context and conflict. What would this mean applied to wind farm cases? Should affected residents simply decide in each particular case which of these values is most important to them? But then, would NIMBYS not always argue that landscape *is* the most important concern and therewith jeopardize a shift away from fossil fuels or end up with really inefficient (= expensive) wind farms (as in option B, Table 5)? How can we decide what to do when both conflict?

The first lesson to take away from O'Neill is that the relative importance of competing concerns can be decided case-by-case. The second lesson is that we need to abstain from adopting substantive overriding principles or values to assess the outcome. The rational choice where claims compete need not be the best outcome given existing preferences or values.

Non-substantive accounts of rational decision-making – including *procedural*, *expressive* and *narrative* accounts of rationality – may solve this kind of problem, because they do not define rational choice in terms of the best outcome. According to *procedural* accounts of practical reason, an action is rational if it is an outcome of a rational procedure, for example when it is the outcome of appropriate deliberation.²³ Preferences are “formed and transformed through reasoned dialogue between free and equal citizens.” (O'Neill 2007:13). Holland, Light and O'Neill suggest that environmental decisions should be made in a way that is *procedurally rational*, rather than substantively rational to account for plural and incommensurable values (2008: 205).²⁴

According to *expressive* accounts, actions are rational where they express the agent's evaluations of objects and persons. The idea is that “[a]ctions are not just instrumental means to an end, but a way of expressing attitudes to people and things.” (O'Neill 1998: 126). Consequently, to act rationally means to express one's evaluations, to express the relative importance we attach to the things evaluated.

Narrative accounts of rational choice go one step further in emphasizing that choices in human lives “are a matter of deciding not simply some maximisation of valued items, but of how the story of a life of a person or community should continue.” (O'Neill 1993: 127). Situations in which values conflict and in which we nevertheless must decide between two courses of action

²³ O'Neill argues that: “Rational behaviour is that which emerges from deliberation that meets the norms of rational discussion. Given a procedural account of rationality, what matters is the development of deliberative institutions that allow citizens to form preferences through reasoned dialogue, not institutions for aggregating given preferences to arrive at an ‘optimal’ outcome.” (O'Neill 1998: 126).

²⁴ Holland, Light and O'Neill compare procedural accounts to substantive accounts of rational choice (decision-making as the result of aggregating the existing preferences of citizens) and argue that in the presence of plural and incommensurable values the former present a better way of rational decision-making (2008: 204).

can change us as agents forever (Raz 1986: 339-340). Hence, the choice that we make does not so much reflect who we are and what values we hold, but it reflects who we want to be or will be.

Let us now return to the problem of NIMBYism and practical decision-making under the assumption of value incommensurability. Adopting non-substantive accounts of rationality in order to solve the conflict in question would involve allowing for the right kind of deliberation in the process giving stakeholders the opportunity to adjust or change their values, or to simply express them, or else, to choose a certain narrative over another. Decision-making is then “not a matter of calibrating losses and gains on various values according to some measure, and then deciding which produces the highest total value. It is rather a matter of attending to different reasons and forming a judgement through the process of deliberation.” (Holland, Light, O’Neill 2008: 205). Such a process may be applied to all relevant considerations (e.g. mitigation impact, landscape impact, efficiency) or only to some. If such an approach is adopted in the decision-making process, the conflict may or may not be resolved in favour of the threatened landscape.

But this might make RE advocates nervous. They could argue that for local stakeholders it may *seem* that landscapes should take priority in most cases, but from a national and global perspective, the necessity to shift to clean energy and to mitigate climate change clearly overrides such concerns (in particular seeing that valued landscapes would be threatened by climate change, too). We seem to be faced with a similar worry than the one we started out with: what is individually rational and what is collectively rational simply differs.

One possible solution is to argue that the collective rationale should outweigh the individual one in *one* regard: ‘mitigation impact’ must be the overriding concerns in such decisions, but the relative importance of the remaining criteria (efficiency, landscape value) is to be determined for each individual case by non-substantive rational decision-making.²⁵ But this would perhaps not

²⁵ Here is an example for limiting the use of non-substantive rational choice in siting decisions. If mitigation impact was the most important consideration and if several sites had the same mitigation impact, we could allow for the relative importance of efficiency considerations and landscape impact to be decided in a non-standard way:

Location	Mitigation impact	Efficiency	Landscape impact
D	1 st	2 nd	3 rd
E	1 st	3 rd	2 nd

Table 6

satisfy NIMBYs: in some cases it seems that mitigation and clean energy concerns should not trump landscape preservation. Is there no better solution then?

There is (at least some) reason to think that we actually can (or perhaps even must) have both: plural (incommensurable) values and a shift to RE. And here is how: Several authors suggest that engaging local stakeholders regularly changes their attitudes towards RE projects (Cowell, Bristow et al. 2011), (Murphy 2010), (Warren and McFadyen 2010). Catherine Gross (2007) finds that people are more accepting of siting decisions if they perceive the process leading to the decision as fair.

In this process, people's concerns regarding landscape impacts of wind turbines can be addressed directly via extensive community consulting on turbine placement during which important viewpoints should be agreed with the community early in the process (AusWEA 2004, Auswind & ACNT 2007).

Moving beyond mere consultation of stakeholders, community ownership has a significant positive impact on the acceptance of wind farms, for instance (Murphy 2010), essentially giving communities control over the process. But what is perhaps more surprising is that, according to Warren and McFadyen (2010), where communities and individuals have been engaged in the decision-making process and where they financially benefit from them, local residents *perceive* wind farms as positive *including their visual impact on the landscape* (Warren and McFadyen 2010).

In short, empirical evidence seems to suggest that stakeholder engagement and procedures that allow for non-standard decision-making will eventually play in favour of a shift to renewables. It seems that people are just not that concerned with wind farms if they consider them 'their own' project. Not only can community consultation ensure that wind turbines are erected where they least disturb local residents, but it seems that if locals become decision-makers or even co-owners, they find them less objectionable. The practical conflict between conservation and mitigation concerns therefore seems – at least in principle – resolvable. To the extent that values change during such processes, the theoretical conflict – as to which concern is morally weightier – is resolved, too.

The more general conclusion for controversial infrastructure projects seems to be that community consulting should not be seen merely as a tool for increasing the sense of fairness or for finding ways to distribute benefits and burdens as justly as possible, but as a way of allowing people to adjust (or possibly even develop) their collective and individual preferences and beliefs and to take control over the process.

4. Conclusion

To conclude, let me return to our initial question: What *is* wrong with NIMBYs? This article suggests that sometimes there is nothing wrong with them. NIMBYs may be expressing concerns for a particular landscape, which they value and may sometimes legitimately refuse to put a price tag on. Their refusal to co-operate in the transition to renewable energy may reflect both a lack of procedural and distributive justice. Acknowledging that at least some of these tensions arise from true conflicts of value might help us to better understand NIMBYism and, in fact, give us a better idea of how to possibly overcome it. In both cases – the resistance against unjust distribution of burdens and the resistance against landscape alterations – successful responses will seek to involve affected local populations in the decision-making process.

What I have not argued, however, is that all – or even a particularly large number of – NIMBY claims are legitimate in the way described above, only that in principle they can be. However, even the less legitimate NIMBY claims are likely to be more successfully addressed by way of providing economic incentives to communities and involving them in the decision-making process. In fact, because local resistance to renewable energy developments delays emission reductions and prevents countries from complying with climate change mitigation duties, both prudential and moral reasons speak in favour of seeking the dialogue with concerned stakeholders.

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