



# Making space for community energy: landed property as barrier and enabler of community wind projects

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Received: 5 May 2023 – Revised: 22 December 2023 – Accepted: 23 December 2023 – Published: 5 February 2024

**Abstract.** Renewable energy infrastructures, such as wind and solar farms, require land on which they can be deployed. While politics and conflicts over accessing land for renewables are well documented, the role, conditions and potential agency of landownership have been often overlooked or oversimplified as a powerful terrain in the field of renewables development. In this paper, we explore the relationship between landed property and community renewable energy projects. In particular, we focus on how landed property variously influences the development modes of renewables by acting as a mediator, barrier and enabler for different types of wind energy projects. We show how this takes place through appropriation of rents in processes of assetisation and value grabbing by landowners. In this way, value grabbing acts as a vital intermediary process to understand green grabbing and wider processes of capital accumulation through renewables. We draw on insights from the Netherlands and Scotland to illuminate different mechanisms, social and historical conditions, and policies through which landed property constrains or enables community wind energy projects. The paper finishes by sketching out some alternative ways of allocating land for the deployment of renewable energy projects, which could help shift the balance of power in favour of community energy developments.

## 1 Introduction

In light of the global climate and energy crisis, public policy and market interventions have been introduced in many countries aiming to expand renewable energy infrastructures such as wind farms. Much of this expansion is driven by large, multinational private and state actors such as China Energy (China), RWE (Germany), EDF (France), Iberdrola (Spain) and NextEra Energy Resources (United States) (GWEC, 2020). But the social relations surrounding renewable energy technologies have been contested from the early days of development (van Est, 1999). Possibilities for decentralised utilisation of renewable energy can challenge prevalent ownership structures of the energy sector and turn more attention to issues of collective participation,

community empowerment distributive justice and democracy (Becker and Naumann, 2017). Thus, often accompanying, and sometimes leading, these energy transitions is the phenomenon of community energy, i.e. renewable energy projects that are variously driven, managed and owned by citizen-led organisations (Creamer et al., 2019). Such alternative modes of organising energy production and supply that defy hegemonic energy-political trends and aim for a disengagement of existing dependencies and structural injustices can be seen as opportunities for an emancipatory transformation of marginalised areas and left-behind places (Naumann and Rudolph, 2020; Scoones et al., 2018). While transformations on grounds of decentralisation, collective ownership and independence do not necessarily result in greater

energy democracy or justice, they are often perceived to hold potential to do so.

While many of the frontrunner developers of renewable energy projects were citizen-led, community-based initiatives, for example in Denmark or Germany (Geels et al., 2016; Mey and Diesendorf, 2018), these actors have been increasingly sidelined due to policies restating the priorities of competition and liberalisation, alongside a massive roll-out of renewables (Rommel et al., 2018). There is a sense that complex amalgamations of large-scale commercial operators, utilities and finance are increasingly coming to dominate the renewables sector (Klagge and Nweke-Eze, 2020; Kirch Kirkegaard et al., 2021; Knuth, 2018). Nonetheless, community energy initiatives still exist in various forms (of processes, outcomes, goals, scale etc.) within these institutional contexts (Creamer et al., 2019; Walker and Devine-Wright, 2008; Walker et al., 2022). The role and rationales of community energy should therefore be analysed between neoliberal, communitarian and democratic principles (MacLeod and Emejulu, 2014; Rudolph and Tolnov Clausen, 2021; Laes and Bombaerts, 2022). Understanding these different dynamics is therefore also crucial for comprehending the barriers community energy initiatives face.

Indeed, citizen and community-led energy projects have only recently been acknowledged and received support from the EU. The Renewable Energy Directive (RED) II introduced an enabling legal framework, which supports community energy initiatives and renewables self-consumers. More recently, the 2019 EU “Clean Energy for all Europeans” package further supports community energy initiatives through providing a set of rights and obligations for such entities to produce, consume, aggregate, store and sell electricity. However, this package faces difficulties in national transposition, and it remains to be seen how it will pan out in practice (Frieden et al., 2021). In recognition of the need for sensitivity to local context as well as the potential pitfalls of prematurely defining community energy (Tews, 2018), the EU has defined an energy community broadly as an organisation which “Require a legal entity as a community umbrella; Must be voluntary and open; Should be primarily value-driven rather than focusing on financial profits; Require specific governance (i.e. “effective control” by certain participants)” (Frieden et al., 2021:5). For this research, this definition adequately distinguishes the phenomena we refer to as community energy in our study from utility-scale or commercial development, as well as individual self-consumption/prosumerism.

At the national level, community energy initiatives also face endogenous barriers such as lack of knowledge, resources or desire to commit to complex and risky projects. Many rural communities that are well suited to renewable energy exploitation already suffer from demographic and economic decline. Furthermore, institutional barriers including difficulty obtaining project financing, competitive subsidy schemes such as auctions, inhospitable and constraining grid

access conditions, and large upfront project risk due to spatial planning systems are well established and mostly understood (e.g. Baxter et al., 2020; Leonhardt et al., 2022; Mirzania et al., 2019; Strachan et al., 2015). However, one condition that has not been widely discussed with respect to community energy is access to land and landed property.

Without access to land or rights to use land, no onshore wind farms or solar energy projects can be developed in the first place. As we discuss further in the following sections, landed property has latent power by virtue of its position: indeed, some have argued that this situates landowners as de facto renewable resource owners (Hughes, 2021; Traldi, 2021; Wade and Ellis, 2022). From this perspective, landed property also co-determines ownership structures of renewable energy assets and thus shapes different rent relations. Landed property can facilitate or hamper possibilities for alternative ownership models of renewable energy infrastructures that particularly unfold in struggles and conflicts over the appropriation and distribution of rents and profits from renewable energy (Andreucci et al., 2017). This implies that landowners can play a decisive role in the deployment of wind turbines and the trajectory of the energy transition (Kirkegaard et al., 2023). In this sense, landownership plays a key role in the “space-making”, which underpins energy transitions (Bridge and Gailing, 2020).

In this paper, we shed critical light on how landownership interacts with and co-shapes the emergence and formation of community energy initiatives, as defined above and distinct from commercial, private or state utility-led configurations, with a specific focus on wind energy. We trace how citizen-led wind energy projects are mobilised, negotiated and challenged through historical and novel landownership structures and how, in turn, community initiatives mobilise land for alternative modes of producing electricity which question hegemonic ways of energy production. In doing so, we follow central insights from Marxist rent theory and untangle the relationship between land/value grabbing, landed property and the utilisation of wind energy, in particular community wind energy.

This is done by means of insights from recent fieldwork in the Netherlands and Scotland completed by the authors in independent projects but later brought together in this paper given the overlapping themes of our findings. The primary data collection method was qualitative semi-structured interviews, which were coded and analysed to distil key processes or mechanisms. This was supplemented by policy document and other grey literature analysis as well as statistical data where available. These cases were selected because both have active community wind energy sectors supported by various government policies. In this sense they are representative of broader trends in Europe, the United States and Australia, where community or locally owned energy initiatives are spreading (albeit nonetheless marginalised compared with large, utility-scale commercial developments)

(Brummer, 2018; Heras-Saizarbitoria et al., 2018; Mey et al., 2016; Seyfang et al., 2013).

As will be seen, the cases here represent contrasting systems of landownership, which give rise to very different dynamics with respect to community energy projects. In this sense, the cases are neither used for a strictly comparative case study analysis, nor to draw out universal trends, but rather to display a diversity of causal mechanisms to illustrate our main claim: that landownership can be a barrier or enabler to community energy initiatives, depending on distinct social and historical conditions of landed property in a given context, as well as the broader political economy of the energy sector. The following section reviews social science literature on land, landownership and renewable energy development before introducing Marxist rent theory and moving on to the empirical cases. This is then followed by a discussion and conclusion.

## 2 Land, landownership and renewable energy

The material qualities of modern renewable energy technologies like wind turbines mean that land access is a key element for their development. As such, there is a sizeable body of social science literature that documents issues surrounding land access. Much of this has been captured under the broad field of “social acceptance”, which broadly interrogates the different processes of opposition and/or acceptance of these technologies at different scales (Batel, 2020; Ellis and Ferraro, 2016). While some of these ask questions of landownership, it is not treated as a central issue (Pasqualetti, 2011; Phadke, 2011). Generally, landowner payments are treated as a positive local benefit for communities albeit with the potential to lead to problematic distributional inequalities (Baxter et al., 2013; Brannstrom et al., 2015; Copena and Simón, 2018; Elmallah and Rand, 2022; Jacquet, 2015; Mills et al., 2019; Shoeib et al., 2022; Walker et al., 2014).

Another strand of research more directly addresses the political economic/ecological nature of control over land and its dispossession, for renewables, sometimes termed “green grabbing” (Fairhead et al., 2012). From this perspective, land is thus a crucial and increasingly contested resource for the development of renewables. Issues of accessing and mobilising land resources for the deployment of renewable energy facilities have been variously discussed in the Global South, including in Brazil (Brannstrom et al., 2017), India (Singh, 2022) and Mexico (Dunlap, 2018), igniting opposition to wind power from local communities. This literature crucially draws attention to the frequent destruction of local values in the pursuit of “green” exchange value. Yet, access to land has also started to receive attention in advanced energy transition contexts in the Global North (Siamanta, 2019; Kirkegaard et al., 2023; Karam and Shokrgozar, 2023).

The present research builds on this growing critical land-energy politics literature’s application to the Global North.

However, we agree with Alonso Serna’s point that some of this literature is guilty of creating overly simplistic narratives: either by conflating landowners with communities, thereby erasing landed class distinctions (Alonso Serna, 2020), or by sustaining “that land is held by the local elite, without any consideration for the multiple types of landholding relationships and arrangements in the region” (Alonso Serna, 2022:6). This point is echoed by Torres Contreras (2022, 2023). Indeed, this issue becomes arguably more complex where indigenous people claim rights to land (O’Neill et al., 2021; Mejía-Montero et al., 2023; Ramasar et al., 2022) or where tribal landownership structures co-exist alongside modern land tenure systems (Capps, 2016). This is why Chandrashekeran argues that “the growing body of scholarship on accumulation by energy dispossession needs to be balanced by attention to the opportunities for benefit-sharing by Indigenous landholding interests. [...] rent-seeking can create value for historically marginalised and formerly dispossessed Indigenous communities” (Chandrashekeran, 2021:379). She calls for “greater analysis of the relationship between rent-seeking, reparation and energy justice, with an emphasis on the distribution of benefits not just burdens” (Chandrashekeran, 2021:379). Tejada (2019) makes a similar point based on her study of wind energy in Mexico and the Dominican Republic. Alonso Serna particularly argues that “rent is a prominent process that the literature of land grabbing has overlooked” (Alonso Serna, 2020:21) and one that can help further distinguish and unpack the complex role of landed property in energy transitions.

However, while landed class-sensitive research, such as Alonso Serna, has studied the role of landed property with respect to commercial, utility-scale developments, we instead focus on how it relates to community energy. This relationship is mostly neglected in the literature, with some minor exceptions. For example, Strachan et al. (2015) note how the Scottish and Welsh forestry commission land leasing activities inadvertently favour larger commercial developers. Roberts and McKee (2015) also find that Scottish landownership structures can prove a barrier to community energy initiatives. We build on findings like these in our study, drawing out key mechanisms through which landed property as a class interacts with community energy.

## 3 Rent and assetisation of renewable energy resources

Landownership is therefore an important but often neglected institution that co-shapes the form and pace of the energy transition. Marxist rent theory provides a useful theoretical framework to conceptualise these processes (Alonso Serna, 2020, 2022; Traldi, 2021). Landed property acts as a barrier to capital accessing land, which allows landowners as a class to demand a tribute from capital for the use of their

land, in the “phenomenal form” of rent (Bina, 1992, 2006; Capps, 2016). This applies to agricultural commodities but also to mines, water resources and other monopolisable assets (Marx, 1991). It is also not restricted to private landowners but also to states (Campling and Havice, 2014).

Aside from distributive outcomes, land rent relations can have a significant influence on the mode of production more generally. Harvey (2018) argued that rents have a positive co-ordinating function within capitalism by appropriating any surplus profits, which would otherwise be unfairly accrued by capitalists who happen to locate at advantageous sites. In contrast, Fine (1990) claimed that the system of landed property tied to coal royalties in 19th century Great Britain actually led to subtle but harmful interactions with the development of the British coal industry. This was due to the incongruence of surface landownership rights and the natural dimensions of subsurface coal seams to which those landowners held use and income rights. Miller (1973) and Bina (1992) claim similar processes occurred with US oil. Rent relations can therefore have variable influences on the system of production depending on the contextual conditions of landed property and wider political economy (Cox, 2022; Harvey, 2018; Moreno Zacarés, 2021).

Recently, heterodox rent theory has seen a resurgence of interest with new conceptual contributions and empirical applications (Birch and Muniesa, 2020; Birch and Ward, 2022; Cox, 2022; Mazzucato, 2019; Standing, 2016; Moreno Zacarés, 2021). Indeed, Christophers (2020) coined the term “rentier capitalism” to describe the current era. Marxist rent theory offers conceptual tools to unpack the agency of landowners while also situating this agency within a structural, class-based analysis. Rents do not automatically accrue to landowners but must be actively appropriated – these activities have been termed “assetisation” or “value grabbing” (Andreucci et al., 2017; Birch, 2020; Birch and Muniesa, 2020; Christophers, 2019).

Some of this new literature on rent and assetisation has been applied to the field of renewables and wind energy particularly (Baker, 2015; Knuth, 2021). These analyses use the prism of rent to analyse the expanding role of finance in large-scale, commercial renewable energy development. However, we agree with Huber (2022), who warns against conflating profiteering and rentiership: “it seems wise to retain an analytical distinction between landowners as rentiers and capital as owners of the means of production” (Huber, 2022:1102). Rather, we adopt a more “traditional” approach to rent which allows us to zoom in on the positionality of the actual land/wind resource owners (Alonso Serna, 2020, 2021; Traldi, 2021).

In this sense, our analysis differs from much recent work on rentier capitalism and assetisation in that it does not trace the activities of large capitalist actors seeking to appropriate rents (or profits) from existing or new assets. Rather, our object of rent analysis is informed by pre-existing systems of landownership which, as we will see, can be a patchwork

of private and public actors of varying sizes: “While much research focuses on large-scale investment in the land, there is still not enough analysis on what may be called *ordinary* landlords: small farmers or other property owners who lease their property for resource extraction” (Huber, 2022:1099). While this might not have the same immediate drama of a large multinational rentier firm, the mechanisms and consequences involved in these complex and heterogeneous processes of wind assetisation can be profound and require careful analysis. This perspective accords well with the more complex approach to landownership argued for above.

Finally, from a Marxist perspective, the balance of power between actors in the field of wind energy development is largely conditioned by the distribution of property. Conflicts between social groups vying for position can therefore revolve around property relations. The state institutes property rights in their legal form, constrains them through spatial planning and regulation and indeed acts as a landowner itself. The state therefore plays a key role in mediating the relations between landed property, capital and community energy projects. However, the state is not a neutral welfare-optimising entity but is itself shaped by the balance of power between these social forces (Jessop, 2015).

In sum, Marxist rent theory provides a novel conceptual lens through which to assess the political economy of the energy transition and the intertwined role of land/resource owners and communities therein. The following examples provide some insights into the various mechanisms through which landed property can interact with and shape community-led energy initiatives.

#### 4 The Netherlands

Energy cooperatives and grassroots initiatives are currently undergoing a renaissance in the Netherlands (Oteman et al., 2017). After an initial period of growth in the 1980s (motivated by environmental and anti-nuclear concerns), they became marginalised in recent decades after receiving little state support (Breukers and Wolsink, 2007; Oteman et al., 2017). There has been a recent shift, however, because “from 2009 to 2016, the number of grassroots initiatives (GIs) grew from around 40 to over 360 and they seem to provide an opportunity for local renewable energy that is community organized and financed and has a high local acceptance” (Oteman et al., 2017:1). These local initiatives have largely emerged as a response to the trends in the energy sector: “As major energy companies got fully privatised, the new cooperative movement embodied ‘a reaction to scaling up, privatization and liberalization of the energy sector’” (Proka et al., 2018:4). This movement has become an increasingly professionalised and networked cooperative energy movement, now under the banner of *Energie Samen* (Energy Together) (Kooij et al., 2018; Oteman et al., 2017). Wind energy

projects within this broadly defined movement come in many sizes from a few turbines to several dozen.

The largest landowners in the Netherlands tend to be state or semi-state institutions including Staatsbosbeheer (state forest and nature organisation) (5.2 % of total land area), Rijkswaterstaat (RWS – Directorate General for Public Works and Water Management) (3 % of total land area) and Rijksvastgoedbedrijf (RVB – Government Real Estate Agency) (1.1 % of total land). Other large landowners include ASR, a major insurance company (0.9 % of total land) (Frijters and Heijkant, 2020). Two-thirds of Dutch land is agricultural, which is mostly distributed among owner-occupier farmers (Frijters and Heijkant, 2020). Based on landownership data obtained by the authors, most land hosting wind energy in the Netherlands is owned by private individuals (1091/2744 turbines in 2021, or 40 %). Companies make up the second largest landowner group (18 %), followed by the state (13 %) and municipalities (7 %). These ratios have not changed drastically since the late 1990s. Perhaps the most significant change is the increased use of state lands from 8 % of all turbines in 1998 to 13 % now.

Guiomar et al. (2018) characterise Dutch agriculture as a large-scale farming system defined by “a very low proportion of small-scale farms and by a high share of relatively large and high-income farms” (Guiomar et al., 2018:791). Indeed, large farms take up 20 % of the UAA (utilised agricultural area), medium farms 66.2 %, small farms 13.4 %, and very small farms are negligible (Eurostat, 2017). Land concentration has been increasing in the Netherlands, as with many other European countries: “between 1950 and 2016 *six* out of *seven* farms have been lost” driven by exposure to market pressures (due to liberalisation of land regulations) and the Common Agricultural Policy (Stichting Boerengroep Wageningen, 2022). These financial pressures mean that farmers increasingly rely on loans, and Dutch farmers are among the most debt-ridden in Europe (Thorne et al., 2015). Despite this, landownership remains far more distributed than in countries like Scotland. This, combined with the relatively high-income level of farms, means that landownership has played a distinctive role in the Dutch wind energy sector.

#### 4.1 Farmers as local investors

Some of the earliest adopters of wind energy in the Netherlands were farmers, especially after the 1998 Electricity Act led to liberalisation of the electricity market, which allowed private actors to generate electricity. These farmers could take advantage of their ownership of land/wind assets to develop projects themselves during the late 1990s and early 2000s (Agterbosch et al., 2004). However, in the absence of any direct state support for small private investors and farmers in the 2000s and 2010s, this group has waned in importance, mostly instead taking a passive rentier role, relative to larger private and state-owned commercial and multinational investors such as Eneco and Vattenfall. Furthermore, provin-

cial government preferences for clustering of wind turbines actively disadvantaged these groups.

In response to this generally unsupportive institutional context, groups of farmers began to work collectively and form landowner cooperatives to develop their own projects. This is perhaps unsurprising given that most, if not all, farmers in the Netherlands are members of at least one agricultural cooperative (Bijman et al., 2012). These landowner cooperative efforts have evolved into modern wind development organisations such as WindUnie, who were formed in 2001. Through collectively organising and professionalising in this way, Dutch landowners can survive in a system designed for commercial energy developers. Since 2015, 29.9 % of realised projects have been (co-)owned by local parties such as farmers (Schwencke et al., 2020:51). This indicates that farmers still play an important role today, and while many of these projects are relatively small, there are several exceptions such as the 320 MW Windpark Zeewolde project, which is owned by over 200 landowners and farmers. Most of these landowner cooperatives are for-profit ventures; however, one of these landowner cooperative organisations has recently strategically partnered with the blossoming cooperative movement and has pivoted to a new focus on local participation of surrounding communities and not just landowners:

the two main parts are the landowner community and the citizen community. Why not have one community integrated? That is the ideal situation, but you see that landowners and citizens have a different perspective and position. In general, landowners have land and money, because landowners have the land and a lot of those landowners have quite big businesses, so they have some money. Citizens have legitimacy. The strange thing is that they don't have money, they don't own land, but their ideas have more support, a lot of the time, by other citizens. So if you develop as a collective of landowners, a lot of people look at you as that wealthy farmer, that will become more wealthy on my back, I do not profit from it and they profit. That was in the past, so they have very little legitimacy. On the other hand, you have these energy cooperations, who have more or less immense trust. Everyone thinks they want the good thing for the future, but they don't have money, and land. So we feel if you bring them together ... (Community-oriented landowner interest organisation).

As the above quote illustrates, local landowner ownership of projects does not necessarily equate to community ownership in people's minds – the class distinction can emerge under certain conditions. The Monitor for Participation in Renewable Energy on Land makes a similar distinction between local ownership of the wider local environment and ownership of a few local parties (including farmer-led projects)

(Schwencke et al., 2020). There is a perceived tension between farmer-owned initiatives who frame themselves as community energy, and those who claim “true” community energy should be open to those who do not own land. By forming this strategic coalition with the community energy movement and thereby framing themselves as local *and* community, landowners protect themselves from this potential criticism. This enables them to further shape the mode of production through co-investing in projects themselves.

#### 4.2 Scarcity of land for cooperatives and municipal tendering

Despite the recent activities of cooperatives and farmers, the Dutch wind energy sector is largely dominated by larger private or multinational state-owned commercial developers. The passive rentier role adopted by most landowners facilitates this development. This is due to the way most land is allocated for wind energy, through private market negotiations and the signing of secretive options agreements which tie landowners to developers (see: Jacquet, 2015; Kirkegaard et al., 2023). Developers are faster than community cooperatives: they know when grid upgrades are announced for certain areas and when municipal planning zones are drawn. Furthermore, since most landowners are happy to be passive rentiers whose main concern is financial value (some being in difficult financial circumstances), this leaves cooperatives in a losing race. While the cooperative movement advises landowners not to sign these binding agreements, the reality looks different. There is therefore a perceived scarcity of suitable land which has not been signed up by commercial developers available to cooperatives:

But when you are a cooperative now in this stage of the industry, most of the landowners already had a contract with the entrepreneurs. And it's not easy for cooperatives to get a spot where you can build a windmill. So that's why it's much more difficult for the younger cooperatives to realise a windpark than it was for us. We were able to grow our expertise parallel to the industry in the last 30 years (Energy cooperative).

However, community energy networks advocate a strategy of making land available for community energy through engagement with local municipal governments. The two main instruments for spatial planning of wind energy in the Netherlands are land use plans (*bestemmingsplan*) and building permits, both of which are frequently used reactively in response to developer proposals for new wind projects (Buitelaar et al., 2011; Evers, 2015). While ultimate authority for these powers often rest with provincial and national government levels in the Netherlands, in practice municipalities are often left to make the final decision (Evers, 2015). Since options agreements rely upon the municipality granting spatial planning rights to remain binding/be activated, it is pos-

sible to use the planning system as a lever to make space for community energy. Municipalities can initiate a tendering process for planning rights with certain evaluation criteria favouring community-oriented developments. This allows landowners to remain open to the possibility of providing land for community energy initiatives even if they have already signed an option agreement with a commercial developer. If the municipality grants planning development rights to the community energy initiative intending to use the land in question, then this frees the landowner from the agreement with the commercial developer. In this way, once the local state is on the side of community energy initiatives, spatial planning can act as a lever to bypass private land contracts, which might otherwise constrain the possibilities of cooperatives.

So yes, there is scarcity of land. Yes. There's a fierce battle on land. And yes, there is still, let's say this common use of making these agreements. And we try to stop that and get freedom of development (Community-oriented landowner interest organisation).

The strategy described here involves municipalities overriding the role of ground positions/existing contracts as a coordinating force so that the municipality can reassert more control over development instead of it being dictated by private land contracts. Crucially, this strategy relies upon a balance of power in the local state in favour of community-led initiatives.

#### 4.3 State landowner facilitation of community initiatives

State landowners also play an important role in shaping the wind energy sector in the Netherlands. Some of the largest landowners in the Netherlands are part of the state. Provincial state lands play a negligible role in hosting turbines, whereas municipalities hosted 181 (6.5 %) of the total turbines as of 2021. The national state plays a larger role, however, hosting 359 (13 %) of total turbines in 2021. There are two organisations which are relevant here: the Rijkswaterstaat (RWS) owns the roads, waterways and dykes and is the second largest landowner in the Netherlands (129 219 ha) and hosts 254 (out of 2744) turbines according to cadastral data. The government real estate agency, Rijksvastgoedbedrijf (RVB), is the fourth biggest landowner (49 523 ha) and hosts 102 turbines. Neither of these landowners are perceived as being historically active in promoting the use of their lands for wind energy. They have remained as passive rentiers rather than developing themselves (despite collectively hosting more than 10 % of the total turbines in the Netherlands according to data obtained by the authors) and, like most private landowners, thus facilitate the dominance of commercial developers. In order to ensure sufficient supply to developers, an interdepartmental policy report on the land market for renewable energy recommended the gov-

ernment create a more active and flexible government framework for leasing its land (Ministerie van Financiën, 2018). In response, the RVB has now established an onshore renewables division and is identifying suitable sites for renewable energy generation (Ministerie van Economische Zaken en Klimaat, 2019a). In this context, Energie Samen attempted to engage with the government to ringfence state lands for community energy. However, the state did not express optimism about this possibility:

Yes, we know Energie Samen. We have talked together. I don't know, it is difficult for us to say, okay, only cooperatives can use our land. Because we are a public organization, we have to deal with the European Union and all the regulations that come from there. So we can't just say, only cooperatives can develop our land. So we always have to do a public tender in which every party should be able to have a chance (Civil Servant).

The state seems to be focussed on cost reductions and market parties in terms of how it interacts with developers. This is despite the fact that, as a landowner, the state can give more direction to projects through landownership than through spatial planning (public law vs. private law).

The specific conditions of landed property in the Netherlands have given rise to the three dynamics discussed here, each affecting the system of production in different ways. Firstly, some of the distributed but relatively high-income family farmers have staked their place as investors and developers of wind energy for several decades now. In doing so, they have framed themselves as local, community actors in contrast with external commercial developers. This ambivalent relationship between landowning and non-landowning cooperatives illustrates the importance of a class-based analysis to understand the politics of land and renewables. However, it also demonstrates that these material relations are not deterministic but are open to (re)interpretation and (re)negotiation (Sum and Jessop, 2013). Secondly, aside from the above exception of certain farmer investors, the primarily passive rentier role played by most private landowners has served to facilitate the dominance of commercial developers in the sector. The common practice of secretive options agreements is the legal mechanism through which this is realised and through which community cooperatives are excluded from accessing space for development. In response, the cooperatives have come up with strategies through use of municipal spatial planning to bypass options agreements. In contrast with the previous landowner investors, this dynamic shows the role even a passive landed property plays in mediating other competing social forces. In this case, passive assetisation serves to support the position of more dominant actors (i.e. commercial developers) over community energy actors. Finally, the state has also been a passive player in the wind energy sector. Recent criticism has led the state to take a more active role in utilising this land. However, it seems

the most likely approach will remain to lease land to the most cost-competitive developers, in line with the market-oriented aims of the Dutch Climate Agreement (Ministerie van Economische Zaken en Klimaat, 2019b). This final dynamic of national state landed property shows that state ownership of land does not guarantee this land will be used for more pro-social or pro-community values (Massey and Catalano, 1978; Zetterlund, 2022). Rather, its usage depends on the balance of political forces and ideas. There is an interesting contrast here between strategies of the state at different scales. In the previous example, some municipal governments were open to use their spatial planning powers to actively support community energy initiatives, whereas the national state landowners are unwilling to put their land to use for the same aim. This shows the importance of recognising the scalar politics of the state as landed property or otherwise (Jessop, 2002).

## 5 Scotland

Private, absentee landowners own the vast majority of land in Scotland, while ownership structures are dominated by large estates, concentrating land in the hands of relatively few (Wightman, 1996). It has been noted that 432 private landowners own more than 50% of land in rural Scotland (Land Reform Review Group, 2014). Publicly owned land has remained scarce and mainly includes land for the common good, such as public parks, public buildings and other areas demarcated as being open to the wider public (DalGLISH et al., 2018). In addition, collective rights to land includes so-called grazing rights allowing for a certain utilisation of land, which is attached to a particular rural tenancy and crofting system in the northern and western parts of Scotland. The rural population in these areas are usually crofters who lease land from private or community landowners. Although financial underpinnings of the lease are usually negligible and more symbolic, the use of land is bound to certain purposes and the usage rights to the land are constrained. Crofting communities live and work on the land as tenants, but the tenancy system allows them to merge and commonly use the land together as common grazing. These landownership structures can also pose a direct barrier to community activities. A Scottish Government report lists some of the barriers posed by landownership to community-led land-based activities, including community energy (Roberts and McKee, 2015).

Since the mid-1990s, crofting communities have started to buy their common grazing land from private and absentee landowners in a process supported by the Scottish government. The community buyout scheme was formalised through a series of acts, including the Land Reform Act of 2003, which re-socialise land in Scotland in order to abolish feudal remnants and revert historical injustices of land tenure and land rights (DalGLISH et al., 2018). This act includes both

the privileged community right to buy land that has been put up for sale and a pre-emptive right to buy and forcibly transfer land to community ownership even without the consent of the landowner (Dalglish et al., 2018). However, instead of becoming owners of the land, individual tenants keep their status as tenants of the land under crofting tenure and legislation, despite collectively owning the land as well, thereby maintaining existing rent relations and only substituting the property owner. Hence, the land reform does not intend to abolish the crofting tenure system as such, but change, re-frame and promote it so that crofting sustains people on the land and underpins an ambition of sustainable and inclusive growth of communities of place (Danson and Burnett, 2021).

While Scotland's land reform promotes and pursues community ownership of land, it also interacts with community ownership of energy projects. The idea of community land ownership is to make sure that wealth generated from the land and local resources remains within the community, that benefits are equally distributed within the community and that they have more power in guiding and facilitating the development process (Hoffman, 2013). This applies to both land and wind energy. Thus, the Scottish government has also promoted community energy by setting clear goals and establishing a programme (CARES) that encourages communities to establish their own renewable energy projects. The national scheme includes logistical and financial support for communities by means of grants and loans to establish wind energy and other renewable energy projects on land that is fully owned by community actors (Markantoni, 2016). Community and locally owned energy projects were estimated to be 896 MW at the end of 2021 with wind accounting for 333 MW, thus reaching almost 50 % of the 2030 goal of 2 GW (Energy Savings Trust, 2022). The institutional forms of community energy projects can differ, whereas community development trusts are the most common in Scotland with more than 250 (Slee, 2020). These differ from commercial and cooperative wind projects insofar as they are administered by a few citizens but exist for the benefit of the wider local community rather than profit-driven private companies or individual shareholders. However, current policy shifts towards a subsidy-free or competitive environment due to price-based auctions for renewables and has put the community energy sector under pressure, creating a trend towards shared or co-ownership models (Slee, 2020; Devine-Wright, 2019). Both involve some sort of partnership between community and commercial actors in the development of viable energy projects.

### 5.1 Community land buyout with wind energy

Community development trusts play an essential role in the initiation, implementation and management of community wind energy projects. These are local organisations driven by a handful of citizens dedicated to the improvement of the livelihood of their communities. With the aid of public

loans, debt finance and centralised logistical support from the Scottish government, a considerable number of these trusts have developed and financed their own small wind farm projects, usually consisting of 1–3 wind turbines. Since they act as charitable organisations independent of public institutions and governmental bodies, revenues from the wind farm projects are entirely reinvested to support local community development activities and promote social, ecological and sustainable projects. Despite their limited size, a recent study found that community energy projects provided 34 times more financial returns to communities than voluntary benefit payments from commercial developers (Aguaterra, 2021).

The implementation of community energy projects goes hand in hand with Scottish land reform processes, insofar as the development of community wind projects and the repatriation of land in collective ownership tend to become mutually dependent in a dialectical relationship. Landownership determines the entitlement to harness the wind. In turn, income from wind farm projects is used to justify and refinance the land buyout in the first place, before subsidising community development activities. Thus, community wind projects have become both a legitimisation and means of the collective land buyout. Both aspects are strongly associated with ambitions for community empowerment and asset-based community development by the Scottish government (MacLeod and Emejulu, 2014). On the one hand, this political agenda pursues a strategy for enabling greater autonomy and self-determination in relation to local economic and social issues through more control over the utilisation of local resources that is supposed to establish more adequate and long-term solutions for rural communities (Markantoni et al., 2018). On the other hand, this agenda can be regarded as a direct response to British austerity politics involving continuous government cuts in public services.

### 5.2 Struggles over wind rights

These conditions have created a tense contention over the entitlement of the use of wind energy in some areas in Scotland. The Isle of Lewis in the Outer Hebrides is a case in point for demonstrating the possibilities and challenges that landed property entails for the utilisation of wind energy by communities (Mackenzie, 2010; Murphy and Smith, 2013; Rudolph and Tolnov Clausen, 2021).

The biggest landowner on the Isle of Lewis, Stornoway Trust, whose 28 000 ha (280 km<sup>2</sup>) estate was gifted by an aristocratic owner in 1923, has had the ambition to attract an external professional developer to build a utility-scale wind farm on its land since 2013. The Stornoway Trust is one of the oldest community organisations in Scotland. So, long-term land lease contracts were made with a multinational developer before a wind farm was approved, resulting in an enclosure of the land. The wind farm should financially benefit the wider community through land rents paid by the devel-



oper, a community benefit package provided by the developer and 20 % of ownership of the wind farm offered to the Western Isles council.

the communities get rental income, they get part of the rental income that the Trust gets, [...] So it's a considerable financial benefit to all these grazings because they've got nothing at the moment. It was pretty valueless land for them (Wind farm developer).

However, despite different plans and planning approvals, this wind farm project has not been realised until today due to local protests, environmental impacts, regulatory changes and a failed contract for difference auction bid. At the same time, several crofting communities have established small community energy projects with up to three turbines, either through land buyouts from other distant landowners or by making (not uncontested) land lease agreements with the landlord Stornoway Trust. Since all the revenues are reinvested and tangibly contribute to an enhancement of livelihood and the sustainable development of the local community, further crofting communities became inspired and intended to follow the same path. However, the location of their common grazing not only belongs to the Stornoway Trust, but also has been enclosed by the land lease agreements made with the external developer. Thus, the plan of further local communities to build their own wind turbines depicts a blatant resistance to the commercial project pursued by the large community landowner, which has cumulated in a legal dispute over land and wind rights, i.e. about the question of who is entitled to build and benefit from wind turbines. Hence, this intra-community and cross-scale dispute between the community landlord and some of its local communities that it is supposed to represent raises fundamental questions about the energy future of the island. This dispute was eventually settled by the Scottish Land Court in favour of the landowner.

In this case, the landlord is the community and so, approval of the application made by these four townships would have been detrimental to the Stornoway Trust Estate as a whole, and to the wider interests of the Western Isles (Stornoway Trust, newspaper interview, after court decision, 2021).

As the brief insights from Scotland show, since wind rights are tied to land (use) rights, wind energy has become a means to challenge historical landownership structures and rent relations. In contrast with the ambivalent relation between private landed property and communities seen in the Netherlands, these class relations are more combative in Scotland. Entitlements embedded in property make both land and wind rights mutually dependent but negotiable through political intervention, as the devolved national state (i.e. Scottish government) supports community energy strategies for overcoming

the barrier of landed property in Scotland. This contrasts with the Netherlands, where the municipal scale seems more open than the national state landowners.

Furthermore, the use of wind energy can activate the value grabbing of landowners, regardless of whether they are private or common. For the Stornoway Trust, rent becomes not only a means to socialise the value of landed property, but also a way to stabilise property relations by distributing land rent from wind turbine owners to crofting communities to evade intra-community struggles over landownership.

In the case of non-landowning communities, having access rights to land is not tantamount to having wind rights, i.e. the right to build wind farms. Similar to any other developer, communities rely on contracts with the landowner to erect wind turbines on the land, creating new rent relations. This wind rent relation prevents a complete severance of the wind estate from the land estate through community wind projects. In contrast, wind use rights remain bound to landed property, and the relations of landownership determine the rights to utilise the wind.

We've got the resource of the land, but the resource of the wind belongs to everyone. [...] renewables aren't going to go away, it's critical that we hold onto this land (community development trust D).

Although the wind is seen as a common resource whose exploitation should benefit the wider community, it is only through ownership of the land that wind energy can be utilised for the benefit of communities in an unfettered way. However, there are different relations between landed property, community ownership and wind rights. Some community organisations, as seen from the Stornoway Trust, can also act as "distant" and passive landowners who activate the value of their land through external use and rental income, thereby prioritising the exchange value of wind resources over their use value. In other cases where communities do own the land via community development trusts, they have developed their own projects. Yet, in order to be legally entitled to sell the electricity, it is not the community who operates the wind farms but a commercial trade arm set up by the trust that works on behalf of the community.

Now the Trust is not the owner of the turbines, the Trust is just really the local landowner that receives profits from the turbines (Community development trust B).

Nevertheless, they utilise their land assets in a productive manner by exploiting their wind rights and establish their own wind turbines. If community organisations become the landowner, they necessarily take up the role and responsibilities of a business owner and have to run an estate. However, communities are not immune from scalar politics, as intra-community conflicts have emerged around how an estate and its resources should be managed. This is reflected in the local dispute about the exchange and use value of wind resources,

i.e. rental income from land ownership vs. revenues from selling electricity produced by community-owned wind turbines, which is mediated by landed property.

## 6 Discussion

In summary, differences in conditions of landownership and the wider balance of power give rise to distinct dynamics in both cases. Dutch farmers have played a historical role as investors in wind energy and continue to do so today, while some strategically align with the cooperative energy movement. Nonetheless, the majority of Dutch landowners, both private and state, remain as passive rentiers, thereby serving the interests of commercial developers who have timing and resource advantages over energy cooperatives. In contrast, the heavily inequitable system of landed estates in Scotland looms large over any discussion of community wind energy. Landed estate owners are a very distinct class, separate from communities: a condition that is increasingly challenged through reform policies and the assetisation of wind. Hence, community land and wind become intertwined in Scotland, with the latter forming both a means and justification for community land buyouts. Scotland also offers insights into the potentials but also challenges of scale within community-centred governance and ownership of common resources like land and wind.

These examples show several ways in which the institution of landownership and the actors representing it (i.e. landowners) play a key role in shaping the use of and rights to renewables, thus also influencing energy transition pathways. Marxist rent theory provides conceptual tools to analyse landowners as a distinct class. Since landed property is a social *relation*, it is therefore important to analyse the role of landed property in relation to other social actors or classes and the wider system of production as a whole. This paper has shown how landed property, through its relations with the state and communities, influences the development of community wind energy projects. Our findings have relevance for Marxist rent theory. As discussed, we conceptualise rentiership in this instance in a more traditional sense which maintains a clear distinction between actors who control access to a scarce asset in the first place (landowners in this case) and those who seek to obtain rights to harvest this resource to produce commodities (commercial developers and community energy initiatives here) (Huber, 2022). We therefore deal with a mosaic of landed property relations, including large and small private landowners, state landowners at multiple scales, and community landownership. This mosaic gives rise to a variety of mechanisms presented above, which we now discuss.

### 6.1 From green grabbing to value grabbing

We saw in Sect. 2 how existing research on land and renewables does not sufficiently unpack the complex role of

landowners, usually bundling them together with communities or as elite local actors. Alonso Serna suggests that the notion of “value grabbing”, with its emphasis on the agency of landowners in forming rent relations, might therefore provide a more nuanced concept with which to analyse the commodification of land or wind for renewable energy production than green grabbing (Alonso Serna, 2021). This paper has shown various ways through which landowners position and insert themselves within the production process. For example, Dutch landowners have been key players in the evolution of the wind sector there. They now form an active interest group in a strategic coalition with the cooperative energy movement, showing that these class distinctions are not set in stone but can be open to negotiation and interpretation. Scottish private landed property similarly invests in wind energy on its own land, although struggles over landownership determine the rights over wind energy developments in the first place. Scottish community landowners primarily redistribute profits from the operation of wind farms as a means of local community development, but in the case of Stornoway Trust also redistribute rents from wind farms to the wider community as an appeasement tactic to quell potential challenges to extant landed property relations. These examples show that landowners play key roles in assetising wind energy, which should not be confused with the activities of project developers. Furthermore, these roles vary across space and time and require careful analysis of local contextual conditions.

Based on the cases discussed here we can draw some preliminary conclusions about the conditions under which land relations enable or hinder community energy. In general, private landowners engaging in financially motivated value grabbing is the default, and this generally facilitates green grabbing by commercial developers who are more potent and wield greater financial resources than other actors who might seek access to the resource. The cases shown here illustrate how this can be avoided in two ways: firstly, the value grabbing incentives for landowners can be directed away from green grabbing developers and towards more socially oriented energy initiatives. Strategic coalitions between farmers and energy cooperatives as well as municipal tendering procedures are a result of civil society pressure and organisation in the Netherlands, which has created an environment that redirects some of the value grabbing incentives in this way. Secondly, private value grabbing itself can be curtailed via reorganisation of the relations of landed property itself, as seen in the case of the Scottish community land buyout.

### 6.2 The structural coordination role of landed property

While landowners can have agency, we have also shown that even when landowners are uncoordinated and primarily reactive to the initiatives of developers, their cumulative actions can still have an important effect on the system of production. For example, the produced scarcity of land for wind energy in the Netherlands through the signing of options agreements

shows that the key intermediary role of landowners in the development of community energy needs to be unpacked. In this sense, our account of assetisation differs from recent literature, which focusses on large capitalist actors grabbing or creating monopoly assets. Rather, we show the possibility for a fragmented multitude of smaller actors enacting subtle assetisation practices, nonetheless representing a profound grabbing of a “windy commons” on a huge scale. This accords with older work on Marxist rent theory which also documented the role fragmented and atomistic rentiership has on the overall system of accumulation (Fine, 1985, 1990; Harvey, 2018).

### 6.3 Balance of power and the state

The cases here show how landed property becomes a point of contention in the field of wind energy. In the Netherlands, the propertyless community energy movement relies on soft power to attain state support and achieve its goals. This is directed not only towards the state (e.g. municipal tendering) but also towards landowners (e.g. attempting to convince them not to sign options agreements and instead host community-led projects). In Scotland, community groups target ownership of the land itself as a means to develop their own wind energy projects, which in turn finances the land buyout. This is facilitated by the state through land ownership reform policies. The more direct Scottish strategy of actually owning the land itself (as opposed to relying on the state or private landowners to facilitate) may represent a more long-term and secure way for the community energy movement to establish itself. The redistribution of property rights is likely a less transient power shift than the current terrain in the Netherlands. However, this strategy is only made possible due to the specific historical context in Scotland and the strategic support of the state.

The state also owns land itself and therefore plays a key role as state landed property (Campling and Havice, 2014). As described above, the Dutch national state does not prioritise community energy in leasing its land for renewables but instead focuses on economic cost. At the municipal scale, the state does seem to be more open to facilitating community energy interests. However, the long-term efficacy of this strategy or its purchase across municipalities is doubtful. This reflects the fact that soft power is not a reliable means to achieve long-term goals of democratisation of the energy system. Therefore, reorganising material sources of power such as property in land or natural resources (via state power) might be a more long-term target for community groups and social movements in the field of energy. This leads us to our final discussion point.

### 6.4 The promise of socialised land or wind rights

Political economic analysis of the energy transition that is sensitive to rent relations also opens up new strategies for

community groups to attain their goals. The Scottish case illustrates that new forms of technology and resources provide opportunities to rethink and renegotiate anachronistic or regressive land relations. By shining a lens on the often hidden power of landed property, wind energy can motivate or accelerate progressive reform in land tenure. If land tenure reform itself is too intricate, another avenue might be socialised ownership of the wind itself (Hughes, 2021; Wade and Ellis, 2022). This could include state-owned or community-owned wind resources. State-owned wind rights might hold potential to secure renewable resource rents for public redistribution, and this resource nationalism might be seen as a vehicle for anti-extractivism akin to anti-colonial movements for oil nationalisation (Slevin, 2016). However, literature on landlord states and fossil fuels documents a mixed and challenging record for states who often struggle to live up to their emancipatory aims (Purcell and Martinez, 2018). Indeed, early experience from the growing offshore wind sector, where states frequently hold *de facto* resource rights, seems to point towards frequent state facilitation of private offshore wind resource extraction (Wade, 2023).

Community-led tendering could reverse the dominant interaction dynamics in which developers initiate projects, and communities are left to reactively vie for benefits that are often perceived as bribery (Cass et al., 2010; Kerr et al., 2017; Leer Jørgensen et al., 2020). By giving communities the prerogative, socialised wind rights could provide a property-based foundation to recalibrate the balance of power in the energy transition in favour of civil society and community groups. Since the wind is, in most cases, not yet legally owned by anyone, this strategy might be more feasible than engaging in the historically thorny issue of landownership. Indeed, such proposals for rearranging wind rights have been made by several authors (Hughes, 2021; Bäumlner, 2017; Lockman, 2022; Schmidt-Eichstaedt, 2018; Wade and Ellis, 2022), and such changes would be legally permissible within EU law (Hanschel, 2018). The Scottish case is here again instructive in cautioning that community ownership itself can still be fraught with intra-community conflicts on how best to harness the asset as a use value or rather focus on extracting exchange value. This shows that changing ownership to state or community does not guarantee a decommodification of nature (Zetterlund, 2022).

## 7 Conclusion

This paper has unpacked the structural role of landownership in the deployment of wind energy and the energy transition more broadly. It has been shown that landed property can, under different conditions, act as a barrier or enabler of community wind energy initiatives. It has also been shown that rent relations are a key, but underappreciated, element in the structural dynamics of wind energy sectors. Unpacking these dynamics can therefore prove useful to different social agents

such as policymakers, activists or community groups with an interest in promoting the diffusion of community-led energy initiatives. While this research has focussed specifically on wind energy, this type of rent analysis equally applies to other renewable resources, such as solar and geothermal energy, whose exploitation likewise depends on and produces particular relationships between landownership and rights to renewable resources. However, the distinct materialities of these resources likely mean that the mechanisms through which landed property interacts with these sectors likely differ. This should be a subject of future research.

**Data availability.** Qualitative interview data cannot be made available to protect participants, but they can be made available upon request in anonymised form by the corresponding author.

**Author contributions.** Both authors contributed equally to this work. DR drafted Sects. 1 and 5. RW drafted Sects. 2–4 and 6. Both authors reviewed and revised the entire document.

**Competing interests.** The contact author has declared that neither of the authors has any competing interests.

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**Acknowledgements.** The authors would like to thank the anonymous reviewers for their time and constructive feedback, as well as Antje Bruns, Matthias Naumann and Sören Becker for organising this special theme issue.

**Financial support.** This research has been supported by Horizon 2020 (grant no. 813837) and Norges Forskningsråd (grant no. Energix NFR 280902).

**Review statement.** This paper was edited by Jevgeniy Bluwstein and reviewed by three anonymous referees.

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