



Democratizing energy justice: Rethinking energy justice in authoritarian times

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Abstract

In the name of the European Green Deal that “leaves no one behind,” energy transition projects multiply. Amid this rush, scholars warn about their justice concerns: uneven distribution of costs and benefits, marginalization of certain sections of society, and absence of mechanisms for remediating injustices. However, energy justice scholarship often overlooks how energy transitions can facilitate authoritarian dynamics. Many assume that democratic progress supports just energy transitions, while democratic backsliding halts them. Others argue that the urgency of low-carbon transitions justifies sidelining democracy, despite evidence from authoritarian regimes where such projects trample Indigenous rights, suppress activists and enable corruption. Authoritarian states maintain complex relationships with disadvantaged communities, often using energy poverty to justify policies that reinforce their power under the guise of just transitions. This article examines how rising authoritarianism can hamper just energy transformations and calls for integrating democracy into energy justice research. I explore two key challenges: (a) how authoritarian regimes manipulate energy poverty narratives to tighten control and (b) how struggles over energy justice can expose cracks in authoritarian rule. By theorizing democracy within energy justice, I aim to shift the research agenda toward more inclusive and just energy transformations, emphasizing democracy as a central concern.

Keywords

energy justice, green authoritarianism, far-right ecologism, authoritarian populism and the environment, energy poverty, democracy in energy transitions

Introduction

Constructing environmentally sustainable and democratic political regimes is one of the most important political projects of our times. In the name of the European Green Deal that “leaves no one behind” (European Commission 2023), energy transition projects multiply through solar panels, wind turbines, hydropower dams and the mining of lithium—an essential component of modern electric

car batteries (Bridge and Faigen 2022). Amid the rush for transitioning to “green” energy, energy justice scholars (e.g., Sovacool 2021) warn about the justice concerns these projects

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can yield: the uneven distribution of costs and benefits, marginalization of certain sections of society and the absence of mechanisms for remediating these injustices.

However, a considerable knowledge gap marks energy justice scholarship: it seldom engages with the authoritarian dynamics that energy transformation politics may facilitate. Many assume that as democracies mature so do their abilities to facilitate the energy transition; and that as democracies slide back to illiberal states, their energy transition takes a halt. Another belief is that the “urgency” of the global energy transformation can justify overriding concerns for democracy. The latter is the case despite evidence from undemocratic countries that convincingly illustrates how the rush for low-carbon energy projects overshadows how Indigenous rights are trampled, environmental activists are suppressed and how political elites exacerbate ecological challenges through land grabbing and corruption. Land grabs increasingly dispossess the poor in the name of renewable energy and carbon sinks, making “climate justice” a floating signifier backing green, neoliberal, market-led and authoritarian transition efforts (Mookerjea 2019). Meanwhile, authoritarian regimes around the world have an often complex and ambivalent relationship with disadvantaged citizens and communities—a relationship that cannot be reduced to mere antagonism, or simply to “those left behind.” Because authoritarian politics easily mobilize tropes of disadvantage such as the “energy-poor,” pro-poor “just” energy transition policies and projects can morph into their opposite, allowing oppressions to prosper.

Endeavoring to fill this knowledge gap, this article focuses on the intersections between just energy transformations and democracy. It commences from the *working hypothesis* that the rise of authoritarianism across the planet can hamper just energy transformations.

To shift the global energy justice research agenda towards better integrating concerns for democracy, the precise ways through which this occurs urgently require research. Hence, my aim is to contribute to answering the following question: *How can democracy be theorized in current energy justice debates to allow for more inclusive and just energy transformations?*

To contribute answering this question, in this article, I explore the democracy-related challenges that arise in energy transition processes to offer suggestions for how to account for them in research. I shed a light on how these challenges can change existing political relations between old and new actors, and across scales, breaking down these relations into two aspects: (a) energy poverty and intersectional subjectivities in energy transitions: probing how tropes of (dis-)advantages can be mobilized by authoritarian regimes to reinforce their grip on power through “just” energy transition politics; and (b) struggles over energy knowledge politics: to discuss how these can be used for peering through the cracks of authoritarian rule.

My aim is to contribute to a novel theorization of democracy within energy justice that engages with the rise of authoritarianism. This paper is also a call for more energy transformation research that has democracy as a central element.

Environmental geography scholarship on energy transitions is particularly well-placed to support this endeavor as it lays the groundwork for tackling energy injustices by foregrounding their spatial dimensions and engaging in cross-scalar and geopolitical explorations of the political economy of energy transitions. Bringing these environmental geographical insights in conversation with decolonial scholarship (Cusiquanqui 2006; Whyte 2017; Kothari et al. 2019), feminist studies on energy transitions (Mookerjea 2019; Caretta and Zaragocin 2020; Cohn and Duncanson 2023), political ecology (Neimark et al. 2019; Svarstad and

Benjaminsen 2020; Bouzarovski 2022), environmental political theory (Machin 2023; Wissenburg 2023) and political ecologies of the far-right (Moore and Roberts 2022; Lubarda 2023) allows for a serious engagement with the democracy-related challenges that emerge in global energy transformations beyond democracy's Western liberal understanding, which I discuss in the first section that follows. Then I present my approach to writing this article including my positionality followed by an examination of energy poverty and other intersectional subjectivities in energy transitions probing how such tropes of (dis-)advantages can be mobilized by authoritarian regimes to reinforce their grip on power. Afterwards, I discuss struggles over energy knowledge politics: in particular how they can open up ways for peering through the cracks of the intersections between "just" energy transition and authoritarian rule. In the following section, I provide elements for rethinking democracy within energy justice scholarship. In the conclusion I summarize my findings and reflect on the political-economic obstacles in the way of the European Green Deal.

Energy justice in environmental geography scholarship: where is democracy?

In this article, I make an important distinction between energy transition, which is a technical policy goal, and energy transformation, which is a normative political project that includes democratic aspirations.

My efforts are grounded in the realization that energy transition processes have often a techno-economical focus that anchor them in modernism, industrialization, and linear views of development, aspiring to connect everybody to the electric grid to tackle climate change and maintain economic growth. This scholarship

that is essentially focused on techno-economic challenges of the energy transition helps us to understand that fossil fuels built the modern world, but remains ill-equipped to integrate concerns for rising authoritarianism because of the underlying assumption that energy equality is possible within the existing—unequal and increasingly undemocratic—world system. Consequently, how the global "clean" and "just" energy transition is contributing to building an increasingly authoritarian planet is under analyzed (Sorman, Turhan, and Rosas-Casals 2020) and undemocratic polities are too often seen as simply a context in which necessary energy transition projects unfold.

Energy justice is broadly understood as a fair distribution of the benefits and costs of energy services, with better representation and inclusion in decision-making concerning energy production (Jenkins et al. 2016; Sovacool and Dworkin 2015). This threefold understanding of energy justice—how the costs and benefits of energy schemes are distributed, which sections of society are marginalized, and what processes are required for their remediation—has recently been expanded upon by adding restorative and cosmopolitan aspects. These aspects, respectively, draw attention to the need to rectify the injustices created by the energy sector (Hazrati and Heffron 2021) and the interconnected cross-border effects of energy activities (Healy and Barry 2017). Focusing predominantly on the economic and policy-making aspects of energy justice (Heffron and McCauley 2017) runs the risk of obscuring that in authoritarian states, because so much policy is oriented towards centralized control of both the population and the economy—including through corruption, fraud and the manipulation of public opinion—economic incentives and policy-making are not sufficient in and of themselves to ensure desired justice outcomes in energy transitions. Hence, the issue is not only about juxtaposing socio-

political aspects to the economy but about contesting the types of economy and policy-making desirable in a normative democratic polity.

Environmental geographers have highlighted the spatial dimensions of energy injustices, showing how energy transitions create geographically uneven social, political, and environmental displacements that exacerbate vulnerabilities among certain groups or areas (Bouzarovski and Simcock 2017). Drawing on Marx (1976), Huber (2009) emphasizes that energy production under capitalism depends on expanding markets. Renewable energy is thus produced based on a sphere of commodity relations that is increasingly extended to the world scale with important consequences on geopolitical alliances. For instance, crises like Russia's invasion of Ukraine prompt abrupt reorganization of commodity relations within energy politics.

Geopolitical aspects of energy transitions are also among environmental geographers' concerns. For example, Power et al. (2016)'s work on China, Brazil, and India's roles in low-carbon energy transitions in South Africa and Mozambique highlights how rising powers influence energy accessibility, affordability, and sustainability while contributing to state-making (Power and Kirshner 2018). Such processes risk perpetuating colonial energy geographies, prioritizing elite and corporate interests over community needs.

Scalar politics can affect democratic possibilities within energy justice. When the local is subsumed to the national and the global, questions of local and national democracy can become relegated to a secondary level in the face of the urgency of the energy transition. Energy justice paradoxes (Burnham et al. 2013) (e.g., when "just" energy transition processes reinforce local injustices that sustain authoritarianism) emerge in part from these scalar mismatches which environmental geographers are particularly well-placed to detect in their analyses.

In response to these concerns, recent work has started to take seriously the political consequences of energy transitions within authoritarian contexts providing input on how to design energy policies that are politically viable (e.g., Böhmel 2021); identifying political barriers to climate policies (e.g., Zhu 2014; Enyedi 2020); exploring how energy transitions affect politically marginalized communities (e.g., Lo 2021), and investigating energy security concerns and geopolitical tensions (e.g., LaBelle 2020; Palle 2021).

Despite this progress, the intersections of energy transitions and authoritarianism remain underexplored in energy justice debates. Engaging with democracy in relation to energy transformations requires both capturing the complex assemblages of practices, technologies and actors that shape energy transitions with a special focus on how energy regimes can serve to promote the interests of certain political actors (Newell and Mulvaney 2013), and re-thinking democracy.

Current environmental geography scholarship on energy justice, thus, paves the way for tackling democracy within energy justice scholarship. Nevertheless democracy needs to be discussed beyond Western liberal democratic principles (Levine 1981) such as equal representation, civil rights and liberties, rule of law, separation of powers, and multi-party elections. Western liberal understandings of democracy tend to overlook concerns for self-determination of Indigenous and other marginalized people, human and non-human rights, socio-ecological knowledge struggles that can challenge authoritarianism and reclaim the public sphere, and the cross-scalar interactions through which energy injustices can be reproduced. Bringing into the debate decolonial, feminist, political ecology of far-right, as well as environmental political theory perspectives allows to engage differently with democracy in energy transitions: not necessarily as a form of government but as an emancipatory process that builds on

socio-ecological struggles for energy justice (Pichler 2017), the pluriverse (Escobar 2017), and the contestatory and pluralistic nature of politics (Machin 2019).

Approach, case study examples, and positionality

This article is essentially theoretical, based on the review of the literature and reflections over case studies I became familiar with through my research. The empirical examples from countries differently positioned on the democracy–authoritarianism scale are therefore intended to illustrate what more analytical attention to democracy could bring to the fore, without purporting that these examples are representative or comparable.

The case of Hungary is illustrative of how the EU's Green Deal can prompt the rise of authoritarianism within its own borders. For instance, the Chinese Contemporary Amperex Technology Co., Limited (CATL) gigafactory project in the city of Debrecen is planned to be one of Europe's largest battery factories. CATL represents the symbol of the Hungarian government's green investment strategy. Its construction nevertheless lacks transparency and consultation, is steered by political elites and is justified via nationalist narratives. The project has recently mobilized the political opposition to an extent rarely seen in contemporary Hungary when it comes to contesting this type of state-supported major investments (Wu 2024). Geopolitical alliances with Russia also mark Hungarian energy politics. Nuclear energy developments (and especially the additional reactor that Russian company Rosatom is supposed to build at the existing nuclear plant of Paks) are central to Hungary's political agenda, describing nuclear energy as a clean source. This narrative is imbued by the government's desire to centrally control energy production. In Hungary, (energy-)poverty affects a large share of the population, and energy

prices have remained high on the political agenda of Orbán's authoritarian regime (2010–present). For example, popular governmental policies consisted of imposing cuts on energy prices. This measure was abruptly stopped for the majority in 2022. Hungary is considered currently as the most undemocratic state within the European Union (Ágh 2022).

The case of Guatemala offers insights into how desires for energy security and clean technologies clash with local aspirations for democracy, sometimes with violent outcomes. Guatemala is Central America's largest energy producer and the most important regional energy exporter, driven by large-scale state and donor investment in hydroelectric dams. Indigenous lands, where some of the poorest people in the country live, shelter 86% of these projects (Alford-Jones 2022). Most local people living near dams do not have access to electricity and experience significant changes in their livelihood prospects. Environmental defenders are regularly silenced, and many activists' deaths have been attributed to their interventions in hydropower conflicts. Extractivist projects through large-scale plantations and mining have alienated Indigenous territorial rights (Grandia 2012). Indigenous communities defend these through the (re-)construction of collective land-based identities (Alonso-Fradejas 2015) and by advancing counter-hegemonic concepts like food or energy sovereignty (Silva Santos 2023). While Guatemala holds regular elections, organized crime and corruption severely impact the functioning of government. Violence and criminal extortion schemes are serious problems, and victims have little recourse to justice.

Bringing the case of Sweden into this discussion allows for shedding a light on how the technocracy embraced by liberal democratic states can undermine inclusive democracy, also illuminating the intersections between far-right political coalitions and energy transition politics. Sweden is a compelling case considering the

contradictory dynamics of simultaneously recognizing Sami Indigenous territorial rights and promoting “green industrial revolution” that depend on their infringement. The Swedish rural north is increasingly portrayed as a site through which to found a new modern “green” nation, echoing a colonial history in which Northern Sweden was envisioned as a resource-abundant “land of the future” (Arora-Jonsson and McAreavey 2023). Being a vanguard nation in green industrialization has been central to Sweden’s self-image, which today still marks the political discourse. Government politics are slowly but steadily veering towards nationalism (anti-immigration, welfare chauvinism) and social conservatism (tradition, anti-feminism) (Strömbäck, Jungar, and Dahlberg 2016). The increasingly popular far-right party Sweden Democrats’ stances on the energy transition are marked by references to nationalism, localism and a strategic dissociation of energy transition imperatives from the need for climate action.

Notable in the case of Sweden are some similarities with Hungary: both countries rely heavily on nuclear power plants approaching the end of their lifetime, and have seen recent rapid growth in renewable energy: solar photovoltaics in Hungary, and onshorewind in Sweden. Both are facing challenges to meet forecasted growth in electricity demand through low-carbon sources.

This targeted sample of different geographical contexts allows me to illustrate my conceptual arguments. They also help me gesturing towards the utility of cross-national comparisons in further research on this topic.

It is unusual in a theoretical article to write about the author’s positionality. Nonetheless, our everyday experiences of climate change and the rise of authoritarianism are not independent from the topics we investigate, the lenses we adopt, and the audiences we seek. Disclosing positionality in research on the energy transition feeds into a broader call for

more experience-motivated science explicitly aimed at building a better world marked by care and solidarity rather than technocracy and market interests. Expert knowledge has the potential to both hinder and enable democratic processes: explicit engagements with its politics are therefore important.

My scholarship is marked by my positionality as a Hungarian researcher who has spent more than ten years in Central America and who currently lives in Sweden. The assassination in 2020 of an environmental activist who was one of my colleagues and good friend in Guatemala; the marginalization in the name of “progress” of the smallholder farmers and Indigenous people I used to work with; the closing down of two universities I studied and taught at by two different authoritarian political regimes; as well as the pernicious rise of the far-right in Sweden where I recently settled cannot be fully separated from my writing. Beyond science, my scholarship is driven by my embodied experiences and emotional trauma related to authoritarian oppression. Demonstrating the complex relationship between the energy transition, energy justice and democracy to contribute to envisioning the radical socio-environmental transformations our current times call for is core to my endeavors.

In the two sections that follow (Sections “Authoritarianism, energy poverty, and other intersectional subjectivities” and “Democratic struggles over energy knowledge politics”), I develop two researchable aspects that emerge from the literature as well as my recent empirical research in Europe and Central America (Gonda 2019; Gonda et al. 2022, 2023; Gonda and Bori 2023), namely: (a) how just energy transition policies and initiatives relate to energy poverty and other intersectional inequalities; and (b) how different human and non-human actors struggle over hegemonic knowledge underpinning just energy transition initiatives. Below, I endeavor to probing democracy in each of these domains.

Authoritarianism, energy poverty, and other intersectional subjectivities

In this section, I argue that scholarship needs to go beyond treating the energy-poor and marginalized populations as simply the “left-behind” of energy transition processes. As I show, tropes of disadvantage such as “the energy-poor” are essential for authoritarian energy politics to prosper. Hence, how the latter construct these subjectivities requires sustained attention: they highlight how the social relations of difference such as gender, age, ethnicity and political affiliation shape how different actors are brought into relations of power (Nightingale 2011).

Authoritarianism and the marginalized citizen-subjects of “just” energy transition politics

Authoritarian governments worldwide, including those associated with far-right ideologies, maintain an ambivalent connection to underprivileged citizens and communities. Authoritarian leaders often exploit disadvantaged circumstances; for example, in Hungary, previous to the 2010 elections, Prime Minister Orbán regime’s land policies have been initially designed to revitalize a family agriculture in crisis by supporting small-scale farmers (Gonda 2019). The appropriation of the narrative of rural revival, by a regime that has actively impeded sustainable rural development and equitable access to land is characteristic of the inherent contradictions of authoritarian and populist regimes (McCarthy 2019). Such pseudo-emancipatory motifs are key to maintaining the façade of a pro-poor government, and, thus, the electoral support of the most marginalized sectors of society (Czibere and Kováč 2022). By promoting these ideologies, these regimes are also given free rein to restructure the countryside or any other sector under taglines of sovereignty, sustainability, and nationalism.

While official policy and discourse call for a rurality based on diversified local farms and businesses, “the regime continues to support business-as-usual and speculative agricultural practices that drain the Hungarian countryside of both farmers and nutrients” (Bori and Gonda 2022, 2). More recently, my empirical research in Hungary has shown that solar panel farms in the hand of companies have started burgeoning on former agricultural lands (the same ones that just a few years ago were supposed to host activities to revitalize the countryside), especially in regions with high poverty levels. Energy politics, just like land politics, thus provide a fertile terrain for producing socio-environmental injustices while legitimizing authoritarian politics. For instance, the unprecedented rise in energy prices caused by the invasion of Ukraine by Russia has prompted many governments—including the Hungarian—to prioritize energy security over affordability and sustainability (Hungarian Government 2023). In parallel, the EU urged increasing the pace of the transition to renewables to counter the reliance on Russian gas.

To debunk how energy transition politics can help authoritarian state-making, there is a need to examine not only the disparity between energy transition policies and their real-world implementation but also the underlying assumptions about specific entities, both human and non-human, implicit, tacit, and sometimes overtly expressed during this process. One such “entity” is the “energy-poor”—the target of pro-poor energy transition policies and projects. Energy poverty is most often understood as a situation wherein a household is unable to meet its energy needs, due to a lack of access to sustainable, modern energy services and products (Jiglau et al. 2023). Scholars have developed complex socio-economic indicators for policy-relevant measurements of energy poverty, showcasing how gender, ethnicity, access to finance and rural or urban locations shape energy poverty (Tirado-Herrero 2017).

What remains however under addressed are the processes through which the energy-poor are constantly re-created, both through political narratives and in reality; especially how the historical exclusions of their needs and aspirations from democratic decision-making spaces can reproduce the energy injustices on which authoritarianism prospers. For instance, measures such as the introduction of prepaid electricity meters, which assist fuel-impoverished households to reduce their electricity debts as well as pilferage (Kambule, Yessoufou, and Nwulu 2018), can contribute to creating new forms of energy poverty. These prepaid meters work like prepaid phone cards: electricity shuts down once there is no credit left. Disconnected from the grid, prepaid meters can contribute to creating new forms of “off-grid” and stigmatized subject positions for populations that are already marginalized (Jiglau et al. 2023). In some Roma communities in Hungary, which have faced marginalization for centuries, pre-paid meters go hand-in-hand with a lack of roads, an absence of institutions such as police and social assistance, as well as burgeoning criminality and drug consumption among youth.

Despite these marginalizing actions in the name of emancipation, vulnerable, poor and rural residents continue to support Orbán’s party as blame for issues such as land concentration or high energy prices is shifted onto EU policies (Krasznai Kovács 2021). This is a feature of many authoritarian regimes: they mobilize populist narratives to strategically blame external actors—the “enemies”—to hide their responsibilities for continued marginalization of underprivileged citizens.

In the meantime, external actors such as the EU and in particular EU decarbonization goals are directly impacting the energy-poor, not always in a positive way. Empirical research within Central-Eastern Europe highlights an important contradiction: that keeping energy-

poor populations in energy poverty is necessary for countries such as Hungary to achieve the EU’s energy transition objectives (Stojilovska et al. 2023). Because these people mostly heat their homes with solid fuels such as wood, and because wood is recognized as renewable energy (Sulaiman, Abdul-Rahim, and Ofozor 2020), Hungary’s energy transition objectives are achieved thanks to the energy-poor. Such is the case even if empirical research shows that the Poor often source wood from unregulated forest exploitation or from regulated ones but illegally (Đerčan et al. 2012). In the context of unregulated, illegal or corrupt forest exploitation, an inherent contradiction is the classification of wood as a renewable energy. Simply put: energy transition achieved at the expense of forests is not just. This contradiction is one reason why in this article I argue for the need to recentre non-human rights within the study of democracy-related challenges in current energy justice debates.

Another reason for paying attention to non-human rights is that identity formation (and thus subjectivities) is significantly related to people’s relations to the non-human (nature); but in general, there is a lack of attention to the implications of energy transition efforts on identity formation. Often, rural (and especially Indigenous) populations have specific relations to the territory, the forest and energy sources. Yet, when they for example resist transitioning from energetically inefficient cooking stoves to other technologies, their resistance is often categorized as cultural backwardness (Allen 2012), leading to epistemic violence, that is, a non-recognition of their ways of being with natural resources. Thus, their refusal of solutions that promote access to modern energy sources in place of wood can reinforce marginalized (and often racialized) subject-positions: that of the “backward” person (Samarakoon 2019). In Guatemala for example, climate change

adaptation projects have put great emphasis in supporting rural households to reduce their wood consumption for cooking. But as highlighted elsewhere too, considering “bioenergy” as a backward source often comes with the cost of not recognizing its value from the perspective of its users (Samarakoon 2019). The modern world’s political theory rests on the ontological separation of Nature and Humanity (Latour 1993; De la Cadena 2010) and while energy justice scholarly debates are trying to move away from this dualism, it remains very much reflected in energy transition policies. States, corporations and universities often conceive cultural differences as mere symbolic structures, exclusively possible within the modernity/coloniality matrix of power (Escobar 2016; Mignolo and Walsh 2018). Any way of being, doing and knowing that transgresses the advancement of modernity by hindering the agenda of the global energy transition, is filtered out through the politics of modernity (Blaser 2016), to levels, in some cases, of criminalization and exerting emotional oppression (González-Hidalgo 2020). Simply put, the users of “non-modern” forms of energy (as SDG 7 calls them) are also considered as non-modern.

In Sweden residential firewood usage is more associated with the heating of secondary homes of relatively wealthy people rather than lower-class users (Lindroos 2011), which puts high demands on the forestry industry. The Swedish far-right is especially keen to invoke these challenges arguing for more nationalism, sovereignty and localism in the name of renewable energy (Alarcón Ferrari 2020).

The main point here is that in addition to the focus on who gets excluded from just energy transition processes and on energy-poverty indicators, the contradictions through which the citizen-subjects of energy transitions are made and how these contradictions allow pro-poor energy transition policies and projects to sustain undemocratic developments require attention.

Authoritarianism and the privileged citizen-subjects of just energy transition politics

What about those that do not appear as marginalized but rather are expected to actively drive the energy transition from their privileged positions?

In the Global North and in some privileged communities of the Global South, just energy transition initiatives have contributed to the emergence of new citizen-subjects: the prosumer and energy collectives that both consume and produce renewable energy, controlling functions earlier fulfilled by energy companies (Szulecki 2018). These initiatives, often labelled energy democracy projects, call for “reclaiming the energy sector and shifting political power to workers, households, communities, and the public, in opposition to a centralized, corporate, utility-scale renewable energy model” (Burke and Stephens 2018, 79). Yet, prosumers’ central role is economic: they are brought into a cost-benefit scale, which I argue is precisely what impedes them to become agents of radical, democratic change. Thus, when envisioning decentralized energy systems as possible drivers of democracy, there is a need to question how this economic role can be coupled to a political one. To date, energy democracy initiatives are certainly promising approaches that can make a difference at the local and municipal levels (Burke and Stephens 2018), but how they can do so beyond and across these levels to act as democratic organizations remains to be investigated. My observations in Hungary show that solar communities can prosper well without tackling questions of democracy beyond the local level. For example, an eco-village I visited that was aiming for energy independence was clearly led by far-right people. While they were not supporting Prime Minister Orbán’s authoritarian regime, their biggest issue with it was not democratic decline. Another eco-village I

came across through my research in Hungary was aiming at energy autonomy: its members were striving to go off-grid to become independent from the state, not question it. In fact, they were happy with the state “until it did not bother them” (personnel communication, October 2023).

In authoritarian contexts, privilege also emerges from project tenders and corruption that benefit pro-regime actors. Because the dynamics of renewable energy transitions (decentralization of resource production, local or individual production, etc.) are at odds with the centralized logic of, for example, nuclear power, more state-centric transition process appear to be more attractive under authoritarianism. For example, in Hungary, the authoritarian government of Prime Minister Viktor Orbán is reluctant to transition to renewable energies at a large scale (Caiani and Lubarda 2024), which can in part be explained by renewables’ (such as solar energy’s) lack of a central point of control. In 2015, the Russian company Rosatom was given an impressive €12.5 billion contract to build two additional reactors at the nuclear power plant in the Hungarian town of Paks (Dunai 2017). This is contradictory in a country whose environmental characteristics allow not only for more environmentally friendly, but also cheaper, alternatives to nuclear power via renewables (Hartmann et al. 2017). My empirical research shows that in 2025, the Hungarian government still treats the Paks nuclear plant project as feasible, despite the EU sanctions of Russia that impede importing the material required for the plant’s construction in Hungary. This case hints at how energy politics, embedded in social, cultural, and geopolitical struggles, in addition to constituting eco-technical transformations (Paul 2018) can contribute to consolidating the authoritarian state by reinforcing strategic geopolitical and economic alliances with Russia.

In parallel, renewable energy politics in Hungary (despite the discursive opposition to

them) seem to be silently reinforcing state authority by guaranteeing the political support of national elites. The Hungarian national electricity company (E-On) has been bought by a politically connected oligarch and childhood friend of Prime Minister Orbán, Lőrinc Mészáros—the same person whose involvement in agricultural land-grabbing and control over national media platforms helped forge the authoritarian state (Madlovics and Magyar 2023). Energy, as a sector to control, thus becomes a political and economic opportunity for the state, as well as for politically connected oligarchs who in turn support the regime politically and economically. Mapping such power connections across actors and scales allows for engaging with the ways that energy politics and its citizen-subjects, like the “energy-poor” or the privileged oligarchs, contribute to state-making—for whom, and at what environmental, social, and political costs. Furthermore, the involvement of these oligarchs in the renewable energy sector contributes to re-shaping the latter. Indeed, solar energy’s potential for decentralization and bottom-up control is re-modeled for the purposes of oligarchs involved in the installation of large, centralized solar parks.

Thus, detailed scrutiny is required to understand how voluntary, or somewhat forced, energy transition processes can perpetuate authoritarian oppressions via state-led “just” energy transition policies. When the authoritarian state is put in the impossible role of energy justice-maker, as the chief promoter of a decarbonized economic system (Dunlap and Tornel 2023), it unintentionally contributes to disguising the elephant in the room: what I call “green authoritarianism.” To what extent different stakeholders (experts but also environmental activists, large industrial groups, EU policies and subsidies, engineering and technical corporations, local communities as well as research institutions) are complicit in these processes remains an important aspect for empirical investigation in relation to green authoritarian

developments. How the state positions itself vis à vis “sustainable” or “green” political projects can help greenwash authoritarianism and thus contribute to the legitimization of the authoritarian state. This is further facilitated by the disengagement of energy communities with state politics.

As the above discussion also shows, often authoritarianism emerges within contradictions and cross-scalar mismatches in “just” energy politics. Energy communities can strive for local democracy but leave authoritarianism untouched at the state level. Pro-poor energy politics can contribute to creating more exclusions. Decentralization of energy production can lead to strengthening authoritarian grip on power through a strategic positioning of regime oligarchs across the energy sector. Environmentalism can be used for legitimizing and building a political community around an undemocratic regime and in opposition to some strategically constructed enemy figures that are often racialized and politicized.

What does all this mean for our discussion on democracy within energy justice? First, that rather than focussing only on who gets excluded from just energy transition processes, exposing contradictions and cross-scalar mismatches helps reveal the processes through which democratic challenges emerge in just energy transition. Of course, contradictory and ambiguous politics are not the sole prerogative of authoritarian regimes, yet undemocratic governments have been particularly skilled at perpetuating ambiguities in the narrative of justice (e.g., McCarthy 2019; Huber et al. 2021; Caiani and Lubarda 2024). Better focus on contradictions and mismatches facilitates exploring how pro-poor or local community-driven energy transition policies and projects can morph into their opposite, allowing oppressions to prosper.

Second, the above observations call for better attention to the processes through which the invocation of particular subject-positions and their relations to non-human nature in the just

energy transition narrative can help reinforce the injustices authoritarianism uses to flourish. Indeed, the energy transition can become the terrain on which authoritarian and populist regimes gain and sustain their legitimacy, create their political community and mobilize collective emotions by blurring certain binaries to strategically create others. These strategic binaries or othering processes may be about groups of people, knowledge claims or territories. Hence, determining who is incorporated and to what extent, and who is excluded, and under what conditions is crucial for understanding how authoritarian regimes, especially populist ones, maintain their grip on power (Scoones et al. 2018). “Authoritarian populism typically depicts politics as a struggle between ‘the people’ and some combination of malevolent, racialized and/or unfairly advantaged ‘Others’, at home or abroad or both” (Scoones et al. 2018, 2). As underscored by Rancière, “[c] onflating a diverse and democratic people with images of dangerous and threatening crowds —‘a brutal and ignorant mass’ (Rancière 2013)—allows for the putting of one ideology and position ‘first’, while excluding others and generating tensions across society” (Scoones et al. 2018, 3). The drive for legitimacy and the wish to construct a political community—both by the state and other actors, appears to undergird these processes through which ideological inclusions and exclusions are produced. Legitimacy entails how a regime is perceived within the country and internationally, while establishing of new sense of belonging to a political community (Badiou 2016) through the discursive creation of worthy and unworthy citizens, technologies and territories. Emotions are crucial for the discursive production of these binaries. Jessica Graybill’s study of the production of emotional support for extractivist energy projects and making Russia Great Again by opening up the Artic (2019), suggests how authoritarian regimes effectively construct nationalist narratives designed to tug at and

suture together emotions, creating consent for extractive development projects.

In the next section, I turn to struggles over energy knowledge politics to discuss how they open up ways for peering through the cracks of the intersections between “just” energy transition and authoritarian rule.

Democratic struggles over energy knowledge politics

Decolonial and feminist political ecology perspectives draw our attention towards knowledge struggles over energy justice. These literatures ask questions such as, whose understanding of justice is conveyed and deemed valid; who and what can be recognized as justice subjects; and how should justice be delivered (Temper 2019). Because technology plays such an important role in energy transformations, questions of who governs energy transitions, whose knowledge counts and whose sustainability solutions get prioritized are central to democratizing energy transitions (Ahlborg 2018; Newell 2019). For example, in Sweden, the NGO Motvind (meaning literally “against the wind”), with ties to the radical anti-immigration Sweden Democrats (SD) political party, supports local communities in contesting wind turbine projects by providing free legal and technical expertise. These communities are overwhelmingly white, affluent and anti-immigrant. Thus, an overall democratic political environment (such as in Sweden) is insufficient to ensure that democratic deficits do not punch holes in aspirations for justice for all in energy transitions. Put differently, the democratic deficit of energy transitions may not be a feature of authoritarian regimes alone.

Renewables can escalate geopolitical concerns by (re-)shaping energy alliances (Bouzarovski et al. 2023) over territories and resources that are key for the global energy transformation, when, for example, liberal democratic states rush to invest in low-carbon

energy projects in countries with histories of corruption and repression. For example, when “advanced” countries provide investment and technical expertise to authoritarian governments that use it to erect hydropower dams without support from local communities and with negative environmental impacts, this allows authoritarian states to boast about their sustainability efforts. This is the case in Guatemala where hydropower plants are currently under construction in Indigenous territories, partly funded by the World Bank and backed by European Development organizations registered under the Kyoto Protocol’s clean development mechanism.

Similarly, the environmental and social consequences of finding all essential materials, including lithium, necessary for modern battery production creates new sacrifice zones, that is, places and populations that bear the political, social, environmental, health and economic costs of decarbonizing economies (Zografos and Robbins 2020). Hungary is a paradigmatic example of an authoritarian regime aspiring to become a key producer of electric vehicle batteries, with the support of European energy transition funding. Government spending has attracted investments, including the new Chinese Gigafactory mentioned previously where batteries are made. While civil protests in Hungary have not made the regime back out of the battery factory project, protests in 2022 against lithium ore extraction in the Jadarska Valley in neighboring Serbia (estimated to hold 10% of the world’s lithium reserves) have halted a new infrastructure project backed by established political elites. The struggles in the Jadarska Valley have ignited a broader environmental movement, which has worked to upscale the contestation of authoritarian power to the national and supranational levels (Piletić 2024). While I am writing these words in early 2025, Serbia’s student population is on its way to show the world how to restore democratic hope (Zaharijević 2025). The different outcomes of

comparable citizen initiatives against renewable energy projects call for closer investigation of what knowledge claims are mobilized by struggles over justice in energy projects, and their possible democratic effects.

The role of territorial struggles (De la Cadena 2010; Escobar 2016) and the type of knowledge claims they are grounded in is central for discussions on energy justice and democracy within energy transformations. Particularly useful for thinking beyond authoritarianism and populism is political ontology's post-dualism (Blaser 2014), that is, the questioning of the idea that there is a "single nature" to which there correspond 'many cultures'" (Escobar 2017, 241). Rather, political ontology's focus on relationality can help deconstructing colonial and authoritarian politics' favorite divide between "us" and "them," "worthy" and "unworthy" as highlighted earlier.

Thus, following feminist (Haraway 2018) but also decolonial theory (Blaser 2014), this article urges energy justice scholars to give more attention to struggles for justice for all people and for the planet, a multi-species justice that involves acknowledging, preventing and responding to violence—including onto-epistemic violence—enacted against all kinds of beings (Tschakert et al. 2021). The point is simple: exploitation of people and the environment go hand in hand, but how this is done and contested within authoritarianism needs further scrutiny. We need to seriously delve into the relevance of the rights of non-humans within a democratic aspiration that challenges the ontological separation of nature and culture in the context of energy transition projects. This will allow to better explore connections between ecocide, epistemicide and democratic decline. Ultimately, it will help us to rethink democracy beyond its Western liberal understanding, and as a central component of environmental justice.

Feminist environmental scholars also raise attention to the entanglements of hegemonic

masculinities, fossil fuels and the "authoritarian desire" (Daggett 2018; Hultman and Pulé 2018) and how these entanglements rely on dominant, patriarchal constructions of knowledge on just energy transitions (Cohn and Duncanson 2023). The energy justice problem is not only that the climate crisis and biodiversity collapse have been driven by high-income countries and their white male leadership, but also that many of the proposed "solutions" have harmful impacts that disproportionately fall on the Global South, as well as on marginalized communities in the Global North (Cohn and Duncanson 2023). Struggles over who knows how to safely transform to a green future are thus central to justice concerns in energy transitions. Without purporting to be exhaustive, in the following section I gesture towards new ways of thinking about democracy within energy justice.

Beyond technocracy and universal scientific knowledge: rethinking democracy within energy transformations

My observations call for deeper academic engagements with democracy in energy transformations both as a movement and a concept to understand not only how the energy transition can become an opportunity for opening up the possibility for a more democratic future (Pickering, Bäckstrand, and Schlosberg 2020), but also to better understand what type of democratic future is being sought.

First, there is a need to apprehend better how energy transition processes can bring about challenges for democracy, and how changes in democracy can lead to the acceleration or deceleration of energy transitions. Existing studies show that democratic states tend to have higher shares of low-carbon energy sources than non-democracies, yet "more democracy" does not automatically translate into more

renewable energy (Clulow and Reiner 2022). For example, understanding the historical co-evolution of energy systems and democracy in countries such as Hungary that transitioned from state socialism to liberal and then illiberal democracy within twenty five years of time can be enlightening.

Second, efforts at energy transition should not be imagined as occurring in a vacuum—the world is increasingly an undemocratic place where talking about elections, representation, political advocacy, separations of power make less and less sense. Waiting for authoritarian leaders to lose the next elections do not make sense anymore either. More in-depth, cross-scalar empirical analyses of the energy transition in light of the (geo-) political and technical alliances that both drive and emerge from them are needed. For example, probing Sweden's "technocratic and green" state's impact on policy diffusion in other countries, as well as looking at (geo-)political alliances will allow for better understanding the justifications underlying policy diffusion as well as its effects, including how efforts to implement energy transitions can induce contestation between the state, expert institutions and citizens.

Third, rather than looking for normative solutions to the failures of liberal democracy, new imaginaries of green democracy need to be developed to reconcile political democracy and environmental sustainability: "[the] concern is not to defend democracy against autocracy in relation to climate policy, but to consider the possibilities for this reimagining" (Machin 2023). In this endeavor, the work of environmental political theorists of democracy provides great inspiration. Indeed, they have extensively discussed how ill-equipped our liberal democratic states appear when it comes to tackle the effects of climate change. On the one hand, some claim that more deliberative minds in the room (in the fashion of citizen assemblies constituted by randomly selected participants (Landemore 2012)) risk less missing out on

crucial ideas, values, knowledge and lived experiences when it comes to decision-making thereby defending deliberative democracy (Curato et al. 2020). On the other side of the spectrum, political theorists who otherwise agree that our current liberal democracies have failed on tackling global problems, call for less democracy and more authoritarian decision-making by cognitive elites or so-called "epistocrats" (Brennan 2016). Against these advocates, Amanda Machin calls for new imaginaries of green democracy: among them imaginaries of green deliberative democracy, agonistic green democracy, decolonized green democracy, local and global green democracy (2023).

Research-activism in alliance with social and climate movements as well as energy communities can play an important role in developing such imaginaries. For example, for the Madreselva collective—an energy democracy initiative in Guatemala that supports micro-hydroelectric projects in the Zona Reina Quiché Indigenous region (Uspantán department)—energy sovereignty claims are mobilized to help defend Indigenous territories in a context in which the state has been repeatedly violating Indigenous rights and worldviews. By engaging with imaginaries of green democracy, technocratic single-mindedness in current attempts to govern climate change could be debunked. The role of nation-states could be re-thought as responsible for caring for their citizens (Wissenburg 2023) as well for the sustainable relationships of their citizens with non-human nature.

Of course, not any technocratic governance is obligatorily destined to end up being authoritarian. Yet, techno-scientific logics can potentially obscure important possible drivers for change including plural approaches based on local knowledge, needs, solidarity, care and struggles, a plurality which is at the basis of democracy. In the Swedish welfare state context, these aspects could be discussed, for example at the municipal level, including the challenges they bring about.

Fourth, ontological struggles about just energy transformations require attention, in particular struggles that question the role of the state and those that include the rights of nature. “Territorial struggles (...) are producing among the most insightful knowledges for the cultural and ecological transitions seen as necessary to face the crisis” (Escobar 2017, 249). Many of these struggles, especially of Indigenous people across the Global South “go back to the Earth as a source of insight for action” helping humans to transform our understanding of science, prompting us to reinterpret our place at the species level within a new universe story” (Escobar 2017, 250). Indeed, the lived experiences of Indigenous, peasant and other local communities are not only determined by questions of distribution, participation and recognition in the design and operation of energy systems, but also by a right to live in accordance with their own identities, cultural views, and ways of knowing the world (Leff 2017), and even off-grid. This right underpins many of the current energy justice struggles of local and Indigenous communities. By engaging with ontological politics (Tsing 2018), concealed silences (Freeden, 2022), onto-epistemic subordination—or the “cognitive empire” (Ndlovu-Gatsheni 2021)—geared at suppressing nonuniversal modes of constructing knowledge on energy transformations (Grosfoguel 2013; Blaser 2014), how different truths emerge, are contested, excluded, silenced and struggled over within energy transformations will be brought to the fore. The latter can help us detecting and challenging the pernicious ways through which authoritarianism can take possession of energy politics. Democracy within energy justice needs to be rethought as a pluralizing strategy that challenges the dominance of particular ontologies, individuals, expert knowledge and markets.

Fifth, non-human rights are key for democracy for several reasons. Recognizing their importance in democracy can challenge the

anthropocentric perspective that dominates our ways of thinking about environmental changes. It opens up for new ethical frameworks that are based on plurality rather than universality; views that are more politicized and that can become “part of ‘ontological openings’ to alternatives of ecological community that go beyond modernity” (Gudynas 2017, 262). Furthermore, having as a priority to ensure a healthy environment for future generations (Acosta and Abarca 2018) will require democratic practices that promote human rights as interdependent with non-human rights. A democratic system that values these interdependencies ensures that human welfare is linked to the well-being of the planet, enhancing the collective good. Indigenous worldviews in Latin America rely on concepts such as earth-beings (e.g., mountains, rivers), recognizing their importance in sustaining life from an intertwined ecological and a spiritual perspective (De la Cadena 2015). Centering non-human rights can help promoting compassion and empathy across species, rather than limiting ethical concerns to humans alone. By recognizing the intrinsic worth of animals, ecosystems, and future generations, democratic societies can evolve toward a more ethical, holistic approach to governance that have relational values as central concerns (Escobar 2016) where any harm done to the environment is considered as harm inflicted upon the people that inhabit it (Escobar 2017).

In sum, we need to transform our knowledge-making practices on energy justice and democracy within energy transitions. For example, thinking through Latin American examples, one can interrogate how radical Indigenous concepts such as body-territory (*cuerpo-territorio*), earth-beings, and the eco-territorial turn can help recentering non-human rights and relationality in debates on democracy within energy justice. In places such as Hungary, we can explore how experiences of forced cooperativism under state socialism shape the ways in which people relate to democracy within

Table 1. Rethinking Democracy Within Energy Transformations: Key Questions and Ideas for Further Investigation With Examples From the Case Study Countries.

How do energy transition processes bring about challenges for democracy, and how do changes in democracy lead to the acceleration or deceleration of energy transitions?	<i>For example:</i> understanding the historical co-evolution of energy systems and democracy in countries such as Hungary that transitioned from state socialism to liberal and then illiberal democracy within 25 years.
How to better consider the (geo-)political alliances that both drive and emerge from the energy transition?	<i>For example:</i> studying Sweden's "technocratic and green" state's impact on energy policy diffusion in other countries.
How to support the development of new imaginaries of green democracy beyond technocratic single-mindedness?	<i>For example:</i> research-activism in Guatemala on how energy sovereignty claims are mobilized to defend Indigenous territories in a context in which the state has been repeatedly alienating Indigenous rights and worldviews. In the Swedish welfare state context, discussing the challenges and benefits of shifting from technocratic to care politics.
How can ontological struggles about just energy transformations help question the role of the state and include the rights of nature?	<i>For example:</i> studying struggles against energy transition projects and for energy autonomy in countries like Hungary, Guatemala and Sweden to account for their potential to upscale the contestation of authoritarian power to the national and supranational levels; research-action with local energy democracy collectives.
How to include non-human rights in imaginaries of green democracy?	<i>For example:</i> through inspiration from Indigenous engagements with non-human rights.

energy transitions. In Sweden, the intersections of struggles for the livelihoods of reindeer-herding Sami communities with the energy transition imperative pushed forward by internal colonial relations can be given attention. Some of the most important questions to be asked alongside some possible examples to empirically investigate are presented in Table 1.

Conclusion

In this article, I have attempted to gesture towards new understandings of the democratic challenges that need to be considered to support just energy transformations. I have highlighted that engaging with how authoritarian politics build on intersectional subject positions within the energy transition and how struggles for energy justice can help to better

engage with democracy in energy transformation are two researchable domains that require further investigation. Indeed, there is an urgent need for more systematic analyses of what just energy transition processes do to democracy in and across different places in order to generate new policy-relevant knowledge, as well as novel scholarly concepts related to democracy in relation to energy transformation. Cross-case comparisons resulting from empirical work will need to enrich this discussion to improve our understanding of the multiple intersections between authoritarianism and the global energy transformation. Valuable information from empirical investigation needs to provide tools for policy-makers and communicators, and materialize a long-term vision for how environmental goals and the global energy transformation can be made in a way

that truly fulfils the European Green Deal's goal of not leaving anyone behind.

Nevertheless, there is a slippery slope between transformative energy politics and alienating ones. The rise of the far-right across the globe is certainly part of the political-economic obstacles that can stand in the way of the Green Deal. The expanded view of democracy that suggests that human well-being and justice are inseparable from the well-being of non-humans that I argue for is very different from mysticism within far-right ecologism. Movements like eco-fascism and nationalist green movements (like "Zöld Hazánk"—"Our Green Home" in Hungary associated with the far-right political party "Mi Hazánk"—"Our Home" but also the SD in Sweden) use a mix of environmentalism and mystical connection to the land to promote exclusionary and often racist policies. These groups claim that immigration, multiculturalism, and industrial capitalism are threats not only to national identity but also to the sacred natural world that is at the basis of "the nation's" identity. In far-right ecologism (Moore and Roberts 2022), nature is romanticized as pure and in need of protection from human degradation. Specific ethnic groups are seen as spiritually bound to the land, intertwining ecological protection with ethnonationalist goals. While Indigenous perspectives tend to support forms of participatory democracy rooted in collective decision-making and direct democracy, far-right ecologism often leans towards authoritarianism and illiberal democracy within an exclusionary framework that prioritizes certain "natural" hierarchies or national purity. Thus, in far-right ecologism, nature is used as a tool to reinforce boundaries—racial, cultural, or national—rather than as part of an inclusive framework of justice (Lubarda 2023).

Another socio-economic aspect that may stand in the way of the Green Deal concerns the entanglements of energy politics with gender, migration, rural, climate and

educational politics (Forchtner and Lubarda 2023), sometimes in contradictory ways. For instance, the equation between anti-democracy and the defence of the fossil fuel economy is not linear (Hultman and Anselm 2017), as authoritarianism's positioning is shifting towards the recognition of scientific evidence on climate change (Forchtner and Lubarda 2023). The mere existence of far-right ecologism (Lubarda 2020, 2023) does not only imply that the authoritarian forces have embraced environmentalism (regardless of whether this is a strategic or ideological move), but that energy democracy and energy justice is no longer a prerogative of politically progressive actors.

I am conscious that my suggestions towards rethinking democracy within energy justice remain mostly theoretical. Radical thinking must go hand in hand with radical action, and this article is also a call for the latter. The first months of the rule of US President Trump in 2025 have shown that agreements, regulations and legislations can be easily by-passed: they do not represent any safeguards. Trump's re-election has exposed again that our liberal democratic systems cannot be trusted. Trump in the US, Orbán in Hungary, the rise of the far-right in Sweden, the assassination of environmental activists in Guatemala, global warming, structural, and epistemic violence against ethnic populations are all symptoms of the same disease, we need to fight collectively. We owe this to those who already lost their lives in this fight, to the generations to come, and to our planet.

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