Article

Decolonizing energy justice from the ground up: Political ecology, ontology, and energy landscapes

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Abstract
The purpose of the paper is to expand the concept of energy justice by considering the struggles over coloniality and cultural identity in the Global South and their interactions with the spatial and historical development of energy systems and the ongoing forms of energy transitions. The article argues that the current conceptualizations of energy justice cannot be separated from the politics of incumbency as, without a decolonial critique, they tend to reproduce rather than transform hegemonic power relations. To be transformative, energy justice must be articulated from the politics of actually existing un-sustainability. In other words, the starting position for energy justice must be that energy injustices are already embedded in existing energy systems and energy policies. Drawing on Latin-American decolonial thought, and the work of political ecologists around energy, this article advocates looking beyond a universalized conception of justice towards an approach where justice is based on a sense of place and is informed by the community's relationship with the land. Using the concept of energy landscapes, the article puts forth an alternative way of understanding energy systems and conceptualizations of justice in de-colonial settings.

I Introduction

The surge of interest in the concept of energy justice over the last decade reflects human geography's increasing awareness that energy is the prime mediator between society and nature (Calvert, 2015). Energy geographers have led efforts to connect and spatialize the social and physical systems that transform energy. They encourage a "whole systems approach" that analyzes how energy systems reproduce uneven forms of development by linking sites of energy consumption, distribution, and production (Baka and Vaishanava, 2020; Blondeel et al., 2021). Such an approach allows us to engage with the metabolic character of energy systems, as it reveals energy's role in the uneven socio-spatial relations of contemporary capitalism (Huber, 2013; Malm, 2016; Moore, 2015).

The term "energy justice" was initially understood as a universal challenge to "provid[e] all individuals, across all areas, with safe, affordable

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and sustainable energy" (McCauley et al., 2013: 3). For example, Goldthau and Sovacool (2012) define it as "a demand-side challenge related to access, in-door air pollution, affordability and disparities that intersect with other forms of in-justices such as gender equity, social justice, and environmental degradation." The concept has now proliferated widely through studies on energy poverty (Bouzarovski and Simcock, 2017), energy transitions (Hazrati and Heffron, 2021), energy and space (Bridge et al., 2013; Bridge et al., 2018), and climate change (Bickerstaff et al., 2013). Contemporary energy justice seeks to accomplish many things: drawing on the energy trilemma—a framework that poses the multidimensional challenge of improving energy security while also addressing equity and sustainability issues. The concept conjures a "global energy system that fairly distributes both the benefits and costs of energy services, and one that contributes to more representative and inclusive energy decision-making" (Sovacool et al., 2017: 677).

Energy justice is broadly concerned with differences in access to the benefits of energy systems and the negative consequences of energy systems (Day, 2021). It foregrounds challenges like climate change, the technologically induced availability of unconventional fossil fuels, the messiness of political economy, which involve collaboration, conflict and cooperation, and the rapid deployment and falling costs of renewables in an increasingly carbon-constrained world (Bridge et al., 2013; Bridge, et al., 2018). In other words, it considers the distribution of costs, risks, and deprivation associated with energy from the perspective of consumers and those affected by energy production (Sareen and Haarstad, 2018). As renewables become more common, a new set of actors, power struggles, and interdependencies will take place (Newell and Mulvaney, 2013). This energy transition must be weighted toward social justice concerns and the "urgency" of addressing climate change (Newell et al., 2020), alongside the spatial reconfiguration of energy landscapes (Hornborg et al., 2019).

As several authors have shown, low-carbon energy systems based on renewables and electrification are not free of the geopolitical tensions associated with fossil fuels (Blondeel et al., 2021: 12; Vakulchuk et al., 2020). Solar and wind projects are paraded as ecologically sustainable, environmentally friendly answers to climate change and energy transition (Dunlap and Jackobsen, 2021). However, they also create and exacerbate pre-existing social tensions (Newell and Mulvaney, 2013; Temper et al., 2020), including new forms of land grabbing (Dunlap, 2018; Yenetti et al., 2016), extraction of minerals and mining (Zografos and Robins, 2020) and the reproduction of violences related to extraction (Le Billon and Middeldorp, 2021). An energy transition heeding justice principle should raise concerns about social injustices embedded in the multiple frontier-making capacities of energy transition processes (Hornborg et al., 2019).

Despite a solid foundation built on the normative principles of environmental, climate, and social justice movements, academic formulations of energy justice often rely on Western and universalistic notions of justice (Castán Broto et al., 2018; Sovacool et al., 2017). As such, they fail to consider how ontological and epistemological injustices (Santos, 2014) are embedded in energy systems. Recent formulations of energy justice tend to center policy-based solutions. They neglect how energy transitions usher in challenges for landscapes across different geographies and how energy systems are based on principles of colonial occupation, especially in the Global South (Nadaï and Van der Horst, 2010).

This paper expands on the concept of energy justice by considering struggles over coloniality and cultural identity in the Global South, their interactions with the spatial and historical development of energy systems, and ongoing forms of energy transitions. It argues that current conceptualizations of energy justice cannot be separated from the politics of incumbency (i.e., politics underpinning the existing energy regimes). Without a decolonial critique, energy justice tends to reproduce rather than transform hegemonic power relations. To be transformative, it must articulate *the politics of actually existing unsustainability* (Haley and Barry, 2017), including acknowledging the energy injustices

embedded in existing energy systems and policies. Examining the energy injustices occurring within energy systems allows us to trace the ideological and material manifestations of the concept of energy—understood as an abstract notion of "work"— and how energy systems became entangled with the historical project of capitalism (Lohmann, 2021).

This article proceeds as follows: first, it unpacks the meaning of energy justice by analyzing its origins, virtues, and shortcomings. It traces the roots of energy justice from the core tenets of environmental justice (recognition, distribution, and participation) to the multi-scalar aspects of climate justice and the lived experience of energy poverty. Secondly, it reviews political ecologists, decolonial, and indigenous scholars' work on energy-environment conflicts and injustices. Drawing on the "decolonial turn" and recent work on political ontology, the paper argues for a broader critique of (in)justice and frames decolonial struggles over territory as ontological struggles. Thirdly, the article builds on these insights to explore how a decolonial form of energy justice problematizes the conventionally accepted core tenets and energy's entanglement in a system of power and domination that renders it invisible to social analysis (Franquesa, 2018). The fourth section introduces the concept of "energy landscapes." It highlights ontological and epistemological contestations of material changes to energy systems emerging from attachments to land (i.e., a sense of place) to challenge representations of landscapes as facilitating global capitalism's growing demand for space, materials, and energy (Castán Broto and Sanzana Calvert, 2021; Milbourne and Mason, 2017).

II Origins, virtues, and shortcomings of energy justice

The term "environmental justice" is usually traced back to the 1980s and the work of Robert Bullard in the United States (Bullard, 1990; Murdock, 2021). The concept inherited key ideas from earlier work on the environment, climate, and fuel poverty. Recognizing the unequal allocation of environmental costs and benefits, researchers questioned the origins and

experiences of environmental injustices. The central tenets of environmental justice—distribution, recognition, and participation—are an enduring contribution from this era (Schlosberg, 1998).

Distributional concerns consider how costs and benefits are allocated in the context of uneven power relations (Kaswan, 2021). Distribution is experienced at different scales (i.e., local, national, and/or global) and in different timescales. Geographers have shown how injustices can be experienced via proximity to environmental harms, through historical legacies of changes in the landscape, and through the territorialization of power relations across space (Bridge et al., 2013). They have also noted how distributional concerns apply to energy systems and the production of infrastructures, landscapes, and residues at multiple scales (Day, 2021).

Environmental injustices are also measured in terms of (mis)recognition, which acknowledges identity differences. The debate over recognition in environmental justice emerged from efforts to accommodate different people, practices, and knowledge systems. However, recognition has played two seemingly opposing roles in environmental injustices: misrecognition is experienced when people are treated differently because of who they are, while "the differences of some people are rendered invisible when supposedly universal solutions are applied in the name of the environment" (Coolsaet and Néron, 2021: 59).

Finally, environmental justice seeks parity of participation or procedural justice. A key measure of (in)justice is the recognition of power asymmetries and different peoples' opportunities to engage with and influence decision-making about the environment (Suiseeya, 2021: 48). However, the "participatory turn" in environmental justice has brought about a series of technocratic and apolitical mechanisms that erase historical and political legacies and strip communities of their power (Ferguson, 1990). More issues are being discussed, but within a predetermined set of dialogical forms prioritizing consensus formation, technocratic management, and problem-focused governance (Swyngedouw, 2010).

Energy justice scholars draw on this tri-dimensional framework to argue that measuring injustices in the energy system retains the tenets of

environmental and climate justice, but can also reveal the metabolic relations of environmental resources, and the uneven distributional character of these relations, reshaping landscapes throughout energy value chains (Day, 2021). As human geographers have noted, energy is the prime mediator of human-nature relations; therefore, understanding how power imbalances arise from these interactions can reveal where and how injustices occur throughout the entirety of the energy system (Calvert, 2015). Climate justice scholars and social movements raise ethical concerns about international and intergenerational justice, noting how multi-scalar structural inequalities allocate various responsibilities and rights to different states (Bulkeley et al., 2014; Edwards, 2021). Such concerns are also applicable to energy justice, as they reveal how injustices emerging from the production or consumption of energy can yield questions about rights and responsibility, and about who gets to use resources and with what consequences for others (Chatterton et al., 2013).

More recent dimensions of energy justice include *restorative* and *cosmopolitan* forms of justice, which refer to rectifying the injustice of the energy sector and considering the cross-border effects of energy activities, respectively. These additions are said to constitute a comprehensive framework for action anchored in the application of human rights across the energy life-cycle (Heffron, 2022: 2). However, as decolonial scholars have shown, human rights frameworks are anchored in a Modern conception of the human (Wynter, 2015), which is underpinned by a Western construct of what it means to be human, grounded in a concrete socio-cognitive system that enables and reproduces ontological differences and hierarchies. Rights may be universally applied to the human, but not to those who appear "less human" or need to "wear masks" to appear human (Maldonado-Torres, 2017).

Finally, scholarship on Fuel and Energy Poverty (FEP) foregrounds injustices surrounding distribution, consumption, and energy's end-uses (Bouzarovski and Simcock, 2017). The FEP literature recognizes energy poverty as a lived experience or state of being underpinned by a series of social, spatial, and economic factors (Bouzarovski et al., 2013; Middlemiss and Gillard, 2015). Poverty is the result of

geographical inequalities ingrained in energy systems and in "the fundamental infrastructure, economic, and cultural make-up of society" (Bouzarovski and Simcock, 2017: 640). Fuel and Energy Poverty draws on the framework of distributional, recognition, and participatory injustices by exploring how injustices appear at multiple scales and because of social, cultural, and political factors (Walker and Day, 2012). For example, misrecognition (as non-recognition) renders certain groups invisible in mainstream policy discourse; while households that are energy poor may be stigmatized as "irrational," wasteful, or excessive. Fuel and Energy Poverty literature is a key to understanding how energy injustices are experienced and for "(...) deconstructing and actively confronting dominant discourses and value systems" (Simcock, et al., 2021: 8).

1 The virtues of energy justice

Energy justice thinking connects energy to the social and metabolic relations sustaining current forms of Western modernity and capitalism (Huber, 2013). First, it examines the whole energy system—resource extraction, production, transmission, distribution, consumption, and waste disposal (Jenkins et al., 2016)—to identify where and how injustices occur. It understands energy systems as a spectrum of globally interconnected socio-technical processes that co-produce social and political power—a view mostly absent from traditional socio-technical perspectives (Newell, 2019; Sareen and Haarstad, 2018).

Secondly, the "whole-systems" approach demonstrates how energy is essential for human wellbeing (Sovacool et al., 2017). By "bounding out" or separating energy concerns from wider environmental and climate justice campaigning (Bickerstaff et al., 2013: 2), researchers can consider cultural, political, and social aspects of the energy system (not just technical and economic aspects) (Sovacool et al., 2017). This framework moves beyond "traditional" concerns about the energy system (e.g., maintaining security, safety, and affordability), allowing researchers to explore the social and spatial configurations that shape energy systems' transitions toward low-carbon futures (Bickerstaff et al., 2013).

Finally, energy justice shows how injustices emerge throughout different lifecycle stages and spatial scales (Sovacool, 2021). Pre-existing, emerging, and innovative methodological foci consider how energy infrastructures are envisioned, the institutions that fashion, operate, and regulate energy systems, and the processes of deliberating and debating that create energy choices (Jenkins, 2018; Miller et al., 2013). Energy justice assesses how the different facets and scales of energy systems operate and interact, and how multiple types of experiences point to difficult-to-address injustices in the production, distribution, and consumption of energy-related services (Mulvaney, 2019).

2 The shortcomings of energy justice

Sovacool et al. (2017) identify three main limitations of energy justice: (a) the concept is rooted in Western thought and philosophies of justice; (b) it is anthropocentric in character; and (c) multi-scalar in nature. To address this, they briefly sketch multiple conceptions of non-western thought and their understandings of justice, as well as possible applications to energy justice. Similarly, they highlight the exclusion of non-humans from the energy field more generally, offering a series of questions pertinent for policy agendas that highlight the tensions between anthropocentric and non-anthropocentric views. Finally, they focus on the notion of multi-scalar dimensions of justice throughout energy systems, highlighting the importance of looking at the entirety of the energy system through space and time, where addressing energy justice from a system-wide, scalar perspective, enables analysts to better value the full cost of that system.

Sovacool et al. (2017) argue that energy systems are more than "hardware" that is, purely technical, technological, and economic matters; they are primarily political and social (Sareen and Haarstad, 2018. See also: Miller et al., 2013; Meadowcroft, 2009; Newell and Mulvaney, 2013). Sovacool et al. (2017) are undoubtedly correct in highlighting the Western-centric character of contemporary work on energy justice. However, despite their efforts to include other narratives, their work remains monocentric, reproducing a Western system of thought. It does not absorb one of post-colonial and decolonial

scholarship's central critiques of environmental justice: "environment" and "justice" remain largely defined through Western ways of thinking (Agyeman et al., 2010). Without this critique, policy-oriented solutions cannot challenge the clash of Western and indigenous cosmo-visions that renders ontological incommensurability into technical matters (Behn and Bakker, 2019; Li, 2007).

Similarly, conventional work on energy justice still treats its foundational terms—"energy" and "justice"—unproblematically. Energy is usually considered "prediscursive," even though it is inextricably entangled with social values and symbolic categories (Lennon, 2017). As Lohmann (2021) argues, the concept of energy only began to take shape in the XIX Century through the laws of thermodynamics as "a project of a certain privileged group of male Northern Europeans (…) to help machines provide business with labour productivity increases, labour discipline, labour concentrations and relative independence from a multitude of ingrained human and more-than-human rhythms, as well as speedier realization of the value of commodities" (87–88).

The physical laws of thermodynamics and the increased availability of energy powered by fossil fuels made multiple domains (e.g., heat and motion) and the transmutation of sunlight into thermal, chemical, and mechanical energy seem equivalent, commensurable, and measurable. Thermodynamics alienated energy from its social context, radically simplifying entire landscapes and places, which were "put to work" in the name of productivity and efficiency. Under this framework, only one kind of stand-alone asset that can be abstracted, commodified, exchanged, and accumulated freely (e.g., energy production) matters—everything else is weeds and waste (Franquesa, 2018; Tsing, 2017).

Imperial reorganizations of human and non-human relations easily accommodated the laws of thermodynamics (Lohmann, 2021: 90). The immense amount of energy availability brought about by fossil fuels was abstracted as "work" through the hegemonic notion of abstract energy. Energy and nature were put *to work* for capitalism, reorganizing spaces into productivity and waste. This conceptualization of energy relies on the colonial notion of

terra nullius (Blaser and De la Cadena, 2018) and the "sacrifice" of extractive zones required for capitalist expansion (Gomez-Barris, 2017). It obscures and obfuscates how race, gender, class, and space underpin the physical and material manifestation of energy systems and how marginalized communities are disproportionately impacted by the universalistic temptation to abstract, alienate, and commodify energy (Piranni, 2022).

Similarly, Sovacool and Dworkin (2015), Jenkins (2018), Heffron (2022) and others often assume that energy justice can be delivered through state energy policy, often underplaying the underlying conditions in which energy policy operates. Such an approach fails to recognize the embedded patterns of injustice in energy systems at the local, historical, and spatial levels and lacks a coherent assessment of global capitalism and structural oppression (Baptista, 2018). As a result, energy justice is overly positivistic and affirmative, excessively relying on policy-makers, experts, managers, and consumers "making more informed energy choices" (Sovacool and Dworkin, 2015). This is particularly true when energy justice is coupled with, or based on, a series of one-size-fits-all policies promoted by international organizations like the World Bank or the International Energy Agency (IEA) (Labban, 2012). Projects like SDG 7 that seek to "modernize" or "develop" energy systems in the Global South could effectively transform energy systems and infrastructure into an "apparatus" for neoliberal governmentality. In other words, energy infrastructure and electrification represent key means through which state formation, accumulation, and political capture by economic elites is enacted and contested (Power and Kirshner, 2019). The material and symbolic work of large-scale infrastructure allows the state to discipline, enroll, and enlist citizens in modernization and development projects (Power and Kirshner, 2019. For a critique, see: Castán Broto et al., 2018; Munro et al., 2017; Urpelainen, 2018)

Due to these limitations, concepts like recognition, distribution, participation, cosmopolitanism, and restorative justice often affirm, rather than transform, the underlying conditions of social and environmental injustice embedded in the energy system (Fraser, 2003; Fraser and Jaeggi, 2018).

The resulting policies are a form of "anti-politics"—a process that neutralizes, erases, and/or disavows contentious politics (Ferguson, 1990; Swyngedouw, 2010) by assimilating and domesticating pressures for radical and disruptive change into the dominant hegemonic order (Newell, 2019).

From this perspective, conceptualizations of energy justice cannot be separated from the politics of incumbency. To be transformative, energy justice should be articulated from a politics of *actually existing unsustainability* (Barry, 2012), that is, recognizing the injustices already embedded in existing energy systems. As Haley and Barry (2017: 452) put it, "[t]he fight against injustice (at different scales and domains) is not necessarily the same as outlining some positive conception of justice." Understanding how energy injustices occur throughout energy systems allows us to move beyond the affirmative-transformative duality to assess: (a) how energy systems and political power become entangled (Boyer, 2019); (b) how energy exploitation bolsters unique forms of occupation, distinct from other kinds of resource exploitation (Allen et al., 2021); and (c) how the very concept of energy is ideological, materially/physically manifesting in an energy system underpinned by historical, political and spatial factors that reproduce racial hierarchies, class struggles, and gender imbalances (Baptista, 2018).

III Towards a political ontology of energy

Political ecology is known for "thinking about the conflicts and struggles engendered by the forms of access to, and control over resources" (Peluso and Watts, 2001: 24–5). Since its origins, political ecology has been concerned with the rise of socio-ecological struggles generated by the capitalist appropriation of nature (Leff, 2017). However, the subfield's early engagement with energy was unpromising. Research often relied on mechanical definitions of energy (the capacity to do work) and conflated nature with labor (Daggett, 2019). Energy was treated as "just another resource" (Huber, 2015). A response to these shortcomings has been to focus

on the "materiality" of resources (Bakker and Bridge, 2006, 2022), with others focusing on the metabolic character of energy's uneven distribution (Hornborg, 2015). A branch of political ecologists considered how fossil fuel technologies enable certain social powers through material and spatial configurations (Huber, 2013; Mitchell, 2011; Malm, 2016); paying closer attention to how energy differs from other resources. As Huber (2015) argues, a proper "political ecology" sees energy as a "social relation" mediated by historically specific political struggles.

For political ecologists like Joan Martínez-Alier (2021), the interaction between space and environmental justice is vital in identifying the role of situated knowledges (Haraway, 1988), participatory action, and collaborative research when defining environmental problems (Couch and Kroll-Smith, 2000). Their work makes two major contributions to the political ecology of energy. First, they show how an ecologically unequal exchange of energy and materials creates an asymmetrical distribution of resources and risks across geographies, shaping societies in physically and socially uneven ways (Cederlöf, 2021: 71) giving rise to Ecological Distribution Conflicts (EDC). Secondly, they transformed the role of social movements (e.g., environmental organizations, indigenous peoples, peasants, neighbors, and citizens) from *objects* of study to knowledge producers who demand recognition of alternative valuation systems (Martínez-Alier 2021). Temper et al. (2015) refer to such knowledge production as "*activist knowledge*," a process that calls for new forms of scientific production by destabilizing the boundaries between movements and academic (or other expert) domains. The EDC emerging from the expansion of commodity frontiers (from the continuous demand for materials and energy) as a geographical staple of neoliberal capitalism's accumulation by dispossession (Harvey, 2004) challenges the power dynamics of hegemonic systems of valuation through the production of these situated knowledges.

Environmental and cultural forms of degradation have propelled alternative proposals seeking to reconceptualize the relationships between humans, nature, and space. These proposals emerge from local actors' culture and resistance to universalized and homogenized visions of the future (Ulloa, 2015: 323). They are constituted through epistemological foundations and practices that move beyond proposing "alternative" forms of development. Rather, they emerge from interactions with the territory and are focused on how knowledge production and practice emerge as a response to, or in contestation of, the imposition of one way of "knowing nature" (Temper et al., 2015). A dialogue between political ecology and Latin American decolonial thought frames energy as a system of power relations that shapes material, distributional, and political relations at multiple scales as well as imaginaries, identities, and possibilities (Darin and Szeman, 2021; Huber, 2015; Mitchell, 2011).

1 The decolonial turn

The concept of energy justice is broadly built on the epistemic foundations of Northern environmental justice and resource management. Most work on socio-technical energy transitions has focused on the Global North and makes assumptions "about the nature of state capacity, markets, institutions and infrastructural systems which do not hold in other non-western and northern contexts" (Power et al., 2016: 12). Global North concerns about energy justice generally center on the lack of effective participatory mechanisms, the failure of deliberative democracy, and distributional injustices (Mason and Milbourne, 2014; Mulvaney, 2019; Milbourne and Mason, 2017).

Despite acknowledging a colonial past, conventional frameworks on environmental and energy justice do not account for how injustices in the energy system interact with persistent colonial power and violence in the Global South. Similarly, discussions about energy transitions rarely consider the colonial and post-colonial path-dependencies and historical contingencies of energy systems in need of transformation (Baptista, 2018: 31). A decolonial approach to energy transition and energy justice would require reckoning with how the values, violence, and structures of coloniality shaped and continue to mold energy systems and energy itself.

For example, Peruvian sociologist Aníbal Quijano's work on decoloniality explores how a Eurocentric system of values and forms of power—what he refers to as the Colonial Matrix of Power (CMP)—persists, despite the end of colonial occupation. Such values are organized along two axes: (1) the concept and naturalization of race as a mental category of modernity and (2) economic relations as control over labor, resources, and products in a single capitalist market (Quijano, 2000). The CMP involves and affects us all by creating differences between modern and non-modern subjects.

The CMP represents a historical repertoire of cultural, spatial, and signifying systems that stigmatize and depreciate some worldviews for the purposes of another's health, development, safety, profit, and pleasure. For Mignolo (2018), knowledge is the primary domain through which epistemologies are "materialized," a process that reproduces particular ways of understanding the world while simultaneously erasing or rendering otherness invisible through descriptions, explanations, representations, and interpretations. Similarly, Santos (2014: 119) argues that this *one* way of knowing (eurocentrism), characterized by Western modernity, "creates a subsystem of visible and invisible distinctions in such a way that the invisible ones become the foundation of the visible ones."

The decolonial turn in political ecology recognizes how the colonial and epistemic roots of injustices manifest in the Global South (Rodríguez and Inturias, 2018: 91). It argues that modernity has eroded the vital conditions for indigenous people's wellbeing through displacement, exploitation of land, disregard for traditional knowledge and authority, and the imposition of a particular way of knowing and being in the world. The elimination or oppression of other forms of knowledge is the main source of violence. However, coloniality is experienced through three forms of structural oppression and violence: coloniality of power (economic, political, and cultural forms of domination), coloniality of knowledge (through epistemic and cognitive violence and the imposition of a singular way of knowing the world), and coloniality of being (subjective, individual, and collective identities) (Rodríguez, 2021). These forms of coloniality are also embedded in different spatial and temporal forms of "slow" and/or structural violence that systematically reduce indigenous and peasant "spaces" through occupation, contamination, and displacement (Davis, 2022; Nixon, 2011).

Most energy justice scholars ignore how social movements in both the North and South organize struggles against these forms of coloniality and violence using non-Western conceptions of justice, nature, difference, culture, and identity (Alvarez and Coolsaet, 2020). These aspects become evident when energy and environmental policies claim to speak for others. The unidirectional transfer of knowledge and obscuring of difference tempts a universalization that can perpetuate and/or lead to new forms of oppression and misrecognition (Alcoff, 1991). The challenge is to acknowledge the existence of different forms of knowledge while allowing them to disagree. Leff (2017) argues that social movements resisting extractivism in Latin America are striving "towards a politics of difference," a process that seeks to establish a dialogue of knowledges and sustain the notion that "subalterns" can and do speak and, in fact, produce critiques of, and alternatives to, dominant power (Crehan, 2016; see also ; Foucault, 2004; Gramsci, 1985; Rivera Cusicanqui, 2010; Spivak, 2010; Scott, 1990).

The decolonial turn destabilizes the liberal conception of justice—distribution, recognition, and parity of participation (Fraser, 2008)—and extends the framework of cosmopolitanism and restorative justice in three ways. First, it shows how these tenets are underpinned by a modern, eurocentric epistemic, and ontological construction of values and worldviews, where difference and otherness are devalued, sidelined, stigmatized, or romanticized (Rodriguez, 2021). Secondly, coloniality is revealed to operate through a matrix of power, knowledge, and being. Hierarchies of racial difference are codified into institutions, along with the domination of a symbolic system and the subjectification of the life, body, and mind of the colonized, distorting individual's self-image and their perception of the world (Álvares and Coolseat, 2020). Reckoning with coloniality requires justice to deal with difference, otherness, and epistemic and ontological forms of violence perpetuated by the dominant form of Western-modernity

and capitalism. Finally, it details how epistemic and ontological violences are reproduced through what Santos (2014) calls the sociology of absences, a process of questioning which is produced as non-existent or as non-credible alternatives to what exists. It questions whether modern tools like state policies, human rights, and democratic institutions can solve environmental (or energy) injustices. Decolonial justice decenters (in)justice through the state and other modern institutions; instead, focusing on self-governing authorities, undoing the ontology of land as property, and cognitive justice striving for autonomy (Temper, 2019).

2 Political ontology and epistemologies of the South

Drawing on decolonial theory and practice, Latin American scholars have initiated a turn toward "ontological politics" (Blaser and De la Cadena, 2018) that centers the lived experiences of indigenous and peasant communities. They show how struggles over land and territories are not simply about the distribution of environmental harms and benefits, but the right of subalterns to live in accordance with their own identities, cultural imaginings, and ways of knowing the world (Leff, 2017). The socio-ecological conflicts emerging from indigenous, peasant, and other social movements' resistance to large-scale development projects, resource extraction, and mono-crop farming are not only about the destruction of territories. They are also ontological struggles—struggles for a right to exist differently—and for *a world* itself (Escobar, 2020).

Viewing these conflicts ontologically reveals another dimension of the dual crises of meaning and modernity in the Anthropocene (Escobar, 2020). The ontological dimension emerges from the gap between political economy and political ecology; early positions in both fields were incapable of thinking through antagonisms involving non-human nature (e.g., rivers, mountains, and forests). The former reduced them to "resources" (Shiva, 2010), while the latter could only "see" disparities rooted in unequal distribution. Neither identified them as "subjects" (Blaser and De la Cadena, 2018: 5).

In response to this incommensurability, Escobar (2016) argues for the ontological dimensions promoted by Santos' (2014) Epistemologies of the South (EoS) framework. The EoS framework builds on the notion of coloniality, arguing that multiple ways of knowing confront the logic of a monoculture based solely on scientific knowledge. Santos argues that other knowledges are actively produced or appear as invisible. They require a process of intercultural translation, an exercise that seeks to understand how different types of knowledges are born in the struggle against capitalism, colonialism, and patriarchy (Santos, 2014: 238).

The EoS framework shows that ways of knowing cannot be separated from inquiries into ways of intervening in the world. Santos calls for "cognitive justice" to reinvent struggles for social emancipation by "unthinking the dominant criteria by which we define social justice and fight against social injustice" (Santos, 2014: 237). The ongoing crisis of the Anthropocene is articulated into a particular set of ontological characteristics and world-making practices. As Eriksen (2016: 18) notes, the Anthropocene ultimately "signifies that the growth ethos of capitalism and relentless optimism of Enlightenment thought may be nearing their end." Examining the "world" in crisis reveals multiple crises tied to a particular ontological formulation of a "single world" which has become universalized and understood as "*the (only) world*." Drawing on Law's (2011) notion of a One-World World (OWW), Escobar (2016) argues that escaping the crisis requires transitioning towards a pluriverse: "a world where many worlds fit."

Ontological politics—that is, analysis of how knowledges are actively made non-existent by the singular world—are "resurfacing" (Ingold, 2000) and offer three main interventions for energy justice. First, knowledges that are repressed, disqualified as non-conceptual, subjugated by modernity and coloniality, or hierarchically inferior (Foucault, 2004: 7) are a source of emancipation and autonomy (Esteva, 2019). Second, it implies a radical reworking of the "imaginary of politics" that enables political thought and practice beyond modernity's ontological and epistemic limits (Blaser and De la

Cadena, 2018). Finally, it reveals the territorial dimension of ontological politics through the notion of radical relationality—where the defense of territory, life, and the commons is one and the same (Escobar, 2020). Knowledges produced from territorial struggles suggest that kinship with territory and a sense of place are built into the relational character of the pluriverse. The occupation of territory is an ontological occupation stemming from historical exploitations and representations (i.e., the translation of humans and non-humans into "naturals" or "resources"). Resisting occupation lays the foundation for a grounded conceptualization of justice, a sense of place and identity that emerges from the relationship built in/with the territory (Coulthard and Simpson, 2016).

To produce a decolonial energy justice framework, we must join political ecology's analysis of energy and energy transitions with the emerging field of political ontology. Political ontology focuses on the situated knowledges emerging from the contestation of energy systems, which are rooted in broader cognitive and epistemic injustices and forms of violence. It argues that the lived experiences of indigenous and peasant communities in Latin America are not only determined by questions of distribution and participation nor their recognition in the design, operation, development, and transformation of energy systems but by a right to live in accordance with their own identities, cultural imaginings, and ways of knowing the world (Leff, 2017). In other words, these are more than "simple" struggles for resistance—they are struggles for re-existence (Porto-Gonçalves, 2001). As Leff argues, political ontology emerging from Latin American political ecology

> is not reduced to a politics of cultural difference; it brings into play the existential ontologies of peoples linked to the environmental conditions of their territories, that is, the cultural meanings associated with ecological potentials and geographical conditions for the construction of their sustainable ways of life (…) It is not simply a matter of allowing all voices to express themselves, but of exercising an environmental democracy, of the right to inhabit the world from different

cultural rationalities and territorial conditions (Leff, 2017: 247)

In the same vein, Burman (2017) argues that political ecology and political ontology are not mutually exclusive domains of inquiry, but rather interconnected and overlapping dimensions of global justice. For Burman, the uneven distribution of ontological weigh -through the imposition of what he calls the "coloniality of reality," and the uneven distribution of environmental burdens and privileges echos Santos' call for cognitive justice: a process that is both materially and epistemologically knitted together shaping whose knowledge, whose justice and ultimately, whose reality is allowed to be real. Burman's analysis is key to understanding how a dominant reality is imposed over others, revealing the nature of ontological conflicts when other realities are denied. Contesting the coloniality of reality requires "ontological disobedience," that is, the creation of spaces "for the generation of other realities within which other subjectivities may unfold while relations of production and consumption are transformed" (Burman, 2017: 935).

This perspective traces energy systems' spatial and historical role in reproducing such injustices through ontological and epistemological forms of violence and asks how energy justice might destabilize the power relations that shape them. A decolonial perspective on energy justice would focus on the everyday actions and the territorial relations that constitute energy systems operating alongside dominant power relations (Kirshner et al., 2020). This distinction reveals the entanglements of humans and non-humans that constitute energy systems and challenges understandings of energy as an abstracted force or "dead input," which obscure energy's connections to political power and domination (Franquesa, 2018). Energy justice can potentially deliver energy as an emancipatory project, destabilize the Western-centric conception of justice embedded in existing regulatory frameworks, and contest/resist epistemological forms of violence and ontological incommensurability in existing energy systems and their future forms (Bhen and Bakker, 2019; Castan Broto et al., 2018).

IV Decolonizing energy justice

Nancy Fraser's (2003, 2008) bivalent conception of justice makes significant contributions toward a more pluralistic understanding of justice. Fraser conceives distribution and recognition as two mutually exclusive spheres, where class struggles appear separate from status or identity politics, as imbricated paradigms of injustice. Political strategies to "remedy" maldistribution or misrecognition are either affirmative or transformative. Affirmative solutions aim to correct inequitable outcomes of social arrangements "without disturbing the underlying social structures that generate them." Transformative strategies, in contrast, aim to correct injustices by restructuring the underlying generative framework—the root causes of the injustice (Fraser, 2003: 74). The bivalent approach incorporates economic, cultural, and political dimensions to identify misframings and evaluate possible remedies (Fraser, 2008: 21).

However, this section argues that concepts like Fraser's "bivalent" forms of justice (distribution and recognition with parity of participation), even in their transformative variations, can still benefit from a CMP (coloniality of power, knowledge, and being) analysis. Although effective in highlighting how energy injustice may be experienced, such concepts ignore the coloniality of knowledge, covert forms of ontological and epistemological violence, and incommensurable understandings of wellbeing. Decolonial and indigenous scholars, as well as social movements demanding energy justice, democracy, autonomy, and sovereignty argue that such concepts must be revised to articulate decolonial forms of justice (Rodriguez, 2021; Temper, 2019).

Álvarez and Coolsaet (2020: 59) argue that Fraser's model does not provide the tools to problematize the state's role in the (re)production of injustices (i.e., via domestication through the creation of participatory spaces) and downplays the subjective dimension of coloniality in overcoming injustices. Concerns over distribution, participation, and recognition—while useful in exposing the unequal exchanges resulting from the dispossession of land—often fail to account for the experiences of indigenous communities and subaltern groups as they continue to face a much broader pattern of coloniality. This includes the material impacts of the maldistribution of harms and benefits and "the right to live in relation to one another and the natural world" (Coulthard, 2014: 13).

Additionally, Álvarez and Coolsaet (2020: 56) argue that prioritizing a fair distribution of environmental costs and benefits encounters two problems from a decolonial perspective: first, "it may entail a misrecognition of other modes of life that are incompatible with a capitalist mode of production and/or with anthropocentric ways of understanding justice"; and second, "it sets aside the fact that even the requests of recognition from minority groups may be the expression of a desire that has been captured by coloniality." Only measuring the equality of exposure to environmental hazards can obscure misrecognition. Although this may temporarily and locally address environmental injustices, in a global context, it will legitimize and expand the capitalist economy (Ibid, 2020: 58).

Political ecologists and environmental justice proponents often focus on the three core tenets in an effort to be inclusive and universal. However, decolonial scholars have shown how this forecloses questions about other understandings of justice, who the subject of justice should be, and how it should be delivered (Temper, 2019: 104). Such foreclosures entail the reproduction of epistemic and ontological violences that systematically impede other forms of knowledge (Rodríguez and Inturias, 2018). Inclusion, modernization, and/or development efforts may reaffirm forms of epistemological and ontological violence. Universalized policy objectives such as granting "universal access" to energy or a "right to energy" (Munro et al., 2017) also reproduce injustices by ignoring other emancipatory strategies (Temper, 2019: 98). They adhere to Western understandings of "objective knowledge," the good life, freedom, happiness, and development. The cultural logics of colonialism are reproduced by state-led inclusivity, which encourages recognition, participation, and even distribution (Coulthard, 2014: 15).

Post-Rawlsian approaches to justice have placed more emphasis on aspects of recognition and participation as a way of understanding the origins of maldistribution itself (Celermajer et al., 2021;

Schlosberg, 2007). Similarly, the "relational turn" in political ecology has primed scholars to understand how power relations emerge and are shaped across and throughout energy systems (Ahlborg and Nightingale, 2018; Cerderlöf, 2021). This dual analysis is suitable for understanding how "the exercise of power depends on multi-layered sociotechnical networks that involve different institutional, material, and ecological arrangements" (Castán Broto and Sanzana Calvert, 2021: 282) while assessing how energy systems produce political subjectivities (Boyer, 2014; Huber, 2013). Building and maintaining energy infrastructure is a form of political domination (Malm, 2016; Mitchell, 2011). Various groups resist such projects of domination via their everyday interactions with energy, but these relationships vary in form and at different scales and places (Kirshner et al., 2020).

The materialities and thermodynamic relations of energy reveal how energy systems are inherently historical–geographical phenomena: historical in that entropy provides temporal direction, connecting places through processes of accumulation and geographical in that they require material inputs and generate material outputs (Cederlöf, 2021: 74). Yet, as Baptista (2018: 31) argues, "current energy initiatives rarely take into account the colonial and postcolonial path-dependencies and historical contingencies of the energy systems they seek to transform." Energy policy and other discourses fail to recognize the local, historical, and spatial contexts in which patterns of injustices are embedded (Baptista, 2018). Energy policies must account for the systems and structures of knowledge and the historical and spatial manifestations of past oppression and domination, considering the various materialities and physical manifestations of energy systems—power lines, grids, storage facilities, and renewable energy projects—connecting distant sites of consumption and disposal, extraction, and production.

Under capitalist modernity, energy projects are imagined, designed, and deployed by systems of ethics and values that render specific places, peoples, knowledges, and worlds non-existent (Escobar, 2016; Franquesa, 2018). Making these entanglements visible reveals how energy systems obscure the connections between the power of energy as a productive force and power as a structure of domination. This double meaning is essential to the production and reproduction of peripheral zones, areas considered wasted space with realizable potential (Franquesa, 2018: 6; Armeiro, 2021; Gidwani, 2012). Indigenous and other local resistance foregrounds knowledges emerging from interactions between land and energy revealing an incommensurability that appears between two coexisting, but not integrated, realities of contemporary energy systems and their injustices: development and modernization on the one hand, and self-determination, autonomy and emancipatory potentials on the other (Castán Broto et al., 2018).

As Franquesa (2018: 6) reminds us, the apparent "invisibility" of energy in modern energy systems is the result of a particular abstraction of energy, "detaching it from actual social relations, making it largely invisible to social analysis." This echoes Lennon's (2017) observation that energy is "pre-discursive" but inextricably entangled with social values and symbolic categories. Understanding energy abstractly tends to "reinforce systems of hierarchy through paternalistic narratives," wherein poor, racialized, gendered, and/or indigenous communities' knowledge is dismissed as inferior and unscientific (2017:19). Marginalized communities experience injustices and are rendered (alongside nature, non-human others, and spaces) "wasteful" or "cheapened" in an effort to exploit and extract value (Armeiro, 2021; Moore, 2015).

Energy policy must consider how vulnerable groups and communities are affected by an abstracted understanding of energy and how certain groups, knowledges, practices, and cosmologies are excluded from the design and purpose of the energy system (Day, 2021; Lennon, 2017). As Castán Broto et al. (2018) argue, hegemonic perspectives of energy development and the deployment of other universal or "modern" energy systems tend to be overly focused on policy and formal decision-making. This obscures other forms of structural, historical, and spatial injustices embedded in the energy system's colonial and post-colonial path-dependencies.

Decolonizing energy justice is a double task. First, it must account for the persistence of the CMP in the spatial and historical nature of energy

systems' design, deployment, and operation. This resonates with Horborg et al. (2019) call for energy justice to "take into account the continuities between pre-industrial labor, slavery, draft animals, windmills and water mills on the one hand, and the metabolism of modern energy technologies such as combustion engines (…) in putting other segments of global society to work through subtle displacement strategies" (992). This is essential in understanding how injustices are perpetuated through policies that seek to transition, decarbonize, integrate communities, and grant access to energy services under universalized modernization or development pretenses. Low-carbon development and green-growth transitions are anchored in a thermodynamic, monolithic view of energy that includes a worldwide reconfiguration of land. Spaces appear empty, ready for the taking; territories are reorganized while populations and life become extractible data (Gomez-Barris, 2017). The second task is to contextualize and de-fetishize energy by revealing humans and non-humans' entanglements with energy systems (Franquesa, 2018:13). It challenges understandings of energy as a "dead input"—an abstracted entity or a "physical force"—and directs our attention to the relationships energy produces, maintains, and destabilizes (Cederlöf, 2021; Haarstad and Wanvik, 2017).

V Justice from the ground up: towards landscapes of decolonial energy justice

Decolonial scholars have shown how indigenous and peasant struggles against the extractive forces of capitalism cannot be measured in strikes or demonstrations, but through their relationships and struggles to transform their land into a territory, a process that seeks to (re)constitute their spatial, political, and economic autonomies (Zibechi, 2020). A defining characteristic of these movements is their ancestral relationship with the land, a trait that informs a reciprocal relationship and highlights the possibility of living with one another and their surroundings in respectful, non-dominating, and non-exploitative ways (Coulthard, 2014: 60).

As Coulthard (2014: 60) argues, these struggles focus on space (place) rather than on time (which is centrally important for Western modernity via "progress" and "development"). There is an inherent incommensurability between these two ontological perspectives, where land (like energy) builds an ontological and relational framework between nature and society. Simpson (2016: 155) adds that land plays a pedagogical role, forming the basis for indigenous identities, thoughts, relationships, and beliefs. A sense of place and particular knowledges emerge from relationships with the land: "it is the place where our ancestors reside, where spiritual beings exist, and where the spirits of living plants, animals, and humans interact." The land is a way of knowing, experiencing, and relating to the world and others; situated knowledges emerge through relational practices within a territory to "guide forms of resistance against other rationalizations of the world that threaten to erase or destroy that collectively held sense of place" (Coulthard, 2014: 61).

Land cannot be reduced to its materialities but rather should be understood as a field of relationships between different beings. A sense of place enables a sense of being, experiencing, and relating to the world. The land "grounds" a system of thought and produces a different sense of ethics, which necessarily reconstitutes how people relate to their surroundings (Cariou, 2017). Coulthard and Simpson (2016: 254) call this "grounded normativity"—that is, a system of place-based ethics at the core of struggles for dignity and self-preservation and against the abstraction embedded in capitalist modes of oppression and dispossession. Through grounded normativity, we can problematize what is just, for whom, and how universal ideals of justice operate through the core tenets of energy justice.

As Temper's (2019: 104) decolonial analysis of environmental justice in Canada reveals, notions of participation are limited by the impossibility of instituting a self-governing authority—what is needed is epistemic justice and self-affirmation. Struggles in Latin America follow a similar pattern: in their struggle for autonomy, indigenous and peasant

movements (Esteva, 2011; Zibechi, 2011) unsettle the core tenets of energy justice through what Dinerstein (2015: 18) calls "*negative praxis,*" the process of negating or refusing recognition by and through the state, thereby enabling the creation of practical alternatives. Such a refusal blurs the modern separation of nature and society, unsettles private property relations through communitarian and collectivizing practices, privileges use over exchange-value, distinguishes between democracy and emancipation from the State, and seeks to create unique structures of governance, participation, and collective commitments (Barkin and Sánchez, 2019: 1423).

1 Energy landscapes as grounded normativity

The concept of energy landscapes helps geographers consider how material and physical changes to energy systems are ontologically and epistemologically contested through attachment to place. It challenges global capitalist expansionist representations of the landscape (Castán Broto and Sanzana Calvert, 2021; Milbourne and Mason, 2017). Energy landscapes describe "the constellation of activities and socio-technical relations associated with energy capture, conversion, distribution and consumption" (Bridge et al., 2013: 335). Landscape is more than a backdrop upon which energy systems are built—the landscape *does* several things.

First, landscapes locate and situate the heterogeneity and multi-scalar nature of energy systems, acting as "connective tissues" that mold the interactions between society and energy systems (Castán Broto, 2019). They mediate/shape the c**onnections between sites of energy production and consumption in an increasingly global metabolic relationship (Nadaï and Van der Horst, 2010). Second, geographers highlight a tension between experience and representation by showing how landscapes simultaneously reflect the social relations of domination and power under global capitalism (i.e., what is valued and what is "waste") and result from the material and performative interactions of humans and non-humans (i.e., they are constituted through everyday interactions on the ground) (Ingold, 2000; Olwig, 2002; Wylie, 2011). Finally, landscapes

emphasize the social processes and practices that shape energy systems and how these practices are themselves linked to the production of identities and imaginaries of modernity and development (Baptista, 2018; Kuchler and Bridge, 2018).

Kirshner et al. (2020) combine these dimensions, arguing that landscapes connect experience and memory with political histories and power dynamics in particular locations. The landscape preserves collective histories of oppression and the material legacies of extraction projects in particular places. Therefore, energy landscapes emerge from powerful groups' attempts to control people and places by reinventing the meanings of landscapes (Schama, 1995). As Castán Broto and Sanzana Calvert (2021) argue, capitalism relies on the transformation of specific localities to support the energy demands of its metabolism. Energy landscapes help us identify where and how such "sacrifice zones" are produced. These framings manifest in discourses and socio-technical assemblages seeking to define the meaning(s) and purpose(s) of the landscape (Bridge et al., 2018), allowing the powerful to "justify the way they belong and are entitled to take control of the landscapes they reinvent" (Fields, 2010). Hence, the landscape becomes a "non-human witness to social, economic and political forms of violence associated with colonialism, with the traumas of the past able to be read through the contours of the contemporary landscape" (Milbourne and Mason, 2017: 33).

Decolonial perspectives acknowledge the diverse colonial experiences of different countries and regions—places where histories of violence and dispossession are layered over and embedded into the spatial, symbolic, and physical infrastructure constituting energy systems (Castán Broto et al., 2018: 647). Such perspectives consider how the CMP continues to produce the mental and material category of modernity through particular forms of power, knowledge, and being that devalue, sideline, and/or stigmatize the alternative worldviews of marginalized sectors of society—such as indigenous peoples—and contribute to these groups' structural oppression. Other ways of knowing, being, and doing will emerge when the meanings imposed on the landscape by "outsiders" (i.e., settler-colonists) and the categories that facilitate the appropriation

and exploitation of nature (i.e., "second nature," "natural resources," "productivist nature") are removed (Milbourne and Mason, 2017: 32).

When energy justice is "grounded" in a set of contextual relations and interactions between humans and non-humans, the landscape becomes much more than a backdrop or a material feature of a particular setting. It simultaneously reveals the cultural values and emotional attachments of these material forms, directing our attention to the social injustices that result from the spatial arrangements and material legacies of energy production, distribution, and consumption. Following Mararena Gómez-Barris (2017: 11–12), I argue that "the possibility of decolonization moves within the landscapes." It lies in the multiplicity of "submerged knowledges" within the extractive zones of capitalism that appear as excess—challenges to obliteration—that cannot be reduced to *terra nullius*. Decolonial justice is only possible when "raising the submerged perspectives instead of subsuming them into the existing disciplinary epistemes" (Gómez-Barris, 2017: 12).

Therefore, the core tenets of energy justice must be grounded in the contested nature and meaning of landscapes and the struggles to transform their meanings and values along with the material and sociotechnical nature of the energy systems. As many have noted, this process is bound to accelerate as the carbon constraints of the climate crisis demand more land and minerals for renewable energy deployment (Bridge et al., 2013; Day, 2021). The CMP underpins energy justice tenets through unequal access to information and participatory spaces (Le Billon and Middeldorp, 2021; Torres-Wong, 2019), simulated practices of inclusion in the design and operation of energy systems (Dunlap, 2018), and infrastructure projects like pipelines, dams, wind and solar factories (Dunlap and Jakobsen, 2021; Estes, 2019; Simpson, 2014; Temper, 2019). The metabolic interconnections of capitalism—like increased exposure to resource mining and extraction, uneven access to energy services, and waste and pollution (Sovacool, 2021)—are experienced locally, often in distant landscapes represented as "wasted space."

As Cariou (2017) suggests, these processes are made visible by (re)embedding or grounding energy and contextualizing it as a socio-natural relation. Framing energy this way creates a sense of "intimacy," where value is derived from social use, not from its sameness, uniformity, and interchangeability. When energy is decontextualized, commodified, and circulated globally, it easily becomes fetishized and appears to have its own agency, blurring its entanglements with political power and its capacity to serve as a tool for subjugation and domination (Boyer, 2014; Franquesa, 2018; Huber, 2013; Mitchell, 2011). This sense of intimacy expresses energy through social relations, not scarcity (Illich, 2013; Szeman, 2019). For example, a forest-dwelling community might see no point in hoarding wood or depleting the forest to burn it but instead build an "intimate" relationship with the energy "source" over time (Lohmann, 2013).

Grounded normativity resists framing landscapes as reservoirs of resources (or energy) to be exploited through different technologies and practices (Allen, 2020). Rather, it notes how cultures and identities are built and materially shaped by relationships with the land. This insight forces us to reconsider how energy and energy systems become entangled with colonial and capitalist projects of domination, wherein energy is equated with nature and reduced to a resource for extraction, commodification, and global exchange. As political ecologists remind us, energy is not merely a resource; it is a political, socio-metabolic strategy for obtaining energy potential (Cederlöf, 2021). Extracting, harnessing, and/or exploiting energy under global capitalism reproduces a colonial narrative that sees landscapes as *terra nullius*—empty space amenable to abstraction and commodification via the various profitable technologies of the globalized system of production (Allen, 2020; Baka, 2017). Such colonial narratives reproduce a singular ontological practice that "cheapens" landscapes as wasted space from which to extract value (Baka, 2017; Moore, 2015).

A decolonial form of energy justice requires us to destabilize Modern and eurocentric notions like human rights and participatory democracy (Maldonado-Torres, 2017). This unsettling reveals the role that energy and energy systems play in

transforming landscapes and rendering extractible or wasted spaces through a matrix of symbolic, physical, and representational violence (Gómez-Barris, 2017:5). Landscapes reveal the multiple forms of resistance embedded in everyday practices against national imaginaries of development and modernization. The struggles shaping these landscapes are more than manifestations of Ecological Distribution Conflicts (EDC); they are struggles for (re)existence through processes that contest current policy and planning practices, expose the tensions of future energy transitions, and reveal other forms of the possible (Castan 1: 283).

Landscapes "embody different forms of energy and labor" (Olwig and Mitchell, 2007: 526). These "other" or vernacular forms of labor and energy are inconsistent with the projects of growth and development that render landscapes legible to investment, productivity, and efficiency (Lohmann, 2021). They constitute a radical relational alternative; in contrast, recognition, distribution, and participation (and deeper views like cosmopolitan and restorative justice) enable limited emancipation possibilities. They tend to fall back on the state and its policies to provide the framework for justice. Emancipatory struggles showcase how grounded normativity radically destabilizes the tenets of energy justice. Although energy systems and infrastructure expose the rather obdurate quality of state and institutional transformations (Boyer, 2014), possibilities for the emancipation and democratization of energy sovereignty exist in the alternative imaginaries of social organization in-against-and-beyond the state (Becker et al., 2019).

Grounding energy justice allows us to: (a) trace how apparently distant or dissimilar landscapes interact across sites of consumption, production, extraction, and distribution; (b) understand how landscapes are embedded in projects of modernity and national identity; and (c) examine how particular knowledges and worlds linked to landscapes are simultaneously framed as waste and contested through people's everyday practices, experiences, and intimacies with the land. Indigenous and peasant communities (in the North and South, rural and urban) operate from a grounded framework of justice based on communal limits that lays the foundations

for a renewed sense of energy ethics. They destabilize the core tenets of energy justice through demands for self-recognition, autonomy, and cognitive justice. Decolonizing energy justice requires seeing energy injustices through a whole-systems approach, while also disconnecting energy justice from the universalized/Western conception of justice and enabling other forms of emancipatory energy projects to emerge.

VI Conclusions

Traditional approaches to environmental, climate, and energy justice—which originated in the Global North—must consider the struggles against modernity that have shaped the lived experiences of peasant and indigenous communities. As Walsh (2018: 35) explains, "the struggles for and on territory and land as the base and place of identity, knowledge, being, spirituality, cosmo-vision-existence, and life, have long organized the collective insurgent praxis of ancestral peoples, identified as Indigenous, Afro-descendant, or Black, and sometimes as peasants or *campesino*." Situated knowledges emerge from relations to places and a defense of territories against the imposition of development projects (both physical and ideological). Energy justice must be informed by ethical frameworks of reciprocity and radical reformulations of justice, emancipation, and direct democracy that emerge from these struggles. However, recent assessments of energy justice tend to view energy and energy policy through a universalized and, at times, uncritical perspective linked to modernization, development, and a disregard for the historical and spatial nature of energy systems (e.g., Jenkins et al., 2016; Sovacool et al., 2017; Sovacool et al., 2019; Heffron, 2022). The core tenets of energy justice must be destabilized if the whole-system perspective is to account for the persistence of colonial forms of power, knowledge, and being in the Global South (Temper, 2019).

Political ecologists have helped unsettle our understanding of energy as a dead input or a fuel to drive modernity's progress. Their work has also challenged traditional approaches to environmental conflicts by framing activists as knowledge-producers. The framework emerging from these

EDC is the main source of knowledges resisting the universalized forms of energy justice deployed by Western modernity. It offers insights into energy's past and present roles in empire and colonialism (Daggett, 2019; Malm, 2016; Lohmann, 2021), the continuous cycles of accumulation under global capitalism (Moore, 2015), and the deployment of infrastructure for high-energy modernity (Boyer, 2014; Mitchell, 2011; Franquesa, 2018). As Blaser and de la Cadena (2018: 3) argue, high-energy modernity grants itself the right to assimilate all other worlds, presenting itself as exclusive and canceling any possibilities that lie beyond its limits.

The situated knowledges emerging from relationships with the land are built from a constant struggle for autonomy. As decolonial and indigenous scholars and social movements have shown, the struggle to occupy the state or use state power to achieve emancipation and/or recognition produces limited results. It tends to translate demands for "wellbeing" into a Westernized development model (See: Dinerstein, 2015; Esteva, 2011; López Bárcenas, 2011; Riofrancos, 2020; Zibechi, 2020). For example, Anthias (2018) shows how, during the declaration of Bolivia as a plurinational state, the struggles for territory emerged as a response to a history of colonial dispossession. These claims emerged alongside ongoing development agendas, struggles for recognition and control over resources where hydrocarbon interests collided with territorial rights. In other words, decolonization is not separated from the power relations that continue to enforce capitalist resource concessions, private property or state boundaries which are deeply entrenched in the extractivist logics of states like Bolivia. Alternative forms of emancipation focus on the possibility of organizing beyond the state and market, a process that begins with radical refusal or negation, and that ultimately "creates a new world of possibilities" by unsettling the given and enabling other prospects for attaining sovereignty, creating relationships, and giving them legitimacy (Simpson, 2014; Temper, 2019). Merging ontological politics with political ecology's work on energy and relationality can unsettle power relations and illuminate possibilities for alternatives grounded in the relational character

between humans and non-humans in a particular place.

The energy landscapes framework encourages us to see landscapes as more than the backdrop on which energy systems take shape. It highlights the phenomenological character of landscapes, revealing how struggles over land go beyond the distribution of environmental harms, recognition, or participation in the deployment of energy infrastructure. Landscapes are sites where people shape and make sense of the world in relation to "shared meanings and values" (Olwig and Mitchell, 2007). Struggles over the meanings of energy and land and the relationships between landscapes and everyday life highlight the multiple ways in which energy justice can be (re) formulated from the ground up.

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