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Assessing Elements of Energy Justice in Colombia: A Case Study on Transmission infrastructure in La Guajira

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Abstract

The United Nations declaration of a climate urgency in 2020 has intensified the need for change in energy systems across the world. This has resulted in political attention increasingly shifting to the development of low-carbon energy infrastructure. In the case of Colombia, the energy transition has brought a focus on the La Guajira region for its potential wind energy resources and the associated need for new transmission infrastructure. La Guajira is characterised by an extractive-based economy, poor socioeconomic performance and a large indigenous population. This research uses the energy justice framework to examine the justice dynamics that affect the acceptance of a proposed transmission line project. With a special focus on procedural, distributive and recognition justice, the findings that are also based on semi-structured interviews reveal interrelated equity concerns. They further highlight that recognition justice can be an underpinning force of a just transition to a low-carbon economy. The research results follow previous research but also significantly demonstrates that the roles of community advisors and experts are influential. They can foster or block energy justice. Further, this study provides evidence that the ongoing energy transition has a major hurdle of procedural justice through social acceptance. This has occurred in-part due to the legacy effects of the operations of conventional energy sources in the region. This advances the case that to achieve a just transition to a low-carbon economy, unjust legacy policies and actions of the fossil fuel industry have to be addressed.

Keywords: energy justice; La Guajira; Colombia; procedural justice; energy transition; community acceptance.

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Abstract

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Keywords: energy justice; La Guajira; Colombia; procedural justice; energy transition, just transition.

1. Introduction

Today the world needs new energy infrastructure for several reasons such as fostering economic growth, reducing energy poverty, and progressing the sustainable development agenda [1]. There is a need to ensure compliance with the framework of the 2015 Paris Agreement, which aims to limit the rise in temperature below 1.5°C including mitigating and adapting to climate change [2–4]. How the energy transition is achieved needs a balance between national security, economic competitiveness and environmental degradation, all of which impact on societal justice [5]. However, low-carbon energy projects and associated infrastructure do not escape negative externalities in their construction. Further, they suffer from the legacy effects of conventional energy projects which have created massive resistance, distrust and opposition [15,16, 9].

Justice concerns underpin community acceptance of renewable energy projects and associated infrastructure. As such, literature on the issue has seen an explosion of interest in the context of low-carbon transitions, enriching the energy justice scholarship. Existing literature highlights the quality of the decision-making and consultation process as critical levers for community acceptance [17,69,70]. There is also a preference for early-engagement, and a range of other negative characteristics such as a lack of trust in the project developer, lack of information about the project, spatial impacts such as place attachment, landscape aesthetics and property value as well as having a sense of control over the project [43,45,71,72].

This study applies the energy justice approach to the ongoing consultation process for a proposed transmission line in La Guajira, Colombia. In La Guajira, there have been too many experiences with the extractive industries which have left an an unbalanced relationship between energy-related activities and local communities [16], [17], [20]. These experiences show that local communities need the application of justice principles in the energy sector. Indeed, energy justice has not been a central component of energy planning in Colombia [28,29]. Energy justice theory examines what is needed to unfold acceptability and legitimacy in areas of high importance for the Colombian energy transition and electricity expansion plans. It is an analytical tool to potentially unpack critical justice issues surrounding energy transition dynamics in La Guajira while engaging and potentially measuring the ongoing community acceptance of energy development.

Transmission grid expansion is essential for the energy transition due to its capacity to foster system and market integration of low-carbon energy [23]. Public opposition remains the most cited obstacle, given their publicly controversial perceived effects leading to multiple inquires, delays, increased costs, and mistrust in the project developer [43–45] as already seen across South America [25]. Acknowledging that understanding the reasons of social discontent is key for fostering socio-energy systems [26], this study aims principally to address the following question: What are the critical (in)justices perceived in the overall process of community consultation and decision-making, and how they relate to community acceptance?

 The paper proceeds as follows. The next section describes the case study while section three outlines the methodology and conceptual framework. Section four presents the findings and discussion regarding procedural, distributive and recognition justice concerns identified in the overall community consultation and decision-making process of the proposed transmission and

their link to community acceptance. Finally, Section 5 draws some conclusions alongside lines for further research.

In Colombia, the transition to low carbon energy sources has been mainly driven by energy

security concerns. Its electricity mix heavily depends on hydro (Figure 1) which makes electricity generation extremely vulnerable to climate change effects and related hydrological

variabilities like El Niño [27]. Additionally, during those variabilities the share of thermoelectric

generation increases, driving up the sector's pollution as evidenced during El Niño periods in

2009-2010 and 2015-2016 [28]. Accordingly, the diversification of Colombia's electricity mix

made its first steps through power auctions that have secured more than 2,200 MW from 14

renewable energy projects planned for operation by 2022/23 countrywide [29]. They will

contribute significantly to increasing low-carbon energy from renewables wherby it represented

less than 1% in the electricity mix in 2018 (Figure 1), and is expected to rise to about 14% in

3 4

2. The Case Study – The Transmission Project in La Guajira

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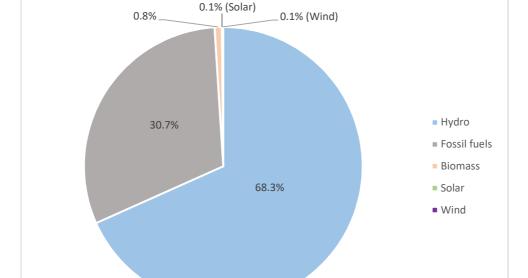
2.1: Background

19

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Figure 1. Colombian electricity mix (2018).

2022-23 [30] – though this is unlikely due to the delays in building this infrastructure.



21 22

Source: [31]

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27 28 The La Guajira region is particularly important for the energy transition in Colombia. There, wind blows at 9.8 m/s on average almost all year around. And while 5m/s is referred to as the minimum for wind energy generation [32], classifying it as Class Seven makes it alongside the Patagonia region as the only two regions in South America with such high wind classification [33]. The estimated potential of the La Guajira region alone is between 18 GW to 21 GW of capacity, similar to twice the current national demand [34]. Wind energy development in the region can also complementary to hydro since during periods of water shortage the average wind speed tends to increase [32]. Hence, La Guajira will host nine out of the 14 projects awarded in the auctions representing 1,577 MW of wind energy capacity i.e., about 9% of the country's total installed capacity. The national plans are ambitious and there are plans for 57 wind parks and over 5,000 MW of installed capacity by 2030 [35] which all will require new transmission infrastructure. Significantly, most of those projects are projected to be in indigenous territories, particularly from the Wayúu ethnic group which is the largest in Colombia and represents 41% of La Guajira's population [36].

La Guajira's resource and multicultural richness contrasts with its poor socio-economic reality. The extraction of coal and natural gas over the past 40 years underpins regional GDP with a *circa* 40% share, and despite this such a contribution does not bring many positive benefits [16]. Moreover, multidimensional and monetary poverty rates are well above the national average standing at 53.3% and 52.6% respectively; and in addition, child mortality due to malnutrition is the highest in the country at 45 out of every 100,000 children under 5 years old [36]. As a result, the Inter-American Court of Human Rights declared in the Resolution 60 of 2015 precautionary measures by the Colombian state for the special protection of Wayúu communities. Later, the Constitutional Court declared La Guajira a territory where an unconstitutional state of affairs exist. In particular, this was in reference to the massive infringement of constitutional rights including the rights to health, drinkable water, food and participation. The Court has condemned the government for such omission of compliance [37].

 The experiences with the long-standing extractives industries in La Guajira have left an unbalanced relationship between energy-related activities and its inhabitants. There have been multiple allegations of minority groups' displacement, negative environmental impacts and a lack of social justice [12,34] supported by the government poor regulatory and audit procedures [18]. There is also a negative precedent due to the only grid-connected wind park to date in the country, located in indigenous territory in La Guajira. This project has disrupted ancestral territories and triggered controversy over consultation processes [36,37] which have led to Wayúu communities interrupting the operations or even destroying equipment.

Very few studies have focused on La Guajira's ongoing developments and those that have report strong signals of opposition in general [10,73]. Improved understanding of the social dynamics of low-carbon infrastructure projects operations is needed and often the project's contribution to socio-economic development is misunderstood [34]. Importantly, too a more active role from the government in consultation processes that consider the demands and rights of indigenous communities is required [39]. Regarding the upcoming wind energy developments and associated infraestructure, González and Barney [35] pointed out flaws in consultation processes from the majority ofprojects. Their work has been certainly influential as the basis for the "Procuraduría General de la Nación" (PGN) to issue orders to the Mining and Energy Planning Unit (UPME), the Ministry of Mines and Energy (MME) and environmental authorities for the protection of indigenous peoples rights [40] alongside requesting the suspension of the Colectora project until a proper Free Prior and Informed Consent (FPIC) is carried out; until March 2022, consultations were not suspended. Other studies have suggested the prospect of building energy infrastructure in La Guajira depends heavily on the social relations established with the Wayúu

communities which tend to be unstable and taking actions for example such as going beyond formal spaces of consultation in culturally sound and collective-oriented gift-giving exercises is beneficial [41].

The past energy transitions in Colombia have proritised economic and technological aspects while neglecting the social impacts of those energy systems e.g., the construction of hydropower dams [26]. Also, delivering electricy access in marginalised rural areas have shown procedural injustices due to the non-engagement of local populations through meaninful participation [42]. There have been a large number of consultation processes where local communities have opposed mining and hydrocarbon activities despite pre-existing Corporate Social Responsibility expenditure [21]. Fracking activities have also suffered strong opposition not precisely driven by their implications for climate change, but by its potential social and environmental negative impacts [43]. Regarding NCRES, previous research has suggested market acceptance as the most important barrier for their implementation [44]. However, support mechanisms such as tax incentives under Law 1715 of 2014, Renewable Standard Portfolio (RSP) and power auctions have facilitated market acceptance as evidenced by the increased installed capacity.

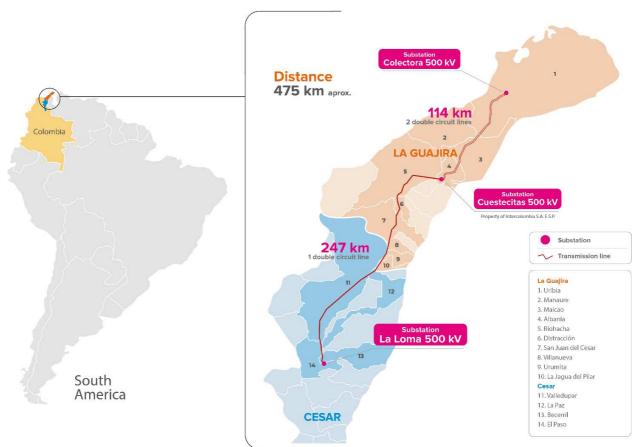
2.2: The Colectora project

 The research question is based on a proposed 500 kV substation in the municipality of Uribia connected to two parallel 500 kV transmission lines from there to the Cuestecitas substation in the municipality of Albania (La Guajira) and which in turn is connected through a transmission line to La Loma substation in the municipality of La Loma (Cesar); this is outlined in **Figure 2** below. The project developer is Grupo Energía Bogotá (GEB), a mixed company (the municipality of Bogotá owns 65,7% of its shares) which covers 20% of the Colombian electricity transmission market [45]; this company has also international opertions in Perú, Brazil and Guatemala.

The project is framed under the Reference Generation and Transmission Extension Plan 2015-2029 [46] laid out by UPME as the entity in charge of defining and announcing the expansion works of the national grid in order to meet energy demands. The project was awarded a public tender UPME 06 – 2017 which is mostly referred to as "Colectora 1". Its goal is to collect and transmit the electricity produced by seven out of the nine wind farms awarded in the auctions to the national energy grid. The seven wind parks represent 1,050 MW of capacity [47]; see **Table 1** and **Figure 3** and this represents *circa* 66% of the expected capacity to be in place in La Guajira by 2023.

 The project was selected as the case study given its importance as the backbone of the energy transition in La Guajira. It should be noted that even if the seven wind farms are constructed, there is no chance to transmit the electricity to consumers without the development of Colectora. Under a scenario without Colectora, windfarms will have to buy energy from other generators or from the wholesale market in order to comply with their Power Purchase Agreements (PPAs) [48]. As such, it was designated as a Project of National Strategic Interest within the Environmental Impact Assessment (EIA) submitted to the National Environmental Authority (ANLA).

Figure 2. The Colectora substation and associated transmission lines.



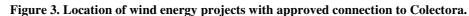
Source: Adapted from [49].

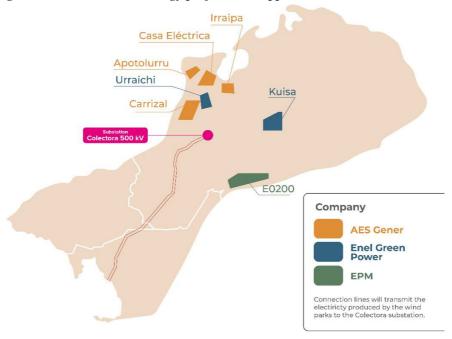
Table 1. Wind projects with approved connection to Colectora.

Company	Project	Capacity (MW)
EPM	EO200 Ipapure	201
AES Gener	Irraipa	99
AES Gener	Carrizal	195
AES Gener	Casa Eléctrica	180
AES Gener	Apotolurru	75
Enel Green Power	Kuisa (Tumawind)	200
Enel Green Power	Urraichi (Chemeski)	100
Total		1,050

Source: [47].

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Source: Adapted from [47]

The project involves building around 1,016 transmission towers covering up to 475 km of longitude with an estimated value 174 million dollars [50]. It covers territories in 10 out of the 15 municipalities of La Guajira and in four municipalities of Cesar (**Figure 1**). Therefore there is a duty to consult 224 indigenous and ethnic communities including Kogui, Wiwa, Arhuaco, Kankuamo and Wayúu ethnic groups. Hence, it triggers the need to carry out a FPIC process according to the International Labour Organisation (ILO) convention 169 [51]. It is indeed the biggest FPIC ever carried out in Colombia [52]. Consultations happen on the basis that indigenous territories are collective land and, as such, they have the rights of ownership [53]. Therefore, with no option for land leasing or purchasing, compensation is in the form of paying dividends to indigenous communities [41]. At least three types of compensation were identified through the interviews depending on the type of affectation:

1. Socio-cultural compensation

It corresponds to compensation for the alteration of communities' socio-cultural practices. It is a monetary value given once in time and in kind. It will be in the form of collective community projects normally offered based on a portfolio of projects previously submitted. The portfolio of projects could include for example, water filters and storage units, handicraft production, agricultural units for self-consumption, tourism, and composting. There are two forms of socio-cultural compensations, and all the communities will be provided with at least one of them.

The first is due to *compensation for the use of roads*. Here compensation is given where communities are affected by the transit of vehicles, personnel, and heavy equipment from

and to the project sites. The community project to be implemented can have the maximum value of 100 million Colombian Pesos (COP) (about USD 26,707).¹

The second is for *compensation for expectations*. This is where compensation is given when community expectations have been created by their possible inclusion to be affected by the project. However, after a reconfiguration of the project activities or revaluation of the impacts, those communities are excluded. Expectations have been created and a community project for a maximum of COP 35 million is arranged (about 9,347 USD).²

2. Compensation for the usage of the territory

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This is only for those communities with transmission infrastructure located on their property. It is an established value for squared meter (m²) which rounds from 200 to 3,000 COP (0.05 USD to 0.8 USD).³ It includes the concept of payments as a requirement by law [56] of proportional indemnification to the owner for the right of transiting on a property.

3. Compensation for losses to the ecosystem.

fo e p

It happens when there are losses in the ecosystem due to the impacts of project activities in, for example, flora and fauna [56]. Those losses should be replaced in another place ecologically equivalent to the impacted one [56,57] with guidance of the environmental planning authority. The activities to carry out these compensations involve the development of a baseline study to characterize aspects such as functions and composition of the different species, ecologic integrity, ecosystem services and landscape context [56].

These compensation schemes are bilaterally negotiated during the FPIC process which remains the major bottleneck o project development. Indeed, the "Procuraduría General de la Nación" (PGN) alleged the project lacked a proper FPIC since communities' right of participation was being infringed [40] and requested its suspension which, up to now, has not happened. Up to July 2021, there were critical difficulties to reach an agreement in 49 out of the 224 communities to be consulted (22%) due to pre-existing conflicts (on a range of other issues) in the community that were not caused by the company, yet were further deepened by its arrival [58]. Initially, the project was expected to start construction in February 2021 and to operate from November 2022 [47]. However, the company estimates operations to start in February 2024 given the abovementioned issues and delays associated with the COVID-19 pandemic in the EIA and FPIC fieldwork processes [59].

Noteworthy, in the framework of ILO convention 169 and relevant Colombian jurisprudence, communities have the right to be provided with external experts with the knowledge and experience that communities often lack for analysing a project impacts [60]. This aims to balance the power in terms of information asymmetry and allow a proper representation of interests; particularly, in relation to procedural and distributive justice. Importantly, experts are paid by the project developer [60] and normally chosen by the community on the basis of a pre-existing relationship however, this does not guarantee impartiality nor expertise.

¹ Using the average exchange rate in 2021 of 1 USD = 3744.29 COP [54]

² Using the average exchange rate in 2021 of 1 USD = 3744.29 COP [54]

³ Using the average exchange rate in 2021 of 1 USD = 3744.29 COP [54]

3. Methods and Conceptual Framework

Based on the case study above, the analysis presented here combines a literature review that feeds into the use of the conceptual framework and semi-structured interviews. The research is exploratory given the burdens imposed by COVID-19, the large-scale nature of the project and the limited context-based literature regarding justice implications of the ongoing energy transition in La Guajira. Energy justice theory was adopted as the conceptual framework. Energy justice has emerged as a relatively new investigative field aiming to analyse where (in)justices occur throughout the energy lifecycle and, particularly, in the context of low-carbon transitions [61]–[63]. It does so by applying justice principles to energy policy, energy production and consumption, energy activism, energy security and climate change [62] while seeking to balance the energy trilemma (of economics -finance, politics – energy security and the environment – climate change) [22].

Energy justice and its potential as an ethical framework for the energy industry can help unpack critical socio-economic complexities and serve as a vehicle for decision-makers to engage with justice concerns [125]. The origins of energy justice are deeply rooted in the environmental and climate justice movements, yet those other forms of justice focus less on the origin of the event and appear when it has already happened while energy justice aims to address injustice and inequality issues before the event happens [63] i.e., in early stages of project planning. This is an important feature that makes the concept appealing to the current reality of the case study, which at the time of the research the community consultation processes are underway.

As such, the energy justice theoretical construct encompasses the analysis of five forms of justice [21]. Each one can be applied at different stages of the energy supply chain in order to analyse where (in)justices occur [61], [65], [66]:

- Distributive justice: Concerns the allocation of benefits and costs of the energy sector through space and overtime. It is inherently spatial, including the siting of infrastructure. (e.g., are revenues from energy developments shared sufficiently? Who suffers the environmental damages?)
- Procedural justice: Focuses on the idea of due process and compliance of the full legal steps. (e.g., do affected stakeholders take part in the decision-making? Are all steps of a full environmental impact assessment observed?)
- Recognition justice: It focuses on ensuring the protection and respect of rights and identities of the different groups of society (e.g., recognition of historical territorial rights).
- Restorative justice: It places the focus on the reparation of any injustice from the energy sector. The harm caused to any individual should be rectified and particular laws should be enforced in that sense (e.g., return energy sites to former use, ensure waste management and decommissioning are properly done).
- Cosmopolitan justice: It considers we are all citizens of the world and the effects of local
 activities should be considered on a more global perspective. i.e., think about crossborder effects of energy systems.

From these forms of justice, we focus on distributive, procedural and recognition, commonly known as the "triumvirate of tenets" [64,65] as a way of narrowing down the study to given its exploratory nature and to allow an in depth understanding rather than broadening the scope with limited contextualised literature. We relied on a literature review to outline some of the implications of attaining each justice tenet in the context of low-carbon transitions and renewable energy infrastructure (See **Appendix 1**). Importantly, **Appendix 1** does not intend to be an exhaustive list of aspects related to distributive, procedural and recognition justice, rather its aim is to serve as supporting material to structure interviews' guiding questions. For example, drivers for procedural justice were based on [67], [68] and for distributive justice on [7], [11]–[13], [69]–[73]. Given the more holistic approach to justice of the recognition tenet and its emphasis on rights' recognition, the *Renewable Energy and Human Rights Benchmark* developed by the Business and Human Rights Resource Centre served as pragmatic inspiration for the identification of its drivers. It proposes energy specific indicators on high-risk areas for renewable energy companies pursuing a responsible human rights performance [74].

In accordance with previous research that used case studies and interviews as part of their methods [61–63], interviewing was used to prove the framework and allow in depth insight from key informants with direct roles in the consultation and decision-making process. Ten semi-structured interviews ranging from 40 to 60 minutes were performed targeting three different stakeholders: firms' representatives, Wayúu members and government representatives (see **Table 2**). Interviews included a traditional figure in the Wayúu culture known as Pütchipü'üis or "palabreros" (orators) as moral authorities and experts in resolving conflicts (see [78]). Participants were identified through the snowball or networking effect [79] based on their level of involvement as well as their previous experience and knowledge. From all interviews, three were conducted via face-to-face and the rest via telephone given the barriers imposed by social distancing (due to COVID-19) and the lack of internet access in most indigenous communities which undermines any online interaction.

Table 2. Interviews' participants, names are codes.

	Identif ier	Affiliation	Selection criteria
ves	F1	Direct employee of the project developer	Senior employee, influential in early decision-making.
entati	F2 Working with the consult charge of the FPIC process		Member of the Wayúu ethnic group, extensive experience in consultation processes.
Firm's representatives	F3	Working with the consultancy in charge of the EIA.	Environmental specialist, extensive experience in consultation processes for energy-related projects.
Firm	F4	Working with the consultancy in charge of the EIA.	Extensive experience in consultation processes within indigenous territories from anthropologic perspective.
ers	Advisor to Wayúu communities in the consultation processes.	Advisor to Wayúu communities in the consultation processes.	Member of the Wayúu ethnic group, extensive experience from a law perspective.
Wayúu members	C2	Community leader, Pütchipü'üi.	Clan authority, member of the Independent General Assembly of Pütchipü'üi".
ıyúu 1	C3 Community leader.	Their community was under the consultation process with the company.	
Wa	C4	Community leader.	Their community has come to an agreement with the company.

esentatives	G1	Procuraduría General de la Nación	Part of a governmental institution in charge of defending and promoting rights from an integral perspective.
nent repr	G2	Ministry of the Interior	Extensive experience in consultation processes.
Govern	G3	Corpoguajira (Regional environmental authority)	Extensive experience in consultation processes, especially regarding environmental impacts and compensations.

Due to the grade of subjectivity involved, there is a reputational risk minimized through anonymization and the use of codes (Table 2). Individual interviews were considered a more flexible approach than arranging focus groups or workshops due to restrictions related to the COVID-19 pandemic. Interviews were transcribed and thematic content analysis (based on the literature review) was applied to inductively assign codes based on common themes such as words and phrases of interest that emerged with frequency [80] Hence, the majority of the codes were *in vivo* codes which were then linked to each energy justice tenet driver. For example, "lack of information about the project" is regarded as an issue of procedural justice related to its driver "adequate and timely information".

The Colombian case reflects the provenance of one of the researchers which made it relatively easy to establish first contact with the interviewees and build up trust. However, this poses a researcher bias risk managed through the "interviewing the interviewer" technique which helped identifying pre-study thoughts and assumptions in order to manage subjectivity [81]. Cross-examination of information across oral and written sources also helped reduce the risks of interviewer and social desirability bias. Telephone interviews do have their limitations including more difficulty to achieve rapport and a tendency to provoke shorter responses compared to face-to-face interviews [82]. To overcome those, warm up questions were made as a way of introduction and to build confidence. Questions were also formed to be open which allows a more conversational interaction instead of leading the interviewee [79].

There is growing evidence around attaining justice being essential for achieving acceptance in low carbon transitions. Elements of procedural justice such as effective participation, early engagement in decision making, timely information, impartiality, information disclosure, among others are all shown to be vital to achieve acceptance (e.g., [83], [84]). Further, ensuring a fair distribution of costs and benefits affects acceptance too (e.g., [12]). Additionally, ensuring the protection and respect for rights and identities (recognition justice) contribute to building trust and agency which, in turn, remains a key vehicle for achieving social acceptance by meeting four conditions: insight, self-efficacy, utility, and identity [15]. All in all, addressing injustices is considered as a pre-condition for securing social acceptance [85].

Agency remains a vehicle for social acceptance by meeting four conditions: insight, self-efficacy, utility, and identity [15] here articulated with the other justice forms. The importance of agency in relation to social acceptance lies on the fact that public participation *per se* is not a guarantee of social acceptance. Yet, social acceptance is understood as an emotional

identification with the project that can be positively influenced by meeting the four aforementioned conditions [15]. They involve a degree of agency and a sense of personal control over the project that, in turn, creates an emotional identification with it.

To-date, there has been limited reflection on how to transfer the energy justice framework into practice [64], [76], [87]–[89] and on how it can inform community acceptance incorporating indigenous perspectives [88], [90]–[93]. More work needs to be done to foster a meaningful inclusion of indigenous concerns in the energy justice research and policy development processes [94]–[96]. Moreover, there is a prevalence for defining rather than applying the framework within a policy context [89] and most of energy justice core case studies originate from within developed countries while few evaluations arise from developing countries [97]; however, that is changing with some studies exploring human rights and energy justice [126]. Further research is needed using energy justice in developing countries with multicultural geographies to avoid the perpetuation of existing impacts and the emergence of new ones, considering that more than 85% of electricity demand will come from emerging markets and developing countries by 2050 [3].

4. Results of the analysis

4.1 Procedural justice

 One of the key aspects of procedural justice concerns the EIA process which involves carrying out a FPIC as a fundamental right of indigenous peoples. Based on the ILO Convention 169 - adopted in Colombia through the Constitution of 1991 - the FPIC establishes the State duty to consult indigenous and tribal people on any legislative or administrative decision that can directly affect their livelihood [51]. The ILO 169 Convention also safeguards a compendium of human rights such as the right to decide their own priorities for development, retain their own customs and institutions, self-determination, and autonomy.

The findings from this study show key procedural justice issues around communities' legitimate representation, an unbalanced company-community negotiation on compensation and undue pressure suffered by the community from both the company and community advisors. These issues arise from a lack of information about the project and its business model, and due to indigenous communities' socio-economic organization. The undue pressure suffered by communities questions the ethics of the personnel working in FPIC process. There is abundant literature that regards procedural justice as essential among local communities when discussing renewable energy projects [8], [84].

4.1.1 Issues of legitimate representation and participation

 Acknowledging participation is not the panacea for enhancing community acceptance, rather its success depends on the quality of the process and the understanding of the context [15]. In this case, interviewees (in this research) often referred to a lack of knowledge from both the company and the State about the socio-economic conditions and the structure of Wayúu communities. Each Wayúu community has its *Ancestral Authority* in charge of decision-making, also referred to as the *Clan Authority* [98]. However, through Decree 1088 of 1993 another figure was

created: *Traditional Authorities*, which figure as the legal representatives [99] normally used as a political figures and community representation against administrative instances to, for example, gain access to governmental programs and during exercises of FPIC. Indeed, Decree 1320 of 1998 states in its Art. 5 that it is the *Traditional Authority* who shall participate in the process of consultation and elaboration of the EIA [100].

 These two authorities are often in conflict since the *Traditional Authority* is perceived as an imposition from the government [98] which goes in contravention of Art. 13 of the ILO Convention 169 which states "governments shall respect the special importance for the cultures and spiritual values of the peoples concerned of their relationship with the lands or territories" [51]. In this sense, this figure might be legitimate for some communities while not for others, as F4 suggests: "We went for the traditional authorities which are the ones certified by the Ministry, but the ancestral ones said straight away the negotiation was with them since they were the ancestral owners... You don't know that when you are in Bogotá sitting at a desk". Hence,

this poses a critical gap between legality and legitimacy that leads to procedural injustices.

This issue of representation could be addressed through developing a comprehensive socio-political review before the consultation starts. It should go beyond the identification of authorities since decision-making can rest in different members depending on the community, as C1 stated: "in some Wayúu communities participation lies only on the APÜSHI [maternal line], others might have a community assembly, and there are exceptions where the ACHON [paternal line] are the ones making decisions". As such, participation depends on the particular socioeconomic organization of a community and, therefore, a comprehensive review to identify those cultural-normative aspects are important to manage expectations. This demonstrates that although projects are often the foci of legitimacy, stakeholders are as well, based on having or not legitimate claims [101].

In this regard, there is no clear demarcation of who should perform such a review. The Ministry of Interior is the one in charge of clarifying whether ethnic communities are present or not in the project of influence which is the area were significant impacts of the project manifest in ecological and socioeconomic systems. This identification often goes alongside fieldwork for the establishment of certain items such as communities traditional economy, rituals, territories, and cultures [102]. Yet, as per the interviews, that fieldwork exercise often lasts around one week, not enough for a more detailed analysis. However, Constitutional Court ruling T-172 of 2019 did order the Ministry of Interior to conduct an ethnologic study for the determination of cultural, social, and political organizational aspects of the Wayúu [103]. It acknowledged the crisis that the Wayúu have been through and that was partly due to the State. Companies are also the key stakeholder too and they should take their time to establish a solid intercultural relationship and comprehend the Wayúu normative system which, in words of G2: "it [the Wayúu normative system] is complex enough to generically call it customs and traditions". The failure to understand and engage with the social structure and vision of the various individuals in the network that form the "community" is a common issue in gaining the social-license-to-operate [104], an issue present in this case further worsened by the government limited capacity.

4.1.2: An unbalanced negotiation

Compensation schemes are subject to a bilateral company-community negotiation from where fairness concerns emerge and are resolved. Concerns are based on a perceived lack of information about the project and its business model which often if circulated in documentary form is too technical as suggested by C4: "there are a lot of terminology that if you don't study them you are lost. They tell us information, but what do we understand? nothing... If we don't understand that's not their problem, it's our problem". This does not allow communities to have a clear overview of the project and its effects, and which therefore undermines meaningful participation and building trust. In addition, Wayúu's native language is Wayuúnaiki, and interviewees pointed out challenges in translation services. For example, during meetings it often follows the particular methodology of translating someone's discourse sentence by sentence as they speak, implying pauses and restarts that undermines the coherence and clarity of the message.

Energy companies need to clearly communicate the risks of a project to avoid public opposition, embedded in the business paradigm of the "right to know" [15]. Accordingly, omitting information can eventually result in disputes that can be avoided if meaningful information sharing exercises are in place from early stages, as suggested by C2: "We understand things with time... With one company [a windfarm] we have already protocolized the agreement, now that we know more stuff, we feel scammed, and we want to reverse the agreement". Partial results of environmental studies related to EIAs are frequently desired to be disclosed to the community according to the interviews. It might be the case that the limited access to information by the developer is part of a strategy to ensure compensation or land use payment remain low and to also avoid further negotiations on remediation measures [88].

A lack of information and expertise undermines communities' capacity to identify impacts and negotiate compensation schemes; a clear issue of procedural and distributive justice. These issues lead to power imbalance as suggested by C3: "communities often do not have professionals in the matter and companies come with a whole machinery of professionals like lawyers, accountants, engineers to negotiate with one community authority alone... it is a fight of a tiger against a tied donkey". In this regard, some interviews claimed that communities' access to information increases when having higher levels of education, Spanish language skills, and knowledge of legal instruments to make formal information claims. Although having the right to be provided external expert services can sometimes undermine the collective benefit (as will be seen in Section 4.4).

Furthermore, there is not a clear role for regional government institutions in terms of mediation. Indeed, they were commonly seen as not playing any. As C1 puts it: "I imagine this is not a priority for the governor, we have not seen functionaries from the regional government or secretary of indigenous affairs, not even the municipality... they are leaving communities on their own luck". Governments' have a critical role as intermediaries for enhancing participation and protecting their citizens' rights [105]. However, in La Guajira, government efforts to enable natural resource exploitation at the expense of weak control over corporate responsibility have contributed to the major decline in trust in the State [104,105]. This makes it hard to associate the government with impartiality, as C4 suggests: "The government should be here, but it is

better like it is... If they are not accompanying its better since they only look for their own benefit... Take more benefits, that's what they know how to do...". It is clear that government institutions are seen as appearing when there is a vested interest in a private or public development for them rather than the local communities.

4.1.3 Undue pressure

Concerns about local communities feeling under pressure comes from two sources in particular: from the company and from the community advisors. Pressure from the company to reach fast an agreement is framed under national legislation considering Art. 4 of *Law 1715 of 2014* and the *Law 2099 of 2021*. These state that the development of NCRES is a matter of public utility and social interest and as such it is a priority in land use planning, environmental planning and other activities, such as administrative processes including forced expropriation. Further, the Colectora project has been regarded a Project of National and Strategic Interest in accordance with the National Economic and Social Policy Council (CONPES) 3762 of 2013 for having a powerful impact in Colombia's development. Therefore, it has received financial support from the government for prioritising the completion of the FPIC [109].

International experience also demonstrates that this is a problematic issue for developers, landowners and communities; see for example [108]) which analyses the legal insecurities for all sides. All La Guajira all these issue together pose pressure on the community, as F4 stated: "Company employees were telling if the community did not want the project, they will be out of any compensation scheme and the project will go on any way". In this scenario, the abovementioned regulations are seen as facilitating energy investments toward meeting urban demands while disregarding the protection of ancestral lands, communities' autonomy and participation guarantees. There is also extra pressure from the fact that communities do not have right to veto under the FPIC process (see for example [110]). In Colombia, even when indigenous communities say no to a project, the State has the last word with a decision that should be based on parameters of objectivity, reasonableness and proportionality in terms of the degree to which the interests of traditional communities are affected [111]. Ironically, therefore, it is the perception of the local community that the State is absent in the process but yet it is the one deciding their destiny.

On the other hand, undue pressure and intimidation from community advisors was related to the perception of them as stakeholders with broad experience in consultation processes in the oil and gas industry. Therfore the perception is they are mainly driven by economic interests as G2 suggested: "ultimately, the advisor is who guarantees that [the community] will obtain more compensation". Advisors (experts) are paid by the company per the stage of the process,⁴ resulting in pressure on communities to accept or not agreements based on maximizing outcomes, as argued by F2: "When the advisors are present, they [the community members] are not that participative, during the meetings they delegate everything to the advisors... The advisors manipulate them". The issue is further explored in the recognition justice section.

⁴ FPIC stages in Colombia have been mainly based on presidential directives, they are outlined in Appendix 1.

4.2 Distributive Justice

Issues of distributive justice were mainly driven by an over-focus on economic compensation and its relationship with concerns about their distribution. The issue is framed into the socio-economic background, i.e., whereby local communities tend to see any project being developed in their territory as the solution for their historic deprivations. In contrast, companies argue they do not intend to replace the State's duties to ensure the realization of socio-economic and cultural rights.

4.2.1 An overfocus on economic compensation

Under the ILO Convention 169 communities shall participate in the benefits of a proposed project/activity wherever possible and shall receive fair compensation from the damage resulting from it [51]. Distributive justice in the form of compensatory measures showed to be a contested topic that has lead to division and disagreement. For example, it was the most explicit concern as displayed in this comment by C3: "There should be harmony between a good process and good outcomes, but at the end of the day is all about money... It's important to have good payments, otherwise projects can be stopped". These compensation schemes (see earlier **Section 2**), also had other concerns revolving around their relevance to the local context, their distribution of the finances and their top-down assignation.

Although the Wayúu economy is largely based on subsistence and cultural practices such as the payment of offenses and dowries, the new dynamics around wind energy businesses has shaped the Wayúu relationship with the wind, i.e., from a damaging force into a valuable resource for material prosperity [41]. In this sense, compensation has moved beyond the traditional view of the loca context where community projects benefitted and these said projects lacked orientation towards profit generation and were mainly based on providing self-consumption goods i.e., building on the notion of an economy of subsistence. This is reflected on C2 comments: "No one can come here and say the benefits of such a project will be just in kind or employment, culture has evolved and there are created needs to be meet with money".

Regarding compensation's distribution of finance payments, the fact that compensations are one-off payments for the whole project lifecycle leaves critical concerns about the successful permanence of community projects' overtime as well as issues of intergenerational justice. Once community projects are established, they have a one-year monitoring period and this is too short to review whether projects with limited profit generation will be economically sustainable overtime. Instead, an annually distributed compensation is preferred, representing a way of enhancing control over the territory in terms of a continuous relationship and the delivery of intergenerational justice. The proposed infrastructure will have an impact on future generations that must be considered as a factor for future opposition as pointed out by C4: "They [the company] are giving just one value for the 25 years of contract, it is unfair since they are changing the territory in an incredible way... Impacts in the future must be seen and it is important that future generations do not feel scammed".

Community projects come within a portfolio previously elaborated by the company which entails a top-down assignation of compensations that limits the inclusion of communities' preferences.

This leads company personnel to manage a "this is what we can offer" discourse in most cases, as related by C3: "they [the company] arrive with a total [amount of money] to which we have to adjust ourselves". Yet, as pointed out by F4: "Under the table we [company personnel] can tell them [the community] to make a counterproposal if they see the projects do not convene them... However, it is up to the company personnel who attend the meeting since not everyone advises communities that way..." This poses a burden not only to distributive justice but procedural justice too, considering the lack of information and negotiation capacity. It also limits compliance with the International Finance Corporation (IFC) standard No. 7 (20) which states benefits should aim to address communities' preferences [112].

Some interviewees argued communities are the affected ones and, as such, community members should be able to provide a starting point for negotiation i.e., a more bottom-up process to define compensation. However, it makes the case for strategic essentialism to emerge whereby there is "a strategic use of positivist essentialism in a scrupulously visible political interest" [113]. In essence, this permits the community to mobilise their specific identity under the framework of a FPIC that guarantees economic rights or benefits that communities probably did not have before, as put by G2: "everyone wants prior consultation not for the protection of their culture, but for generating economic benefit". The monetary valuation of cultural impacts is often amplified by strategic essentialism and often collides with the company's attitude of scepticism towards indigenous traditional beliefs and informal institutions, as suggested by C3: "They [indigenous traditions] are not because we want or we made them up, they are part of our livelihood and culture and often they [the company] think we are inventing it". Addressing this issue requires a scenario of meaningful engagement whereby companies recognise indigenous practices while indigenous people are fully able to communicate them; this crosses both into distributive and recognition justice.

Additionally, the figure of compensation for ecological loss does not benefit the community where the loss has happened since it is recovered in a different area. This approach falls short of fully making sense of the bio-cultural character of the Wayúu culture, where every component of the environment has life and soul including rocks, rivers, land and wind [114]. Therefore, biodiversity losses configure a cultural affectation as well that should be compensated directly to the affected communities, as suggested by G3: "If trees are cut down in one community and were before used by them [community], then it is not an environmental affectation but sociocultural and socioeconomic as well. They should be replenished at least in the same site".

4.3 Recognition Justice

Recognition justice underpins not only procedural but also distributive justice since the idea of due process and impacts' allocation are firmly grounded in recognizing disadvantaged populations identities, rights and needs [27,91]. Three key issues arose regarding recognition justice: rights' unawareness and external advice, concerns about livelihood restoration plans, and issues of agency and empowerment. The most prominent one was the controversial role of advisors (experts) provisioned as a community right during FPIC processes. It should be noted that recognition justice can be the cornerstone for furthering the application of the other forms of justice.

4.3.1 Rights' unawareness and external advice

 An energy transition that is fast and fair will have to put people and their rights in the centre to ensure that no one is left behind [61]. Indigenous peoples are particularly vulnerable to potentially losing aspects of their identity, culture and subsistence. In this case, the view that communities' were not aware of their rights was recurring during the interviews and recognised by the very people from the consultancy in charge of the EIA as displayed by F4: "Supposedly during the pre-consultation and opening stages, it is explained what the FPIC is and what their [the community] rights are... It normally lasts one day and [communities] are bombarded with decrees, laws, numbers and years which serves for nothing". In this sense, Art. 30 of ILO Convention 169 states governments shall adopt the necessary measures to make known to the communities their rights and duties [51]. Additionally, IFC Standard No. 7 states companies shall ensure indigenous peoples are informed about their rights with respects to their land and in accordance with domestic law [112]. This means rights awareness lies on a complemented responsibility between the company and the host State.

The exercise of the community right to have advisory services was strongly contested regarding its role and scope for at least three reasons detailed below.

- (1) Firstly, *right unawareness*: interviewees stated communities often do not know they have this right and neither the project developer nor the government let them know, as C4 suggested: "That is only if you ask for it and if you previously knew others were provided with that... It is only for the ones who found out they have that right; we don't have advisory because we did not know".
- (2) Secondly, broad requests by the community: for example, where communities ask for numerous kinds of advisors, most unneeded, as displayed by G2: "Communities often ask for an environmental engineer, a lawyer, a cadastral engineer... Even anthropologists have been requested for social advisory... It means they understand the consultation rather as a business opportunity".
- (3) Thirdly, an often profit-oriented service: Advisors' main concern should be ensuring rights and culture protection through helping the community to identify impacts from an impartial viewpoint. In this sense, advisors are key for ensuring distributive justice since the right identification of impacts leads to a more balanced negotiation of fair compensations. However, in some cases, advisors were prominently seen as a guarantee of getting more compensation and that they were people with an overwhelming self-interest since, besides the payment received by the company, they asked for a percentage of the communities' compensation, as suggested by F2: "They [advisors] are paid by the company and the cheapest advisory costs [COP] 60 million [USD 16.024], something like [COP] 3 million per month [USD 801]6... yet one advisor even asked communities a 30% of their compensation and in another community they asked the 20%".

Getting a lower or higher compensation depends on the ability of the community and its advisor(s) (if any) to negotiate, as G2 points out: "If the community considers that the impact is big and expects more money... The matter there is about negotiation and having that skill to

⁵ Using the average exchange rate in 2021 of 1 USD = 3744.29 COP [54]

⁶ Using the average exchange rate in 2021 of 1 USD = 3744.29 COP [54]

reach an agreement"; again this reflects on the key relationship between procedural and distributive justice. Hence, it is controversial since when the impacts are similar in two communities and negotiation skills are different among them, then a community would get a more favourable compensation than the other. This issue triggers notions of non-transparency and non-proportionality that poses critical precedents for opposition and territorial fragmentation due to the dynamics of inclusion and exclusion that leave achieving different agreements per community. As displayed by C1: "When a community finds out another one is getting more money, logically they will feel mocked and, at the time of installation, they will stop it for the feeling of being scammed". This has already resulted in conflicts among communites, hindering understanding of the overall project [35].

4.3.2 Strategies for livelihood restoration plans

The fact that compensations are one-off payments for the total lifecycle of the project raises concerns what will happen in the future in particular, about how to comply with IFC standard No. 5. This standard recognises restrictions on land use due to project activities that can lead to involuntary resettlement either in terms of physical displacement, i.e., the relocation or loss of shelter and/or economic displacement, the loss of income sources or means of livelihood [116]. It considers therefore restorative justice by aiming to "improve, or restore, the livelihood and standards of living of displaced persons" through strategies such as Resettlement Action Plans or Livelihood Restoration Plans established during impacts assessments [116] i.e., in initial stages of public consultation.

Based on the Colombian technical and legal guidance for electrical installations in Colombia - Technical Regulations of Electrical Installations (RETIE) [117] - the Colectora project does imply certain degree of economic displacement. This is because below the powerlines it is not possible to have tall crops, buildings, houses, or any other structure providing shelter for people, animals, or permanent commercial activities. Hence, traditional slash-and-burn agriculture⁷ practices for enhancing crops will not be possible under powerlines. Interviewees showed concerns about the right identification of the land used for these practices considering their economic value for subsistence and bartering goods as well as their cultural value as normally inherited from ancestors after generations of usage for growing medical plants [118]. Yet, as suggested by F1: "those practices have been overlooked, they have not received the deserved importance... Often people think everything can be economically compensated but it's difficult when you don't consider traditionally used sites' importance".

Although the company's strategy of compensating once is also accompanied by a one-year monitoring period for community projects, it is unclear how economic displacement will be addressed beyond the immediate short-term. On that note, participants perceived limitations in the planning of these compensatory strategies toward economic means restoration, is best seen in the words of F3: "I see with concern the reestablishment of economic means, there is no compromise by the company, I sadly see them [the company] compensating once and then disengaging from communities". In this regard, the IFC Standard No. 5 dictates guidelines for

⁷ Traditionally used by Wayúu communities. It consists of cutting down vegetation and burning it as a way of fertilising the land.

the establishment of plans [116] which are only considered completed when the impacts of the resettlement have been addressed and adequate opportunities to re-establish their livelihood are given. Those plans involve carrying out a socio-economic review to identify those who will suffer displacement and therefore those who are eligible for assistance. It is an exercise that should consider an appropriate disclosure of information and informed participation of the affected, reflecting on the inter-realtionshop between recognition and procedural forms of justice.

Importantly, IFC Standard No. 5 recognises employment opportunities as alternative sources of income that can be provided for restoration purposes [116]. Yet these opportunities are limited in this case, as displayed by F4: "jobs will be just for the communities with towers in their territory... Around 6 people will be needed for building one tower, some with technical expertise coming from outside, and it's done in roughly one week... There won't be jobs for even one person from each community". This uneven distribution of jobs in the construction phase can lead to opposition since only providing jobs to communities with towers can widen pre-existing economic gaps with the rest of communities.

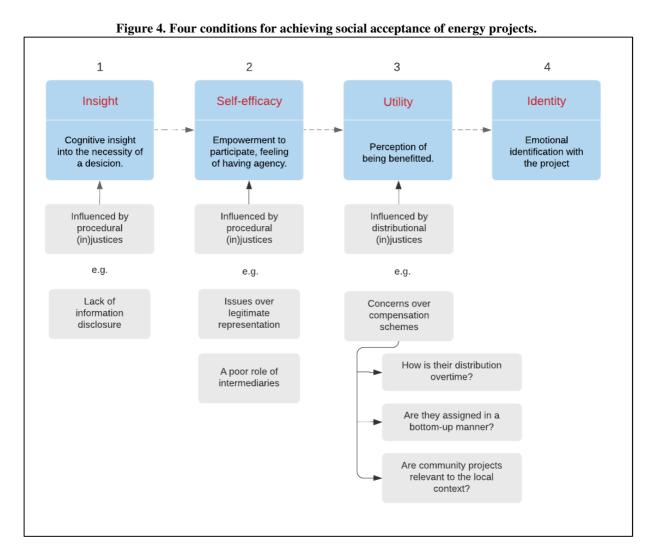
4.3.3 Agency and empowerment

 Attitudes of acceptance and support toward projects imply certain degree of agency [115]. The issues mentioned above such as lack of information, communities being unaware of their rights and limited knowledge from the company about communities' traditional practices subvert the agency of participants to actively contribute to the energy transition. These, plus the State's failure to recognise communities' legitimate representation (see **Section 4.2.1**), hinder the company's capacity to acknowledge local values, affectations, and peoples' identity. Those aspects are critical for appropriately comprehending the impacts that a certain activity generates as well as the future ones. Indeed, wind energy projects and associated infrastructure in La Guajira are increasingly perceived by indigenous communities as a threat to their identity and culture over time [38]. This is similar to other locations of Latin America where indigenous communities see renewable energy development as essentially a threat to their survival due to rights violations and new dynamics of resourse exploitation [84]. It should be noted that part of the reason for these perceptions is the legacy effects from the fossil fuel industry and their operations.

Placing the focus on recognition justice is a way of empowerment that has the potential to ensure better participation in a scenario where participants' rights are clearly known and exercised. In this sense, recognition justice may take other names, for example, when asked about benefits allocation C2 argued: "First there should be cultural justice, like a juridical justice where all cultures are treated as equals... If that does not happen, is difficult to talk about a fair distribution of benefits". It reflects on the importance of recognition justice as the starting point for the achievement of other form of justice such as distributive and procedural.

Recognising peoples' identities, rights and needs alongside promoting empowerment and agency remains key for achieving acceptability [15]. Four conditions that influence this process (see **Section 3**) are articulated here with the findings to display how (in)justices identified disrupt each step in **Figure 4** below and as detailed below:

- (1) Step 1, described as *insight*, is heavily influenced by issues such as lack of information about the project and lack of clarity about its impacts. These issues prevent communities from getting the necessary cognitive insight into the actual necessity of the project and why the decision to develop it has been taken.
- (2) Step 2, called *self-efficacy*, is about the level of personal control, agency and empowerment through public engagement. These are being undermined by an illegitimate representation in many cases and a poor role of intermediaries which potentially impact the perception of personal control over their territories and future.
- (3) Step 3, known as *utility*, is the sense of being benefitted by and from the project. In this case, concerns about compensation schemes in terms of their financial distribution in time, relevance to the local context and top-down assignation places different challenges.
- (4) Step 4, is *identity* and is achieved when there is an emotional identification with the project. It relies on the achievement of the previous steps and, therefore, is severely affected as suggested by the issues mentioned before and in particular when considered voer the project life-cycle, i.e. from planning, to construction to operation and to decommissioning. The latter area and the therefore relationship to restorative justice is a crucial area of future research.



5. Conclusions & Next Steps

This research conducted interviews to stakeholders involved in the ongoing consultation process of an electricity transmission project in La Guajira (Colombia) utilising energy justice theory – in particular, procedural, distributive and recognition justice. It demonstrates how energy justice can be used as an analytical tool to analyse and engage with fairness concerns affecting the strength and quality of community acceptance.

 In terms of procedural justice, the key issues identified were communities' legitimate representation, the unbalanced negotiation and undue pressure. These issues are rooted in the failure to understand the socioeconomic structure of indigenous communities, worsened by the State inaction. Also, a lack of information about the project and its business model leads to power unbalance at the time of negotiating, considering that communities lack the capacities and expertise to identify impacts. Regarding distributive justice, the findings highlight an overfocus on economic compensation alongside concerns about reaching different compensation agreements in communities with similar identified impacts.

 Recognition justice concerns are identified as crucial to the process and involved rights unawareness, limitations in livelihood restoration plans, and agency and empowerment. Some of these issues identify with the existing energy justice research. However, other results reveal issues that have received scarce s attention in the past and in particular, the role of community advisors as being highly influential for the achievement of energy justice in a scenario of community-company negotiation framed in FPIC processes. Their role as actors with technical knowledge and expertise is expected to focus on helping the local community to identify project impacts, manage right unawareness, and guarantee a fair compensation. Yet, if not closely monitored and regulated, they can undermine energy justice when driven by economic self-interest and the pressure they may resultingly place on communities to reach potentially unfair agreements.

Restorative justice issues emerged too in the form of livelihood restoration plans recognised by global standards, reflecting on the interrelation between the different forms of justice and the importance of further integrating it in the energy justice agenda as suggested by scholars [24,95]. Restorative justice represents a clear area for future research.

The limited actions of public institutions and lack of broad public discussion raise critical concerns regarding whether there is a real commitment from the government to discuss justice issues in the energy transition. From a corporate view, wind energy is perceived as less intrusive compared to the coal mining activities in the region [41]. Yet, there is a need to address this legacy and demonstrate clearly how the low-carbon sector has moved beyond the strategies of the fossil fuel sector in managing stakeholder relations. The common narratives among political elites such as "here the most benefitted will be the indigenous communities" [120] are not substansial, sufficient and are in effect unhelpful to achieving action at a local level for both companies and local communities. Findings show evidence that achieving the Electricity Expansion Plan 2019-2033 strongly requires community acceptance based on addressing justice

principles. This is necessary too to ensure the socio-economic costs of energy planning are integrated into the upcoming just transition strategy announced in the Colombian Nationally Determined Contribution (NDC) remains key [121]. After all, it must be acknowledged that oppositional activism and therefore a lack of stakeholder engagement remains a real threat to achieving climate targets and developing the pathway to a just transition to a low-carbon economy [125].

The research will be valuable to energy planning practitioners, energy companies and those seeking to improve participation within and during consultation processes, pursuing just outcomes and the imperative of energy justice. Admittedly, this research has some limitations since it analyses a small sample of interviews compared to the number of communities in the project impact area, the focus was more on having deeper insights into certain topics rather than making more broad generalisations. The results are context specific and therefore difficult to be generalised to another setting. Yet, this study identifies key justice concerns and articulates with issues of the social acceptability of the project. Also, as per the research gap identified, this study represents an advancement in the integration of energy justice principles into a local scale of analysis. It highlights the need for more research into the 'social-license-to-operate' and how that develops over the energy project life-cycle from planning to development to operation and to decommissioning.

Future research could replicate the methodology used here in other geographical contexts. Also, it could expand the study of energy justice regarding renewable energy developments in La Guajira through further exploring restorative and cosmopolitan forms of justice. Although energy access was not addressed fully within the interviews, low-carbon energy projects and associated infrastructure have the potential to make essential contributions to the achievement of UN SDG 7 if energy access takes shape through community development agreements. Accordingly, it will be interesting to expand this notion and model the impacts of those developments either individually or collectively against the SDGs considering supply chains and corporate governance decisions.

The right to a fair process is not simply a call for inclusion in decision-making in both informal and formal ways, it also calls for involvement in delivering more just and equitable outcomes in society; further it will highlight wehter energy policy is a success or a failure, and if the latter it should be changed [126]. The energy justice framework allowed for an integrative research approach to analysing justice in the development of the transmission project – see in brief the Table 4 below. This includes issues of procedural justice such as communities' legitimate representation, unbalanced negotiation for compensations and undue pressure both from the company and from community advisors. For its part, recognition justice concerns communities' lack of knowledge of their rights, limitations in livelihood restoration plans, and issues of agency and empowerment. While some findings follow previous research, others show new issues scarcely researched before such as the role of community advisors as a community right during Free Prior and Informed Consent (FPIC) processes [60] and their critical role in achieving fair compensation schemes. It should also be noted that in future research in the area it is necessary to focus on the need for justice rather than notions of some type of limited energy democracy [127] and this is particularly important with the onset of analysing impacts on human rights from energy projects [128].

Table 4: Key

Table 4. Key	
Form of Justice	Main concerns for each Form of
	Justice
	Legitimate representation
Procedural	An unbalanced negotiation
	Undue pressure
Distributive	An overfocus on economic
	compensation
	Rights' unawareness and external
	advice
Recognition	Strategies for livelihood restoration
	plans
	Agency and empowerment

1 **Appendix 1**. A conceptual framework for energy justice in renewable developments.

Energy justice tenet	Principles/drivers	Considerations in the context of low-carbon transitions	
Procedural justice ⁸	1- Full participation ⁹ in the process.	Encompassing all elements of the project with opportunities for deliberation, mobilization of local knowledge as trusted local agents, active engagement of the public (especially for infrastructure siting), capacity building leads to a more effective participation.	
	2- Ability to be heard and express opinions freely.	Formal and informal information channels, legitimate representation, proper representation of interests.	
	3- Adequate and timely information ¹⁰ .	Full disclosure of information, combination of technical and non-technical approaches, early notification, publicly available information.	
	4- Impartiality of the decision maker.	Institutional representation, mediation and facilitation.	
	5- Being treated with respect.	Connected to issues of legitimacy and deeply rooted on a real understanding of the community e.g., norms, local customs of land use, religious sites.	
	6- Decisions that are correctable in the face of new information.	Timeframe for discussing and making decisions, avenues for raising issues.	
Distributive justice	Fair allocation of costs. *Making sure the costs are born evenly. And		

⁸ The principles/drivers of procedural justice are drawn from Lynn A Maguire and E Allan Lind, 'Public participation in environmental decisions: stakeholders, authorities and procedural justice' (2003) 3 International Journal of Global Environmental Issues 133 and E Allan Lind and Tom R Tyler, *The social psychology of procedural justice* (Springer Science & Business Media 1988)

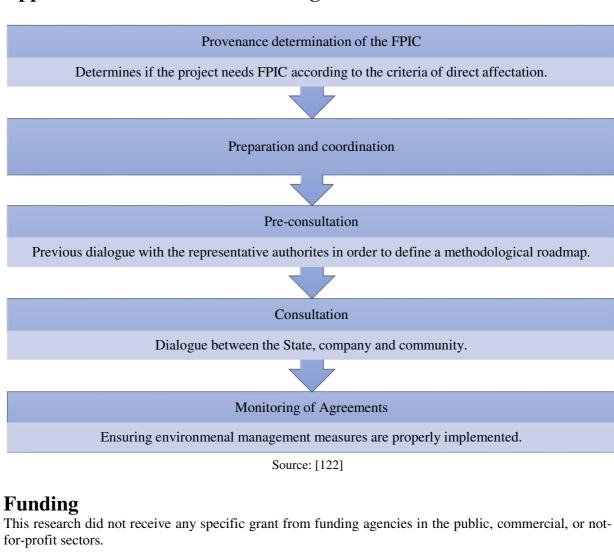
⁹ Considering that the public participation spectrum starts with informing, consulting, involving, collaborating and empowering. For more see IAP2 (2004) *Public Participation Pillars*. Available at: https://cdn.ymaws.com/www.iap2.org/resource/resmgr/Communications/A3_P2_Pillars_brochure.pdf (Accessed: 21 January 2021).

¹⁰ This principle holds close relation with the Aarhus convention and its equivalent in South America: the Escazú convention.

	2. Fair allocation of benefits. *Providing clear benefits as a result of the development.	Employment, energy access, decentralization and ownership opportunities, profits, responsibility for action, electricity costs, subsidies, vocational and educational tourism, energy security, energy independence, local tax income, community projects, compensation schemes including loss of property value, community development funds, transcend from energy sacrificed zones concept.
	Based on the <i>Renewable energy and Human Rights Benchmark</i> (Centre, 2020) and its Renewable energy specific indicators:	Moving from negotiation towards rights, from subjectivity to operationalize the relevant normative. To meet the indicators the benchmark considers:
Recognition justice	 Indigenous Peoples' and Affected Communities' Rights. Land Rights. Security and High-Risk contexts. HR and Environmental defenders. Labour, health and Safety. Right to a health and clean environment. 	UN Global Compact, UN Declaration of Human Rights, UN Guiding principles on business and Human Rights, OECD Guidelines for multinational enterprises, ILO Core Labour Standards, UN Declaration of Human Rights of Indigenous Peoples, UN Voluntary Guidelines on the Responsible Governance of Tenure of Land, IFC Performance Standards, Equator Principles, The Voluntary Principles on Security and HR, OECD Guidance on Responsible Mineral Sourcing, Espoo Convention,
	7. Transparency and Anti-corruption.8. Equality and inclusion.	OECD Convention on Combatting Bribery of Foreign Public Officials, ILO convention 190, ILO convention 169.

Sources: Created by Authors, 2022.

Appendix 2: Overview of FPIC stages.



References

- [1] F. F. Nerini *et al.*, «Mapping synergies and trade-offs between energy and the Sustainable Development Goals», *Nat. Energy*, vol. 3, n.º 1, pp. 10-15, 2018.
- 19 [2] IRENA, «Global Renewables Outlook: Energy Transformation 2050», IRENA, 978-92-20 9260-238-3, 2020.
- 21 [3] IEA, «Net Zero by 2050: A Roadmap for the Global Energy Sector», 2021.

- [4] IPCC, Climate Change 2021: The Physical Science Basis. Contribution of Working Group I
 to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change,
 Combridge University Press. 2021.
- 4 [5] B. K. Sovacool, R. J. Heffron, D. McCauley, y A. Goldthau, «Energy decisions reframed as justice and ethical concerns», *Nat. Energy*, vol. 1, n.º 5, pp. 1-6, 2016.
- 6 [6] R. Wüstenhagen, M. Wolsink, y M. J. Bürer, «Social acceptance of renewable energy innovation: An introduction to the concept», *Energy Policy*, vol. 35, n.° 5, pp. 2683-2691, 2007.
- P. Villavicencio Calzadilla y R. Mauger, «The UN's new sustainable development agenda and renewable energy: the challenge to reach SDG7 while achieving energy justice», *J. Energy Nat. Resour. Law*, vol. 36, n.º 2, pp. 1-22, 2017, doi: 10.1080/02646811.2017.1377951.
- [8] O. Renn, F. Ulmer, y A. Deckert, *The role of public participation in energy transitions*.
 London: Academic Press, 2020.
- 15 [9] R. Heffron, R. Connor, P. Crossley, V. L.-I. Mayor, K. Talus, y J. Tomain, «The
 16 identification and impact of justice risks to commercial risks in the energy sector: post
 17 COVID-19 and for the energy transition», *J. Energy Nat. Resour. Law*, pp. 1-30, 2021, doi: 10.1080/02646811.2021.1874148.
- 19 [10] L. Keir, R. Watts, y S. Inwood, «Environmental justice and citizen perceptions of a proposed electric transmission line», *Community Dev.*, vol. 45, n.º 2, pp. 108-121, 2014.
- 21 [11] L. Mundaca, H. Busch, y S. Schwer, «'Successful' low-carbon energy transitions at the community level? An energy justice perspective», *Appl. Energy*, vol. 218, pp. 292-303, 2018, doi: 10.1016/j.apenergy.2018.02.146.
- 24 [12] C. Gross, «Community perspectives of wind energy in Australia: The application of a justice and community fairness framework to increase social acceptance», *Energy Policy*, vol. 35, n.º 5, pp. 2727-2736, 2007, doi: 10.1016/j.enpol.2006.12.013.
- 27 [13] M. Cotton y P. Devine-Wright, «Discourses of Energy Infrastructure Development: A Q-28 Method Study of Electricity Transmission Line Siting in the UK», *Environ. Plan. A*, vol. 29 43, n.º 4, pp. 942-960, 2011, doi: 10.1068/a43401.
- [14] D. Apostol, J. Palmer, M. Pasqualetti, R. Smardon, y R. Sullivan, *The renewable energy landscape: Preserving scenic values in our sustainable future*. Taylor & Francis, 2016.

33

- [15] P.-J. Schweizer y J. Bovet, «The potential of public participation to facilitate infrastructure decision-making: Lessons from the German and European legal planning system for electricity grid expansion», *Util. Policy*, vol. 42, pp. 64-73, oct. 2016, doi: https://doi.org/10.1016/j.jup.2016.06.008.
- 36 [16] W. Avilés, «The Wayúu tragedy: death, water and the imperatives of global capitalism», 37 *Third World Q.*, vol. 40, n.º 9, pp. 1750-1766, 2019, doi: 10.1080/01436597.2019.1613638.
- 38 [17] N. Healy, J. C. Stephens, y S. A. Malin, «Embodied energy injustices: Unveiling and politicizing the transboundary harms of fossil fuel extractivism and fossil fuel supply chains», *Energy Res. Soc. Sci.*, vol. 48, pp. 219-234, feb. 2019, doi: 10.1016/j.erss.2018.09.016.
- 42 [18] C. Strambo, A. C. González Espinosa, A. J. Puertas Velasco, y L. M. Mateus Molano, 43 «Contention strikes back? The discursive, instrumental and institutional tactics 44 implemented by coal sector incumbents in Colombia», *Energy Res. Soc. Sci.*, vol. 59, p. 45 101280, ene. 2020, doi: 10.1016/j.erss.2019.101280.

- 1 [19] F. De La Hoz, «Después de tres meses se levanta bloqueo en el parque eólico Jepirrachi en La Guajira», *EL Heraldo*, 19 de marzo de 2017.
- 3 [20] S. Avila, «Environmental justice and the expanding geography of wind power conflicts», 4 *Sustain. Sci.*, vol. 13, n.° 3, pp. 599-616, may 2018, doi: 10.1007/s11625-018-0547-4.

6

7

20

21

22

23 24

25

- [21] R. J. Heffron, L. Downes, O. M. Ramirez Rodriguez, y D. McCauley, «The emergence of the 'social licence to operate' in the extractive industries?», *Resour. Policy*, oct. 2018, doi: https://doi.org/10.1016/j.resourpol.2018.09.012.
- [22] V. Martínez y O. L. Castillo, «Colombian energy planning Neither for energy, nor for Colombia», *Energy Policy*, vol. 129, pp. 1132-1142, 2019, doi: 10.1016/j.enpol.2019.03.025.
- 11 [23] A. Steinbach, «Barriers and solutions for expansion of electricity grids—the German experience», *Energy Policy*, vol. 63, pp. 224-229, dic. 2013, doi: https://doi.org/10.1016/j.enpol.2013.08.073.
- [24] N. L. Cain y H. T. Nelson, «What drives opposition to high-voltage transmission lines?»,
 Land Use Policy, vol. 33, pp. 204-213, jul. 2013, doi: https://doi.org/10.1016/j.landusepol.2013.01.003.
- 17 [25] R. de S. Ferreira, H. Rudnick, y L. Barroso, «The Expansion of Transmission: The
 18 Challenges Faced in South America», *IEEE Power Energy Mag.*, vol. 14, n.º 4, pp. 54-64,
 19 2016, doi: 10.1109/MPE.2016.2547281.
 - [26] V. Martínez y O. L. Castillo, «The political ecology of hydropower: Social justice and conflict in Colombian hydroelectricity development», *Energy Res. Soc. Sci.*, vol. 22, pp. 69-78, dic. 2016, doi: https://doi.org/10.1016/j.erss.2016.08.023.
 - [27] J. Arias-Gaviria, S. Carvajal-Quintero, y S. Arango-Aramburo, «Understanding dynamics and policy for renewable energy diffusion in Colombia», *Renew. Energy*, vol. 139, pp. 1111-1119, 2019, doi: 10.1016/j.renene.2019.02.138.
- 26 [28] IEA, «CO2 emissions by energy source, Colombia 1990-2017 [online]», 2020a.
- [29] Ministerio de Minas y Energía, «Evolución Energética». 2019. Accedido: 7 de marzo de
 2022. [En línea]. Disponible en: https://www.energiamayorista.com.co/wp-content/uploads/2019/10/14.00-Ministra-MinMinas.pdfe
 - [30] Ministry of Mines and Energy, «Así avanza la nueva energía», 2020.
- 31 [31] XM, «CEN por área operativa y tipo fuente», 2022.
 32 https://sinergox.xm.com.co/oferta/Paginas/Informes/CapacidadDpto.aspx (accedido 7 de marzo de 2022).
- [32] L. Obregon, G. Valencia, y J. Duarte, «Study on the Applicability of Sustainable
 Development Policies in Electricity Generation Systems in Colombia», *Int. J. Energy Econ. Policy*, vol. 9, n.º 6, pp. 492-502, 2019, doi: 10.32479/ijeep.8375.
- 37 [33] W. Vergara, A. Deeb, N. Toba, P. Cramton, y I. Leino, «Wind Energy in Colombia», 2010.
- [34] G. Carvajal-Romo, M. Valderrama-Mendoza, D. Rodríguez-Urrego, y L. Rodríguez-Urrego, «Assessment of solar and wind energy potential in La Guajira, Colombia: Current status, and future prospects», *Sustain. Energy Technol. Assess.*, vol. 36, 2019, doi: 10.1016/j.seta.2019.100531.
- 42 [35] C. González Posso y J. Barney, «El viento del Este llega con revoluciones: Multinacionales
 43 y transición con energía eólica en territorio Wayúu». Instituto de Estudios para el desarrollo
 44 y la paz., 2019.
- 45 [36] UNDP, «La Guajira: Retos y desafíos para el Desarrollo Sostenible.», 2019.

- 1 [37] *Sentencia T-302*. 2017, p. 358. [En línea]. Disponible en: https://www.dejusticia.org/wp-content/uploads/2018/06/T-302-de-2017_Guajira.pdf
- 3 [38] C. Noriega, «The Green Erasure of Indigenous Life», 2020.
- 4 [39] H.-E. Edsand, «Identifying barriers to wind energy diffusion in Colombia: A function analysis of the technological innovation system and the wider context», *Technol. Soc.*, vol. 49, pp. 1-15, 2017, doi: 10.1016/j.techsoc.2017.01.002.
 - [40] Procuraduría General de la Nación, «Inciso 3o artículo 144 la Ley 1437/11 y numeral 4 artículo 161 ibidem.», 2020.
- 9 [41] S. Schwartz, «Wind extraction? Gifts, reciprocity, and renewability in Colombia's energy frontier», *Econ. Anthropol.*, vol. 8, n.º 1, pp. 116-132, 2021, doi: https://doi.org/10.1002/sea2.12192.
- 12 [42] J. Tomei *et al.*, «Forgotten spaces: How reliability, affordability and engagement shape the outcomes of last-mile electrification in Chocó, Colombia», *Energy Res. Soc. Sci.*, vol. 59, p. 101302, ene. 2020, doi: 10.1016/j.erss.2019.101302.
- [43] C. Strambo y A. C. González Espinosa, «Extraction and development: fossil fuel
 production narratives and counternarratives in Colombia», *Clim. Policy*, vol. 20, n.º 8, pp.
 931-948, sep. 2020, doi: 10.1080/14693062.2020.1719810.
- [44] A. M. Rosso-Cerón y V. Kafarov, «Barriers to social acceptance of renewable energy
 systems in Colombia», *Biotechnol. Bioprocess Eng. Process Syst. Eng.*, vol. 10, pp. 103-110, nov. 2015, doi: 10.1016/j.coche.2015.08.003.
- 21 [45] GEB, «¿Quiénes somos?», 2021.

8

- 22 [46] UPME, «Plan de expansión de referencia generación transmisión 2015 2029», 2015.
- [47] E. Moreno, «Proyecto colectora y su importancia para el Desarrollo e Interconexión de los
 Proyectos Renovables de La Guajira», 2018.
- [48] O. Ahumada, «Los nubarrones que se posan sobre las energías renovables en el país», *El Tiempo*, Bogotá, 5 de septiembre de 2020.
- 27 [49] GEB, «Colectora 500 kV UPME 06 2017 La Guajira y Cesar», 2021.
- 28 [50] GEB, «Proceso de consulta previa: pre-taller de identificación de impactos», 2020.
- [51] ILO, «Understanding the Indigenous and Tribal Peoples Convention, 1989 (No.169)»,
 2013.
- 31 [52] GEB, Informe de gestión sostenible 2020. 2021.
 - [53] Constitución Política de Colombia Art. 63. 1991.
- [54] Exchange Rates, «US Dollar to Colombian Peso Spot Exchange Rates for 2021».
 https://www.exchangerates.org.uk/USD-COP-spot-exchange-rates-history 2021.html?msclkid=810b3e98a35311ec81bede711d5925c7 (accedido 14 de marzo de 2022).
- 37 [55] Law 142 Art. 57. 1994.
- [56] Ministerio de Ambiente y Desarrollo Sostenible, «Manual de compensaciones del componente biótico». 2012. Accedido: 13 de marzo de 2022. [En línea]. Disponible en: https://www.minambiente.gov.co/documento-entidad/manual-de-compensaciones-del-componente-biotico/?msclkid=3fc42abda33111ec8d23bab6a378aeab
- 42 [57] M. Sarmiento, L. Buitrago, N. Abello, A. Escalas, A. López, y W. Cardona, «Lineamientos para compensaciones ambientales en territorios étnicos.», 2019.
- 44 [58] GEB, «Panel: Comunidades indígenas con energía sostenible [webinar].», 2021.
- 45 [59] UPME, «Informe estado de avance generación y transmisión», 2020.
- 46 [60] *Sentencia T-969*. 2014.

- 1 [61] R. J. Heffron y D. McCauley, «Achieving sustainable supply chains through energy justice», *Appl. Energy*, vol. 123, pp. 435-437, 2014, doi: 10.1016/j.apenergy.2013.12.034.
- 3 [62] K. Jenkins, D. McCauley, R. Heffron, H. Stephan, y R. Rehner, «Energy justice: a conceptual review», *Energy Res. Soc. Sci.*, vol. 11, pp. 174-182, 2016.

- 5 [63] R. J. Heffron y D. McCauley, «What is the 'Just Transition'?», *Geoforum*, vol. 88, pp. 74-77, 2018, doi: 10.1016/j.geoforum.2017.11.016.
 - [64] R. J. Heffron y D. McCauley, «The concept of energy justice across the disciplines», *Energy Policy*, vol. 105, pp. 658-667, 2017, doi: 10.1016/j.enpol.2017.03.018.
- 9 [65] D. A. McCauley, R. J. Heffron, H. Stephan, y K. Jenkins, «Advancing energy justice: the triumvirate of tenets», *Int. Energy Law Rev.*, vol. 32, n.° 3, pp. 107-110, 2013.
- 11 [66] K. Jenkins, D. McCauley, R. Heffron, H. Stephan, y R. Rehner, «Energy justice: a conceptual review», *Energy Res. Soc. Sci.*, vol. 11, pp. 174-182, 2016.
- 13 [67] L. A. Maguire y E. A. Lind, «Public participation in environmental decisions: stakeholders, authorities and procedural justice», *Int. J. Glob. Environ. Issues*, vol. 3, n.° 2, pp. 133-148, 2003.
- [68] E. A. Lind y T. R. Tyler, *The social psychology of procedural justice*. Springer Science &
 Business Media, 1988.
- 18 [69] P. Devine-Wright, «Beyond NIMBYism: towards an integrated framework for understanding public perceptions of wind energy», *Wind Energy*, vol. 8, n.° 2, pp. 125-139, 2005, doi: 10.1002/we.124.
- 21 [70] N. Hall, «Can the "social licence to operate" concept enhance engagement and increase 22 acceptance of renewable energy? A case study of wind farms in Australia», *Soc. Epistemol.*, 23 vol. 28, n.° 3-4, pp. 219-238, 2014.
- [71] N. Hall, J. Lacey, S. Carr-Cornish, y A.-M. Dowd, «Social licence to operate: understanding how a concept has been translated into practice in energy industries», *J. Clean. Prod.*, vol. 86, pp. 301-310, 2015.
- 27 [72] K. Corscadden, A. Wile, y E. Yiridoe, «Social license and consultation criteria for community wind projects», *Renew. Energy*, vol. 44, pp. 392-397, 2012.
- [73] J. Colton *et al.*, «Energy projects, social licence, public acceptance and regulatory systems
 in Canada: A white paper», *SPP Res. Pap.*, vol. 9, n.º 20, 2016.
- 31 [74] Business & Human Rights Resource Centre, «Renewable Energy & Human Rights
 32 Benchmark: Key Findings from the Wind & Solar Sectors», 2020.
- 33 [75] E. Baker *et al.*, «Who is marginalized in energy justice? Amplifying community leader perspectives of energy transitions in Ghana», *Energy Res. Soc. Sci.*, vol. 73, p. 101933, mar. 2021, doi: https://doi.org/10.1016/j.erss.2021.101933.
- [76] A. Mejía-Montero, M. Lane, D. van Der Horst, y K. E. H. Jenkins, «Grounding the energy justice lifecycle framework: An exploration of utility-scale wind power in Oaxaca,
 Mexico», *Energy Res. Soc. Sci.*, vol. 75, p. 102017, may 2021, doi: https://doi.org/10.1016/j.erss.2021.102017.
- 40 [77] A. B. Setyowati, «Mitigating inequality with emissions? Exploring energy justice and 41 financing transitions to low carbon energy in Indonesia», *Energy Res. Soc. Sci.*, vol. 71, p. 42 101817, ene. 2021, doi: https://doi.org/10.1016/j.erss.2020.101817.
- 43 [78] W. Guerra, *La disputa y la palabra: La ley en la sociedad wayuu*. Wilder Guerra Curvelo, 2002.
- [79] G. Valentine, «Tell me about...: using interviews as a research methodology», *Methods Hum. Geogr. Guide Stud. Doing Res. Proj.*, vol. 2, pp. 110-127, 2005.

1 [80] M. Cope, «Coding Transcripts and diaries 27», Key Methods Geogr., vol. 440, 2010.

2

3

4

7

8

9

20

21

22

23 24

25

26

2728

29

30

31

32

33

34 35

- [81] R. J. Chenail, «Interviewing the investigator: Strategies for addressing instrumentation and researcher bias concerns in qualitative research», *Qual. Rep.*, vol. 16, n.º 1, pp. 255-262, 2011
- [82] E. C. J. Carr y A. Worth, «The use of the telephone interview for research», *NT Res.*, vol. 6,
 n.º 1, pp. 511-524, ene. 2001, doi: 10.1177/136140960100600107.
 - [83] J. Dwyer y D. Bidwell, «Chains of trust: Energy justice, public engagement, and the first offshore wind farm in the United States», *Energy Res. Soc. Sci.*, vol. 47, pp. 166-176, ene. 2019, doi: 10.1016/j.erss.2018.08.019.
- [84] E. Zárate-Toledo, R. Patiño, y J. Fraga, «Justice, social exclusion and indigenous opposition: A case study of wind energy development on the Isthmus of Tehuantepec, Mexico», *Energy Res. Soc. Sci.*, vol. 54, pp. 1-11, ago. 2019, doi: 10.1016/j.erss.2019.03.004.
- [85] A. McHarg, «Energy justice: Understanding the "Ethical Turn" in energy law and policy»,
 en *Energy justice and energy law.*, I. del Guayo, L. Godden, D. Zillman, M. Montoya, y J.
 Gonzalez, Eds. Oxford: Oxford University Press, 2020.
- 17 [86] D. Bell, T. Gray, C. Haggett, y J. Swaffield, «Re-visiting the 'social gap': public opinion and relations of power in the local politics of wind energy», *Environ. Polit.*, vol. 22, n.° 1, pp. 115-135, 2013.
 - [87] L. Jodoin, «Let capabilities ring: Operationalizing energy justice in Guinea», *Energy Res. Soc. Sci.*, vol. 72, p. 101894, feb. 2021, doi: 10.1016/j.erss.2020.101894.
 - [88] P. Velasco-Herrejon y T. Bauwens, «Energy justice from the bottom up: A capability approach to community acceptance of wind energy in Mexico», *Energy Res. Soc. Sci.*, vol. 70, p. 101711, 2020, doi: 10.1016/j.erss.2020.101711.
 - [89] S. Baker, S. DeVar, y S. Prakash, «The Energy Justice Workbook», 2019.
 - [90] C. Hunsberger y S. Awāsis, «Energy Justice and Canada's National Energy Board: A Critical Analysis of the Line 9 Pipeline Decision», *Sustainability*, 2019.
 - [91] L. L. Delina, «Indigenous environmental defenders and the legacy of Macli-ing Dulag: Anti-dam dissent, assassinations, and protests in the making of Philippine energyscape», *Energy Res. Soc. Sci.*, vol. 65, p. 101463, jul. 2020, doi: 10.1016/j.erss.2020.101463.
 - [92] S. J. Barragan-Contreras, «Procedural injustices in large-scale solar energy: a case study in the Mayan region of Yucatan, Mexico», *J. Environ. Policy Plan.*, pp. 1-16, nov. 2021, doi: 10.1080/1523908X.2021.2000378.
 - [93] E. Castillo y A. Bruns, «Indigenous notions of energy justice and energy futures in struggles over tar sands development in British Columbia, Canada», *Futures*, mar. 2022, doi: 10.1016/j.futures.2022.102921.
- 37 [94] M. Hazrati y R. J. Heffron, «Conceptualising restorative justice in the energy Transition: Changing the perspectives of fossil fuels», *Energy Res. Soc. Sci.*, vol. 78, p. 102115, 2021, doi: https://doi.org/10.1016/j.erss.2021.102115.
- 40 [95] C. E. Hoicka, K. Savic, y A. Campney, «Reconciliation through renewable energy? A
 41 survey of Indigenous communities, involvement, and peoples in Canada», *Energy Res. Soc.* 42 *Sci.*, vol. 74, p. 101897, 2021, doi: https://doi.org/10.1016/j.erss.2020.101897.
- 43 [96] R. Datta y M. A. Hurlbert, «Pipeline Spills and Indigenous Energy Justice», *Sustainability*, vol. 12, n.º 1, 2020, doi: 10.3390/su12010047.

- 1 [97] M. Lacey-Barnacle, R. Robison, y C. Foulds, «Energy justice in the developing world: a review of theoretical frameworks, key research themes and policy implications», *Energy Sustain. Dev.*, vol. 55, pp. 122-138, 2020.
 - [98] J. Cambar, M. Rincón, A. Prado, y N. Rincon, *Plan salvaguarda del pueblo Wayuu*. 2014.
- 5 [99] Decree 1088. 1993.

11

15

16

17 18

19

20

21

22

23 24

25

2728

29

31

32

36

- 6 [100] Decree 1320. 1998.
- 7 [101] J. Gehman, L. M. Lefsrud, y S. Fast, «Social license to operate: Legitimacy by another name?», *Can. Public Adm.*, vol. 60, n.° 2, pp. 293-317, 2017.
- 9 [102] Presidencia de Colombia, *Directiva presidencial No. 10.* 2013.
- 10 [103] *Sentencia T-172*. 2019.
 - [104] Common Ground Consultants, «What Is the Social License?», 2014.
- 12 [105] M. Lacey-Barnacle y C. M. Bird, «Intermediating energy justice? The role of intermediaries in the civic energy sector in a time of austerity», *Appl. Energy*, vol. 226, pp. 71-81, sep. 2018, doi: https://doi.org/10.1016/j.apenergy.2018.05.088.
 - [106] G. Burgos y C. Gonzalez, «La inefectiva implementación de la responsabilidad social amenaza la existencia y seguridad de la comunidad Wayuu». 2018. [En línea]. Disponible en: http://hdl.handle.net/10654/32194
 - [107] I. Vélez-Torres, «Governmental extractivism in Colombia: Legislation, securitization and the local settings of mining control», *Polit. Geogr.*, vol. 38, pp. 68-78, ene. 2014, doi: 10.1016/j.polgeo.2013.11.008.
 - [108] M. Grunstein Dickter, «Contra el viento: regulación, crisis social y cambio institucional en el Corredor Eólico del Istmo», *Econ. Soc. Territ.*, vol. 16, n.º 51, pp. 485-517, 2016.
 - [109] Mininterior, «El FENOGE destina más de 2.300 millones de pesos para la implementación de los procesos de consulta previa en los departamentos del Cesar y La Guajira.», 2020.
- 26 [110] Sentencia de Unificación 123. 2018.
 - [111] G. Rodríguez, *De la consulta previa al consentimiento libre, previo e informado a pueblos indígenas en Colombia*. Editorial Universidad del Rosario, 2017.
 - [112] IFC, «Performance Standard 7: Indigenous peoples», 2012.
- 30 [113] G. C. Spivak, The post-colonial critic: Interviews, strategies, dialogues. Routledge, 1990.
 - [114] C. Ramírez, «La perspectiva de los wayúu sobre los conocimientos y la biodiversidad», Las Mujeres Indígenas En Los Escen. Biodivers., p. 39, 2005.
- 33 [115] P. Pandey y A. Sharma, «Knowledge politics, vulnerability and recognition-based justice: 34 Public participation in renewable energy transitions in India», *Energy Res. Soc. Sci.*, vol. 35 71, p. 101824, 2020.
 - [116] IFC, «Performance Standard 5: Land acquisition and involuntary resettlement», 2012.
 - [117] Decree 18039. 2004.
- [118] C. Cano, M. Van der Hammen, y C. Arbeláez, Sembrar en medio del desierto: ritual y
 agrobiodiversidad entre los wayuu. Instituto de Investigación de Recursos Biológicos
 Alexander von Humboldt, 2010.
- 41 [119] R. J. Heffron, «The role of justice in developing critical minerals», *Extr. Ind. Soc.*, vol. 7, n.° 3, pp. 855-863, jul. 2020, doi: https://doi.org/10.1016/j.exis.2020.06.018.
- 43 [120] J. Name, «Transición energetica: retos y oportunidades para el territorio de La Guajira 44 [webinar]». 2021.
- 45 [121] Gobierno de Colombia, «Actualización de la Contribución Determinada a Nivel Nacional de Colombia (NDC)», 2020.

- 1 [122] Presidencia de Colombia, Directiva presidencial No. 08 de 2020.
- 2 [123] Heffron, R. J. 2021. The Challenge for Energy Justice: Correcting Human Rights
- 3 Abuses. Springer: Heidelberg, Germany.
- 4 [124] Heffron, R. J. 2022. Applying Energy Justice into the Energy Transition. Renewable and
- 5 Sustainable Energy Reviews, 156, 111936.
- 6 [125] Heffron, R. J. 2021. Achieving a Just Transition to a Low-Carbon Economy. Springer:
- 7 Heidelberg, Germany.

- 8 [126] Sokolowski, M. M. and Heffron, R. J. 2022. Defining and conceptualising energy policy
- 9 failure: The when, where, why, and how. Energy Policy, 161, 112745
- 10 [127] Droubi, S., Heffron, R. J. and McCauley, D. 2022. A critical review of energy democracy:
- A failure to deliver justice? Energy Research & Social Science, 86, 102444.
- 12 [128] Heffron, R.J. 2021. Energy multinationals challenged by the growth of human rights.
- 13 Nature Energy (2021). https://doi.org/10.1038/s41560-021-00906-6