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Elevating Indigenous Voices for a Just Energy Transition

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Abstract

In the face of an accelerating climate crisis and shifting geopolitical power balances, the world is pursuing a "green transition" in which electrification is central. Electrification demands critical raw materials, including rare earth elements, a large share of which lie beneath Indigenous lands. Although the UN affirms Indigenous peoples' right to own, use, develop, and control their traditional lands, these rights are routinely overruled, including on "national security" grounds. The newly discovered Per Geijer deposit in Northern Sweden—Europe's largest known rare earth elements find—sits at the centre of these tensions. Drawing upon a workshop, field visits, and a narrative review of academic, policy, and media sources, this article examines three competing narratives surrounding the proposed new mine: the "green transition," "national security," and "energy justice" narratives, which we read in relation to the "energy trilemma." Focusing on cumulative threats to the Gabna reindeer-herding community from Kiruna's century-old iron ore mine and the proposed Per Geijer project, we explore the power imbalances that determine which stories are heard in energy transition decision-making, and which are marginalised. We argue that recognition, restorative, and intergenerational justice principles need to be brought to the centre of transition planning. Recommendations from Indigenous participants include mapping the cumulative impacts of green-transition projects, combining Indigenous and Western scientific knowledge, and strengthening legal and policy mechanisms to protect Indigenous rights. Doing this is imperative to ensure that energy transitions are both environmentally and socially just, while also considering geopolitical implications.

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Keywords
energy justice; equity; green transition; Indigenous narratives; just energy transition; Sámi; Sweden

1. Introduction

This article focuses on the just energy transition, and particularly, how it impacts Indigenous and other marginalised populations. It examines several *meta* energy transition narratives, and the power imbalances between storytellers—especially those who make policy decisions and those who profit from large energy and mining projects, versus those who are impacted by them, often in existential ways.

The aim of this article is to examine how competing narratives of the energy transition shape, and are shaped by, energy justice for Indigenous peoples, taking the Per Geijer deposit at Kiruna in Northern Sweden as a case in point. Methodologically, it draws on a narrative and auto-ethnographic approach that brings together a literature review, policy and media materials, field visits, and a workshop in Kiruna—all examined together to reconstruct the competing narratives at play.

The article proceeds as follows. Section 2 sets out the case study context in Kiruna, Northern Sweden, and Section 3 develops the conceptual framework, situating the "energy trilemma" and energy justice dimensions in Indigenous and postcolonial scholarship. We then turn to our methodology in Section 4, before presenting our findings and discussion about implications for a just energy transition for all in Section 5, and finishing with a short conclusion in Section 6.

2. Case Study Context: Kiruna, Northern Sweden

The Kiruna case is highly relevant to understanding in which ways the green transition and the national security narratives around "critical raw materials" (CRMs) intersect with Indigenous rights and energy justice. Since Kiruna's foundation on Sámi land in the early 1900s due to the finding of rich deposits of iron ore, mining activities have impacted Sámi reindeer herding practices (López, 2021). The newly discovered Per Geijer deposit in Kiruna is one of Europe's largest "rare earth elements" (REEs) deposits and, as such, is of great geopolitical interest to the West to counteract the dominance of China and Russia in those areas (Sehlin MacNeil, 2026).

A workshop held by two international research collaborations in Kiruna in June 2025 explored tensions between these developments and the Indigenous Sámi community in Sweden. The workshop had a particular focus on the Gabna reindeer-herding community whose last path for the reindeer's seasonal migration will be cut off with the initiation of the mining of the Per Geijer deposit (see Figure 1). In addition, the forced relocation of large parts of the city of Kiruna further impacts migration.

Although international instruments such as the United Nations Declaration on the Rights of Indigenous Peoples affirm Indigenous peoples' rights in relation to their traditional lands and resources, scholars, Indigenous organisations, and international human rights bodies have pointed to a persistent gap between the formal recognition of these rights and their implementation in practice, particularly when weighed

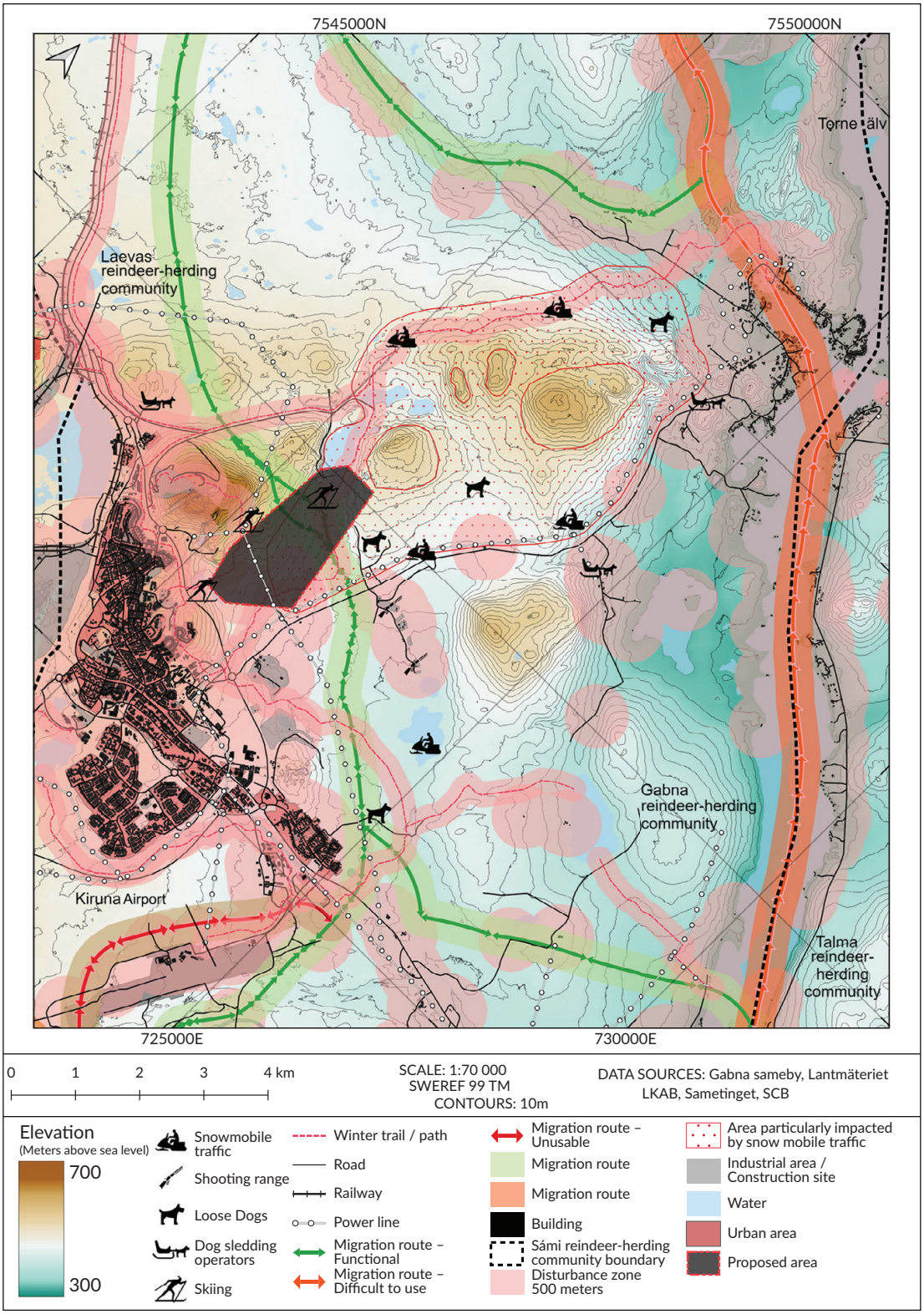


Figure 1. Map of Kiruna showing the current and proposed infrastructure and its impact on Gabna reindeer-herding migration routes. Notes: Adapted and translated into English from Kløcker Larsen et al. (2026), Figure 5, Stockholm Environment Institute, licensed under CC BY 4.0 (creativecommons.org/licenses/by/4.0).

against competing state, industrial, or national security interests (Sehlin MacNeil, 2026; UN, 2007, p. 19, 2025; Westeson et al., 2026).

As Huisman (2021) documents, and our local workshop participants verified, Kiruna's relocation to make way for LKAB's (a Swedish state-owned company) expanding iron ore mine unfolded amid years of uncertainty: with neither the municipality nor the company experienced in moving a city of this scale, responsibilities were unclear, decisions were taken before all conditions were known, and sustainability, cultural heritage, and environmental concerns received limited attention while mining continued (see also Boyd, 2023; López, 2021; Sehlin MacNeil, 2017). For the proposed Per Geijer mine, the risk assessment has, similarly, "not included human rights, nor social and cultural impacts, of the project" and "[the mining company] has not yet proposed measures to prevent or mitigate adverse impacts on reindeer herding" (Mazzoleni & Kløcker Larsen, 2024, p. 4), even as the project is fast-tracked as a strategic project under the Critical Raw Materials Act (CRMA; European Commission, n.d.).

It is against this background that the article turns to examining energy justice principles and, specifically, how they apply to Indigenous peoples and the "energy trilemma" (World Energy Council, 2010). This is to help set the scene for a deeper case study dive into competing narrative transition discourses and their effect on reindeer-herding Sámi communities in Northern Sweden.

While the Per Geijer project could also be analysed through the lens of environmental justice, this article focuses on energy justice because the case is embedded in a broader set of energy-related developments. In Northern Sweden, multiple energy-related projects, including mining and renewable energy generation and related infrastructure, create cumulative impacts (and related restorative justice implications) on Sámi land use and reindeer herding (e.g., Mohammed, 2026). An energy justice perspective thus provides a useful framework for analysing these interconnected processes.

3. Conceptual Framework: From the "Energy Trilemma" to Energy Justice

3.1. The "Energy Trilemma"

Energy policy-making requires a complex balancing act between what the World Energy Council (2010) termed the "energy trilemma"—the competing demands of energy security, energy equity (economics), and environmental sustainability. Academic work has since sought to bring justice into this framing: Heffron et al. (2015) proposed resolving the trilemma through an "energy justice metric," later refined as a means of "balancing" the trilemma, as the authors argue that energy policy has become overly shaped by economic considerations in particular (Heffron et al., 2018).

Heffron et al.'s (2015, 2018) framing has been influential in energy policy but also critiqued. Legal scholars have examined how energy justice operates as an "ethical turn" in energy law and policy, drawing attention to its implications for rights, energy poverty, and access (del Guayo, 2020; McHarg, 2020). Others caution that the more policy-oriented, metric-driven strands of energy justice risk standardising an inherently plural and contested set of values and may obscure the structural and colonial injustices that the frameworks are meant to surface (Wood, 2023).

We therefore draw on the energy trilemma as a heuristic for the competing pressures and narratives shaping Swedish energy and minerals policy, while recognising these critiques: it remains a useful reminder that these aims pull against one another, and that pursuing one (e.g., economics) to the neglect of another (e.g., the impact on marginalised peoples) risks its own injustices. This is why we foreground *recognition*, *restorative*, and *intergenerational justice*, and Indigenous and postcolonial perspectives, rather than treating justice as a metric to be balanced against economics and security.

As our analysis of three competing energy transition narratives below (Section 5.1) sets out, Swedish policy has come to focus predominantly on decarbonisation (relative to attention paid to justice/procedural safeguards). This is often termed the "green transition," which corresponds to the environmental aspect of the trilemma. Crucially, this decarbonisation is pursued largely through growth-driven investment in "low carbon energy technologies," on the assumption that emissions can be reduced while economic expansion continues. This green-growth assumption is contested: it sits within a wider debate between green-growth, post-growth, and degrowth positions, over whether decoupling at the necessary scale is indeed achievable (Polewsky et al., 2024).

Our aim here is not to adjudicate that debate, but to show how the dominant growth-oriented framing, alongside a more recent emphasis on national security and security of supply as an overriding (geo)political imperative, tends to crowd out the energy justice considerations needed for a "just energy transition for all." In particular, the *recognition* and *restorative* perspectives of the Indigenous communities most directly affected are often overlooked.

3.2. Energy Justice Principles in Relation to Indigenous Contexts

The energy justice research agenda is credited with shifting analytical attention from the technological and systemic dimensions of the energy transition toward its social, cultural, and ethical stakes (Jenkins et al., 2016; Mohammed, 2026). In its now-conventional form, it is organised around several interlocking dimensions—recognition, procedure, and distribution—that together ask not only how the costs and benefits of energy systems are shared, but whose knowledge counts, who decides, and what is owed for past harm (Jenkins et al., 2016).

Yet, a growing body of Indigenous and postcolonial scholarship argues that these tenets, as developed within largely Western frameworks, capture Indigenous experiences of energy injustice only partially, and must be reworked rather than simply extended (Mohammed, 2026; Sovacool et al., 2023). We adopt that critical position here and read each dimension through the specific situation of Indigenous peoples whose lands and livelihoods are imperilled by transition and growth-driven extraction.

Understood in this way, *recognition justice* requires more than identifying Indigenous communities as a marginalised group to be protected. As Coulthard (2014) argues, a politics of recognition extended by the settler state can leave underlying colonial structures intact; meaningful recognition must instead acknowledge past and ongoing harms. This includes the colonial dispossession that, in the Swedish case, has too often gone unacknowledged by state and industrial actors. It calls for embedding Indigenous rights, values, and legal and constitutional obligations (including those arising under international conventions) within the design of energy policy from the outset, and for treating cultural relationships with land and

"traditional ecological knowledge" as central to decision-making, rather than as considerations to be weighed after decisions were made.

It is *restorative* and *intergenerational justice*, however, that Indigenous energy justice scholarship treats as pivotal. *Restorative justice* seeks to account for the harms and obligations arising from past and ongoing wrongdoing, and to widen participation in repairing them. In the Indigenous context, this means addressing structural and historical inequities, supporting self-determination, and prioritising the prevention of further harm over after-the-fact compensation (Mohammed, 2026).

This emphasis reflects a distinctive temporal horizon: Whilst transition planning typically works to project and policy timescales, Indigenous conceptions of justice often span civilisational time. Whyte (2018) captures this through the idea of "spiralling time," in which communities understand themselves as living alongside past and future relatives at once, so that obligations to ancestors and descendants bear directly on present decisions. *Intergenerational responsibility* is, in this sense, not an additional principle but a feature running through Indigenous conceptions of justice as a whole.

This reframing connects to a broader call within Indigenous and postcolonial scholarship to decolonise not only governance but knowledge itself—to challenge the dominance of Western/colonial epistemologies, and the research practices that reproduce them, by incorporating traditional ecological knowledge and building genuine partnership with Indigenous communities (Sovacool et al., 2023; Tuhiwai Smith, 2012).

A *postcolonial justice* approach, on this view, aims to transform both political and scholarly practice by surfacing and contesting the asymmetrical power relations between the oppressed and their oppressors (Mitchell et al., 2021; Sovacool et al., 2023). Furthermore, *procedural justice* from Indigenous perspectives requires meaningful participation, yet in contemporary permitting processes this is routinely undermined: although participation is formally provided for in law, decision-makers retain broad discretion over how it occurs, and there are few mechanisms ensuring that Sámi rights carry decisive weight against the dominant narrative and its storytellers (Cambou, 2020).

4. Methodology

This study combines a narrative literature review with qualitative empirical material from a workshop with Indigenous reindeer herders and local and international experts, field visits, and secondary (media and policy) sources. Together, these materials were used to explore how different actors construct and reproduce narratives—and, as we will show, counternarratives—surrounding mining, the energy transition, and associated justice implications in Northern Sweden. Rather than analysing each source separately, the different materials were interpreted in relation to one another to identify recurring (counter)narratives.

This research is shaped by who we are, and how we are positioned in relation to the communities and processes we study. Our author team is deliberately mixed: it includes non-Indigenous social scientists from various disciplines working on energy, intersectionality, and justice issues; and Sámi scholars, reindeer herders, and Indigenous community members. We write, therefore, neither as wholly external observers nor as a single Indigenous voice, but from within a collaboration that holds both perspectives in tension.

Following Whitinui's (2014) account of Indigenous auto-ethnography, we treat this positioning as part of the method rather than as background. The non-Indigenous authors bring a reflexive awareness of their outsider status and of the asymmetries that shape their research with Indigenous communities; the Sámi authors bring lived and inherited knowledge of reindeer herding, colonial dispossession, and the energy and mining developments at issue.

Several sections of the analysis draw directly on these standpoints. For instance, the narrative account of the Gabna reindeer herders' lived experience (Section 5.2) is reconstructed in close collaboration with community members rather than extracted from them. We acknowledge that this dual positioning shapes which narratives we found legible and compelling, and we have tried to make that influence visible rather than to claim a neutral vantage point.

4.1. Narrative Literature Review

This article started with a narrative literature review (Baumeister & Leary, 1997), a scholarly synthesis that integrates and interprets diverse bodies of research to develop conceptual insight, making it particularly useful for analysing energy transition narratives and their impacts on Indigenous communities. Through this lens, we then bring together empirical findings, historical context, and theoretical perspectives, as well as our own auto-ethnographic experiences, to subsequently expose narratives that illuminate patterns of power, meaning, and justice that cannot be captured through narrow or purely systematic review approaches.

We focused on seminal articles, such as Moezzi et al. (2017) on "Narratives and Storytelling in Energy and Climate Change Research," or Sovacool et al.'s (2023) critical review of intersectional energy justice theories, as well as the longstanding scholarship into historical and current injustices pertaining to Indigenous and Sámi peoples by two of our co-authors. We then used Google Scholar to search terms on "narratives and storytelling in energy transition research," the broader "energy transition narrative," "green colonisation," and "Sámi/Sápmi reindeer herders," as well as using forward and backwards searches of key literature.

In addition to academic literature, the review included government and international policy documents, official statements, press releases, and selected media material. These sources complemented the academic literature by providing additional material for identifying dominant energy transition narratives in Sweden.

Generative AI tools (Claude Opus 4.8/Sonnet 5.0, and Qwen3-Max) were used in a limited and clearly bounded supporting role: to help surface an additional set of candidate references, to draft preliminary summaries of background material for a small number of subheadings (specifically Sections 3, 5.1.2, 5.1.3, and 5.3), and to ensure consistency was maintained in changes made in response to reviewer comments. All such output was treated as a starting point only: every reference was independently located, read, and verified against the primary source, and drafted text was checked, corrected, and rewritten (where deemed necessary) by the co-authors. The interpretive and analytical work central to our narrative approach—identifying, characterising, and synthesising the competing narratives—was carried out by the authors and was not delegated to these tools.

4.2. Workshop in Northern Sweden and Subsequent Field Visits

On June 14–16, 2025, researchers from two international research collaborations arranged a workshop held in Kiruna, a town currently undergoing unprecedented transformation and relocation due to mining impacts (López, 2021). Six workshop attendees (four from Sweden, one each from the US, and one from Aotearoa New Zealand) met in person with two Gabna reindeer herder representatives, and one representative each from Kiruna's municipality and Kin Museum, as well as remotely with three Indigenous representatives (from Southern Sweden, Aotearoa, and the state of Massachusetts in the US).

Two of the researchers, with deep knowledge of local conditions and tensions, including the impacts on Indigenous communities, invited representatives to provide a variety of perspectives. A separate field visit to LKAB at a later date provided some mining industry perspectives. To elicit different voices and lessen the effects of existing power hierarchies, the invited speakers were given separate slots. To acknowledge concerns about raising contested issues in a small community, the various stories told during this fieldwork are summarised, instead of using direct, anonymised (but potentially still identifiable) quotes.

The workshop opened with a wide-ranging discussion with a senior municipality representative, who frankly discussed the historic and current impacts of mining on the Kiruna community. Two experts provided overviews on the Swedish colonial history relating to energy issues and Sápmi, as well as broader insights around cultural, structural, and extractive violence experienced by Indigenous communities, and the inherent power imbalances between the Swedish state and its Indigenous people. Workshop attendees also embarked on a field trip with two Sámi representatives to discuss increased polarisation, conflicting narratives, and existential consequences of the green energy transition for Gabna reindeer herders, whose reindeer migration routes sit on top of Europe's largest iron ore and REEs deposits.

A board member of the Sámi youth association (Sáminuorra) gave her own perspective on the Swedish energy transition, as part of a global discussion on Indigenous challenges with a Chief from the Mashpee Wampanoag tribe (Massachusetts, US), and a Māori energy expert from the Waikato Tāinui iwi (Aotearoa, New Zealand). Participants visited the Kiruna Kin Museum and recently moved town hall, hearing from an Indigenous curator, whose village, Malmberget, had been displaced to make way for mining (see Isaksson, 2021).

One author also joined a three-hour guided visit to LKAB's underground mine in Kiruna in September 2025. Organised by LKAB as part of its public outreach, the tour offered an opportunity to observe how the company presents and narrates its mining activities, technological development, and role in the city's transformation. It did not constitute formal data collection but served as contextual field exposure. Notably, the official tour did not address Indigenous perspectives or the impacts of current and future mining on the local Sámi community.

5. Findings and Discussion

5.1. Narrative Literature Review

5.1.1. Overview of Narratives and Storytelling in Energy Research

Energy transition scholarship increasingly recognises storytelling and narratives as central to how transitions are understood, governed, and contested. Storytelling is inevitable when policy or technological innovation moves in new directions or encounters political contestation (Moezzi et al., 2017). Yet the same conditions that give rise to storytelling also ensure that stories remain inherently unfinished and subjective. Rather than neutral descriptions, narratives function as sense-making devices that frame problems, define legitimate solutions, and mobilise political and economic support for particular transition pathways (Roe, 1994; Stone, 2012). In socio-technical transition studies, narratives are shown to align actor expectations, stabilise visions of low-carbon futures, and coordinate innovation across technologies, institutions, and social practices (Geels, 2011). Dominant transition narratives often emphasise technological progress and urgency, portraying decarbonisation as inevitable and scalable, while downplaying social conflict, distributional (and especially intergenerational) impacts, and questions of (especially white, patriarchal) power (Sovacool et al., 2023).

Each narrative is likely to prompt subsequent narratives and, when appropriately framed and supported by evidence, can catalyse successive cycles of learning. Narratives can also be used to sway an audience based on the perspective of the storyteller, which, especially in mainstream discourse, can be influenced by political or cultural power and hierarchical structures (Sovacool et al., 2023). This can cause significant injustices to the less-powerful voices that may be negatively impacted but whose stories remain unheard—or worse, whose motivations are twisted by the more powerful storytellers with large platforms. The current dominant energy transition narrative in the EU has the potential to create new, and/or further embed, existing injustices, especially for Indigenous communities.

Competing stories, such as those centred on energy justice, democracy, or Indigenous rights, challenge technocratic and growth-oriented framings by foregrounding lived experience, inequality, and place-based impacts (Jenkins et al., 2016). While some of these narratives also connect to growth-critical or sufficiency-oriented positions, this is not a defining feature: foregrounding justice, participation, and distribution does not in itself imply a critique of growth. Narrative analysis in energy research demonstrates that stories are never final, they evolve as evidence, values, and power relations shift, enabling iterative learning, but also reinforcing dominant interests when alternative narratives are marginalised (Moezzi et al., 2017; Rosenbloom et al., 2016).

Overall, the literature positions storytelling as a constitutive element of the energy transition, shaping both its direction and its social consequences. We delve into three specific energy transition narratives, related to the energy trilemma and Indigenous justice issues, in more detail below.

5.1.2. The "Green Energy Transition" Narrative

The push for a green energy transition has become increasingly urgent as net-zero emissions targets across all sectors are necessary to limit warming to 1.5°C and avoid the worst impacts of climate change (Intergovernmental Panel on Climate Change, 2023; Markard & Rosenbloom, 2022). Nordic countries are often considered leaders of the green transition and have significantly increased targets to cut emissions and to use renewable energy sources. In turn, these governments have facilitated an uptake of wind and the continuation of large-scale hydropower projects to compensate for reduced production and use of fossil fuels (Normann, 2021; Sandström, 2024; Vattenfall Media Relations, 2023). Demand for expansion of green energy sources is compounded by transnational private interests in purchasing renewable energy to offset emission activities (Normann, 2021). As a result, there is an emphasis on "extraction of resources as an ingrained trajectory towards an envisioned green future" (Sandström, 2024, p. 133).

Emerging scholarship also characterises aspects of the contemporary green energy transition in Northern Europe as a form of "green colonialism" (Fjellheim, 2023; Sandström, 2024), whereby ostensibly climate-beneficial policies contribute to new patterns of Indigenous dispossession and injustice for Sámi reindeer-herding communities. Academic work situates these dynamics within broader political ecology and energy justice frameworks, critiquing how renewable energy projects and related extractive development intersect with historical and ongoing marginalisation of Sámi land rights (Cambou, 2020; Normann, 2021; Renkens, 2025).

Owen et al. (2023), for example, find that 54% of energy transition projects are on or around lands recognised as Indigenous peoples' territory. Mohammed (2026) outlines that 40% of land in Norway is used for reindeer herding, and two-thirds of untapped onshore wind resources reside in this heartland in Finnmark, calling the inherent conflict "a perception of a zero-sum game in the wind energy licensing process" (Mohammed, 2026, p. 1). In Sweden, new construction and human activity from industrial-scale wind turbines and increased mining efforts also disrupt pasturelands that are used for local Indigenous Sámi reindeer-herding practices, threatening Sámi livelihoods and their cultural survival (Normann, 2021).

As a result, there is a perceived dissonance between what is portrayed through public messages about "saving humanity" through the green transition, and what actually happens in practice (Normann, 2021, p. 90). Narratives in support of renewable energy expansion could partly help to explain this contrast, as Wolsink (2020, p. 1) argues that "framing is fundamental to political processes, including those of decision making on renewables." Ellingsen (2024) explains how the Norwegian government used the framing of urgency to justify taking land from Sámi herders for the "greater good of society," in turn enforcing "asymmetrical colonial relations" (Ellingsen, 2024, p. 1). The three Norwegian wind power projects described by Mohammed (2026) were ultimately rejected due to cumulative impacts on reindeer husbandry; international legal sources for Indigenous rights (rather than national energy goals); and because Indigenous actors "lack the certainty of actual influence over licensing outcomes despite formal participation mechanisms" (Mohammed, 2026, p. 1). The author also highlights that legal environmental impact assessment processes can reveal power imbalances and exacerbate injustice when Indigenous traditional knowledge is ignored.

Peacock and Devine-Wright (2025) explore how different stakeholders—government, energy industry, and NGOs—in Sweden seek to legitimise "acceptable" pathways for deploying low-carbon energy technologies at the national level. Their analysis reveals that government and energy industry stakeholders consistently draw upon two established spatial imaginaries—i.e., "Northern Sweden" and "Southern Sweden." Where "Southern people" (who consume the majority of power in Sweden) are believed to have low acceptance of onshore wind and power line infrastructure, public acceptance of energy projects in northern regions is often framed through a dominant narrative that depicts "Northern people" as adaptive and welcoming.

Their imagined acceptance of major energy projects is shaped by a history of industrial activity and presumed economic benefit from energy development. In contrast, the Indigenous Sámi are frequently portrayed as resistant to such projects, a framing rooted in historical experiences of colonisation and state-led energy initiatives that disrupted Sámi lands and livelihoods. Normann (2021) also points out how media disclosures portrayed reindeer herding as an environmental "offender," rather than focusing on the impacts of climate change on their traditional lifestyles.

The prevailing narrative in mainstream media is "othering" not just Northern and Southern Swedes with regard to their stance in the green energy transition (see Peacock & Devine-Wright, 2025), but also often painting reindeer-herding Sámi as "privileged elites" (Kjöller, 2023). Such framing rests on a racialised othering that recasts a colonised people as an entitled interest group, while remaining blind to the colonial history and dispossession that structure their claims. This dichotomy serves to legitimise energy deployment by generalising support among Northern populations, while marginalising Sámi perspectives. As a result, Sámi opposition is often discounted, reinforcing power imbalances and obscuring concerns about cultural integrity, environmental sustainability, self-determination (Blind, 2022), and historical land rights in favour of economic and technocratic arguments (Peacock & Devine-Wright, 2025).

5.1.3. The "National Security" Narrative

Recent developments in Swedish mineral and mining policy can be illustrated by an increasing emphasis on security of supply and national security considerations. This orientation was articulated clearly in connection with the Society and Defence Annual Conference (Folk och Försvar) in January 2026. In a press release from the Ministry of Energy, Business and Industry, the government stated that new mines are "crucial for Sweden's total defence and economic security," arguing that access to critical minerals, including REEs, is necessary for both modern industry and defence capabilities (Ministry of Climate and Enterprise, 2026, para. 1). The press release further underlined that national security considerations are expected to carry significant weight in future decisions on mining and mineral extraction.

Statements by the deputy prime minister and minister for energy, business and industry, Ebba Busch, reinforce this framing. In interviews and media appearances, she has described Sweden as a "mining power" and argued that mining should become an integrated part of Sweden's security strategy. Mineral extraction is explicitly linked to national strength, defence preparedness, and economic resilience ("Ebba Busch wants," 2026; Hansson & Karlsson, 2026). Busch has repeatedly emphasised Europe's dependence on external suppliers, particularly China, for REEs and other CRMs, presenting domestic mining as a way to reduce geopolitical vulnerability and strengthen strategic autonomy.

This security-oriented narrative presents Swedish mining and mineral resources in relation to supply, industrial transformation, and the green transition. When Sweden assumed the Presidency of the Council of the EU in January 2023, representatives of the Swedish government and the European Commission gathered in Kiruna, including for a visit to LKAB. In her speech, Busch described Swedish mining as central to the green transition and to Europe's future access to CRMs. Referring to the then-forthcoming EU CRMA, she emphasised the need to secure supply from both primary and secondary sources in a context of rising demand, geopolitical uncertainty, and vulnerabilities in global value chains. Domestic extraction was presented as an important component of climate policy, industrial policy, and European supply security (LKAB, 2023a; Dahlström et al., 2026).

In direct connection to this visit, LKAB held a press conference in Kiruna announcing that it had identified what it described as Europe's largest known deposit of REEs in the Per Geijer area (LKAB, 2023b). The company presented the finding as potentially strategic for Europe's future demand for materials used in electrification technologies such as electric vehicles and wind power. In its communication, LKAB emphasised Europe's current lack of domestic production of REEs and its strong dependence on imports, particularly from China, framing this as a vulnerability in an increasingly tense geopolitical context. At the same time, LKAB stressed that any potential extraction would be subject to lengthy and complex permitting processes, highlighting the importance of the EU's work on the CRMA to enable more coordinated and predictable access to CRMs.

However, the meeting in Kiruna in January 2023 was met with criticism from Sámi organisations, who pointed out that they had not been invited to participate, despite the direct implications for reindeer herding and Sámi land use. Representatives from the Swedish Sámi Association and the Gabna reindeer-herding community described the event as an example of energy transition narratives being advanced without meaningful inclusion of Sámi perspectives, framing it as a continuation of long-standing patterns of marginalisation in mining governance (Haupt, 2023).

Research has shown how Swedish government narratives increasingly connect CRMs and mining to national security, strategic autonomy, and industrial competitiveness (Dahlström et al., 2026). This framing is also reflected in current political debate. In a joint opinion piece, Busch and the Minister for Rural Affairs Peter Kullgren argued that reindeer husbandry carries a weight that goes far beyond what is reasonable in a society where "many legitimate interests must be accommodated" (Busch & Kullgren, 2026, authors' translation), while also arguing that the state should have greater scope to balance reindeer husbandry against jobs, energy, mining, infrastructure, and local development.

5.1.4. The "Just Energy Transition" Narrative

Indigenous peoples have faced significant challenges around energy systems due to historical colonialism, marginalisation, and systemic inequities (Össbo, 2018; Sehlin MacNeil, 2026). Global efforts and agreements have been put in place to work towards a just energy transition for all. EU regulatory frameworks for the energy transition, including the incorporation of just transition principles into climate and energy policy, are designed to accelerate decarbonisation and achieve SDGs (Kaschny, 2025; UN, n.d.). UN SDG 7 specifically aims to "ensure access to affordable, reliable, sustainable and modern energy for all" (UN, n.d.). In 2023, world leaders signed an open letter at the Paris Summit for a New Global Financial Pact that recognised a just ecological

transition as "a powerful force for alleviating poverty and supporting inclusive and sustainable development" (European Commission, 2023, p. 1; Sandström, 2024).

However, these frameworks often foreground technological and economic objectives without sufficiently addressing the energy justice implications for marginalised and Indigenous communities. Climate mitigation measures, especially large-scale wind power and mining developments, are not neutral techno-economic solutions, but are embedded in power asymmetries that disproportionately impact Indigenous populations (Nachet et al., 2022; Normann, 2021; Renkens, 2025). A central theme in the aforementioned literature is the double burden faced by Sámi communities: climate change itself alters migration patterns and ecological conditions for reindeer, while renewable energy projects fragment grazing lands and restrict mobility, threatening the viability of traditional practices (Renkens, 2025). Such developments produce encroachment, enclosure, and exclusion—processes consistent with colonial patterns of resource appropriation that undermine Sámi self-determination and access to ancestral territories (Renkens, 2025).

Scholarship by Raitio et al. (2020), Cambou (2020), and Össbo (2018, 2023) further interrogates how Swedish legal and permitting frameworks inadequately address *distributional* and *procedural justice* for reindeer herders, often balancing economic and renewable energy interests in ways that misrecognise Indigenous rights. Although Sweden recognises the Sámi as an Indigenous people in its constitution and is legally bound to protect their rights, permitting processes lack consent requirements and any obligation to assess human-rights or cultural impacts (Mazzoleni & Kløcker Larsen, 2024).

Sweden has also not ratified International Labour Organization Convention No. 169, a point repeatedly criticised by international bodies. In its 2025 concluding observations, for example, the UN Committee on the Elimination of Racial Discrimination found that Swedish consultation processes fall short of free, prior and informed consent, and raised concerns about irreparable damage to Sámi lands, under-resourcing of the Sámi parliament, and limited Sámi-language education (UN Committee on the Elimination of Racial Discrimination, 2025; see also Human Rights Council, 2025; Sehlin MacNeil et al., 2021). This pattern of endorsing Indigenous rights in principle while weakening, postponing, or overriding them in practice is what Mörkenstam (2019) terms Sweden's "organised hypocrisy."

During the workshop, a board member of a Sámi youth association also highlighted the profound intergenerational impacts of green colonialism, where mines, dams, ski resorts, forestry, and wind power are framed as sustainable. Yet, they systematically disrupt reindeer herding, degrade waterways, and harm Sámi and Indigenous community wellbeing, all without meaningful consent or consideration of Indigenous livelihoods. Tourism and associated infrastructure further fragment herding routes, while Swedish education largely neglects Sámi history and culture, requiring young Sámi to self-educate peers about their communities. For example, the Sáminuorra representative shared that as the only Sámi person at her school, one week a year she was asked to teach all the classes about Sámi people and history, without being paid. In response to these cumulative pressures, Indigenous participants set out a series of recommendations that we draw together in the discussion.

While a just transition narrative encourages all voices to be heard, the current green (and, more recently, national security) narratives often emphasise that the interests of local communities must "give way to broader environmental concerns" (Lawrence, 2014, p. 1).

5.2. The Experiences of Sámi (Gabna) Reindeer-Herders in Kiruna

The narrative account that follows below was developed in close collaboration with Gabna community members and is co-authored with Indigenous collaborators. It therefore remains intentionally close to how these experiences and concerns were articulated to us, rather than being abstracted into an externally-constructed interpretation. At the same time, we recognise that our own positionalities and relationships with the field inevitably shaped how this account was assembled and presented here:

> A decade ago, the landscape around Kiruna was open tundra. Today, it is a patchwork of housing developments, energy infrastructure, roads, and traffic, as large parts of Kiruna had to be moved due to subsistence danger from mining operations. What was once vital pastureland for Gabna reindeer herders has been swallowed by urban expansion. Yet this entire region, stretching from Kiruna into the mountains near the Norwegian border, remains ancestral Sámi territory.
>
> For many generations, the Sámi people have sustained a way of life intricately tied to the seasonal movements of reindeer, guided by deep traditional ecological knowledge passed down through language, practice, and kinship. Through their seasonal migration, the reindeer-herding community knows every tree and rock they pass by during migration, telling stories about them to keep ancestral histories alive. But this continuity, and the familial knowledge of how to live on the land with the reindeer, has been under relentless pressure for centuries.
>
> The roots of displacement trace back to the mid-1600s, when forced labour for mines, agricultural colonisation, religious conversion campaigns, and state-imposed schooling began severing cultural threads. Children were taken from their families for months at a time, forbidden from speaking their language or practicing their traditions. By 1925, industrialisation accelerated the transformation: railways, roads, agricultural settlements, and mining operations carved deeper into traditional grazing lands, marking a visible new phase of ongoing land-based colonisation.
>
> Now, the pace of extraction has only intensified. The Gabna Sámi community contends with five active mines on their lands, two of which received permits in recent years. At the centre of this expansion stands LKAB, Sweden's state-owned mining company, whose original environmental permit dates back nearly half a century. Kiruna itself was founded to serve the mine, and today, the line between municipal governance and corporate interest is nearly indistinguishable. Many inhabitants of Kiruna are employed by the mine as subcontractors, and the benefits are seen by some as outweighing the inconveniences of living in the shadow of this industrial beast. This fusion leaves the Gabna with little recourse when challenging new projects—especially as the narrative of "critical security interests" for all of Europe is increasingly gaining ground.
>
> The consequences extend far beyond lost acreage. Traditional reindeer herding—a sophisticated system honed over millennia—is unravelling. Each generation inherits fewer migration routes, diminished access to seasonal pastures, and more fragmented traditional ecological knowledge. Skills once refined through direct experience with specific terrains are fading, along with place names, stories, and the confidence that comes from multi-generational belonging to a landscape.

Sweden's Consultation Act, introduced to include Indigenous voices in decisions affecting their lands, offers little real power. Consultation does not guarantee consent, and the process can be abandoned if consensus isn't reached. The Sámi community spends considerable time and resources attending meetings, drafting appeals, and appearing in courts. Community members described these efforts as rarely successful and exhausting. From their perspective, existing consultation and legal processes provide limited opportunities to influence outcomes, and decisions often favour competing industrial and state interests over Indigenous concerns.

What is unfolding is what many now call "green colonisation." Renewable energy infrastructure and critical mineral extraction for Europe's green and safe transition all demand more land, more sacrifice. The European Union's new CRMA further entrenches this dynamic, granting member states broad authority to fast-track extraction, including on Indigenous territories, under the banner of climate action. For a small community like Gabna, this represents an existential threat.

The toll is not only cultural, but deeply human. Health issues, economic strain, and social fragmentation are rising. Participants described stress and uncertainty associated with ongoing land-use conflicts, the substantial time and resources required to respond to consultations, appeals, and legal processes, and growing tensions within and between communities over mining and energy developments. Language, ceremony, and identity, which are all rooted in the land, are eroding. The community has repeatedly raised alarms about violations of international human rights standards, citing breaches of their rights to land, culture, livelihood, and self-determination. Yet their pleas meet indifference, and sometimes, outright racism.

Faced with diminishing options at home, the Indigenous Gabna Sámi are turning to the international stage. They know that change will not come from within a system that is designed to extract, not protect. Their struggle is not just for pasture, but for survival—for the right to exist as Sámi on land they have stewarded since time immemorial.

5.3. Discussion

Our fieldwork discussions are consistent with de Leeuw's (2024) observation that Sweden's self-image as a responsible and exceptional extractive nation rests on a strong moral framing of extraction as necessary, progressive, and even virtuous. She demonstrates how this framing allows extractive projects in Sápmi to be presented as compatible with sustainability and the green transition (as well as national security concerns), while colonial relations and cumulative impacts on Sámi land and livelihoods remain largely unacknowledged. Thus, *recognition* and *procedural justice* principles are little more than lip service when it comes to the lived reality of reindeer-herding Sámi, and the lack of *distributional justice* firmly places the burden on them, with the benefits going largely to Swedish corporations, unaffected citizens, and the state.

Sweden clings to a myth of universal equality, making discussions of discrimination difficult to address openly. Hübinette et al. (2023) argue that Swedish society continues to be shaped by a legacy of whiteness and an ideology of colour blindness. Several scholars and international human rights bodies have argued that such patterns contribute to broader forms of structural discrimination affecting Sámi communities (e.g., Hübinette et al., 2023; UN Committee on the Elimination of Racial Discrimination, 2025).

This gap is what Mörkenstam (2019) terms "organised hypocrisy": Sámi rights to self-determination and land are repeatedly recognised in principle, yet weakened, postponed, or downplayed when they conflict with extractive and industrial interests. There is little discussion about *restorative* and *intergenerational justice* implications that should centre Indigenous knowledge and impacts, rather than ignoring them. Worse, voices in the Swedish media sometimes take outright racist swipes at the "reindeer-herding elite," driving a wedge between reindeer-herding and non-herding Sámi and other local inhabitants (Kjöller, 2023).

The Sámi advocate for halting new mining projects, implementing reparations and compensation for existing infrastructure (a *restorative* justice claim), and ensuring that environmental regulation supersedes extractive priorities, arguing that such measures are necessary to safeguard reindeer herding, cultural continuity, and Indigenous agency and self-determination. This puts them in the firing line of prevailing national and international narratives, which downplay and ignore the existential threat to their traditional way of life and livelihoods. It also highlights the "relational perspective on implementing self-determination, which encourages the view that Indigenous peoples must seek influence in a variety of different political forums to manage the complex web of relationships in which they have become entangled with non-Indigenous communities and governments" (Murphy, 2008, p. 203).

Broader reflections from international Indigenous voices, including Māori and Mashpee Wampanoag representatives, emphasised that land and resource use decisions often benefit outsiders at the expense of those who have guarded the land for generations. Key recommendations provided by the Indigenous representatives included mapping cumulative impacts of green transition projects on their livelihoods and culture; combining Indigenous and Western scientific knowledge; investigating alternative smaller-scale and less ecologically-damaging models for energy production; and supporting legal and policy mechanisms to protect Indigenous (land) rights, ensuring that transitions are both environmentally and socially just.

6. Conclusion

This article set out to examine how competing narratives of the energy transition and trilemma—the "green transition," "national security," and "energy equity"—shape, and are shaped by, energy justice implications for Indigenous peoples, using the controversy and contestation around the Per Geijer deposit at Kiruna as a case study, and drawing on a narrative and auto-ethnographic approach.

Our analysis shows that large-scale renewable projects and mining for transition minerals in Sápmi are frequently sited on or near the territories of Indigenous peoples, exposing these communities to land dispossession, environmental degradation, and energy injustice. To reconcile national and international energy transition imperatives with justice for marginalised and Indigenous communities, our research suggests integrating *recognition*, *restorative*, and *intergenerational* justice principles into the energy trilemma, as well as stronger human rights protections, more inclusive consultation frameworks, and equitable benefit-sharing mechanisms into regulatory design.

Further, it is crucial to map and highlight the cumulative impact of all energy transition projects, not just individually, but through a broader justice lens. This would ensure that decarbonisation and national security objectives do not further entrench socio-economic inequalities or historical patterns of marginalisation and energy injustice.

Finally, as we tried to do with this research, it is important to acknowledge the power of institutional narratives, and that of their storytellers, and how that contrasts with seldom-heard stories from less powerful and often purposefully-othered storytellers, who are written out of prevailing national and international virtuous tales of the utmost necessity of the "green" energy transition.

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Conflict of Interests

The authors declare no conflicts of interest.

LLMs Disclosure

The authors used generative AI tools (Claude Opus 4.8, Sonnet 5.0, and Qwen3-Max) for limited support as outlined in the methodology; all output was verified against primary sources and rewritten by the authors, where deemed necessary. No AI tool is an author.

Supplementary Material

Supplementary material for this article is available online in the format provided by the authors (unedited).

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