THE HIDDEN BILL OF GREEN CONFLICT:

DERISKING RENEWABLE ENERGY BY STRENGTHENING COMMUNITY TRUST

IHRB
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SCOPE AND APPROACH OF THIS REPORT

This report draws on a mixed-methods research approach combining qualitative and comparative analysis. It is based on a structured review of 47 publicly reported and independently verifiable cases of community conflict in utility-scale wind and solar projects across multiple geographies, selected to ensure robustness and consistency of data.[1] These insights are complemented by over 60 semi-structured interviews with practitioners across renewable energy companies, investors, legal advisors, and civil society organisations, alongside multi-stakeholder dialogue used to test and refine emerging findings. Industry practitioners are quoted throughout this report, on an anonymised basis. The research is further grounded in fieldwork conducted in La Guajira, Colombia, and a broader review of relevant literature. For more on project methodology, see Annex.

Together, these methods provide both empirical grounding and practitioner-informed insight into how conflict emerges, evolves, and translates into material project impacts. Rather than an academic analysis, this report is designed as a practical tool for developers, investors, insurers, and policymakers seeking to better understand and manage their local relationships.

Definitions:[2]

Conflict	There is no single way in which communities may question, resist, or oppose renewable energy development. Social "conflict", "resistance", and "opposition" are used interchangeably throughout this report to reflect a broad continuum of social reaction that can manifest in response to a renewables project - from low-level tensions and administrative challenges to protests, blockades, and, in some cases, violence against people or property.
Root of conflict	The underlying cause or origin of the opposition to solar and wind projects.
Manifestation of conflict	The action and processes through which communities, organisations, groups, individuals express their opposition to solar and wind projects.
Cost of conflict	The measurable or observable impacts of community conflict in response to wind and solar projects.

[1] Case analysis and practitioner interviews did not encompass upstream supply chains or transmission infrastructure.

[2] This research, and particularly the definitional boundaries, was inspired by a 2014 report by Daniel Franks and Rachel Davis that examined the costs of company–community conflict in extractive industries, in particular building on their definitions. See further https://shiftproject.org/resource/costs-of-company-community-conflict-in-the-extractive-sector/

EXECUTIVE SUMMARY

This report examines how community opposition to renewable energy projects translates into material financial and operational impacts for companies. Focusing on site-level dynamics in utility-scale wind and solar developments, it identifies the often untracked "hidden bill" of conflict across project lifecycles and provides practical guidance for developers, investors, insurers, policymakers, and communities on how to better understand, govern, and reduce these risks.

The global energy transition depends on the rapid deployment of renewable energy at unprecedented speed and scale. Yet across markets, renewables projects are encountering growing resistance from the very communities expected to host them - generating delays, redesigns, and financial losses that are increasingly material to project delivery and portfolio value.

As pressure mounts to deliver green projects at speed, community dynamics are becoming a critical constraint on deployment. Delays linked to social opposition can cascade into system-level impacts, slowing renewable rollout and jeopardising climate targets.

Unmanaged company-community conflict is widely acknowledged as a material driver of project performance, affecting timelines, cost of capital, insurance exposure, and long-term portfolio growth - yet these costs are rarely quantified.

KEY FINDINGS

The company costs of green conflict are material - but largely hidden

In one rare example of a renewables developer quantifying these impacts at the portfolio level, they estimated **US$200 million in losses, 3.3GW of undeveloped electricity capacity, and over US$4 billion in potential clean energy investments lost** over a ten year period due to company-community conflict.

These costs remain **structurally hidden** - not only from the public view, but often within companies themselves. At the corporate level, costs are dispersed across functions - legal, development, finance, communications - with no consolidated view of their cumulative impact. At the site level, conflicts are often tracked (eg protests, grievances), but not systematically linked to financial performance.

This disconnect produces what this report identifies as a **"hidden bill" of green conflict**:

The "hidden bill" of green conflict is composed of the cumulative, often untracked costs of community opposition - spanning delays, redesigns, financing penalties, reputational damage, and lost project opportunities - that are dispersed across projects and departments, yet can materially erode portfolio value.

Costs are not being connected to their root causes

What adds to the obscuring of these costs is that they **usually are not connected back to their social root causes.**

The roots of company-community conflicts identified through the case analysis span a wide range of issues. These include concerns over project size and proximity, impacts on land and livelihoods, cultural heritage risks, environmental degradation, and disputes over land rights and consent. Competition over resources such as water and food, as well as impacts on marginalised groups or land rights, also featured prominently.

Across the case analysis and interviews, conflict is consistently affirmed as:

- **Multi-causal:** overlapping drivers
- **Dynamic:** evolving over time
- **Governance-dependent:** shaped by how early tensions are recognised and managed

In terms of how this translates into costs for companies, this typically emerges through administrative and legal processes before escalating - if unresolved - into public campaigns, protests, or operational disruption.

This opposition is not emerging in a vacuum. It is often rooted in limited early engagement by renewables developers, perceived or actual exclusion of local communities and potentially affected stakeholders from decision-making, pressures on land and livelihoods, inequitable distribution of project benefits, cultural impacts, and distrust in the institutions shaping transition pathways.

Being "green" does not automatically grant a social license to operate

Securing a social license to operate is not optional - it is a **core enterprise risk and governance discipline** for every renewables enterprise. Being a "green" project is no longer sufficient; legitimacy must be earned through trust, participation, and fair distribution of benefits.

Practitioners interviewed consistently identify meaningful engagement - grounded in respect for human rights and trust-based relationships - as the most effective approaches to mitigating conflict risk.

When institutionalised effectively, community relationships function as a project premium - reducing volatility, accelerating delivery, and strengthening long-term asset resilience.

Indicative signals to assess the health of a **green social license** include:

Red flags of a weak social license to operate:

- Communities hear about projects through rumours or intermediaries
- Consultation is rushed, symbolic, or poorly attended
- Grievances accumulate without resolution
- Engagement ends once permits are secured
- Protest or litigation becomes the primary channel for voice

Green flags of a strong social license to operate:

- Communities are informed early and directly
- Concerns are addressed before escalation
- Participation shapes project design
- Benefits are visible, fair, and locally relevant
- Engagement and accountability are embedded across the project lifecycle

PATHWAYS FORWARD

What is missing in current renewables practice is not recognition that local stakeholder engagement matters. What is missing in current renewables practice is a **systematic understanding of how failed engagement with potentially affected stakeholders translates into financial and operational consequences** - and how those consequences can be governed.

This report provides:

> A **taxonomy** of conflict-related costs across the project lifecycle. This practical lens helps companies begin to identify where value is being eroded - and where intervention is most effective:

- **Direct losses:** Despite being direct losses driven by unmanaged social opposition, these costs are typically treated as ordinary project adjustments, such as force majeure, community investments, or redesigns.
- **Delays and cancellations:** Delays are among the riskier impacts of conflict, as they reduce productivity, increase the risk of cancellations, and can jeopardise not only corporate strategies but also national energy transition targets.
- **Financing risks:** Investors and insurers seek to reduce losses by increasing oversight and monitoring of social risks, demanding their identification, management, and reporting throughout project development.
- **Reputational damage:** Difficult to quantify, but can indirectly show up as lost contracts, failed bids, stalled negotiations, stricter conditions, and increased resistance to projects.
- **Unrealised value:** Some of these costs are direct to projects, others emerge over time as companies or governments face constraints on growth in priority projects and a slowdown in national transition plans.
- **Organisational and human capital impacts:** The impacts of community conflict can manifest in companies' internal teams and staff, as well as attracting future talent.

> Four **operational pathways** to start derisking projects and strengthening trust:

- **Conflict prevention by design** - Detect project-level issues, tensions, or opposition early, and integrate social risk into core project design and investment decision-making as fundamentally as technical, financial, and environmental risk.
- **Relationship governance and early resolution** - Build and maintain trust through structured, continuous stakeholder engagement - treating relationship governance as a core operational function.
- **Measuring and managing the "hidden bill"** - Treat community conflict as a measurable enterprise risk - embedding cost visibility into governance and financial decision-making.
- **Embedding equity and benefit sharing in project value** - Advance social equity for stakeholders and long-term operating stability by ensuring communities experience tangible, fair value from projects.

> Targeted **guidance for key actors** across the renewables ecosystem: CFOs, sustainability leads; investors; insurers; governments; communities

> Additional resources, including:

- A **mock dashboard** for quarterly review of hidden bill indicators
- **Additional research, guidance, and tools** on quantification, human rights due diligence, and benefit sharing approaches

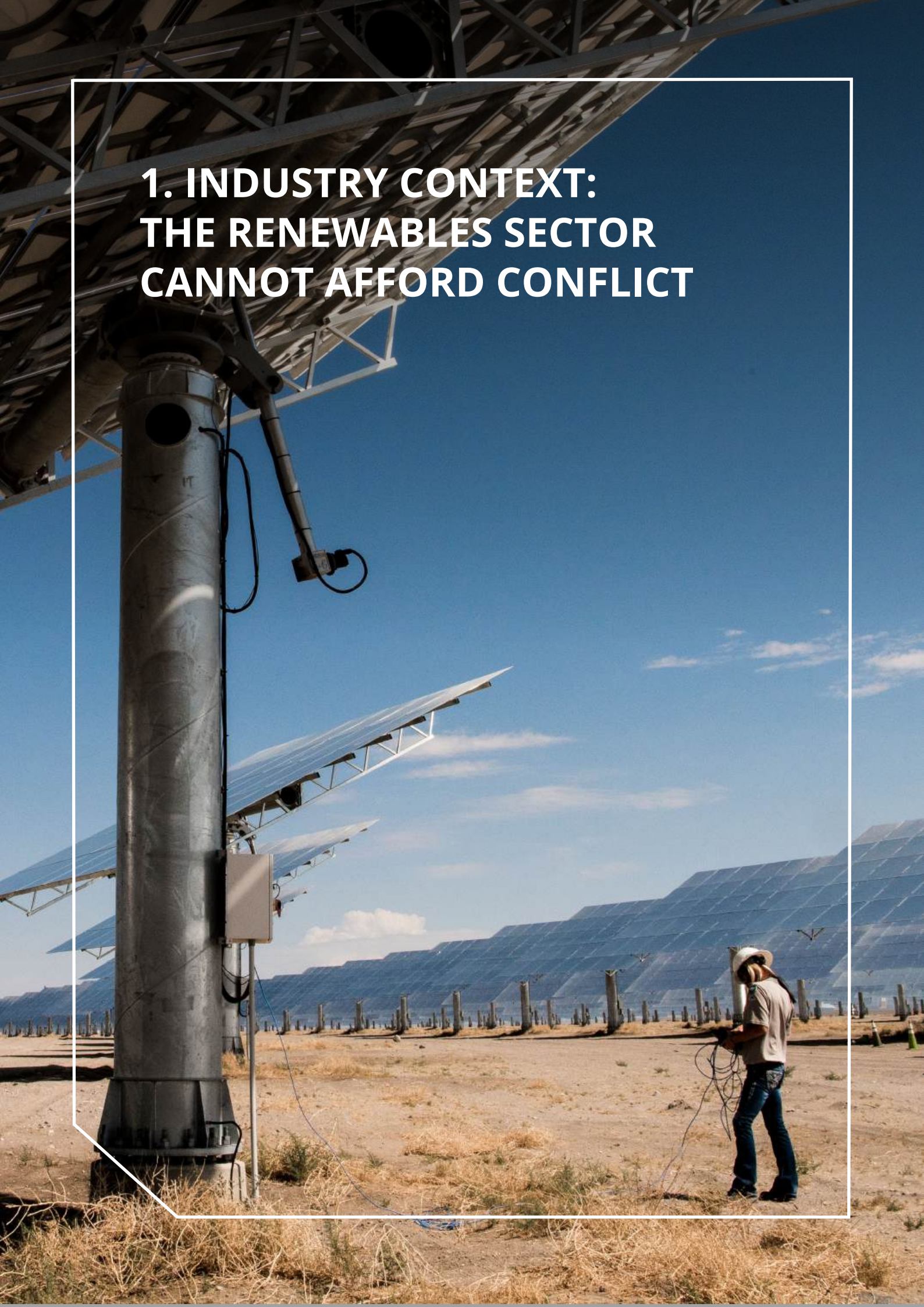
CONCLUSION

The speed and scale of the energy transition will ultimately depend not only on technology and finance, but on trust.

While this report focuses on the company costs of conflict, its purpose is not to reduce social issues to financial metrics, but to use cost visibility as a lever to improve governance, decision-making, and project design. Costing is a means to strengthen these systems - not a substitute for them.

The resources provided in this report offer a starting framework for moving from reactive crisis management toward anticipatory, governance-integrated approaches to social risk and value creation.

Companies that institutionalise meaningful engagement, grounded in strong human rights due diligence, as a core risk and value discipline will be better positioned to deliver projects on time, protect capital, and sustain legitimacy in an increasingly contested transition landscape.



1. INDUSTRY CONTEXT: THE RENEWABLES SECTOR CANNOT AFFORD CONFLICT

Today's operating context can make unmanaged community opposition to renewables existential to projects. Renewable energy must scale rapidly to meet climate goals.[3] Meanwhile, local communities are claiming their right to have a say in the new energy systems entering their neighbourhoods and lands, expecting information sharing, meaningful participation, and direct benefits from the project.[4] When these expectations are unmet, project developments may face a wide range of potential social opposition.

In addition to this, the speed and scale of deadlines, fragile margins, geopolitical factors, and the requirements of investors to ensure profitability mean that even short disruptions can erase value, increase costs or deter investments entirely. This "hidden bill" of poorly managed relations can lead to delays, cancellations, higher capital costs, and reputational impact for companies operating in the industry. Under this environment, it is clear that the renewable sector cannot afford conflict. This is why preventing conflict and managing opposition to projects must be core to business discipline.

SPEED AND SCALE DISCONNECT

Governments are racing against time to meet their interim climate targets by 2030 and reach net-zero by 2050, increasing pressure on renewable energy developers to deliver projects faster and at scale.[5] Yet, even under this scenario, the International Renewable Energy Agency (IRENA) warns that the world is set to fall short of the 2030 goal of tripling global renewable capacity to 11,000 GW.[6]

Developers face increasingly short and strict deadlines from public auctions, grid connections, investor demands, and power purchasing agreements, all while seeking to capture new markets, accelerate projects, and compete with others in the sector. This structural tension between fast-tracked timelines versus the slower, relational nature of trust building with local communities creates a temporal mismatch. This mismatch is a recurring contributor to social opposition to renewable energy, illustrating why technically compliant projects can still face local community opposition: meaningful community engagement, if rushed, can generate distrust, social opposition, and conflict. These social factors can jeopardise a project's viability and profitability.

Governments can also risk weakening community-company ties by rushing consultations to meet deadlines or failing to ensure sufficient oversight. This urgency can result in tenders with weaker social protections and safeguards, and inadequate information for renewable energy companies unless the companies have undertaken rigorous due diligence. At the same time, delayed projects can hamper national action policies and climate targets, impacting national rollouts and pipelines.

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[3] *Tripling renewable power and doubling energy efficiency by 2030: Crucial steps towards 1.5°C* (COP28 Presidency, IRENA, Global Renewables Alliance, 2023). https://www.irena.org/Digital-Report/Tripling-renewable-power-and-doubling-energy-efficiency-by-2030; *Tracking COP28 outcomes: Tripling renewable power capacity by 2030* [A World Energy Transitions Outlook brief] (IRENA, 2024). https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2024/Mar/IRENA_Tracking_COP28_outcomes_2024.pdf; *World energy outlook 2024* (International Energy Agency, 2024). https://www.iea.org/reports/world-energy-outlook-2024; *Global wind report 2025* (Global Wind Energy Council, 2025). https://www.gwec.net/reports/globalwindreport

[4] See for example: *Taking Green Energy Projects to Court: NEPA Review and Court Challenges to Renewable Energy* (Resources for the Future, 2025). https://media.rff.org/documents/Report_25-15.pdf; *Unjust Transition on Trial: Communities and Workers Litigate to Shape Corporate Practice* (BHRRC, 2024). https://www.business-humanrights.org/en/from-us/briefings/unjust-transition-on-trial-communities-and-workers-litigate-to-shape-corporate-practice/. *Sources of Opposition to Renewable Energy Projects in the United States* (Susskind et al., Energy Policy, 2022); *Does Renewable Energy Affect Violent Conflict? Exploring Social Opposition and Injustice in the Struggle over the Lake Turkana Wind Farm, Kenya* (Owusu-Amponsah, D. et al. — Energy Research & Social Science, 2023) https://www.sciencedirect.com/science/article/pii/S2214629623001494.

[5] Ibid.

[6] Ibid.

FRAGILE MARGINS

Despite the global need for and support of renewables, the economic models for these technologies are under strain.[7] Renewable energy projects require the majority of their lifetime capital investments upfront, leaving little room for disruption.[8] Margins are thin, with renewables operating with net profits lower than those of fossil fuels and constant price fluctuations that may affect long term calculations.[9] Even modest material impacts on a project can threaten its overall viability.[10]

Subsidy regimes and incentives are also shifting, including changes from feed-in tariffs to auctions or stricter deadlines to guarantee tax breaks, forcing developers to operate with less protection to cushion losses.[11] After years of falling costs, the industry has recently faced rising interest rates to combat inflationary pressures and supply chain bottlenecks, further compounding the sector's ability to grow at the speed and scale required to meet global climate targets.[12]

GLOBAL POLITICAL LANDSCAPE

Political shifts are reshaping the financial and legal landscape, creating uncertainty for market players. Policy reversals, delayed reforms, or changes to current rules driven by political decisions can deter the expansion of renewables.[13]

In a global economy where competition for capital, tenders, and technologies defines who builds or operates, policy and political stability can determine the success or failure of a project.[14]

INVESTOR EXPECTATIONS AND INSURANCE

Investor scrutiny of renewable energy projects is intensifying.[15] Estimates suggest US$1.5 trillion in renewable energy investments per year are required to meet 2030 net-zero targets - well above the US$807 billion actually recorded in 2024.[16] This enables financiers to be selective.

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[7] *Global goal of tripling renewables needs USD 1.5 trillion investment per year* [Press Release] (International Renewable Energy Agency, 2024) https://www.irena.org/News/pressreleases/2024/Oct/Global-Goal-of-Tripling-Renewables-Needs-USD-1-point-5-Trillion-Investment-Per-Year

[8] *What is the impact of increasing commodity and energy prices on solar PV, wind and biofuels?* (International Energy Agency, 2021). https://www.iea.org/articles/what-is-the-impact-of-increasing-commodity-and-energy-prices-on-solar-pv-wind-and-biofuels

[9] *Weighted average net margins of renewable energy companies, large utilities and oil majors, Q1–Q4 2022 and Q1–Q3 2023* [Data visualization]. (International Energy Agency, 2024) https://www.iea.org/data-and-statistics/charts/weighted-average-net-margins-of-renewable-energy-companies-large-utilities-and-oil-majors-q1-q4-2022-and-q1-q3-2023

[10] *Material and resource requirements for the energy transition* (Energy Transitions Commission, 2023). https://www.energy-transitions.org/wp-content/uploads/2023/07/ETC-Material-and-Resource-Requirements_vF.pdf

[11] *Renewables 2025: Analysis and forecasts to 2030* (International Energy Agency, 2025). https://iea.blob.core.windows.net/assets/76ad6eac-2aa6-4c55-9a55-b8dc0dba9f9e/Renewables2025.pdf; *Executive order targets renewable energy incentives, adds compliance risk for developers* (Farella Braun + Martel LLP, 2025). https://www.fbm.com/publications/executive-order-targets-renewable-energy-incentives-adds-compliance-risk-for-developers/

[12] *Renewable power generation costs in 2024* (International Renewable Energy Agency, 2025). https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2025/Jul/IRENA_TEC_RPGC_in_2024_2025.pdf;

[13] A recent study into climate litigation trends notes: "Of the 226 cases filed in 2024, 60 cases were classified as involving an argument not aligned with climate goals. Many of these question governments' authority to pursue a proposed climate policy, or companies' environmental/social/governance (ESG) agendas." *Global trends in climate change litigation: 2025 snapshot* (LSE, 2025). https://www.lse.ac.uk/granthaminstitute/publication/global-trends-in-climate-change-litigation-2025-snapshot/ . See for example: *Ending market distorting subsidies for unreliable, foreign-controlled energy sources* [White House, Executive Order]. (7 July 2025). https://www.whitehouse.gov/presidential-actions/2025/07/ending-market-distorting-subsidies-for-unreliable-foreign-controlled-energy-sources/

[14] See for example: *Public engagement on grid infrastructure* (UK Department for Energy Security and Net Zero, 2025). https://www.gov.uk/government/publications/public-engagement-on-grid-infrastructure/public-engagement-on-grid-infrastructure

[15] *Global landscape of energy transition finance 2025* (International Renewable Energy Agency & Climate Policy Initiative, 2025). https://www.irena.org/Publications/2025/Nov/Global-landscape-of-energy-transition-finance-2025\

[16] *Global goal of tripling renewables needs USD 1.5 trillion investment per year* [Press Release] (International Renewable Energy Agency, 2024) https://www.irena.org/News/pressreleases/2024/Oct/Global-Goal-of-Tripling-Renewables-Needs-USD-1-point-5-Trillion-Investment-Per-Year

Perceptions of risk due to potential social opposition and the readiness of company systems to address and manage community relations can materially affect investor confidence in a project's viability based on their risk appetite.[17]

> **"There's a need for investor coalitions focused not just on climate, but on justice and social impacts."[18]**

Social opposition and conflict can also affect project valuation, insurance costs, and credit terms.[19]

For insurers, if community conflict volatility is deemed as increasing project risk, they will likely charge more or reduce coverage to appropriately price the risk.[20] For renewable practitioners, this can result in higher insurance costs, restricted coverage or exclusions of protections, such as interruptions and damage, or not securing coverage at all.[21]

A TIPPING POINT FOR THE SECTOR

Company-community conflict across projects is not an individual or independent matter, but rather a system-level energy transition constraint risking capacity worldwide.

The convergence of these pressures and their interaction with community conflict, if poorly managed, risks a downward tipping point for the sector. The industry's progress cannot be taken for granted, and it cannot simply rely on the green benefits it offers the planet. The energy transition may fail, not due to a lack of growth potential or capital, but for failures to anticipate, engage, and manage community concerns - including in the context of rising mis- and disinformation.[22]

Conversely, well-managed community relationships can be built to establish a strong social license locally that can be translated into trust and confidence by government and investor partners to materially advance development and operational efficiency. The future of renewables, and by extension, the planet, depends on the sector's ability to operate responsibly by building trust with their local communities, engaging meaningfully, and involving those most affected in a project's development and lasting benefits.

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[17] *Global landscape of energy transition finance 202*5 (International Renewable Energy Agency & Climate Policy Initiative, 2025). https://www.irena.org/Publications/2025/Nov/Global-landscape-of-energy-transition-finance-2025\

[18] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[19] *Legal risk premier providing an overview of the key legal risks that may arise from community-related human rights impacts of wind and solar energy* (CCSI, 2022). https://ccsi.columbia.edu/respecting-human-rights-communities-wind-solar-project-deployment/

[20] *A guide to political risk insurance* (Clifford Chance, 2025). https://www.cliffordchance.com/content/dam/cliffordchance/briefings/2025/03/a-guide-to-political-risk-insurance.pdf

[21] *Power price stability and the insurance value of renewable technologies* (Nature Energy, 10, 329–341, 2025). https://doi.org/10.1038/s41560-025-01704-0

[22] *Rebutting 33 False Claims About Solar, Wind, and Electric Vehicles* (Sabin Center for Climate Change Law / Columbia Law School, 2024). https://scholarship.law.columbia.edu/sabin_climate_change/217/

2. THE HIDDEN BILL: THE OVERLOOKED COSTS OF UNMANAGED SOCIAL OPPOSITION

There is still limited publicly available evidence quantifying the costs of local conflict in renewable energy projects. However, the data that does exist points to impacts that are clearly material - not only to project development but to the broader efficiency, costs, and pace of renewable energy development. For example:

At the project level:

- A 2024 survey of U.S. utility-scale wind and solar developers found that project cancellations were associated with average sunk costs of more than US$2 million per solar project and US$7.5 million per wind project, while delays were estimated to cost around US$200,000 per megawatt (MW) for both technologies.[23]
- The same survey found that developers spent approximately US$700 per MW on community engagement for solar and US$1,100 per MW for wind.[24] It also found that 75% of developers believed increased engagement leads to fewer project cancellations, while 66% said it helps address local concerns before construction.[25]
- Another U.S. study of 53 utility-scale wind, solar, and geothermal projects found that 34% faced significant delays and permitting difficulties, 49% were permanently cancelled, and 26% resumed only after being halted for months or years, representing nearly 4,600 MW of affected capacity.[26]
- A 2023 report found litigation rates of 64% for solar and 38% for wind in the United States - among the highest across 171 energy and transport 184 projects studied.[27]

At the system-level:

- Modelling found that including high-opposition scenarios increased total electricity system costs by as much as 33%, with non-blackout-related investment and operational costs rising by 5–6%.[28]
- In the United Kingdom, separate research estimates that planning failures and local opposition increased the cost of wind deployment by 10–29%, equivalent to roughly £23 billion by 2019.[29]

A TAXONOMY FOR UNDERSTANDING THE "HIDDEN BILL" OF GREEN CONFLICT

The consequences of unmanaged social conflict show up in hard numbers: delayed cash flows, higher financing costs, redesigns, write-offs, and even stranded assets. These costs are not represented by a single line item in a spreadsheet; they are a bundle of financial, operational, and reputational costs that can manifest across multiple project stages in different forms and with varying impacts.

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[23] *Survey of Utility-Scale Wind and Solar Developers* (Lawrence Berkeley National Laboratory / US DOE, 2024). https://eta-publications.lbl.gov/sites/default/files/w3s_developer_survey_summary_-_011724.pdf

[24] Ibid.

[25] Ibid.

[26] *Sources of Opposition to Renewable Energy Projects in the United States* (Susskind et al., Energy Policy, 2022) https://www.sciencedirect.com/science/article/pii/S0301421522001471

[27] *NEPA Litigation Over Large Energy and Transport Infrastructure Projects* (Environmental Law Reporter / Stanford University, 2023). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4498938

[28] *Public acceptance of renewable electricity generation and transmission network developments: Insights from Ireland* [Energy Policy, Vol. 151, 112185] (Koecklin et al, 2021). https://www.sciencedirect.com/science/article/pii/S0301421521000549

[29] *The Economic Costs of NIMBYism: Evidence from Renewable Energy* (Energy Institute at Haas / UC Berkeley, 2021). https://haas.berkeley.edu/wp-content/uploads/WP311.pdf

This dispersed, under-acknowledged financial impact creates a **"hidden bill"** for renewables developers, operators, and their investors:

The "hidden bill" of green conflict is composed of the cumulative, often untracked costs of community opposition to a renewables project - spanning delays, redesigns, financing penalties, reputational damage, and lost project opportunities - that are dispersed across projects and departments, yet can materially erode portfolio value.

The problem is not necessarily the existence of these costs, but that they are **rarely identified or tracked** as costs of conflict. They are often hidden in plain sight, scattered across different budgets, departments, and project stages. This in turn impacts how conflict prevention and management approaches are prioritised by companies - often accepted as routine business expenses, such as project redesigns, legal disputes, compensation, overheads, contractors' claims, increased security, reduced capacity, and more.

> "Some projects were cancelled under the argument that they were 'no longer viable'. But the real reason was that the cost of conflict made them impossible to build."[30]

These costs can be broken down into at least **six broad categories**,[31] whose boundaries are not rigid, and which may help companies, investors, and governments begin to map the value being lost to local opposition and resistance.

[30] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[31] *This builds on the taxonomy developed in: Costs of Company-Community Conflict in the Extractive Sector* (Davis & Franks, 2014) https://shiftproject.org/resource/costs-of-company-community-conflict-in-the-extractive-sector/

Taxonomy: The diverse costs a renewable energy company can experience as a result of site-level conflict

- Direct losses
- Delays and cancellations
- Financing risks
- Reputational damage
- Unrealised value
- Organisational and human capital costs

i) Direct losses:

These are tangible and intuitive elements of the hidden bill, including:

- **Sunk Investments** in land acquisition, permitting, engineering, and construction, which might be subject to write-down or even write-off when a project is delayed, significantly redesigned, or cancelled.
- **Project modifications** such as reducing the size or scale of the development, relocating assets, redesigning access roads, or making physical changes to the project.
- **Higher personnel and overheads**, including the need for larger teams or consultants to deal with situations of conflict or legal and communication support.
- **Material damages and redress** from direct impact on equipment from protests or blockades, or negotiated compensation agreements originating from conflict.

Despite being direct losses driven by unmanaged social opposition, these costs are typically treated as ordinary project adjustments, such as force majeure, community investments, or redesigns.

ii) Delays and cancellations:

These are often the most common dimension of the hidden bill, with cases of social opposition able to impact project productivity for days, months, and even years.

- **Permitting and licensing delays** when authorities pause or repeat consultations on already approved processes, require further studies, or respond to pressure from community demands, increasing scrutiny.
- **Operational disruptions** across project stages that halt construction, operations or development of the project.
- **Cancellations** of projects due to the cancellation of permits, ongoing opposition, or infeasibility of the asset.

Delays are among the riskier impacts of conflict, as they reduce productivity, increase the risk of cancellations, and can jeopardise not only corporate strategies but also national energy transition targets. In some cases, such as offshore wind, even short delays can have disproportionate impacts due to vessel availability or seasonal windows.

iii) Financing risks:

The costs of conflict from communities can also affect financing conditions directly:

- **Pricing debt and equity** involves greater risks of perceived opposition to the project, such as disruptions, protests, and litigation that can translate into less favourable pricing of debt/equity.
- **Access to capital** is affected when investors halt, withdraw, or refrain from financing projects due to historical incidents or ongoing social conflicts.
- **Stringent conditions for financing** with more safeguards, monitoring, and remedial actions.
- **Higher insurance premiums** or deductibles for projects with a higher assessed risk and/or conflict track record.

Investors and development finance institutions seek to reduce losses by increasing oversight and monitoring of social risks, demanding their identification, management, and reporting throughout project development. Failure to comply may result in material financing challenges for renewables developers.

iv) Reputational damage:

Reputational impacts are often mistaken as an intangible cost, and the knock on impacts to operational effectiveness show up in a myriad of ways, including:

- **Weakened brand credibility** with government officials, regulators, communities, partners, and lenders, making it harder to secure future projects.
- **Reduced competitiveness** in auctions and tenders when social criteria are used to award projects.
- **Strained government relations** when community opposition puts pressure on governments and politicians to increase scrutiny on projects.
- **Instant community resistance** against companies when entering new projects due to a weak social track record.
- **Cross-stakeholder reputational damage** as companies, investors and development organisations share the negative impact of social conflict.
- **Sector resistance** with communities opposing new renewable developments due to unrelated, but previous and historical conflicts in a different region or country.

Reputational damage is difficult to quantify because it is based on the assumption that an event or incident has weakened the trust in a practitioner's brand name rather than on a physical project. Yet it can indirectly show up as lost contracts, failed bids, stalled negotiations, stricter conditions, and increased resistance to projects. Reputational damage is also cumulative and can multiply over time, escalating as incidents and controversies arising from repeated or unresolved community conflicts occur.

v) Unrealised value:

Lost opportunities due to company-community conflict can add to the hidden bill in a myriad of material ways:

- **Lost partnerships** with local municipalities or investors declining to join new ventures.
- **Lower project valuations** from buyers due to community-related disputes, negative media coverage, and disruptions.
- **Thinner pipelines** with local authorities cancelling or delaying auctions and struggling to attract bidders in areas where projects face community opposition.
- **Stranded investments** that could have been used to develop other projects.
- **Lost revenue** from cancelled projects due to local opposition.
- **Benefit-sharing opportunity costs** as communities, local governments, and institutions lose the value that could have been generated locally by the project.

Some of these costs are direct to projects, others emerge over time as companies or governments face constraints on growth in priority projects and a slowdown in national transition plans. Communities can also suffer the impact of lost investments in local economies.

vi) Organisational and human capital costs:

The impacts on teams and companies' human resources can be particularly hard to measure and yet highly material to the hidden bill, spanning:

- **Staff burnout** leads to higher turnover in community-facing teams and difficulty in retaining good people in conflict-prone areas.
- **Senior management and staff time** diverted to crisis management and firefighting, rather than new revenue generating opportunities.
- **More challenging conditions to attract talent** due to weaker reputational performance, fueled by conflicts over projects and controversies.

The impacts of community conflict can manifest in companies' internal teams and staff, as well as attracting future talent.

WHY ARE THESE COSTS HIDDEN?

The costs of conflict are paradoxically hidden: At the corporate level, these costs sit across multiple departments, owned by different teams, typically with no central command assembling them into a single picture of how much local opposition to a project costs the company each year.

At the site level, the opposite is often true: local teams often track incidents of conflict and local social tensions, such as protests, blockades, or grievances. However, projects are managed under a single budget, typically with no precise specifications on how company-community conflict affects the project's overall finances. This paradoxical situation creates a dynamic in which it becomes extremely difficult for an enterprise to identify, track, and manage the costs of conflict effectively.

What adds to the obscuring of these costs is that they usually are not connected back to their social root causes. These could be related to weak social assessment of local dynamics, inadequate engagement, lack of trust, absence of benefit sharing mechanisms, or even external political pressure. These factors are explored further in Section 3.

EVIDENCE OF SCALE

The hidden bill is not hypothetical; it is a real consequence of how costs can materialise when community engagement is not linked to strategic goals and social dynamics are not appropriately managed.

In one rare example of a renewables developer quantifying the costs experienced due to site-level conflict, they estimated losses as follows:

"Local conflicts across renewable projects led to around US$200 million in losses and 3.3 GW of new undeveloped electricity capacity, representing more than US$4 billion in potential clean energy investments, over a period of 10 years."[32]

Taken together, these figures illustrate how the "hidden bill" operates across multiple dimensions of direct financial losses, foregone capacity, and constrained capital deployment:

- **US$200 million** reflects the compound financial impact of conflict across the company's portfolio over a decade. By comparison, this figure is broadly equivalent to many years of typical community engagement and benefit-sharing investment for a large renewable energy company. This highlights a critical counterfactual made visible by the "hidden bill": resources absorbed through unmanaged social conflict could instead be directed toward earlier, more effective engagement and value-sharing approaches that reduce risk and strengthen project outcomes. While such investments do not guarantee conflict prevention, they can significantly reduce the severity, likelihood, and duration of disputes - shifting costs from reactive loss to proactive value creation.

[32] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

- **3.3 gigawatts (GW) of undeveloped capacity** represents a significant opportunity cost: projects that never came online, megawatts that never generated revenue, supplied electricity, or displaced fossil fuel generation.[33] 3.3 GW is equivalent to several large-scale utility portfolios or the annual additions of entire national markets.[34] At this scale, the loss is not only commercial but systemic. It reflects a material reduction in the pace of renewable deployment - illustrating how localised social conflict can translate into missed decarbonisation outcomes at the system level.
- **representing US$4 billion in potential clean energy investments** - meaning the capital that would have been deployed had these projects progressed. This is comparable to the annual renewable energy investment of entire national markets.[35] This is not only a loss for the company, but a diversion of capital away from the energy transition.[36] At this scale, foregone investment of this magnitude reflects how social conflict can disrupt capital deployment - slowing project pipelines, affecting investor confidence, and constraining the overall flow of finance into renewable energy systems.

Beyond these quantified impacts, **reputational and project opportunity costs** represent an additional dimension of the "hidden bill" that is often even less visible. While not captured in this example, practitioners consistently reported that conflict and heightened perceptions of social risk can lead to tighter lending conditions, delayed permitting, reduced market confidence, and diminished access to future project opportunities.

The assumption that costs related to community conflict are marginal or incidental is increasingly untenable. As illustrated above, when aggregated across portfolios and over time, these costs can reach levels that are material to core business performance - affecting project pipelines, capital deployment, and long-term value creation. Rather than representing isolated overheads, they constitute a significant and often under-recognised component of project and portfolio risk.

UNDERSTANDING THE COUNTERFACTUAL

The value of understanding this hidden bill also lies in quantifying the counterfactual. Tracking these costs in projects and portfolios allows companies to ask questions such as:

- How much of this could have been avoided if engagement had been managed differently?
- What is the effect of well-managed community opposition on project value?
- What would be the value of the project if conflict had not occurred?

Understanding these counterfactuals underscores the essential nature of **community relationships as a driver of business value.**[37]

More research on the counterfactuals and return on community engagement investments is required to quantify the benefits of these policies compared to the costs involved. Ultimately, making the hidden bill visible is not only about accounting for costs, but also about redesigning how projects are conceived, financed, and governed.

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[33] *The Cost of Inaction* (Climate Policy Initiative (CPI), 2024). https://www.climatepolicyinitiative.org/the-cost-of-inaction/

[34] *Renewable Capacity Highlights* (IRENA, 2025). https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2025/Mar/IRENA_DAT_RE_Capacity_Highlights_2025.pdf

[35] *Global landscape of energy transition finance 2025* (International Renewable Energy Agency & Climate Policy Initiative, 2025). https://www.irena.org/Publications/2025/Nov/Global-landscape-of-energy-transition-finance-2025\

[36] *Correlation between companies committing to 100% renewable electricity and achieving above-average financial performance* (RE100, 2024). https://www.business-humanrights.org/en/latest-news/correlation-between-companies-committing-to-100-renewable-electricity-and-achieving-above-average-financial-performance/

[37] *Improving the Investment Climate for Renewable Energy Through Benefit Sharing, Risk Management, and Local Community Engagement* (World Bank / IFC, 2019). https://documents.worldbank.org/en/publication/documents-reports/documentdetail/436351574916190205/improving-the-investment-climate-for-renewable-energy-through-benefit-sharing-risk-management-and-local-community-engagement *Spinning Gold: The Financial Returns to Stakeholder Engagement* (Henisz, W.J., Dorobantu, S. & Nartey, L.J. Strategic Management Journal, 2014). https://sms.onlinelibrary.wiley.com/doi/abs/10.1002/smj.2180

PATTERN INSIGHTS FROM INDUSTRY PRACTITIONERS[38]

Most renewables developers and operators interviewed for this project agreed that the biggest costs of community related conflict were directly related to companies' operations, in the form of delays, cancellations, and lost productivity, with delays ranging from days to months to multi-year indefinite suspensions. For most interviewees, delays are the most persistent and measurable consequence of these events.

> **"Delays are definitely the most costly... I planned for three years, I've been at it for fifteen."[39]**

While companies, investors, and other stakeholders interviewed almost universally struggled to quantify the reputational or social impacts of such conflicts, almost everyone interviewed could point to time lost. Meanwhile, permitting was often stressed as the stage most vulnerable to delays with social and political contestation intersecting with bureaucratic hurdles.

Other significant costs highlighted by industry practitioners were external, such as legal fees, compensation, and reputational impact. Some interviewees considered project modifications a secondary cost, though others viewed changes to projects as standard to business. Lesser community opposition related costs identified by companies were security, insurance, and administrative costs.

Interviewees also recognised that the costs of community engagement and conflict management are negligible compared to the costs of conflict. This contrast, between engagement costs versus conflict costs, is not only about scale, but about predictability. Community engagement spending is typically modest (compared to the overall project) and planned, while conflict costs are volatile, unpredictable, and, in some circumstances, irreversible. At the same time, the asymmetry is temporal. Community engagement costs tend to occur first, early in the project, when aspects are a bit more flexible to change. Meanwhile, the unpredictability and volatility of conflict suggests that any time could become a crisis if community tensions and opposition are not proactively managed and mitigated.

> **"The costs of travelling somewhere in order to have those face-to-face engagements are not even a drop in a bucket compared to a project."[40]**

[38] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[39] Ibid.

[40] Ibid.

THE LIMITS OF COSTING

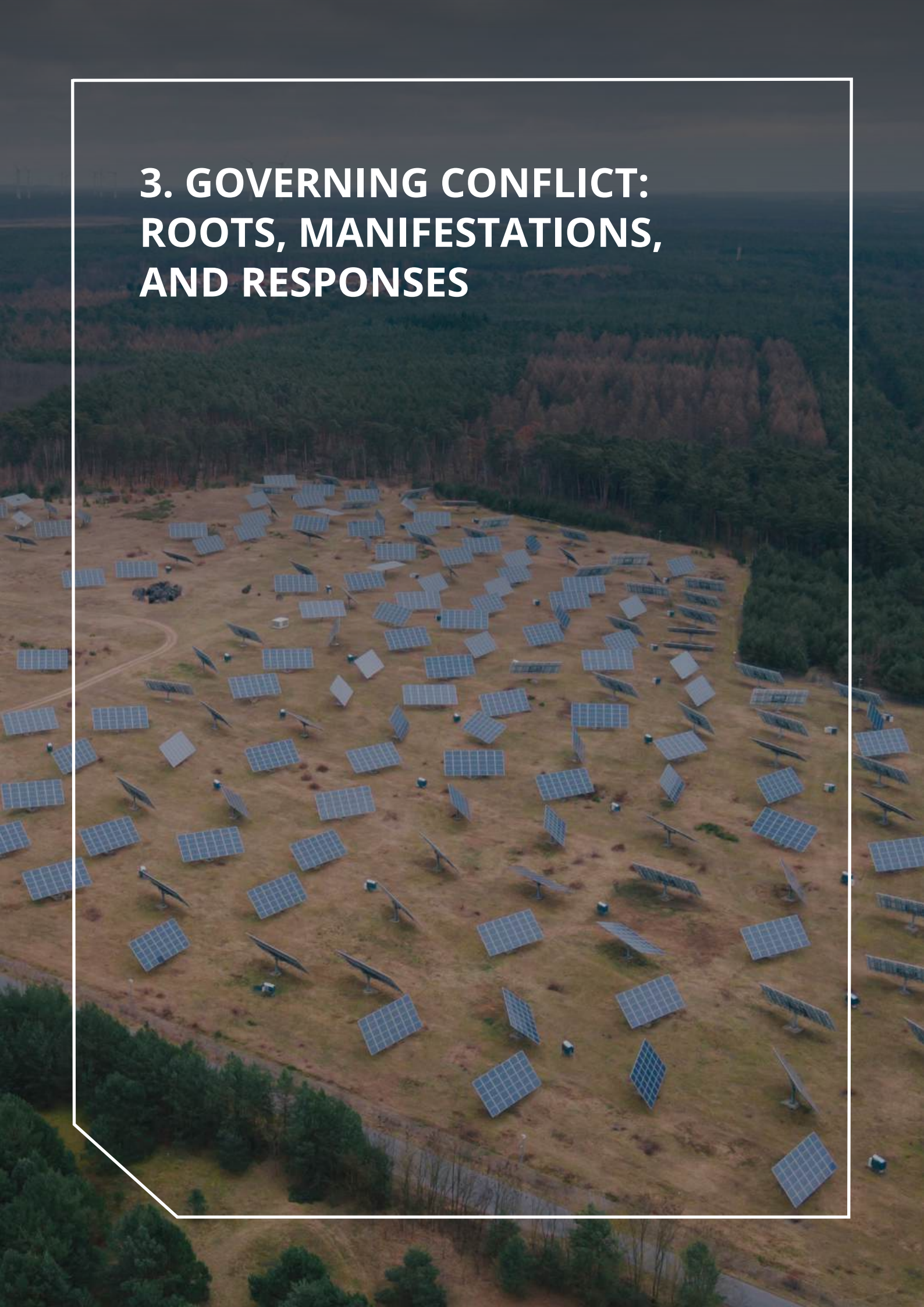
Cost analysis can help companies visualise how community tensions translate into construction delays, financial losses, and reputational risks. However, costing such issues is not a silver bullet.

Financial metrics cannot capture the full social and human rights impacts experienced by communities, nor should the purpose of costing be to reduce complex social dynamics to monetary values alone. Rather, it provides a practical tool for improving internal visibility of risks that are often dispersed across departments and decision-making processes.

Preventing conflict ultimately depends on the quality of human rights due diligence, meaningful engagement with affected stakeholders, accessible grievance mechanisms, and equitable benefit-sharing arrangements. There are multiple international tools and guidance on community engagement for projects, conflict resolution, and benefit-sharing that can help companies navigate these situations - a selection of these are highlighted in the Annex.

Ultimately, developing a system for identifying, tracking, and managing the “hidden bill” of company-community conflict is a first step toward strengthening internal governance around these issues.

3. GOVERNING CONFLICT: ROOTS, MANIFESTATIONS, AND RESPONSES



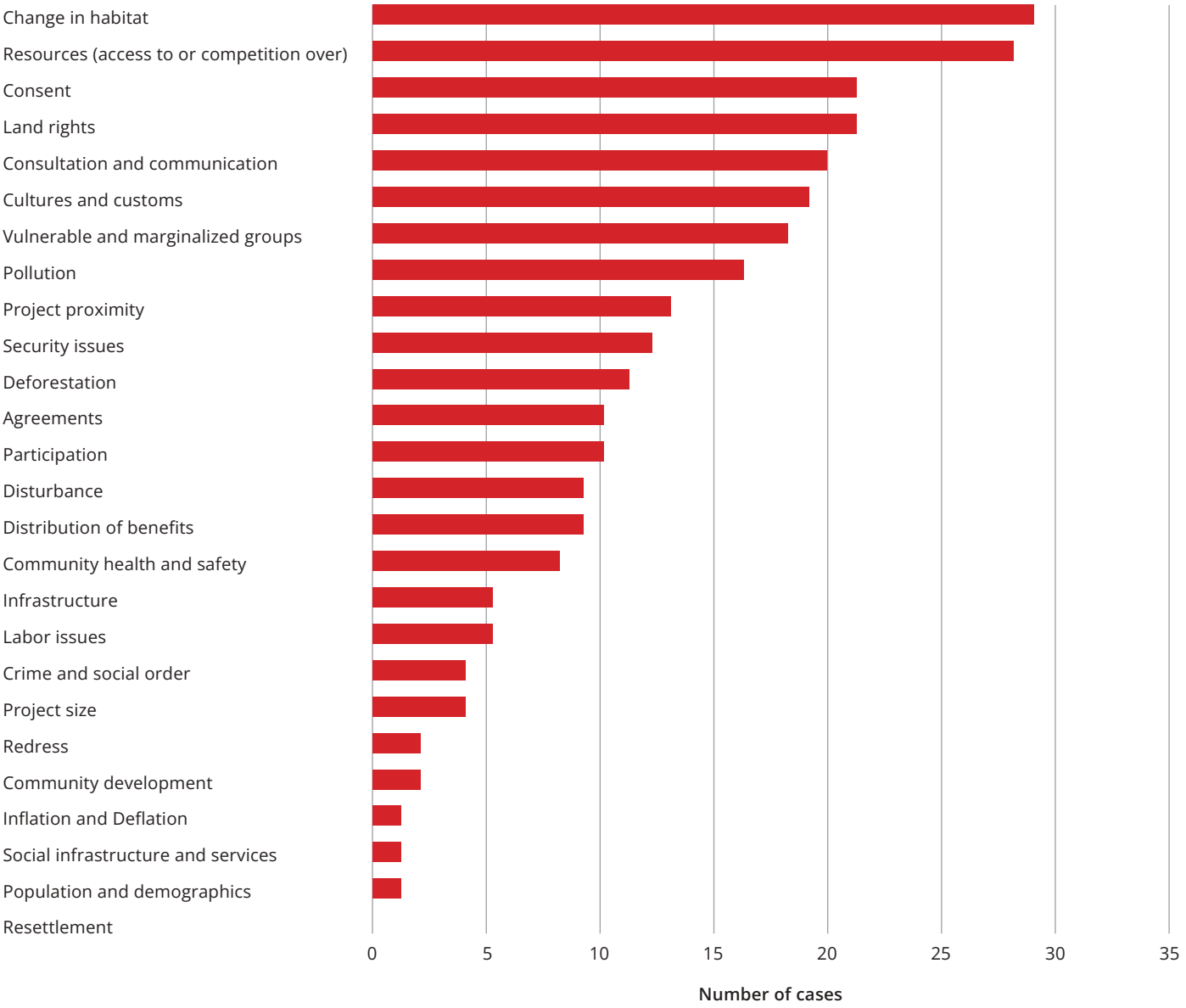
CONFLICT IS STRUCTURAL AND MULTI-CAUSAL

Not only do the costs of company-community conflicts fall on a spectrum, so too do the ways in which conflict originates, manifests, and is responded to. Social opposition to renewable energy projects does not emerge as a single, isolated event, but as the product of interacting pressures that evolve over time.

This insight is informed by analysis of 47 real-world conflict cases across wind and solar projects in multiple geographies, based on publicly available data. The analysis mapped these conflicts against key variables to understand their most common root causes, manifestations, and cost implications (For more background on project methodology, see Annex).

Across all 47 cases, conflict was never attributable to a single trigger - each case exhibited more than one root cause simultaneously. This demonstrates that such situations are not static incidents but rather a dynamic process, capable of intensifying, diffusing, or transforming as projects progress and as stakeholder responses evolve.

Figure 1. Wind and solar - Roots of conflict



The roots of company-community conflicts identified through the case analysis span a wide range of issues.[41] These include concerns over project size and proximity, impacts on land and livelihoods, cultural heritage risks, environmental degradation, and disputes over land rights and consent. Competition over resources such as water and food, as well as impacts on marginalised groups or land rights, also featured prominently.

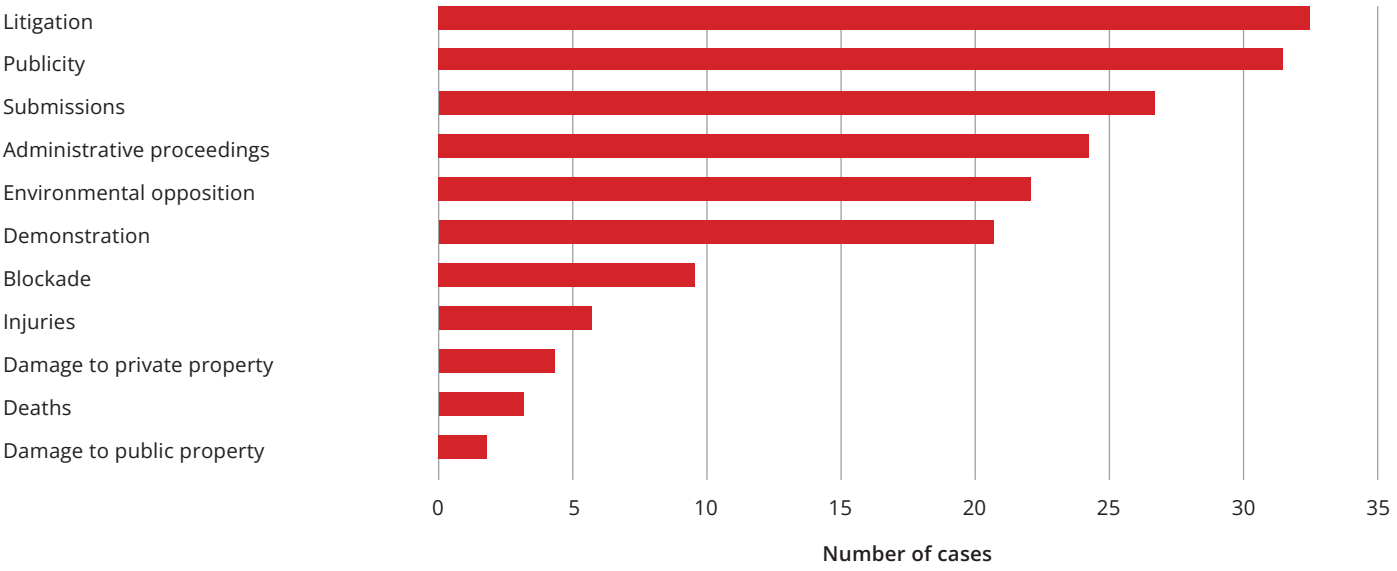
Reflecting distinctions between renewable energy and traditional fossil-fuel extraction, no instances of community resettlement were identified in the cases reviewed. However, this may reflect data limitations or the project types analysed rather than an absence of displacement risk.

Projects experiencing higher-intensity conflict tended to exhibit a greater number of root causes, signalling that unattended tensions can accumulate and escalate over time. Yet even in some cases of intense opposition, such as blockades and physical violence, renewables developers and operators were sometimes able to reach negotiated agreements allowing projects to proceed, underscoring that conflict outcomes are not predetermined. In some cases, however, levels of community unrest were significant enough that they led to the cancellation or abandonment of the project.

CONFLICT ESCALATES ALONG A CONTINUUM

The case analysis also examined how conflict manifests in practice. **Local stakeholders employ a wide spectrum of strategies to oppose renewable energy projects, ranging from administrative engagement to physical disruption.**

Figure 2. Wind and solar - Types of conflict



Litigation and publicity were the most common manifestations. Publicity included online petitions, dedicated campaign websites, and targeted media coverage. In many cases, opposition first emerged within administrative and permitting processes before escalating into more visible forms of mobilisation.

Physical disruption, including protests, demonstrations, and site blockades, tended to occur only in more intense conflict environments. This underscores that visible unrest is often a late-stage expression of underlying tensions rather than their starting point.

[41] This mirrors findings in other studies, for example, a study of 60 legal cases launched against states and/or solar, wind, hydropower, and mining companies found complaints were primarily related to environmental abuses (77% of tracked cases), water pollution and/or access to water (80%), and abuse of Indigenous Peoples' rights (55%), particularly the right to Free, Prior and Informed Consent (FPIC – 35% of cases). See further: *Unjust Transition on Trial: Communities and Workers Litigate to Shape Corporate Practice* (BHRRC, 2024). https://www.business-humanrights.org/en/from-us/briefings/unjust-transition-on-trial-communities-and-workers-litigate-to-shape-corporate-practice/

Lifecycle dynamics also shape conflict exposure. Early development and construction phases were the most prone to conflict across the cases analysed, a data point confirmed in practitioner interviews. However, unresolved tensions can persist into operations, or new grievances can arise over time even after tensions and conflicts have been resolved.

Because many renewable energy assets remain relatively new, the case analysis did not capture conflicts at decommissioning stages. Nonetheless, the industry practitioners interviewed affirmed that closure phases may generate tensions related to land restoration, traffic, liabilities, and the fulfilment of long-term commitments.

GEOGRAPHY AND POLITICAL ECONOMY MATTER

Across the cases analysed, regional contrasts are evident in both the sources and intensity of conflict.

- **In industrialised economies:** Opposition in the cases analysed centres on environmental concerns, including impact to local habitats. These conflicts tend to remain within administrative or media channels, though exceptions occur. Industry practitioners noted that drivers can include aesthetic concerns, political misinformation, and in some instances "not in my backyard" (NIMBY) dynamics.
- **In emerging and developing markets:** Conflicts more frequently centre on land rights, indigenous sovereignty, and resource competition. These disputes are more likely to escalate into visible, high-intensity actions, including protests, facility occupations, and broader social mobilisation.

While this report focuses primarily on site-level dynamics, it is important to note that companies often make earlier strategic decisions, including country prioritisation, technology siting, and transmission planning, before project-specific engagement begins. Integrating social risk considerations, such as cultural impact and land use, into these **upstream decisions represents an important frontier for conflict prevention in the renewables rollout.**

PATTERN INSIGHTS FROM INDUSTRY PRACTITIONERS[42]

Perceptions of company-community conflict

Interviews undertaken for this research with industry practitioners reinforce that conflict is rarely perceived as a binary condition. Many actors did not view social opposition to projects as "conflict" per se, affirming that it manifests along a continuum.

> **"We don't really record it as conflict; it's just part of our business."[43]**

Some industry practitioners interpret conflict primarily through a financial lens, as a proxy for delays, reputational exposure, or existential risk, extending its impact beyond projects to full portfolios.

> **"Social risk is financial risk, but it's often invisible until it becomes very expensive."[44]**

[42] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[43] Ibid.

[44] Ibid.

Others frame conflict as a diagnostic signal, pointing to deeper issues in consultation, stakeholder mapping, or communication processes that need to be addressed to build consensus.

> **Conflict isn't necessarily a failure; it can be a signal of something deeper that hasn't been addressed."**[45]

Others interviewed viewed conflict as inevitable and part of business, even constructive, when managed effectively.

> **Conflict, when well managed, will lead you to build consensus."**[46]

These perspectives demonstrate that outcomes are shaped less by whether conflict arises than by how organisations recognise, escalate, and respond to it.

One interviewee highlighted that during their first year of construction, they encountered 198 blockades, which decreased to 85 in the second year of operations, 12 in the fourth year, and only three halfway through their fifth year. The company effectively managed the opposition by fostering dialogue, improving the benefit-sharing mechanism, and coordinating with communities.

The Fallacy of "Zero Conflict"

The absence of visible opposition does not equate to the absence of risk. Lessons from the fossil fuel and mining sector have demonstrated clearly that low grievance volumes or quiet project environments can reflect unvoiced tensions, fear of retaliation, or ineffective communication channels.[47] As a result, risks may accumulate silently before surfacing abruptly in more disruptive forms.

> **Rewarding zero conflict can be counterproductive; the focus should be on how conflicts are managed."**[48]

This insight carries governance implications. If internal performance systems reward zero conflict or low incident reporting, project teams may underreport tensions to maintain performance, delaying intervention and amplifying escalation risk.

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[44] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[45] Ibid.

[46] Ibid.

[47] *Global review of grievance redress mechanisms in World Bank projects* (The World Bank, 2013). https://documents1.worldbank.org/curated/en/907421468337160282/pdf/903880WP0Box380edressMechanismsinWB.pdf *Remediation and grievance mechanisms: "Early warning, effective solutions."* [Doing business with respect for human rights: A guidance tool for companies (Chapter 3.8)] (Global Compact Network Netherlands / Oxfam / Shift, 2016). https://www.businessrespecthumanrights.org/image/2016/10/24/3_8.pdf *Conflict Management and Corporate Culture in the Extractive Industries: A Study in Peru* [Corporate Social Responsibility Initiative Report No 50] (See Rees, Caroline, Deanna Kemp and Rachel Davis, 2012). https://dash.harvard.edu/entities/publication/f830fb1a-d44b-4dcd-b8bb-53ef38b6a34a

[48] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

Inherited and Structural Conflict Risks

Community opposition is not always generated by the current project owner. Tensions may be inherited through mergers and acquisitions, transferred through divestments or simply be the result of older conflict related to other industries or government actions.

Interviewees emphasised that unresolved grievances, contested land claims, or weak engagement legacies can persist across ownership changes. Pricing and managing social risk in M&A due diligence, and responsibly transferring liabilities in divestment contexts, therefore represents an emerging governance priority.

Engagement as Conflict Mitigation

Industry practitioners interviewed - developers and operators, as well as their insurers, investors, and legal partners - consistently identified meaningful engagement as the most effective mechanism for mitigating conflict risk.

Approaches grounded in human rights due diligence and international standards,including the *UN Guiding Principles on Business and Human Rights*,[50] *OECD Guidelines for Multinational Enterprises*,[51] and *IFC Performance Standards*[52] were seen by the industry practitioners interviewed as particularly effective in structuring engagement processes.

Meanwhile, continuous dialogue, transparency, and participatory design were highlighted as critical to building legitimacy by communities and industry practitioners. Interviewees stressed that communities who perceive themselves as partners, rather than passive recipients, are more likely to support projects.

> **“Lack of meaningful, consistent and early involvement with local communities is the main root of conflict.”[53]**

Benefit-sharing mechanisms, local hiring, and community funds are widely used tools, though industry practitioners emphasised the need for contextual tailoring.

> **“You can’t just copy and paste an engagement plan; every community is different.”[54]**

Cultural Fluency and Institutional Capacity

Interviewees stressed that effective engagement depends heavily on local teams’ cultural fluency, encompassed by their ability to navigate language, norms, governance structures, and decision-making tradition of local communities.

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[49] *The business case for grievance mechanisms* (Grievance Mechanism Toolkit). (Office of the Compliance Advisor Ombudsman, 2016) https://www.cao-ombudsman.org/grm/business-case-for-grievance-mechanisms.html

[50] *Guiding principles on business and human rights: Implementing the United Nations “Protect, Respect and Remedy” framework.* (Office of the United Nations High Commissioner for Human Rights, 2011). https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf

[51] *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct* (OECD, 2023). https://www.oecd.org/en/publications/oecd-guidelines-for-multinational-enterprises-on-responsible-business-conduct_81f92357-en.html

[52] *Performance standards on environmental and social sustainability* (International Finance Corporation, 2012). https://www.ifc.org/content/dam/ifc/doc/2023/ifc-performance-standards-2012-en.pdf

[53] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[54] Ibid.

Similarly, continuity of on-site personnel and investment in local capacity were repeatedly cited as determinants of engagement success.

Some companies extend beyond financial benefits toward structural empowerment, supporting education, enterprise development, and long-term community resilience.

> **Your relationship with the community is your best security. If you ignore that...you will never have enough guards."[55]**

Internal Escalation Tensions

A recurring governance challenge is delayed escalation of site-level tensions to corporate-level, which may hinder decision makers' capacity to respond to these situations. Conflicts may be downplayed amid competing performance indicators, budgets, timelines, permitting milestones - obscuring early warning signals and risking conflict escalation.

> **I think companies are reluctant to be transparent because they think the more information they provide, the more information that can be used against them. I think what we try to prove is the opposite is true."[56]**

Community Engagement as a Project Premium

Effective community engagement should be understood as a project premium, reducing volatility, shortening delivery cycles, and strengthening trust. Its benefits extend across the project lifecycle: informing siting decisions, stabilising construction, supporting operations, and shaping closure processes.

For financiers, robust engagement enhances underwriting certainty and supports valuation by reducing exposure to unanticipated disruption.

Community engagement goes beyond renewable energy companies. Contractors and third parties play a critical role in this ecosystem as their conduct on site shapes community perception, making contractor governance central to conflict prevention.

> **We don't track social conflict like we do health and safety incidents."[57]**

[55] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[56] Ibid.

[57] Ibid.

SYNTHESIS: GOVERNING ACROSS THE CONFLICT CONTINUUM

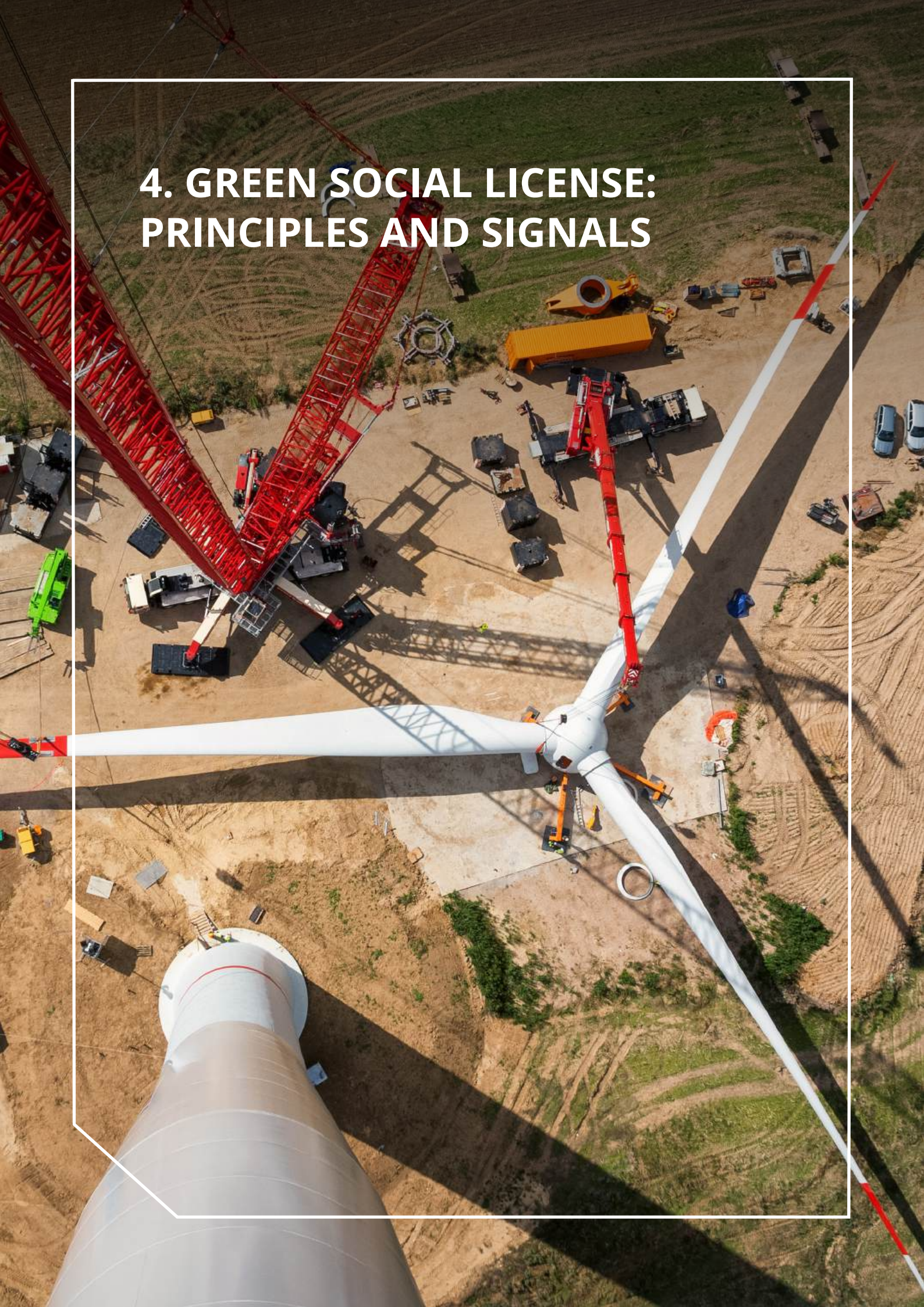
Case analysis and industry interviews highlighted a **consistent pattern: renewable energy projects are *likely* to encounter social opposition**. This can be the case at different times in the project lifecycle, and can manifest in different ways. In other words, company-community conflict is not an anomaly. Instead, it is structural, multi-causal, and contextually shaped. The differentiator between a conflict well-managed and a cancelled project is company governance and management.

Expecting renewable projects to be conflict-free is unrealistic, and may create perverse incentives that suppress information gathering.The central issue is therefore not the existence of conflict, but the systems through which it is recognised, governed, and resolved.

Where the root causes of conflict are identified early, escalated appropriately, and addressed through adaptive engagement, local conflicts surrounding a renewables project can be well managed - or even converted into stronger relationships with affected stakeholders.Where tensions are ignored, underreported, or subordinated to delivery pressures, they can harden into material financial and operational loss.

The next chapter offers key principles by which companies can seek to operationalise these factors in practice, and signals for assessing this on an ongoing basis.

4. GREEN SOCIAL LICENSE: PRINCIPLES AND SIGNALS



WHAT IS A SOCIAL LICENSE TO OPERATE?

A social license to operate (SLO) refers to the acceptance, approval, and trust granted by communities and other affected stakeholders to a project or a company.[58] It is not a formal authorisation, but an informal social permission grounded in perceptions of respect, transparency, and fairness bridging between formal legality and community legitimacy. Rather than relying only on technical compliance or environmental assessment, SLO depends on company-community relations.[59]

Unlike legal licenses, SLO is not a one-off permission but a continuous, dynamic process, which can be strengthened, eroded, or withdrawn over time as projects progress and impacts change and accumulate. Many renewables projects span 10+ years from early development to operations. In these cases, the SLO often needs to be re-earned at multiple phases (e.g. cable installation, construction, O&M), sometimes with different stakeholder groups at each stage.[60]

> **Communities don't think in project lifecycles, they think in generations."[61]**

From a cost of conflict perspective, a SLO is one of the key risk factors in project economics.[62] When a social license is weak or absent, conflicts are more likely to escalate into financial losses, including delays, redesigns, legal challenges, and more. Based on practitioner interviews, SLO in the wind and solar sectors is built through layered strategies. Benefit-sharing and grievance systems are foundational, but without early engagement, legitimacy-focused free, prior, and informed consent (FPIC), transparency, continuous dialogue, empowerment, and anticipatory relations, the SLO may quickly unravel.

> **To be sustainable, you need to have the community on board."[63]**

[58] The expression came into use in the late 1990s, and became popular in industry and academic circles from about 2010 on. It was first used by W.H. Moore in 1996, with Jim Cooney popularising the concept. Some of the earliest publications include: Moore, W.H., 1996. *The social license to operate.* PIMA Magazine 78(10), 22-23; Joyce, S. & Thomson, I. 1999. *Earning a social license*. Mining Journal 332(8535) June, 441-443; Joyce, S. & Thomson, I. 2000. *Earning a social licence to operate: Social acceptability and resource development in Latin America.* Canadian Mining and Metallurgical Bulletin 93(1037), pp. 49-53; Ward, H., Borregaard, N., Kapelus, P. 2002 *Corporate Citizenship: Revisiting the Relationship between Business, Good Governance and Sustainable Development.* London: IIED. See also: *Reflections on the 20th anniversary of the term 'social licence'* [Journal of Energy & Natural Resources Law 35(2), 197-200] (Cooney, 2017). https://www.researchgate.net/publication/312144605_Reflections_on_the_20th_anniversary_of_the_term_'social_licence'

[59] See further: *Social License to Operate* [Key Citation Series] (International Association for Impact Assessment, 2025). https://iaia.org/wp-content/uploads/2025/02/Key-Citations_Social-Licence-to-Operate.pdf

[60] *Ensuring the Social License for Wind Projects in Latin America* (Global Wind Energy Council, 2024). https://tethys.pnnl.gov/sites/default/files/publications/GWEC-2024.pdf

[61] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[62] *The social licence to operate and the legitimacy of resource extraction* [Science Direct, 49, 7–11] (Meesters, M., Wostyn, P., van Leeuwen, J., Behagel, J. H., & Turnhout, E., 2021). https://doi.org/10.1016/j.cosust.2020.11.002

[63] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

RED FLAGS: SIGNALS THAT A COMPANY IS HEADED TOWARD A COSTLY CONFLICT WITH LOCAL COMMUNITIES[64]

Early Development:

- Communities learn about the project through rumours or third parties rather than direct engagement.
- Early meetings are used to announce decisions rather than shape them.
- Consultation processes are rushed, poorly attended, or documentation-driven.
- Stakeholder mapping is incomplete or excludes marginalised groups.
- Engagement focuses on symbolic or politically convenient leaders.
- Land acquisition and livelihood impacts are assessed superficially or opaquely.
- Community risk is not treated as a material project risk internally.
- Investors or lenders identify social risk late in due diligence.
- Projects are framed as climate solutions without clear local benefit articulation.
- Authorities or developers overpromise benefits, generating unrealistic expectations.

Construction:

- Work stoppages increase due to protests, roadblocks, or disputes.
- Grievance volumes rise sharply without resolution.
- Security presence escalates and becomes normalised.
- Construction schedules remain non-negotiable despite social concerns.
- Contractors lack guidance on human rights or community engagement.
- Local hiring and procurement commitments are not implemented.
- Informal payments are used to manage disputes.
- Project updates are not regularly communicated.
- Community liaison staff turnover disrupts relationships.
- Livelihood disruptions emerge without mitigation.

Operations:

- Previously unresolved grievances re-emerge.
- Communities resort to blockades to secure company attention.
- Allegations of unfulfilled commitments increase.
- Legal complaints or regulatory challenges emerge.
- Grievance reporting volumes spike.
- Social risk metrics are absent from governance dashboards (see Annex).
- Investor or lender scrutiny intensifies due to controversies.
- Social conflict risks affect refinancing, insurance, or valuation.
- Local benefit programmes stagnate or lose visibility.

Closure & Decommissioning:

- Closure planning is framed solely around business or technical priorities.
- Communities are not engaged in decommissioning decisions.
- Livelihood and economic transition impacts are unaddressed.
- Benefit programmes are withdrawn abruptly.
- Communities learn of closure plans through third parties.
- Land restoration responsibilities are unclear.
- Decommissioning contracts lack social safeguards.

[64] These signals build on years of research into and engagement with the extractives sector and high risk operating environments, including IHRB's foundational report: *From Red to Green Flags: The corporate responsibility to respect human rights in high-risk countries* (IHRB, 2011): https://ihrb-org.files.svdcdn.com/production/assets/uploads/reports/complete_report.pdf?dm=1726490084

IS THERE SUCH A THING AS A "GREEN SOCIAL LICENSE"?

SLO exists in many sectors, and the energy transition arguably creates additional complexities for the actors involved. Renewable energy projects are intended to be climate solutions - "public goods" at the global level - given their benefits to countries, individuals, and the planet overall.[65] No one can be excluded from the aggregate climate benefits renewable energy generates. However, climate and environmental benefits driven by renewable energy projects does not automatically translate into public acceptance for renewables developments locally.

This requires local communities to trust that local renewable energy projects do not come at their social or environmental expense. Yet projects may be developed at the local level, in some cases even in vulnerable communities or fragile environments, where communities may experience impacts related to land, water, culture, and more. These experiences and perceptions are also tied into, and potentially compounded by, historic experiences, including with fossil fuel or other industries, and influence communities' perceptions of the risks and rewards of local energy development.

This modern global energy context means that there is nuance in how SLO applies to renewable projects. A core objective of the just energy transition is to ensure that the extreme inequality experienced globally today is not carried through into the green economy of the future - requiring a rebalancing of industrial and economic models to align with planetary boundaries while delivering truly equitable outcomes for the people most affected by existing inequalities and impacts under the fossil fuel-based energy system.[66] Equally important, the urgency of the transition and operational timelines may put pressures on decision-making, creating risks when engagement is rushed or when mitigation policies are weak.

It could be argued then that any "green" project's SLO comes with an increased legitimacy threshold - as a project justified in the name of the public good to meet climate goals. Unlike traditional extractive energy projects, today's renewable projects are positioned as global solutions, which could trigger greater scrutiny and backlash if perceived as inconsistent with the value they generate for the planet or as shifting costs onto communities.[67] Therefore, a project presented as solving a global problem may face stronger backlash if it appears to reproduce familiar local injustices.

It follows then that a GSL is a standard of acceptance and trust grounded in the understanding that climate objectives are inseparable from social objectives. It recognises that affected communities are not passive recipients but active partners whose voices, values, and well-being must co-shape the project's design, implementation, and legacy. This is particularly relevant in the context where communities may judge green projects through the lens of past development experiences, such as mining or fossil fuel legacies, broken promises, legacy issues, violence and abuses, creating inherent trust issues that renewable projects must address while also representing a public good.[68]

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[65] *Accelerating clean energy technology research, development, and deployment: Lessons from non-energy sectors* [World Bank Working Paper No. 138] (Avato, P., & Cooney, J., 2008). https://openknowledge.worldbank.org/server/api/core/bitstreams/ce03f3ef-3c4a-5840-bf0f-7cb761162f42/content

[66] See further: *Just Transitions: Exploring the Need for International Rules Based on Local Realities* (IHRB, Wilton Park, 2021). https://www.ihrb.org/resources/just-transitions-dialogue-exploring-the-need-for-international-rules-based-on-local-realities *Just Transitions for All: business, human rights, and climate action* (IHRB, 2020). https://www.ihrb.org/resources/report-just-transitions-for-all

[67] See for example: *Unjust Transition on Trial: Communities and Workers Litigate to Shape Corporate Practice* (BHRRC, 2024). https://www.business-humanrights.org/en/from-us/briefings/unjust-transition-on-trial-communities-and-workers-litigate-to-shape-corporate-practice/

[68] *The social licence to operate and the legitimacy of resource extraction* [Science Direct, 49, 7–11] (Meesters, M., Wostyn, P., van Leeuwen, J., Behagel, J. H., & Turnhout, E., 2021). https://doi.org/10.1016/j.cosust.2020.11.002

Communities increasingly judge green projects not only on their decarbonisation benefits, but on whether renewable energy developers can build trust-based, respectful, and long-term relationships with them and other stakeholders, taking into account transparent, inclusive, and continuous dialogue, participation, respect for human rights, and equitable distribution of benefits while contributing to their own vision of development.

In other words, GSL is earned when communities perceive a project as beneficial to their local development, while deploying the technologies and projects needed to meet our planet's climate goals and respect local habitats.

> **"Making a solar project today isn't nuclear science, it's not difficult. The difficulty is approaching social problems, in addressing the poverty of the territories, the needs of the territories, and in not continuing to widen that gap."**[69]

PRINCIPLES FOR A GREEN SOCIAL LICENSE

There is no single official, universally agreed definition or codified set of principles for a social license to operate.[70] It is a normative, evolving concept rather than a formal legal standard. The principles below therefore draw on widely recognised SLO scholarship and practice, while adapting them to reflect the contemporary governance, financing, and justice dynamics shaping renewable energy development today.

While these principles are well established in social license practice, the energy transition introduces new dynamics - particularly around scale, speed, and the distribution of costs and benefits - that require them to be applied with an explicit climate lens.

Principles for Building a Green Social License

LEGITIMACY

Principle: Projects are perceived as appropriate and grounded in local context, lawful, and aligned with community values, governance systems, and development priorities.	**Climate action context:** Legitimacy also depends on whether communities recognise a project's contribution to climate mitigation and a just transition, and understand how global climate objectives align with local development priorities, benefits, and trade-offs.	**Outcomes:** Reduced permitting delays, legal disputes, and escalation of social opposition, contributing to more stable project development environments.

[69] Interviews with industry practitioners were undertaken on a confidential basis. Quotes have been anonymised.

[70] See further: *Social License to Operate* [Key Citation Series] (International Association for Impact Assessment, 2025). https://iaia.org/wp-content/uploads/2025/02/Key-Citations_Social-Licence-to-Operate.pdf

TRANSPARENCY	**Principle:** Projects share information openly, accessibly, and in a timely manner - communicating risks, impacts, and benefits honestly to enable informed stakeholder participation and oversight.	**Climate action context:** This includes communication on climate benefits, transition tradeoffs, land and livelihood implications, long-term environmental impacts, and uncertainties associated with emerging technologies.	**Outcomes:** Improved trust, reduced misinformation, and more predictable engagement environments.
INCLUSION	**Principle:** Potentially affected stakeholders are meaningfully engaged from the earliest project stages, with particular attention to groups at heightened risk of vulnerability or marginalisation. Engagement approaches should reflect the agency of stakeholders in shaping project design and lifecycle decisions, including Free, Prior and Informed Consent (FPIC) where applicable.	**Climate action context:** This includes recognising that decarbonisation and adaptation efforts can redistribute risks, impacts, and economic opportunities unevenly, requiring deliberate inclusion of workers, Indigenous peoples, land users, and local institutions in decision-making processes.	**Outcomes:** Reduced grievances, stronger consent processes, and improved legitimacy of project decisions.
EQUITY	**Principle:** The benefits and burdens of renewable energy projects are shared fairly, avoiding disproportionate impacts and ensuring procedural and distributive fairness in benefit-sharing, land use, and livelihood outcomes.	**Climate action context:** This includes ensuring that communities hosting climate infrastructure experience tangible local value - such as jobs, services, revenue sharing, or improved resilience - and are not disproportionately bearing the social, environmental, or economic costs of delivering global climate goals.	**Outcomes:** Stronger community acceptance, reduced disruption risk, and more durable operating environments.

CONTINUOUSLY IMPROVED	**Principle:** SLO is dynamic and must be maintained throughout the project lifecycle, with engagement systems remaining responsive to evolving community expectations, cumulative impacts, and unanticipated events.	**Climate action context:** This includes adapting to changing policy environments, evolving transition pathways, cumulative project impacts, and shifting community expectations as the energy transition unfolds over time.	**Outcomes:** Sustained trust, earlier risk detection, and long-term asset resilience.
ACCOUNTABLE	**Principle:** In alignment with the UN Guiding Principles on Business and Human Rights, enterprises should establish or participate in effective operational-level grievance mechanisms for individuals and communities who may be adversely impacted.	**Climate action context:** This includes recognising that climate solutions do not offset or justify adverse impacts, and ensuring that harms linked to transition activities are identified, addressed, and remedied in a timely, fair, and transparent manner.	**Outcomes:** Strengthened dispute resolution, reduced escalation, and enhanced institutional credibility.

GREEN FLAGS: SIGNALS THAT A COMPANY IS EARNING/MAINTAINING ITS SOCIAL LICENSE[71]

The below offers a selection of indicators, not an exhaustive list. SLO is dynamic, context specific, and a continuum. Companies may display strong performance in some areas and be weak in others.

Early Development:

- Communities are informed directly and early.
- Engagement begins before key siting or land decisions.
- Stakeholder mapping includes marginalised groups.
- Community input demonstrably influences project design.
- Land and livelihood impacts are assessed transparently.
- Engagement risks are integrated into project risk registers.
- Climate benefits are linked to tangible local value.

Construction:

- Communities raise concerns directly before escalating externally.
- Grievances are resolved transparently and within reasonable timeframes.
- Contractors are trained in community and human rights standards.
- Local hiring and procurement commitments are implemented.
- Construction impacts are mitigated collaboratively.
- Security presence is proportionate and trusted.
- Community liaison staff continuity is maintained.

Operations:

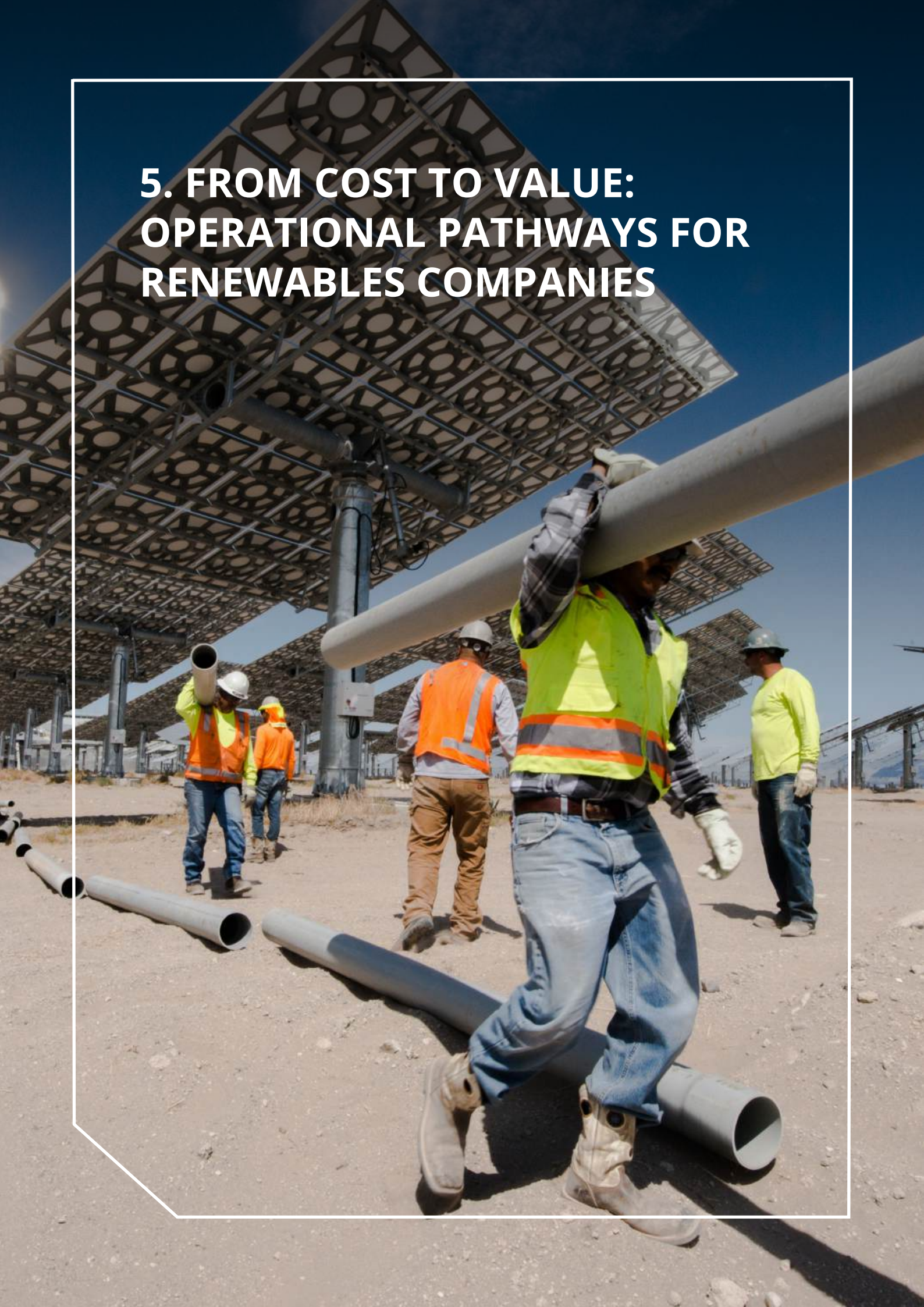
- Engagement continues beyond construction.
- Benefit-sharing programmes are functioning and visible.
- Communities identify tangible local benefits.
- Conflicts are short-lived and resolved constructively.
- Social performance indicators appear in governance dashboards.
- External stakeholders validate strong relationships.
- Social risk management is recognised by investors or lenders.

Closure & Decommissioning:

- Closure planning begins early and includes community participation.
- Livelihood transition impacts are addressed.
- Land restoration is co-designed.
- Communities are informed directly about closure timelines.
- Benefit programmes are responsibly transitioned.
- Long-term liabilities are clearly allocated.

[71] These signals build on years of research into and engagement with the extractives sector and high risk operating environments, including IHRB's foundational report: *From Red to Green Flags: The corporate responsibility to respect human rights in high-risk countries* (IHRB, 2011): https://ihrb-org.files.svdcdn.com/production/assets/uploads/reports/complete_report.pdf?dm=1726490084

5. FROM COST TO VALUE: OPERATIONAL PATHWAYS FOR RENEWABLES COMPANIES



There is no single blueprint for engaging communities, managing opposition, or governing the social dimensions of renewable energy development. Project contexts vary widely across geographies, technologies, regulatory environments, and company operating models. Yet across this diversity, consistent patterns emerge in how company-community conflict is either prevented or allowed to escalate - and in how its costs are either externalised or actively managed.

The **Operational Pathways** presented in this chapter seek to translate the report's findings into practical areas for **action by renewable energy companies and project developers**. They draw on a combination of primary research interviews with industry practitioners, field-based observations, and established responsible business guidance developed across adjacent sectors, including extractives, infrastructure, and large-scale land-use projects.

The pathways are not intended as a prescriptive checklist, nor as a guarantee of conflict avoidance. Rather, they represent a set of practice-informed action areas through which renewables companies and their project teams can begin to institutionalise conflict prevention, strengthen legitimacy, and better understand - and ultimately reduce - the costs associated with unmanaged community opposition by building trust and maximising project value.

Each pathway reflects a distinct operational lever through which company-level social performance and enterprise value protection intersect. Taken together, they provide a framework for moving from reactive conflict management toward more anticipatory, governance-integrated approaches to building and maintaining social license.

The four Operational Pathways are:

- **Conflict Prevention by Design**
- **Relationship Governance and Early Resolution**
- **Measuring & Managing the Hidden Bill**
- **Embedding Equity and Benefit Sharing in Project Value**

These Operational Pathways reflect the current stage of this research and core practices emerging across the renewables context. They also represent an opportunity for further testing, refinement, and learning across live projects, new technologies, diverse contexts, and business models. They are intended to support action now, but also to open a wider agenda for further research, piloting, and institutional learning.

*See also: A series of Policy Briefs directed at specific actors within renewables companies (**CFOs, sustainability leads**), as well as other key actors playing important roles in the wider governance ecosystem (**governments, investors, insurers**, and **communities**)*

OPERATIONAL PATHWAY

CONFLICT PREVENTION BY DESIGN

Purpose:

Detect project-level issues, tensions, or opposition early, and integrate social risk into core project design and investment decision-making as fundamentally as technical, financial, and environmental risk.

Actions for renewables developers and operators:

- Conduct early assessments, in line with the UNGPs, to identify any potential or actual adverse impacts on the human rights of stakeholders before permitting or financial close - including issues relating to cultural heritage, legacy conflicts, land use, political economy dynamics, livelihoods, salient human rights issues, and value chain exposures.
- Plan and ringfence early-stage funding for social assessments prior to permitting or investment approval.
- Integrate findings of social assessments into investment gate reviews and project risk registers.
- Communicate early and regularly with potentially affected groups on project scope, timelines, impacts, mitigation strategies, and grievance mechanisms, as well as climate change literacy, using local languages and culturally appropriate channels.
- Design project siting, construction phasing, and engagement strategies based on social assessment findings - not retrofitted add-ons.
- Include human rights and community engagement clauses in contractor and supplier agreements - covering aspects such as local hiring, engagement conduct, respect for human rights, and grievance management.
- Incorporate human rights risk and social performance into lender and insurer due diligence processes.
- Ensure adequate competency, resourcing, and clear accountability lines for social performance teams.

Implementation tiers: Where to start

Basic: Social risk and human rights impact assessment, stakeholder mapping, grievance intake, early communications conflict mitigation planning.

Intermediate: Incorporate social and human rights risk assessments into investment gates, contractor clauses, funded mitigation strategies.

Advanced: Conflict prevention-by-design project models, dedicated company-community conflict mitigation budgets, third-party review.

Metrics to consider:

- Percentage of projects with social assessments.
- Percentage of projects with defined mitigation strategies.
- Percentage of contractor agreements with social clauses.
- Human rights due diligence expenditure per MW allocated.
- Number of mitigation measures completed pre-construction.
- Number of material risks mitigated by design.
- Project delivery time versus expectation (conflict-related delays).

OPERATIONAL PATHWAY

RELATIONSHIP GOVERNANCE AND EARLY RESOLUTION

Purpose:

Build and maintain trust through structured, continuous stakeholder engagement - treating relationship governance as a core operational function.

Actions for renewables developers and operators:

- Allocate dedicated community engagement management functions and budgets, embedded in projects and joint ventures.
- Conduct ongoing and meaningful engagement with potentially affected stakeholders across the full project lifecycle, including permitting and "quiet periods". This can take multiple forms of ongoing collaborative interaction and dialogue enabling staff to hear, understand and respond to stakeholder concerns.
- Train staff in cultural competency, human rights, and social dialogue informed by social assessments.
- Establish cross-functional early-warning systems to detect risks such as misinformation, drop in meeting attendance, access disputes, and hiring tensions.
- Maintain a public commitments tracker, updating communities on progress, processes and delays.
- Institutionalise grievance mechanisms aligned with UNGP effectiveness criteria - tracking resolution quality, not just volume.
- Coordinate with nearby developers to manage cumulative impacts and engagement fatigue.
- Deliver early, visible benefits aligned to community priorities.
- Maintain regular dialogue with communities to monitor social sentiment and perceptions of risk, and to build trust, integrating findings into project dashboards.
- Assess the effectiveness of affected stakeholder relationship management by establishing a monitoring framework, including indicators for engagement, feedback and grievance resolution.

Implementation tiers: Where to start

Basic: Community liaison officer, regular meetings, grievance log, training staff on social dialogue.

Intermediate: Cross-functional early warning systems, commitment tracker, grievance satisfaction monitoring, public commitment and outcomes tracker.

Advanced: Third-party verification of benefit delivery, public dashboards, and coordination platforms among developers.

Metrics to consider:

- Number of reported grievances, resolution times, and satisfaction levels.
- Commitments delivered vs promised.
- Early warning alerts resolved.
- Stoppage-free construction days (focused on community conflict).
- Staff trained in community engagement and social dialogue.
- Community satisfaction trends.

OPERATIONAL PATHWAY

MEASURING & MANAGING THE HIDDEN BILL

Purpose:

Treat community conflict as a measurable enterprise risk - embedding cost visibility into governance and financial decision-making.

Actions for renewables developers and operators:

- Develop company-wide systems to log and aggregate conflict-related costs - including delays, stoppages, redesigns, redress, and reputational impacts.
- Require teams to document lessons from disputes and share cross-functionally.
- Establish incentives for projects linked to the health of company-community relationships and the quality of human rights due diligence, not just construction milestones.
- Include social performance indicators regularly in executive and board reporting.
- Systematically record and communicate lessons and positive outcomes from engagement efforts such as faster permitting, smooth stakeholder relations, grievance satisfaction, and others.
- Conduct counterfactual reviews on costs avoided due to effective community engagement.

Implementation tiers: Where to start

Basic: Tracking the costs of green conflict taxonomy of indicators (see Section 2).

Intermediate: Aggregate cost dashboards, tracking positive trends, executive reporting.

Advanced: Predictive models linking social risk to schedule and budget performance, including counterfactual reviews.

Metrics to consider:

- Conflict-attributable delay days.
- Work stoppage frequency, duration, cause, and resolution times (related to community conflict).
- Redesign or curtailment costs (due to community request).
- Contractor costs during stoppages (due to conflict/opposition).
- Financing or insurance penalties.
- Staff time managing conflict.

See also: Annex - C-suite and Board Quarterly Review Dashboard

OPERATIONAL PATHWAY

EMBEDDING EQUITY AND BENEFIT SHARING IN PROJECT VALUE

Purpose:

Advance social equity for stakeholders and long-term operating stability by ensuring communities experience tangible, fair value from projects.

Actions for renewables developers and operators:

- Develop tailored value-creation programs based on social assessments, such as jobs, skills, infrastructure, and revenue-sharing.
- Co-design benefit-sharing strategies with potentially affected stakeholders.
- Link benefit plans for communities to project milestones and performance goals.
- Support community capacity to govern funds and programs transparently, sustainably, and independently.
- Develop metrics to measure local value creation - such as household incomes, improved infrastructure, number of beneficiaries and their impact.
- Engage local civil society organisations to co-monitor benefit delivery, transparency, and accountability.
- Incentivise benefit-sharing performance in investor ESG and financing terms.

Implementation tiers: Where to start

Basic: Co-designed benefit plans tied to local priorities.

Intermediate: Monitoring and evaluation of benefit impact, and capacity-building support.

Advanced: Third-party evaluation, financing incentives embed benefit sharing mechanisms.

Metrics to consider:

- Revenues allocated to benefit-sharing.
- Proportion of projects with community benefit funds/mechanisms and project stage established.
- Number of beneficiaries from training/education programs.
- Number of local hires and suppliers.
- Community acceptance and perception trends.

MAPPING OPERATIONAL PATHWAYS TO RENEWABLE ENERGY PROJECT STAGES

Early Development:

- Conduct context-specific social and human rights assessments, identifying stakeholders, land dynamics, livelihoods, and conflict risks.
- Allocate early-stage funding for social due diligence, engagement planning, and benefit-sharing design before permitting or financing.
- Initiate early dialogue with potentially affected stakeholders, communicating project intentions, timelines, impacts, and engagement processes.
- Design projects and mitigation measures informed by social assessment findings, integrating them into investment and permitting decisions.
- Establish community engagement structures, including local liaison teams and culturally appropriate communication channels.
- Develop grievance mechanisms and early warning systems to detect tensions before escalation.
- Design community benefit and participation frameworks aligned with local priorities.
- Embed social performance and human rights clauses in contractor and joint-venture agreements.

Construction:

- Maintain continuous engagement and transparent communication with communities on construction activities, impacts, and timelines.
- Ensure local hiring and procurement commitments are implemented transparently.
- Train contractors and staff on community engagement, cultural awareness, and grievance handling.
- Address grievances rapidly and transparently, documenting resolutions and lessons learned.
- Monitor social risk indicators such as grievances, protests, delays, or emerging tensions.
- Coordinate with local authorities and other developers to manage cumulative impacts and community expectations.

Operations:

- Maintain ongoing dialogue and grievance mechanisms throughout project operations.
- Periodically update social assessments to reflect changing community dynamics and emerging risks.
- Implement and monitor community benefit programmes, ensuring commitments are delivered transparently.
- Track social risk indicators and conflict-related costs at project and portfolio level.
- Monitor community sentiment and stakeholder feedback, adjusting engagement strategies as needed.
- Publish or communicate progress on community commitments and benefits.

Closure & Decommissioning:

- Engage communities early in closure and decommissioning planning, including land restoration and future land use.
- Develop economic transition and livelihood resilience plans where projects have created local economic dependencies.
- Fulfil outstanding community commitments and benefit agreements.
- Maintain grievance channels and dialogue during decommissioning activities.
- Document lessons learned and conflict management experiences to inform future projects.

Policies across stages:

- Maintain continuous dialogue with communities and stakeholders.
- Track grievances, social risk indicators, and conflict-related costs across projects.
- Maintain a public commitments tracker and transparent reporting on engagement outcomes.
- Monitor social sentiment and early warning indicators.
- Conduct counterfactual reviews to assess the value protected through conflict prevention.
- Record lessons learned and positive outcomes from community engagement practices.

6. QUESTIONS FOR FURTHER RESEARCH

This report set out to examine a central question: *if the costs of company-community conflict in renewable energy development were better understood, would they receive greater priority in project design, financing, and governance?*

While the findings suggest that these costs are both material and widely recognised by industry practitioners, the research also highlights a significant constraint: the limited availability and comparability of data and shared methodologies. In most cases, conflict-related costs are neither systematically tracked nor aggregated within companies, and are rarely disclosed publicly. As a result, the evidence base remains partial, fragmented, and difficult to validate or compare across companies and sectors. This points to a clear need for more rigorous and coordinated research - in at least three key areas:

1. Measuring and evidencing the "hidden bill"

Further work is needed to strengthen the empirical basis for understanding the scale and distribution of conflict-related costs for renewables companies:

- How can conflict-related costs be more consistently identified, classified, and aggregated across projects and portfolios?
- What methodologies can enable more robust estimation of indirect and opportunity costs, including delays, lost capacity, and foregone investment?
- How can reputational impacts and their financial implications be more systematically assessed?
- What approaches can improve comparability of data across companies, geographies, and project types?
- What would standardised frameworks, metrics, or disclosure practices for tracking company-community conflict costs look like in practice - and how can their adoption be incentivised across the renewables sector?

2. Understanding the effectiveness of governance and engagement responses

While this report identifies promising practices and operational pathways, there is limited systematic evidence on their relative effectiveness:

- Which approaches to community engagement and relationship governance most consistently reduce the scale, scope, remediability, and likelihood of conflict?
- How can the value protected through early and meaningful engagement in "green" projects be more clearly demonstrated and evidenced?
- Under what conditions do governance interventions succeed or fail in preventing escalation?
- How can longitudinal research better capture how conflict dynamics evolve over the full renewables project lifecycle?
- How can renewables companies more systematically trace conflict dynamics back to their root causes - such as perceived exclusion, inequitable benefit distribution, or institutional distrust - in order to address underlying drivers rather than downstream symptoms and costs?
- How can renewables companies and other actors better distinguish between legitimate stakeholder concerns and rising mis- and disinformation in the energy transition, in order to take appropriate action and maintain trust?

3. Incorporating community-level costs and perspectives

This report has primarily examined the costs of conflict from a company perspective. However, a more complete understanding of these dynamics requires deeper integration of communities' costs and experiences:

- How are the costs of renewable energy development - economic, social, cultural, and environmental - experienced and distributed within affected communities?
- How do these costs compare to, or interact with, the perceived and realised benefits of projects?
- What methodologies can more effectively capture community-defined impacts, including non-financial and long-term effects?
- How can research and engagement better reflect differences across community types, governance contexts, and historical experiences of energy development?

Taken together, these questions highlight the need for a stronger evidence base that connects social dynamics, financial outcomes, and governance practices in renewable energy development.

Advancing this research agenda will require closer collaboration between companies, researchers, communities, and public institutions. It will also require testing and refining emerging practices - such as the operational pathways identified in this report - through real-world application and shared learning across the sector. Strengthening this shared understanding will be essential to ensuring that the energy transition is not only rapid and scalable, but also grounded in trust, fairness, and long-term resilience.

ANNEX: POLICY BRIEFS FOR KEY ACTORS

Preventing and managing company–community conflict in renewable energy projects cannot be achieved by any single actor. It is a system governance challenge that requires coordinated action across the actors and institutions that shape how projects are developed, financed, approved, insured, and ultimately accepted by local communities.

Within renewables companies themselves, different internal roles and functions play critical roles in translating social risk into financial, operational, and governance decisions - in particular:

- **Chief Financial Officers**
- **Sustainability leads**

But renewable energy companies also operate within a wider ecosystem that strongly influences how projects interact with communities.

- **Governments** design the policy and permitting frameworks that structure project development.
- **Investors** shape capital allocation and governance expectations.
- **Insurers** influence risk management practices through underwriting standards and coverage conditions.
- And **communities** themselves play a critical role in determining whether projects gain legitimacy and long-term acceptance.

When any part of this system fails to recognise or manage social risk effectively, the consequences can cascade across the renewable energy value chain - delaying projects, increasing costs, weakening public trust, and ultimately slowing the energy transition itself.

For this reason, the findings of this report are translated into a series of actor-specific policy briefs. Each brief highlights why the costs of company–community conflict matter for that actor, what signals they should monitor, and what practical steps they can take to reduce risk while strengthening trust.

Together, these perspectives reinforce a central insight of the research: **Preventing conflict and building community trust is not only a project-level responsibility. It is a shared governance task across the renewable energy system.**

Only when these actors recognise and manage the hidden costs of conflict can renewable deployment proceed at the speed and scale required while protecting value for both projects and communities.

ANNEX: METHODOLOGY

RESEARCH DESIGN

This report was developed using multiple research methods over a period of just under two years. The methodology was structured into four main components:

- Comparative case analysis of 47 instances of actual conflict in wind and solar projects - sourced from a longer dataset within the EJ Atlas, and selected for analysis only if verifiable via at least three independent news reports to ensure robustness of the dataset being learned from.
- Semi-structured interviews with more than 60 practitioners across 37 companies, investors, law firms, and civil society organisations.
- Multi-stakeholder dialogue with companies, investors, and experts to test and refine emerging findings.
- Field research in La Guajira, Colombia, focused on wind projects in indigenous communities to learn from the community perspective first-hand.

LIMITATIONS

This report offers a qualitative, evidence-informed review of the costs and understandings by renewables practitioners of social conflict in renewable energy projects. It also explores the value of engagement and conflict management. Several limitations affect the scope and strength of the findings:

- **Scope:** Analysis focuses mainly on utility-scale wind and solar. It does not systematically cover other segments of the renewable industry, such as critical mineral sourcing and supply chains, manufacturing footprints, or downstream logistics and transmission corridors.
- **Hidden and confidential costs:** Publicly-available information on actual costs of conflict at renewables projects is extremely limited. This reflects a commercial reality in which these costs are typically dispersed across budgets, commercially sensitive, or simply not identified internally by companies. Detailed quantification of the costs of conflict requires in-depth research into specific company operations, including financial data and contracts.
- **Limited quantifiable data:** Data on returns from community engagement investments, counterfactuals, and community conflict require further research and quantification in cooperation with companies. Measuring aspects such as auction success rates, permitting outcomes, or insurance cost reductions due to specific engagement practices was outside the research scope.
- **Representation gaps:** This report and therefore primary research interviews focused primarily on the renewable energy practitioner perspective, ie those within companies and their financiers, legal counsel, and insurers. Perspectives from smaller renewable energy developers, governmental authorities, NGOs, or indigenous communities are underrepresented among the interviewees.
- **Proposed policies:** The operational pathways proposed as part of this research is a compilation of company practices reported through the interviews, field visit, and review of existing literature and established practice in the wider energy industry. Some of the recommendations have yet to be stressed tested and streamlined through company operations to prove their effectiveness.
- **The limits of costing as a discipline:** Cost analysis can help companies visualise how community tensions translate into construction delays, financial losses, and reputational risks. However, costing conflict is not a silver bullet. Financial metrics cannot capture the full social and human rights impacts experienced by communities, nor should the purpose of costing be to reduce complex social dynamics to monetary values alone. Rather, it provides a practical tool for improving internal visibility of risks that are often dispersed across

departments and decision-making processes. Preventing conflict ultimately depends on the quality of human rights due diligence, meaningful engagement with affected stakeholders, accessible grievance mechanisms, and equitable benefit-sharing arrangements. Costing can help strengthen internal governance around these issues, but it cannot replace them.

CASE ANALYSIS

The report draws on the analysis of 47 cases of social conflict affecting utility-scale solar and wind projects across multiple geographies.

Cases were selected through:

- An initial long-list of conflicts in the wind and solar sector recorded by EJ Atlas.
- Desk research using media reports, company disclosures, NGO reports, and other publicly available data was used to verify the cases and expand the search.
- Cases were only included in the final dataset if they had at least three independent, publicly reported news sources affirming the existence of the case - to ensure robustness of the dataset being learned from.

Inclusion criteria:

- Utility-scale solar or wind projects.
- Available online evidence of social conflict involving communities or social actors due to the presence of a renewable energy project.

Coding and analytical framework:

Each case was benchmarked using a structured template that captured basic project information, project stages affected by conflict, distinguishing factors, roots of conflict, manifestations of conflict, and the frequency and costs of conflict. These categories were taken from Davis and Franks'[72] 2014 research into the extractives sector, with limited adaptations to reflect the renewables cases analysed. The templates used for this case analysis included:

DEFINITIONS

Conflict	Researchers adopted Davis and Franks' definition, which refers to "a continuum, from low-level tension to escalated situations involving a complete relationship breakdown or violence."
Root of Conflict	The underlying cause or origin of the opposition to solar and wind projects.
Manifestation of Conflict	The action and processes through which communities, organisations, groups, individuals express their opposition to solar and wind projects.
Cost of Conflict	The measurable or observable impacts of conflict on wind and solar projects.

[72] Davis, R., & Franks, D. M. (2014). Costs of Company-Community Conflict in the Extractive Sector. https://www.csrm.uq.edu.au/media/docs/603/Costs_of_Conflict_Davis-Franks.pdf

ROOTS OF CONFLICT

Social and Cultural Change

Population and demographics	Eg, migration, social inclusion, growth/decline of community/town, workers' camps
Social infrastructure and services	Eg, housing, skills shortages/retention, health, education, training
Crime and social order	Eg, corruption, domestic violence, sexual violence, substance abuse and trafficking, prostitution, change in social norms
Community health and safety	Eg, disease, vehicle accidents, spills, controlled release, pollution, disruption of traditional food supply
Labor issues	Eg, health and safety, remuneration, freedom of association, discrimination, job opportunities
Security issues	Eg, behaviour of security personnel (government, company, contractors), targeting/repression of activists, suppression of demonstrations
Culture and customs	Eg, breakdown of traditional roles, changing production/employment base, community cohesion, effects of cash economy, sense of place, community leadership, cultural heritage, historical sites
Vulnerable and marginalised groups	Eg, disproportionate or particular effects on women, children, the disabled, the elderly, ethnic minorities, indigenous peoples, artisanal and small-scale groups.

Economic change

Distribution of benefits	Eg, profit flows, royalties and taxes, training, procurement, supply chain, community development, compensation, managing expectations, equitable distribution (across state/regional/local/ethnic/class/family or other lines), effects of cash economy, technology transfer, corruption.
Inflation/deflation	Eg, housing (ownership/rents), food, access to social services
Infrastructure	Eg, demands on/investment in roads, rail, ports, etc.

Socio-environmental change

Pollution (source of or sink for)	Eg, air (dust), water, noise, soil, scenic amenity, vibration, radiation, traffic

Resources (access to/ competition over)	Eg, land, water, forest resources, human, biodiversity
Resettlement	Eg, consent and consultation in relation to resettlement, compensation, ties/ relationship to land, equity, adequacy of resettlement housing and facilities, livelihood.
Disturbance	Eg, disruption, consent and consultation in relation to land access, frequency and timing, compensation
Land Rights	Eg, land acquisition, land ownership, transfer of land, use of land, etc.
Deforestation	Eg, cutting down of trees, removal of vegetation, impact on animals, etc.

The process of change

Consultation and communication	Eg, transparency, timing, inclusiveness, clear reporting, access to decision-makers, respect for customs and traditional authority structures
Consent	Eg, sovereign consent (indigenous/FPIC or governmental), community consent (non-sovereign)
Participation	Eg, development of programs, monitoring, selection of alternatives and technologies, planning operational aspects
Redress	Eg, dispute resolution, company-level grievance mechanism, accessibility, transparency, dialogue and engagement, third-party mechanisms
Agreements	Eg, equity, clarity of obligations, duress, capacity and governance, honouring commitments/performance, new corporate entity, transfer of obligations, cross-border projects, corruption
Community development	Eg, participation, adequacy, appropriateness, capacity to deliver, prioritisation, corruption
Vulnerable and marginalised groups	Eg, disproportionate or particular effects on women, children, the disabled, the elderly, ethnic minorities, indigenous peoples, artisanal and small-scale groups.

Project Characteristics

Project size	Eg, large project size
Project proximity	Eg, proximity to communities, important sites, or historical areas

MANIFESTATIONS OF CONFLICT

Procedure-based (generally non-violent)

Submissions	Eg, to government (national, state, regional, local) or company (local subsidiary or parent company, petitions
Administrative proceedings	Eg, formal complaint through state-based or IFI mechanisms, other international bodies
Litigation	Eg, claim brought in jurisdiction where company operates, claim brought in jurisdiction where parent company/majority shareholder is domiciled, class/group action, representative proceeding, injunction, damages, lawsuits
Publicity	Eg, public meetings, media coverage, campaigns, NGO involvement, online petitions.
Environmental opposition	Eg, opposition stemming from ecological concerns by NGOs, academics, or environmental groups.
Vulnerable and marginalised groups	Eg, disproportionate or particular effects on women, children, the disabled, the elderly, ethnic minorities, indigenous peoples, artisanal and small-scale groups.

Physical protest

Demonstration	Eg, local/state/regional/national, involving personnel also or only (strike).
Blockade	Eg, entry to site, road, access route, other project infrastructure.

Violence against property

Private property	Eg, damage or destruction of equipment/installations/buildings, interference with private infrastructure, small/large-scale
Public Property	Eg, damage or destruction of equipment/installations/buildings, interference with private infrastructure, small/large-scale

Violence to people

Injuries	Eg, to community members, to company employees, involvement of company security forces, public security forces (police or military)
Deaths	Eg, to community members, to company employees, involvement of company security forces, public security forces (police or military)

COSTS TO COMPANY

Security	• Higher payments to state forces or company contractors • Increased operational costs of security, fences, patrols, escorts, transport, alarm/leak monitoring systems, and reduced mobility • Increased security training and management, staff time, lost production, and costs of programs
Project Modification	• Design modification costs, application, redesign, and legal • Additional works
Risk Management	• Insurance, higher premiums and coverage, risk rating, withdrawal of coverage • Legal and conflict expertise, specialist training for staff, and additional staff
Material damage	• Damage or destruction to private property or infrastructure • Damage or destruction to public property or infrastructure
Lost productivity	• Temporary shutdown of operations • Operational losses due to conflict • Greater regulatory burden/scrutiny
Capital	• Loss of value of property, full write off, other depreciation, sale at loss, theft • Inability to repay debt or default on debt • Difficulty raising new capital • Share price instability/loss in value (within relevant time period)
Personnel	• Staff time spent on risk and conflict management • Costs of remediation: meetings, negotiations, mediators • Hostage-taking: ransom payments, rescue operations, compensation • Arrest of staff • Injuries to staff and deaths • Low morale and stress-related effects • Retention: higher salaries, compensation, packages, bonuses • Recruitment: advertising positions, screening, interviewing, induction training
Delays	• Operations discontinued, voluntary closure or enforced through an injunction • Disruption to production: delays, temporary or indefinite, absenteeism • General delays
Reputation	• Higher expenditure on public relations: consultants, dissemination of information • Competitive loss/disadvantage: impact on brand, investor confidence • Negative branding

STAGE OF OPERATIONS

Stage of operations	• Early development • Construction • Operational • Decommissioning • Closure

DISTINGUISHING FACTORS

Distinguishing factors	• Indigenous or local people • Industry concerns • Environmental concerns • Conflict zone • Post-conflict zone

SEMI-STRUCTURED INTERVIEWS

The research team conducted more than 60 semi-structured interviews with:

- Company representatives: including project developers, community relations and social performance staff, ESG and sustainability leads.
- Investors and Financiers: representatives from asset managers, banks, development finance institutions, commercial insurers, and export credit agencies.
- Legal practitioners: lawyers advising companies, communities, and financiers on project-related disputes, largely driven by project research partners at Clifford Chance LLC, through their global practice network.
- Civil Society and experts: NGOs, community advisors, and researchers.

Interviewees were identified through existing IHRB networks, referrals, and outreach. Interviews were conducted online and lasted 45-90 minutes. Recordings were used to develop anonymised synthesis and analysis; direct quotations were anonymised.

The list of institutions, companies, NGOs, Investors, and more interviewed is:

- Acciona, S.A.
- Actis LLP
- AES Corporation
- Aluminium Stewardship Initiative
- Amundi Asset Management
- AXA XL
- Climate Fund Managers
- Clifford Chance LLP
- Colibri Energy
- DNV AS
- Equinor ASA
- European Energy
- Export Finance Norway (Eksfin)
- First Solar, Inc.
- GE Vernova Inc.
- Gutami Group
- Grupo Energía Bogotá S.A. E.S.P.
- ISAGEN S.A. E.S.P.
- Kube Energy
- Lundin Mining Corporation
- Masdar (Abu Dhabi Future Energy Company PJSC – Masdar)
- Mercuria Energy Group Ltd.
- National Business Association of Colombia (Asociación Nacional de Empresarios de Colombia – ANDI)
- Norges Bank Investment Management
- Norsk Hydro ASA
- Ørsted A/S
- Private Energy Partners
- Responsible Commodities Sourcing Initiative

- Rio Tinto Group
- RWE AG
- Shell plc
- Shift Project
- SSE Renewables Limited
- Statkraft AS
- TotalEnergies SE
- UK Export Finance (UKEF)
- The University of Queensland
- Vestas Wind Systems A/S
- Independent expert with extensive development bank experience

Additional organisations engaged throughout the two-year project, outside of the technical interview process also included:

- Energy Transition Commission
- European Bank for Reconstruction and Development (EBRD)
- Global Solar Council
- Global Wind Energy Council (GWEC)
- LSE Grantham Research Institute
- Solar Stewardship Initiative (SSI)

STAKEHOLDER DIALOGUE

The project also convened a multi-stakeholder dialogue with over 40 participants, in London in March 2025, bringing together representatives from, primarily, renewable energy companies and investors, as well as civil society representatives and independent experts.

The objectives were to:

- Understand the existing state of play in costing efforts across the environmental, occupational health and safety, social risk and other ESG areas more broadly
- Learn from individual and collective experiences of how social opposition and conflict-related costs are identified, understood, and managed.
- Explore the extent and nature of the business case for improved human rights due diligence as a key to avoiding and mitigating company-community conflict across global renewable rollout.

More information on the dialogue's outcome is available here.

FIELD VISIT

To deepen our understanding of how conflict and costs are experienced in practice, and to ensure that the perspectives of communities were also taken into account, the research included a field visit to La Guajira, Colombia, a region with multiple wind and transmission projects in indigenous communities.

During the visit, the team met with:

- Community leaders, women, youth groups, and local authorities in selected municipalities.
- Held discussions with company representatives involved in wind and transmission projects.
- Visited wind projects as well as remote communities hosting some transmission projects.
- Engaged with indigenous community advisors, who mediate between companies and local groups.

The field visit provided rich qualitative insights into community experiences, engagement practices, benefit-sharing mechanisms, and conflict resolution and evolution. At the same time, conversations highlighted concrete examples of how delays, mistrust, and fragmented engagement can lead to stalled or cancelled projects and impede renewable energy development in specific areas.

ANNEX: SELECTED RESEARCH, GUIDANCE, AND TOOLS FOR RENEWABLES PRACTITIONERS

ON QUANTIFYING THE COSTS OF COMPANY-COMMUNITY CONFLICT

Extractives-specific evidence/research:

- *Costs of Company-Community Conflict in the Extractive Sector* (Davis & Franks, 2014) https://shiftproject.org/resource/costs-of-company-community-conflict-in-the-extractive-sector/
- *Business and Human Rights: Further Steps towards the Operationalisation of the "Protect, Respect and Remedy" Framework* [Report of the Special Representative of the UN Secretary-General on the issue of human rights, transnational corporations and other business enterprises, para 71] (Ruggie, John G.,, 2010). https://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/14/27

Renewables-specific evidence/research:

- *Correlation between companies committing to 100% renewable electricity and achieving above-average financial performance* (RE100, 2024). https://www.business-humanrights.org/en/latest-news/correlation-between-companies-committing-to-100-renewable-electricity-and-achieving-above-average-financial-performance/
- *The Cost of Inaction* (Climate Policy Initiative (CPI), 2024). https://www.climatepolicyinitiative.org/the-cost-of-inaction/
- *The Economic Costs of NIMBYism: Evidence from Renewable Energy* (Energy Institute at Haas / UC Berkeley, 2021). https://haas.berkeley.edu/wp-content/uploads/WP311.pdf
- *Improving the Investment Climate for Renewable Energy Through Benefit Sharing, Risk Management, and Local Community Engagement* (World Bank / IFC, 2019). https://documents.worldbank.org/en/publication/documents-reports/documentdetail/436351574916190205/improving-the-investment-climate-for-renewable-energy-through-benefit-sharing-risk-management-and-local-community-engagement
- *Material and resource requirements for the energy transition* (Energy Transitions Commission, 2023). https://www.energy-transitions.org/wp-content/uploads/2023/07/ETC-Material-and-Resource-Requirements_vF.pdf
- *Sources of Opposition to Renewable Energy Projects in the United States* (Energy Policy, 2022). https://www.sciencedirect.com/science/article/pii/S0301421522001471
- *Survey of Utility-Scale Wind and Solar Developers* (Lawrence Berkeley National Laboratory / US DOE, 2024). https://eta-publications.lbl.gov/sites/default/files/w3s_developer_survey_summary_-_011724.pdf
- *Understanding Costs Associated with Wind Energy Opposition and Stakeholder Engagement* (National Renewable Energy Laboratory, 2022). https://docs.nrel.gov/docs/fy22osti/82428.pdf
- *Wind Energy Siting Costs: Public Engagement, Wildlife, and Radar Considerations* (National Renewable Energy Laboratory, 2016). https://docs.nrel.gov/docs/fy16osti/61750.pdf

Legal and litigation dynamics:

- *Global trends in climate change litigation: 2025 snapshot* (LSE, 2025). https://www.lse.ac.uk/granthaminstitute/publication/global-trends-in-climate-change-litigation-2025-snapshot/
- *NEPA Litigation Over Large Energy and Transport Infrastructure Projects* (Environmental Law Reporter / Stanford University, 2023). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4498938
- *Just Transition Litigation in Latin America: An Initial Categorization of Climate Litigation Cases Amid the Energy Transition* (Sabine Center for Climate Change Law, 2023). https://scholarship.law.columbia.edu/sabin_climate_change/197/

- *Opposition to Renewable Energy Facilities in the United States* (Sabin Center for Climate Change Law / Columbia Law School, 2021). https://climate.law.columbia.edu/sites/climate.law.columbia.edu/files/content/RELDI%20report%20updated%209.10.21.pdf
- *Taking Green Energy Projects to Court: NEPA Review and Court Challenges to Renewable Energy* (Resources for the Future, 2025). https://media.rff.org/documents/Report_25-15.pdf
- *Unjust Transition on Trial: Communities and Workers Litigate to Shape Corporate Practice* (BHRRC, 2024). https://www.business-humanrights.org/en/from-us/briefings/unjust-transition-on-trial-communities-and-workers-litigate-to-shape-corporate-practice/

ON RISK MANAGEMENT AND REMEDY

Foundational standards:

- *Guiding principles on business and human rights: Implementing the United Nations "Protect, Respect and Remedy" framework.* (Office of the United Nations High Commissioner for Human Rights, 2011). https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf
- *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct* (OECD, 2023). https://www.oecd.org/en/publications/oecd-guidelines-for-multinational-enterprises-on-responsible-business-conduct_81f92357-en.html
- *Performance standards on environmental and social sustainability* (International Finance Corporation, 2012). https://www.ifc.org/content/dam/ifc/doc/2023/ifc-performance-standards-2012-en.pdf

Renewables-specific guidance:

- *Briefing: Offshore and Coastal Renewable Energy* (IHRB, 2023). https://www.ihrb.org/resources/topic-briefings
- *Business Guide: Respecting the Human Rights of Communities in Wind and Solar Project Deployment* (Columbia Center on Sustainable Investment / ALIGN, 2022). https://ccsi.columbia.edu/respecting-human-rights-communities-wind-solar-project-deployment/
- *Business Leaders Guide to a Just Climate Transition* (WBCSD / ERM, 2024). https://www.wbcsd.org/resources/business-leaders-guide-to-a-just-climate-transition/
- *Call for Inputs: Human Rights in the Life Cycle of Renewable Energy and Critical Minerals* (OHCHR, 2025). https://www.ohchr.org/en/calls-for-input/2025/call-inputs-human-rights-life-cycle-renewable-energy-and-critical-minerals
- *Ensuring the Social License for Wind Projects in Latin America* (Global Wind Energy Council, 2024). https://tethys.pnnl.gov/sites/default/files/publications/GWEC-2024.pdf
- *Just transition finance: Pathways for banking and insurance* (UNEP FI & ILO, 2023). https://www.unepfi.org/wordpress/wp-content/uploads/2023/11/Just-transition-finance_Pathway-for-Banking-and-Insurance.pdf
- *Human Rights Toolkit: Renewables Section* (UNEP FI, 2023). https://www.unepfi.org/humanrightstoolkit/renewables/
- *Human rights and solar energy* (DIHR, 2025). https://www.humanrights.dk/publications/human-rights-solar-energy
- *Investing in Renewable Energy to Power a Just Transition: A Guide for Investors* (BHRRC, 2022). https://media.business-humanrights.org/media/documents/2022_RE_investor_guide_vEYihQv.pdf
- *Ten Human Rights Priorities for the Renewable Energy Sector* (Business for Social Responsibility, 2021). https://www.bsr.org/en/primers/10-human-rights-priorities-for-the-renewable-energy-sector

- *Rebutting 33 False Claims About Solar, Wind, and Electric Vehicles* (Sabin Center for Climate Change Law / Columbia Law School, 2024). https://scholarship.law.columbia.edu/sabin_climate_change/217/

Stakeholder engagement:

- *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets* (IFC - International Finance Corporation, 2007). https://www.ifc.org/content/dam/ifc/doc/mgrt/ifc-stakeholderengagement.pdf
- *Community Engagement Toolkit* (Rocky Mountain Institute, 2025). https://rmi.org/insight/community-engagement-toolkit/
- *Free, Prior and Informed Consent: An Indigenous Peoples' Right and a Good Practice for Local Communities — Manual for Project Practitioners* (FAO, 2016). https://www.fao.org/3/i6190e/i6190e.pdf
- *Community Engagement and Equity in Renewable Energy Projects: A Literature Review* (National Renewable Energy Laboratory / US DOE, 2023). https://docs.nrel.gov/docs/fy23osti/87113.pdf
- *OECD due diligence guidance for meaningful stakeholder engagement in the extractive sector.* (OECD, 2017). https://www.oecd.org/content/dam/oecd/en/publications/reports/2017/02/oecd-due-diligence-guidance-for-meaningful-stakeholder-engagement-in-the-extractive-sector_g1g65995/9789264252462-en.pdf
- *Land and Human Rights: Standards and Applications* (OHCHR - United Nations, 2015). https://www.ohchr.org/sites/default/files/Documents/Publications/Land_HR-StandardsApplications.pdf
- *Spinning Gold: The Financial Returns to Stakeholder Engagement* (Henisz, W.J., Dorobantu, S. & Nartey, L.J. Strategic Management Journal, 2014). https://sms.onlinelibrary.wiley.com/doi/abs/10.1002/smj.2180

Grievance mechanisms and remedy:

- *Accountability and Remedy Project: Improving accountability and access to remedy in cases of business involvement in human rights abuses* [multiple resources] (OHCHR, 2020). https://www.ohchr.org/en/business/ohchr-accountability-and-remedy-project
- *Access to Remedy in Cases of Business-Related Human Rights Abuse: An Interpretive Guide* (OHCHR, 2024). https://www.ohchr.org/en/publications/policy-and-methodological-publications/access-to-remedy-bhr-interpretive-guide
- *Meeting the UNGPs' effectiveness criteria* [Summary of ARP III Guidance] (OHCHR Accountability and Remedy Project, 2021) https://www.ohchr.org/sites/default/files/2022-01/arp-note-meeting-effectiveness-criteria.pdf
- *Global review of grievance redress mechanisms in World Bank projects* (The World Bank, 2013). https://documents1.worldbank.org/curated/en/907421468337160282/pdf/903880WP0Box380edressMechanismsinWB.pdf
- *Grievance Mechanism Toolkit* (IFC/World Bank Group Compliance Advisor Ombudsman, 2016). https://www.cao-ombudsman.org/grm/
- *Remediation and grievance mechanisms: "Early warning, effective solutions."* [Doing business with respect for human rights: A guidance tool for companies (Chapter 3.8)] (Global Compact Network Netherlands / Oxfam / Shift, 2016). https://www.businessrespecthumanrights.org/image/2016/10/24/3_8.pdf
- *The business case for grievance mechanisms* (Grievance Mechanism Toolkit). (Office of the Compliance Advisor Ombudsman, 2016) https://www.cao-ombudsman.org/grm/business-case-for-grievance-mechanisms.html

ON BENEFIT SHARING

- *Community Benefit Sharing and Renewable Energy and Green Hydrogen Projects: Policy Guidance* (Columbia Center on Sustainable Investment, 2022). https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=1021&context=sustainable_investment
- *Community Energy Toolkit: Best Practices for Broadening the Ownership of Renewables* (IRENA, 2021). https://www.irena.org/Publications/2021/Nov/Community-Energy-Toolkit-Best-practices-for-broadening-the-ownership-of-renewables
- *Community Engagement and Fair Benefit Sharing of Renewable Energy Projects* (CAN Europe, 2025). https://caneurope.org/community-engagement-and-benefit-sharing/
- *Community Ownership of Renewable Energy: How it Works in Nine Countries* (IHRB, 2023). https://www.ihrb.org/resources/community-ownership-of-renewable-energy-how-it-works-in-nine-countries
- *Enabling a Community-Powered Energy Transition* (The Nature Conservancy, 2024). https://www.nature.org/content/dam/tnc/nature/en/documents/Enabling_a_Community-Powered_Energy_Transition.pdf
- *A Guide to Benefit Sharing Options for Renewable Energy Projects* (Clean Energy Council - Australia, 2019). https://assets.cleanenergycouncil.org.au/documents/advocacy-initiatives/community-engagement/guide-to-benefit-sharing-options-for-renewable-energy-projects.pdf
- *Local Benefit Sharing in Large-Scale Wind and Solar Projects* (IFC / World Bank Group, 2019). https://commdev.org/wp-content/uploads/2019/06/IFC-LargeScaleWindSolar_Web.pdf
- *Primer: Maximizing Community Co-Benefits Through Clean Energy Procurement* (Clean Energy Buyers Association, 2024). https://cebi.org/wp-content/uploads/2023/08/Clean-Energy-Buyers-Institute-Primer_Maximizing-Community-Co-Benefits-Through-Clean-Energy-Procurement.pdf
- *Shared prosperity in renewable energy* (BHRRC, 2025). https://www.business-humanrights.org/en/big-issues/natural-resources/shared-prosperity-in-renewable-energy/
- *Wind Energy Community Benefits Guide* (US Department of Energy / WindExchange, 2023). https://windexchange.energy.gov/community-benefits-guide

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The findings and conclusions expressed in this report are those of IHRB alone.

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Making respect for human rights part of everyday business