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Foreword

Joan Carling, Executive Director, Indigenous Peoples Rights International

There is no time to waste to address the climate crisis. This is the greatest challenge humanity has ever faced – and rolling out renewable energy capacity at pace is critical.

Indigenous Peoples face multiple challenges. Climate change is resulting in the destruction of our lands and territories, natural ecosystems, livelihoods and cultural and spiritual connections to the earth. We are also confronted with an energy transition that, so far, repeats the mistakes of the past, through massive exploitation of our resources, entrenching of inequalities and trampling over our rights.

Wind and solar operations need large tracts of land. With inadequate protection of our rights as affirmed in the UN Declaration on the Rights of Indigenous Peoples, including to our self-determination, and to give or withhold free, prior and informed consent, implementation of renewable energy projects is seriously infringing on our rights. When Indigenous Peoples speak out against projects forced upon us, we are too often silenced, criminalised or physically attacked. In some cases, Indigenous Peoples have resorted to litigating unjust projects because our legitimate concerns are being ignored – as exemplified by the cases of the Lake Turkana project in Kenya or Fosen Vind in Norway.

As the Benchmark reveals, a majority of companies in the renewable energy sector still do not have policies on the respect for Indigenous Peoples' rights aligned with international law. Ignoring these rights is irresponsible and short sighted. Instead of advancing sustainable development, it fuels conflict and distrust.

This is not the way forward. Respect for rights and shared prosperity is imperative – but Indigenous Peoples' rights are not and never were a barrier to responsible wind and solar projects' deployment.

On the contrary, Indigenous Peoples are pioneers in the fight against climate change, and we are the allies of progressive actors. Companies involved in wind and solar operations should heed our expertise in environmental stewardship, knowledge and values. But they need to engage with us in good faith. It starts with a commitment - not mere lip service to respect our rights, especially when legal protections are weak. This takes leadership, as demonstrated by a few companies in this year's Benchmark.

Forging new rights-respecting partnerships with Indigenous Peoples is not only desirable – it is well within reach. Our work demonstrates such examples, grounded in rights - in Canada, New Zealand and Mexico, among other places. This can only happen when Indigenous Peoples are recognised as equal partners and rightsholders in negotiation, design and implementation of projects.

This is an all-hands-on-deck moment. We call on corporate actors and their investors to decisively move away from business as usual. This is a unique opportunity to build a fairer global economy – one that works towards repairing historical harms, and serves as the foundation of a new energy system that leaves no one behind.

Executive summary

Climate change remains the single biggest threat to human rights today – meeting global energy demand with renewable energy sources has never been more urgent. Efforts are well underway: global renewable energy capacity expanded by 700 GW in 2024, of which 80% was made up of solar projects, marking the 22nd year in a row of record installations. Yet two years after COP28, where countries set out to triple renewable energy capacity by 2030, we still need further acceleration in installation.

At the same time, while the cost of building renewables is now cheaper than fossil fuels, the industry is facing serious political and financial headwinds. Despite this challenging operating environment, renewable energy companies are demonstrating that embedding human rights into their business models and building wind and solar projects that promote shared prosperity for local communities offers both competitive advantage, reduced legal risk, and can contribute to an energy transition that is fast, precisely because it is also fair.

This year's Renewable Energy and Human Rights Benchmark, ranking 35 key publicly traded companies¹ in the wind and solar sector, reveals many of these firms are not only holding strong on key policies essential to supporting a rights-respecting energy transition – they have continued to make progress on adopting and implementing human rights practices. This progress appears to be driven by burgeoning evidence that a fast transition can only be achieved if public trust is not squandered through abusive approaches. It is also driven by companies' policy change in anticipation of new corporate human rights regulation – from Europe's due diligence approaches, to the US and EU action to prevent imports of goods linked to forced labour. While there remains considerable room for improvement – particularly in terms of addressing salient risks of impacts on affected communities and Indigenous Peoples – important findings include:

- Renewable energy companies across all categories² have made progress on core human rights policies and practices in line with the UN Guiding Principles on Business and Human Rights (UNGPs) with 18 out of 27 (67%) companies having improved or maintained their scores from the 2023 Benchmark.
 - Since the last Benchmark, five out of six solar panel manufacturers, 12 out of 18 project developers, and two out of three wind turbine manufacturers have improved their scores on embedding human rights due diligence into their operations and supply chains.
 - → Five out of six solar panel manufacturers, 12 out of 18 project developers, and one out of three wind turbine manufacturers have improved their scores on commitment to providing remedy and/or providing access to appropriate grievance mechanisms for both workers and affected communities.
- Project developers in the utility sector based in Europe such as Ørsted, Iberdrola and Enel Green Power continue to lead the pack, especially on core human rights policies and practices in line with the UNGPs.

^{1 27} companies were already included in the previous Benchmark. Eight new companies have been added in the 2025 edition of the Benchmark.

² The Benchmark includes five categories: 13 Electric Utilities, five Independent Power Producers, four oil and gas companies, seven solar panel manufacturers, and six wind turbine manufacturers.

- Solar panel manufacturers have made steady progress in adopting new policies and practices, though they continue to lag behind their wind turbine manufacturer counterparts. It is also noteworthy that no company in the Benchmark currently publicly discloses its full solar supply chain, which is a critical element in responding to risk of exposure to the severe issue of forced labour in Xinjiang Autonomous Uyghur Region (XUAR), as referenced by UN experts.
- Vestas continues to stand out among wind turbine manufacturers both in terms of UNGPs and salient human rights issue indicators.
- **Oil and gas companies performed particularly poorly** on share of capital expenditure for a low-carbon transition and climate emissions targets. This is reflective of less ambitious emission targets and reduced energy development by the sector, which has recently refocused on oil and gas development.

Importantly, renewable energy companies across all categories made some progress on salient human rights issues for the sector³ – with 23 out 27 companies (85%) improving their scores or maintaining them. While this is encouraging, these areas still present a challenge, with average scores lower than on core policies and processes aligned with the UNGPs. In particular, scores remain very low on land and resource rights (2% on average across all categories – vs 1% in the 2023 edition of the Benchmark), on Indigenous Peoples' and affected communities' rights including benefit sharing (12% vs 4% in 2023), on responsible mineral sourcing (7% vs 6%), as well as on protecting human rights defenders (8% vs 8%). Given that these are areas of some of the highest risk for and most severely impacted by the renewable energy sector, improved policy commitment and better practice is essential.

Critical issue deep dives

Based on detailed analysis of companies' policies and practices and complemented by in-depth interviews with companies, the 2025 Renewable Energy and Human Rights Benchmark for the first time takes a deep dive into four key issue areas – mineral supply chain engagement; respect for Indigenous Peoples' rights; commitment to shared prosperity; and respecting and protecting human rights defenders – essential for the renewable energy sector to drive a just energy transition. These were selected on the basis of (1) their risk and opportunity saliency, (2) potential for leverage by companies, and (3) clear, actionable steps available for progress. The 2025 Benchmark highlights strong leadership in each of these areas, while identifying key areas for improvement, and specific actions companies throughout the value chain must take to close these gaps.

Engagement with mineral supply chains (Deep dive #1) and associated human rights abuses is essential, or renewable energy companies will face disruptions and delays, as risk of social conflicts and litigation are mounting – with long term consequences for the renewable energy sector. While responsible mineral sourcing remains a nascent practice among renewable energy companies, leaders in the sector are starting to address these challenges head-on including through strengthening expectations of suppliers, identifying and disclosing risks in upstream mineral sourcing, tracing critical minerals in supply chains, adopting a risk-based approach for all minerals, and looking beyond compliance risks and conflict minerals.

³ These are Indigenous Peoples' and Affected Communities' Rights, Land and Resource Rights; Security and Conflict-Affected Areas; Responsible Mineral sourcing; Protection of Human Rights and Environmental Defenders; Labour Rights (including protection against forced labour); Right to a Healthy and Clean Environment; Transparency and Anti-Corruption; Diversity, Equality and Inclusion and the Just Transition. For more information, please refer to the 2025 methodology here.

The solar panel manufacturing sector remains far below international standards on responsible mineral sourcing and behind counterparts in the wind turbine manufacturers. Only two out of seven solar panel manufacturers have a policy-level commitment in place committing to follow the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals (First Solar and JA Solar) compared to three out of five wind turbine manufacturers (GE Vernova, Siemens Gamesa and Vestas).

- Centring respect for Indigenous Peoples' rights in wind and solar operations (Deep dive #2) is key because of the significant land requirements of wind and solar projects, and currently reported allegations of abuses across different geographies. This is the area with the highest number of allegations of **abuse** linked to companies in the Benchmark. Despite the high potential for conflict when Indigenous Peoples' rights are not respected, as in the previous Benchmark, only two out of 22 project developers (EDF Renewables and Ørsted) have a commitment in place to fully respect Indigenous Peoples right as per the UN Declaration on the Rights of Indigenous Peoples. Ørsted is the only project developer with a full commitment to free, prior and informed consent, a new commitment since the last Benchmark. This remains a gap to close for the sector, especially when considering risks of financial, legal, reputational and operational damage as a result of conflict when Indigenous Peoples' rights are not respected.
- (Deep dive #3) building and retaining public support through more inclusive, participatory models that allow local communities to derive direct benefits from new energy installations – is also critical best practice. While the sector has room to progress, renewable energy companies' commitment to shared prosperity appears to be growing. There has been a marked improvement in disclosures around community consultation processes among project developers, with ten out of 22 project developers now describing how they identified and engaged with affected communities in the last two years. Three project developers demonstrate leading policies around co-ownership (Ørsted and Brookfield Renewables) and prioritising community decision-making in benefit sharing arrangements in renewable energy projects (Iberdrola).
- Protecting human rights defenders and speaking out in defence of civic freedoms (Deep dive #4) which are increasingly threatened – should not be considered a 'nice-to-have' policy and practice by renewable energy companies, but rather essential inputs to building the sector's sustainability. The Benchmark reveals that the wind and solar sectors, increasingly scrutinised by international investors and civil society, overall show **relatively fast progress in adoption of policies on HRDs**. Currently, eight companies in the Benchmark have a zero tolerance policy in place on threats or attacks to human rights defenders: Brookfield Renewables Partners (new commitment adopted since the previous edition of the Benchmark in 2023), EDF Renewables, Lightsource bp, Ørsted, RWE, Shell plc, First Solar and Vestas. In addition, two companies (Vestas and Ørsted) expect their business partners to make this commitment as well.

The renewable energy industry is at a crossroads: not only is it building the infrastructures of our future global energy system, it also has the potential to contribute to a fairer global economic order and shared **prosperity for all in the energy transition.** As this year's Benchmark findings demonstrate, ensuring respect for human rights, listening to the voices of rights-holders and their aspirations in renewable energy operations is an essential condition for sustainable wind and solar projects. Business commitment to human rights due diligence and responsible business conduct, fair negotiations with rightsholders, and shared prosperity is not only better for communities, Indigenous Peoples, workers and human rights defenders. It is imperative for any renewable energy company seeking long-term viability.

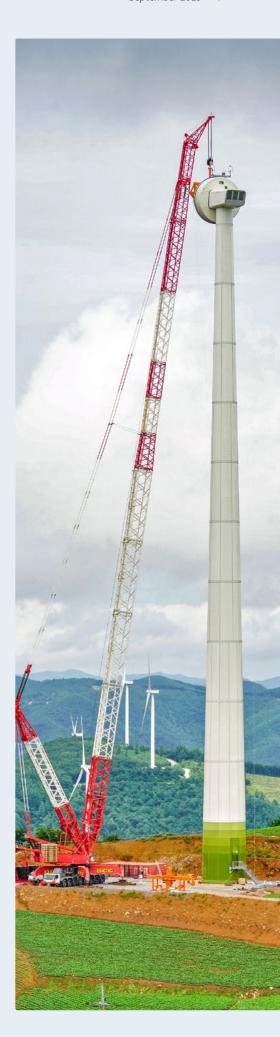
How to use this briefing

This briefing focuses on the role of wind and solar project developers, wind turbine manufacturers and solar panel manufacturers. It provides companies and relevant stakeholders with the following:

- Ranking: Overview of how peers across wind and solar project developers, wind turbine manufacturers and solar panel manufacturers rank on human rights policies and practices.
- Deep dives on four critical topics: Current landscape and trends analysis from Benchmark findings on:
 - Responsible mineral sourcing
 - Indigenous Peoples' rights
 - Shared prosperity
 - Human rights defenders and civic space.
- How to take action to address key challenges: Overview of the main challenges and solution-oriented steps companies, investors and other stakeholders can take on deep dive topics.

In addition, companies, investors and other relevant stakeholders can use the following resources to support their work internally on human rights:

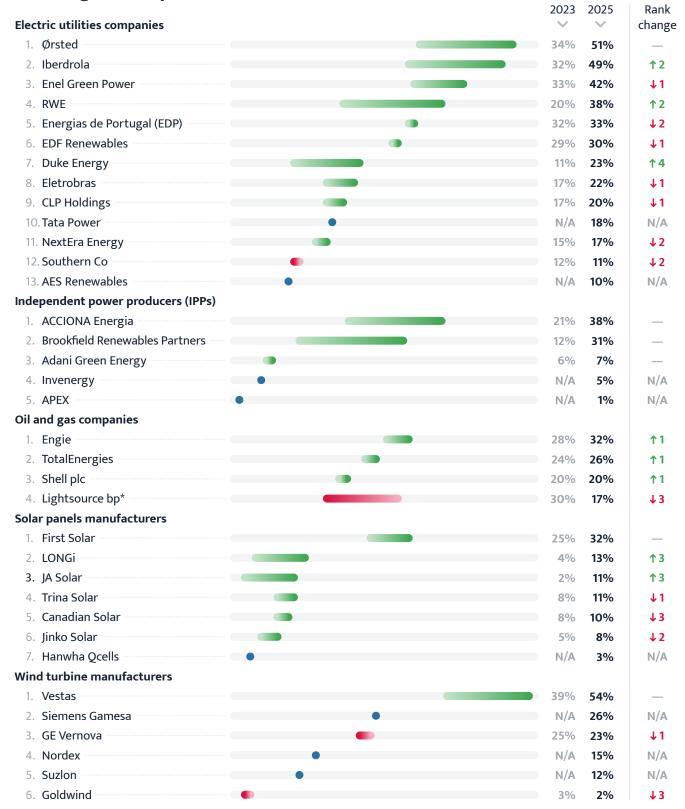
- (a) Individual scoresheets: Download individual company scoresheets from the Business & Human Rights Resource Centre website with detailed assessment on how companies score on individual indicators to support internal dialogues and gap assessment.
- (ataset to analyse trends) **Benchmark** and performance on specific indicators.
- Benchmark methodology document: Use methodology document to inform companies' human rights approach on specific issues.



Results

Bar chart indicates changes in scores compared to 2023 Benchmark

Ranking of companies



^{*}In 2023, Lightsource bp and bp were assessed separately as Lightsource bp was 50% owned by bp. As of 2025, bp now owns 100% of Lightsource bp following the acquisition of remaining shares in 2024. Assessment has been conducted at the group level.

€ Renewable Energy and Human Rights Benchmark 2025
September 2025

Results by categories		A	1	В		2		ore GPs)		E		F		G		4		ı		J		<	ı	L	J	Т	Sali ris	ent ks
, c		5				5	<u> </u>			5		2		5		2				2	<u> </u>									
Electric utilities companies	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025	2023	2025
Ørsted	54	75	43	90	38	88	46	84	13	34	13	13	0	0	25	30	50	50	21	33	13	33	63	13	0	8	13	21	17	24
Iberdrola	58	65	82	89	63	72	69	77	31	54	0	0	0	25	0	0	0	0	8	13	13	18	63	63	17	30	16	42	15	27
Enel Green Power	63	60	46	52	38	70	50	59	13	35	0	0	0	13	0	0	0	0	17	21	38	43	63	63	17	20	59	46	27	27
RWE	63	65	43	46	44	53	50	54	0	6	0	0	0	0	0	0	25	25	8	13	13	18	13	13	0	0	13	17	7	9
Energias de Portugal (EDP)	79	65	32	25	31	33	49	41	6	15	0	0	0	0	17	0	0	0	8	8	13	0	13	45	17	20	53	25	20	13
EDF Renewables	58	55	61	63	31	33	53	54	25	28	13	0	0	0	0	0	25	25	25	21	13	18	25	18	0	8	50	42	23	20
Duke Energy	42	40	0	0	31	25	22	20	0	16	0	0	0	0	0	0	0	0	4	4	0	0	13	0	0	0	13	25	5	8
Eletrobras	29	50	14	17	38	50	25	36	6	23	0	0	0	0	0	0	0	0	8	13	0	58	0	0	8	12	6	0	5	10
CLP Holdings	54	50	0	29	19	25	24	36	0	23	0	0	0	0	0	0	0	0	21	23	13	18	0	0	0	0	9	8	7	10
Tata Power	N/A	55	N/A	4	N/A	17	N/A	25	N/A	0	N/A	17	N/A	0	N/A	33	N/A	12	N/A	17	N/A	10								
NextEra Energy	21	15	0	0	13	8	10	7	0	0	0	0	0	0	0	0	0	0	4	4	0	0	0	18	0	0	6	8	2	4
Southern Co	21	30	0	0	19	17	12	14	0	9	0	0	0	0	0	0	0	0	4	4	0	0	13	33	0	0	41	25	11	9
AES Renewables	N/A		N/A	0	N/A	53	N/A	19	N/A	29	N/A	0	N/A	0	N/A	0	N/A	0	N/A	13	N/A	33	N/A	33	N/A	8	N/A	13	N/A	14
Average	49	50	29	32	33	42	37	40	9	21	2	1	0	3	4	2	9	8	12	14	10	18	24	25	5	9	25	22	13	14
Independent power producers																														
ACCIONA Energia	58	55	61	60	63	53	60	57	0	13	0	0	13	0	0	0	0	0	8	20	13	18	50	63	8	30	33	58	12	21
Brookfield Renewables Partners	21	35	7	21	38	70	19	36	0	16	0	0	0	0	0	0	0	25	8	13	13	25	25	18	0	17	33	58	8	17
Adani Green Energy	29	35	0	4	13	17	13	18	0	0	0	0	0	0	0	0	0	0	4	13	13	43	13	18	8	0	8	8	4	8
Invenergy	N/A	10	N/A	0	N/A	42	N/A	13	N/A	0	N/A	4	N/A	33	N/A	0	N/A	0	N/A	17	N/A	5								
APEX	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	17	N/A	0	N/A	0	N/A	0	N/A	0	N/A	4
Average	36	27	23	17	38	36	31	25	0	6	0	0	4	0	0	0	0	5	7	13	13	24	29	16	6	9	25	28	8	11
Oil and gas companies																														
Engie	42	65	57	69	31	42	46	62	0	15	0	0	0	30	0	0	0	0	4	13	13	18	13	18	0	8	59	58	17	21
TotalEnergies	63	55	43	60	31	42	47	54	0	6	0	13	50	45	0	0	0	25	21	33	13	33	13	13	0	8	47	42	20	24
Shell plc	54	55	57	46	56	45	56	49	0	15	13	13	25	30	0	0	25	25	4	4	13	0	13	30	0	17	22	25	11	15
Lightsource bp	71	50	50	13	75	42	63	32	13	6	0	0	13	0	0	0	25	25	21	13	13	33	13	50	8	0	38	25	18	14
Average	57	56	52	47	48	43	53	49	3	11	3	6	22	26	0	0	13	19	13	16	13	21	13	28	2	8	41	38	16	18
Solar panel manufacturers																														
First Solar	50	60	14	21	88	75	44	46	0	0	0	0	0	0	25	50	25	25	13	31	38	50	0	0	8	12	50	67	15	25
LONGi	29	40	0	17	0	33	10	29	0	0	0	0	0	0	8	25	0	0	0	10	25	43	0	0	0	0	0	0	3	8
JA Solar	0	35	7	8	0	50	3	27	0	0	0	0	0	0	8	25	0	0	4	14	0	0	0	0	0	8	0	0	2	7
Trina Solar	42	35	7	8	25	25	24	21	0	0	0	0	0	0	0	17	0	0	8	4	25	50	13	0	0	0	0	17	4	8
Canadian Solar	21	25	7	4	38	42	19	20	0	0	0	0	0	0	0	0	0	0	4	17	25	25	13	0	0	0	33	17	7	7
Jinko Solar	17	15	7	8	19	42	13	18	0	6	0	0	0	0	0	0	0	0	4	18	25	25	13	0	0	0	0	0	4	7
Hanwha Qcells	N/A	20	N/A	0	N/A	8	N/A	9	N/A		N/A	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A	0								
Average	26	33	7	10	28	39	19	24	0	1	0	0	0	0	7	17	4	4	6	13	23	28	6	0	1	3	14	14	6	9
Wind turbine manufacturers																														
Vestas	67	75	54	85	81	88	65	82	13	41	0	25	13	30	42	42	25	50	17	27	50	68	25	45	8	17	83	83	27	41
Siemens Gamesa	N/A	70	N/A	50	N/A	63	N/A	60	N/A	0	N/A	0	N/A	0	N/A	25	N/A	0	N/A	27	N/A	25	N/A	0	N/A	22	N/A	17	N/A	14
GE Vernova	50		39	43	56	25	47	40	6	6	0	0	0	0	33	25	0	0	13	28		25	0	0	8	0	33	33	13	15
Nordex		45	N/A		N/A		N/A		N/A	0	N/A	0	N/A		N/A	0	N/A	0	N/A	8	N/A		N/A		N/A	0	N/A	8	N/A	6
Suzlon	N/A		N/A		N/A		N/A	25	N/A	6	N/A	0	N/A	0	N/A		N/A		N/A	18	N/A	0	N/A	0	N/A	0	N/A	0	N/A	5
Goldwind	17	10	0	0	0	0	6	4	0	0	0	0	0	0	0	0	0	0	4	4	25	25	0	0	0	0	0	0	3	3
Average	44	48	31	34	46	42	39	41	6	9	0	4	4	5	25	15	8	8	11	19	33	28	8	10	6	6	39	24	14	14

- Increase in score
- Decrease in score < 5 points
- Decrease in score ≥ 5 points, or 0% score

Core UNGPs:

- A Governance and policy commitments
- **B** Embedding HRDD
- **C** Remedies and grievance mechanisms

Salient risks:

- D Indigenous Peoples and affected communities
- E Land and resource rights
- **F** Security and conflict-affected areas
- **G** Responsible mineral sourcing
- H HRDs
- I Labour rights
- J Right to a HCE
- K Transparency and anti-corruption
- L Diversity, equality and inclusion
- JT Just Transition

Note on methodology: The Renewable Energy and Human Rights Benchmark's methodology is built on widely recognised international standards including the UNGPs, OECD Guidelines for Multinational Enterprises, IFC Performance Standards, and other issue-specific authoritative references. The Benchmark aligns with existing benchmarks and uses indicators developed by the World Benchmarking Alliance (WBA) wherever possible. Due to the cross-cutting nature of the Renewable Energy and Human Rights Benchmark, this includes indicators from the Corporate Human Rights Benchmark as well as Climate & Energy benchmarks. Business & Human Rights Resource Centre undertook two public consultations (in 2017 and in 2023) and a company feedback questionnaire to refine the Benchmark's methodology.

Company selection: The Renewable Energy and Human Rights Benchmark ranks 35 key publicly traded companies in the wind and solar sector, focusing on project developers, solar panel manufacturers, and wind turbine manufacturers. Please consult the methodology document for further information on company selection.

Scores for companies in the different project developers' sub-categories (electric utilities, oil and gas, independent power producers) should not be compared to one another as company assessment categories have been designed to allow for integration of an assessment of efforts towards full decarbonisation of energy production portfolio for electric utilities and oil and gas companies, based on the World Benchmarking Alliance's (WBA) Oil & Gas and Electric Utilities Benchmark, using ACT aligned methodologies.

Scores for equipment (wind turbines and solar) manufacturers should not be compared to project developers' scores as indicators have been tailored to reflect their position in renewable energy value chains.



A fast and fair energy transition depends on renewable energy companies contributing to building and retaining the trust of communities and workers, centring human rights in their operations through commitment to <a href="https://doi.org/10.21/2016/bit.10.21/2016/bit.2016/

With respect to this year's deep dive issues – responsible mineral sourcing, Indigenous Peoples' rights, shared prosperity, and human rights defender protection – the sector is well-placed to continue to build on clear progress in these areas, critical to building lasting public trust and reducing risks of social conflicts. This is also an opportunity for market differentiation for leading companies as risks of local opposition increase.

Key areas for further action include:

- On responsible mineral sourcing: a few downstream companies are starting to use their leverage behind the scenes to improve practices upstream. Now is the time for more to join their peers, including in other sectors such as the electric vehicle (EV) industry, and engage with mining companies to establish a high bar on respect for human rights. This includes supporting calls for alignment of <u>standards</u> for the mining sector with international human rights law and the UNGPs; as well as demanding better protection of people and the environment in mining operations by states. For detailed opportunities for action, see <u>here</u>.
- On Indigenous Peoples' rights: renewable energy companies have an opportunity to lead in advocating for stronger protection by States of the rights of Indigenous Peoples, including their right to a FPIC today, a critical gap in too many jurisdictions. However, companies also have a responsibility to act now, beyond national legislation, and adopt policy commitments recognising Indigenous Peoples' rights. This is not only a normative and legal imperative,⁴ but is also the key to avoid conflicts and foster long-term sustainable wind and solar operations that are built on mutual trust and benefit. This is critical given how land intensive wind and solar operations are <u>increasingly overlapping</u> with Indigenous Peoples' lands. For detailed opportunities for action, see here.

- On shared prosperity, renewable energy companies can benefit from exploring business models that support greater benefit sharing, including through community co-ownership. These models have already been deployed in some circumstances and undoubtedly come with their own challenges. But when designed and implemented in a rights-respecting manner that values local priorities, expertise and aspirations, they also offer unique opportunities to build stronger public support for wind and solar operations. For detailed opportunities for action, see here.
- (HRDs) and civic space, renewable energy companies must consider ways to support open civic space and protect human rights defenders, who should be considered as 'critical friends' to the sector: their unique insights and local expertise can help build sustainable wind and solar operations. This is critical to avoiding lasting social conflicts. The renewable energy sector is already demonstrating leadership in this regard, with several companies already adopting key policies. It must continue using its leverage in a global context of heightened restrictions on civic freedoms. For detailed opportunities for action, see here.

Labour rights in the energy transition:

Workers form the backbone of the energy transition across the renewable energy value chain

Respect for worker rights and their own access to prosperity is an essential element of a just energy transition. Since the last Benchmark, companies in the renewable energy sector have made improvements on labour rights scores across all sub-sectors. However, improvements have been concentrated predominantly on health and safety indicators. Companies continue to score poorly on indicators related to forced labour risk management, wage and recruitment practices, restrictions on workers' freedom of movement, and freedom of association and collective bargaining.

Notably, companies also fail to disclose their full solar panels supply chains – key to demonstrate they 'know and show they respect human rights', in line with the UNGPs through addressing risk of exposure to forced labour in the Xinjiang Uyghur Autonomous Region (XUAR), as referred to by UN experts.

Companies in the sector must be alert to both the opportunities they can create through decent and green jobs, and labour rights risks in their value chain, from exposure to forced labour in solar panel manufacturing, to violations of migrant worker rights in the construction, operation and maintenance of solar and wind farms, to restrictions on workers' right to freedom of association and collective bargaining, among other issues. The Resource Centre has previously highlighted harms to migrant workers' rights in the Gulf Cooperation Council countries' energy transition through in-depth company research and worker testimonies.



Deep dive #1: Responsible mineral sourcing

The International Energy Agency <u>estimates</u> that demand for critical minerals required in renewable energy technologies could quadruple by 2040. Clean energy transition needs represent an ever-growing share of mineral demand: from 20% in 2021 to an estimated 45% in 2040 for <u>copper</u> and from under 10% to 54% for <u>nickel</u>. Amidst increasing global pressure and competition to secure critical mineral supply chains, this growth in demand carries a risk of overlooking workers, communities and aggravating the environmental impacts of mining.

Evidence from our <u>Transition Minerals Tracker</u> shows continuing abuses in the extraction of key minerals used in wind turbines and solar panels, recording 835 allegations of abuse between 2010-2024 and 156 allegations of abuse in 2024 alone, including widespread violations of environmental, land and Indigenous Peoples' rights, as well as labour rights. Other sources point out serious risks of human rights abuses in <u>rare-earth elements</u> <u>supply chains</u> – critical in the manufacturing of wind turbines.

Mining-affected communities and Indigenous Peoples are increasingly turning to <u>litigation</u> to protect their rights: our Just Transition Litigation tracker has recorded 67 legal cases brought against the private sector and/or states in relation to transition mineral mining. These cases challenge a wide range of human rights harms, including allegations of abuse against the right to a clean, healthy and sustainable environment (71%), water pollution and/or access to water (60%). Close to half of the lawsuits (33) related to transition minerals involved allegations of Indigenous Peoples' rights abuses, including FPIC.

Ignoring the harms of mining for minerals critical to the energy transition will not accelerate the response to the climate crisis – to the contrary, it risks generating mineral supply chain disruptions.

Companies in the renewable energy sector have an unprecedented opportunity to use their leverage to require commitment to human rights in their mineral supply chains. The OECD Guidance on Responsible Mineral Supply Chains is an essential starting point for this endeavour. Leadership in this space will also support companies' drive to secure the minerals they need: as the OECD reminds companies and governments, responsible supply chains are reliable supply chains.

Recommendations for manufacturers and developers

- Introduce responsible mineral sourcing policy with C-Suite oversight, clear responsibilities and resource allocation.
- (a) Align due diligence policy and processes with OECD Guidance on Responsible Mineral Sourcing for all minerals.
- Undertake traceability and risk-based mapping of key mineral supply chains, but refrain from acting only on 'problematic' mining, processing, smelting and refining facilities the company is connected to.
 Consider risks in minerals value chains as systemic and elevate sector-wide expectations for responsible business conduct.
- Engage with peers, including in other sectors such as the automotive sector, to improve sector-wide practices and advocate for strong legislation and standards for the mining sector that uphold human rights.

Current landscape: key findings from the 2025 Benchmark

Expectations: The Benchmark assessed whether companies have a responsible mineral sourcing policy statement committed to following the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals that covers all minerals and expects business relationships to do the same through incorporation into commercial contracts/written agreements; whether they identify and map suppliers; have a traceability system in place; whether their disclose names and locations of most significant and high-risk parts of supply chain; whether they describe processes for identifying and prioritising risks/impacts in supply chains as per OECD Guidance and disclose risks; expect suppliers to disclose smelters/refiners that meet due diligence as per OECD Guidance; indicate that these processes cover minerals assess as highest risk.

See indicators G1, G2, G3 in Benchmark methodology

Manufacturers start to embrace responsible mineral sourcing practices

Responsible mineral supply chain practices among solar panel and wind turbine manufacturers are critical and coming under increased scrutiny through pressure and demand from clients, policy-makers and civil society.

Manufacturers can have different business models and procurement arrangements. For example, solar panel manufacturers are increasingly vertically integrated, producing ingot, wafers, cells and modules in their own facilities. Wind turbine manufacturers' mineral supply chains tend to be complex, with multiple layers of suppliers using minerals from a range of sources for different components. However, all manufacturers all have a responsibility to follow the OECD Guidance for Responsible Mineral Supply Chains.

Since the last Benchmark in 2023, three solar panel manufacturers (**First Solar**, **LONGi** and **Trina Solar**) have improved their scores on supplier mapping, two (**JA Solar** and **Trina Solar**) improved scores on arrangements with suppliers, and one (**First Solar**) improved its score on risk identification.

Arrangements with suppliers	2023 average	2025 average	% points change
Solar panel manufacturers	8 % • 0.2/2 score	20 % • 0.4/2 score	↑12
Wind turbine manufacturers	33 % • 0.7/2 score	12.5 % • 0.25/2 score	↓20.5*
Supplier mapping & disclosure			
Solar panel manufacturers	4 % • 0.08/2 score	20 % • 0.2/2 score	↑16
Wind turbine manufacturers	17 % • 0.3/2 score	20 % • 0.2/2 score	↑3
Risk identification			
Solar panel manufacturers	8 % • 0.2/2 score	17 % • 0.17/2 score	↑9
Wind turbine manufacturers	25 % • 0.5/2 score	12.5 % • 0.25/2 score	↓12.5 *

^{*}Note: The Benchmark added three new wind turbine manufacturers, which resulted in lower average scores in the sector.

Note individual company progress below.

However, the sector remains far below international standards. Only one solar panel manufacturer (JA Solar) has a policy-level commitment in place that meets Benchmark criteria compared to three wind turbine manufacturers (GE Vernova, Siemens Gamesa and Vestas). In addition, three out of seven solar panel manufacturers (Canadian Solar, Hanwha QCells and Jinko Solar) and two out of five wind turbine manufacturers (Goldwind and Suzlon) score zero across the board on all responsible mineral sourcing indicators.

Three out of five wind turbine manufacturers (**GE Vernova**, **Siemens Gamesa** and **Vestas**) clearly indicate that they identify and map mineral suppliers, including direct and indirect suppliers. In addition, **Siemens Gamesa** and **Vestas** indicate that they have a traceability system in place for mineral supply chains.





Exposure to risk of forced labour in XUAR

Risk of exposure to forced labour in solar polysilicon supply chains remains high as cited by UN reports. Companies were once again assessed on whether they publish independently verified full solar panel supply chains to raw materials level. In addition, they were also assessed on whether they have a public commitment to undertake such a mapping and identify links with areas at high risk of forced labour.

No company currently has such a commitment or mapping in place.

Critics are concerned that current regulations such as the US Uyghur Forced Labour Prevention Act risk creating 'bifurcated' supply chains – with solar panels with "clean" supply chains sent to the US market and solar panels with supply chains exposed to risks of forced labour are shipped to markets where similar regulations are not in place. Calls for a more coordinated global response are increasing.

Solar panel manufacturers and project developers active in the solar sector are actively involved in discussions on this topic. Initiatives to address the risk of forced labour in polysilicon supply chains include the Solar Stewardship Initiative, which has recently adopted an expectation for its members to report all of their production sites – and have 100% of their shipments to Europe certified by January 2028. While this does not fully address the risk of bifurcating supply chains, it does increase market pressure.

Companies at different stages of the renewable energy value chain can play a significant role in using their leverage to increase transparency and accountability on the issue. Brookfield Renewables stated:

Large developers pushing for traceability helped move the market. We were one of the first to get one of the large solar panel suppliers to undertake traceability."

Hannah Labuschagne, Brookfield Renewables

Project developers use leverage to encourage transparency in manufacturers' and upstream companies' responsible mineral sourcing

While project developers are one additional step removed from mineral sourcing beyond manufacturers, their policies and expectations can have significant influence in other actors in mineral supply chain.

Project developers	2023 average	2025 average	% points change
Arrangements with suppliers	5 % • 0.1/2 score	1 % • 0.02/2 score	↓4
Supplier mapping and disclosure	0 % • 0/2 score	0 % • 0/2 score	_
Risk identification	1 % • 0.02/2 score	3 % • 0.06/2 score	12 ⁵

⁵ As of the 2025 Benchmark, responsible mineral sourcing policies are now expected to be part of a formal policy statements. Therefore, some companies that have previously scored on this indicator have not done so this year.

Since the last Benchmark, **Ørsted** took a notable step on risk management. The company now publishes a list of metals and minerals with the highest risk of adverse social and environmental impacts used in wind turbines, foundations, cables, components, solar panels or energy storage systems.⁶

While no company has fully mapped and identified its suppliers, a few are also investing more into traceability effort including **Ørsted** ("We have conducted a blockchain pilot project to trace origin for key metals in one of our projects, and we are evaluating the application of blockchain opportunities with other suppliers and on other metals as well as exploring steel origin reporting for wind turbines."). Enel Green Power has a more detailed process in place since the last Benchmark to "assess potential human rights issues present in the supply chains of core product categories" and states that it "supports suppliers in adopting a traceability system to collect information on the supply chain and making on-site visits to companies involved in it." Engie now discloses its procurement risk mapping system and **Iberdrola** has taken steps towards mapping the supply chains of key suppliers.

The next steps for these developers would be to clarify whether they identify and map their suppliers, including direct and indirect suppliers of minerals and introduce a traceability system for mineral supply chains. They should require suppliers to disclose list of qualified smelters, where relevant, in line with due diligence processes set out in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals.

Engaging with upstream mineral supply chains remains a nascent practice among developers. Beyond traceability efforts, project developers are also increasingly sharing experiences with peers engaging in development of multistakeholder initiatives and using their leverage behind the scenes on an ongoing basis, including through building connections with other end-user sectors.

As Schneider Electric – an important electrification actor (not in the Benchmark) – stated:

66 At Schneider Electric, we're guided by a strong set of values that extend to our expectations of supplier conduct. These values encompass key areas such as workers' rights and the social impact on local communities. As a downstream user of minerals, we place a high priority on ensuring that robust controls are in place throughout our supply chain to prevent any harm and uphold responsible sourcing practices"

Kanishk Negi, Sustainable Procurement Director, Schneider Electric

⁶ These are: cadmium, cobalt, copper, iron, lithium, manganese, nickel, rare earth metals, silicon and tellurium.





How to take action to address key challenges⁷

Challenge: Lack of supply chain transparency and disclosure. This challenge cuts across several layers of disclosure of information including (1) between suppliers and buyers, (2) to authorities or auditors, (3) public disclosure, and level of detail disclosed.

Actions:

- Work with suppliers to establish strong relationships to address potential concerns of bypassing/ shortening supply chains.
- Collaborate with peers to develop sector-level approaches to transparency to address concerns about commercial sensitivity and/or competitive advantage.
- Explore technological solutions to increase traceability, while maintaining a risk-based approach.

Relevant initiatives and resources:

- IRMA Chain of Custody Standard
- IRBC Renewable Energy Agreement
- WindEurope Supply Chain map
- The role of Traceability in Critical Mineral Supply Chains (IEA)
- Responsible Sourcing Tool (RST)
- Advancing Responsible Sourcing in Mineral Value Chains Environmental, Social, and Economic Sustainability
- Extractive Industries Transparency Initiative

Challenge: The current geopolitical landscape including rollback of policy (US/EU) and financial support for renewable energy (US) translate into to challenges to secure internal support for human rights due diligence and responsible mineral sourcing processes.

Actions:

- Reframe the narrative to emphasise that responsible supply chains are reliable supply chains (see OECD Briefing).
- Assess role of company in certain mineral/metal markets and collaborate with other sectors in these markets to influence change in supply chains.

Relevant initiatives and resources:

- © OECD: Responsible is reliable How responsible sourcing can address disruption factors and geopolitical risks in the supply of transition minerals
- **IEA:** Sustainable and Responsible Critical Mineral Supply Chains
- UN OHCHR: A human rights-based approach to the energy transition
- 7 These challenges were collected as part of a Chatham House style workshop on responsible mineral sourcing during the 2025 OECD Forum on Responsible Mineral Supply Chains, as well as through direct engagement with benchmarked companies and others.



Challenge: Lack of capacity and resources internally to (1) understand/map supply chains (2) complete comprehensive HRDD processes (3) address policy/legal challenges.

Actions:

- Use freely available resources to monitor and engage with mining companies on human rights practices.
- Invite civil society and other experts on priority topics to support with capacity-building for internal teams.
- Engage with civil society actors and coalitions working on issues in mining for transition minerals.

Relevant initiatives and resources:

- ☑ IRMA
- Transition Minerals Tracker
- OpenSupplyHub
- **E**JAtlas
- **EU** Raw Materials Coalition
- ☑ Indigenous Peoples Rights International/SIRGE Coalition
- OekoRess III Online-Map
- **C** Rosamap
- Observatorio de conflictos mineros en America Latina (OCMAL)
- **Observatory of mining conflicts in Brazil**
- Observatoire Africain des Ressources Naturelles (AFREWATCH)
- Drive Sustainability: Raw Materials Outlook

Challenge: Addressing systemic issues that go beyond individual companies/sectors requires the involvement of other key stakeholders including governments and investors

Actions:

- Collaborate with peers and other relevant actors that have influence over systemic issues in the sector, including through inclusion of rightsholders.
- Engage in relevant policy and legislative discussions and consultations and advocate to strengthen policy/legislation/standards (ie: <u>Consolidated</u> <u>Mining Standard Initiative</u>, EU CSDDD Omnibus, consultations by multi-stakeholder initiatives, etc).
- Use the power of collective action to advocate for strong corporate transparency and due diligence legislation to ensure level playing field.

Relevant initiatives and resources:

- IRBC Renewable Energy Agreement
- ☑ Wind: GWEC, WindEurope
- Solar: Solar Stewardship Initiative,
 European Solar Manufacturing Council
- **VBDO** statement on responsible nickel
- Business statements in support of the CSDDD
- GIZ Sector Dialogues on human rights due diligence obligations (German Energy Sector Dialogue and German Automotive Sector Dialogue)
- Civil society analysis and reactions to the Consolidated Mining Standard Initiative
- IRMA Standard v2.0 consultation
- IHRB: The Cost of Green Conflict project



Deep dive #2: Indigenous Peoples' rights

Respect for Indigenous Peoples' rights must be front and centre of renewable energy value chains – at every stage from project development to operation. This is crucial given the significant intersection between renewable energy systems and Indigenous Peoples' lands and resources, from mineral extraction to project development.

Upstream, more than half of global reserves of critical minerals are located near or on Indigenous Peoples' lands, creating a risk of harms as the boom in mineral extraction continues, often without recognition or respect for Indigenous Peoples' rights. According to our <u>Transition Minerals Tracker</u>, 77 allegations of human rights abuse related to transition minerals recorded between 2010-2024 impact Indigenous Peoples' rights, including alleged violations of their right to FPIC.

Downstream, wind and solar operations are land-intensive – an estimated <u>additional 600,000 km² of land</u> is needed for solar and wind projects in order to meet the objective of tripling renewables by the end of the decade. A number of renewable energy projects have been cancelled or suspended due to protests or litigation related to violations of Indigenous Peoples' rights (<u>Gunaa Sicarú project</u> in Mexico, <u>Windpeshi project</u> in Colombia, <u>Osage County wind farm</u> in USA, <u>Lake Turkana project</u> in Kenya, among others). Notably, eight cases of wind farm-related lawsuits in our <u>Litigation Tracker</u> were initiated by Indigenous Peoples, and six of these cases claimed a lack of FPIC.

Indigenous Peoples are leaders in the fight against climate change – and in the emergence of new business models for renewable energy operations. When developed through rights-respecting partnerships with Indigenous Peoples, they can enrich our future energy system through traditional knowledge, stewardship of resources and trust-based collaboration. Companies throughout the renewable energy value chain would benefit from increased capacity and resources to allow for meaningful engagement with Indigenous Peoples – and reverse ongoing trends in harms experienced by Indigenous Peoples in mining for transition minerals and renewable energy project development.

What is free, prior and informed consent?

Free, prior and informed consent encompasses Indigenous Peoples' right to:

- (FREE).
- (PRIOR).
- (INFORMED).
- Say "yes" or "no" to a project and to be involved and heard throughout a project lifecycle wherever it impacts peoples and resources (CONSENT)

Source: Securing Indigenous Rights in the Green Economy (SIRGE) Coalition (SIRGE FPIC guide)

Recommendations for developers and utilities

- → Adopt a policy-level commitment to respect Indigenous Peoples' rights and extend this expectation to business partners in value chain.
- (a) Commit to fully respecting Indigenous Peoples' right to FPIC, including their right to define the process by which FPIC is achieved and the right to withhold consent, regardless of an opposing claim by the government.
- Disclose processes for identifying Indigenous Peoples and legitimate tenure holders including customary or traditional lands, territories and resources where ownership rights may not be formally recorded.

Manufacturers should adopt clear expectations towards all business partners, including project developer clients and upstream mineral suppliers to adopt policy-level commitments to respect Indigenous Peoples' rights and FPIC in particular.



Current landscape: key findings from the 2025 Benchmark

66 When existing controls or standards fail to include the perspectives of key stakeholder groups the credibility and effectiveness of those protocols are then compromised. Without these voices, the standards risk falling short of their intended purpose and may lack the robustness needed to drive meaningful change."

Kanishk Negi, Sustainable Procurement Director, Schneider Electric

Both project developers and manufacturers have room to strengthen their policies and practices to respect the rights of Indigenous Peoples in their operations. However – there are encouraging signs the sector is considering the risks associated with industry standards and national regulations that don't offer sufficient protection of Indigenous Peoples' rights.

Company policy analysis

Expectations: The Benchmark assessed developers on whether they had a policy-level commitments to Indigenous Peoples' rights, explicitly referencing the UN Declaration on the Rights of Indigenous Peoples, through their own operations and value chain; described their process to identify Indigenous Peoples; a clear commitment to FPIC including the right to define the process by which FPIC is achieved and to withhold consent – as well as providing the most recent example of obtaining FPIC – or where it decided not to pursue a project where FPIC was not forthcoming. Manufacturers are assessed on whether they expect their business partners, including project developer clients to have a policy commitment to respect Indigenous Peoples' rights – and a demonstrated commitment o only work with business partners that respect FPIC.

See indicator D1 in Benchmark methodology

Commitment to respect Indigenous Peoples' rights, including free, prior and informed concept

prior and informed consent	2023 average	2025 average	% points change
Project developers	8 % • 0.16/2 score	8 % • 0.16/2 score	_
Solar panel manufacturers	0 % • 0/2 score	0 % • 0/2 score	_
Wind turbine manufacturers	0 % • 0/2 score	8 % • 0.17/2 score	↑8

As in the previous Benchmark, only two out of 22 project developers (EDF Renewables and Ørsted) have a commitment in place to respect Indigenous Peoples' rights. Ørsted is now the only project developer with a full commitment to FPIC adopted in 2024 - demonstrating sustained leadership.

Progress by other companies include the following:

- Invenergy and Lightsource bp have a commitment in place to respect the rights of Indigenous Peoples. The next step would be to ensure a clear link to the UN Declaration on the Rights of Indigenous Peoples.
- Engie and Enel Green Power have strong commitments in place to respect Indigenous Peoples' rights in line with the UN Declaration on the Rights of Indigenous Peoples. The next step would be to make it clear in publicly available documents that this expectation extends to business partners in their value chain.
- Among manufacturers, Vestas demonstrates that is committed to working with business partners only if they respect FPIC through is social due diligence process.
- Several other manufacturers including JA Solar, LONGi and Suzlon, reference respect for Indigenous Peoples' rights in their policies, but do not yet extend this expectation to business partners.
- Energias de Portugal (EDP) and Iberdrola provided recent examples of conducting FPIC.

One of the critical areas for companies to improve is how Indigenous Peoples are identified. Identifying potentially affected Indigenous communities in a way that respects their rights, including to refuse contact, needs to be well thought through and is a crucial first step. It can be especially challenging when government-provided lists of affected Indigenous communities do not align with how Indigenous Peoples self-identify. Companies seldom disclose information on these processes:

- TotalEnergies states that it recognises "the main criterion to identify indigenous peoples is self-identification."
- Enel Green Power refers to Article 1.1 of ILO Convention n. 169 to define Indigenous Peoples and has a detailed process for engagement with Indigenous rights-holders. Companies are advised to invest sufficient resources into understanding local contexts through independent experts and triangulation of sources to inform all stages of their involvement in projects affecting Indigenous Peoples, including bidding for an auction, siting, engagement and construction.

While no details are publicly available on the process the company follows to identify Indigenous Peoples and their lands and resources, Iberdrola stated:

66 We always check regulatory analysis on Indigenous Peoples' rights and if it is not as rigorous as our standards, we have our own way of conducting consultations that is aligned with UNDRIP and has to be adapted to each country."

Marina Amigo, Head of Human Rights, Stakeholder Engagement and Reputation, Iberdrola

Despite not having clear and company-level commitment to respecting Indigenous Peoples' rights and FPIC, the Company has a commitment to conducting FPIC in its operations in Mexico and references UNDRIP.



Serious allegations of violations of Indigenous Peoples' rights

Violations of Indigenous Peoples' rights constituted the highest proportion of serious allegations in the 2025 Benchmark, highlighting severe gaps between policy and practice. Only five companies responded to the allegations of violations of Indigenous Peoples' rights, with only one company providing a detailed response. Although two companies engaged with stakeholders and one company identified and implemented improvements, no company investigated and took appropriate action to remedy impacts and to prevent similar impacts from occurring in the future.



Note on allegations scoring: Companies were assessed on whether they have responded publicly, had investigated and taken appropriate action and engaged with affected stakeholders to provide for or cooperate in remedy/ies. For more detailed information, please refer to the methodology for the 2025 Benchmark. Detailed scoring is available in individual companies' scoresheets.



How to take action to address key challenges

Challenge: Lack of effective legislation that requires FPIC of Indigenous Peoples as well meaningful, sustained community engagement throughout the lifecycle of the project; lack of implementation of existing legislation by states.

Actions:

- Advocate for a predictable permit path that integrates Indigenous Peoples' rights (including FPIC) prior to auctions and throughout permitting and project development
- Support calls for FPIC requirement in Consolidated Mining Standard Initiative (already present in IRMA), as well as in standard development for the RE sector.
- Collaborate with peers/other sectors to raise expectations for respect for Indigenous Peoples' rights in renewable energy permitting processes and project development.

Relevant initiatives and resources:

- Indigenous Peoples Rights International (IPRI)
- Right Energy Partnership
- Securing Indigenous Peoples' Rights in the Green **Economy** (SIRGE) Coalition
- First Peoples Worldwide
- First Nations Major Projects Coalition (Canada)
- Reconciliation and Responsible Investment Initiative (Canada)
- First Nations Clean Energy Network (Australia)
- DIHR: Partnership to integrate human rights into environmental licensing in Colombia

Challenge: Indigenous Peoples' rights not considered a priority internally; therefore challenging to adopt stronger positions on Indigenous Peoples' rights.

Actions:

- Reinforce internally that meaningful engagement and FPIC is beneficial for companies, lowering risks of social conflicts and long-term costs.
- Create spaces to discuss issues around Indigenous Peoples' rights and other rightsholders internally within companies, including inviting Indigenous Peoples.

Relevant initiatives and resources:

- International RBC Agreement for the Renewable Energy Sector
- German energy sector dialogue
- The UNGPs and the protection of Indigenous Peoples' rights (Indigenous Peoples Rights International)

Challenge: Resource/capacity challenge to ensure policy commitments are implemented.

Actions:

- Focus on understanding local context in high-risk areas in order to ensure respect for Indigenous Peoples' rights (engage, inter alia, civil society, Indigenous Peoples' rights organisations, and experts who know the communities).
- Invite civil society including Indigenous Peoples' organisations and other experts on priority topics to support with capacity-building for internal teams.

Relevant initiatives and resources:

- Engage with relevant organisations (see list above)
- Consult free materials supporting implementation, including FPIC guides from SIRGE, IPRI, Tallgrass Institute, among others. Share examples of better examples of FPIC: Guarani people, Charagua/Santa Cruz



A just energy transition requires systemic changes that include equitable distribution of benefits with affected communities. This is key to build and retain public support for wind and solar operations.

When grounded in respect for human rights and co-designed through meaningful engagement with Indigenous Peoples and local communities, benefit sharing models can help reinforce trust with communities in which companies operate, facilitating a smoother operating environment and building shared prosperity in the long-term. These models should go beyond Corporate Social Responsibility initiatives and be grounded in a vision for long-term partnerships through new and bold business models. <u>Different types of models</u> exist, including (but not limited to) community full or partial ownership, revenue sharing and community trusts.

Community ownership models (full or partial), in particular, offer significant potential to ensure local communities have a meaningful say in decision-making and in addressing inequalities in order to foster trust, sustainability, resilience and equity at the local level.

Co-ownership models come with risks – financial, social and governance-related – for local communities, as well as for companies, as they require navigating complex socio-economic contexts, local community dynamics, and building out additional internal expertise. They also offer significant potential benefits through reduced risks of conflicts and market differentiation – and possibly a competitive advantage in jurisdictions where community participation and social criteria are becoming a requirement in public auctions (for example in the <u>EU</u>, or in <u>South Africa</u>), as well as long-term stability.

Recommendations

- Adopt a commitment to identify potential benefit and ownership sharing options with affected communities and Indigenous Peoples, including through exploring co-ownership models.
- Strengthen internal capacity and knowledge, including at Board and senior management level and in sustainability departments on shared prosperity business models. Ensure engagement processes are well-planned and resourced.
- Trioritise communities' right to decide on their own priorities regarding how they may benefit from projects refrain from adopting a 'one size fits-all' approach.

Shared prosperity business models in practice

Projects such as Okikendawt Hydro Project in Canada and Tauhara North II Geothermal Project in New Zealand demonstrate that mutually beneficial partnerships can result in sustainable and profitable energy production, while enabling Indigenous Peoples' participation in decision-making and self-determined development. These models, and other forms of benefit sharing in renewable energy projects, also exist or are being planned in countries in the Global South, such as the Kipeto project in Kenya and Terra Initiative in Colombia.



Community trusts also increasingly play a significant role as vehicles for financial and social benefit sharing with other frontline communities and enabling them to partner and actively participate in renewable energy projects. In South Africa, trusts have been central to renewable energy project developments, where they hold a percentage of project as equity.

An example is the <u>Letsatsi Solar Park Trust</u> that owns 7.5% of the relevant solar project, in turn benefiting and supporting community social development projects and organisations – even if they <u>come with challenges</u>. In <u>Scotland</u>, community trusts have been used to increase the share of locally owned renewables, simultaneously securing greater community benefits.

Current landscape: key findings from the 2025 Benchmark

Expectations: The Benchmark assessed how the company engaged with affected communities, including whether it describes how they identified, and engaged with affected communities in the last two years, provides at least two examples of its engagement with communities, and how affected communities were identified, consultations took place, and if and how traditionally marginalised groups were included.

See indicator D2 in Benchmark methodology

It also assessed whether the company has a public commitment to identify potential benefit and ownership sharing options with affected communities and Indigenous Peoples. This includes a commitment to explore co-ownership models, whether this commitment recognises that affected communities have a right to decide their own priorities in terms of how they may benefit from projects, if the company discloses related information including any final agreements, percentage of revenue of projects and/or equity shares paid to local communities and Indigenous Peoples; as well as how members of affected communities participated in the decision-making.

See indicator D3 in Benchmark methodology

Significant progress recorded on policies on engagement with affected communities

Engagement with

affected communities	2023 average	2025 average	% points change
Project developers	5 % • 0.1/2 score	20 % • 0.16/2 score	↑15
Solar panel manufacturers	0 % • 0/2 score	4 % • 0.08/2 score	↑4
Wind turbine manufacturers	10 % • 0.2/2 score	17 % • 0.3/2 score	↑7

Companies' engagement with affected communities can serve as a first step to identifying benefit sharing options and offer a blueprint for how decisions are made about distribution of benefits.

66 We see shared prosperity as...being able to leverage the opportunity for sharing positive benefits for the value created locally but also the value it creates for accelerating the transition. If done well, it is not a cost added to the green electron, but an element required to ensure deliverability."

Adele Tharani, Social Sustainability Manager, Ørsted

66 We are dependent on community support, on community ecosystems, workforce, supply chains. When we understand this dependency, it can fuel a level of commitment to act that withstands an economic downturn in a business context."

Adele Tharani, Social Sustainability Manager, Ørsted

While performance remains low on these indicators, there has been a marked improvement in disclosures around community consultation processes among project developers, with average scores climbing fourfold.

- Ten out of 22 project developers now describe how they identified and engaged with affected communities in the last two years. Specific improvements include CLP Holdings now disclosing its stakeholder engagement framework and Eletrobras, Engie, Ørsted and RWE describing how local communities identified and engaged in the last two years;
- → Six out of 22 project developers provide at least two examples of engagement with communities whose human rights have been or may be affected by their activities in the last two years.

In terms of areas for improvement, only two out of 22 project developers (**AES Renewables** and **Iberdrola**) make it clear through their descriptions how affected communities were identified, how consultations took place, if and how traditionally marginalised groups were included. Clarity around these areas can help companies ensure communities' voices are heard in a fair and inclusive manner.

Manufacturers are expected to have a process in place to engage with communities on potential impacts related to the operational phase of the project where they are involved (i.e. impacts of the construction, operation/maintenance on communities for example). While several manufacturers describe ongoing engagement through regular town halls or meetings, only one solar panel manufacturer (**Jinko Solar**) and three wind turbine manufacturers (**GE Vernova**, **Suzlon** and **Vestas**) describe how local communities are identified by the companies and have a comprehensive community engagement process that goes beyond community development projects to address potential human rights impacts.



Progress recorded on benefit and ownership sharing policies

Engagement with			
affected communities	2023 average	2025 average	% points change
Project developers	1 % • 0.02/2 score	3.5% • 0.07/2 score	↑2.5

66 Communities getting the ownership of their local jobs, land and socioeconomic growth is so important. It is our responsibility as a sector to support them in this." Lindsay Dougan, Senior Community Investment Manager, SSE

While no company has adopted a formal policy commitment to identify potential benefit and ownership sharing options, two project developers demonstrate examples of better practices around co-ownership and prioritising community decision-making in benefit sharing arrangements in renewable energy projects:

- (a) **Ørsted:** "Ørsted offers local communities surrounding our onshore wind projects the opportunity to own part of the project. By owning a part of Scotland's green energy supply, local people have the chance to benefit directly over the long-term benefits onshore wind energy brings. If the community were eager to explore community ownership options, Ørsted would offer the opportunity to purchase a stake in the Larbrax Wind Farm."
- Brookfield Renewables: "[Respecting the rights of Indigenous Peoples] are reflected in Evolugen's strong partnerships, including co-ownership of facilities. Evolugen has successfully incorporated traditional knowledge into new projects and is structuring them to provide social, cultural, and economic benefits."

Only one company (Iberdrola) scores on whether their commitment recognises that affected communities have a right to decide their own priorities in terms of how they may benefit from projects. Iberdrola's community funds demonstrate how a company can prioritise community decision-making in how benefits are distributed: "Iberdrola's subsidiaries, ScottishPower and Iberdrola Australia, have in place Community Energy Funds... ScottishPower Renewables empowers communities to determine how community benefit funds they receive from its operational windfarms will best address local needs... We also support several communities that choose to direct funds towards initiatives to help local people address rising energy costs..."



How to take action to address key challenges

Challenge: Lack of interest and limitations to companies' internal resources/capacity dedicated to benefit sharing and openness to discuss co-ownership arrangements.

Actions:

- Learn about potential benefits for companies of shared prosperity and benefit-sharing approaches

 evidence of the business case for these arrangements is growing.
- Set up and develop in-house resource capacity teams with adequate expertise and community background who can serve as a trusted interface between developer and community (centrally and per project).
- Connect with peers, specialists and civil society working on alternative ownership models.
- Launch training programs to address identified capacity gaps, rooted in good practice.

Relevant initiatives and resources:

- Right Energy Partnership with Indigenous Peoples
- Forum for the Future's Responsible Renewable Energy Initiative
- BHRRC Shared Prosperity report and hub, IPRI hub
- CCSI resources for businesses highlighting strategies for respecting the human rights of communities: <u>Business</u> <u>Guide</u> and <u>Legal Risk Primer</u>
- INSPIRE (South Africa)
- A Just Energy Transition for Communities: Large scale wind and solar projects in Sub Saharan Africa

Challenge: Limitations around community engagement, governance and processes: resources for communities to engage with companies and serve as partners for co-ownership arrangements.

Actions:

- Benefit sharing to prioritise local community autonomy, allowing communities to set their own priorities based on local needs for benefit sharing.
- Develop robust governance and decision-making processes, respectful of local agency and existing governance processes.
- Support communities in assessing social and financial risks of agreements and transaction (through partnerships).
- Support cross-community experience and information exchanges, and community-company engagements to share experiences with communities regarding governance of benefit-sharing structures to support decision-making.

Relevant initiatives and resources:

- Example of action: <u>SSE supports quarterly networking</u> meetings bringing different communities together
- Enabling a Community-Powered Energy Transition: Good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits
- Climate Action Network: Community Engagement and Fair Benefit Sharing of Renewable Energy Projects

Challenge: For companies to establish trust with communities and to ensure that benefit sharing arrangements support social cohesion rather than social division within/among communities.

Actions:

- Adequate project sequencing that provides sufficient time in development timeline for community engagement (in consultation with colleagues and peers).
- Focus on local needs by allowing communities to set own priorities for benefit sharing.
- Consider how demographics, gender and age and other entry-barriers for community members to participate in decisions and access benefits can serve to support social cohesion rather than division.

Relevant initiatives and resources:

- BHRRC Shared Prosperity report and hub, IPRI hub
- INSPIRE (South Africa)
- **In Just RE Alliance** (Global South)

Challenge: Access to capital and advantageous financing arrangements for communities.

Actions:

- Back government-sponsored schemes to support communities in securing access to finance (e.g.: through loan guarantees, preferred terms, tax incentives, subsidies, etc).
- Support enabling state-driven policies for benefit sharing.
- Find appropriate partners; bring together impact investors and financial institutions to address needs (i.e. for communities to borrow at more favorable rates).

Relevant initiatives and resources:

- Examples of government-supported schemes in Australia, Belgium, Scotland, etc, government policies in South Africa
- IRENA, Innovation landscape brief: Communityownership models
- A review of the local community development requirements in South Africa's renewable energy procurement programme



Restrictions on civic space and attacks on human rights defenders (HRDs), are often a sign of other human rights abuses and/or a reaction to abuses that have been previously committed against other rightsholders. Therefore, the freedom enjoyed by HRDs is often a barometer for the respect of rights in a specific business operation or supply chain, but also for the rule of law present in a specific country, the extent to which human rights are enjoyed overall, and how stable (and therefore attractive) the country is to do business in.

Attacks on HRDs are happening all along the energy value chain, from the extraction of transition minerals to energy deployment – including oil and gas, solar, wind, hydropower, bioenergy and geothermal:

- (a) Since 2015, we have recorded more than **50 attacks on HRDs** connected to wind and solar projects specifically.
- These include 20 attacks on Indigenous defenders in the context of wind and solar operations.
- The oil and gas sector whose significant actors are now developing wind and solar operations has also long been associated with attacks against HRDs, recording close to 800 in the last decade. **TotalEnergies** has one of the worst records of the companies the Resource Centre tracks, with 102 attacks recorded related to the Lake Albert oil extraction and development project (which includes the East African Crude Oil Pipeline).8

The cost of resisting a wind project in Mexico

Before its <u>cancellation</u>, the Gunaa Sicarú, planned EDF's wind farm in Mexico, was linked to multiple attacks on HRDs. As one example, in February 2022, <u>Edgar Martín Regalado</u> was shot at while returning home just hours after speaking at a press conference where he and others from the Unión Hidalgo Collective and ProDESC argued the project violated Zapotec communities' rights, including the right to FPIC. Edgar reported ongoing threats since the collective began resisting the 4,700-hectare project.

Attacks on HRDs are also happening in the upstream part of the renewable energy value chain. The mining sector has consistently been the most dangerous for HRDs, with nearly 1,700 attacks over the past ten years. Notably, no major mining company currently has a human rights defenders policy in place.

Recommendations

- Adopt and implement public policy commitments which recognise the valuable role of HRDs, reference specific risks to HRDs, ensure effective engagement and consultation with HRDs at all stages of the due diligence process, and commit to zero-tolerance for reprisals throughout the company's operations, supply chains and business relationships.
- Accompany policy commitments by implementation guidance and plans, in line with the UN Working Group on Business and Human Rights' guidance, and civil society advice on appropriate indicators to monitor progress.
- Show support for civic freedoms and engage with defenders to understand the risks they face as a core part of human rights due diligence.

More detailed recommendations are available here.

Current landscape: key findings from the 2025 Benchmark

Expectations: The Benchmark assessed whether the company has publicly committed to not tolerating threats, intimidation, violence, punitive action, surveillance or physical or legal attacks against human rights defenders, including those exercising their rights to freedom of expression, association, peaceful assembly and protest against the business or its operations. This includes avoiding the use of SLAPPs (Strategic Litigation Against Public Participation) and placing equivalent expectations on its business relationships; whether the company also committed to engaging with human rights defenders as part of operational processes of risk assessment and due diligence and supporting the work of human rights defenders to create a safe and enabling environment for the work of civil society in locations where it operates, at both local and national levels.

See indicator H1 in Benchmark methodology

Company policy analysis

The Benchmark reveals that the wind and solar sectors, under increasing scrutiny by international investors and civil society, have overall shown relatively fast progress in adoption of policies on HRDs, compared to some other sectors. There are encouraging signs of progress and growing awareness among companies of the importance of this issue, though important gaps remain.

Currently, eight companies in the Benchmark (six project developers: Brookfield Renewables Partners (new commitment adopted since the last Benchmark in 2023), EDF Renewables, Lightsource bp, Ørsted, RWE, Shell plc; one solar panel manufacturer: First Solar; and one wind turbine manufacturer: Vestas) have a zero tolerance policy in place of threats or attacks to human rights defenders.

In addition, two companies (Vestas and Ørsted) go beyond the zero tolerance policy and expect their business partners to make this commitment as well. The top-performing companies in this area of the benchmark are often global leaders with larger public profiles and greater exposure to civil society demands, reputational risk and investor expectations, often headquartered in countries that have traditionally protected civic space and civic freedoms.

	2023 average	2025 average	% points change
Project developers	9 % • 0.18/2 score	9 % • 0.18/2 score	_
Solar panel manufacturers	4 % • 0.08/2 score	3.5 % • 0.07/2 score	↓0.5
Wind turbine manufacturers	6.5 % • 0.13/2 score	8.5 % • 0.17/2 score	↑2

A growing number of companies have adopted a public commitment to support HRDs

The most progress was made on companies publicly stating support for HRDs.9 This is vital as public recognition can help deter attacks and legitimise defenders' concerns. This is also in line with the wider trend, with 51 zero tolerance policies on attacks on defenders adopted in the past decade by companies included in the Corporate Human Rights Benchmark and this Benchmark.

Brookfield Renewables Partners has now adopted a formal commitment and mentions in its Human Rights Policy that 'We will not contribute to or support retaliation, threats or intimidation against those who exercise their lawful rights to express human rights-related concerns on their or others' behalf in relation to our business'.

66 Our Human Rights Policy and program are informed by the core principles of international standards, including the relevant OECD Guidelines and Guidance and the UNGPs, and are driven by the salient human rights areas in our business. As such, our Policy covers a number of relevant aspects including consideration of and engagement with the communities in which we operate, including Indigenous Peoples and other vulnerable groups and not contributing to or supporting retaliation, threats or intimidation against those who exercise their lawful rights to express human rights-related concerns on their or others' behalf in relation to our business."

Kelly Goddard, Chief Sustainability Officer at Brookfield Renewables.

⁹ In the 2023 Benchmark, six developers (bp, EDF Renewables, Lightsource bp, Ørsted, RWE and Shell) achieved partial scoring for having adopted a commitment to respect the rights of HRDs. Since bp has now fully acquired Lightsource bp and sold its wind assets in 2024, bp parent company policies are assessed as part of Lightsource bp's assessment. Progress for this year then comes from the adoption of a policy commitment by Brookfield Renewables.

Notably, First Solar explicitly states "We do not tolerate retaliation of any kind against anyone who reports an issue, nor do we tolerate unlawful threats, intimidation, physical or legal attacks against human rights defenders in relation to our operations." First Solar explained that:

66 This commitment was underpinned by a desire to ensure our Labor and Human rights policy was comprehensive and informed by our assessment of benchmarks and engagement with labor-focused NGOs on best practices."

Karen Drozdiak, Head of Global ESG and Sustainability, First Solar

Additionally, EDF pointed out the important role of defenders recognizing "the role of human rights and environmental defenders from all walks of life, both among its suppliers and in civil society. It is committed to protecting the exercise of their rights and ensures that it identifies the risks to human rights and environmental activists caused by its business operations and allows them to speak freely about its operations."

These examples show that several companies in the benchmark have included strong language on zero tolerance in their policies, motivated by a mixture of internal and external factors.

Implementation, support mechanisms and working with HRDs to create a safe and enabling environment are lagging behind

Far fewer companies have proactively disclosed procedures to prevent reprisals or respond to attacks, such as early warning systems, having grievance mechanisms explicitly tailored and accessible to HRDs, or direct stakeholder engagement with HRDs. First Solar and Brookfield Renewables, which have some systems in place, say they have not logged significant issues until now. When asked about implementation of their zero tolerance policy, First Solar shared that it "encourage[s] stakeholders to provide and raise concerns through [its] ethics hotline, which is available to associates and external stakeholders, including HRDs." It said that through the hotline it had received "no issues on retaliation to date, so [it hasn't] had to report on it, but if [it] did, it would've been included in the sustainability reporting."

However, no companies currently describe working with HRDs. This is an important element for companies to build their capacity to exercise their leverage with states and business relationships to develop a safer and more enabling environment for HRDs. It also can be beneficial for companies in helping them navigate complex operating environments, where the local expertise of HRDs should be heeded to support better corporate decision-making.

This discrepancy points to a common challenge: policy development often precedes implementation, which tends to be lagging significantly behind. The Benchmark shows companies are beginning to acknowledge their responsibilities, but many have not yet translated these commitments into actionable practices that reduce risks for defenders on the ground. Given that civic freedoms are rapidly declining around the world and that attacks on HRDs persist in all business sectors, permeating many supply chains, it is imperative that companies move quickly towards implementation and action, as per latest guidance.

How to take action to address key challenges

Challenge: Civic space restrictions limit companies and investors' knowledge: They blind companies to potential or actual negative human rights impacts, which can lead to legal, financial, reputational, and other risks. These same restrictions can often lead to the perception that attacks on HRDs are less severe than they are, making the companies unaware of this significant risk in their operations and supply chains.

Actions:

Actions companies can take to support open civic space include raising concerns about restrictions on civic freedoms in meetings with home and host government officials, engaging in collective action through business associations and multi-stakeholder initiatives, and signing public statements in support of HRDs and civic freedoms, among others.

Relevant initiatives and resources:

- Defending rights and realising just economies: Human rights defenders and business (2015-2024)
- Mo news is bad news
- Front Line Defenders Global Analysis 2024/25

Challenge: Growing geopolitical tensions limit ambition: Amid growing geopolitical tensions some companies are reluctant to explicitly name HRDs in their policies or take public actions in their support.

Actions:

Responsible companies should not only evaluate the risks of action but also assess the risks of inaction. In many cases companies may conclude that the risks – and the likely costs – of inaction may be more difficult to anticipate, mitigate and manage over the long term than the risks of action. Private or public, individual or collective statements or actions may be taken on a case-by-case basis and be deployed flexibly and sequentially as the issue or situation evolves.

Relevant initiatives and resources:

Shared Space under Pressure: Business Support for Civic Freedoms and Human Rights Defenders

Challenge: Lack of training and internal capacity: While there are trainings and resources on retaliation and zero tolerance, companies could benefit from additional peer-learning spaces.

Actions:

Invest sufficient capacity and resources to engage with HRDs meaningfully and regard constructive engagement with human rights defenders as a central aspect of human rights due diligence. Reach out to established networks that can provide guidance, as well as relevant NGOs and coalitions.

Relevant initiatives and resources:

- The UN Guiding Principles on Business and Human
 Rights: guidance on ensuring respect for human rights
 defenders
- Zero Tolerance Initiative (ZTI)
- Alliance for Land, Indigenous and Environmental Defenders (ALLIED)
- Defenders in Development Campaign
- Leaders' Network for Environmental Activists and Defenders (LEAD)

Challenge: Slow uptake of collective action in support of HRDs: Many industry associations in other key sectors – including the Consumer Goods Forum (CGF), the International Council on Metals and Mining (ICMM) and the Voluntary Principles on Security and Human Rights (VPSHRs) – have already adopted detailed guidance and policies on this topic. The IRBC Renewable Energy Agreement includes language on HRDs. However, renewable energy industry associations have so far not prioritised this issue.

Actions:

- Renewable energy companies should urge their business associations to prioritise this issue and collaborate with peers to develop sector-level approaches to zero tolerance to attacks
- GWEC, WindEurope, SSI and other industry associations can get inspiration from other industries and their industry associations and develop sector specific guidance.
- Given the significant impact on HRDs of the mining sector, renewable energy companies should consider joining IRMA and using it as a space to demand improvement on this issue from mining companies.

Relevant initiatives and resources:

- Business Network on Civic Freedoms & Human Rights
 Defenders
- Voluntary Principles on Security and Human Rights: Guidance on Respecting the Rights of Human Rights Defenders
- ICMM Guidance on HRDs
- Consumer Goods Forum Best Practice Note for Business on Human Rights Defenders





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Business & Human Rights Resource Centre is an international NGO which tracks the human rights impacts of over 10,000 companies in over 180 countries, making information available on our 10-language website.

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