



Renewable Energy & Human Rights Benchmark 2023 Company Profile

Company name JA Solar

Sub-sectorSolar Panel ManufacturerOverall score1.6% weighted average

Section score	Weighting	For section
2.9%	20%	1. UNGP core indicators
1.8%	40%	2. Salient human rights risks
0.0%	20%	3. Serious allegations
N/A	20%	4. ACT assessment as conducted by the World Benchmarking Alliance*

Please read the disclaimer at the end of this scorecard and refer to the full methodology when perusing this scorecard. The methodology as well as additional analysis can be found here: business-humanrights.org

The use of the label "Not met" in the research does not necessarily mean that the company does not meet the requirements as they are described in the accompanying bullet point short text. Rather, it means that the analysts could not find information in public sources that met the requirements as described in full in the 2023 Renewable Energy & Human Rights Methodology document. It is possible that a Company meets the criteria without yet publishing the relevant evidence of doing so. This may include cases where a company has claimed to meet the criteria in the engagement phase or otherwise but where the public record was still not sufficient to meet the criteria by the relevant cut off dates.

Detailed assessment

1. UNGP core indicators based on the 2022 CHRB methodology (20% of total)

A. Policy commitments and governance

Indicator Code	Indicator name	Score (out of 2)	Explanation
A.1.1	Commitment to	0	The individual elements of the assessment are met or not as follows:
	respect human		Score 1
	rights		Not Met: General HRs commitment
			Not Met: Universal Declaration of Human rights (UDHR)
			Not Met: International Bill of Human Rights
			Score 2
			Not Met: Commitment to UNGPs
			Not Met: Commitment to OECD MNE Guidelines
A.1.2.a	Commitment to	0	The individual elements of the assessment are met or not as follows:
	respect the		Score 1
	human rights of		• Not Met: Commitment to ILO core principles: JA Solar's 2022 Sustainability
	workers: ILO		Report and ESG Report states that "JA Solar strictly adheres to the principles of
	Declaration on		open, fair and just employment, follows the human rights policies set forth in the
	Fundamental		core conventions of the International Labor Organization, and is committed to
	Principles and		creating a diverse and inclusive employment environment." Criterion is not met
	Rights at Work		due to the lack of a formal public policy document committing the Company to
			human rights standards. [2022 Sustainability and ESG Report, 2023: jasolar.com]
			Not Met: Explicitly lists all four ILO core principles: JA Solar's 2021 Sustainability
			Report outlines the Company's commitments: "No child labor employees must
			meet the age requirements of local laws and regulations. No forced labor in any
			form, violence, threat, or illegal restriction of personal freedom. No interference
			with employees' freedom of belief. No discrimination on the grounds of ethnicity,
			race, nationality, religious belief, gender, age, disability, marital status, etc. Gender

^{*} For information on the ACT methodology and scoring criteria please refer to the World Benchmarking Alliance.

Indicator Code	Indicator name	Score (out of 2)	Explanation
			equality with equal pay for equal work. Respect for employees' right to free association and collective bargaining." According to the same report, JA Solar has published a "JA Solar Code of Conduct for Suppliers" which states that "Suppliers shall not deploy child labor or force labor through slavery, imprisonment, contractual bondage, guarantees, or other means of duress, buy or sell workers, or exploit workers through threats, coercion, abduction, or fraud. Suppliers must not discriminate against employees' personal characteristics or beliefs, and all workers must be treated fairly with respect and dignity. Workers have the right to freedom of association." However, the JA Solar Code of Conduct for Suppliers is not publicly available. Criterion is not met due to the lack of a formal public policy document outlining the Company's commitment to these rights. [2021 Sustainability Report, 2022: jasolar.com] Score 2 • Not Met: Expects suppliers to commit to ILO core principles: JA Solar's 2022 Sustainability Report and ESG Report states that "[b]ased on international standards, such as SA8000:2014, the Company has developed the JA Solar Sustainable Procurement Rules and requires suppliers to sign the Supplier's Letter of Commitment on Environmental Health, Safety, and Social Responsibility. The Letter clarifies the supplier's social responsibility performance and accountability mechanism and urges them to carry out self-inspection on their performance. [] In order to improve the level of social responsibility of suppliers, JA Solar conducted training on SA8000 standard for suppliers in 2022. The Standard is the world's first international standard for ethics. It covers multiple topics, such as child labor, forced labor, health and safety, freedom to organize trade unions, the right to collective bargaining, and antidiscrimination. It is applicable to companies around the world, in various industries, and of varying sizes. Its purpose is to ensure that the products supplier by suppliers meet the requirements o
A.1.4	Commitment to remedy	0	 ESG Report, 2023: jasolar.com] Not Met: Explicitly lists all four ILO core principles for suppliers: See above. The individual elements of the assessment are met or not as follows: Score 1 Not Met: Commitment to remedy adverse HRs impacts Not Met: Expects suppliers to make this commitment: Not met. However, according to the 2022 Sustainability Report and ESG Report, the JA Solar Code of Conduct for Suppliers requires suppliers to "comply with applicable environmental laws and regulations and should be encouraged to implement systems aimed at minimizing the adverse impact that supply chain policies, production processes, and products may have on the environment." [2022 Sustainability and ESG Report, 2023: jasolar.com] Score 2 Not Met: Commitment to collaborate with judicial or non-judicial mechanisms Not Met: Commitment to work with suppliers on remedy
A.2.1	Commitment from the top	0	The individual elements of the assessment are met or not as follows: Score 1 • Not Met: Board level responsibility for HRs: Not met but according to the 2022 Sustainability Report and ESG Report, "the Sustainability Management Committee has been established in the Management Leadership to promote the implementation of ESG-related matters with regular reviews on the progress of ESG-related goals." [2022 Sustainability and ESG Report, 2023: jasolar.com] • Not Met: Describes HRs expertise of Board member Score 2 • Not Met: Board member/CEO signal importance of HRs in their communications

B Embedding respect and human rights due diligence

Indicator Code	Indicator name	Score (out of 2)	Explanation
B.1.1	Responsibility	0	The individual elements of the assessment are met or not as follows:
	and resources		Score 1
	for day-to-day		Not Met: Score of 1 on A.1.2.a
	human rights		Not Met: Senior responsibility for HRs implementation and decision making
	functions		Score 2
			Not Met: Describes day-to-day responsibility for implementing HRs
			commitments

Indicator Code	Indicator name	Score (out of 2)	Explanation
			Not Met: Day-to-day resources and expertise allocation in own operations Not Met: Resources and expertise allocation in supply chain
B.2.1	Identifying human rights	0	The individual elements of the assessment are met or not as follows: Score 1
	risks and impacts		 Not Met: Describes process of identifying risks in own operations Not Met: Describes process for identifying risks in business relationships
			Score 2 • Not Met: Describes global risk identification system incl. stakeholder
			onsultationNot Met: Describes how risk identification system is triggered by new
			circumstances
			• Not Met: Describes risks identified in relation to new circumstances: Not met but according to the 2022 Sustainability Report and ESG Report, "JA Solar does not use conflict minerals, and suppliers need to conduct due diligence on the
			corresponding mineral supply chain to jointly create a "conflict-free" supply chain." [2022 Sustainability and ESG Report, 2023: jasolar.com]
B.2.2	Assessing human	0	The individual elements of the assessment are met or not as follows:
	rights risks and impacts		Score 1 • Not Met: Describes assessment process and discloses salient HRs risks
	impacts		Not Met: Describes assessment process and discloses salient riks risks Not Met: Describes how process applies to supply chain
			Not Met: Public disclosure of results of HRs risk assessment
			Score 2
			Not Met: Describes how assessment involved affected stakeholders.
B.2.3	Integrating and	1	Not Met: Describes how assessment involved affected stakeholders The individual elements of the assessment are met or not as follows:
	acting on human	_	Score 1
	rights risks and		• Not Met: Describes system to prevent, mitigate and remediate HRs issues
	impact		Not Met: Describes how global system applies to supply chain
	assessments		• Met: Example of actions decided on at least 1 salient HRs issue: For example, in terms of the sourcing of conflict minerals, in particular tin, JA Solar's 2022
			Sustainability Report and ESG Report states that "Based on the existing sustainable
			development strategy, JA Solar encourages suppliers to comply with the
			Organization for Economic Co-operation and Development (OECD) initiative and
			exercise due diligence on the mineral supply chain for which they are responsible.
			The Company also encourages suppliers to track the origin of minerals they use to manufacture products based on a conflict-free smeltery plan developed under the
			Conflict-Free Sourcing Initiative (CFSI). In 2022, JA Solar positively explored and
			applied the traceability mechanism for production raw materials. Full industry
			chain traceability has been realized for some modules. Currently, the conflict
			mineral material involved in the production and operation of JA Solar is "tin", with
			no other materials involved. At present, all the metal tin used by the corresponding suppliers of the Company is produced in Chinese mainland." [2022
			Sustainability and ESG Report, 2023: jasolar.com
			Score 2
			Not Met: Meets all requirements under score 1
			Not Met: Describes how stakeholders involved in decisions about actions taken
B.2.4	Tracking the effectiveness of	0	The individual elements of the assessment are met or not as follows: Score 1
	actions to		Not Met: Describes system for evaluation effectiveness of actions
	respond to		Not Met: Example of lessons learned from evaluation effectiveness of actions
	human rights		Score 2
	risks and		Not Met: Meets all requirements under score 1 Not Met: Involves stakeholders in evaluation effectiveness of actions.
B.2.5	impacts Communicating	0	Not Met: Involves stakeholders in evaluation effectiveness of actions The individual elements of the assessment are met or not as follows:
B.2.3	on human rights		Score 1
	impacts		• Not Met: Provides two examples of comms with stakeholders: No clear examples
			but JA Solar's 2022 Sustainability Report and ESG Report states that "JA Solar
			attaches great importance to communication with stakeholders. It constantly
			improves various communication mechanisms, actively listens to the voices of stakeholders, understands their demands, and responds with practical actions." It
			goes on the list the communication channels for the following stakeholders:
			Customers, Shareholders and Investors, Staff, Suppliers and Partners, Government
			and Regulatory Services, Community and NGO." [2022 Sustainability and ESG
			Report, 2023: jasolar.com]
			Score 2 • Not Met: Describes challenges to effective comms and how it is working to
			address them

C. Remedies and grievance mechanisms

Indicator Code	Indicator name	Score (out of 2)	Explanation
C.1	Grievance mechanism(s)for workers	0	The individual elements of the assessment are met or not as follows: Score 1 • Not Met: Grievance mechanism accessible to all workers: According to 2021 JA Solar Australia's Modern Slavery Statement, "JA Solar Group has issued and implemented a Code of Conduct that applies to all its and JA Solar Australia's employees. The Code of Conduct explicitly prohibits any use of modern slavery, forced labour and child labour. Several whistle-blowing channels are in place for both employees and external stakeholders to report any potential violations of the Code of Conduct, including exposure to modern slavery." However, this document only applies to the subsidiary and it remains unclear whether there is a company- wide mechanism in place. As the Code of conduct could not be accessed at the time of the research, it was not possible to verify whether the Company owns the statements made by its Australian subsidiary as its own and whether the mechanism would be suitable for all human rights violations. [Modern Slavery Statement FY 2021, 29/06/2022: modernslaveryregister.gov.au] Score 2 • Not Met: Grievance mechanism available in appropriate languages and workers made aware • Not Met: Describes how workers in supply chain access grievance mechanism: According to 2021 JA Solar Australia's Modern Slavery Statement, "JA Solar Group has issued and implemented a Code of Conduct that applies to all its and JA Solar Australia's employees. The Code of Conduct explicitly prohibits any use of modern slavery, forced labour and child labour. Several whistle-blowing channels are in place for both employees and external stakeholders to report any potential violations of the Code of Conduct, including exposure to modern slavery." However, this document only applies to the subsidiary and it remains unclear whether there is a company-wide mechanism in place. As the Code of conduct could not be accessed at the time of the research, it was not possible to verify whether the Company owns the statements made by its Australian subsidiary as i
C.2	Grievance mechanism(s) for external individuals and communities	0	 [Modern Slavery Statement FY 2021, 29/06/2022: modernslaveryregister.gov.au] The individual elements of the assessment are met or not as follows: Score 1 Not Met: Grievance mechanism accessible to all external individuals and communities Score 2 Not Met: Grievance mechanism available in appropriate languages and affected stakeholders made aware Not Met: Describes how external individuals/communities access grievance mechanism Not Met: Expects supplier to convey expectation to their suppliers
C.7	Remedying adverse impacts	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Describes approach taken to remedy adverse HRs impacts Not Met: Describes how remedy would be provided if no adverse impact identified Score 2 Not Met: Describes changes to systems, processes and practices to prevent future impacts Not Met: Describes approach to monitoring/implementing agreed remedy Not Met: Describes approach to learning from incidents if no adverse impacts identified

CSI. Responsible lobbying and political engagement fundamentals

Indicator Code	Indicator name	Score (out of 2)	Explanation
CSI.18	Responsible	0	The individual elements of the assessment are met or not as follows:
	lobbying and		Score 1
	political		• Not Met: Publicly available policy statement(s) (or policy(ies)) setting out lobbying
	engagement		and political engagement approach.
	fundamentals		Not Met: Publicly available policy statement that specifies the Company does not
			make political contributions
			Score 2
			Not Met: Meets all requirements under score 1
			Not Met: Disclosure of expenditures on lobbying activities
			Not Met: Requirement for third-party lobbyists to comply with the Company's
			lobbying and political engagement policy (or policies)

2. Salient human rights risks (40% of total)

D. Indigenous Peoples' and Affected Communities' Rights

Indicator Code	Indicator name	Score (out of 2)	Explanation
D.1.M	Commitment to respect indigenous peoples' rights	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Expectation of project developer clients to have a public commitment to respect indigenous rights Not Met: Expectation for suppliers in contracts or supplier codes of conduct to have public commitment to respect indigenous rights Score 2 Not Met: Commitment to only work with business partners that respect FPIC (in line with ILO No.169)
D.2.M	Engagement with all affected communities	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Describes how local communities identified and engaged in the last two years: For manufacturers, this criteria is looking for a process to engage with communities on potential impacts related to the operational phase of the project the manufacturer is involved in (ie: impacts of the construction, operation/maintenance on communities for example). Not met but according to the 2022 Sustainability Report and ESG Report, the Company's engagements with communities include "Public welfare activities, organization of relief efforts, environmental protection activities, etc." [2022 Sustainability and ESG Report, 2023: jasolar.com] Not Met: Provides two examples of engagement with communities: Not met but according to the 2022 Sustainability Report and ESG Report, "The overseas base of JA Solar has also been vigorously supporting local development. JA Solar's Vietnam Base continues to carry out material donation activities and work with surrounding communities to achieve common prosperity. In January 2022, JA Solar's Vietnam Base donated RMB 5,600 to poor people in Yen The County, Bac Giang Province to celebrate the Spring Festival. In November 2022, the base donated RMB 70,000 to organize the "Caring and Warmth" activity in Son Động County, Bac Giang Province, Vietnam." [2022 Sustainability and ESG Report, 2023: jasolar.com] Not Met: Examples of engagement refer to marginalised groups and provide additional detail: For manufacturers, this criteria is looking for an expectation that project developers have these elements in place in the consultations they undertake. Score 2 Not Met: Describes how stakeholder views on company's HRs issues Not Met: Describes how stakeholders views influenced company's HRs approach
D.3.M	Benefit and ownership sharing policy	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Rewards for clients that have a commitment to identify potential benefit and ownership sharing Score 2 Not Met: Rewards for clients for disclosing statistics for each project (demographics of ownership sharing)
D.4.M	Local wind & solar energy access, affordability	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Actions taken to support access and affordability of renewable energy in the value chain: JA Solar's 2022 Sustainability Report and ESG Report states that "Exerting its own industrial and technological advantages, JA Solar actively assists overseas regions in the construction of PV projects in a bid to build a community with a shared future for humankind. In 2022, JA Solar ardently promoted the "Southern Entrepreneurship" 1.6MW project, providing PV module assistance to

Indicator Code	Indicator name	Score (out of 2)	Explanation
			countries such as Somalia, Central Africa, Lebanon, Sudan, and supporting the
			development of PV industry in technologically backward countries and regions." In
			addition, " JA Solar is concerned about every
			corner of the world. In 2022, it made donations to United Nations High
			Commissioner for Refugees (UNHCR), providing PV lamps for forcibly displaced
			families, and delivering support to refugees in dire straits in various parts of the
			world." Criterion is not met because it remains unclear whether the Company is
			taking actions in its value chain or in relation to communities affected by the
			projects it supplies. [2022 Sustainability and ESG Report, 2023: <u>jasolar.com</u>]
			Not Met: Including a timebound action plan and reporting targets on supporting
			energy access and affordability in consultation with communities
			Score 2
			Not Met: Public support for government policies addressing energy access

E. Land and resource rights

Indicator Code	Indicator name	Score (out of 2)	Explanation
E.1.M	Respect for land	0	The individual elements of the assessment are met or not as follows: Score 1
	resource tenure		Not Met: Expectation for clients to have commitment to respect land
			ownership/natural resources as in VGGT
	rights		, ,
			Not Met: Expectation for suppliers to have commitment to respect land was a six NCCT.
			ownership/natural resources as in VGGT
			Score 2
			Not Met: Steps taken to use leverage to resolve land rights issues or disclosure
		_	that no such issues arose
E.2.M	Just and fair	0	The individual elements of the assessment are met or not as follows:
	physical and		Score 1
	economic		• Not Met: Expectations for clients to commit to IFC PS 5 for physical and economic
	displacement		displacements
	policy		Not Met: Expectations for suppliers to commit to IFC PS 5 for physical and
	implementation		economic displacements
	including free,		• Not Met: Expectation for suppliers to have a commitment not to relocate without
	prior and		FPIC and to providing compensation
	informed consent		Score 2
			• Not Met: Expectation for clients to disclose statistics on relocations (current and planned projects)
			Not Met: Expectation for suppliers to publish statistics on relocations (current
			and planned projects)
			Not Met: Expectation for clients to disclose reviews of living conditions of
			relocated communities
			• Not Met: Expectation for suppliers to publish reviews of living conditions of relocated communities
			Not Met: Describes approach in relation to relocation

F. Security and conflict-affected areas (incl. responsible mineral sourcing)

Indicator Code	Indicator name	Score (out of 2)	Explanation
F.1.M	Operating in or	0	The individual elements of the assessment are met or not as follows:
	sourcing from		Score 1
	conflict-affected		Not Met: Commitment to heightened HRDD in conflict affected areas: JA Solar's
	areas		2022 Sustainability Report and ESG Report states that "JA Solar has set clear
			"conflict minerals" review clauses in its supplier admission and daily review. These
			clauses explicitly require suppliers to verify the source of purchased materials and
			products while ensuring the traceability and controllability of gold, tungsten,
			tantalum, and tin minerals used in the supply chain. For suppliers who refuse to
			track and monitor the origin of conflict minerals or are unable to determine the
			identity of conflict minerals, JA Solar will suspend its cooperative relationship with
			them. Based on the existing sustainable development strategy, JA Solar encourages
			suppliers to comply with the Organization for Economic Co-operation and
			Development (OECD) initiative and exercise due diligence on the mineral supply
			chain for which they are responsible. The Company also encourages suppliers to
			track the origin of minerals they use to manufacture products based on a conflict-
			free smeltery plan developed under the Conflict-Free Sourcing Initiative (CFSI). In
			2022, JA Solar positively explored and applied the traceability mechanism for
			production raw materials. Full industry chain traceability has been realized for
			some modules. "Criterion is not met however as indicator asks for broader
			approach to sourcing from conflict-affected/high risk areas beyond conflict
			minerals. [2022 Sustainability and ESG Report, 2023: jasolar.com]
			Not Met: Steps taken to assess and mitigate these risks with conflict sensitive lens

Indicator Code	Indicator name	Score (out of 2)	Explanation
			Score 2
F.2.M	Evidence of	0	Not Met: How stakeholders are involved in the process to mitigate risks The individual elements of the assessment are met or not as follows:
1.2.101	security provider	0	Score 1
	human rights		Not Met: Expectations for clients to regularly conduct risk assessments regarding
	assessments		security forces
			Not Met: Expectations for suppliers to regularly conduct risk assessments
			regarding security forces
			Not Met: Regularly conducts risk assessment regarding security forces Section 2.
			Score 2 • Not Met: Expectation for clients to have commitment to Voluntary Principles on
			Security and HRs
			Not Met: Expectation for suppliers to have commitment to Voluntary Principles
			on Security and HRs
			Not Met: If applicable, discloses use of private security providers and uses only
			ICoCA members.
	- "'		If direct employment of security, commitment to follow ICoCA itself.
F.3.M	Responsible	0	The individual elements of the assessment are met or not as follows: Score 1
	sourcing of minerals:		Not Met: Statement on OECD Guidance aligned due diligence and requirement in
	Arrangements		contracts/codes with suppliers: JA Solar's 2022 Sustainability Report and ESG
	with suppliers		Report states that "JA Solar has set clear "conflict minerals" review clauses in its
			supplier admission and daily review. These clauses explicitly require suppliers to
			verify the source of purchased materials and products while ensuring the
			traceability and controllability of gold, tungsten, tantalum, and tin minerals used in
			the supply chain. For suppliers who refuse to track and monitor the origin of
			conflict minerals or are unable to determine the identity of conflict minerals, JA Solar will suspend its cooperative relationship with them. Based on the existing
			sustainable development strategy, JA Solar encourages suppliers to comply with
			the Organization for Economic Co-operation and Development (OECD) initiative
			and exercise due diligence on the mineral supply chain for which they are
			responsible. The Company also encourages suppliers to track the origin of minerals
			they use to manufacture products based on a conflict-free smeltery plan developed
			under the Conflict-Free Sourcing Initiative (CFSI). In 2022, JA Solar positively
			explored and applied the traceability mechanism for production raw materials. Full
			industry chain traceability has been realized for some modules." However, the
			Company does not show that it is conducting due diligence in accordance to the OECD Guidance. In addition, "Encouraging suppliers" is not sufficient to fulfill this
			requirement. [2022 Sustainability and ESG Report, 2023: jasolar.com]
			Not Met: Describes work with suppliers on risk assessment and improving DD
			Score 2
			Not Met: Disclosure of supply chain mapping: Not met but according to the 2022
			Sustainability Report and ESG Report, "[c]urrently, the conflict mineral material
			involved in the production and operation of JA Solar is "tin", with no other
			materials involved. At present, all the metal tin used by the corresponding suppliers
			of the Company is produced in Chinese mainland." [2022 Sustainability and ESG Report, 2023: jasolar.com]
F.4.M	Responsible	0	The individual elements of the assessment are met or not as follows:
	sourcing of		Score 1
	minerals: Risk		Not Met: Describes risk identification and disclosure in line with OECD Guidance
	identification in		Not Met: Describes process to identify smelters/refiners and assessment of
	mineral supply		whether these carried out due diligence in accordance with OECD Guidance
	chains		Score 2
			Not Met: Discloses smelters/refiners assessed in line with OECD Guidance Not Met: Risk identification process covers all minerals: Not met but according to
			the 2022 Sustainability Report and ESG Report, "[c]urrently, the conflict mineral
			material involved in the production and operation of JA Solar is "tin", with no other
			materials involved. At present, all the metal tin used by the corresponding suppliers
			of the Company is produced in Chinese mainland." [2022 Sustainability and ESG
			Report, 2023: jasolar.com
F.5.M	Responsible	0.5	The individual elements of the assessment are met or not as follows:
	sourcing of		Score 1
	minerals: Risk		Met: Steps taken to respond to risks in mineral supply chain: JA Solar's 2022 Sustainability Penert and ESC Report states that "IA Solar has set clear "conflict."
	management in the mineral		Sustainability Report and ESG Report states that "JA Solar has set clear "conflict minerals" review clauses in its supplier admission and daily review. These clauses
	supply chain		explicitly require suppliers to verify the source of purchased
	12000.7 0110111	<u> </u>	

Indicator Code	Indicator name	Score (out of 2)	Explanation
			materials and products while ensuring the traceability and controllability of gold,
			tungsten, tantalum, and tin minerals used in the supply chain. For suppliers who
			refuse to track and monitor the origin of conflict minerals or are unable to
			determine the identity of conflict minerals, JA Solar will suspend its cooperative
			relationship with them. Based on the existing sustainable development strategy, JA
			Solar encourages suppliers to comply with the Organization for Economic Co-
			operation and Development (OECD) initiative and exercise due diligence on the
			mineral supply chain for which they are responsible. The Company also encourages suppliers to track the origin of minerals they
			use to manufacture products based on a conflict-free smeltery plan developed
			under the Conflict-Free Sourcing Initiative (CFSI). In 2022, JA Solar positively
			explored and applied
			the traceability mechanism for production raw materials. Full industry chain
			traceability has been realized for some modules." [2022 Sustainability and ESG
			Report, 2023: jasolar.com]
			Met: Description of process to monitor performance of risk mitigation measures: See above.
			Not Met: Disclosure of significant improvements over time
			Score 2
			Not Met: How suppliers and affected stakeholders engaged on strategy
			Not Met: Processes cover all minerals: Not met but according to the 2022
			Sustainability Report and ESG Report, "[c]urrently, the conflict mineral material
			involved in the production and operation of JA Solar is "tin", with no other
			materials involved. At present, all the metal tin used by the corresponding suppliers
			of the Company is produced in Chinese mainland." [2022 Sustainability and ESG
			Report, 2023: jasolar.com]

G. Protection of human rights and environmental defenders

Indicator Code	Indicator name	Score (out of 2) Explanation			
G.1.M	Commitment to	O The individual elements of the assessment are met or not as follow			
	respect the rights		Score 1		
	of human rights		Not Met: Zero tolerance of threats/attacks on HRDs		
	and		• Not Met: Expectation on business partners in value chain to make this		
	environmental		commitment		
	defenders		Score 2		
	defenders		• Not Met: Description of how working with HRDs to create safe and enabling		
			environment		

H. Labour rights (incl. protection against forced labour)

Indicator Code	Indicator name	Score (out of 2)	Explanation
H.1.M	Health and safety	0.5	The individual elements of the assessment are met or not as follows: Score 1 • Met: Discloses quantitative information on H&S in own operations (injury rate or lost days and fatalities) in last reporting period: JA Solar's 2022 Sustainability Report and ESG Report states that "In 2022, the Company's occupational health and safety management system covered 100% of employees, with 0 occupational disease cases, The rate of work loss accidents per million working hours was 0.47, and 1 employee death due to work-related injuries." [2022 Sustainability and ESG Report, 2023: jasolar.com] • Not Met: Expects disclosure of H&S information of relevant business relationships Score 2 • Not Met: Sets targets for H&S performance (including injury rates or lost days and fatalities) • Not Met: Met targets or explains why not or how improve H&S management systems
H.2.M	Forced labour risk management	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Board level oversight over policies on forced labour in supply chain. How relevant stakeholders informed board discussions Not Met: Suppliers to have these arrangements in place

Indicator Code	Indicator name	Score (out of 2)	Explanation
			Score 2
			Not Met: Discloses ongoing efforts to prevent and mitigate forced labour in own
			ops and supply chain: JA Solar Australia's 2021 Modern Slavery statement indicates
			that "[a]ll external photovoltaic suppliers of JA Solar Group have to sign a
			document called Supplier EHS and Social Responsibility Letter of Commitment,
			which requires the relevant supplier to comply with the ILO Forced Labour
			Convention (No. 29). Photovoltaic suppliers also have to adhere to JA Solar Group's
			Supplier Code of Conduct (the "Supplier Code") that is a central part of the
			procurement contract. The Supplier Code strictly prohibits child labour, involuntary labour, human trafficking and modern slavery and includes several whistle blowing
			channels that can be used by the suppliers, their employees and other
			stakeholders." Criterion is not met because this only refers to the Company's
			Australian subsidiary. As the Company's supplier code of conduct or the supplier
			EHS and Social Responsibility Letter of Commitment could not be accessed at the
			time of the research, it could not be verified if the Company owns the statements
			made by its subsidiary as its own. [Modern Slavery Statement FY 2021, 29/06/2022:
			modernslaveryregister.gov.au]
			Not Met: Factors to be considered when ending a business relationship
H.3.M	Prohibition of	0	The individual elements of the assessment are met or not as follows:
	forced labour:		Score 1
	Wage practices		Not Met: Pays workers regularly, in full and on time
			Not Met: Payslips show wages and legitimate deductions
			Score 2
			Not Met: Description of implementation and monitoring of this practice: Not met Not Met: Description of implementation and monitoring of this practice: Not met
			but according to the 2022 Sustainability Report and ESG Report, the JA Solar SDGs
			Map indicates that "JA Solar provides employees with equal opportunities, a safe work
			environment and decent work. This supports them in obtaining fair income, a
			better workplace, better welfare protection, and personal development prospects.
			While creating employment opportunities, the Company drives the development of
			enterprises in the upstream and downstream of the industrial chain and fosters the
			sustainable development of the industry." [2022 Sustainability and ESG Report,
			2023: jasolar.com]
			Not Met: Assessment scope of failure to pay workers directly in supply chain
			Not Met: Analysis of trends demonstrating progress
H.4.M	Prohibition of	0	The individual elements of the assessment are met or not as follows:
	forced labour:		Score 1
	Restrictions on		Not Met: Does not retain documents or restrict movement of workers
	workers		Not Met: Describes working with suppliers on free movement of workers
			Score 2
	- L C	2	Not Met: Description of implementation and monitoring of this practice
H.5.M	Freedom of	0	The individual elements of the assessment are met or not as follows:
	association and collective		Score 1 • Not Met: Commitment on FoA/CB and requirements in suppliers codes and
	bargaining		contracts: JA Solar's 2021 Sustainability Report outlines the Company's
	Daigaiiiig		commitments: "No child labor employees must meet the age requirements of local
			laws and regulations. No forced labor in any form, violence, threat, or illegal
			restriction of personal freedom. No interference with employees' freedom of
			belief. No discrimination on the grounds of ethnicity, race, nationality, religious
			belief, gender, age, disability, marital status, etc. Gender equality with equal pay
			for equal work. Respect for employees' right to free association and collective
			bargaining." According to the same report, JA Solar has published a "JA Solar Code
			of Conduct for Suppliers" which states that "Suppliers shall not deploy child labor
			or force labor through slavery, imprisonment, contractual bondage, guarantees, or
			other means of duress, buy or sell workers, or exploit workers through threats,
			coercion, abduction, or fraud. Suppliers must not discriminate against employees'
			personal characteristics or beliefs, and all workers must be treated fairly with
			respect and dignity. Workers have the right to freedom of association." However,
			the JA Solar Code of Conduct for Suppliers is not publicly available. [2021
			Sustainability Report, 2022: <u>jasolar.com</u>]

Indicator Code	Indicator name	Score (out of 2)	Explanation
			• Not Met: Describes work with suppliers on FoA/CB: JA Solar's 2022 Sustainability
			Report and ESG Report states that in terms of "Case Supplier Training on SA8000
			Standard": "In order to improve the level of social responsibility of suppliers, JA
			Solar conducted training on SA8000 standard for suppliers in 2022. The Standard is
			the world's first international standard for ethics. It covers multiple topics, such as
			child labor, forced labor, health and safety, freedom to organize trade unions, the
			right to collective bargaining, and antidiscrimination. It is applicable to companies
			around the world, in various industries, and of varying sizes. Its purpose is to
			ensure that the products supplied by suppliers meet the requirements of social
			responsibility standards. By explaining the development history and main content
			of SA8000 to suppliers, JA Solar constantly enhances the sustainable development
			ability of the supply chain." However, the evidence does not specify how the
			Company works with suppliers specifically on the issue of FoA/CB. [2022
			Sustainability and ESG Report, 2023: <u>jasolar.com</u>]
			Score 2
			Not Met: Assessment of scope of restriction of FoA/CB in supply chain
			Not Met: Analysis of trends demonstrating progress
H.6.M	Living wage (in	0	The individual elements of the assessment are met or not as follows:
	supply chains)		Score 1
			Not Met: Requirements on living wage in supplier codes and contracts
			Not Met: Describes work with suppliers on living wage
			Score 2
			Not Met: The company provides evidence that its suppliers pay a living wage
			Not Met: Requirement for suppliers to regularly review definition of living wages
			with relevant trade unions

I. Right to a healthy and clean environment

Indicator Code	Indicator name	Score (out of 2)	Explanation
I.1.M	Environmental	0	The individual elements of the assessment are met or not as follows:
	impact		Score 1
	assessment and		• Not Met: Commitment to only supply projects that conduct public EIA and CIA:
	remediation		The company's Sustainability Report and ESG Report states that "JA Solar has
			always pursued the path of green development, providing clean and efficient
			energy to users worldwide. It also practices green production and forges an
			environmentally friendly enterprise. The Company actively identifies and complies
			with relevant laws and regulations while continuously improving and implementing
			the environmental management system under the guidance of laws and
			regulations, such as the Environmental Protection Law of the People's Republic of
			China, the Environmental Impact Assessment Law of the People's Republic of
			China, and the Management Measures for Legal Disclosure of Enterprise
			Environmental Information." [2022 Sustainability and ESG Report, 2023:
			[asolar.com]
			Score 2
			Not Met: Commitment to only supply projects that guarantee compensation for
			environment and people affected
I.2.M	Life cycle	0	The individual elements of the assessment are met or not as follows:
	assessment		Score 1
			• Not Met: Conducts regular public life cycle assessments (including risks related to
			raw material sourcing, waste, and decommissioning): No clear reference to ISO
			14040 but JA Solar's 2022 Sustainability Report and ESG Report states that "JA Solar
			positively undertakes environmental responsibilities throughout the entire product
			life cycle. It disassembles and recycles waste PV modules to help cover "the last
			mile" of the PV green chain. It has established a long-term strategic partnership
			with PV CYCLE, a world-renowned PV module recycling agency, to ensure that all
			modules exported to the EU comply with WEEE directives and corresponding
			national electronic waste disposal specifications and requirements. As a global
			member of PV CYCLE, JA Solar is also actively delivering solutions for waste PV
			modules to customers in non-EU regions. In September 2022, JA Solar Group
			passed the audit conducted by Mazars, a French third-party audit agency, on the
			recycling of waste PV modules and WEEE compliance. In order to further enhance
			employees understanding and increase awareness of the disassembly and recycling
			of PV products, in October 2022, the Company engaged PV CYCLE experts to carry
			out online training on PV product recycling. Its employees' understanding of
			product life cycle management has been enhanced." [2022 Sustainability and ESG
			Report, 2023: jasolar.com
			Score 2
			Not Met: Action plans to address adverse impacts identified
			• Not Met: Reports on progress made on action plan (including recycling/end-of-
			life)

J. Transparency and anti-corruption

Indicator Code	Indicator name	Score (out of 2)	Explanation
J.1.M	Anti-corruption due diligence and reporting	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Commitment to prohibiting bribes to public officials: The 2022 Sustainability Report and ESG Report indicates that "JA Solar focuses on building a robust integrity system to prevent corruption and strives to create a credible and corruption-free enterprise. The Company strictly complies with the Anti-unfair Competition Law of the People's Republic of China, the Anti-money Laundering Law of the People's Republic of China, the Anti-monopoly Law of the People's Republic of China, the Anti-corruption Law of Vietnam, and other laws and regulations related to anti bribery, anti-fraud, anti-extortion, and anti-money laundering in various overseas operation locations. A series of policies have been formulated and issued, including the Business Ethics Policy, the Internal Audit Management Policy, the Implementation Rules for Punishment of Audit and Supervision Violations, the Anti-fraud Reporting and Handling Procedures, and the Engineering Audit and Supervision Management Measures. This strictly prohibits corruption and other violations." However, no evidence was found on a commitment on bribery of public officials. [2022 Sustainability and ESG Report, 2023: jasolar.com] Not Met: Expectation extends to relevant business relationships: No clear reference to the Convention. However, the 2022 Sustainability Report and ESG Report indicates that "[i]n the Code of Conduct for Suppliers, the Company prohibits employees from offering, promising, authorizing, or giving bribes, and explicitly prohibits giving or providing any valuable items to illegally induce the purchase, lease, use, or recommendation of purchasing or leasing the Company's products or services. The relationship between company employees and clients shall not violate any law and shall comply with applicable professional or industry codes of conduct." [2022 Sustainability and ESG Report, 2023: jasolar.com] Score 2 Not Met: Reports that no such complaints on corruption and
J.2.M	Payments to governments & contract transparency	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Publishing a tax CbCR in line with GRI 207-4, or expecting project developers clients to disclose payments to governments at project level (including on land and natural resources): No information has been identified in the company's reports and policies available on its website. In future assessments, the Company will be expected to demonstrate it publishes a tax CbCR and expects project developers clients to report on its payments to governments at project level, including for purchase or rent of land or natural resources related to their renewable energy projects. Not Met: Disclosure of terms, contracts, agreements for those payments Not Met: Expectation for business relationships to disclose this information Score 2 Not Met: Supports governments to disclose contracts and licenses on renewable energy project in line with EITI

K. Diversity, equality and inclusion

Indicator Code	Indicator name	Score (out of 2)	Explanation
K.1.M	Diversity, equality & inclusion training for management and employees	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Provides mandatory and regular training as per ILO No 190: Not met but 2022 Sustainability Report and ESG Report indicates that "[t]he Company firmly prohibits all forms of workplace discrimination, harassment, coercion, threats, and violence, and has established a sound human resources management and system." [2022 Sustainability and ESG Report, 2023: jasolar.com] Score 2 Not Met: Requires suppliers to do the same: Not met but according to the 2022 Sustainability Report and ESG Report, the JA Solar Code of Conduct for Suppliers stipulates that "[s]uppliers must not discriminate against employees' personal characteristics or beliefs, and all workers must be treated fairly with respect and dignity. Workers have the right to freedom of association." [2022 Sustainability and ESG Report, 2023: jasolar.com] Not Met: Provides materials and access to resources for trainings

Indicator Code	Indicator name	Score (out of 2)	Explanation
K.2.M	Gender balance and sensitivity	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Timebound action plan to integrate gender lens to all relevant documents including on value chain Not Met: Demonstrates progress through annual reporting Score 2 Not Met: Women and non-binary people make up at least 40% of the Company's board of directors and executives, or executive board: Not met. According to the 2022 Sustainability Report and ESG Report, the "percentage of female in the board of directors" is 33%. [2022 Sustainability and ESG Report, 2023: jasolar.com]
K.3.M	Gender wage gap reporting	0	The individual elements of the assessment are met or not as follows: Score 1 Not Met: Has closed gender wage gap: Not met but according to the 2022 Sustainability Report and ESG Report, "[t]he Company fully practices the policy of gender equality and equal remuneration with full protection of the special rights and interests of female employees in terms of salary and treatment." [2022 Sustainability and ESG Report, 2023: jasolar.com] Not Met: Timebound commitment to close gender wage gap: Not met but according to the 2022 Sustainability Report and ESG Report, the JA Solar SDGs Map indicates that JA Solar "adheres to equal pay for equal work for both male and female employees as part of our commitment to creating a fair workplace environment." [2022 Sustainability and ESG Report, 2023: jasolar.com] Not Met: Reports information at company level across multiple pay bands Score 2 Not Met: Expects business relationships to do the same

JT. Just transition

Indicator Code	Indicator name	Score (out of 2)	Explanation
JT.3.M	Fundamentals of creating and providing or supporting access to green and decent jobs for an inclusive and balanced workforce	0	The individual elements of the assessment are met or not as follows: Not Met: Public Commitment to create and provide or support access to green and decent jobs, as part of the low carbon transition. Not Met: Demonstrates measures taken to create and support access to green and decent jobs for affected stakeholders. Not Met: Demonstrates measures taken to ensure green and decent jobs promoting equality of opportunity for women and vulnerable groups
JT.4.M	Fundamentals of retaining and re- and/or up-skilling workers for an inclusive and balanced workforce	0	The individual elements of the assessment are met or not as follows: Not Met: Public commitment to re-and/or up-skills workers displaced by the transition to a low carbon economy. Not Met: Disclosure of its process(es) for identifying skills gaps for workers and affected stakeholders, in the context of the low carbon transition. Not Met: Demonstrates measures taken to provide re-and/or upskilling, training or education opportunities for relevant stakeholders. Not Met: Demonstrates measures taken to ensure that the re-and/or upskilling, training or education opportunities promoting equality of opportunity for women and vulnerable groups.
JT.6.M	Fundamentals of advocacy for policies and regulation on green and decent job creation, employee retention, education and reskilling, and social protection supporting a just transition	0	The individual elements of the assessment are met or not as follows: Not Met: Discloses process(es) for aligning its lobbying activities with policies and regulation supporting the just transition. Not Met: Discloses where its lobbying activities do not align with policies and regulation that support the just transition. Not Met: Discloses action plan addressing misalignment of lobbying activities with policies and regulation that support just transition. Not Met: Demonstrates lobbying for just transition and regulations enabling green and decent jobs, reskilling and/or social protection

M. Responses to Serious Allegations (20% of total)

Indicator Code	Indicator name	Score (out of 2)	Explanation
M(0).0	Serious risks of supply chain forced labour		According to recent data, approximately 35% of the world's polysilicon, and 32% of global metallurgical grade polysilicon, the material from which polysilicon is made, is produced in Xinjiang Uyghur Autonomous Region (XUAR). Investigations by UN bodies, academics and journalists have presented evidence on a number of human rights abuses including the use of forced labour in XUAR. In its July 2022 report to the UN General Assembly, the UN Special Rapporteur on Contemporary Forms of Slavery "regards it as reasonable to conclude that forced labour among Uyghur, Kazakh and other ethnic minorities has been occurring in the Xinjiang Uyghur Autonomous Region of China" and finds that some instances of forced labour in the Region "may amount to enslavement as a crime against humanity". The Special Rapporteur states he "considers that indicators of forced labour pointing to the involuntary nature of work rendered by affected communities have been present in many cases" in the context of "State-mandated systems". Further analysis by independent UN experts concluded that the violations in the Region "may constitute international crimes, in particular crimes against humanity" and have urged China to address their "repeatedly raised concerns about widespread violations of the rights of Uyghurs and other Muslim minorities in the Xinjiang Uyghur Autonomous Region (XUAR) on the basis of religion or belief and under the pretext of national security and preventing extremism". [United Nations General Assembly, 19/07/2022, "Contemporary forms of slavery affecting persons belonging to ethnic, religious and linguistic minority communities - Report of the Special Rapporteur on contemporary forms of slavery, including its causes and consequences": documents-dds-ny.un.org] [United Nations Special Procedures, 07/09/2022, "Xinjiang report: China must address grave human rights violations and the world must not turn a blind eye, say UN experts": ohchr.org] [Sheffield Hallam University, May 2021, "In Broad Daylight - Uyghur Forced Labour an
M(0).1	Publication of independently verified full solar panel supply chains to raw materials level, including names of suppliers and locations for all destination markets	0	Not Met: No public information found that meet the requirements of this indicator. [See also: JA Solar response]

Indicator Code	Indicator name	Score (out of 2)	Explanation
M(0).2	If mapping identifies suppliers linked	0	Not Met: No public information found that meet the
	to regions where there is a high risk		requirements of this indicator. [See also: JA Solar response]
	of forced labour including those		
	identified by UN bodies, the		
	company explains steps taken and		
	how these align with steps expected		
	by the UN Guiding Principles		
	(including reference to assessment		
	of severity of risks, leverage, and		
	crucial nature of business		
	relationships). The company		
	indicates that this information is		
	relevant to all destination markets.		
	 Note: Any disengagement needs to 		
	be verified and decision-making to		
	continue engagement with "crucial		
	business relationships" in high-risk		
	area needs to be explained, in line		
	with OHCHR Guidance on Business &		
	Human Rights in Challenging		
	Contexts: "Where a business		
	enterprise has determined that a		
	relationship is indeed "crucial"		
	within the meaning of Guiding		
	Principle 19, and that it will be		
	continuing with the relationship on		
	that basis, it should be transparent		
	with stakeholders and the public at		
	large about the decision-making		
	process used to arrive at that		
	determination and the criteria used,		
	which should be objectively		
	reasonable."		

Disclaimer

This scorecard is based on assessments of publicly available documents on companies' websites by the EIRIS Foundation and BHRRC. Preliminary assessments were shared with companies for feedback. Feedback provided by companies has been analysed and incorporated when relevant to the indicator assessed. Information published or provided by companies after established and communicated cut-off dates[†] are not included for this year's Benchmark. As such this scorecard should be seen as a reflection of feedback received as of September 2023[‡].

The use of the label "Not met" in the research does not necessarily mean that the company does not meet the requirements as they are described in the accompanying bullet point short text. Rather, it means that the analysts could not find information in public sources that met the requirements as described in full in the 2023 Renewable Energy & Human Rights Methodology document. It is possible that a Company meets the criteria without yet publishing the relevant evidence of doing so. This may include cases where a company has claimed to meet the criteria in the engagement phase or otherwise but where the public record was still not sufficient to meet the criteria by the relevant cut off dates.

While the EIRIS Foundations and BHRRC have made reasonable endeavours to ensure that the methodology reflects best and emerging business and human rights practice in identifying, preventing, mitigating and remedying human rights harms as well as other responsible business conduct, it is not currently possible to measure certain human rights harms or other negative impacts directly. As such, a low score in respect of a particular indicator should not be read as implying that harms are necessarily taking place: rather it is a sign that companies have not demonstrated the steps set out in the methodology to reduce the risk of such harms or to uphold other responsible business conduct in the ways described. Conversely, a high score in a particular section or for a specific indicator should not be interpreted as a guarantee of future absence of human rights harm.

Scores for companies in the different project developer sub-categories (electric utilities, oil and gas, independent power producers) should not be compared to one another as these categories have been designed to allow for integration of an assessment of efforts towards full decarbonisation of energy production for electric utilities and oil and gas companies, based on the World Benchmarking Alliance's Oil & Gas and Electric Utilities Benchmark, using ACT methodologies. Scores for equipment (wind turbines and solar) manufacturers should not be compared to project developer scores as indicators have been tailored to reflect their position in renewable energy value chains.

Caution should be exercised in interpreting small differences in scores between companies within the same category and particularly small differences in the overall weighted scores because of the diversity of independent elements that are combined to produce the overall weighted scores. Scores should be understood in the context of the methods and weightings explained in the Methodology.

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[†] Cut-off dates: 30 June 2023 for companies that did not engage with the benchmark; the expiration of the feedback period (between Aug/Sep 2023) for companies that engaged with the benchmark.

[‡] Further outreach and engagement with a subset of companies on the specific issue of exposure to forced labour risks was conducted in October 2023.

obligation to provide the users of the Benchmark with additional information or to update the information contained therein or to correct any inaccuracies. That said, the assessment process has been conducted by BHRRC and its research partner the EIRIS Foundation in good faith and in the spirit of dialogue and cooperation.

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