

2021 YINGLI SOLAR
Corporate
Sustainability
Report



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About the Report

This report covers the period from January 1, 2021 to December 31, 2021. Due to the ongoing nature of certain projects, some of the content mentioned above is subject to change.

This report mainly refers to the following standards:

The Core option of GRI Sustainability Reporting Standards (GRI Standards) issued by the Global Sustainability Standard Board (GSSB).

China CSR Reporting Basic Framework (CASS-CSR4.0)

The majority of this report's data is derived from the Company's original operation records and publicly disclosed official documents.

Yingli Solar guarantees the reliability, originality, and objectivity of this report's information and hopes its release will enhance communication with stakeholders





Statement From The Chairman

At present, solar energy is one of the cleanest and greenest sources of renewable energy available, and a crucial tool to use in response to climate change. At Yingli, it is our responsibility to turn this inexhaustible natural resource into clean and affordable energy.

We believe that the success of the solar energy industry relies on the skills of the workforce, so we encourage our employees to improve and develop. With this approach, the efficiency and performance of our products have increased so that we are leading the industry in technological innovation. At the same time, we are building a strong company while ensuring the sustainable use of resources and the environment. Yingli is committed to energy savings, emissions reduction, and sustainable development.

We achieved these targets by working to continuously improve our management of product quality, environment, and energy, and boost our resource and energy efficiency. Over the next year, Yingli will set for itself higher emissions reduction targets as part of a longer-term strategic plan to address sustainability in our operations.

On behalf of Yingli's employees, I am pleased to share with you our hard work on sustainable development. In future, we will engage more broadly on the sustainable development of China and the world, while also strengthening our commitments to all areas of sustainability. We look forward to sharing even more sustainability progress in the future.

Sustainable development is not only the call of our day, but also a major strategy for long-term growth at Yingli. We have made new headway in our efforts to pursue a green, low-carbon pathway for high-quality development.

Xulong Yin,
*Chairman of the Board,
and Chief Executive Officer*

About the Company



A Yingli employee cleaning up a module before it gets shipped out

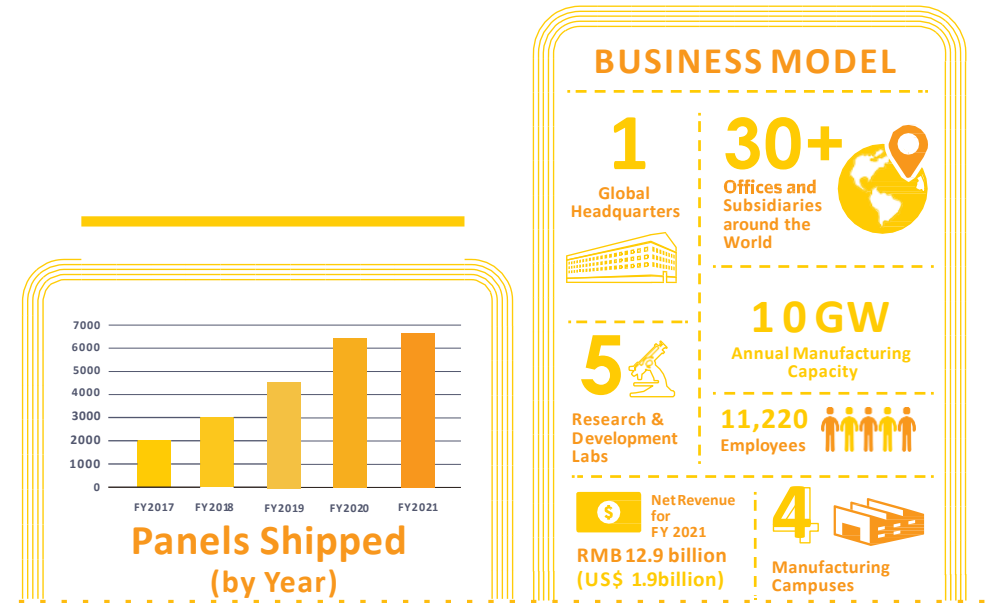
About Yingli

Yingli Energy Development Co., Ltd is a leading solar energy company with headquarters in Baoding, China. We are one of the world's leading photovoltaic (PV) panel manufacturers, and our operations span the value chain and development process from innovative research to panel assembly. Integrated production helps us to ensure tight quality control along with process and cost optimization, and reduces the environmental costs of transportation, breakage, and packaging.

Our Strategy

Our business is built on the recognition that new and improved tools are needed to help power the world without increasing greenhouse gas (GHG) emissions. Solar energy is an abundant source of clean electricity, if we can produce the technology to effectively capture, store and deploy it. We expect that demand for renewable energy technologies will continue to grow as governments seek alternatives to carbon-emitting fuels, and our strategy at Yingli is to help meet that need.

We also want to minimize the environmental impact of our production process, so that solar is a truly sustainable energy source. Protecting water resources, increasing efficiency of material and energy use, and shifting our own energy consumption to renewable sources are some of the ways that we are reducing our impact.



Yingli's Global Reach

We make high-quality PV panels under the Yingli Solar brand, manufactured at four facilities in China and deployed throughout the world. Our customers are located in all major PV markets throughout North and South America, Europe, Asia, Africa and Australia. We also have dedicated local teams for sales and support. Our panels are purchased by product distributors, system installers, project managers and owners, as well as utility companies. Additionally, Yingli has international partnerships in research and product development, including that with the Energy Research Centre of The Netherlands.

Our Contribution to Cleanenergy

Since we began producing PV panels in 2003, Yingli has enabled customers to install more than 50 gigawatts (GW) of accumulated solar power generation capacity worldwide, providing affordable clean energy to millions of people. That amount of solar power is equivalent to reducing GHG emissions by nearly 1,500 million tons over a 25-year life cycle, compared to conventional thermal power generation.

Values



Innovation in our products and our environmental performance

- » As of Dec. 2021, we own 2,039 Patents across several categories and 5 National R&D platform.
- » We were the first Chinese company and solar company to join the World Wildlife Fund's Climate Savers program for business leadership on climate change commitments.



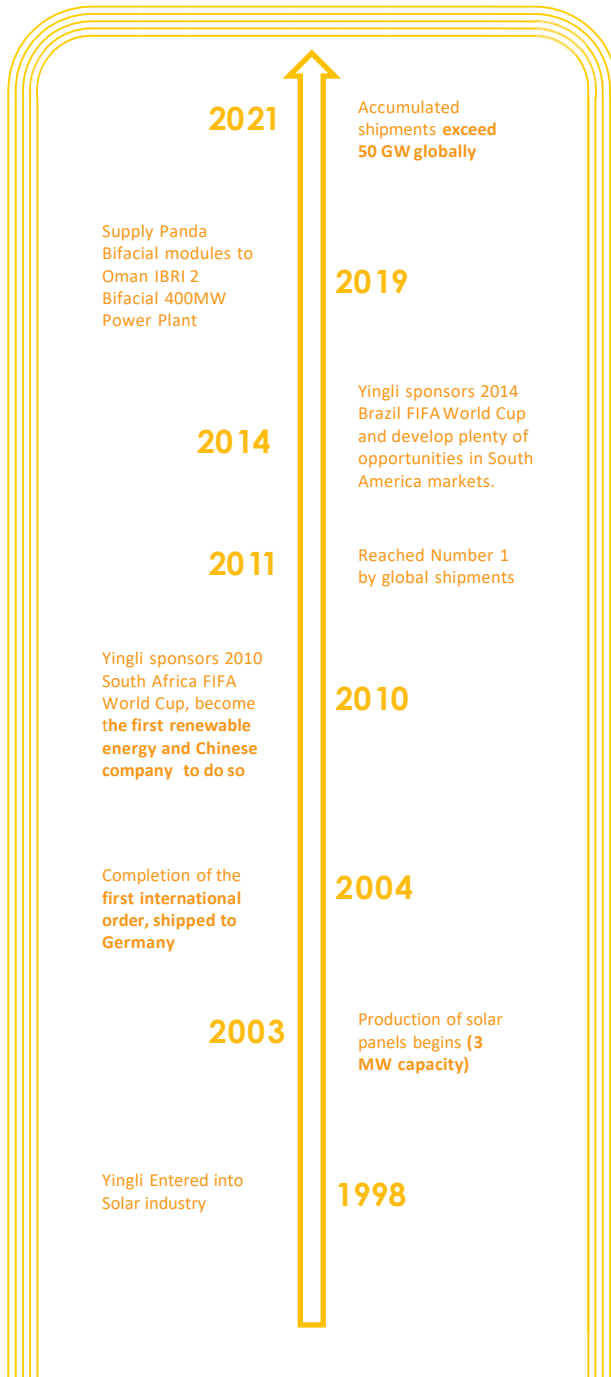
Trust in our relationships with our employees, our customers, our business partners and our stakeholders

- » Communication with employees is essential, and the CEO Mailbox and workers' committees help to strengthen dialogue within Yingli.
- » Employees can receive emergency financial support from the Mutual Aid Foundation.
- » Customers receive ongoing service from our local sales and support staff globally.



Social responsibility in how we operate and our impact on the world

- » Our products help to reduce GHG emissions and reliance on fossil fuels for power generation – use of our panels is reducing carbon emissions by 200 million tons every year.
- » We strive to reduce our environmental impact by actively managing our water and energy resources, and we have reduced the GHG emissions footprint of our production, our purchases and our transportation.
- » We work with local partners to install solar power equipment in schools and sports facilities through projects in Africa, the Pacific Islands, Southeast Asia, the United States, and China to provide a reliable, clean power source for local youth.



Governance at Yingli

We are committed to high standards of corporate governance to safeguard the interests of our shareholders and maintain the company's long-term value. Our board of directors, officers, and employees all adhere to a code of business conduct and ethics designed to ensure integrity in line with applicable laws and best practices.

BOARD COMPOSITION

Yingli is governed by a seven-member Board of Directors, which includes four independent directors and both Chinese and international members. There are two standing board committees, Audit and Compensation. The Chairman of the Board is also the company's Chief Executive Officer.

CORPORATE GOVERNANCE GUIDELINES

Our Board of Directors performs the duties of the nominating/corporate governance committee and regularly reviews our corporate governance principles and practices. The Board of Directors has adopted guidelines to help it serve the interests of the company and its shareholders.

CODE OF ETHICS

We are committed to conducting our business in accordance with all applicable laws, rules and regulations, and the highest standards of business ethics. We adhere to a Code of Business Conduct and Ethics.



ABOUT THE COMPANY

Awards



» Global Module Brands No.1 in Popularity



» RETC Best Performance Award



» Global Green Economy Top 10 Leading Enterprise Award



» National Green Factory



Sustainability at Yingli



Frequency of Engagement



ANNUAL

QUARTERLY

MONTHLY

DAILY

ISSUES

INTERNAL

Stakeholder	Engagement Activity	Annual	Quarterly	Monthly	Daily	Issues
Employees	Worker's Congress	Annual	✓			» Workers' rights » Wages and benefits » Working conditions » Career development
	Labor Dispute Mediation Committee	Monthly		✓		
	Staff Satisfaction Surveys	Annual	✓			
	Ceo Mailbox And Appeal Mailbox	Daily			✓	
	Performance Assessments	Annual	✓			

EXTERNAL

Stakeholder	Engagement Activity	Annual	Quarterly	Monthly	Daily	Issues
Customers	Regular Communication	Daily			✓	» Service and product quality » Expectations and areas for improvement
	Satisfaction Surveys	Annual	✓			
	Site Visits	Annual	✓			
	Complaint Mechanisms	Daily			✓	
Government/Regulators	Regular Reporting	Quarterly (Varies)		✓		» Relevant policies and industry standards » Regulatory compliance
	Meetings	Quarterly (Varies)		✓		
Shareholders And Investors	General shareholder meeting	Annual	✓			» Financial performance » Strategic direction
	Press releases	Quarterly		✓		
	Discussion and exchange meetings	Quarterly		✓		
Suppliers	Regular Communication	Daily			✓	» Material selection and use » Energy and resource management
	Inspection Visits	Annual	✓			
	Annual Meeting	Annual	✓			
Community And NGO Groups	Volunteer Service	Annual	✓			» Community development project cooperation » Yingli's environmental protection efforts
	Partnership work	Quarterly		✓		
	Media communication	Quarterly		✓		

Management

Sustainability at yingli is managed by the Chief Climate officer, and involves several departments including investor relations, marketing, manufacturing, operations, production, environment/recycling, and equipment and purchasing. New strategies are developed and implemented by managers of each department.

Stakeholder engagement

we interact with internal and external stakeholders on an ongoing basis to help us understand any concerns and guide our business decisions.

Focal Areas

At Yingli, our sustainability efforts are focused in 3 main areas:



» The **environmental impact** of our product throughout its life cycle

We want to reduce the amount of resources needed for production of each panel, and reduce the waste that is produced.



» The well-being and development of our **employees**

We want to provide employees with a safe and supportive work environment, and enable them to reach their full potential.



» Sharing solar energy with **communities** as a way to reduce poverty and improve education

We want to make solar power a reality in schools and poor communities as a way to share our resources with those in need.

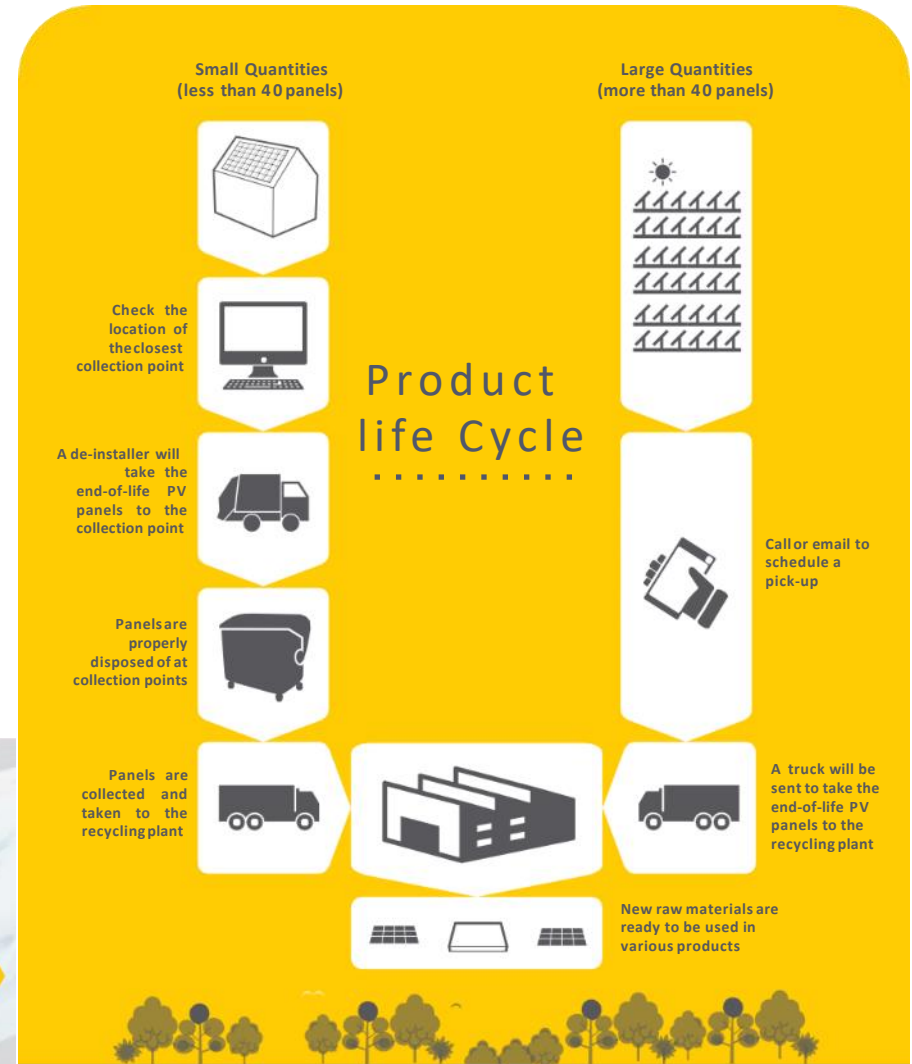
Environment



Resource use

reducing the resources needed for our manufacturing process makes our product more sustainable. improving our own energy efficiency saves money and reduces both our operational carbon footprint and the carbon footprint of each solar panel we manufacture.

Our 3-part strategy to improve energy efficiency



The PV CYCLE Standard Operating Procedure is based on two different ways of collection. Small quantities of panels are directed to a Certified Collection Point of PV CYCLE, while an on-site collection service is available for large quantities.

We monitor and reduce energy consumption at each production site, with rewards and penalties given based on energy performance. Our production relies on energy from purchased electricity, generated electricity from our own PV installations, natural gas, and heat.



Energy and Water Usage

Baoding Headquarters*

	2019	2020	2021
Purchased electricity (MWh)	594,162	582,091	649,413
Renewable energy (KWh)	12,800	13,150	13,070
Natural Gas (m ³)	5,675,812	4,155,901	2,274,905
Gasoline and diesel (L)	180,079	189,800	202,800
Ton CO2 per MW produced	444.93	365.98	392.57
Water (m ³)	1,699,865	1,600,398	1,626,788
Water discharge	1,454,500	1,081,228	1,382,769
Recycled water	850,000	182,720	122,003

*Yingli significantly increased its levels of production during the reporting period, impacting our use of energy and water. In all cases, we have been diligent with ensuring the most sustainable use of resources throughout this transition.



Emission Targets and Achievements (internal test data)

Emission Types*	2021 Target	2020 Achievement
GHG emissions from PV panel production	35%	32%
GHG emissions from purchased goods and services	30%	28%
GHG emissions from upstream transportation	35%	30%

*All targets are based on emissions intensity per MW of PV panel production, and percent reduction from 2018 levels.

We have invested in PV power generation projects and solar power systems at our Baoding headquarters and 3 production plants in Tianjin and Hengshui and Lixian. The solar energy systems installed on our facilities could generate 102.3 GWh of electricity annually, equivalent to 7.05% of our total power consumption in 2021. As part of our membership in Climate Savers initiatives, we also targeted for renewable energy to account for at least 10% of the total energy consumption in the production of our PV modules by the end of 2025.



We continue to work with TÜV on a management platform for GHG emissions and energy consumption. We are also implementing comprehensive recycling systems to improve the energy efficiency of our production processes.



Environmental Conservation Investment by Yingli (2019-2021)

	2019	2020	2021
Investment amount (in millions of RMB)	43.24	69.65	82.29



COD Requirement (Chemical Oxygen Demand)

	National Level	Local Level – Baoding	New Industry Standard
mg/L	500 mg/L	350 mg/L	150 mg/L*

Yingli invested 14.1m RMB to meet this standard in 2021.

suppliers

We work with suppliers through our green supply chain management program to help them improve energy efficiency and reduce emissions. Supplier selection includes consideration of specific environmental criteria, and we work to help suppliers reach their potential in energy management.

end-of-life

With regard to product end-of-life issues, Yingli has participated in the product lifecycle working groups of industry associations such as SEIA and SVTC. Additionally, Yingli supports the European Commission’s directive on Waste Electrical and Electronic Equipment (WEEE) for the PV industry. Under this directive, importers and distributors from within European Union countries take responsibility for recycling, while manufacturers from outside the European Union cover a portion of the costs. In other markets, Yingli notes there is still a need to additionally scale recycling efforts.

When our panels cannot be recycled and must be disposed of, they are well below the regulatory requirements for TCLP (toxicity characteristic leaching procedure) testing and are not considered hazardous waste.

Waste and Emissions

One of our key objectives is to minimize the waste and emissions from our manufacturing processes, including noise, waste water, gaseous waste, and solid waste. We have anti-pollution equipment in our facilities to reduce, treat, and recycle the waste and emissions from our manufacturing process. From specialized air compressors that reduce noise pollution to leading-edge waste water treatment equipment, we have made substantial investments to prevent pollution.

We have not had any violations or penalties related to environmental laws and regulations. We are committed to monitoring and reducing the emissions created by our manufacturing processes, including GHGs, PFCs, and other air emissions. We track all of our waste streams and strive to reduce their negative impact on the environment.

Yingli previously followed the national and local Baoding requirements on pollution discharge concentrations in waste water, which require chemical oxygen demand (COD) levels under 500mg/L and 350 mg/L, respectively. A new industry standard for battery manufacturers set the COD limit at 150mg/L, and Yingli began following this standard in 2020. **to improve water discharge quality, we invested RMB14.1 million (US\$2,053,478) to upgrade our treatment systems so that we are now consistently meeting the new standard.**



COD Changes Before and After Updating Organic Wastewater Treatment System

ITEM		COD
WATER DISCHARGE		1200t/d
Before	Wastewater quality	170mg/L
	Pollutant emission	61.2t/a
After	Wastewater quality	150mg/L
	Pollutant emission	54t/a
REDUCTION IN QUANTITY OF POLLUTANTS		7.2t/a

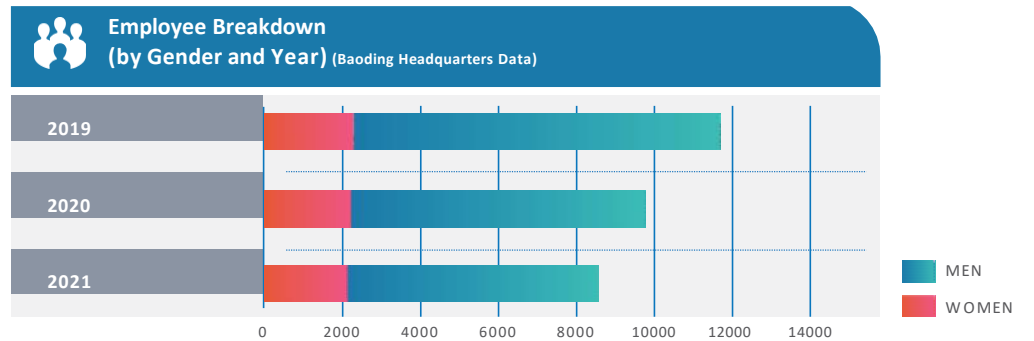
*Where t/d is tons per day, and t/a is tons per year.

At Yingli, we believe that our workforce is essential to our success, and we strive to create a safe and supportive environment which protects our employees' health and wellbeing and encourages their development.

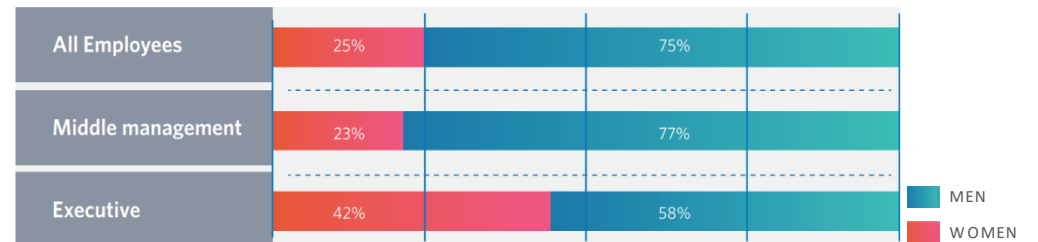
Employees



Yingli employees thoroughly inspecting the manufacturing line



Our employee base was reduced by an average of 14% in 2020 and 2021, due to organizational streamlining and efficiency improvements, and increased automation.



Around one quarter of all employees are women, mainly involved in light physical work such as cleaning silicon wafers, sorting battery plant cells, packaging, and repair. Yingli is also proud of our high number of women in executive positions, which we believe outpaces many of our peers. We actively support female employees, including through the provision of free medical exams and extra leave on International Women's Day.


Managing Safety

At both our headquarter office and production facilities, managing safety is of paramount concern. Yingli has created a management structure to ensure the safety of all personnel, including effective grievance mechanisms for when issues arise.



The major occupational health risks at Yingli production sites are dust and noise. We continuously monitor noise levels and install noise-absorbing materials wherever possible, and we use controls to limit exposure to dust and hazardous materials.

We have reduced injuries on the production line due to improved safety measures on the factory floor, and a heightened focus on safety procedures and training. Production line safety is a top priority for Yingli. In 2020 and 2021, there were no fatal injuries at work, and no major fires or explosions. The total number of cases in 2021 was down 50% compared to 2019. We also continue to train staff on traffic safety to reduce accidents while commuting.

 Employee Safety			
	2019	2020	2021
Working hours	24,672,560	20,360,000	18,060,000
Fatalities	0	0	0
Recordable injuries	44	26	22
Total recordable injury frequency	2.1‰	1.4‰	1.1‰
Work safety incidents	20	14	10
Lost days	1,283	374	284
Lost day rate (%)	10.4	3.83	3.28
Training hours per employee on health and safety	18	18	18

We also look for ways to support our employees, through both professional development and through emergency financial assistance.

professional development



We prioritize internal candidates for promotion as much as possible. In the last two years, 593 Yingli employees were promoted. Through an innovative Blue-Collar Mechanic Training Program in 2021, in partnership with German company Exxergy, 55 Yingli employees joined a 2-month program to improve technical and management skills. These participants then took on senior mechanic roles in Yingli and acted as role models for other employees. Training topics included: communication and feedback; quality control; site management; and technical improvements.

financial assistance



Our Corporate Mutual Aid Foundation provides financial support for Yingli employees who face unexpected hardships, The Foundation is funded by corporate donations and voluntary employee contributions. Employees can submit a formal application for review and in 2021, 45 employees received financial support through this fund.

Community

Yingli is committed to increasing global awareness of sustainability issues through many different avenues. Since its founding, Yingli has donated RMB150 million (US\$23.3 million) in support of disaster relief, poverty alleviation, and cultural, educational, and sporting activities. We focus our community-engagement work on bringing clean energy to populations around the world – partnering with schools and charitable organizations to make solar power an affordable and practical reality – while also combining our passions for solar and sport in meaningful ways.



Yingli: Lighting the World

As one of the world's leading producers of PV panels, Yingli believes it is important to ensure equal access to these products. This is true regardless of economics or geography. Over the past several years, Yingli has worked in communities around the world to supply clean energy and infrastructure.

Bringing Electricity to Rural Laos

Yingli provided equipment and technical support for student volunteers from Nanyang Technological University (Singapore) to install off-grid solar energy systems for 2 schools and a clinic in rural Laotian villages that have no access to electricity. The solar systems will power lights and fans at the schools and enable the clinic to extend its operating hours and upgrade its medical equipment.



Solar installation and CSR support for rural communities in Laos



GRID Alternatives

In 2021, Yingli became the first and largest official solar panel supplier to GRID Alternatives, a non-profit solar installer that provides renewable energy and energy efficiency services to low-income families in the United States. We've renewed our long-standing partnership every year since. By the end of 2021, Yingli had supplied GRID with nearly 40 MW of donated and fair-market value solar panels, helping nearly 5,200 low-income families go solar. These families can save an estimated \$100 million over the systems' lifetimes, allowing them to overcome unexpected financial hardships more easily, and to expand their budgets for education, healthcare, and other necessities.

The partnership also provides thousands of workers with hands-on solar installation experience through job-training programs. By the end of 2021, these solar job trainees have accrued over 950,000 hours of experience installing PV projects using Yingli Solar panels – experience they may be able to apply to jobs in the solar power industry. As part of the partnership, Yingli employees also volunteer to work on GRID projects.

“GRID Alternatives is grateful to Yingli for helping us make solar power available to the working families that need the savings the most, while helping build the clean energy workforce of the future. We are also proving that if solar is a viable technology for low-income families, it can work for anyone anywhere.

Erica Mackie,
Chief Executive Officer and
Co-Founder of GRID Alternatives

Solar Aid

Yingli partnered with SolarAid on its 'lighter learning' program, bringing solar power to refugee students in mayukwayukwa high school in kaoma, Zambia. The new solar PV system helps to lengthen learning hours and improve security, and provides a cellphone charging point for the community.

It's time

Yingli is contributing solar systems for 6 remote schools in the Fijian islands in partnership with the it's time foundation of Australia. These will allow clean, green, and affordable energy for the schools, 24 hours a day. This will provide a better quality of life for the students, as well as staff, across the regions that house these schools. All told, the installations total 22 kW of power and will provide more than \$30,000 of savings for the 6 sites. These savings will be fed back into the schools to purchase electronic equipment like computers and photocopying machines, thus improving the quality of education. Use of the solar systems will also eliminate the need for kerosene lanterns in staffing quarters, enabling a healthier environment for teachers.

Other Donations

- » April 2021: Small-scale solar equipment and flashlights for the Yangtze River Environmental Protection Station.
- » April 2021: 5 kW PV system for the First Solar Home project for Puffin Village in Guizhou.
- » July 2021: 200 sets of solar flashlights for Zhanjiang, Guangdong after super-typhoon Rammasun.
- » July 2021: 40 kW of solar panels donated to energize a school and a health clinic in rural Laos.

LOOKING FORWARD



Our 2021 Sustainability Report provides an update and benchmark of our progress on sustainability in terms of our environmental performance, our employees, and our support for communities.



Over the near term, Yingli will work with the CDP, United Nations Global Compact, World Resources Institute, and WWF to keep global temperature increases below 2 degrees Centigrade. In line with this, we have put forward the Science-based Targets Initiative. This initiative asks companies to commit publically to their science-based emission reduction targets, thus showing their leadership on climate action. To date, 117 companies including Yingli have signed on to this initiative.

Specifically, our goals for the next two years include:

» **CONTINUOUS INNOVATION**

To improve the efficiency and function of our products, our manufacturing process, and our management of resources and waste streams.

» **REPORTING**

To implement a structured materiality process and formal system for tracking performance.
Expand reporting process to include data from other locations.

» **ENVIRONMENT/EMPLOYEES/COMMUNITY**

Yingli will build its first technical ecological area in Hebei Province, transferring the same efficiency capacity as our Baoding headquarters to Yi County. The goal is to promote a culture of conservation, reduce energy, chemical, and water use, and develop a model that can be replicated elsewhere.

Yingli will also establish a new international training center on energy use and efficiency. The center will promote collaboration between industry and academia, providing opportunities for research, lectures, and advancing energy conservation technology.

GRI G4 STANDARD DISCLOSURES

This report contains standard disclosures from the GRI sustainability reporting guidelines.

General Standard Disclosures		
Indicator	Description	Section
Strategy and Analysis		
G4-1	CEO Statement	CEO Statement
Organizational Profile		
G4-3	Name of organization	<i>About Yingli</i>
G4-4	Primary brands, products, and services	<i>About Yingli</i>
G4-5	Location of organization's headquarters	<i>About Yingli</i>
G4-6	Countries of operation	<i>About Yingli</i>
G4-7	Nature of ownership and legal form	<i>About Yingli</i>
G4-8	Markets served	<i>About Yingli</i>
G4-9	Scale of organization	<i>About Yingli</i>
G4-10	Number of employees	<i>About Yingli</i>
G4-11	Percentage of employees covered by collective bargaining agreements	<i>2021 Annual Report</i>
G4-12	Organization's supply chain	<i>About Yingli</i>
G4-13	Significant changes to size and structure	<i>2021 Annual Report</i>
G4-14	Whether/how precautionary approach or principle is addressed	-
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives subscribed or endorsed	-
G4-16	Memberships to associations, national or international advocacy organizations	-

Identified Material Aspects and Boundaries		
G4-17	Entities included in consolidated financial statements	-
G4-18	Materiality process (key aspects)	-
G4-19	Materials identified in process	-
G4-20	Aspect Boundary for each material Aspect within organization	-
G4-21	Aspect Boundary for each material Aspect outside organization	-
G4-22	Effect and reasons for restatements in previous reports	-
G4-23	Significant changes since previous reports	-
Stakeholder Engagement		
G4-24	Stakeholder groups engaged	<i>Yingli Values; Community</i>
G4-25	Identification and selection of stakeholder groups engaged	-
G4-26	Organization's approach to stakeholder engagement	<i>Sustainability at Yingli</i>
G4-27	Key topics and concerns raised through stakeholder engagement	<i>Sustainability at Yingli</i>
Report Profile		
G4-28	Reporting period for information provided	<i>About the Report</i>
G4-29	Date of most recent previous report (if any)	<i>About the Report</i>
G4-30	Reporting cycle	-
G4-31	Contact point for questions regarding report or its content	<i>Sustainability Report (Back Cover)</i>
G4-32	'In accordance' option chosen by organization	-
G4-33	Organization's policy and current practice regarding external assurance for report	-
Governance		
G4-34	Organization's governance structure	<i>About Yingli</i>
Ethics and Integrity		
G4-56	Organization's values, principles, standards, and codes of conduct	<i>About Yingli</i>

Provide Affordable Energy For All!



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LEARN MORE :

yinglisolar.com



1 Headquarters



4 Large-scale Production Parks



30+ Offices and Subsidiaries around the world



10 GW Manufacturing



5 Research and Development Laboratories



2,039 Patents

50

GW Of Global Shipments

<CO₂

48 Million Fewer Tons of Carbon Emissions Thanks to Yingli Panels



593

Employees Promoted during 2020/21



117 Total Employees Helped through Corporate Mutual Aid Foundation



98 GWh

of Clean Energy Powering Headquarters' Offices and Production Sites Every Year