First Solar®

SUSTAINABILITY REPORT 2017

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Note Regarding Forward-Looking Statements

All financial numbers in this report are based on U.S. Generally Accepted Accounting Principles. This report contains forward-looking statements within the meaning of the United States federal securities laws. These forward-looking statements do not constitute guarantees of future performance. These forward-looking statements are based on current information and expectations, are subject to uncertainties and changes in circumstances, and involve a number of factors that could cause actual results to differ materially from those anticipated by these forward-looking statements, including risks described in the company's most recent annual report on Form 10-K, and other filings with the Securities and Exchange Commission. First Solar assumes no obligation to update any forward-looking information contained in this report or with respect to the information described herein.

1 Message from the CEO

2016 was a record year for the solar photovoltaic (PV) market, with over 75 gigawatts (GW) installed worldwide. This is the tenth year of consecutive global growth, with cumulative global PV deployment surpassing 300 GWp as a result of dramatic price reductions and efficiency breakthroughs. The economic case for solar has never been more compelling. Solar PV now competes head to head with fossil fuel projects in many regions of the world, with record-setting power purchase agreement (PPA) prices below $30 USD per megawatt hour (MWh).

As a result, renewable energy made up more than half of new generation capacity additions in 2015 and 2016. Major companies around the world are targeting 100 percent renewable electricity, spurring increased “corporate renewables” procurement and further accelerating the low-carbon economy transition.

First Solar’s customers – power plant developers, utilities, independent power providers and commercial & industrial operators – look to us for industry leadership in enabling reliable, affordable large-scale renewable energy generation. In order to meet their own sustainability goals while delivering on their financial performance commitments, these consumers count on First Solar’s high performance solar modules, sophisticated power plant control systems and innovative engineering and design capabilities to ensure their PV power plants are built economically, operate efficiently, and perform to expectations.

Additionally, it is crucial that our PV power plants connect seamlessly to the national grids in which they operate. While solar is, by definition, an intermittent power source, power plants utilizing First Solar technology demonstrate 20-30 percentage points more accurate regulation for Automated Generation Control (AGC) than the best conventional generation plants. In short, our projects perform as well as any other form of electricity generation. And the potential for solar to meet even greater energy demands will only continue to grow in the future as storage technologies become commercially viable. In line with our mission to create enduring value by enabling a world powered by clean, affordable solar electricity, we continually focus on driving down the costs and increasing the reliability of our thin film PV technology and power plants.

To be sure, global market conditions over the past year have created challenges for both First Solar and the industry as a whole. Astonishing drops in market-clearing pricing have placed significant pressure on all solar energy providers to reduce operating costs and protect margins. These demanding conditions have caused some companies to flounder, and others to take major restructuring actions.

Meeting these challenges head-on, First Solar has accelerated development, production and introduction of our new Series 6 module technology. We are investing more than USD$160 million in retooling our manufacturing facility in Perrysburg, Ohio, in preparation for Series 6 production, and will be following with transition of our facilities in Kulim, Malaysia. As a result, we will be producing and selling a product that is highly competitive against silicon-based PV panels, while maintaining a fast energy payback time, low carbon footprint, and the smallest life-cycle environmental impact in the industry. Thanks to our thin film technology and efficient manufacturing process, the environmental impacts of a First Solar PV system are about two-thirds lower than the average PV system available on the market today.

Our industry-leading PV recycling services further enhance our sustainability advantage by recovering approximately 90 percent of a First Solar module at the end of its useful life. We are proud of First Solar’s longstanding commitment to PV recycling, and continually strive to minimize our own operational impact to enable First Solar’s capacity to endure and to scale. In 2015 and 2016, our manufacturing facilities received global recognition for their state-of-the-art

environmental controls and performance through the prestigious Malaysia Prime Minister's Hibiscus Award and the Ohio EPA's Encouraging Environmental Excellence (E3) Gold Award. We also met and exceeded our 35 percent greenhouse gas emissions intensity reduction goal a year early.

Within the organization, we strive to foster a culture that encourages innovation through collaboration, urging colleagues to take smart risks, learning from failures and course correcting, and owning personal accountability for contributing to our mission. I am regularly astonished by the passion and commitment First Solar associates bring to their work every day.

As we look to the future, we are confident that our Series 6 technology will provide global markets with high efficiency, lower cost solar energy with a low environmental footprint, allowing both our direct customers and end users alike to harness the power of the sun in the service of strong economies and a higher quality of life.

Thank you for your interest in this Sustainability Report, and in First Solar's ongoing journey to create enduring value globally.

Mark Widmar

Chief Executive Officer

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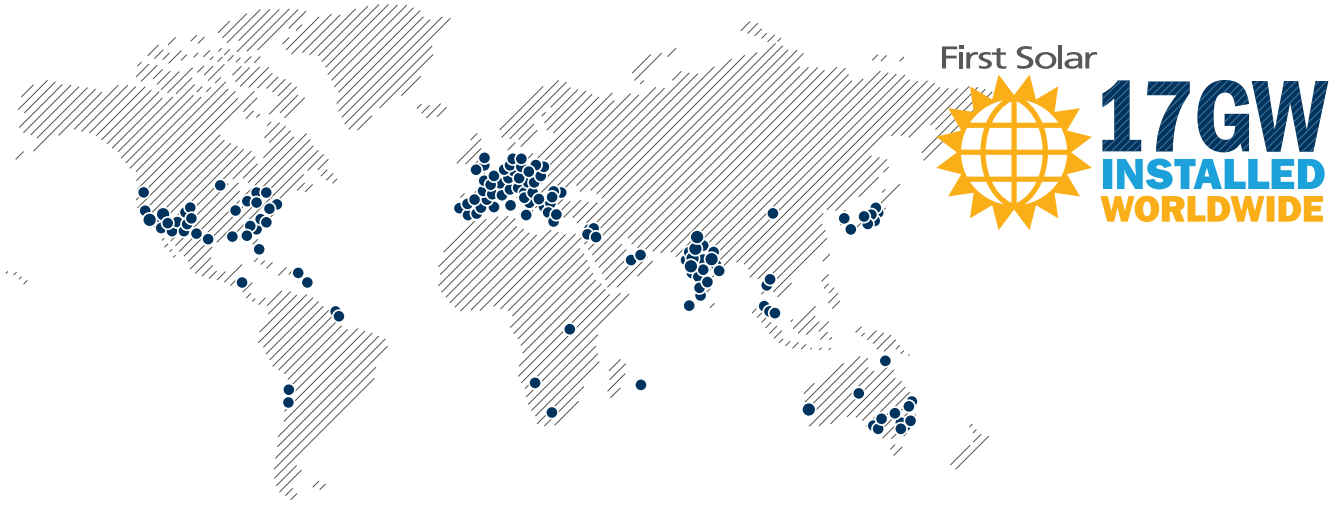
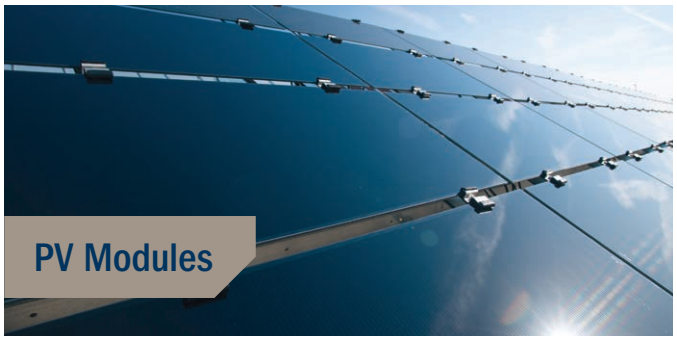
ABOUT FIRST SOLAR

2 About First Solar

First Solar is a leading global provider of comprehensive PV solar energy solutions with over 17GW installed in more than 35 countries. We design, manufacture and sell PV solar modules with an advanced thin film semiconductor technology and we develop, design, construct, and sell PV power plants that primarily use the solar modules we manufacture. We provide operations and maintenance (O&M) services to plant owners that use solar modules manufactured by us or by other third-party manufacturers. Our power plant offerings diversify the global energy portfolio and reduce the impact of fuel-price volatility while delivering an economically attractive and environmentally friendly alternative or complement to fossil fuel electricity generation.



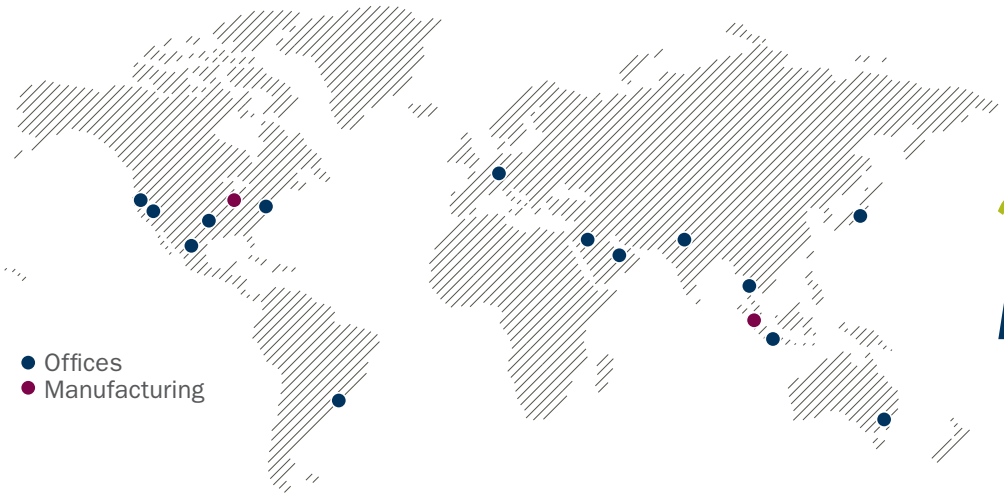
First Solar's 17GW of installed capacity produces enough electricity to power more than 8 million average homes and displace nearly 12 million metric tons of CO_2 per year, based on worldwide averages. This amounts to over $460 million in avoided costs associated with greenhouse gas emissions and over $323 million in avoided air pollutants per year, assuming a social cost of $0.02/kWh for carbon and $0.014 for other power sector emissions.[1]



Our mission is to create enduring value by enabling a world powered by clean, affordable solar electricity.

[1] Wiser et al., The environmental and public health benefits of achieving high penetrations of solar energy in the United States, Energy 113 (2016) 472-486.

Our Operations

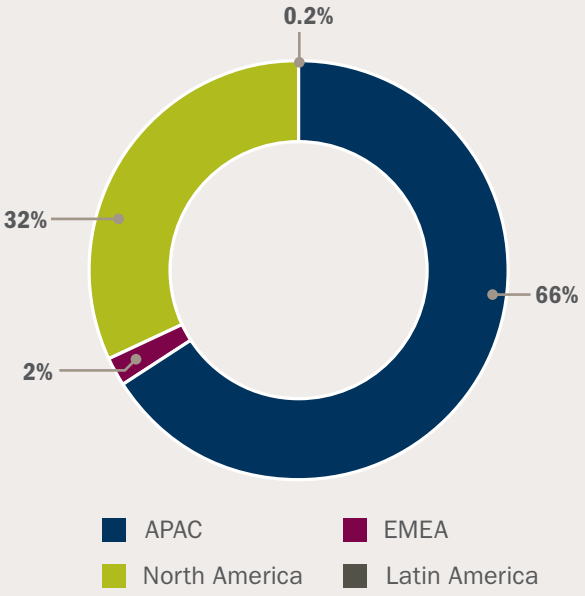


~5,400
ASSOCIATES

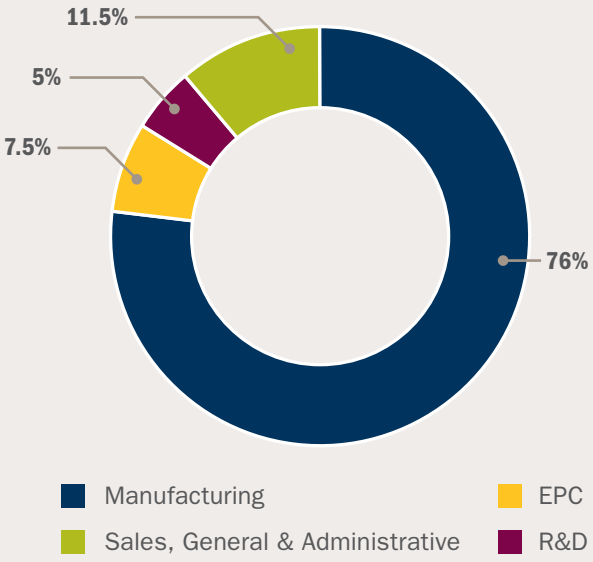
First Solar is headquartered in Tempe, Arizona with regional offices around the world and manufacturing facilities in Perrysburg, Ohio and Kulim, Malaysia. Our annual manufacturing capacity has grown from 25 megawatts (MW) in 2005 to more than 3,100MW in 2016.

As of December 31, 2016, we had approximately 5,400 associates (our term for full and part-time employees), with over 75 percent in manufacturing positions and around 7 percent in our systems business. The remainder of our associates are in research and development, sales and marketing, and general and administrative positions.

Associates by Region



Associates by Function



CSR Awards and Recognitions 2015-2016

2016 - **Fortune's "Change the World" list** - Ranked #10 of 50 global Companies that are taking on society's biggest problems and doing well by doing good

2016 - **Ohio EPA Encouraging Environmental Excellence Gold Award** - First Solar Perrysburg

2016 - **Bay Area Green Business Program certification** - First Solar Santa Clara Office

2016 - **Aon Hewitt Best Employer for Gen Y Award** - First Solar Malaysia

2015 - **Malaysia Prime Minister's Hibiscus Award for environmental performance and excellence** - First Solar Malaysia

2015 - **International Federation of Training & Development Organizations** - Global Human Resources Development Award for Improved Quality of Working Life – First Solar Malaysia

2015 - **Malaysian Institute of Human Resource Management** - Employer of Choice Award – First Solar Malaysia 2015 Intersolar North America Solar Projects of the Year - Finalist/Desert Sunlight

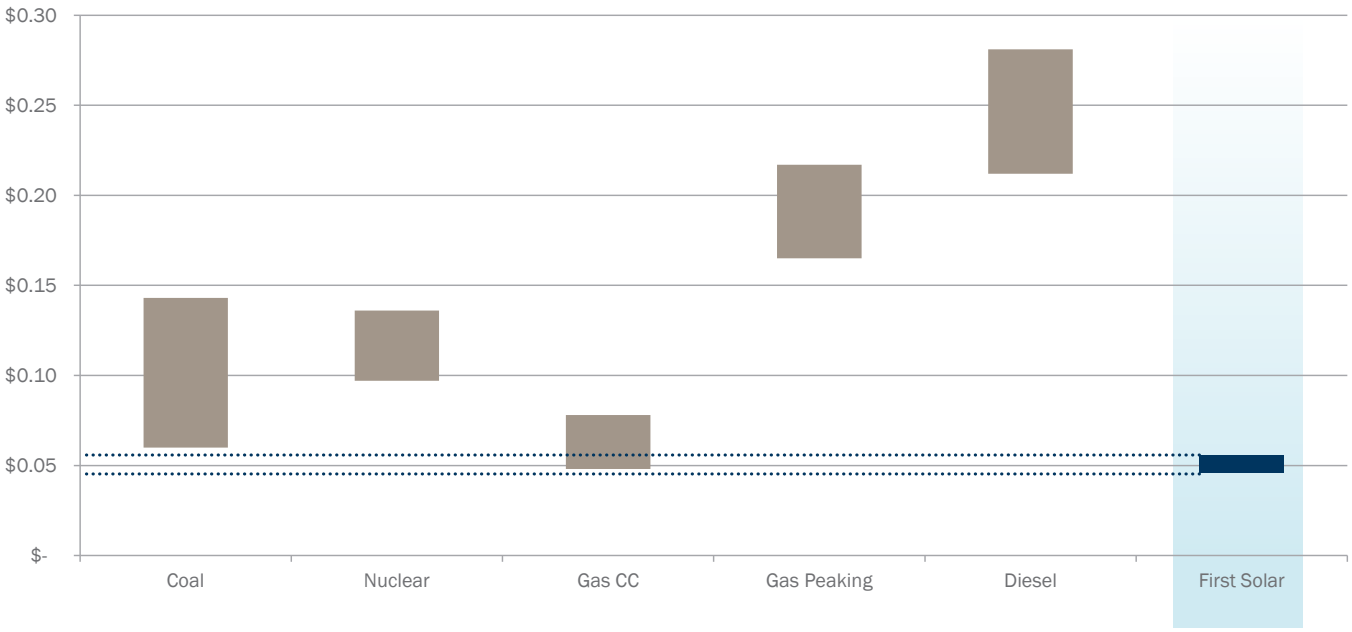
2015 - **Global Leadership Awards** - Excellence in Renewable Energy Manufacturing Sector – First Solar Malaysia

2015 - **Solar Power World** - #1 Ranked Top 500 Solar Contractors/Top Developer


Desert Sunlight

Driving Down the Cost of Solar

Over the years, First Solar's utility-scale power plants have led the way in driving down the cost and ensuring the reliability of solar electricity, enabling the global transition to renewables. Solar has become a valued component of the global generation portfolio, able to hold its own with other energy sources in terms of cost competitiveness and energy yield. First Solar provides PV energy solutions that diversify the energy portfolio and reduce the risk of fuel-price volatility, while delivering a levelized cost of electricity (LCOE) that is cost competitive with fossil fuels today. On a LCOE basis, we currently provide electricity costs of between $0.045-$0.065/kWh, depending on the region and other factors.



Unsubsidized levelized cost of solar electricity compared to conventional energy sources.[2]

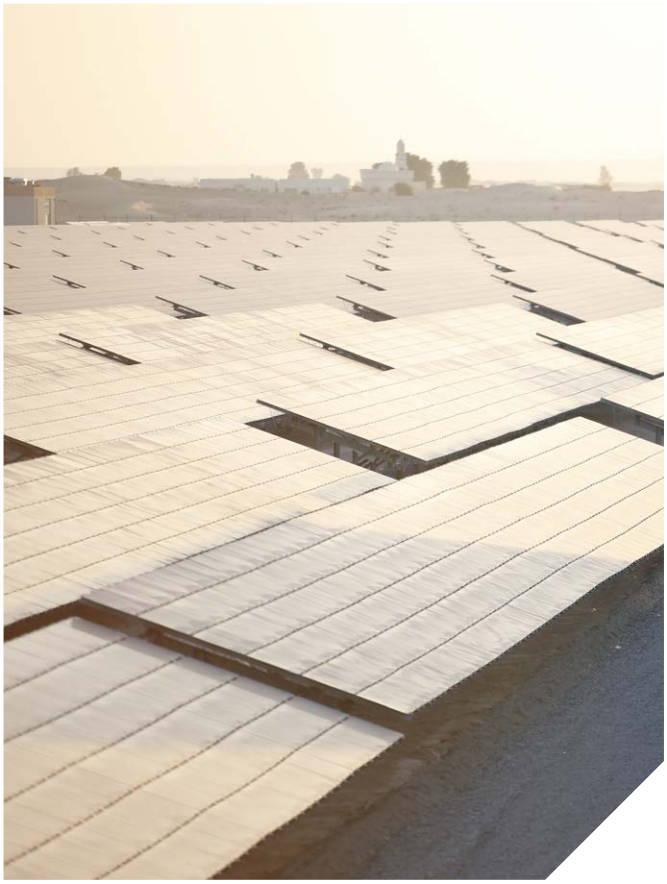
[2] Source: Lazard's Levelized Cost of Energy- Version 10, December 2016 and First Solar internal data.

Economic Sustainability

Economic sustainability for First Solar is about balancing our business model across growth, liquidity and profitability. We are creating enduring economic value by implementing a long-term roadmap to achieve our technology and cost leadership goals while operating as efficiently as we can in each environment where we do business. As part of our Long Term Strategic Plan, we are focusing on opportunities in which our PV solar energy solutions can compete directly with fossil fuel offerings on an LCOE or similar basis, or complement such fossil fuel electricity offerings. Our corporate strategy focuses on providing PV solar energy solutions using our modules to key geographic markets that we believe have a compelling need for mass-scale PV electricity, including markets throughout the Americas, the Asia-Pacific region, and the Middle East.

Competing in a dynamic industry requires us to be nimble and operate as efficiently as possible. We are prioritizing market opportunities worldwide relative to our core strengths and are allocating resources around the globe accordingly. First Solar has dedicated, and intends to continue to dedicate, significant capital and human resources to reduce the total installed cost of PV solar energy, to optimize the design and logistics around our PV solar energy solutions, and to ensure that our solutions integrate well into the overall electricity ecosystem of each specific market. We expect that, over time, an increasing portion of our consolidated net sales, operating income and cash flows may come from solar offerings in the key geographic markets described above as we execute on our Long Term Strategic Plan.

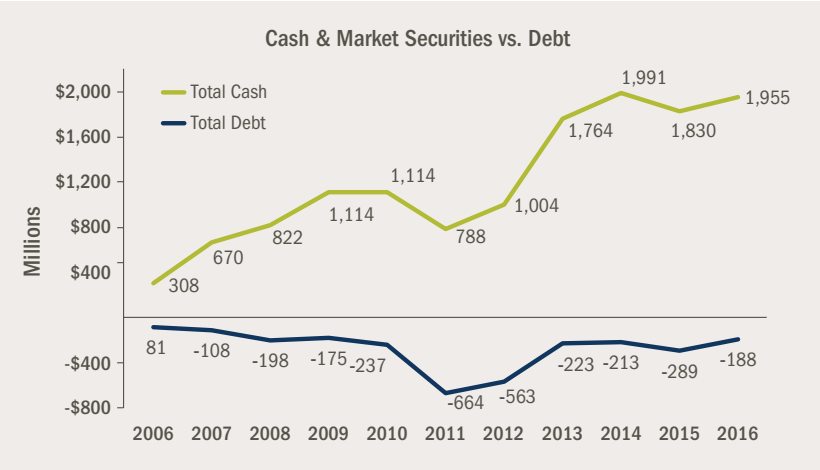
We are providing PV solar energy solutions using our modules to key geographic markets that we believe have a compelling need for mass-scale PV electricity



2016 Financial Highlights

In 2016, we produced 3.1GW of solar modules which represented a 24 percent increase from 2015. The increase in production was primarily driven by increased throughput and higher module efficiencies. During 2016, we ran our manufacturing facilities at approximately 97 percent capacity utilization, which represented a 5 percent increase from 2015. We expect to produce approximately 2.2 GW of solar modules during 2017 as we ramp down production of our Series 4 modules and continue the transition to Series 6 module manufacturing.

Our net sales totaled $3 billion in 2016, down from $3.6 billion in 2015. Despite challenging market conditions, we continued to maintain a strong financial position and one of the strongest balance sheets in the solar industry with an ending 2016 cash and marketable securities balance of $2 billion and a net cash position of $1.8 billion.



We provide a detailed account of our risks and opportunities related to climate change in **our 2016 Carbon Disclosure Project (CDP) response**.

The following table sets forth our consolidated statements of operations as a percentage of net sales for the year which ended December 31, 2016:

Consolidated Financial Statement		
	31 December 2016 *(in thousands)*	**% of net sales**
Net Sales	$ 2,951,328	100%
Cost of Sales	2,247,349	76.1%
Gross Profit	703,979	23.9%
Operating Expenses		
Research & Development	124,762	4.2%
Selling, General and Administrative	261,994	8.9%
Production Start-Up	1,021	0.0003%
Restructuring and asset impairments	818,792	27.7%
Operating Income		
Operating (loss) Income	(502,590)	(17)%
Foreign Currency Loss, net	(14,007)	(0.47)%
Interest Income	25,193	0.85%
Interest Expense, net	(20,538)	(0.70)%
Other Expense, net	40,252	1.36%
Income Tax Expense	(58,219)	(1.97)%
Equity in Earnings of Unconsolidated Affiliates, net of tax	171,945	5.8%
Net (loss) Income	(357,964)	(12.1)%

First Solar's Sustainability Program

At First Solar we define sustainability as our "capacity to endure and scale." Our sustainability approach enables us to achieve long-term growth while following environmentally and socially responsible practices. First Solar's sustainability program drives the company's commitment to the triple bottom line of "people, planet and profit through our approach to responsible life cycle management, environmental footprint analysis, greenhouse gas emissions intensity reduction, waste management, global charitable giving, operational cost reduction, and industry best practices such as responsible land use and our global PV module recycling services. We are committed to minimizing the environmental impacts and enhancing the social and economic benefits of our products across their life cycle, from raw material sourcing through product end-of-life. First Solar's Corporate Sustainability Policy is available on our website: http://www.firstsolar.com/en/Resources/Sustainability-Documents

ENVIRONMENTAL

- Providing the leading eco-efficient PV technology
- Operating world-class manufacturing facilities
- Applying responsible PV construction practices
- Offering globally available recycling services

ECONOMIC

- Enabling affordable access to clean electricity globally
- Producing more energy with a lower levelized cost of electricity
- Eliminating fuel price volatility and hedging costs
- Delivering the most bankable PV solutions in the industry

SOCIAL

- Creating jobs in local communities
- Ensuring a safe and engaging workplace
- Promoting diversity, development and education programs
- Partnering with responsible suppliers for a sustainable supply chain

Our sustainability approach enables us to achieve long-term growth while following environmentally and socially responsible practices.

Sustainability Governance

First Solar's Senior Vice President of Global Technical Services is responsible for the company's overall approach to sustainability, including the management of programs focused on life cycle environmental footprint analysis (from raw material sourcing through end-of-life recycling), implementing First Solar's GHG emissions reduction goal and managing our industry-leading end-of-life module recycling program.

The SVP of Global Technical Services also leads the company's Sustainability Council which is composed of senior leaders from Supply Chain, Government Affairs, EHS, Sustainability, Business Development, Technology & Product Development, Legal, Human Resources, Finance, as well as the Chief Operating Officer, the Chief Technology Officer, Chief Accounting Officer and the Chief Information Officer. The Sustainability Council promotes the implementation of cross-functional sustainability strategies and drives the company's sustainability goals, initiatives and programs with a focus on resource efficiency, supply chain risk management, transparency, and utilizing sustainability as a lever for growth.

Corporate Governance

Board of Directors

First Solar's business is conducted under the oversight of our board of directors. The primary responsibility of the board is to oversee and review senior management's performance of First Solar's business operations. For more information, please visit our website: **http://www.firstsolar.com/en/about-us/leadership#bod**

Executive Management

First Solar's CEO and executive management team are responsible for managing the Company's day-to-day business operations, including the preparation of financial statements and short- and long-term strategic planning. For more information, please visit our website: **http://www.firstsolar.com/en/about-us/leadership#bod**

Ethical Business Conduct

First Solar holds ethical business conduct as a core principle and is committed to operating at the highest ethical standards in every area of our business, at all times. **First Solar's Code of Business Conduct and Ethics Policy** demonstrates our commitment to this principle and guides the company's business conduct. Our Code of Business Conduct and Ethics applies to all directors and associates, including our Chairman, Chief Executive Officer, Chief Financial Officer, and other executive officers on a global basis. We have a long-standing commitment to conducting our business in compliance with applicable laws and regulations. This commitment, along with our Core Values, drives a culture of success and enables us to advance our mission of providing clean, affordable solar electricity.

Our Core Values form the foundation of our culture and guide our corporate strategy that enables us to accomplish our Mission. Our Core Values are the standards by which we strive to conduct our daily business, work with one another and interact with local communities.

Our Core Values

- Safety First
- Environmental Responsibility
- People Matter
- Deep Customer Relationships
- Continuous Improvement
- Results Matter

Collective Bargaining and Freedom of Association

First Solar recognizes that in the locations where we operate, employees have the right to freely associate or not associate with third-party labor organizations, along with the right to bargain or not bargain collectively in accordance with local laws. First Solar respects those rights and is committed to creating an environment of open communication where employees can speak with their managers about their ideas, concerns or problems, and work together to address workplace issues.

Anti-Corruption

First Solar performs risk assessments that consider the possibility of fraud and related indicators. We currently operate in, and may expand into, many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. First Solar's Global Anti-Corruption Policy requires all associates to comply with U.S. Foreign Corrupt Practices Act (FCPA) and local anti-corruption laws. The Global Anti-Corruption Policy prohibits bribery, kickbacks, and other improper payments to obtain or retain business and covers any person engaged to perform work on behalf of First Solar including freelancers, independent contractors, temporary contractors, independent professionals, agents and consultants. We communicate our anti-corruption and anti-bribery policies in our technical service contracts. All First Solar associates are required to participate in periodic anti-corruption training. Advanced FCPA training is provided to associates in higher risk profile jobs and tailored according to the region. First Solar has implemented processes and procedures to help ensure compliance with all applicable anti-corruption laws. These processes and procedures are monitored and audited on an ongoing basis.

3

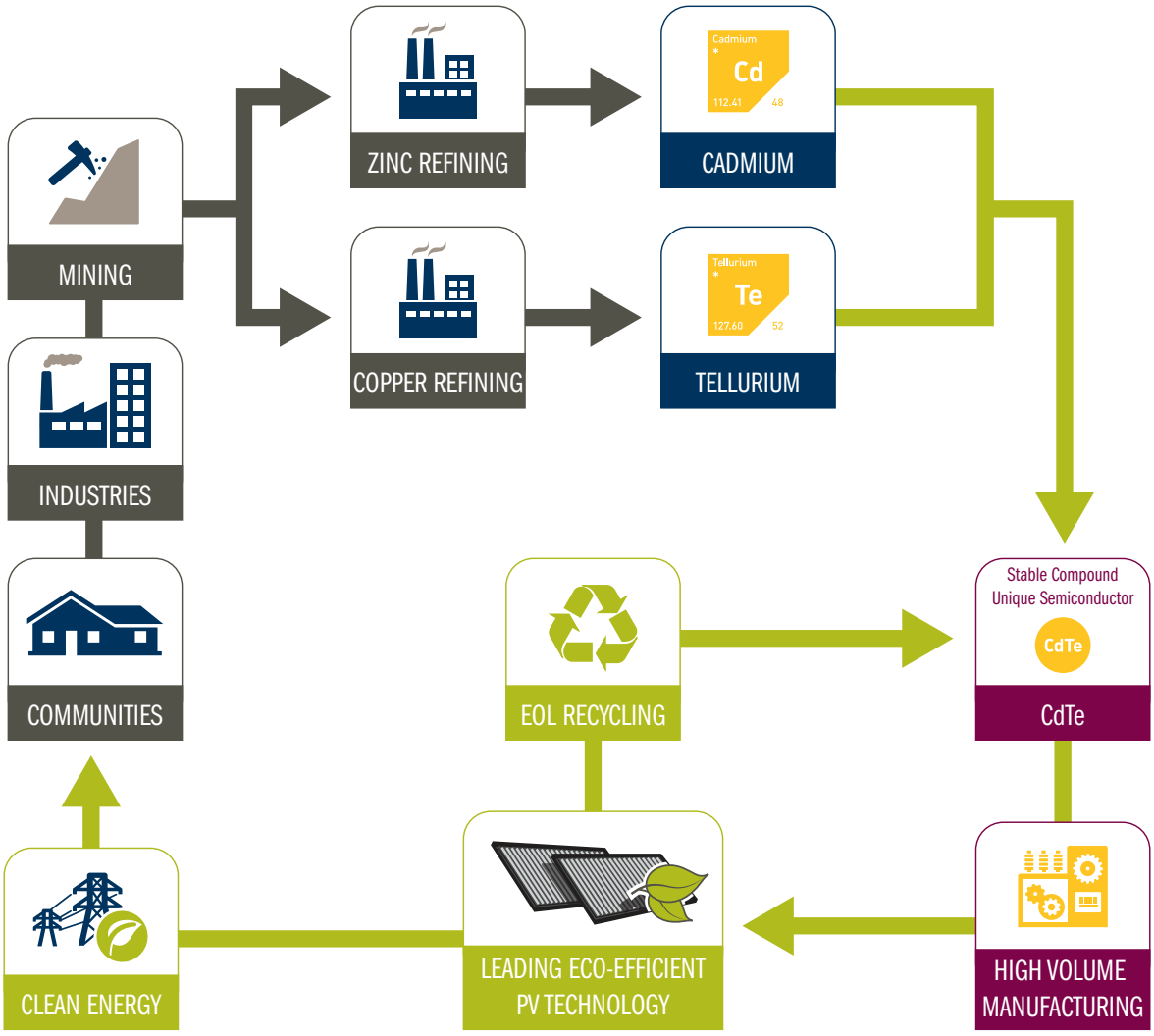
RESPONSIBLE LIFE CYCLE MANAGEMENT

3 Responsible Life Cycle Management

First Solar is committed to minimizing the environmental impacts and enhancing the social and economic benefits of our products across their life cycle, from raw material sourcing through product end-of-life.

Our semiconductor material is sustainably sourced from byproducts of the zinc and copper industries. Cadmium (Cd), a waste byproduct of zinc refining, and tellurium (Te), a byproduct of copper refining, are converted into a stable CdTe compound. Once encapsulated in First Solar modules, CdTe produces clean, affordable electricity throughout the modules' 25+ year lifetime. We are further reducing our life cycle impacts and increasing the eco-efficiency of our technology through our global recycling services.

Converting Mining By-products into a Leading Eco-Efficient PV Technology

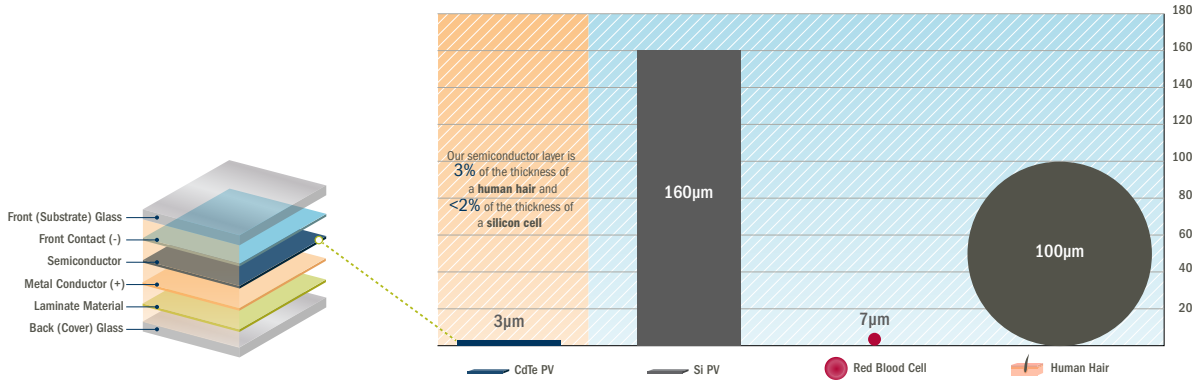


Leading Eco-Efficient PV Technology

First Solar's advanced thin film PV solutions are the industry's leading eco-efficient technology due to their superior energy yield, competitive cost and smallest life cycle environmental impacts.[3] We provide the highest efficiency thin film modules suited to utility scale applications with a proven real-world energy yield advantage and a Tier one bankability profile.[4] With our Series 6 technology, we aim to deliver even higher value, higher efficiency and lower costs.

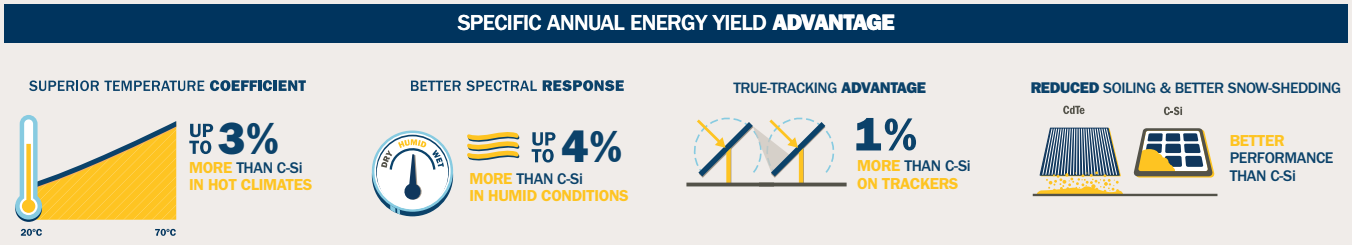
First Solar PV modules consist of a thin layer of semiconductor - approximately 3 percent the thickness of a human hair strand - encapsulated between two sheets of glass and sealed with an industrial laminate material. The CdTe semiconductor layer in First Solar modules is optimal for absorbing and converting sunlight into useful electricity and has a proven performance advantage over conventional crystalline silicon modules in harsh operating environments. Since CdTe is more efficient at absorbing light than indirect bandgap semiconductors such as silicon, First Solar modules use 98-99 percent less semiconductor material than conventional crystalline silicon modules. First Solar has identified multiple device improvements that could further reduce semiconductor intensity and increase these advantages compared to crystalline silicon modules.

Our glass-on-glass design is more robust and durable than backsheet materials, resulting in a strongly bonded monolithic structure. As a result, First Solar thin film PV modules produce no emissions to soil, air or water under normal operating conditions.



While module efficiency identifies the power produced by a module in standard test conditions (STC), the Specific Annual Energy Yield metric provides a more useful picture of the energy produced by the plant in a year under real world conditions. In addition to having a low temperature coefficient which reduces power losses at higher temperatures, our semiconductor material's narrower spectral response is less susceptible to dips in power that occur due to light absorption of water vapor in the atmosphere. While partial shading can dramatically impact a conventional crystalline silicon module, the unique cell design of First Solar modules minimizes power loss from shading, contributing a 1 percent energy yield advantage. In high temperature and high humidity climates, First Solar thin film modules with tracker mounting systems provide up to 8 percent greater specific annual energy yield compared to conventional crystalline silicon modules due to their low temperature coefficient and superior spectral and shading response.

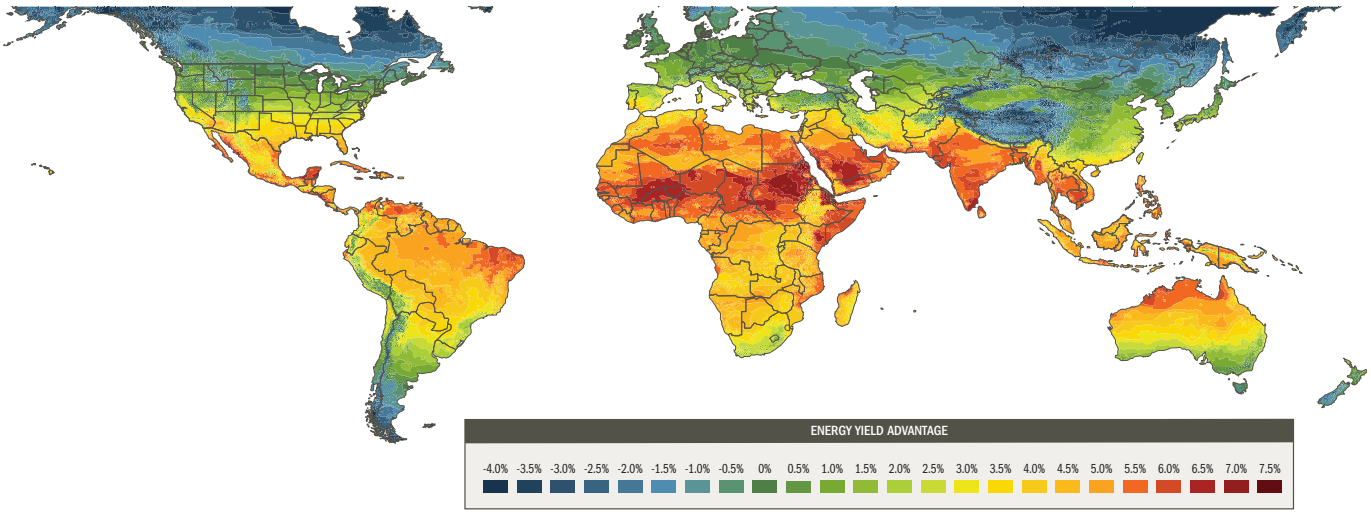
First Solar's Module Advantage | Specific Annual Energy Yield vs. mc-Si Panels



[3] M. Seitz, M. Kroban, T. Pitschke, S. Kriebe, 2013, Eco-Efficiency Analysis of Photovoltaic Modules, Bavarian State Ministry of Environment and Health.

[4] Green, M. A., Emery, K., Hishikawa, Y., Warta, W., Dunlop, E. D., Levi, D. H., and Ho-Baillie, A. W. Y. (2017) Solar cell efficiency tables (version 49). Prog. Photovolt: Res. Appl., 25: 3–13. doi: 10.1002/pip.2855.

First Solar Specific Annual Energy Yield Advantage in Different Regions of the World



When evaluating a solar power plant's return on investment (ROI), energy yield has one of the biggest impacts on the overall Levelized Cost of Electricity (LCOE). One of the biggest factors influencing the specific energy yield is spectral response; however standard PV simulation tools often do not adequately take it into account. In most cases, standard reference conditions (ASTM G173 spectrum, air mass of 1.5) do not match real world conditions. By applying a spectral correction, First Solar's **PlantPredict** software provides more accurate and sophisticated energy estimates for utility scale PV applications.

Third-party test sites operated by Fraunhofer ISE have validated our energy model by quantifying the climatic effect on the specific energy yield. First Solar's high efficiency thin film modules are proven to deliver more usable energy per nameplate watt than conventional silicon-based modules.[5] This means that for an equivalently designed and installed power plant priced at the same $/Watt, a First Solar plant will produce more energy, resulting in a lower LCOE ($/MWh).

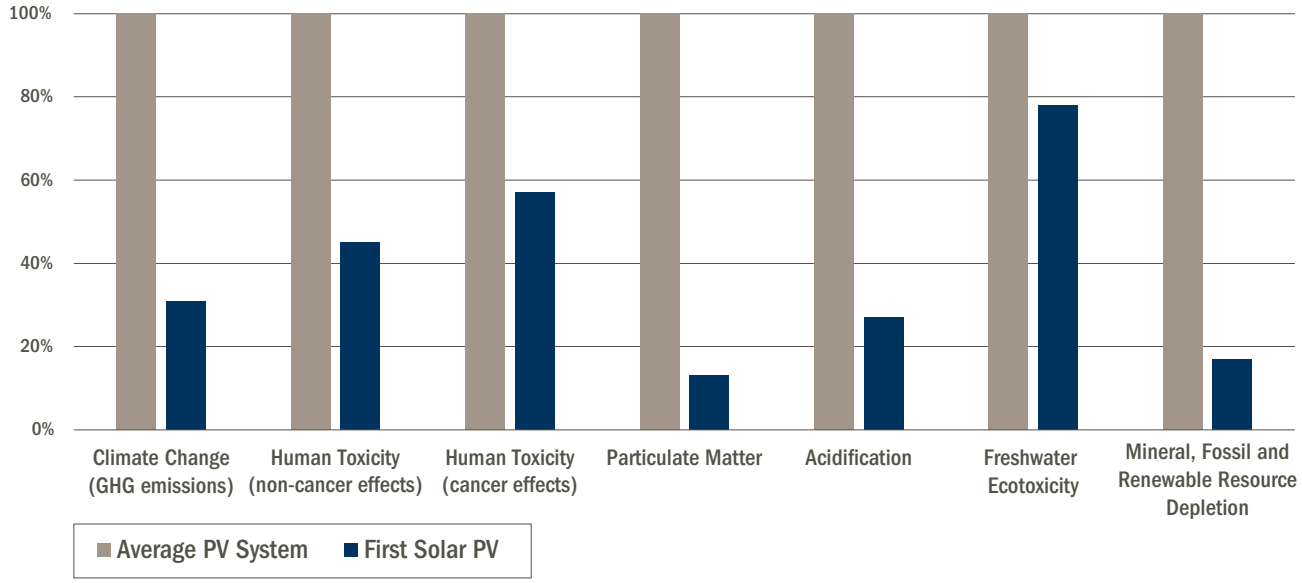
Smallest Environmental Footprint

In addition to delivering competitive, accessible and reliable solar electricity globally, First Solar energy solutions provide an ecologically leading solution to climate change, energy security and water scarcity. On a lifecycle basis, First Solar thin film modules have the smallest carbon footprint, lowest water use and fastest energy payback time of any PV technology on the market. A recent study evaluated the environmental footprint of five different PV technologies (CdTe, CIS, micromorphous-Si, multicrystalline-Si, monocrystalline-Si) in accordance with the European Commission's Product Environmental Footprint Guidance. On average, characterized impacts of a First Solar PV system are about two-thirds lower than the average PV system.[6]

[5] D. Dirnberger et al., "On the impact of solar spectral irradiance on the yield of different PV technologies," in Solar Energy Materials & Solar Cells, vol. 132 pp. 431–442, 2015.

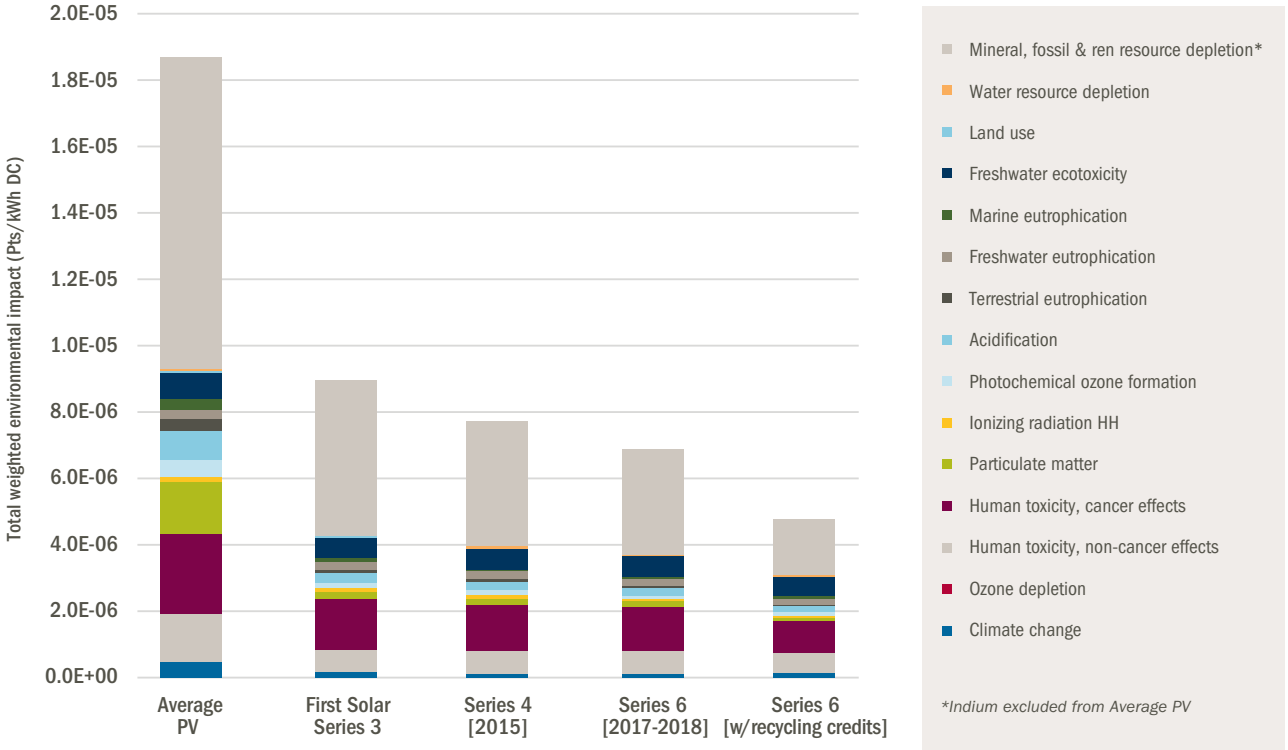
[6] First Solar, "First Solar Series 4 PV System Product Environmental Footprint," 2016. The environmental performance of the electricity produced with an average PV system is based on the market mix of PV panels in 2012 (45.2% multi c-Si, 40.5% mono c-Si, 6.3% CdTe, 3.5% CIS, 4.5% micromorph Si). Source: P. Stolz, R. Frischknecht, F. Wyss, and M. de Wild-Scholten, "PEF screening report of electricity from photovoltaic panels in the context of the EU Product Environmental Footprint Category Rules (PEFCR) Pilots, v. 2.0," treeze Ltd. and SmartGreenScans, 2016.

Environmental Impacts of First Solar PV Compared to Average PV System



Our sustainability advantage is set to increase with our Series 6 technology due to its larger form factor, higher anticipated efficiency of 17.5 percent and lower glass usage per m^2. By transitioning to our larger, more efficient and still recyclable Series 6 modules, the environmental footprint of our thin film PV technology is expected to be four times lower than the average PV module.[7]

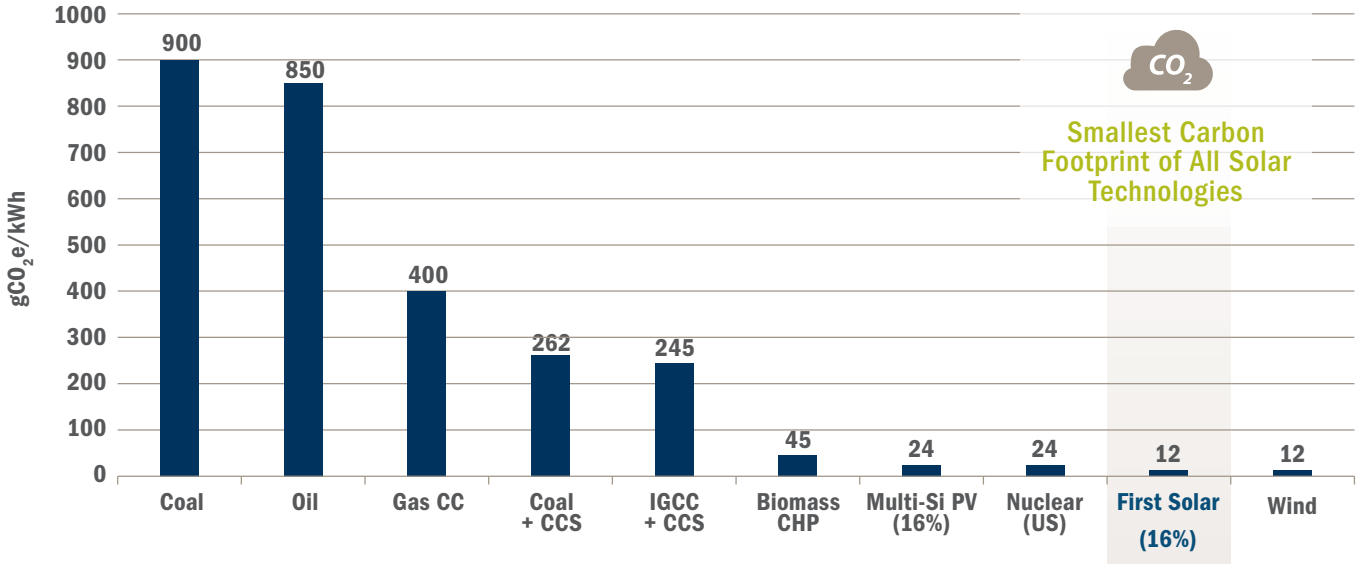
Total Weighted Environmental Impact Results of 1 kWh of DC Electricity Produced With a 3 kWp Mounted Installation[7]



Due to our efficient and fully integrated manufacturing process, First Solar modules have approximately half the carbon footprint of conventional crystalline silicon modules and a fraction of the carbon footprint of conventional energy sources.

[7] P. Sinha and A. Wade, Addressing Hot Spots in the Product Environmental Footprint of CdTe Photovoltaics, IEEE PVSC, 2017.

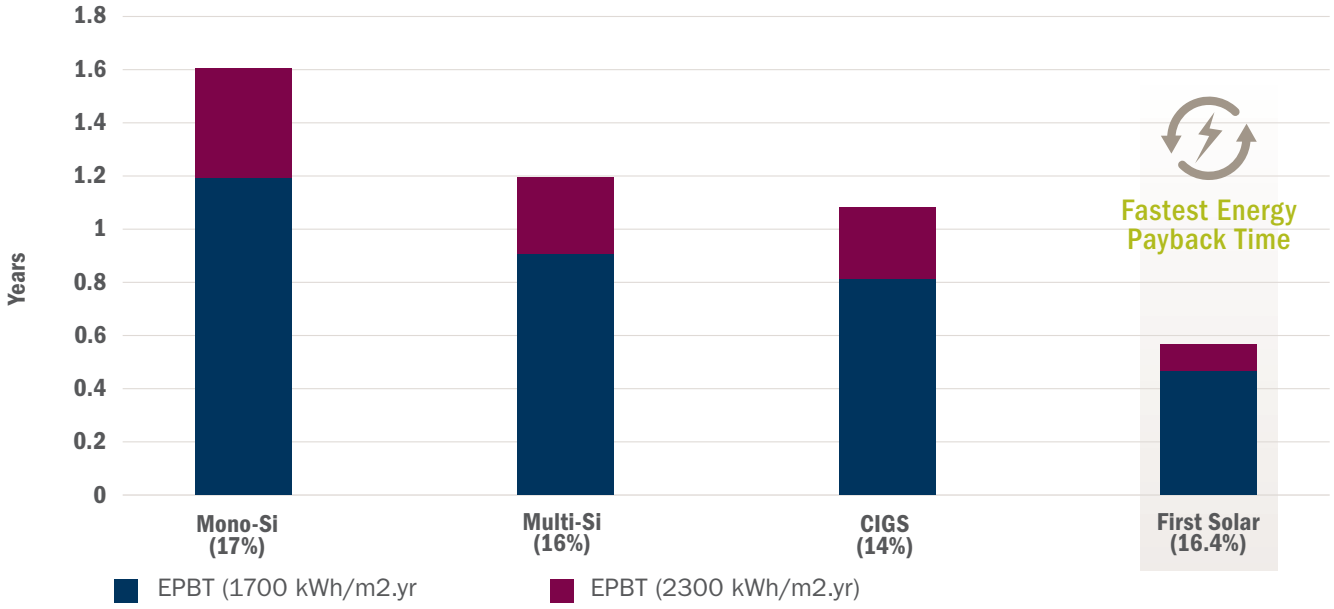
Life Cycle Carbon Footprint of First Solar Thin Film PV Compared to Other Energy Sources.[8]



Gas CC = Natural Gas Combined-Cycle | IGCC = Integrated Gasification Combined Cycle | CCS = Carbon Capture and Storage

In addition to having the lowest carbon footprint, First Solar PV systems have the fastest energy payback time (EPBT) of all solar PV technologies on a life cycle basis. Energy payback time is the amount of time a system must operate to recover the energy required to produce it. In less than six months under high irradiation conditions, First Solar PV power plants produce more energy than was required to create them. This corresponds to a 50-fold energy return on investment (EROI) over a 25 year project lifetime, providing abundant net energy gain to the electricity grid. A low energy payback time enables the rapid expansion of PV while achieving faster carbon reductions.

Energy Payback Time of First Solar Thin Film PV Compared to Other PV Technologies.[9]

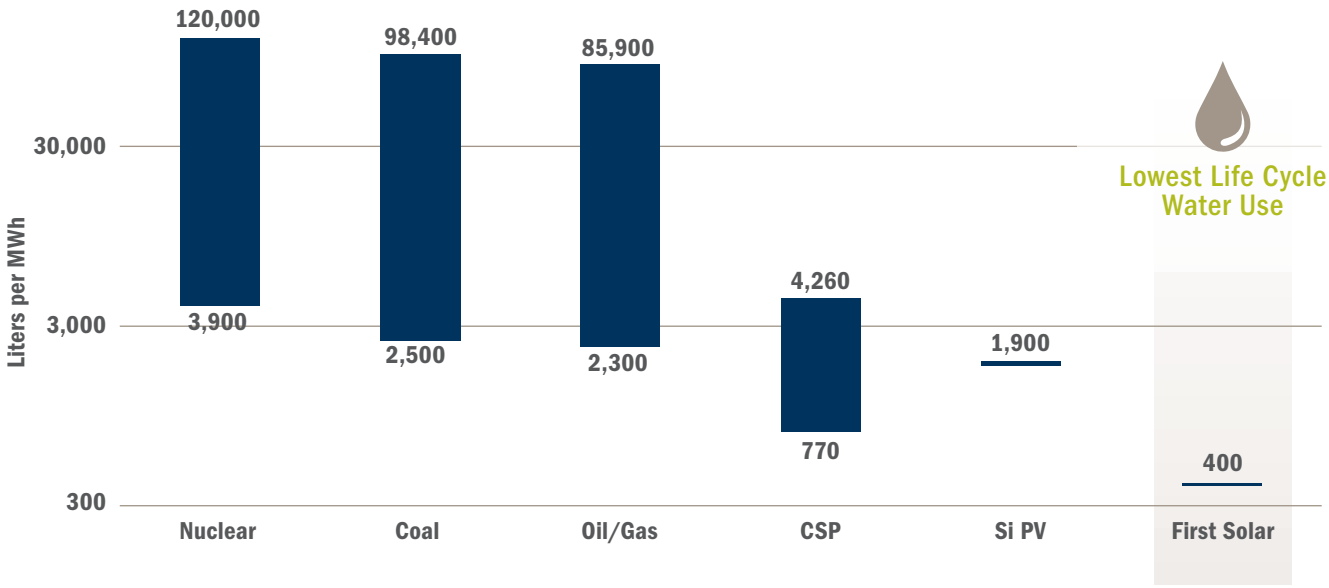


[8] M. de Wild-Scholten, Energy payback time and carbon footprint of commercial photovoltaic systems, Solar Energy Materials & Solar Cells 119, (2013), 296-305. (updated with 2015 module efficiency). Both PV technologies assume rooftop installation, 1700 kWh/m2/yr irradiance, UCTE grid, and 20% module degradation in 30 years. Coal, oil, gas data from ExternE project, 2003. Kim and Dale, Life Cycle Assessment of Biofuel Systems, 2005. Fthenakis and Kim, V. Fthenakis, H.C. Kim, Energy Use and Greenhouse Gas Emissions in the Life Cycle of CdTe Photovoltaics, 2006. Fthenakis and Alsema, Photovoltaics Energy Payback Times, Greenhouse Gas Emissions and External Costs: 2004–early 2005 status, Progress in Photovoltaics; Research and Applications, 2006.

[9] Leccisi, Raugei and Fthenakis, The Energy and Environmental Performance of Ground-Mounted Photovoltaic Systems—A Timely Update, MDPI, 2016. First Solar's energy payback time was updated to reflect 2016 average module conversion efficiency.

While energy security and climate change have been important drivers for renewable energy adoption, water security provides an additional driver. According to the International Energy Agency, the energy sector accounts for 10 percent of global water withdrawals.[10] By 2035, electricity generation could account for more than one-third of global water withdrawals.[11] The energy-water nexus associated with traditional energy sources is a growing concern particularly in water-stressed regions. According to a 2015 report by the United Nations World Water Assessment Program, the world is expected to have 40 percent less freshwater than it needs in 15 years, based on current usage rates. In addition to decarbonizing the global power generation portfolio, solar PV helps reduce the amount of water needed to generate electricity. Unlike thermal electric power plants and CSP, solar PV does not require any water to generate electricity during operation and is therefore ideally suited to meet the growing energy and water needs of arid, water-limited regions. On a life cycle basis, First Solar's thin film modules use up to 300 times less water per MWh than conventional energy and up to 12 times less water than other solar technologies.

Life Cycle Water Withdrawal Compared to Other Energy Sources (Liters per MWh)

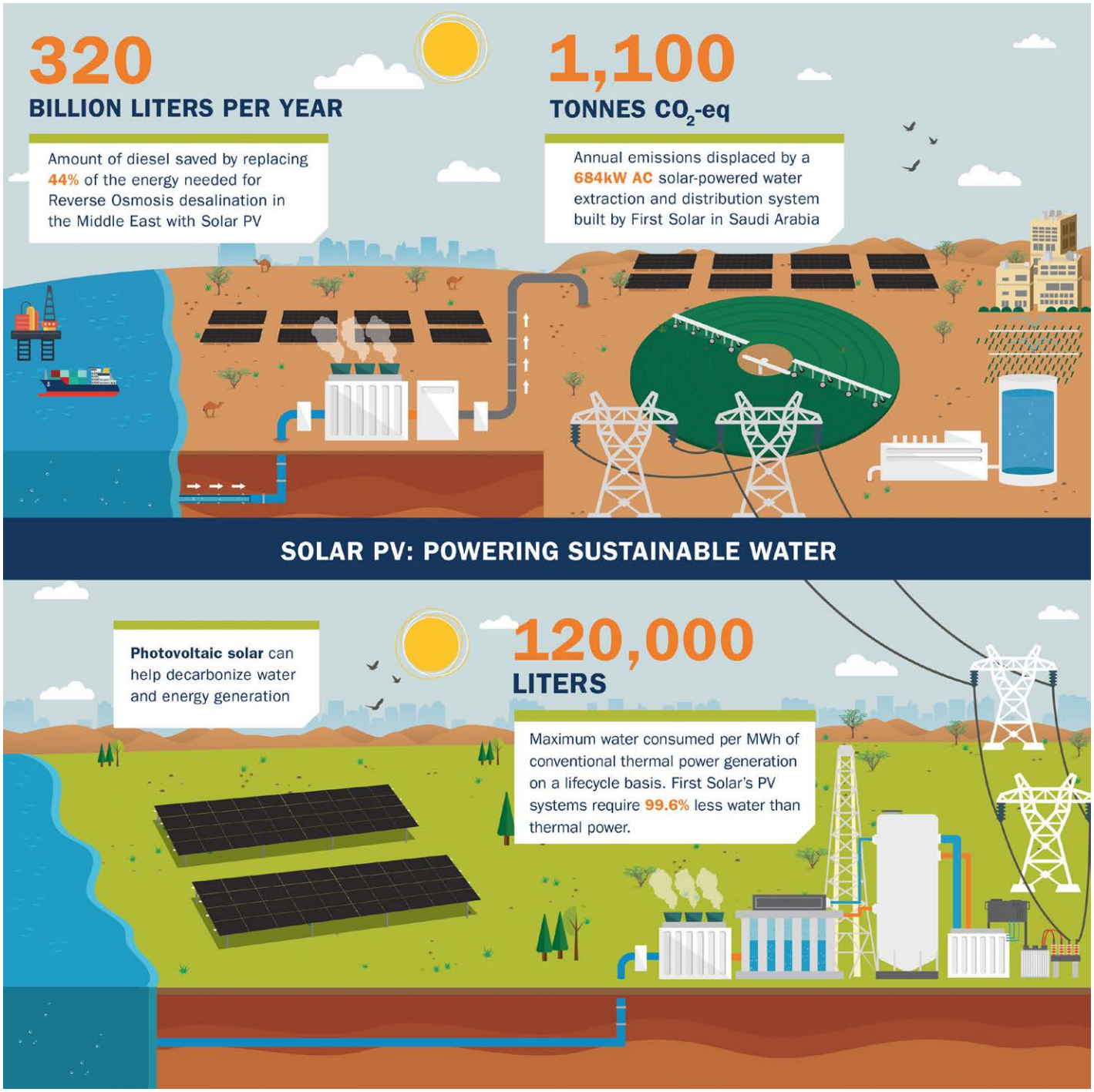


Source: Coal, oil, gas, nuclear, silicon PV data: Fthenakis and Kim. Life cycle uses of water in U.S. electricity generation. Renewable and Sustainable Energy Reviews vol. 14, pp. 2039–2048, 2010. CSP data: Meldrum, Nettles-Anderson, Heath, Macknick, Life cycle water use for electricity generation: a review and harmonization of literature estimates, Environmental Research Letters, 2013. CdTe PV data: Sinha, Meader and de Wild-Scholten, Life Cycle Water Usage in CdTe Photovoltaics, IEEE, Journal of Photovoltaics, 2012.

Every year, 17GW of First Solar modules save over 30 billion liters of water consumption per year which is equivalent to more than 12,000 Olympic swimming pools, based on worldwide averages.

[10] International Energy Agency, World Energy Outlook, 2016.

[11] United Nations World Water Assessment Programme, The United Nations World Water Development Report 2014: Water and Energy, Paris, UNESCO, 2014.

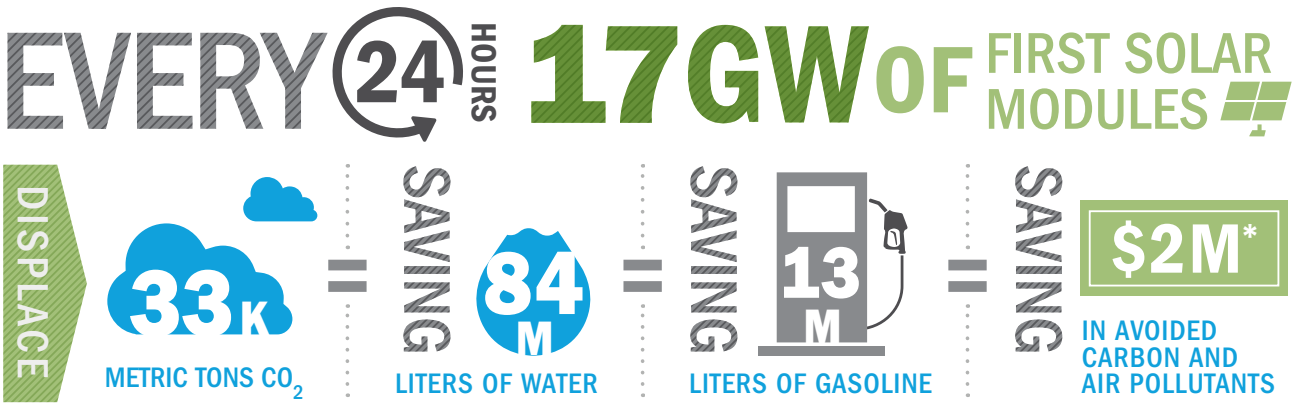

320
BILLION LITERS PER YEAR
Amount of diesel saved by replacing 44% of the energy needed for Reverse Osmosis desalination in the Middle East with Solar PV
1,100
TONNES CO_2-eq
Annual emissions displaced by a 684kW AC solar-powered water extraction and distribution system built by First Solar in Saudi Arabia
SOLAR PV: POWERING SUSTAINABLE WATER
Photovoltaic solar can help decarbonize water and energy generation
120,000
LITERS
Maximum water consumed per MWh of conventional thermal power generation on a lifecycle basis. First Solar's PV systems require 99.6% less water than thermal power.

Net Beneficial Carbon Impact

First Solar's eco-efficient PV modules and power plants are displacing more than thirty times the amount of greenhouse gas emissions we emit through our global operations. In 2016, First Solar's company-wide scope 1 and scope 2 greenhouse gas emissions amounted to approximately 0.4 million metric tons of CO_2 equivalent.[12] With over 17GW of modules installed worldwide, First Solar PV solutions are displacing more than 12 million metric tons of CO_2 equivalent per year resulting in a net beneficial carbon impact of over 11 million metrics tons CO_2e per year, assuming average worldwide irradiance and grid electricity emissions.

First Solar Annual Carbon Impact

(MT of CO_2 Emitted vs. Displaced in 2016)



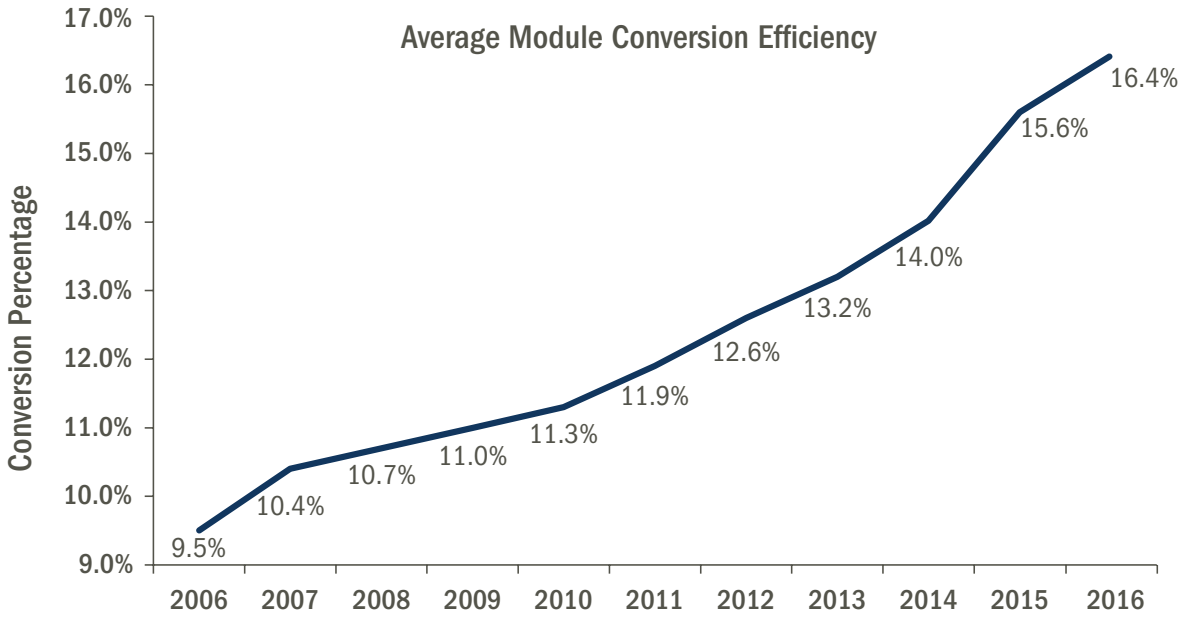
*Assumes a social cost of $0.02/kWh for carbon and $0.014 for other power sector emissions. Source: Wiser et al., The environmental and public health benefits of achieving high penetrations of solar energy in the United States, Energy 113 (2016) 472-486. http://dx.doi.org/10.1016/j.energy.2016.07.068

[12] Scope 1 includes direct GHG emissions from sources that are owned by the company e.g. emissions from fossil fuels burned on-site or emissions from company-owned vehicles. Scope 2 includes indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off-site but purchased by the company e.g. purchased grid electricity.

Continuous Improvement

In 2016, we invested over $124 million in research and development (R&D), more than any of our competitors. Our R&D efforts are focused on achieving the goals established in our cost and efficiency roadmaps to make solar a valued component of the global energy generation portfolio and increase our customer's financial savings. Our module efficiency has improved on average more than half a percent every year for the last 10 years.

In 2016, the average conversion efficiency of our modules was 16.4 percent, an 80 basis point improvement from our average conversion efficiency of 15.6 percent in 2015. First Solar recently achieved two new world records for CdTe PV efficiency, 1) achieving independently certified research cell efficiency of 22.1 percent and 2) an aperture area module efficiency of 18.6 percent and a total area module efficiency of 18.2 percent. Our research cell efficiency is a leading indicator of where our technology can ultimately go. By executing our roadmap to increase module efficiency, First Solar is simultaneously driving down emissions and the cost of solar electricity.



First Solar implements a robust Change Management System (CMS) to ensure product changes do not negatively impact product safety, reliability, environmental footprint or recyclability. Process changes and module design improvements undergo several test and validation runs before receiving final approval and being implemented across manufacturing facilities. Life cycle analysis is performed for significant product and manufacturing process modifications to assess environmental, health and safety impacts before any changes are implemented.

Industry-Leading Quality, Reliability And Safety

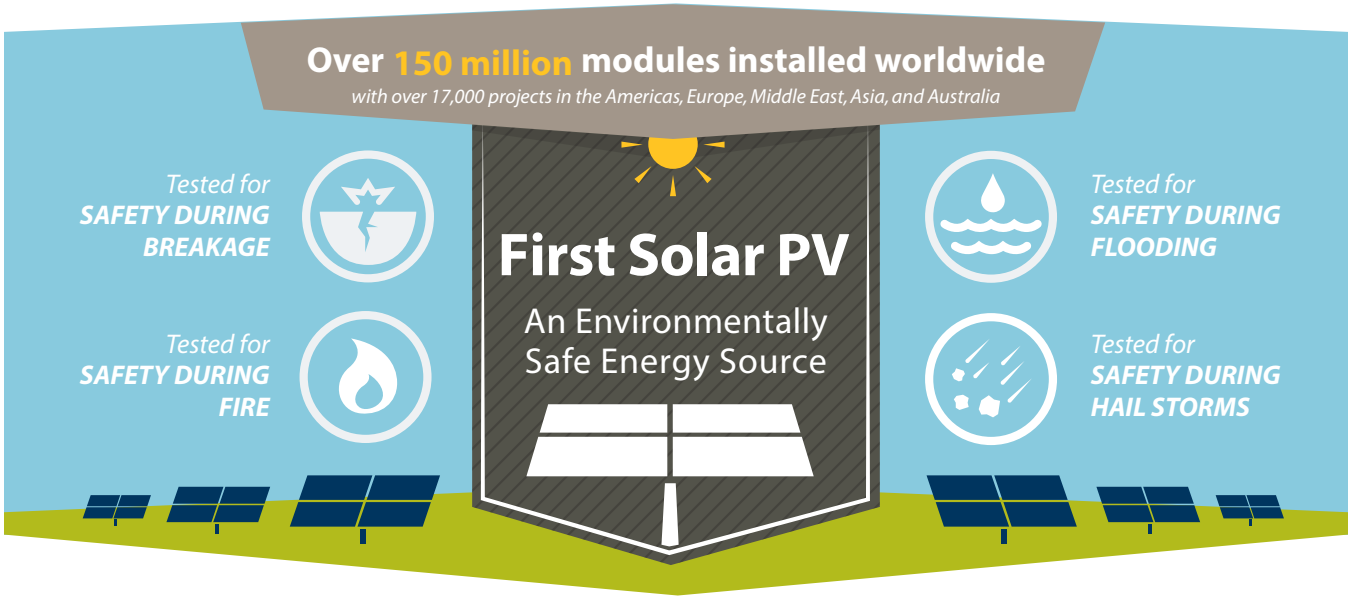
First Solar is committed to providing PV modules with world-class quality and reliability that deliver a predictable energy yield throughout the lifetime of a PV plant. Failure Mode and Effects Analysis (FMEA) is core to our innovation and enables First Solar to select the most robust and reliable materials and components. First Solar goes beyond industry testing standards and implements a continuous Product Reliability Monitoring ("PRM") program to ensure product reliability is maintained globally during high-volume manufacturing, giving customers project-specific reliability assurance without increasing the cost of supply. Our PRM process involves random sampling of manufacturing volume and testing for durability and power performance. The program is designed to supplement existing third-party tests and demonstrate reliability assurance continuously on every manufacturing line every week.

First Solar modules and PV power plants are certified to globally recognized standards for safety, quality, reliability and environmental sustainability to provide the most bankable PV solutions in the industry. Our modules are certified to regional standards including UL for North America, CEC for Australia, Golden Sun for China, MCS for the U.K. and JET for Japan. First Solar PV modules meet rigorous performance testing standards, demonstrating their durability and reliability in real-world environments. The performance of our modules and PV power plants are monitored through world-class outdoor test sites to provide high-level field validation.

- **1st thin film module** and one of only 5 modules in the world to pass the Long Term Sequential test
- **1 of only 4 modules** in the world to pass Atlas 25+ Durability Testing
- **1st PV company** to achieve world-class VDE Quality Tested certification for entire PV power plant systems

Testing the power plant as a whole lowers the levelized cost of solar electricity (LCOE) by optimizing system performance through a highly accurate energy yield report, ensuring the electrical and mechanical safety of the system and providing independent verification to investors, lenders and insurance companies.

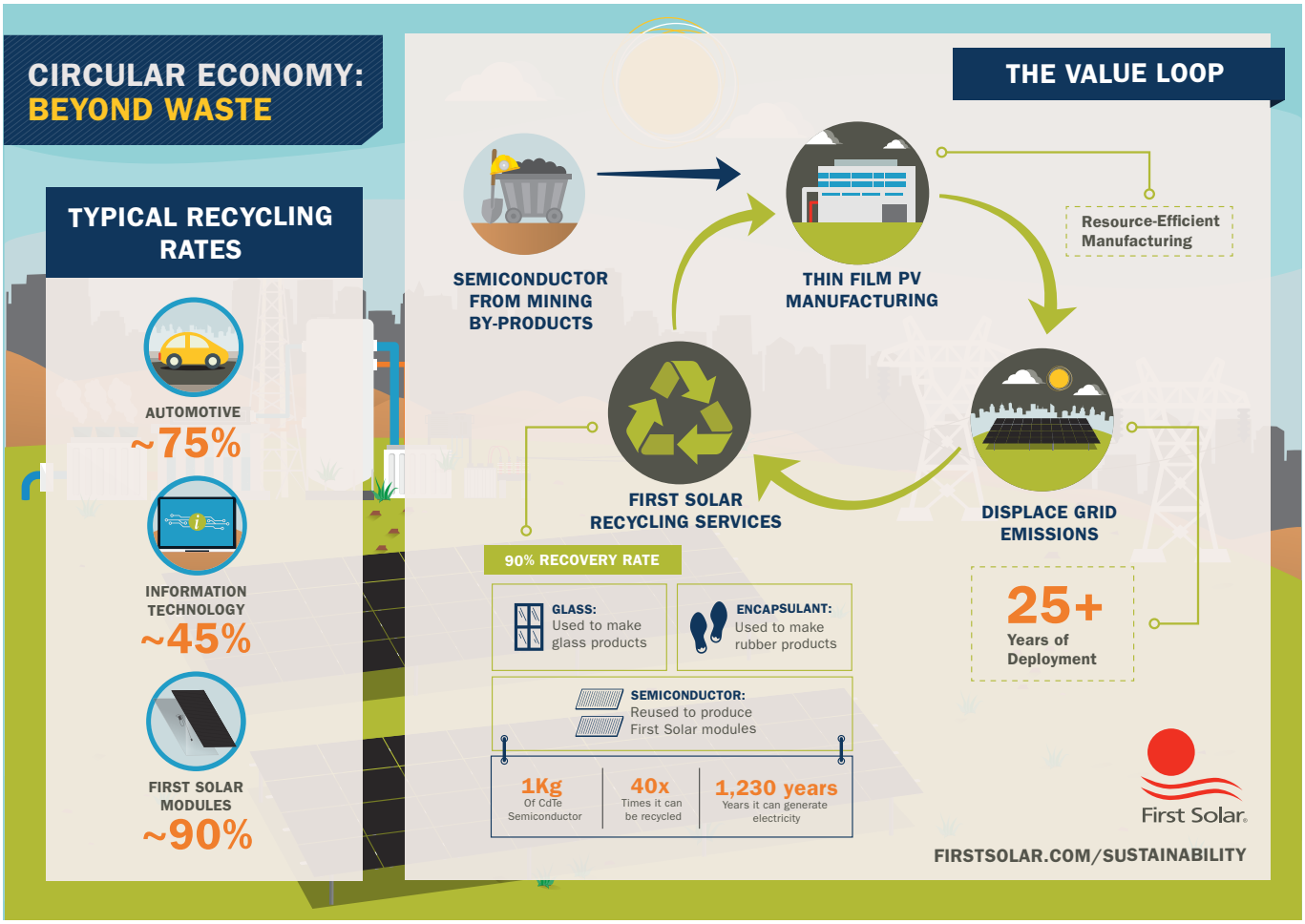
Test	Description	Results
IEC 61646/IEC 61730 Certification	Basic industry market entry certifications	**PASS** *1500V certification level*
Thresher Test	Multiplies basic IEC 61730/61646 test cycles and durations 2X to 4X	**PASS** *<5% Power Output drop*
Long-Term Sequential Test	6-month accelerated protocol to evaluate long-term harsh climate durability	**PASS** *1st thin film module, and one of only 5 modules in the world to pass.*
Atlas 25+ Certification	12-month weathering-intensive certification through projected 25+ year harsh climate field lifetimes	**PASS** *One of only 4 modules in the world to pass.*
IEC 62804 PID-Resistant Certification	Demonstrates high resistance to potential induced degradation at extreme ± 1500V voltages at most extreme 192hr 85C/85% RH test levels, enabling confident floating and grounded applications	**PASS** *1500V*
IEC 60068 Certification Desert Sand Resistance	Demonstrates minimal power loss and package integrity resistant to wind-blown particulates	**PASS**
Fraunhofer PV Durability Initiative	Durability benchmarking program rates modules according to their likelihood of performing reliably over their expected service life based on accelerated stress testing and long-term outdoor exposure	**PASS** *Best-in-class long term durability*



More than 40 researchers from leading international institutions have confirmed the benefits and safety of First Solar PV technology over its entire life cycle; during normal operation as well as foreseeable accidents such as fire or module breakage and through end-of-life recycling and disposal. First Solar modules are tested for safety during breakage, fire, flooding and hail storms to ensure their durability in the field. First Solar has extensive reliability testing capabilities with the ability to test more than 80,000 modules per year for light-induced degradation, resilience to wind, snow and ice loads, fire resistance under reverse current fault conditions, material adhesiveness, breakage resistance to hail impact and performance in the event of soiling or shading. With more than 17,000 projects and over 17,000MW installed worldwide, First Solar modules have a proven record of safe and reliable performance.

First Solar Recycling Program

First Solar has a long-standing leadership position in PV recycling. We established the industry's first voluntary global prefunded module recycling program in 2005, and are the only PV manufacturer capable of offering global PV recycling services today. With over a decade of experience in operating high-value PV recycling facilities on a global and industrial scale, our unrivalled in-house recycling expertise and infrastructure enables us to continually drive down recycling prices for our customers. First Solar's industry-leading recycling services enable PV power plant and module owners to meet their module end-of-life (EOL) obligation simply, cost-effectively and responsibly. Our state-of-the-art recycling facilities are operational in the U.S., Germany and Malaysia, and have a scalable capacity to accommodate high volume recycling as more modules reach the end of their 25+ year life.



Our high-value recycling process recovers approximately 90 percent of the glass for reuse in new glass products and over 90 percent of the semiconductor material for reuse in new modules. During the recycling process, First Solar modules are crushed and shredded to break the lamination bond. The crushed modules are chemically treated to recover semiconductor material from the glass. The unrefined semiconductor material is then sent externally for further processing. Once rinsed and cleaned, the glass is packaged so it can be reused in new glass products. In Malaysia, our laminate material is now being recycled for reuse in rubber mats, bicycle handles, and shoe soles, thereby further closing the loop on our product's life cycle. The remainder of the recycled module scrap (approximately 5 to 10 percent) which cannot be used in secondary raw materials is handled using other responsible waste treatment and disposal techniques. Due to the shredding, crushing and heating typically involved in recycling processes, material losses are inevitable and the recovery ratio is always less than 100%.[13]

[13] McKinney, Schoch, and Yonavjak, Mineral Resources, Environmental Science Systems and Solutions, Jones & Bartlett Learning, 2013.

First Solar PV Module Recycling Process

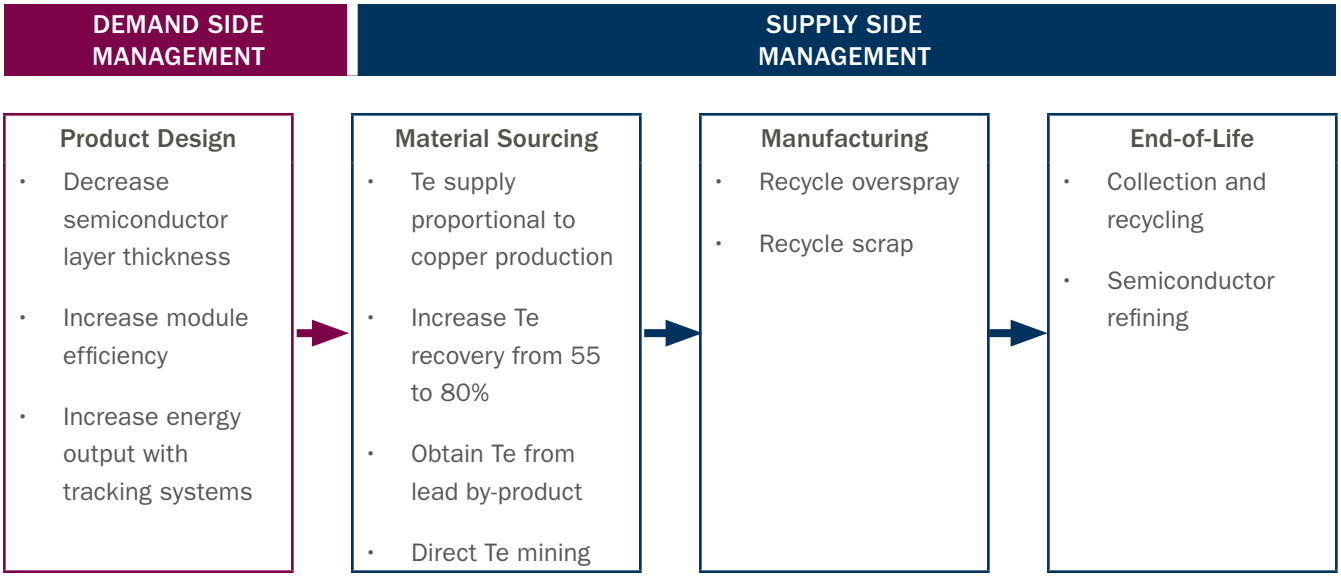
First Solar is proactively investing in recycling technology improvements and is implementing a cost reduction roadmap to drive down recycling prices. In 2015, we launched our third-generation recycling technology which achieves superior glass and semiconductor purity and requires 30 percent less capital, chemicals, waste and labor. The continuous flow process improves our recycling efficiency and throughput, increasing our daily recycling capacity from 30 tons to 150 tons. We aim to develop modular recycling facilities for smaller markets to enable in-country recycling and reduce transportation costs.

Raw Material Availability

First Solar's semiconductor material is manufactured from byproducts of zinc and copper refining. Cadmium is generated in substantial quantities regardless of its use in PV, primarily as an unavoidable by-product of zinc production which is needed to produce steel products. A future oversupply of Cd is projected as current demand for Cd decreases and zinc production increases. Thin film PV systems provide a sustainable use for Cd which would otherwise be stored or disposed of.[14] Te is largely supplied from the byproducts of copper production, which have been growing at a rate of approximately 1-3 percent per year.[15,16] Tellurium (Te) is managed through both demand and supply side strategies, see figure below.[17] On the supply side, production could be expanded by improving Te recovery from copper anode slimes and beginning to recover Te from non-traditional byproduct streams. On the demand side, progress in PV module conversion efficiency and manufacturing will continue to reduce the demand for Te per Watt produced. First Solar is actively pursuing multiple technical programs, such as bandgap engineering, to achieve step change improvements in tellurium requirements. First Solar maintains a strategic reserve of tellurium products to decrease exposure to tellurium supply or price volatility.

In the longer term, end-of-life recycling is expected to be an important additional source of Te supply. In 2016, approximately 8 percent of our semiconductor material came from recycled input materials. As more First Solar modules reach the end of their useful life, this percentage is likely to increase. Researchers from independent institutions have concluded that a combination of improvements in PV module Te intensity, Te recovery from copper ores and recycling could lead to annual production of CdTe PV on the order of 100GW per year by mid-century at reasonable cost, which would enable terawatt-scale deployment on the order of a decade.[18,19,20]

Demand and Supply-Side Tellurium Management Strategies



[14] Matsuno, Y., T. Hur, and V. Fthenakis. 2012. Dynamic modeling of cadmium substance flow with zinc and steel demand in Japan. Resources, Conservation and Recycling, 61: 83– 90.

[15] Zweibel, K., 2010, The Impact of Tellurium Supply on Cadmium Telluride Photovoltaics, Science, 328: 699-701.

[16] Redlinger, M., Lokanc, M., Eggert, R. G., Woodhouse, M., Goodrich, A. C, 2013, The Present, Mid-Term, and Long-Term Supply Curves for Tellurium: And updates in the results from NREL's CdTe PV module manufacturing cost model"; Available at: http://www.nrel.gov-docs-fy13osti-60430.pdf

[17] Sinha, P. 2013. Life Cycle Materials and Water Management for CdTe Photovoltaics. Solar Energy Materials and Solar Cells, 119, 271-275.

[18] Redlinger et al., 2013.

[19] Houari, Y. J. Speirs, C. Candelise, and R. Gross. 2013. A system dynamics model of tellurium availability for CdTe PV.

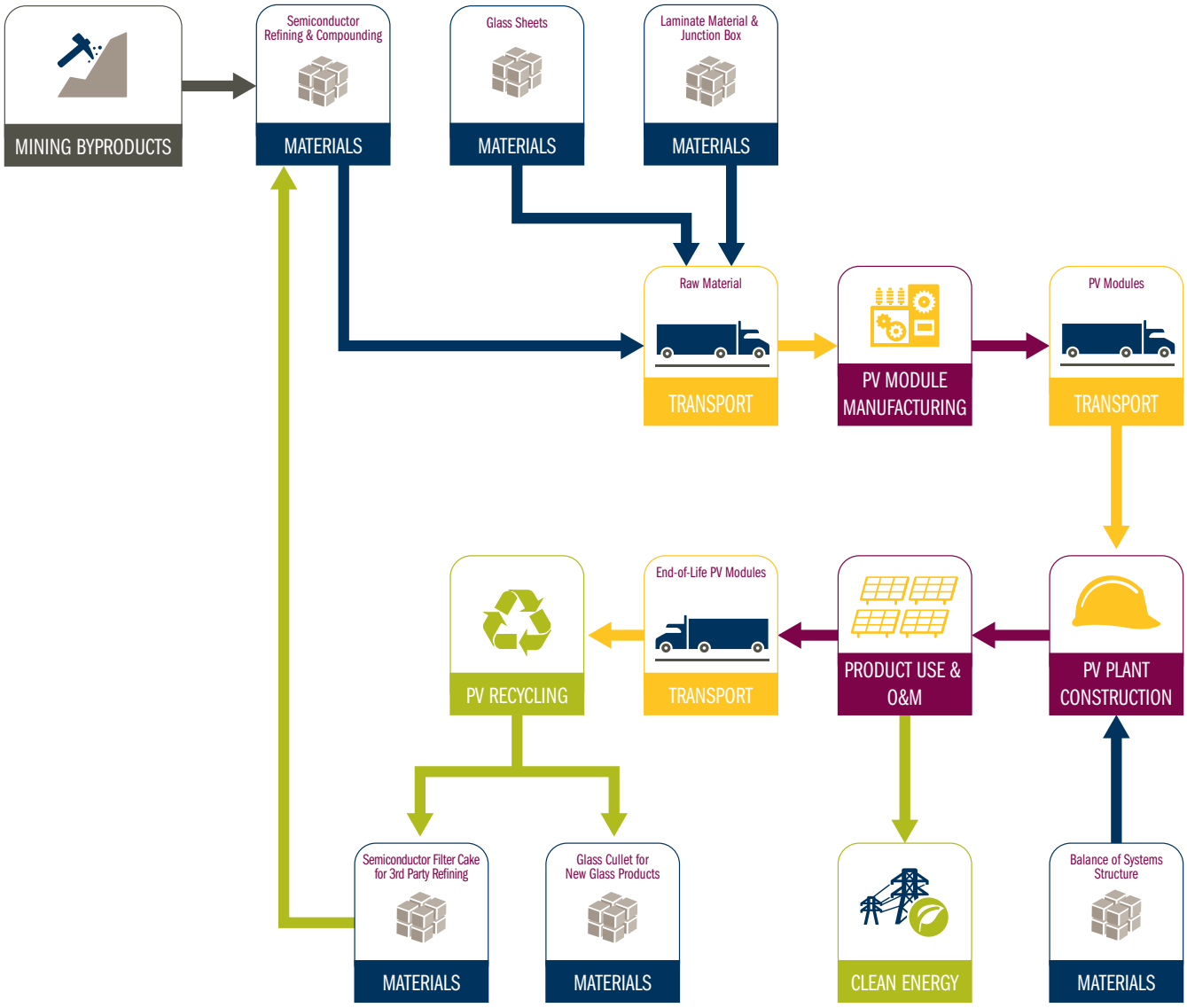
[20] Fthenakis V.M. 2012. Sustainability metrics for extending thin-film photovoltaics to terawatt levels. MRS Bulletin. Vol. 37: 425-430.

4

SUPPLY CHAIN SUSTAINABILITY

4 First Solar Supply Chain Overview

Our thin film module manufacturing process uses approximately 30 types of raw materials and components to construct a complete solar module. Critical raw materials and components in our manufacturing process include cadmium telluride, front glass coated with transparent conductive oxide, photo resist, laminate material, tempered back glass, junction boxes, cables and solar connectors. First Solar has one product, one process and one Bill of Materials resulting in a tightly controlled and consistently manufactured quality product in contrast to many traditional tier one crystalline silicone manufacturers who have multiple products, processes and Bill of Materials with a sprawling supply chain resulting in increased variability and quality and reliability risks.

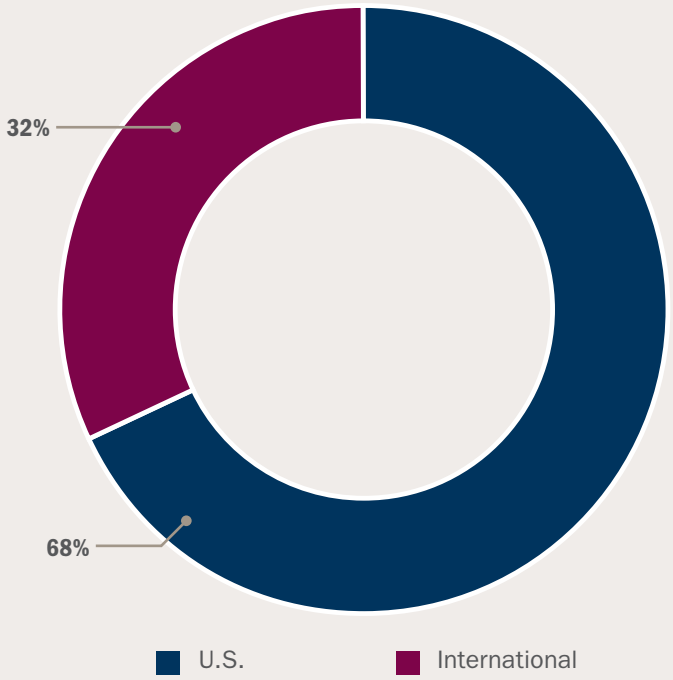


In 2016, First Solar spent approximately $3.1 billion on its global supply chain. Our data includes our manufacturing bill of materials, project spend, capital spend and indirect expenses. The data includes all credit memos. Approximately $2.1 billion or 68 percent was spent on local suppliers in the U.S. to support our module manufacturing operations and solar project development. In total, we estimate we are creating over 47,000 direct, indirect and induced jobs across the supply chain worldwide.[21]

At First Solar, we recognize that diversity and inclusion is a driving force in the success of our company. Our commitment to diversity is about building projects that support the growth and success of the small and disadvantaged contracting community. We are actively pursuing ways to increase our spending with diverse business enterprises (DBEs).

We are in the process of building lasting business relationships through the continuous development and engagement of DBEs as partners.

Global Supply Chain Spend by Region*



*** Data is based on where a purchase order is placed, not necessarily where work is performed.**

[21] The estimated job creation includes actual First Solar associate jobs and estimated supply chain jobs based on calculations provided by the University of Massachusetts Department of Economics and Political Economy Research Institute (PERI) in The Economic Benefits of Investing in Clean Energy. Direct jobs= 5.4 jobs/$1M spend; Indirect Jobs= 4.4 jobs/$1M spend; Induced jobs= .4 jobs (Direct + Indirect). Total First Solar annual spend was more than $3.1 billion in 2016.

Supplier Qualification and Assessment

First Solar utilizes a supplier selection scorecard process to identify the right supplier partners who can meet our technical, quality and commercial needs. Before any materials are used in our manufacturing process, a supplier must undergo a rigorous qualification process. First Solar's Supplier Qualification process is linked to our Change Management System and is used to qualify any new suppliers and materials. First Solar inspects over 1,000 material qualities per day and issues over 6,000 certificates of analysis per year. When possible we attempt to use suppliers that can provide a raw material supply source that is near our manufacturing locations, reducing the cost and lead times for such materials.

First Solar performs periodic cross-functional team reviews of our critical suppliers' performance using a balanced scorecard which focuses on the areas of Quality, Cost, Flexibility, Service, Technology and Sustainability. During these business reviews we communicate First Solar's state of the business and work in partnership with our supply base to develop the best course of action for them to support our dynamic needs.

First Solar continues to validate supplier quality through annual audits and weekly meetings with key suppliers. The EHS section of our supplier audit tool uses the Electronics Industry Citizenship Coalition ("EICC") Code of Conduct as a framework and encompasses topics such as environmental management, health and safety, labor and human rights, and ethics. Our supplier scorecards provide a rating system which is used to evaluate the supplier performance and track any year over year change. First Solar's Supplier Quality group trends and monitors on a monthly basis the number of non-conformances and drives the supplier to provide permanent corrective actions to prevent any reoccurrence of issues.

Human Rights Standards and Practices

"People Matter" is a core value at First Solar and we are committed to protecting human rights, enforcing fair labor practices and addressing the potential risks of forced labor, child labor, human trafficking and slavery across our supply chain. First Solar recognizes the principles set forth in the International Labour Organization (ILO) 1998 Declaration on Fundamental Principles and Rights at Work and is committed to complying with the laws established to protect human rights in each country in which we operate. First Solar's Labor and Human Rights Policy is available on our website: http://www.firstsolar.com/Resources/Sustainability-Documents

First Solar's supplier agreements require compliance with applicable laws. First Solar supports the Solar Energy Industries Association (SEIA) Solar Industry Commitment to Environmental & Social Responsibility ("Solar Commitment") as well as the EICC Code of Conduct as part of our commitment to continuous progress of environmental and social responsibility in the solar industry.[22]

In compliance with the California Transparency in Supply Chains Act (SB 657), First Solar is committed to addressing the potential risks of human trafficking, forced labor and slavery in our supply chain by:

1. Verifying our suppliers' adherence to quality, sustainability and social responsibility through supplier contractual agreements, scheduled visits and audits of their facilities. Violation of any Labor Standards may result in the termination of First Solar's business relationship with the supplier.

[22] The EICC Code of Conduct and SEIA Commitment are informed by many international instruments including the 1948 Universal Declaration of Human Rights of the United Nations, the Ten Principles of the Global Compact of the United Nations, and certain ILO Conventions.

2. Requiring direct suppliers to certify that materials supplied to First Solar and incorporated into First Solar's products (i) comply with all applicable laws, and (ii) are manufactured in full compliance with applicable laws, which includes laws enforcing fair labor standards and prohibiting slavery and human trafficking.

3. Ensuring internal accountability standards by requiring all First Solar directors, officers and employees to act ethically and in compliance with First Solar's Associate Handbook and **Code of Business Conduct and Ethics** which is available on our website.

First Solar's Global Compliance Organization manages the company's ethics and compliance program. The goal of this organization is to implement policies, processes, training, monitoring and general awareness programs to promote ethics and compliance with applicable legal and regulatory standards. Subject to the requirements of local law, and after due diligence and full and fair investigation, any employee found to have directly engaged in or knowingly engaged suppliers engaged in slave labor or human trafficking will be subject to immediate termination of employment.

Providing training on SB 657 and other Federal and International anti-human trafficking regulations to all First Solar employees that engage in procurement activities with third parties, including suppliers. First Solar's Avoiding Trafficked Labor training includes the following objectives: Recognizing and communicating awareness of human trafficking risks relevant to First Solar's business; assuring compliance with trafficking-related statutes and regulations; and formulating plans to identify and avoid trafficked labor in each specific business unit at First Solar.

Conflict Minerals

First Solar is committed to responsible sourcing and operating a supply chain free of conflict minerals.[23] We support the goals established under Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") on conflict minerals and condemn human rights abuses associated with the extraction, transport or trade of minerals and any direct or indirect support to non-state armed groups or security forces that illegally control or tax mine sites, transport routes, trade points or any upstream actors in the supply chain.

First Solar's **Conflict Mineral Policy** published on our website, communicated to our suppliers, and incorporated into supplier contracts. We require all our direct suppliers to agree to and follow these principles. First Solar is committed to complying with the reporting obligations required under Section 1502 of the Dodd-Frank Act and the U.S. Securities and Exchange Commission's rules on conflict minerals, including the requirement to conduct inquiries and, if necessary, due diligence into the source and chain of custody of any conflict minerals included in our products. In accordance with SEC rules, we conducted a materials content analysis to identify whether any products we have manufactured and contracted to manufacture contain certain conflict minerals and implemented a Reasonable Country of Origin Inquiries (RCOI) process to determine whether any of the conflict minerals originated, or may have originated, in the covered countries and whether such conflict minerals originated from recycled or scrap sources. Our direct suppliers performed similar RCOI procedures to identify the chain of custody from their suppliers back to the smelter and origin. We aim to advance the effectiveness of our due diligence efforts and further enhance our compliance processes as part of our continuous improvement efforts to mitigate risk. **First Solar's Specialized Disclosure and Conflict Minerals reports** are available on our public website (see "other" filings).

[23] Conflict Minerals include cassiterite, columbite-tantalite (colton), gold and wolframite and their derivatives, tin, tantalum, and tungsten (or any other mineral or its derivative determined by the Secretary of State) which are sourced from the eastern Democratic Republic of the Congo ("DRC") or an adjoining country (together, the "Conflict Region") whose extraction and trade are financing conflict in the Conflict Region.

5

OPERATIONAL EXCELLENCE

5 World-Class Manufacturing

First Solar is minimizing the company's operational impact and driving continuous improvement through increased module and manufacturing throughput efficiency, conservation projects and on-site PV installations. All First Solar manufacturing sites are certified to globally recognized standards: ISO 14001 for Environmental Management, ISO 9001 for Quality and OHSAS 18001 for Occupational Health and Safety. We foster a culture where environmental, health and safety (EHS) is an integral part of our associates' work and require our contractors and suppliers to adhere to our standards and commitments. First Solar's Environmental, Health and Safety Policy is available on our website: http://www.firstsolar.com/Resources/Sustainability-Documents

First Solar modules are manufactured in a high-throughput, automated environment that integrates all manufacturing steps into a continuous flow line. During the manufacturing process, a thin semiconductor layer is continuously applied onto glass substrates using a high temperature Vapor Transport Deposition process. Laser scribes are then used to define individual cells and monolithic integration for cell interconnection. First Solar's fully integrated manufacturing process requires less energy, water and semiconductor material than conventional crystalline silicon, enabling First Solar thin film modules to have the smallest carbon footprint, lowest life cycle water use and fastest energy payback time of all solar technologies. In less than 3.5 hours, a sheet of glass is transformed into a complete PV module — flash tested, boxed and ready for shipment.

Since 2009, First Solar has reduced its operational energy, water, waste and carbon intensity through improvements in module efficiency and manufacturing throughput, ramping up capacity utilizations of our manufacturing facilities and implementing resource conservation projects. We met and exceeded our goal to reduce our greenhouse gas (GHG) emissions intensity by 35 percent by 2016 from a base year of 2008. We continually strive to minimize our operational impact and drive continuous improvement to enable First Solar's capacity to endure and to scale.

We have received global recognition for our state-of-the art environmental controls and performance, world-class health and safety practices, industry-leading quality and reliability and manufacturing excellence. In 2015, our manufacturing site in Malaysia was awarded the prestigious Prime Minister's Hibiscus Award. In 2016, our Perrysburg campus received the Ohio EPA's Encouraging Environmental Excellence Gold Level Award and First Solar's Santa Clara office received the Bay Area Green Business Program certification for efforts to ensure that our business operates in an environmentally friendly manner.

The Ohio EPA recognized First Solar Perrysburg with the Encouraging Environmental Excellence (E3) Gold Level Award.

The Ohio EPA E3 Gold Level Award is designed to recognize businesses that exceed regulatory compliance obligations and commit to long-term strategies to reduce waste, lower emissions and improve environmental performance. Applicants must pass a comprehensive compliance check, maintain an environmental management system and commit to continuous environmental improvement. First Solar is the 18th business in Ohio to receive the gold-level award.

> "First Solar is an outstanding Ohio business. This really is an exclusive club. You've got one of the best programs we've ever seen."
>
> *—Craig W. Butler, Ohio EPA Director.*

First Solar Malaysia was awarded the 2014/2015 Prime Minister's Hibiscus Award for environmental excellence.

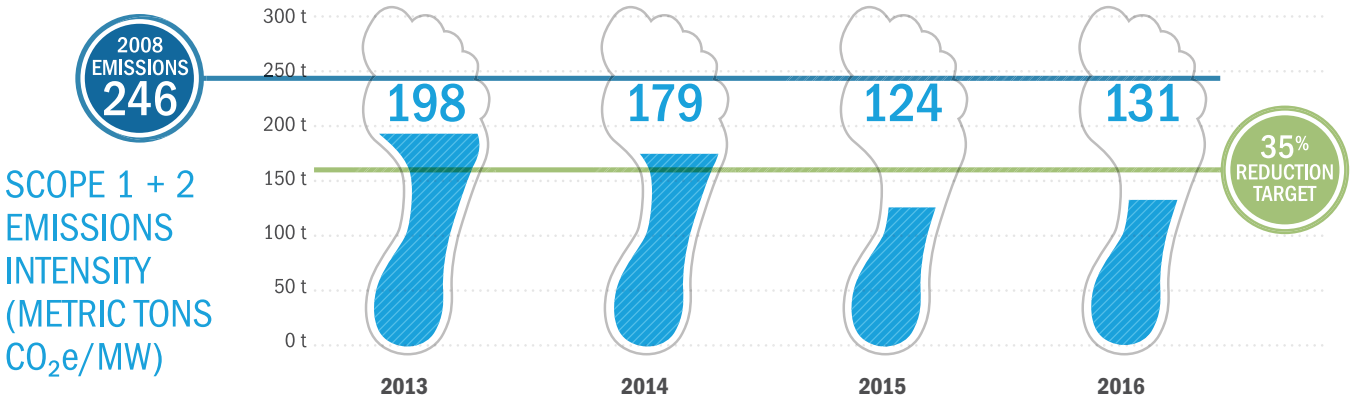
The Prime Minister Hibiscus Award was first launched in 1996 to recognize companies for their commitment and contributions to environmental protection. Winners of the award are widely recognized as corporate role models for their environmental performance and excellence. First Solar Malaysia received the Exceptional Achievement Award, the State Award for the best awardee in Kedah state, along with a Gold Award for the Special Project Award that showcased an environmental project on renewable resources.

Greenhouse Gas Emissions Goal

We surpassed our goal to reduce our GHG emissions intensity by 35 percent by 2016 from a base year of 2008. The chart depicts direct (scope 1) and indirect (scope 2) emissions of all manufacturing and recycling plants, R&D and testing facilities, EPC-owned construction equipment, company-owned operational solar projects, and company-owned vehicle fleet on a carbon intensity basis measured per MW produced.[24]

Since 2008, we've reduced our company-wide carbon intensity by 47 percent through increased module effi¬ciency, manufacturing throughput, and capacity utilization, decreased emissions intensity of purchased grid electricity, and energy conservation and low carbon initiatives. In 2015, First Solar's emissions intensity decreased by more than 30 percent and the company's absolute emissions decreased by 6 percent. The slight increase in our emissions intensity in 2016 was due to a change in the site-specific CO_2 emission factor of grid electricity purchased in Malaysia.

Greenhouse Gas Emissions 2013-2016



We expect the transition to Series 6 manufacturing to impact our energy usage due to the introduction of new equipment. However, we are incorporating energy and water efficiency measures into new buildings and tool designs in order to manage our operational impacts. We have set a new five-year goal for 2021 to reduce our greenhouse gas emissions intensity per watt produced by 45 percent compared to our 2008 baseline.

Energy Conservation Initiatives

First Solar is implementing energy efficiency initiatives and installing onsite PV installations as part of our standard manufacturing system design at our production sites in Ohio and Malaysia and at our recycling facility in Frankfurt Oder, Germany.

2.75MW AC Rooftop and Ground-Mount PV Installation at First Solar's Perrysburg, Ohio Manufacturing Facility.

[24] Scope 1 includes direct GHG emissions from sources that are owned by the company e.g. emissions from fossil fuels burned on-site or emissions from company-owned vehicles. Scope 2 includes indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off-site but purchased by the company e.g. purchased grid electricity.

The Perrysburg PV installation generates enough energy to power 290 average local homes, displacing 1,920 metric tons of CO_2-eq emissions per year, based on the regional average grid. Our Perrysburg, Ohio facility uses solar electric power to offset peak demand. On the hottest days of the year in Ohio, we limit our energy usage by implementing an Energy Load Shedding Reduction Initiative to reduce the burden on the regional grid during peak hours.

2.9 MW Rooftop PV Installation at First Solar's Recycling Facility in Frankfurt Oder, Germany.

First Solar Malaysia has one of the largest installations of a grid-connected carpark solar PV system in Malaysia. In 2015, First Solar installed 7,820 modules to supply power to our manufacturing facility in Kulim, Malaysia. The 750kW installation generates enough energy to power 350 average Malaysian homes and displace 750 metric tons of CO_2-eq annually, which is the equivalent of removing 150 cars from the road and saving over 1.4 million liters of water per year, based on national averages.

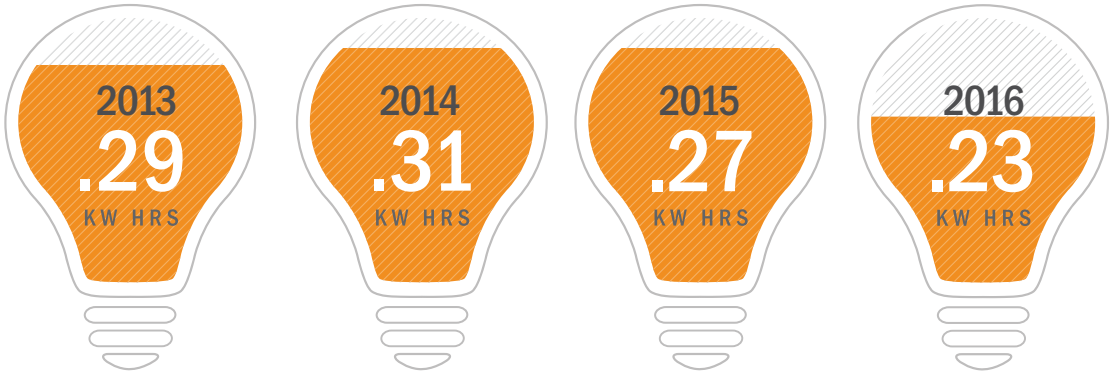
750 kW AC PV Installation at First Solar's Manufacturing Facility in Kulim, Malaysia.

2015-2016 Energy Efficiency Initiatives

Activity Type	Energy and Carbon Saving Initiatives	Investment Required (USD)	Annual CO_2e savings (metric tonnes)	Annual Monetary Savings (USD)
Energy efficiency: Building Services	In 2015, we installed energy efficient LED lighting at our manufacturing plants in Ohio and Malaysia, resulting in annual energy savings of 9,192 MWh.	1,205,190	3,626	961,278
Energy efficiency Processes	In 2015, we identified and reduced Compressed Dry Air (CDA) leakage at our manufacturing facilities in Ohio and Malaysia, resulting in annual energy savings of 1,178MWh.	9,700	803	100,000
Energy efficiency: Building Services	In 2015, we added 7,820 modules to power our manufacturing facility in Kulim, Malaysia. The 750kW installation includes a sophisticated monitoring system and generates enough energy to power 350 average Malaysian homes and displace 750 metric tons of CO_2-eq annually.	3,500,000	423	116,263
Energy efficiency: Building Services	In 2015, we reduced our air conditioning load at our manufacturing facility in Malaysia by recycling open office air. The project resulted in annual energy savings of 443MWh.	23,427	171	50,000
Other: Energy demand management	By consuming electricity from our onsite solar PV installations at our Perrysburg campus in Ohio, we were able to reduce our electrical load during peak demand days on the PJM grid.	0	56	561,031
Energy efficiency: Building Services	In 2015, we worked with our local utility to identify opportunities to green our office building in Santa Clara, California. We saved 23,494 kWh of electricity by installing motion sensor lights and removing unnecessary light bulbs.	0	8	2,410
Energy efficiency: Processes	In 2016, we utilized building management system controls to optimize our cooling tower water and reduce surging at our manufacturing facility in Ohio.	0	1,340	16,500
Lighting reduction in non-critical areas	In 2016, we removed lights in non-critical areas and installed LEDs to reduce energy consumption at our manufacturing facility in Ohio.	1,000	68	8,400

Manufacturing Energy Intensity

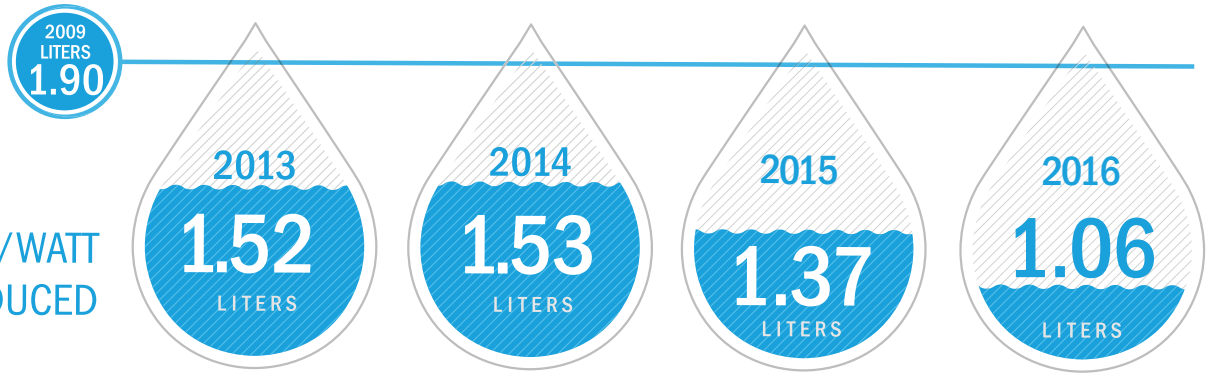
KILOWATT HOUR PER WATT PRODUCED



First Solar's manufacturing energy intensity (energy consumption per watt produced) includes all processes from the beginning of our manufacturing process to ¬completed module. Our manufacturing energy intensity has decreased by more than 30 percent since 2009 due to increased manufacturing throughput and module efficiency as well as the implementation of energy conservation programs. In 2016, our manufacturing energy intensity decreased by approximately 15 percent. We ran our manufacturing facilities at approximately 97 percent capacity utilization during 2016, which represented a 5 percentage point increase from 2015. Although our production volume increased by 24 percent to 3.1GW in 2016, our absolute manufacturing energy consumption only increased by 5 percent.

Manufacturing Water Intensity

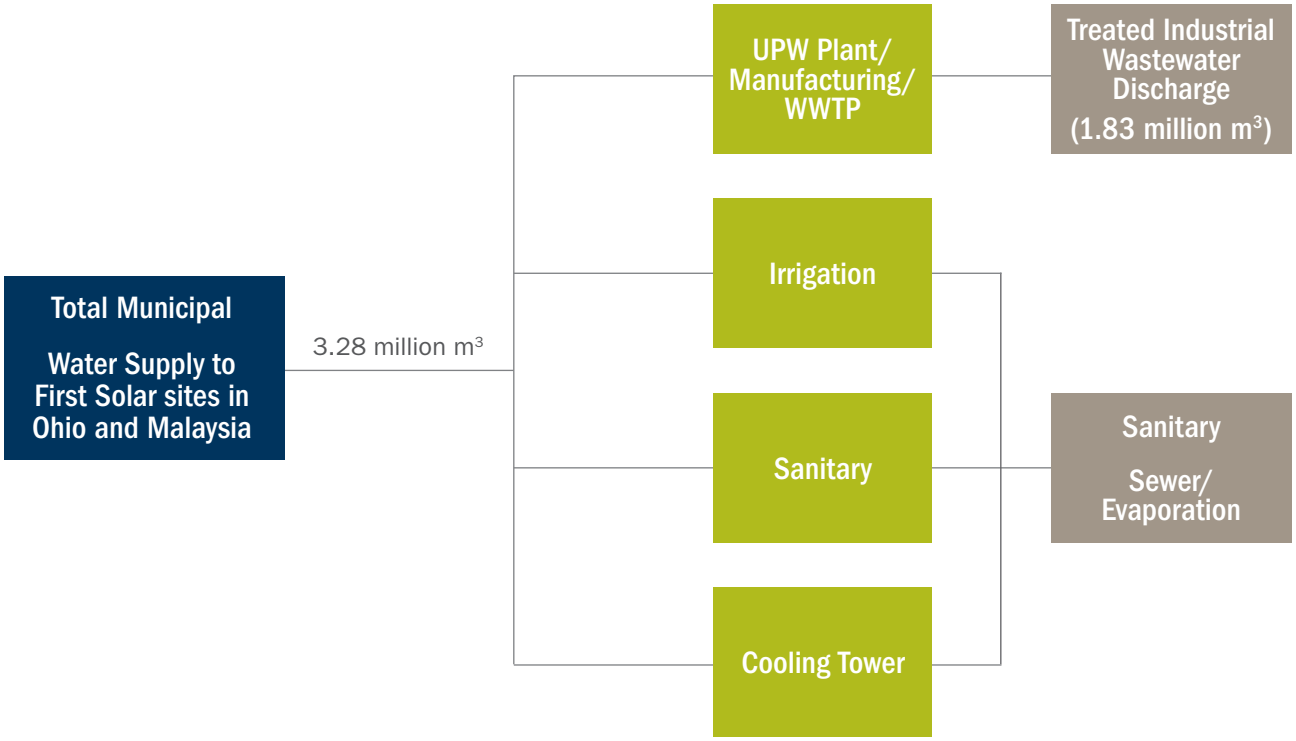
LITERS/WATT PRODUCED



Since 2009, First Solar's manufacturing water intensity (water consumption per watt produced) has decreased nearly 45 percent due to significant improvements in module efficiency and manufacturing throughput along with water conservation and recycling projects. By recycling rejected water from our purification system back into our raw water tank in Malaysia, we decreased our water intensity by 22 percent in 2016 and saved over 185 million liters of water. That's equivalent to 74 Olympic-sized swimming pools! Overall, First Solar's absolute manufacturing water consumption decreased by approximately 4 percent from 3.43 billion liters in 2015 to 3.28 billion liters in 2016, while our production volume increased by 24 percent in 2016.

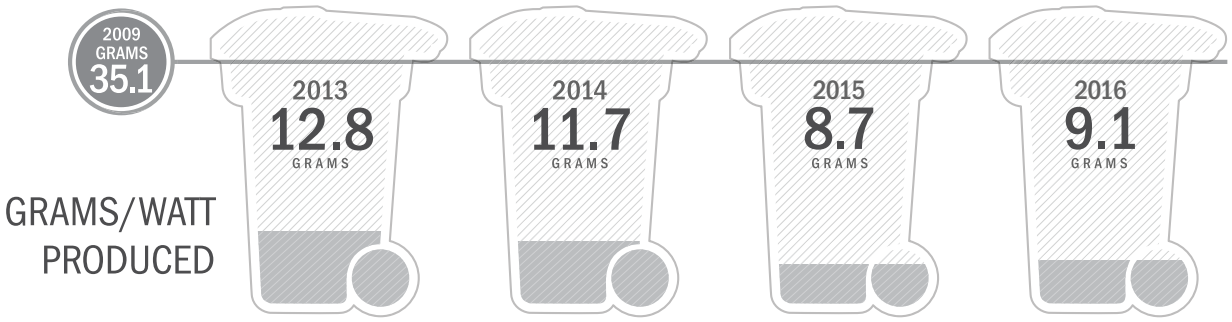
Effluents and Waste

In 2016, approximately 56 percent of First Solar's total water withdrawn from water utilities (3.28 billion liters) was discharged as wastewater from our industrial wastewater treatment systems in Ohio and Malaysia. The remaining 44 percent was used for irrigation, cooling towers, recycling and sanitary purposes. The water withdrawal and wastewater discharge data includes all First Solar manufacturing facilities worldwide.



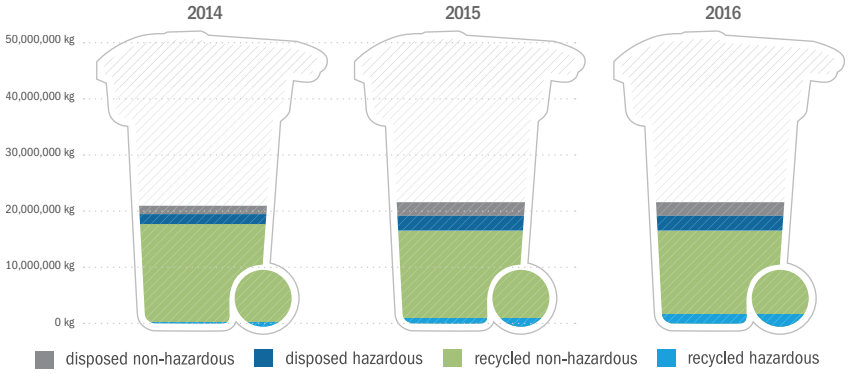
On-site treated industrial wastewater is indirectly discharged to sanitary sewer in the United States, and directly discharged to river in Malaysia. First Solar is committed to complying with wastewater regulations in all countries where we operate. First Solar treats wastewater at our manufacturing and recycling facilities using a batch discharge system. Once treated, the water is collected in holding tanks, which are sampled and tested to confirm compliance with regulatory limits before being discharged. No industrial wastewater leaves our site unless we have tested and approved it for discharge, even if it is being discharged to a municipal wastewater treatment plant. If the water contaminant levels are above the permitted discharge limit, it is sent for re-treatment internally. First Solar factories are equipped with state-of-the-art analytical capabilities for in-house water testing of heavy metals such as cadmium. Treated wastewater discharged from First Solar's industrial wastewater treatment facilities in Ohio and Malaysia are significantly below the permitted discharge limits for cadmium.

Manufacturing Waste Intensity



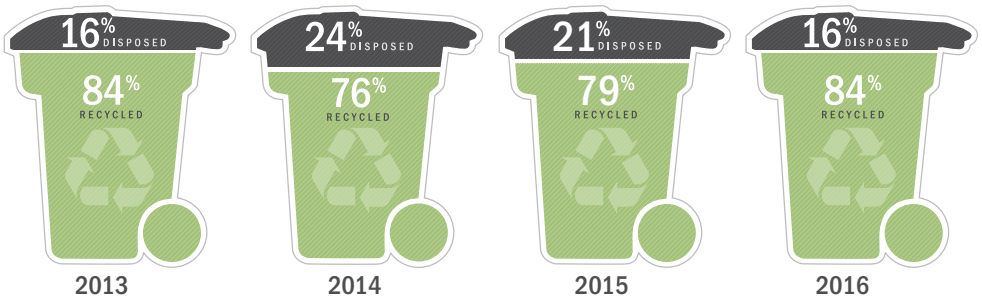
First Solar's manufacturing waste generation intensity (grams per watt produced) has decreased by nearly 75 percent since 2009 as a result of increased module and manufacturing efficiency combined with recycling and waste minimization projects. In 2015, we decreased our waste generation intensity by more than 25 percent by recycling waste that would normally be sent for disposal. In Malaysia, our laminate material is now being recycled for reuse in products such as rubber mats, bicycle handles, and shoe soles. In 2016, new technology upgrades led to a 5 percent increase in our waste generation intensity due to the disposal and recycling of manufacturing equipment.

Waste by Type and Destination



This graph depicts First Solar's overall waste produced in kilograms (kg) according to type and disposal. In 2016, our overall waste generation increased by 30 percent due to the expansion in production, new technology upgrades and our transition to Series 6 manufacturing equipment. The 40 percent increase in recycled non-hazardous waste was largely driven by the increased recycling of glass cullet for use in new glass products. In 2016, we increased our recycling of hazardous waste which led to a 22 percent decrease in hazardous waste disposal. Hazardous waste is classified according to the definition used by the countries in which we operate.

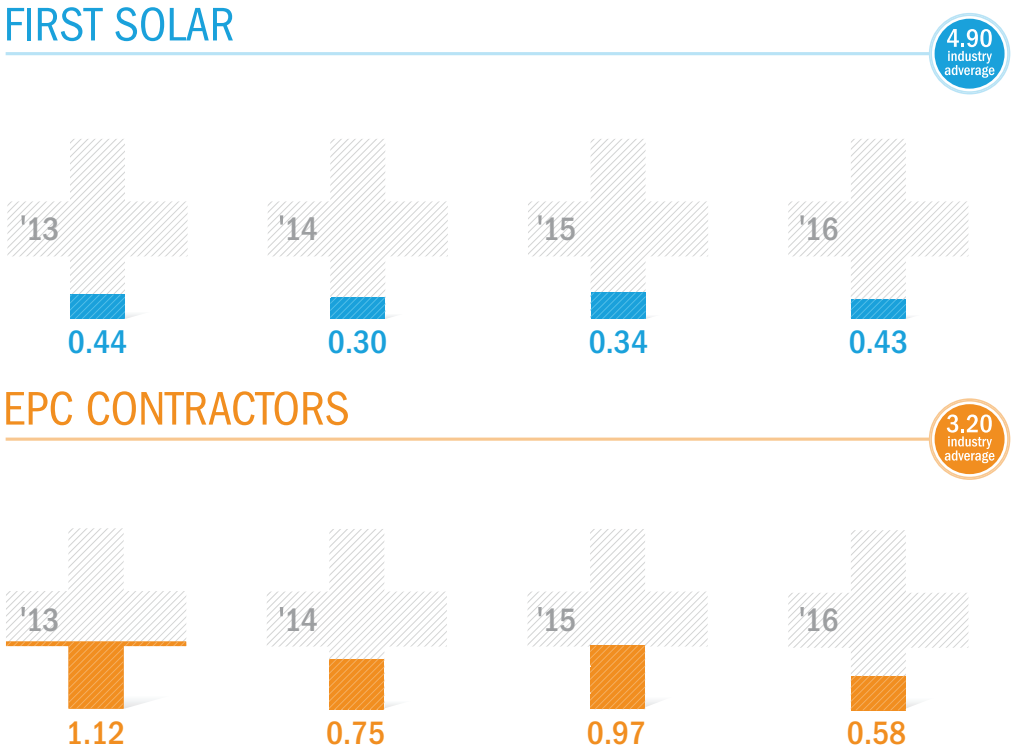
Waste Recycled vs. Disposed



This graph depicts waste recycled and disposed by First Solar's manufacturing and recycling facilities in Perrysburg, Ohio and Kulim, Malaysia. The data includes modules that we recycle onsite; both manufacturing line scrap and modules returned from the field but do not include modules that are being recycled at our recycling facility in Germany First Solar's state-of-the-art recycling process recovers over 90 percent of the semiconductor material and 90 percent of the glass. The glass cullet is reused in new glass products and the unrefined semiconductor material is sent for further processing to be reused in new modules. Many other manufacturing byproducts are recycled. Overall, of the total material First Solar sends off-site, 84 percent is sent for beneficial reuse and not to landfill.

Safety First: Occupational Health and Safety

Recordable Injury Rate (Per 200,000 Hours Of Exposure)



"Safety First" is a core value at First Solar and we strive for an injury-free workplace. First Solar's recordable injury rate[25] (RIR) includes all manufacturing and office personnel. The engineering, procurement and construction (EPC) RIR includes PV array construction workers that were contracted by First Solar. An injury is considered recordable if it requires medical attention beyond first aid, or results in restricted or lost time. First Solar's company-wide and EPC injury rates are well below manufacturing and construction industry average rates of 4.9 and 3.2 per 200,000 hours of exposure, respectively.

Since 2008, First Solar has reduced its recordable injury rate by over 80 percent (from 2.6) by establishing a strong safety culture throughout the company, ensuring understanding of First Solar's Safety Policies and Procedures, and standardizing processes at our project sites. We use leading indicators to increase health and safety awareness and better predict and prevent accidents before they occur. Improved incident tracking tools and software resulted in more comprehensive company-wide incident reporting in 2016. Human factors training and process implementation along with effective learning and corrective actions further improved our EPC RIR by 40 percent in 2016. As a result, our company-wide RIR is 10 times better than the manufacturing industry average and our EPC RIR of less than 1 is well below average construction industry rate.

First Solar requires all contractors to work under our safety policies, programs and procedures. We have strict pre-qualification requirements which assess subcontractors based on quality, experience, supplier diversity and safety performance. Subcontractors are required to meet First Solar's total recordable injury rate target (TRIR) standard

[25] RIR is the number of recordable injuries and illnesses per 200,000 hours of exposure. 200,000 is the number of hours accumulated by 100 employees working 40 hours a week for 50 weeks.

of 1 or less. First Solar has a comprehensive safety training program for our EPC contractors which includes daily environmental, health and safety review talks and field observations. First Solar EPC conforms to OHSAS 18001 and uses a world-class workflow management tool to track incidents and assign corrective actions. Weekly and monthly audits are performed by First Solar safety staff to ensure compliance of sub-contractors. A Site Safety Committee is established for each site, consisting of both management and field representation from First Solar and our subcontractors. Site Safety Committee meetings are typically held on a monthly basis.

100 percent of First Solar's workforce and management team are represented by formal joint management-worker health and safety committees. In Ohio, First Solar has seven safety committees representing various parts of the workforce including production, R&D labs, recycling, and offices. The cross-functional safety teams' membership rotates every six months to enable all interested associates in each department to participate. The safety teams meet on a bi-weekly basis and report to the EHS Steering Committee every quarter. The EHS Steering committee is made up of Directors and Managers who represent the rest of the staff at First Solar. We recently added two other committees that report into the EHS Steering Committee; the Ergonomics team meet on a quarterly basis and the Incident Review team meet on a weekly basis to go over incidents and implement corrective actions.

In Malaysia, our site EHS committee meets every two months and is composed of Directors, Managers and shop floor associates from production, site services and quality and reliability. The site EHS committee focuses on setting and reviewing site goals, site indicators and allowing shop floor associates to discuss safety matters with site leaders. First Solar Malaysia also has three plant EHS forums which meet on a bi-weekly basis. In addition to reviewing injuries and incidents, the Plant EHS forums implement corrective actions and tactical actions to improve safety culture.

6

BENEFITS OF FIRST SOLAR PV POWER PLANTS

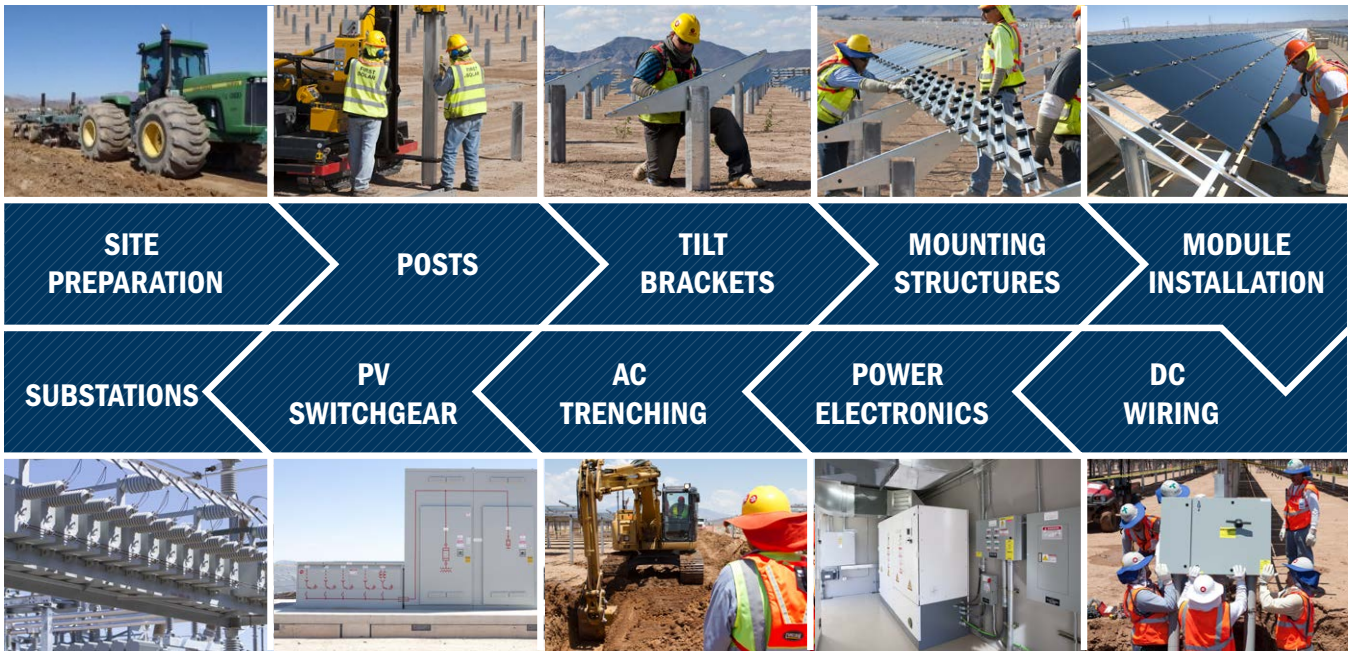
6 Benefits of First Solar PV Power Plants

First Solar PV power plants provide a meaningful value proposition over conventional energy sources and deliver broad-ranging benefits throughout their construction and operation, including:

- Generating clean electricity for 25+ years with no carbon emissions or other air pollutants.
- Requiring no water to generate electricity and using less water on a life cycle basis than most alternative sources of energy generation.
- Providing reliable and cost competitive solar energy with fixed pricing and low operating costs to reduce the risk of fuel price volatility and eliminate hedging costs.
- Creating thousands of jobs and providing millions of dollars benefitting local economies.

In 2016, First Solar's global PV project spend amounted to over $1.71 billion, including construction, development and operations. First Solar PV projects resulted in an estimated 9,000 direct jobs, 7,500 indirect jobs and more than 6,700 induced jobs worldwide, based on calculations provided by the University of Massachusetts Department of Economics and Political Economy Research Institute (PERI). In total, we estimate we are creating over 47,000 jobs across the value chain, including construction and long-term jobs for the maintenance and monitoring of PV power plants.[26]

Construction of a Utility-Scale PV Power Plant



[26] The total job creation estimate includes actual First Solar associate jobs and estimated supply chain jobs based on calculations provided by the University of Massachusetts Department of Economics and Political Economy Research Institute (PERI) in The Economic Benefits of Investing in Clean Energy. Direct jobs= 5.4 jobs/$1M spend; Indirect Jobs= 4.4 jobs/$1M spend; Induced jobs= .4 jobs (Direct + Indirect). Total First Solar annual spend in 2016 was approximately $3.1 billion.

First Solar is committed to responsible land use and works to minimize impacts during the construction and operation of our projects. We have worked with NGOs such as the World Wildlife Fund (WWF) to identify best practices for each stage of utility-scale PV power projects– from development, to construction and decommissioning. First Solar contributed to WWF's report **"Solar PV Atlas: Solar Power in Harmony with Nature, Towards 100 percent renewable energy."** The report addresses the common misconception that solar PV requires a lot of land and demonstrates how responsibly developed PV power plants help significantly reduce greenhouse gas emissions, heavy metal emissions and water usage by displacing conventional grid electricity. We continuously strive to implement best practices in the design and development of our PV projects through an extensive site selection process, community involvement, impact mitigation and biodiversity protection.

Site Selection

Each First Solar project begins with an extensive review of potential site locations, and considers the available solar resources, proximity to existing electrical transmission lines, current land uses, site characteristics and environmental sensitivities. We strive to locate our projects in areas with the least conflicts or on previously disturbed land such as drought-stricken farmland or grazing land. For example, from the original study area of over 19,000 acres, we identified approximately 3,800 acres of least-conflict land for our 550MW Desert Sunlight project in California. Our AV Solar Ranch One, Rosamond, Lost Hills and North Star projects were sited on fallow farmland and repurposed to generate clean electricity for 25+ years. First Solar's 53MW PV power plant in Lieberose, Germany was located on a former military site which was polluted with munitions and waste. The project prompted the environmental cleanup of the area, resulting in the removal of multiple land mines, grenades and other munitions.

Community and Stakeholder Engagement

Stakeholder engagement is an integral part of First Solar's project development and community outreach activities. First Solar consults with neighbors, community groups, educational institutions, environmental groups, tribal representatives and business organizations to address local concerns and ensure the environmentally responsible design of our solar projects. We work with experts in a range of disciplines with the aim of minimizing the biological, cultural and visual impacts of our projects. As part of our public outreach activities, First Solar conducts site tours for community members, organizations, elected officials, schools and universities. Throughout construction, First Solar provides regular updates to the local communities through project newsletters, websites and town hall meetings or informational sessions.

The Desert Sunlight Visitor Center provides an onsite solar learning center for students and the general public

Former U.S. Secretary of Interior Sally Jewell with First Solar Chief Commercial Officer Georges Antoun at the official commissioning of the 550MW Desert Sunlight Solar Farm

Responsible Construction

Throughout construction and operation, First Solar works with permitting authorities to minimize the biological, cultural and visual impacts of our projects, including avoiding critical habitats of threatened species. Where needed, we employ highly qualified biologists, paleontologists and archaeologists to monitor our projects and help protect biological, cultural and paleontological resources.

Throughout the construction of our Luz del Norte project in Chile, archaeologists closely monitored earth movement and excavation activities to ensure that we complied with local governmental requirements. Any archeological sites found during construction were preserved and reported to the National Monuments Council (CMN) so they could be sent to local museums. As part of the project's environmental management plan, First Solar relocated reptiles to a new location outside the project area with similar environmental characteristics and species to minimize impacts on biodiversity.

Archaeologists carefully sift for artifacts at First Solar's Luz del Norte project

To mitigate grading impacts, First Solar implements innovative "light-on-land" soil preparation techniques such as disk-and-roll and mowing which maintain the native seed in the soil and increase the likelihood of natural rehabilitation.

Disk-and-roll contours the land without changing the macro-level topography and existing drainage patterns. At project sites without hydrological or topographical constraints, we use the mowing technique which is more beneficial to grasses and other species than traditional land grading as it leaves the root structures intact to help prevent erosion. We endeavor to use the least impactful method of site preparation based on site-specific conditions.

Waste Generation and Recycling

First Solar and its subcontractors are responsible for managing and disposing of waste generated during project construction. Waste is segregated by type and classified as either non-hazardous or hazardous. Common waste types include project refuse (e.g., trash, rubbish, packing materials, spent personal protective equipment), project dunnage (i.e., wooden crating, packing materials, plastic shrink wrap, metal straps) and small volumes (typically <1 percent) of hazardous waste. Approximately 85-95 percent of waste generated is expected to be recycled. For example, waste generated for the AVSR1 project in Los Angeles County, California, included cardboard, wood pallets, aluminum, low-density polyethylene (LDPE), steel, waste wood, wire and project refuse, with a recycling rate of over 95 percent.

Water Use

First Solar modules convert sunlight into electricity without the use of water which provides an additional advantage over conventional energy and concentrated solar power. Water use during solar PV project construction is primarily for site preparation and dust suppression, and varies by location and time of year. After construction, there is typically no water use during PV system operation, with the potential exception of fire protection, minor domestic use and module cleaning. First Solar modules are frameless and do not require cleaning as dust is periodically removed by wind and rainfall. An exception is for humid, dust-prone climates, which can transform dry dust into clustered and sticky dust. For such conditions, First Solar's Manual Dry Brush Trolley can be used to clean modules without water or electricity. For more information on water usage over the life cycle of First Solar PV systems, see our **white paper**.

First Solar Manual Dry Brush Trolley at the 13MW DEWA solar PV power plant in Seih Al Dahal, United Arab Emirates

Biodiversity Protection

Prior to being allowed admission to a project site, all workers and visitors are required to receive extensive site safety orientation training, which includes environmental and biological training. Although construction projects always involve some disturbance to existing land and wildlife habitats, responsibly developed PV power plants can create new habitats and help protect endangered animal and plant species. Rainy weather at our California Flats project along with proper habitat protection during construction promoted emergence of fairy shrimp, a rare and federally protected endangered species, in certain vernal pools.

During the construction and operation of utility-scale PV power plants, vegetation management activities include invasive species control, native plant revegetation and monitoring, and re-planting protected plants. PV projects provide opportunities to study and protect various endangered species such as kit fox, desert tortoise, burrowing owls, California tiger salamander, California red-legged frog, Golden Eagles and Swainson's hawk. Desert Tortoise protection measures, for example, are extensive and involve securing off-site mitigation lands, conducting pre-construction count and health surveys, translocation planning and monitoring, exclusion fencing, fence monitoring and fence "habitat" to protect any exterior tortoises that might walk the project's fence line. As a result of implementing industry best practices in responsible land use and PV power plant construction, some of our utility-scale projects are turning into "solar reefs" and providing sanctuaries for fauna and flora species to thrive.

In addition to on-site mitigation measures, a portion of the mitigation measures for large-scale solar often includes acquiring conservation land to offset project impacts. In 2015 and 2016, First Solar spent more than $11 million to conserve over 2,750 acres of conservation land for our Portal Ridge, North Star, Kingbird, Playa and Cuyama projects, which is equivalent to more than 3 times the size of Central Park in New York City or over 44,000 tennis courts. For these projects, we either acquired or had a third party acquire control of

The elusive Fairy Shrimp recently surfaced during the construction of First Solar's 130MW California Flats Project

© Althouse and Meade, Inc. One of the largest litters of San Joaquin Kit Fox was spotted during active construction of First Solar's 130MW project in San Luis Obispo County

The first documented short-eared owl nest in Santa Barbara County was discovered on our Cuyama project site. The owl has since fledged and construction was able to continue without threatening the fledgling

properties for conservation through purchase, conservation easements or deed restrictions. To date, First Solar has contributed to the conservation of more than 38,700 acres of mitigation land (larger than the size of San Francisco) and provided over $88 million to multi-species habitat funds in North America. In addition, First Solar retired 54,000 acres of grazing rights (larger than the size of the Acadia National Park in Maine) on Bureau of Land Management (BLM) lands as part of the mitigation for our Stateline project. BLM grants ranchers the right to graze on certain BLM controlled lands. By paying ranchers to retire their grazing rights and permanently stop grazing, First Solar is helping to minimize potential impacts on sensitive species habitats.

As part of our EPC project site restoration activities, First Solar takes steps to proactively restore adjacent habitats, even when we do not cause the impacts ourselves. We use a technique called “Vertical Mulching” where we transplant native plants, brush and debris to revegetate tracks and roadways created by off-road vehicles in areas adjacent to our project sites. By creating a physical barrier, vertical mulch helps to discourage traffic and protect local ecosystems.

Before and after photos of vertical mulching on land adjacent to First Solar’s Stateline project site

Operations and Maintenance

The sustainable integration of new PV generators into the grid and electricity supply infrastructures requires advanced power plant controls and grid integration solutions. In order to maximize value and mitigate risk for our customers, First Solar operates and maintains PV power plants to optimize their performance and ensure their long-term integrity. First Solar Energy Services offers superior, customized end-to-end operations and maintenance solutions for thin film and silicon PV power plants. Our Energy Services help further reduce the levelized cost of solar electricity and maximize the profitability of our customer's solar power plants through seamless grid integration, increased reliability, and system availability maximization. By leveraging our extensive experience in plant optimization and advanced diagnostics, we have developed the largest and most advanced Operations and Maintenance (O&M) programs in the industry. With more than 7 GW DC of utility-scale PV plants under our O&M program, we maintain a fleet average system effective availability greater than 99 percent. First Solar is able to remotely track and control the performance of a plant from the company's operations center in Tempe, Arizona.

First Solar Operations Center in Tempe, Arizona

First Solar's grid-friendly PV power plants create real value for power plant owners by providing sophisticated ancillary services such as spinning reserves, load following, voltage support, ramping, frequency response and regulation, and power quality, which actively stabilize and improve the reliability of the grid. In 2016, California ISO (CAISO), First Solar, and the National Renewable Energy Laboratory (NREL) conducted a series of tests on a 300MW First Solar PV plant to demonstrate its operating flexibility. The **ground-breaking study** found that the solar plant's frequency response, regulation up and down, voltage control, and active power management were comparable to, or better than, conventional resources.[27] In the case of Automated Generation Control (AGC), the study found that the regulation accuracy of the PV plant (87-93 percent) was 24 – 30 percentage points better than the best conventional generation technology, gas turbine, which had an accuracy 63 percent.

Measured regulation accuracy of First Solar's 300 MW PV power plant compared to typical regulation up accuracy of CAISO conventional generation.[28]

Solar PV	Combined Cycle	Gas Turbine	Hydro	Pump Storage Turbine
~87% - 93%	~47%	~63%	~47%	~45%

By delivering essential reliability services traditionally provided by conventional resources, First Solar's grid-friendly power plants demonstrate how renewables can help support further integration of renewable resources into the grid. Grid-friendly power plants are crucial to enabling greater renewable energy adoption and ensuring the transition to a low carbon economy is both reliable and economically viable.

Decommissioning

First Solar's responsibly developed PV projects enable a site to be restored to its original state at the end of a project's useful life. Over 90 percent of a First Solar PV power plant is recyclable. As part of our commitment to responsible life cycle management, we provide an industry-leading PV module recycling program that enables PV power plant owners to meet their decommissioning and end-of-life (EOL) requirements simply, cost effectively and responsibly.

[27] Using Renewables to Operate a Low-Carbon Grid: Demonstration of Advanced Reliability Services from a Utility-Scale Solar, NREL, California Independent System Operator (CAISO), and First Solar, 2017.

[28] Ibid.

Case Study: Topaz Solar Farms

The 550MW Topaz Solar Farms is one of largest operating solar plants in the world and is an industry-leading example of how responsibly developed PV power plants can enhance biodiversity and provide beneficial land use. The Topaz array was carefully sited on 4,700 acres of low-value, drought-stricken farmland that was deemed unprofitable for agriculture. Today, Topaz is harvesting the sun to generate clean electricity for at least 25 years while protecting vital habitats and wildlife such as the San Joaquin kit fox, pronghorn antelope, birds, grasses and other species.

Topaz Solar Farms	
Site	San Luis Obispo, CA, USA
Size	550MW AC
Owner	BHE Renewables

407,000 tons CO_2 displaced annually
180,000 homes powered
77,000 cars removed
~600 jobs created during construction

Economic Benefits

Topaz created approximately 600 construction jobs along with 15 long-term operations and maintenance positions. From the beginning of development in 2009 through end of construction in 2015, the Topaz project resulted in approximately $324 million in positive impacts, including property and sales tax revenues, wages from direct and indirect employment, increased spending and supply chain revenues. Throughout operation, the project will provide an additional $3.7 million per year. In total, Topaz Solar Farms will provide approximately $417 million in economic benefits throughout the project's 25-year operational lifetime.[29]

Environmental Benefits

Topaz Solar Farms will generate clean electricity for 25+ years with no emissions and virtually zero water use. Topaz was designed to avoid sensitive areas, preserve wildlife habitat and minimize land disturbance. A conservation corridor was preserved to enable kit fox, pronghorn antelope and tule elk to freely pass through the various blocks of the project. Prior to beginning work on the site, every First Solar worker received comprehensive training and information about the biology, habitat needs, status of endangered species and measures to protect threatened or endangered species that may be found in the project area.

The kit fox-friendly fence provides a gap large enough for kit fox and other small mammals but small enough to exclude their predators.

[29] The Brattle Group, Economic and Fiscal Impacts of the Topaz Solar Farms, 2011. The Economic analysis was based on IMPLAN Version 3, an input-output model developed and maintained by the Minnesota IMPLAN Group.

Daily biological monitoring was conducted throughout construction to protect species and habitats, and identify exclusion areas. Regular monitoring with annual SCAT surveys and GPS collars helped determine the best species conservation strategies at the Topaz site.

The entire site was reseeded to allow vegetation to grow beneath the solar panels to create new habitats and provide sources of food for various wildlife species. In the spring, Topaz was already showing signs of blossoming biodiversity with the new arrival of kit fox pups and baby pronghorns. The reseeded grass is maintained by up to 3,000 grazing sheep, demonstrating how PV power plants can accommodate agriculture, endangered species and renewable energy.

To compensate for any unavoidable impacts to habitats, Topaz Solar Farms is contributing to the perpetual conservation of over 17,000 acres of land. After decommissioning, the total area will be restored, resulting in approximately 22,000 acres that will be protected in perpetuity. **Watch this video** from the project owner, BHE Renewables, to see how Topaz Solar Farms was constructed.

Visual Impacts

The First Solar panels at Topaz Solar Farms stand approximately five and a half feet above ground at the top edge. A flat fence surrounding the project helps to further minimize visual impacts from the PV power plant. The view of the project from the nearby road (pictured on the right) shows the fence as a dark line in the distance.

Community Benefits

Local community benefits remain long after construction has finished. First Solar installed solar-powered street lights in a vacant parking lot which will be the future location of a county fire station. The street lights will help offset part of the county fire department's energy costs. First Solar donated a 30kW PV system to a local elementary school, providing both educational opportunities and an estimated $12,000 in annual electricity cost savings. In addition, First Solar helped sponsor the development of a visitor's app to help guide tourists to the nearby Carrizo Plain National Monument.

Case Study: Moapa Southern Paiute Solar Project

Located on the Moapa River Indian Reservation just north of Las Vegas, the 250MW AC Moapa Southern Paiute Solar project is the first utility-scale solar project on tribal land. The solar project became operational at the end of 2016 and is delivering clean, renewable energy for 25 years to the City of Los Angeles through a Power Purchase Agreement with the Los Angeles Department of Water and Power (LADWP). The Moapa Southern Paiute Solar Project marked a significant step toward the city's goal of eliminating coal power and being powered by 33 percent renewable energy by 2020. The solar energy generated by the Moapa plant contributes 2.4 percent toward LADWP's renewable energy portfolio.

For the Moapa Band of Paiutes, the utility-scale solar project brings new opportunities for the Tribe by creating a diversified revenue stream in addition to preserving the land and their cultural heritage. The Moapa project will generate millions of dollars in income for the Moapa Band of Paiutes from lease payments, consulting fees, and the purchase of local materials. The project created approximately 600 jobs at the peak of construction, including approximately 115 construction jobs for Native Americans. **Click here to watch a video on the Moapa Project**.

"Bringing a renewable project onto the reservation is part of saving Mother Earth."

-Robert Tom, Tribal Chairman, Moapa Band of Paiutes

Moapa Southern Paiute Solar Project	
Site	Moapa River Indian Reservation, Nevada
Size	250MW AC
Owner	Capital Dynamics

341,000 tons of CO_2 emissions displaced annually
111,000 homes powered
73,000 cars removed
~ 600 jobs created during construction

First Solar and the Moapa Band of Paiutes joined Senators Dean Heller and Catherine Cortez Masto, Nevada State Energy Office Director Angela Dykema, Clark County Commissioner Marilyn Kirkpatrick, executives from the Los Angeles Department of Water and Power (LADWP) to celebrate the commissioning of the Moapa Southern Paiute Solar Project on March 17, 2017.

During the construction of the 250 MWAC Moapa Southern Paiute Solar Project, First Solar partnered with the Moapa Band of Paiutes on several community events and projects as part of our community giving program. In addition, First Solar has held annual holiday parties and provided gifts to Tribal children as part of our corporate holiday donations program since 2013.

Moapa Paiute youth participate in Native American Language Symposium

From 2013 to 2016, First Solar supported the Tribe's annual Southern Paiute Language and History Symposium sponsored by the Moapa Band of Paiutes, the Nevada Department of Education and the University of Nevada, Las Vegas. The symposium pays tribute to the customs and history of the Southern Paiute Tribes and includes presentations on resources and opportunities for encouraging the teaching of indigenous languages, prayers spoken in the Paiute language, songs of inspirational birdsongs that celebrate Paiute traditions, and discussions about different dialects and pronunciations.

Moapa 419 Youth Group in front of the White House

In July 2015, First Solar provided financial support to send 10 members of the Moapa Tribal 419 Youth Group to Washington D.C. to join with 1,800 other tribal youth from around the country for the first-ever White House Tribal Youth Gathering, hosted by President Barack Obama and UNITY (United National Indian Tribal Youth). The participants explored subjects celebrating Native American culture, participated in leadership sessions and team building programs, and attended workshops on diverse issues facing tribal youth.

First Solar sponsored the Annual Moapa Southern Paiute Veterans Pow Wow and their Fourth of July Celebration.

15kW Veterans Park Solar System

First Solar donated 550 PV modules, with an in-kind value of approximately $27,500, to provide 15kW of clean renewable energy to the new Veterans Park and the Moapa Travel Plaza located at the Valley of Fire entrance to the Moapa River Indian Reservation. The solar system was installed by volunteers from First Solar and members of the Tribe who worked on the Moapa Southern Paiute Solar Project.

Case Study: Del Sur

First Solar, helped bring solar energy to Honduras with local Latin American conglomerate Grupo Terra with a 25MW ground-mount, solar energy project called Del Sur. The construction of the Del Sur project created hundreds of jobs (~750 at the peak), and, unlike most other construction projects in the world, many of the construction workers in the field were women.

First Solar and Grupo Terra worked with approximately 200 women to install more than 290,000 First Solar modules. The hiring of female construction workers contributed to the tremendous success of the project and proved particularly beneficial, given their attention to detail and careful placement of the modules. This resulted in fewer module breakages (0.17 percent) during installation compared to other projects where men constituted a greater percentage of the workforce. PV module breakage is rare and occurs in approximately 1 percent of modules over the 25-year warranty operating life. Over one third of these breakages occur during the shipping and installation period.[30]

Del Sur	
Site	Choluteca, Honduras
Size	25MW AC
Owner	Grupo Terra

15,000 tons of CO_2 emissions displaced annually
50,000 homes powered
3,000 cars removed
~750 jobs created at the peak of construction

[30] P. Sinha, R. Balas, L. Krueger, and A. Wade, "Fate and Transport Evaluation of Potential Leaching Risks from Cadmium Telluride Photovoltaics," Environmental Toxicology and Chemistry, Vol. 31, No. 7, pp. 1670–1675, 2012.

7

SOCIAL RESPONSIBILITY

7 Social Responsibility

Local Communities

First Solar is committed to being a good neighbor and responsible partner in local communities where we manufacture and build projects. We implement local community engagement and development programs at all locations where our associates live and work. First Solar's local Contribution Committees approve requests for monetary and "in kind" gifts to assist charities and non-profit organizations that promote one or more of First Solar's Core Values. These include Safety, Environmental Responsibility, Continuous Improvement (e.g. education), People Matter (health and human services) and Deep Customer Partnerships (community service and support).

Our associates help fulfill the company's commitment to our Core Values by volunteering in initiatives which improve the environment and contribute to local communities.

Examples of Site Community Giving Initiatives

As part of its local community giving program, First Solar Malaysia donated $50,000 in 2015 to the Young Enterprise Community Program, the Associates Children's Academic Excellence Awards, Thaipusam festival and the celebration of Raya Qurban with the Taman Selasih Mosques. In collaboration with Kedah state government, First Solar Malaysia donated 144 solar panels in 2015 to support the installation of a 12kW PV system, at the Sultan Muhammad Al Fateh Mosque in Bandar Baharu. The 12kW solar energy system is the first project of its kind in the state and was launched by First Solar to support the Kedah Green Agenda which aims to promote sustainable development and green technology as a driver to accelerate the national economy. The project was completed in December 2015 and generates approximately 46 kWh of power per day. First Solar also donated humanitarian aid to Dabong, Kelantan, to support the clean-up of a school and houses damaged by catastrophic floods in 2015.

In 2016, First Solar Malaysia donated $35,000 to local initiatives and festivities including the Young Enterprise Community Program, the Raya Qurban celebration with Kampung Cina Mosque, and the 'Kedah Young Innovate Program 2016' which involved a series of boot camps and training sessions for local and overseas students in collaboration with Kedah State and the UniKL Malaysian Spanish Institute. First Solar donated a 3kWp PV system to the Penang Tech Dome science center to help educate visitors about solar energy. For the fifth year in a row, First Solar volunteers supported the Thaipusam celebration in Penang by serving free drinks and vegetarian food to more than 2,000 celebrants during the two-day festival. First Solar modules were temporarily installed to generate power for the refreshment stall. First Solar Malaysia's corporate social responsibility efforts are funded through associate donations and contributions from Kulim management.

In 2015, First Solar's Perrysburg facility donated approximately $90,000 to local universities and charities in Ohio including the American Heart Foundation, American Cancer Society, Toledo Seagate Foodbank, Ohio Northern University and many more. In 2016, First Solar Perrysburg donated over $110,000 to local charities and initiatives such as United Way of Greater Toledo, Cocoon Shelter, Imagination Station, and the Ohio Foundation of Independent Colleges (OFIC).

Every year since 2009, our Perrysburg associates have volunteered for a non-profit community organization called Partner for Clean Streams (PCS), which works to improve the water quality of Ohio's Maumee River by partnering with businesses, governmental agencies, non-profit organizations and local volunteers. First Solar proudly sponsors PCS and provides volunteers and supplies during the stream cleaning activities. In 2016, 124 First Solar volunteers helped collect over 100 bags of trash out of the Maumee River. First Solar received the highest corporate recognition (4 stars Watershed Warrior) for the most volunteers.

The Arizona Contribution committee donated $25,000 to 24 organizations in 2015, over 80 percent of which were located or had chapters in Arizona. In 2015, First Solar Tempe associates volunteered their time at a number of volunteer events and charities such as Feed My Starving Children, the Assistance League of Arizona and the Ronald McDonald House Charity Tele-a-Thon.

In 2016, First Solar's Arizona Activities Team organized the Tempe and Mesa holiday drive, benefitting local families. First Solar associates raised over $6,000 in monetary and tax credit donations for the local nonprofit organization Santa Bob, Inc. In addition, First Solar associates donated nearly 200 gifts to nine Arizona families. Seventy-three associates participated in a number of ways, from sponsoring family members to wrapping items to donating supplies.

Other First Solar offices helped spread holiday cheer throughout local communities across the United States. In San Francisco, First Solar associates supported the San Francisco Food Bank by packing nearly 25,000 pounds of dry and canned goods for low-income seniors in the community. First Solar Bridgewater associates partnered with a local nonprofit organization, Fish, Inc., for its Angel Tree event, and collected toys for 20 children in need. In 2015, First Solar's Charity Committee in Bridgewater donated over $10,000 to 11 local organizations such as the Trenton Soup Kitchen, the Somerset Home for Displaced Children and the Marine Mammal Stranding Center.

Scholarships, Internships and Educational Outreach

First Solar is committed to promoting solar technology education in communities where we operate and build projects by providing scholarships and internships, developing solar PV curriculums and supporting local training programs. We donate modules, provide solar equipment and design curriculums for training programs to help local community members pursuing a solar career develop the skills needed to excel in the industry. Solar training programs provide access to stable and fulfilling green jobs to both students about to enter the workforce and experienced workers looking for a career change.

In 2015, First Solar donated $27,500 to the Ohio Foundation of Independent Colleges (OFIC). In all, ten students received scholarships in the amount of $2,500 each. The students attended Ohio Northern University, Ohio Wesleyan University and Malone University and majored in Mechanical Engineering, Business, Mathematics, Accounting, Nursing and Environmental Studies.

> "Scholarships like First Solar Corporation Scholarship allow my family and me to breathe easier knowing that I can attend a highly ranked and successful school without the stress of massive student loans when I graduate."
>
> *— Advanced Mathematics student at Ohio Northern University*

First Solar sponsors research on the next generation of solar technology and partners with universities on R&D initiatives to drive cost-effective PV module efficiency gains and long-term durability and performance improvements. At our manufacturing sites, First Solar partners with local colleges and high schools to offer summer internships and week-long job shadowing opportunities to students with an interest in science, technology, engineering and mathematics (STEM). In partnership with 14 area schools, First Solar's Perrysburg Job Shadowing Program runs five times per year, with three summer sessions and two in-school sessions. Each session provides hands-on experience to four students selected through an application process. During the program, students are introduced to the various facets of First Solar, including different engineering groups, quality, research and development, manufacturing, program management and more.

Global Charitable Giving Program

First Solar partners with non-governmental organizations (NGOs) through our Global Charitable Giving Program to provide green education programs, financial contributions, training and expertise, as well as module donations aimed at providing access to clean energy and drinking water. We have community giving projects throughout the world including Australia, Chile, India, Malaysia, Thailand, Indonesia, Burkina Faso, South Africa, Germany, Nicaragua, Tanzania, Cameroon and the U.S.

Examples of Global Charitable Giving Initiatives

2016	**USA**	**RE-volv Solar Ambassador Program**	$10,000 grant to provide training and mentoring to college students on installing solar projects to benefit a nonprofit in their home community.
2016	**USA**	**Read for Literacy**	$10,000 grant to launch interactive green education programs at the Claire's Day event and other back to school events.
2016	**USA**	**Friends of Cave Creek Canyon**	Donated modules and $15,000 to install a well pump that supplies water to Willow Tank, an important site for migratory birds and other wildlife in Arizona.
2016	**USA**	**Ohio Foundation of Independent Colleges**	$10,000 endowment to establish scholarships for students majoring in Science, Technology, Engineering and Math (STEM).
2016	**USA**	**Toledo Museum of Art**	Donated $30,000 to support a public sensory garden project on the museum's campus in Ohio.
2016	**Global**	**Global Greengrants**	Donated $50,500 to support green education, access to clean water and energy, and the development of innovative and sustainable technologies in Nigeria and other countries around the world.
2015	**USA**	**UCLA Center for Tropical Research (CTR)**	$600,000 gift over 3 years to support UCLA's Bird Genoscape Project.
2015	**USA**	**Arizona State University**	Donated $50,000 to the USAID Research & Innovation Fellowship Program to support sustainable development in developing countries.
2015	**USA**	**Ohio Foundation of Independent Colleges**	$27,500 endowment to establish scholarships for students majoring in Science, Technology, Engineering and Math (STEM).
2015	**USA**	**National Park Trust**	Donated $20,000 for scholarships that allowed over 1,300 children from 28 schools to participate in Kids to Parks Day 2015.
2015	**Nicaragua**	**Southern Neighborhoods Network**	$20,000 grant to fund training programs for low-income youths to create micro-franchise models that provide ongoing education and technical assistance.
2015	**Tanzania**	**Global Solace**	Module donation for an elementary school in Tanzania.
2015	**Cameroon**	**Better World Cameroon**	Module donation and $5,000 grant to power a learning center and provide training at a Permaculture site in the Bafut Region.
2015	**South Africa**	**Rays of Hope**	Donated a grant and modules which have generated a total of 126,000 kWh to date resulting in electricity savings of approximately $11,000.
2015	**Chile**	**Desafio Levantemos Chile**	Donated US$50,000 in flood relief aid to help rebuild damaged infrastructure and services in the region.
2014	**USA**	**Imperial Valley College Foundation**	Donated $375,000 to fund annual scholarships and internships for low-income and underserved students from the local community.
2014	**USA**	**Nature Conservancy**	Module donation for Independence Lake Preserve in Nevada.
2014	**USA**	**Imagination Station**	Donated $5,000 to support over 500 underserved elementary students to visit the science center in Ohio.
2014	**USA**	**Green Energy Ohio**	Donated $10,000 to support a commercial PV education and outreach workshop with 125 participants.

2014	**Africa**	**Global Greengrants**	$50,000 grant to support local education projects on sustainable farming, recycling, and clean water and air initiatives in Uganda, Zimbabwe, Mali and Burkina Faso.
2014	**Burkina Faso**	**Themapletree Org**	Donated $15,000 to support the installation of modules at a regional medical clinic.
2**014**	**Haiti**	**Medical Equipment & Supplies Abroad**	Module donation to support clinic and orphanage
2014	**Cameroon**	**Engineers Without Borders**	Donated $11,500 to implement an electrical grid tie-in system to power 50 homes and 4 schools
2014	**Indonesia**	**Waka Waka Foundation**	Donated $75,000 to support access to solar solutions by providing technology, education and a microcredit program for women to start a small business

H2yOu Project's Expedition to Antarctica

In 2015, First Solar sponsored local Toledo-born environmental educator and H2yOu Project founder, Laura Schetter, and her expedition to Antarctica with renowned explorer and environmental leader Robert Swan OBE and the 2041 Foundation. Named after the year that the international treaty that protects Antarctica from commercial exploitation expires, the 2041 Foundation is dedicated to inspiring and connecting organizations and communities who seek to protect our world and create a more sustainable, clean energy future. The **H2yOu Project** is a social water storytelling platform that aims to inspire people to care for and conserve the world's water resources by sharing global stories about how water is conserved, sourced and valued. The H2yOu Project's water conservation mission aligns with First Solar's goal to displace carbon and water-intensive electricity generation.

During her expedition to Antarctica, Laura collected and analyzed water samples to study the impacts of climate change on the South Pole and the Southern Ocean. The expedition also helped to inspire the groundwork for a new program opening August 2017 called Wildlife & Sustainability. The Toledo Public Schools Career Technology Program will enable 11th and 12th graders to learn content and job skills of how to sustain our planet's natural resources, including through solar energy.

© Southern Neighborhoods Network Inc, dba IDEAS, the Institute for Development, Evaluation, Assistance, and Solutions. First Solar provided funding to train low-income youth in rural Nicaragua to diagnose, install and repair solar systems. The training course ran for 5 weeks, with 26 youths successfully completing the training.

© Arizona State University Global Development Research Program. First Solar donated $50,000 to support graduate students studying the technical, social, and economic barriers to sustainable development and solar energy in Senegal, Brazil, Panama and India.

© Rays of Hope. First Solar donated modules to support Camphill Village, an organization serving adults with intellectual and cognitive disabilities in South Africa.

© RE-volv Solar Ambassador Program. First Solar provided a $10,000 grant to the program in 2016 to help 44 students from seven colleges across the country receive training on how to install solar projects for nonprofits in their local communities. The individual installation projects are at various stages of completion, with three in the active fundraising stage using crowdfunding as the primary strategy. The colleges involved included Coastal Carolina University, Swarthmore College, University of Connecticut, University of Dayton, University of New England, University of Wisconsin-Madison and University of Wisconsin-Milwaukee.

© Better World Cameroon. First Solar provided modules and a $5,000 grant to power a learning center at a Permaculture site in the Bafut Region of Cameroon. The modules were installed free of charge by a local nonprofit called TESE and have been operating since July 2016. The installation is being used to provide training to the local community.

External Sustainability Initiatives and Charters

- **Carbon Disclosure Project (CDP):** First Solar has participated in and publically reported to CDP since 2011.
- **Solar Energy Industries Association (SEIA) Commitment:** First Solar and its solar affiliates participate in SEIA's Commitment to Environmental and Social Responsibility, a voluntary commitment which details a set of solar industry guidelines to promote environmental and social responsibility.
- **Product Environmental Footprint (PEF):** First Solar is a leading member of the Technical Secretariat to develop Life Cycle Assessment-based Product Environmental Footprint Category Rules for PV electricity generation under the European Commission's Single Market for Green Products Initiative Pilot process on Product Environmental Footprinting.
- **World Wildlife Fund (WWF):** First Solar partners with WWF as a Clean Energy Ambassador to promote the transition to 100 percent renewable energy by 2050.
- **International Energy Agency Photovoltaic Power Systems Program Task Committees 12:** As a member of Task 12, First Solar promotes international collaboration on PV safety and sustainability.
- **International Renewable Energy Agency (IRENA):** First Solar is a founding member of IRENA's multi-stakeholder Coalition for Action which works to dispel common misperceptions and factual inaccuracies about renewable energy.
- **International Energy Agency Renewable Industry Advisory Board (IEA RIAB):** As member of the Renewable Industry Advisory Board, First Solar is providing insight to technology developments and providing advice and feedback to the International Energy Agency on photovoltaics in the global energy markets.
- **NSF Photovoltaic Module Sustainability Leadership Standard:** First Solar is part of the Joint Committee which is developing a Photovoltaic Module Sustainability Leadership Standard under the umbrella of the National Center for Sustainability Standards NSF.
- **SEIA National PV Recycling Program:** First Solar is partnering with the Solar Energy Industries Association to help make affordable PV recycling solutions more accessible to consumers by establishing a network of cost-effective recyclers that can responsibly manage PV waste.

8

WORKING AT FIRST SOLAR

8 First Solar Workforce

First Solar is committed to creating an engaging and rewarding work environment for our associates. We strongly promote ongoing training and career progression opportunities, as well as an open communication environment that encourages diverse ideas, creative problem-solving and innovation.

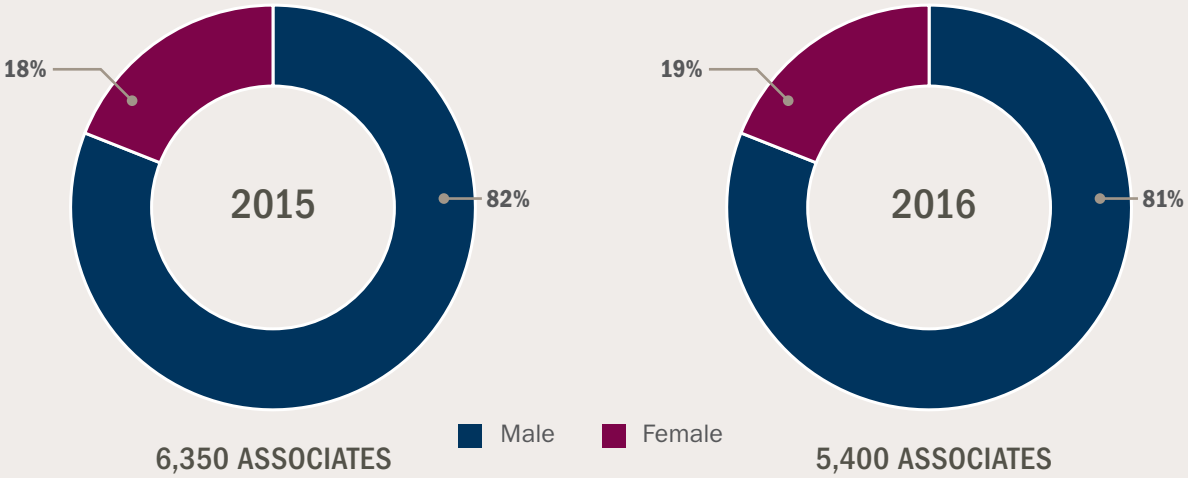
In 2015, First Solar Malaysia was awarded the IFTDO Global Human Resources Development Award for Improved Quality of Working Life and the Malaysian Institute of Human Resource Management Silver award under the Employer of Choice category, in recognition for its evolving human resources strategies and management over the past two years. In 2016, First Solar Malaysia also won the Aon Hewitt Best Employer for Gen Y Award, which recognizes the company's commitment to attract, retain, develop and engage the millennial workforce. First Solar was selected for the award out of more than 50 other companies. First Solar's fun and healthy workspace, team dynamics and development opportunities make it an attractive place to work for this category of the workforce.

First Solar is an Equal Opportunity Employer (EOE) that values and respects the importance of a diverse and inclusive workforce. As a company we prohibit biases based on race, color, gender, sexual preference, age, religion, national origin, disability, military status, genetic information or any other protected classifications. First Solar has an Affirmative Action Policy (AAP), which consistently looks at women and minorities in the organization as a whole, including leadership. First Solar makes good faith efforts to improve year over year its representation in those areas.

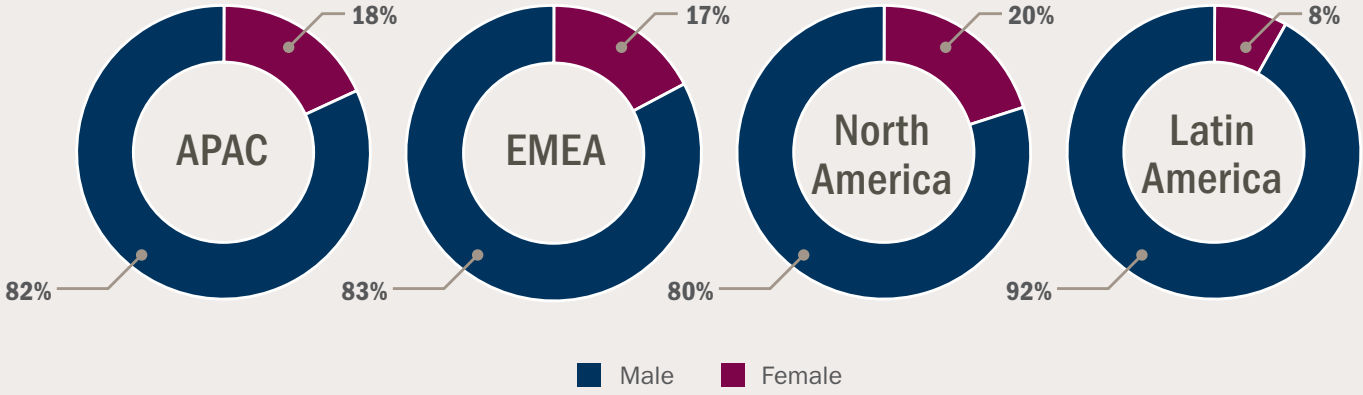
At First Solar, we hire, pay and promote based on an individual's qualifications, skills, ability to do the required work, merit and overall potential. First Solar's entry-level wages are above the minimum wage in all jurisdictions we manufacture in.

As of December 31, 2016, we had approximately 5,400 associates. In response to challenging market conditions, First Solar was required to undertake significant restructuring actions in 2016 in order to accelerate our transition to our Series 6 technology. This resulted in a substantial reduction in our workforce at our domestic and international facilities.

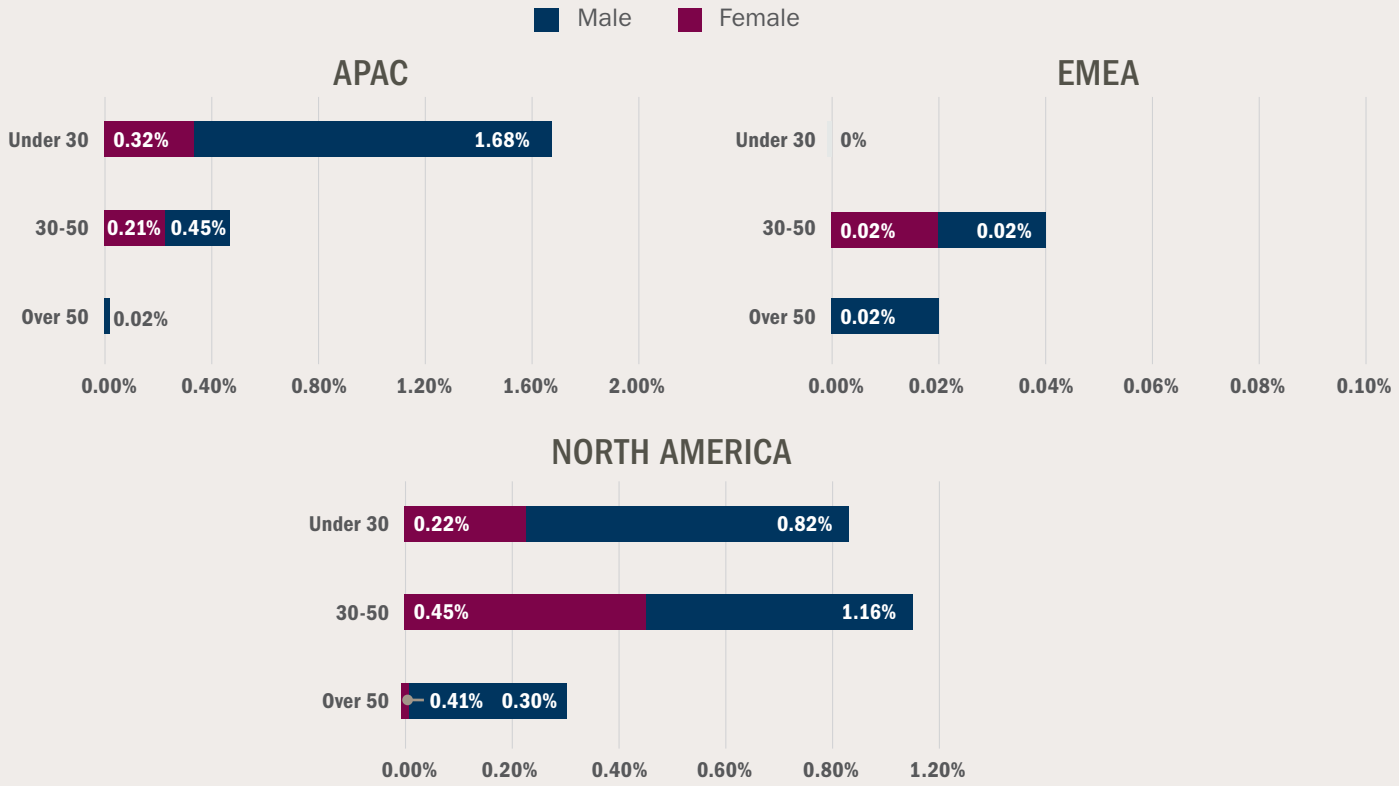
Workforce Breakdown by Gender



Workforce Gender Breakdown by Region in 2016

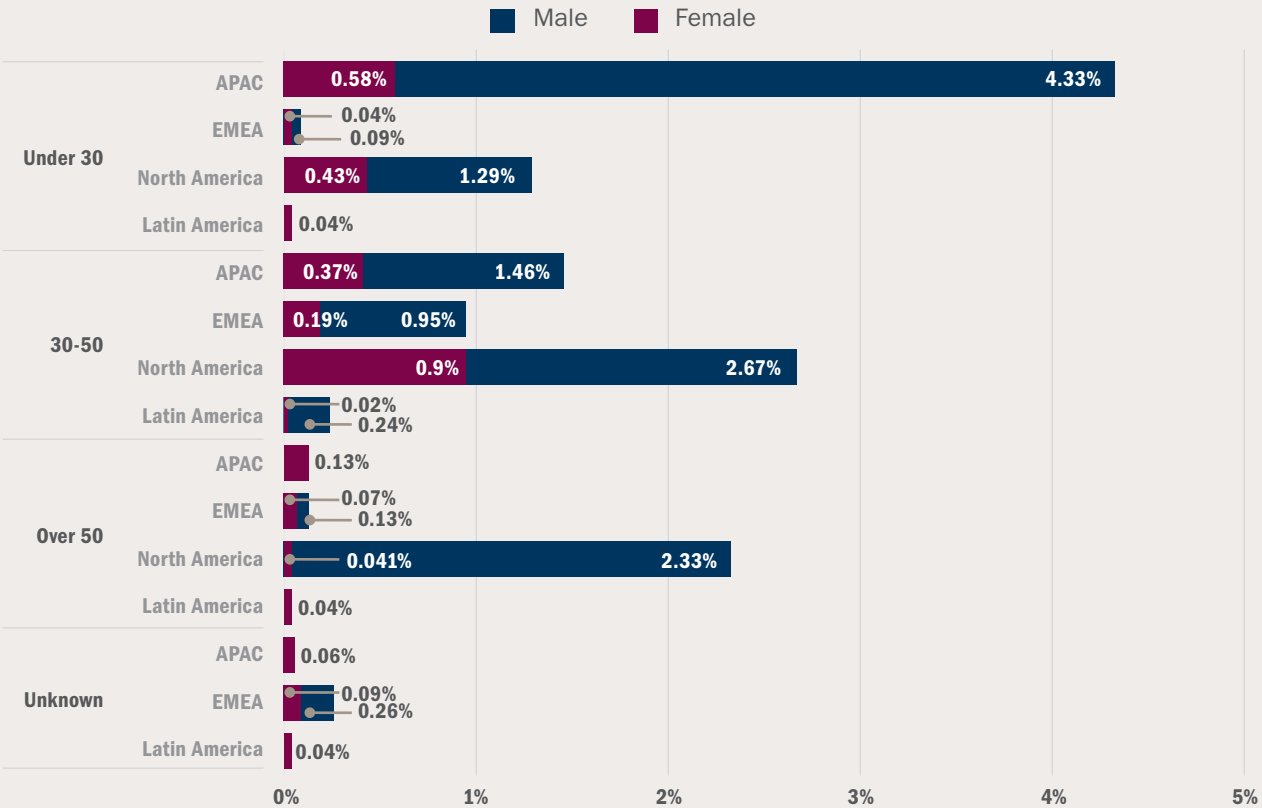


New Associate Hires by Age, Gender and Region in 2016*



*The new hire rate is calculated as a percent of the total workforce. There were no new hires in Latin America in 2016.

Associate Turnover Rate by Age, Gender and Region in 2016*



*The turnover rate is calculated as a percent of the total workforce.

Training and Education

All of First Solar's current, full-time employees receive regular performance and career development reviews. First Solar associates and managers can enroll in training and e-learning classes through our Enterprise Learning Management (ELM) site. Associates are offered access to a video library that contains micro learning, in-depth video courses, and eLearning. Managers at all levels are encouraged to attend quarterly manager discussion groups to discuss relevant topics. We also support training to meet specific learning needs identified by Human Resources, managers, or teams. First Solar's performance process evaluates the performance of each associate at least annually to track progress and demonstration of First Solar Behaviors. The performance process provides a framework for managers and associates to align an individual's work goals to First Solar objectives, reinforce commitment to the company's Core Values, set job expectations, discuss development opportunities and evaluate success in achieving goals.

Career Development and Leadership Programs

First Solar offers short-term programs and long-term career development opportunities for individuals at various levels in the company. Our leadership programs provide a broad range of executive, managerial and leadership training, plus continuing opportunities for professional development to develop current and future executives, managers and leaders. Every other year, First Solar partners with the highly recognized Thunderbird School of Global Management to offer a three-week leadership program called First Solar Way to potential senior leaders across the company. First Solar Way provides classroom lectures, experiential learning, strategic project work, leadership assessments, and career planning over a three-month period. First Solar's executive staff selects program participants during talent review based on job performance, potential, and functional areas of expertise. During the program, participants will work and learn with high performing peers from other business functions to gain the skills to be outstanding contributors to our success.

In 2016, we introduced Leadership Essentials, a two-part learning experience program designed for mid-level managers to develop their leadership skills. Leadership Essentials is by invitation only, and requires a nomination by a Director or Vice President. The program has multiple learning objectives including:

- First Solar executive insights on leadership
- Communication and conflict management
- Emotional intelligence
- Cross-functional team development
- Business and financial acumen
- Personal coaching and development planning

In addition to our leadership development programs, First Solar's Associate Educational Assistance Program (AEAP) provides financial support for associates seeking to pursue higher education at certificate, diploma, degree and doctorate level. The AEAP encourages associates to improve their skills and knowledge to prepare them for new opportunities within the company.

Employee Recognition Program

First Solar's company-wide reward and recognition program – YOUshine – regularly recognizes associates for their great work and contribution to the company. In April 2015, First Solar implemented new peer-to-peer social recognition and years of service programs. Our associates are recognized for demonstrating First Solar's behaviors, whether it's being safe, collaborative, agile, balanced, innovative and entrepreneurial, or results focused. Points received can be redeemed for gift cards and merchandise. In the first year of the program, First Solar associates enjoyed over 13,000 recognition moments with 77 percent of our workforce receiving at least 1 award. Since the launch of our YOUshine program, First Solar associates have received 27,900 recognition moments, with 94% of all associates receiving at least one recognition and 100% of all departments receiving at least one award.

CEO Awards

The CEO Awards are the highest YOUshine rewards and recognition levels at First Solar. The three CEO Award categories encompass and reward all areas of our business. The annual awards are granted to individuals who make extraordinary contributions above and beyond their normal responsibilities in support of First Solar's mission, core values and behaviors. In 2015, we received 29 nominations for 136 nominees and recognized 14 winners across the three categories. In 2016, First Solar received 25 nominations for 214 nominees and recognized 31 winners. CEO Award winners are rewarded with retention stock grants and honored at a ceremony attended by First Solar's executive team. In 2016, First Solar created a new Teamwork and Collaboration Award to recognize cross-functional teamwork and problem-solving. The recipients of this award will receive a luxury vacation.

Recipients of the 2016 Business Enablement Award with First Solar CEO Mark Widmar (left) and CIO Sunit Patel (right).

Recipients of the 2016 Customer Intimacy Award with First Solar CEO Mark Widmar and SVP of Global Technical Services Alex Heard (left).

Recipients of the 2016 Operational Excellence Award with First Solar CEO Mark Widmar.

Recipients of the 2016 Teamwork and Collaboration Award with First Solar CEO Mark Widmar.

Associate Engagement Survey

At First Solar, we value every associate and strongly promote an open communication environment where associates can directly raise any concerns with their managers. In 2015, we administered an Associate Engagement Survey and received a response rate of 88 percent. First Solar's overall engagement score is 79 percent, which is in the 87th percentile of IBM's Engagement Index and 10 points above the Overall Benchmark. The Overall Benchmark is based on employee responses from organizations worldwide and provides comparative results that represent the average scores across multiple organizations. This means that our associates are generally satisfied, committed and proud advocates for our company. Our strength areas include trust and associate/manager relationships as well as the company's commitment to safety, environmental responsibility, ethics, and customer service and quality. Strength areas represent where we placed in the 90th percentile of the IBM Engagement Index.

"Making an impact to the environment."

"Having a front row seat to the Energy Revolution."

"The Startup culture"

"Being able to reach out to most of leadership when I need to."

"The People"

9

ABOUT THIS REPORT

9 About this Report

First Solar's Sustainability Report was developed in accordance with the Global Reporting Initiative's (GRI) Core Sustainability Reporting Standard. This report covers significant economic, social and environmental impacts associated with our global operations and PV power plant projects. The reporting period spans 1 January 2016 up to and including 31 December 2016. Unless otherwise specified, this report includes environmental performance data from all of First Solar's manufacturing plants and its major R&D facility. We have not sought third-party verification for this report, however our 2014 greenhouse gas emissions inventories of Scope 1 and Scope 2 sources were externally verified in accordance with the International Standard ISO 14064 Part 31 (ISO 14064-3) as well as the WRI/WBCSD GHG Protocol.

To provide feedback on our Sustainability Report, please contact: **Sustainability@firstsolar.com**

Sustainability Materiality Assessment[31]

As part of our stakeholder mapping and materiality assessment process for our first Sustainability Report, First Solar conducted a survey with our external-facing departments including business development, public affairs, project development and investor relations, to identify key aspects that significantly impact the company and our stakeholders, both within and outside our organization. First Solar's stakeholders were prioritized according to their ability to significantly influence or be significantly impacted by the company.

The table below lists all material aspects that we believe to be important to our stakeholders based on the survey results. Each aspect was grouped according to a key topic including company and product viability, environmental impact, local communities, work environment and supply chain sustainability. These key topics form the basis of our report's main chapters. Going forward, we will look to refine our report and validate our view internally through our Sustainability Council and externally by engaging with our key stakeholder groups. In 2016, First Solar participated in the development of the PV industry's first sustainability leadership standard (NSF 457). The multi-stakeholder process identified corporate reporting criteria that are most relevant for the PV industry. The identified material topics will be incorporated into our next sustainability report. We encourage our stakeholders to provide feedback on the report by contacting us at: **Sustainability@firstsolar.com**

Sustainability Material Topics and Aspects				
Company & Product Viability	**Environmental Impact**	**Local Communities**	**Supply Chain Sustainability**	**Workplace**
• Economic Performance • Regulatory Compliance • Anti-Corruption • Quality & Reliability • Investment • Product Cost, Efficiency & Bankability • Product Offering & Strategy	• Effluents, Waste & Recycling • Carbon Footprint • Energy Payback Time • Energy Use • Water Use • Emissions • Biodiversity	• Employment • Indirect Impact • Labor/ Management Relations • Local Communities	• Procurement Practices • Raw Material Availability • Conflict Minerals	• Occupational Health & Safety • Non discrimination • Diversity & Equal Opportunity • Equal Remuneration • Training & Education • Freedom of Association

[31] First Solar's Sustainability Materiality Assessment was developed in accordance with the Global Reporting Initiative's G4 guidelines for defining report content. The Global Reporting Initiative (GRI) is an international independent organization that provides a leading corporate sustainability reporting framework based on multi-stakeholder input from a wide range of civil society organizations, labor groups, businesses, academics, and other experts.

Stakeholder Engagement

First Solar engages with various stakeholder groups including employees, customers, industry associations, NGOs, local communities, scientific organizations, media, investors and shareholders. The following chart depicts First Solar's approach to stakeholder engagement; including frequency of engagement by type and by stakeholder group as well as key topics and concerns that have been raised:

Stakeholder Groups	How We Engage	Material Topics					Frequency
		Company & Product Viability	Environmental Impact	Local Communities	Work Environment	Supply Chain Sustainability	
First Solar Employees	Training Sessions, Meetings, Newsletters, Surveys	✓	✓	✓	✓	✓	Daily, Ongoing Basis
Customers	Meetings, Seminars & Conferences, Technical Workshops, Product Presentations	✓	✓	✓	✓	✓	Ongoing Basis
Suppliers	Meetings, Newsletters, Surveys, Audits	✓	✓		✓	✓	Ongoing Basis
NGOs	External Surveys, Partnerships, Group Meetings, Workshops	✓	✓	✓	✓	✓	Ongoing Basis, Annually
Scientific Community	Conference Presentations, Workshops, Meetings, Working Groups, Technical Seminars, Collaboration, Peer Reviews	✓	✓			✓	Ongoing Basis, Annually
Industry Associations	Calls & Meetings, Industry Events/ Conferences, Newsletters, Board meetings	✓	✓		✓		Ongoing Basis
Government and Regulators	Meetings & Hearings, Conference Presentations, Seminars & Workshops, Committees, Tax Audits	✓	✓	✓	✓	✓	Ongoing Basis
Investors	Meetings, Earnings Calls, Analyst Days	✓	✓		✓		Quarterly, Annually, Ongoing Basis
Local Communities	Meetings & Town Councils, Presentations to Community Organizations, School Visits, Local Tours, Training Programs	✓	✓	✓			Ongoing Basis

Key Performance Indicators	2014	2015	2016	GRI Standards
Net Sales ($ Billion)	3.39	3.579	2.951	102-7
Total Modules Produced (Millions)	19.4	23.5	27.1	102-7
Total Gigawatts Produced (GW)	1.84	2.51	3.10	102-7
Total GHG Emissions (Metric Tons CO_2)	330,895	312,215	406,108	305-1 & 2
Scope 1 GHG Emissions (Metric Tons CO_2)	10,593	11,949	14,730	305-1
Scope 2 GHG Emissions (Metric Tons CO_2)	320,302	300,266	391,378	305-2
Total GHG Intensity (Metric Tons CO_2 per Watt Produced)	179	124	131	305-4
Total Electricity Consumption (MWh)	564,926	670,912	714,630	302-1
Renewable Energy Consumption (MWh)	5,562	7,389	7,172	302-1
Total Fuel Consumption From Non-Renewable Sources (MWh)	43,906	48,653	51,896	302-1
Natural Gas	17,865	15,923	12,220	302-1
Diesel/Gas oil	17,795	25,638	31,055	302-1
Motor Gasoline	8,246	7,092	8,621	302-1
Manufacturing Energy Intensity (kWh per Watt Produced)	0.31	0.27	0.23	302-3
Total Water Use (Billion Liters)	2.82	3.43	3.28	303-1
Manufacturing Water Intensity (Liters per Watt Produced)	1.53	1.37	1.06	--
Total Waste Generation (Million Kilograms)	21.54	21.70	28.22	306-2
Recycled Non-Hazardous (Million Kilograms)	16.26	16.03	22.38	306-2
Recycled Hazardous (Million Kilograms)	0.19	1.03	1.39	306-2
Disposed Non-Hazardous (Million Kilograms)	2.44	1.99	2.41	306-2
Disposed Hazardous (Million Kilograms)	2.65	2.64	2.04	306-2
Manufacturing Waste Intensity (Grams per Watt Produced)	11.7	8.7	9.1	--
Total Wastewater Discharge (Billion Liters)	1.41	1.79	1.83	306-1
Wastewater Generation Intensity (Liters per Watt produced)	0.77	0.71	0.59	--
Total Number of Associates	6,060	6,350	5,358	102-7
First Solar Recordable Injury Rate	0.30	0.34	0.43	403-2
EPC Site Recordable Injury Rate	0.73	0.97	0.58	403-2
% Male Workforce	81%	82%	81%	405-1
% Female Workforce	19%	18%	19%	405-1
% Male Management	82%	82%	82%	405-1
% Female Management	18%	18%	18%	405-1
ISO 14001 Certification of Mfg. %	100%	100%	100%	--
OHSAS Certification of Mfg. %	100%	100%	100%	--

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GRI CONTENT INDEX

10 GRI Content Index

GRI Standard Title	Disclosure Number	Description	Cross-Reference (Page Number or Link)
General Disclosures	102-1	Name of the organization	First Solar Inc.
General Disclosures	102-2	Products and services and activities	First Solar 2016 Annual Report and Form 10-K
General Disclosures	102-3	Location of headquarters	350 W Washington St #600, Tempe, AZ 85281, United States
General Disclosures	102-4	Location of operations	First Solar 2016 Annual Report and Form 10-K
General Disclosures	102-5	Ownership and legal form	First Solar 2016 Annual Report and Form 10-K
General Disclosures	102-6	Markets served	About First Solar: Our Energy Solutions and Markets
General Disclosures	102-7	Scale of the organization	About First Solar: Our Operations
General Disclosures	102-8	Information on employees and other workers	About First Solar: Our Operations
General Disclosures	102-9	Description of the organization's supply chain	First Solar Supply Chain
General Disclosures	102-10	Significant changes to the organization and its supply chain	First Solar 2016 Annual Report and Form 10-K
General Disclosures	102-11	Precautionary Principle or approach	Change Management System and EHS Peer Reviews
General Disclosures	102-12	External Initiatives	External Sustainability Initiatives and Charters
General Disclosures	102-13	Membership of Associations	2016 CDP submission section 2.3
General Disclosures	102-14	Statement from senior decision-maker	Message from the CEO
General Disclosures	102-15	Key impacts, risks and opportunities	First Solar 2016 Annual Report and Form 10-K
General Disclosures	102-16	Values, principles, standards and norms of behavior	Code of Business Conduct and Ethics
General Disclosures	102-18	Governance structure	Corporate Governance and Website
General Disclosures	102-40	List of stakeholder groups	About this Report: Stakeholder Engagement
General Disclosures	102-41	Collective bargaining agreements	First Solar 2016 Annual Report and Form 10-K
General Disclosures	102-42	Identifying and selecting stakeholders	About this Report: Stakeholder Engagement
General Disclosures	102-43	Organization's approach to stakeholder engagement	About this Report: Stakeholder Engagement
General Disclosures	102-44	Key topics and concerns raised	About this Report: Stakeholder Engagement
General Disclosures	102-45	Entities included in the consolidated financial statements	First Solar 2016 Annual Report and Form 10-K

General Disclosures	102-46	Defining report content and topic Boundaries	About this Report
General Disclosures	102-47	List of material topics	About this Report: Materiality Assessment
General Disclosures	102-48	Restatements of information	n/a
General Disclosures	102-49	Changes in reporting	n/a
General Disclosures	102-50	Reporting period	1 January 2016 – 31 December 2016
General Disclosures	102-51	Date of most recent report	10 March 2016
General Disclosures	102-52	Reporting cycle	Biennial with periodic updates
General Disclosures	102-53	Contact point for questions regarding the report	Sustainability@firstsolar.com
General Disclosures	102-54	"In accordance" option	Core
General Disclosures	102-55	GRI Content Index	GRI Content Index
General Disclosures	102-56	External assurance	About this Report
Management Approach	103-1	Explanation of material topic and its boundary	About this Report
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Economic Performance	201-2	Financial implications and other risks and opportunities due to climate change	CDP submission sections 5 and 6
Economic Performance	203-2	Significant indirect economic impacts	Environmental and Economic Benefits of PV Power plants
Procurement Practices	204-1	Proportion of spending on local suppliers	Supply Chain Sustainability
Anti-Corruption	205-2	Communication and training on anti-corruption policies and procedures	Anti-Corruption
Materials	301-2	Recycled input materials used	Raw Material Availability
Energy	302-1	Energy consumption within the organization	Operational Excellence: KPI Chart
Energy	302-3	Energy intensity	Operational Excellence: Manufacturing Energy Intensity
Water	303-1	Total water withdrawal	Operational Excellence: KPI Chart
Biodiversity	304-3	Habitats protected or restored	Environmental and Economic Benefits of PV Power plants
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Emissions	305-2	Indirect GHG emissions (Scope 2)	Operational Excellence: KPI Chart
Emissions	305-4	GHG emissions intensity	Operational Excellence: Greenhouse Gas Emissions Goal
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Effluents and Waste	306-2	Total weight of waste by type and disposal method	Operational Excellence: Waste by Type and Disposal
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Occupational Health and Safety	403-1	Workers representation in formal joint management-worker health and safety committees	Operational Excellence: Safety First
Occupational Health and Safety	403-2	Type of injury and rates of injury, occupational diseases, lost days and absenteeism and total number of work-related fatalities	Operational Excellence: Safety First
Training and Education	404-3	Percentage of employees receiving regular performance and career development reviews	Training and Education
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	Local Communities
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	Change Management System and Peer Reviews