

Welcome to your CDP Water Security Questionnaire 2021

W0. Introduction

W0.1

(W0.1) Give a general description of and introduction to your organization.

First Solar is a leading American solar technology company and global provider of responsiblyproduced eco-efficient solar modules advancing the fight against climate change. We are unique among the world's ten largest solar manufacturers for being the only US-headquartered company and for not using a crystalline silicon (c-Si) semiconductor. Developed at R&D labs in California and Ohio, First Solar's advanced thin film photovoltaic (PV) modules represent the next generation of solar technologies, providing a competitive, high-performance, lower-carbon alternative to conventional c-Si PV panels. From raw material sourcing and manufacturing through end-of-life module recycling, First Solar's approach to technology embodies sustainability and a responsibility towards people and the planet. Our vision is to lead the world's sustainable energy future and our mission is to provide cost-advantaged solar technology through innovation, customer engagement, industry leadership, and operational excellence.

First Solar's proven solar solutions diversify the energy portfolio and reduce the risk of fuelprice volatility while delivering a levelized cost of electricity (LCOE) that is cost competitive with fossil fuels today. First Solar has set the benchmark for environmentally responsible product life cycle management by introducing the industry's first global and comprehensive recycling program for solar modules. We are committed to minimizing the environmental impacts and enhancing the social and economic benefits of our products and projects across their life cycle, from raw material sourcing through product end-of-life. For more information about First Solar, please visit www.firstsolar.com

First Solar was founded in 1999 and began commercial production in 2002. Since 2002 and through 2020, we have sold over 30 gigawatts (GW) of PV solar modules. Assuming average worldwide irradiance and grid electricity emissions, our products are being used to displace over 21 million metric tons of CO2e per year during their 30+ year product life. This is equivalent to powering more than 15 million average homes, planting over 350 million trees and saving over 54 billion liters of water (or 21,000 Olympic swimming pools) per year based on worldwide averages. Every year, First Solar products are displacing more than 10 times the amount of greenhouse gas emissions we emit through our global operations and supply chain.



W0.2

(W0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date
Reporting year	January 1, 2020	December 31, 2020

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

Germany Malaysia United States of America Viet Nam

W0.4

(W0.4) Select the currency used for all financial information disclosed throughout your response.

USD

031

W0.5

(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.

Other, please specify Global manufacturing, recycling and R&D

W0.6

(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?

No

W1. Current state

W1.1

(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good	Vital	Important	Water quality is vital for our operations (direct use) as our thin film solar photovoltaic manufacturing process relies on ultra-pure water production. As



quality noonnator			we expand our manufacturing footprint,
available for use			dependency on freshwater availability will
			increase. The indirect use of water is important as
			our supply chain relies on sufficient amounts of
			water to be available for use. However, by
			switching to less water-intensive electricity
			generation, this dependence could be reduced.
			First Solar conducted a lifecycle water
			assessment of our thin film PV technology which
			concluded that the life cycle water withdrawal of
			cadmium telluride (CdTe) PV ranges from
			approximately 382– 425 L/MWh. (Source: Sinha,
			Meader and de Wild-Scholten, Life Cycle Water
			Usage in CdTe Photovoltaics, IEEE, Journal of
			Photovoltaics, 2012) Direct onsite water use
			represents only ~12% of CdTe PV's lifecycle
			water withdrawal. The remainder is related to
			indirect water withdrawal from the use of grid
			electricity and raw materials throughout the
			product life cycle. Primary contributors to life cycle
			water withdrawal in our supply chain include the
			use of grid electricity, glass, steel and copper
			production, chemical use, and transport during
			take-back and recycling.
Sufficient	Important	Not very	Although our direct and indirect operations do not
amounts of		important	currently depend on having sufficient amounts of
recycled,			
			brackish or produced water, this may change if we
brackish and/or			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so
brackish and/or produced water			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do
brackish and/or produced water available for use			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do recycle water from our routinely operated recycling
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brackish and/or produced water available for use			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do recycle water from our routinely operated recycling facilities in order to reduce our water withdrawals. As a result, First Solar's routinely operated recycling facilities in Malaysia, Germany, Vietnam
brackish and/or produced water available for use			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do recycle water from our routinely operated recycling facilities in order to reduce our water withdrawals. As a result, First Solar's routinely operated recycling facilities in Malaysia, Germany, Vietnam and the U.S. have zero wastewater discharge.
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brackish and/or produced water available for use			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do recycle water from our routinely operated recycling facilities in order to reduce our water withdrawals. As a result, First Solar's routinely operated recycling facilities in Malaysia, Germany, Vietnam and the U.S. have zero wastewater discharge. This will enable us to operate mobile recycling plants in water scarce regions in the future and in
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brackish and/or produced water available for use			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do recycle water from our routinely operated recycling facilities in order to reduce our water withdrawals. As a result, First Solar's routinely operated recycling facilities in Malaysia, Germany, Vietnam and the U.S. have zero wastewater discharge. This will enable us to operate mobile recycling plants in water scarce regions in the future and in areas where water utilities or wastewater treatment facilities are not available. Our direct and indirect dependency on brackish or produced water availability may increase in the future if we manufacture in water-scarce locations and recycling water will remain important as our manufacturing footprint and water demand
brackish and/or produced water available for use			brackish or produced water, this may change if we begin manufacturing in water-scarce locations so the "important" rating was selected. We do recycle water from our routinely operated recycling facilities in order to reduce our water withdrawals. As a result, First Solar's routinely operated recycling facilities in Malaysia, Germany, Vietnam and the U.S. have zero wastewater discharge. This will enable us to operate mobile recycling plants in water scarce regions in the future and in areas where water utilities or wastewater treatment facilities are not available. Our direct and indirect dependency on brackish or produced water availability may increase in the future if we manufacture in water-scarce locations and recycling water will remain important as our manufacturing footprint and water demand increases. Our supply chain does not currently



however this may change in the future which is
why the "not very important" rating was selected.

W1.2

(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	We regularly measure and monitor 100% of our total withdrawals from our manufacturing, recycling, and research and development facilities based on water utility bills.
Water withdrawals – volumes by source	100%	We regularly monitor and measure 100% of the total water withdrawals of our manufacturing, recycling, and research and development facilities based on water utility bills. All withdrawals come from the local municipal supplier (third-party/ freshwater).
Water withdrawals quality	100%	We regularly monitor and measure 100% of our water quality by standard parameters as well as for heavy metals. First Solar factories are equipped with state-of-the-art analytical capabilities for in-house wastewater testing.
Water discharges – total volumes	100%	We regularly monitor and measure 100% of the water discharges of our manufacturing, recycling, and research and development facilities.
Water discharges – volumes by destination	100%	We regularly monitor and measure 100% of the water discharges by destination of our manufacturing, recycling, and research and development facilities. In 2020, approximately 76% of our wastewater was sent to a third-party (municipal wastewater facility) and approximately 24% was discharged directly to fresh surface water (river).
Water discharges – volumes by treatment method	100%	We regularly monitor and measure 100% of our total water discharge volumes by treatment method. 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.



Water discharge quality – by standard effluent parameters	100%	We regularly monitor and measure 100% of our water discharge quality by standard effluent parameters as well as for heavy metals from our manufacturing sites which represent 99.9% of our total wastewater discharge. First Solar factories are equipped with state-of-the-art analytical capabilities for in-house wastewater testing.
Water discharge quality – temperature	Not relevant	We do not have any high temperature inducing processes in wastewater. This is not anticipated to change or be relevant in the future.
Water consumption – total volume	100%	Approximately 63% of our total water withdrawals (~2,302 megaliters) was consumed during operation and used for irrigation, cooling towers, sanitary purposes, or recycled in 2020. We are able to estimate water consumption by subtracting total water discharges from total water withdrawals: 3,655 megaliters-1,353 megaliters= 2,302 megaliters consumed.
Water recycled/reused	100%	We measure the amount of water recycled at our manufacturing and recycling facilities in Malaysia, Ohio, Vietnam and Germany, which represented 99.9% of our water withdrawals in 2020. We recycled approximately 290 megaliters (or approximately 8% of our total water withdrawals) across our operations.
The provision of fully- functioning, safely managed WASH services to all workers	100%	100% of our facilities provide fully functioning, safely managed WASH services to all workers. Our total water withdrawal data includes sanitary water use at our manufacturing and recycling facilities.

W1.2b

(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	3,655	Lower	While our production increased by 7% in 2020, our absolute water withdrawals decreased by approximately 5% due to the enhanced throughput and water efficiency of our Series 6



			manufacturing process, water recycling initiatives, and production downtime at our facility in Malaysia for retooling. Total water withdrawals are expected to increase in 2021 due to increased production. As of 31 March 2021, our total production nameplate capacity amounted to 7.9 gigawatts (GW), compared to 6.3GW at the end of 2020. Our threshold for "lower" is defined as any decrease up to 20%.
Total discharges	1,353	Much lower	In 2020, approximately 37% (or 1,353 megaliters) of First Solar's total water withdrawn from water utilities (3,655 megaliters) was discharged as wastewater from our industrial wastewater treatment systems. This represented a 41% decrease in wastewater discharges compared to 2019 primarily due to increased water recycling initiatives and production downtime at our facility in Malaysia for retooling. Total water discharges are expected to increase in 2021 due to increased production and water withdrawals. As of 31 March 2021, our total production nameplate capacity amounted to 7.9 gigawatts (GW), compared to 6.3GW at the end of 2020. Our threshold for "much lower" is defined as any decrease of more than 20%.
Total consumption	2,302	Higher	In 2020, our water consumption increased to 2,302 megaliters which represented a 16% increase compared to 2019. This was primarily due to the increase in production at our manufacturing facilities in Ohio. Total water consumption is expected to increase in 2021 due to increased production. As of 31 March 2021, our total production nameplate capacity amounted to 7.9 gigawatts (GW), compared to 6.3GW at the end of 2020. Our threshold for "higher" is defined as any increase of less than 20%.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

Withdrawals	%	Comparison	Identification	Please explain
are from	withdrawn	with previous	tool	
	from areas			



	areas with water stress	with water stress	reporting year		
Row 1	Yes	Less than 1%	Much lower	WWF Water Risk Filter	In 2020, 0.005% of our water withdrawals came from water stressed areas, compared to 0.01% in 2019. We used the WWF Risk Filter Tool and defined stressed areas as having baseline water stress that is equal to/greater than 'High': 40-80%. In 2020, our Mesa, Arizona test site was the only one classed as water stressed and water withdrawals there decreased by more than 40% compared to 2019. Our threshold for "much lower" is defined as any decrease of more than 20%. We evaluate the percentage of sites operating in water stressed areas based on the baseline water stress of our site locations.

W1.2h

(W1.2h) Provide total water withdrawal data by source.

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Not relevant			Not relevant. All withdrawals come from local municipal suppliers (third- party/freshwater). No change from last year. No changes are expected in the future.
Brackish surface water/Seawater	Not relevant			Not relevant. All withdrawals come from local municipal suppliers (third- party/freshwater). No change from last year. No changes are expected in the future.



Groundwater – renewable	Not relevant			Not relevant. All withdrawals come from local municipal suppliers (third- party/freshwater). No change from last year. No changes are expected in the future.
Groundwater – non- renewable	Not relevant			Not relevant. All withdrawals come from local municipal suppliers (third- party/freshwater). No change from last year. No changes are expected in the future.
Produced/Entrained water	Not relevant			Not relevant. All withdrawals come from local municipal suppliers (third- party/freshwater). No change from last year. No changes are expected in the future.
Third party sources	Relevant	3,655	Lower	All withdrawals for our manufacturing, recycling and research and development sites come from local municipal suppliers (third- party/freshwater). Our total water withdrawals were approximately 5% lower in 2020 compared to 2019 (3,846 megaliters). This was due to the 7% increase in our production capacity. Total water withdrawals from third party sources are expected to increase in 2021 due to the increase in our production capacity. As of 31 March 2021, our total production nameplate capacity amounted to 7.9 gigawatts (GW), compared to 6.3GW at the end of 2020. Our threshold for "lower" is defined as any decrease up to 20%.



W1.2i

Relevance Volume Comparison Please explain (megaliters/year) with previous reporting year Fresh surface Relevant 322 Total water discharges to fresh Much lower surface water (river) amounted to water approximately 322 megaliters in 2020, which is 232% lower than in 2019 (1.069 megaliters). This was due to the ramp down in production at our manufacturing facility in Malaysia for retooling. Total water discharges to fresh surface water are expected to be higher in 2021 due to the expansion in our production capacity. Our threshold for "much lower" is defined as any decrease of more than 20%. Brackish Not On-site treated industrial surface relevant wastewater is either indirectly water/seawater discharged to sanitary sewer in the United States and Vietnam, or directly discharged to river in Malaysia. Our operations do not discharge wastewater to brackish surface water or seawater. No change from 2019 and no change is expected in the future. Groundwater Not On-site treated industrial relevant wastewater is either indirectly discharged to sanitary sewer in the United States and Vietnam, or directly discharged to river in Malaysia. Our operations do not discharge wastewater to brackish surface water or seawater. No change from 2019 and no change is expected in the future. Third-party Relevant 1,030 Higher Total water discharges to thirddestinations party destinations (municipal wastewater facility) amounted to

(W1.2i) Provide total water discharge data by destination.



		1030 megaliters in 2020, which
		represented a 19% increase
		compared to 2019 (832
		megaliters). The increase in 2020
		was due to increased production
		at our facilities in Vietnam and
		Ohio. We expect wastewater
		discharges to third-party
		destinations to be higher in 2021
		due to the expansion in our
		production capacity.

W1.2j

(W1.2j) Within your direct operations, indicate the highest level(s) to which you treat your discharge.

	Relevanc e of treatment level to discharge	Volume (megaliters/year)	Compariso n of treated volume with previous reporting year	% of your sites/facilities/operation s this volume applies to	Please explain
Tertiary treatment	Relevant	1,353	Much lower	100%	100% of our wastewater goes through tertiary treatment. We treat wastewater at our manufacturin g and recycling facilities using 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.
		The amount
		of wastewater
		treated in
		2020 was
		approximately
		29% lower
		than in 2019
		due to
		production
		downtime at
		our
		manufacturin
		g facility in
		Malaysia for
		retooling and



		enhanced
		wastewater
		recycling
		initiatives.
		Our threshold
		for "much
		lower" is
		defined as
		any decrease
		of more than
		20%. We
		expect the
		amount of
		wastewater
		we treat to be
		higher in
		2021 and
		beyond as
		our
		wastewater
		generation
		increases due
		to our
		arowina
		production
		capacity As
		of 31 March
		2021 our
		total
		production
		nameplate
		capacity
		amounted to
		7 9 didawatts
		(GW) with a
		nath to
		increase to
		13 GW based
		on our
		recently
		announced
		expansion
		plan
		compared to
		6.3GW at the
		end of 2020
		GHG 01 2020 .



Secondary treatment	Not relevant		100% of our wastewater goes through tertiary treatment.
Primary treatment only	Not relevant		100% of our wastewater goes through tertiary treatment.
Discharge to the natural environmen t without treatment	Not relevant		100% of our wastewater goes through tertiary treatment. No industrial wastewater leaves our site unless we have tested and approved it for discharge.
Discharge to a third party without treatment	Not relevant		100% of our wastewater goes through tertiary treatment. First Solar treats wastewater at our manufacturin g 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.
Other	Not relevant		100% of our wastewater goes through tertiary treatment.

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number Less than 1%

% of total procurement spend



1-25

Rationale for this coverage

First Solar evaluates new suppliers using a balanced scorecard which focuses on the areas of Quality, Cost, Flexibility, Service, Technology and Sustainability. First Solar audits new and high-risk direct suppliers on an annual basis for their adherence to quality, environmental, health and safety, among other areas. The EHS section of our supplier audit tool uses the Responsible Business Alliance (RBA) Code of Conduct as a framework and includes questions on water use and water reduction targets. We prioritize engagement by focusing on our module component suppliers. Due to the Covid-19 pandemic, we were only able to conduct one onsite audit in 2020 with a supplier that represented approximately 2% of our spend. Before any materials are used in our manufacturing process, a supplier must undergo a rigorous qualification process.

Impact of the engagement and measures of success

Suppliers are scored in terms of low, medium and high risk to determine whether further engagement or corrective actions are needed. 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. After completing an onsite assessment, suppliers are more aware of First Solar's environmental, health and safety (EHS) requirements. Measures of success include overall low risk scores and supplier improvements such as creating or improving recycling programs, EHS objectives and targets. First Solar works with suppliers to drive supplier improvement in Quality and EHS. In 2020, no supplier was identified as having potential negative impacts based on their EHS audit score.

Comment

W1.4b

(W1.4b) Provide details of any other water-related supplier engagement activity.

Type of engagement

Onboarding & compliance

Details of engagement

Inclusion of water stewardship and risk management in supplier selection mechanism

% of suppliers by number

Less than 1%

% of total procurement spend

1-25

Rationale for the coverage of your engagement

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Comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

First Solar engages customers through thought leadership, by generating awareness of the energy-water nexus and the sustainability advantage of our products. Unlike thermal electric power plants and concentrated solar power, solar PV does not require any water to generate electricity during operation and is ideally suited to meet the growing energy and water needs of arid, water-limited regions. Energy security, water security and climate change are all important drivers for renewable energy adoption. Due to our resource-efficient manufacturing process, First Solar modules have a water footprint that is up to three times lower than conventional crystalline silicon solar panels on a life cycle basis. Customers with their own sustainability goals are particularly interested in understanding how much carbon a First Solar PV plant displaces as well as how much water is saved by avoiding the use of grid electricity. Success is measured in terms of customer interest in the environmental attributes of our technology, the inclusion of water or carbon footprint questions in RFPs, and megawatts (MW) sold. We also raise awareness about the energy-water-carbon nexus through our social media platforms to highlight the important role solar PV can play in helping companies decouple their growth from environmental impacts associated with traditional sources of electricity generation. Over the past few years, we participated in a multi-stakeholder process led by the Green Electronics Council and NSF international to develop the industry's first sustainability leadership standard for PV modules and inverters (NSF/ANSI 457-2019) which includes criteria on energy and water efficiency, GHG emissions, and corporate sustainability reporting.



PV modules and inverters conforming to NSF 457 are added to the EPEAT registry for sustainable electronics. The EPEAT registry enables public and private purchasers to identify environmentally preferable PV products.

W2. Business impacts

W2.1

(W2.1) Has your organization experienced any detrimental water-related impacts? No

W2.2

(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?

No

W3. Procedures

W3.3

(W3.3) Does your organization undertake a water-related risk assessment? Yes, water-related risks are assessed

W3.3a

(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.

C	Direct operations
	Coverage
	Full
	Risk assessment procedure
	Water risks are assessed as part of an enterprise risk management framework

Frequency of assessment

Annually

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market Enterprise Risk Management Other First Solar Inc CDP Water Security Questionnaire 2021 Wednesday, July 28, 2021



Tools and methods used

WWF Water Risk Filter Internal company methods

Comment

As part of its Enterprise Risk Management (ERM) approach, First Solar has identified various risk areas across the company with specific risk owners and risk domains. The risk owners review the risk scorecards for each risk area on a semi-annual basis with certain members of the executive leadership team including the Chief Executive Officer (CEO). The risk scorecards capture the company leadership's view of enterprise risks and risk trends over an up to 5-year horizon. Longer term risks may be identified where relevant. The WWF Water Risk filter Tool is used to assess the baseline water stress levels of countries where our manufacturing, recycling and Research and Development facilities are located.

Supply chain

Coverage

Partial

Risk assessment procedure

Other, please specify Facility risk scorecards

Frequency of assessment

More than once a year

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market Other

Tools and methods used

WWF Water Risk Filter Internal company methods

Comment

Our facility risk scorecards assess water risks to our manufacturing facilities in the context of operational and/or business continuity on an annual or more frequent basis. Potential asset level water risks include natural disasters, production and utility supply disruption, and the inability to operate wastewater treatment plant or ultra pure water production. The level of coverage selected is prioritized according to a facility or supplier's ability to impact operations and business continuity.

Other stages of the value chain

Coverage Full First Solar Inc CDP Water Security Questionnaire 2021 Wednesday, July 28, 2021



Risk assessment procedure

Water risks are assessed as part of other company-wide risk assessment system

Frequency of assessment

Not defined

How far into the future are risks considered?

Up to 1 year

Type of tools and methods used

International methodologies

Tools and methods used

Life Cycle Assessment

Comment

A life cycle assessment was conducted to determine the amount of water consumed across the life cycle of First Solar PV modules and systems. Approximately half the life cycle water withdrawal of First Solar's CdTe PV technology is associated with module manufacturing, one-third with the balance of system, and the remainder with end-of-life recycling, with direct onsite water use representing only ~12% of CdTe PV's life cycle water withdrawal.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, always included	Sufficient water availability is taken into account when siting new manufacturing facilities as our manufacturing process relies on ultrapure water production. Our manufacturing risk scorecards assess potential risks to water availability at our current manufacturing sites. The WWF water risk filter tool is used to assess water stress levels of countries where our manufacturing, recycling and Research and Development facilities are located. The assessment determined that 0.005% of our manufacturing, research and development, and recycling sites are located in water stressed areas, defined as water stress of greater than 40% ("High": 40%-80%).
Water quality at a basin/catchment level	Relevant, always included	Sufficient water quality is taken into account when siting new manufacturing facilities as our manufacturing process relies on ultrapure water production. Our manufacturing risk scorecards assess potential risks to water availability and ultrapure water production at our current manufacturing sites.



Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, always included	Securing sufficient water access for the construction of utility- scale solar PV power plants was previously incorporated into our project development process. Each First Solar project began with an extensive review of potential site locations, and considered the available solar resources, proximity to existing electrical transmission lines, current land uses, site characteristics and environmental sensitivities. Stakeholder engagement was an integral part of First Solar's project development and community outreach activities. First Solar consulted 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. Water-related project development risks were then assessed based on internal company knowledge. In 2021, First Solar completed the sale of its U.S. Project Development and North American O&M businesses so this contextual issue will become less relevant.
Implications of water on your key commodities/raw materials	Relevant, always included	First Solar conducted a life cycle assessment to understand the water impacts of our commodities and raw materials. The major contributors to our life cycle water withdrawal include grid electricity, glass, steel, copper, and inverters. Our manufacturing risk scorecards assess potential risks to water availability at our current manufacturing sites. Key raw materials not available for production are evaluated but are considered low risk.
Water-related regulatory frameworks	Relevant, always included	Water-related regulatory frameworks are included in our enterprise risk management process. We are subject to various national, state, local, and international laws and regulations relating to the protection of the environment, including those governing the discharge of pollutants into the air and water. Therefore, we could incur substantial costs, including cleanup costs, fines, and civil or criminal sanctions or liabilities under environmental and occupational health and safety laws and regulations or non-compliance with environmental permits required for our operations. We believe we are currently in substantial compliance with applicable environmental and occupational health and safety requirements and do not expect to incur material expenditures for environmental and occupational health and safety controls in the foreseeable future. Future developments such as the implementation of new, more stringent laws and regulations, more aggressive enforcement policies, or the discovery of unknown environmental conditions may require expenditures that could have a material adverse effect on our business, financial condition, or results of operations.



Status of	Relevant,	The status of ecosystems and habitats were considered during
ecosystems and	always	the PV permitting and project development process. Each First
habitats	included	Solar project began with an extensive review of potential site
		locations, and considered the available solar resources,
		proximity to existing electrical transmission lines, current land
		uses, site characteristics and environmental sensitivities. Prior
		to being allowed admission to a project site, all workers and
		visitors were 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 animal and plant species
		(https://doi.org/10.1525/cse.2018.001123). Water-related
		project development risks were assessed based on internal
		company knowledge. In 2021, First Solar completed the sale of
		its U.S. Project Development and North American O&M
		businesses so this contextual issue will become less relevant.
Access to fully-	Relevant,	First Solar provides access to fully-functioning WASH services
functioning, safely	always	for all our associates. Hygienic conditions and a safe water
managed WASH	included	supply is a requirement at all First Solar sites. All First Solar
services for all		facilities monitor and track water use which is incorporated in
employees		First Solar's water inventory. Access to reliable utility water
		supply is included in First Solar's facility risk scorecards.
Other contextual	Not relevant,	There are no other relevant contextual issues.
issues, please	explanation	
specify	provided	

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, always included	While energy security and climate change have been important drivers for renewable energy adoption, water security provides an additional driver. The energy-water nexus associated with traditional energy sources is a growing concern among our customers particularly in water-stressed regions. First Solar modules convert sunlight into electricity without the use of water which provides an additional advantage over conventional energy and concentrated solar power. On a life cycle basis, First Solar's thin film modules use up to 400 times less water per MWh than conventional energy and up to 3 times less water than other solar technologies such as mono-crystalline silicon PV.



		First Solar engages with customers by raising awareness of the energy-water-nexus and our product's water footprint and other sustainability advantages in customer discussions.
Employees	Relevant, always included	First Solar provides access to fully-functioning WASH services for all our associates. Hygienic conditions and a safe water supply is a requirement at all First Solar sites. All First Solar facilities monitor and track water use which is incorporated in First Solar's water inventory.
Investors	Relevant, always included	Socially responsible investors are interested in understanding our water risks and management strategy. We engage with investors through various ESG surveys. We disclose water risks in our annual report and CDP Carbon and Water responses. We also provide insight into our water performance in our annual sustainability report, available at: https://www.firstsolar.com/en/About-Us/Responsible-Solar
Local communities	Relevant, always included	Securing sufficient water access for the construction of our utility- scale solar PV power plants was incorporated into our permitting and project development process. Each First Solar project began with an extensive review of potential site locations, and considered the available solar resources, proximity to existing electrical transmission lines, current land uses, site characteristics and environmental sensitivities. Stakeholder engagement was an integral part of First Solar's project development and community outreach activities. First Solar consulted 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. Throughout construction, First Solar provided regular updates to the local communities through project newsletters, websites and town hall meetings or informational sessions.
NGOs	Relevant, always included	Securing sufficient water access for the construction of our utility- scale solar PV power plants was incorporated into our permitting and project development process. Each First Solar project began with an extensive review of potential site locations, and considered the available solar resources, proximity to existing electrical transmission lines, current land uses, site characteristics and environmental sensitivities. Stakeholder engagement was an integral part of First Solar's project development and community outreach activities. First Solar consulted 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 worked with experts in a range of disciplines with the aim of



		minimizing the biological, cultural and visual impacts of our projects.	
Other water users at a basin/catchment level	Relevant, always included	Securing sufficient water access for the construction of our utility- scale solar PV power plants is incorporated into our permitting and project development process. 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. 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.	
Regulators	Relevant, always included	Regulatory risks are included in our enterprise risk management process. First Solar engaged with regulators as part of the project permitting process to ensure sufficient access to water during the construction of a PV power plant. As part of our public outreach activities, First Solar conducted site tours for community members, organizations, elected officials, schools and universities.	
River basin management authorities	Relevant, always included	First Solar engaged with river basin authorities as part of the project permitting process to ensure sufficient access to water during the construction of a PV power plant.	
Statutory special interest groups at a local level	Relevant, always included	First Solar engaged with special interest groups at the local level as part of the project permitting process to ensure sufficient access to water during the construction of a PV power plant. As part of our public outreach activities, First Solar conducted site tours for community members, organizations, elected officials, schools and universities. Throughout construction, First Solar provided regular updates to the local communities through project newsletters, websites and town hall meetings or informational sessions.	
Suppliers	Relevant, always included	First Solar evaluates new suppliers using a balanced scorecard which focuses on the areas of Quality, Cost, Flexibility, Service, Technology and Sustainability. First Solar audits new and high- risk direct suppliers for their adherence to quality, environmental, health and safety, among other areas. The EHS section of our supplier audit tool uses the Responsible Business Alliance (RBA) Code of Conduct as a framework and encompasses topics such as environmental management, health and safety, labor and human rights and ethics. We assess our suppliers' awareness of water risks through our supplier audit tool and include questions relating to their water reduction goals and monitoring practices.	



		We prioritize our engagement by focusing on our module component suppliers.
Water utilities at a local level	Relevant, always included	Disruptions to water supply for our manufacturing facilities are considered in our facility risk assessment scorecards. We engage with local water utilities to support our mitigation activities in the event of water outages.
Other stakeholder, please specify	Not relevant, explanation provided	There are no other relevant stakeholders.

W3.3d

(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.

As part of its Enterprise Risk Management (ERM) approach, First Solar has identified various risk areas across the company with specific risk owners and risk domains. The risk owners review the risk scorecards for each risk area on a semi-annual basis with certain members of the executive leadership team including the Chief Executive Officer (CEO). The risk scorecards capture the company leadership's view of enterprise risks and risk trends over an up to 5 year horizon. Longer term risks may be identified where relevant. Enterprise-impacting, emerging, transient and cross-functional risks are assessed on their trend and net risk exposure considering mitigation efforts. Key risk domains include but are not limited to regulatory, operational, financial, reputational, market, technology, supply chain, organizational adaptability, and environmental, social governance (ESG) risks. These include climate change related risks and opportunities such as regulatory and other market drivers, uncertainty in market signals, commodity price risks, corporate sustainability, and physical risks relating to natural disasters, as well as water risks e.g. water scarcity, EHS obligation and liabilities, and disruptions to water quality and supply. Enterprise risks are grouped by Perceived Organizational Priority (Priority 1, 2 and 3). Priority 1 risks are defined as having potential for dramatic negative consequences to the business, e.g. disruptions to production which result in loss of sales, loss of market share and/or reputational damage. The results are reviewed and analyzed by the executive leadership team and the Board's Audit Committee to guide the company's risk mitigation efforts. Updates are provided to the Board's Audit Committee on an annual basis. Impacts, risks, and opportunities related to Climate Change may be included in these updates if they could have a significant potential impact on the company's business and operations. Risks associated with individual assets (including risks due to weather and other extreme events) are assessed in the context of operational and/or business continuity risks. Asset level risks (e.g. natural disasters that affect individual facilities) and opportunities are assessed through annual scorecards for our manufacturing sites, or more frequently if needed.

Our facility risk scorecards assess water risks to our manufacturing facilities in the context of operational and/or business continuity on an annual or more frequent basis. Potential assetlevel water risks include natural disasters, utility supply and supply chain disruption, as well as the inability to operate wastewater treatment plant or ultra pure water production. The level of coverage selected is prioritized according to a facility or supplier's ability to impact operations



and business continuity. The WWF Water Risk Filter Tool is used to assess the baseline water stress levels of countries where our manufacturing, recycling and Research and Development facilities are located and potential future manufacturing locations.

The development and construction of solar energy generation facilities and other energy infrastructure projects involved numerous risks which are outlined in our annual report. These include water risks which vary project by project. During construction, water is typically needed for site preparation and dust suppression. Ensuring access to water during the construction period was incorporated into our project development and permitting process. Water-related project development risks are assessed based on internal company knowledge. In 2021, First Solar completed the sale of its U.S. Project Development and North American O&M businesses so project development-specific water risks have become less relevant.

W4. Risks and opportunities

W4.1

(W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, both in direct operations and the rest of our value chain

W4.1a

(W4.1a) How does your organization define substantive financial or strategic impact on your business?

As part of its Enterprise Risk Management (ERM) approach, First Solar has identified various risk areas across the company with specific risk owners and risk domains. The risk owners review the risk scorecards for each risk area on a semi-annual basis with certain members of the executive leadership team including the Chief Executive Officer (CEO). The risk scorecards capture the company leadership's view of enterprise risks and risk trends over an up to 5 year horizon. Longer term risks may be identified where relevant. Enterprise-impacting, emerging, transient and cross-functional risks are assessed on their trend and net risk exposure considering mitigation efforts. Enterprise risks are grouped by Perceived Organizational Priority (Priority 1, 2 and 3). Priority 1 risks are defined as having potential for significant negative consequences to the business, e.g. disruptions to production which result in loss of sales, loss of market share and/or reputational damage. Our definition for a substantive financial impact is a major impact on business, strategy, reputation, operational milestones, talent loss, or financial loss e.g. direct loss or opportunity cost of more than \$50 million (medium-high impact) to more than \$100 million (high impact). Substantive strategic impacts on our business include a major impact on our strategy, major financial overrun, and/or failure to meet our key strategic goals. Our definition of substantive risk applies to both direct operations and our supply chain.

Natural disasters such as floods and disruptions to our utility water supply that affect a plant's ability to produce and perform process development activities are physical water risks that could generate substantive change to our business. These risks would likely result in us losing



some production for a while, until we are able to bring the affected buildings back to production. In this case, substantive risk is defined in terms of its impact on our overall production. As of March 2021, our global nameplate manufacturing capacity amounted to 7.9 gigawatts (GW).

W4.1b

(W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

	Total number of facilities exposed to water risk	% company- wide facilities this represents	Comment
Row 1	3	26-50	First Solar's PV modules are currently produced at our facilities in Ohio, Malaysia, and Vietnam. These three locations are exposed to water risks with the potential to have a substantive financial impact on our business. First Solar has an additional recycling facility in Germany and two research and development facilities in the U.S. However, water risks at these facilities would not pose a substantive financial impact. Damage to or disruption of our manufacturing facilities could interrupt our business and adversely affect our ability to generate net sales. These three facilities make up a substantial portion of our net sales. Our 2020 exit rate nameplate capacity was 2.2 GW DC in Ohio, 1.3 GW DC in Malaysia, and 2.8 GW DC in Vietnam.

W4.1c

(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?

Country/Area & River basin United States of America St. Lawrence Number of facilities exposed to water risk 1 % company-wide facilities this represents 1-25 % company's total global revenue that could be affected 31-40



Comment

Our facilities in Ohio represented approximately 35% of our total 2020 exit rate nameplate capacity. Although we have two manufacturing facilities in Ohio (Perrysburg and Lake Township), they have been aggregated and are referred to as one facility in this response since they share the same river basin.

Country/Area & River basin

Malaysia Other, please specify Muda River

Number of facilities exposed to water risk

1

% company-wide facilities this represents 1-25

% company's total global revenue that could be affected

21-30

Comment

Our manufacturing operations in Malaysia represented approximately 21% of our total 2020 exit rate nameplate capacity.

Country/Area & River basin

Viet Nam Saigon

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company's total global revenue that could be affected

41-50

Comment

Our manufacturing operations in Vietnam represented approximately 44% of our total 2020 exit rate nameplate capacity.

W4.2

(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.



Country/Area & River basin

United States of America St. Lawrence

Type of risk & Primary risk driver

Physical Flooding

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

Our manufacturing risk scorecard for Ohio identified natural disasters, such as earthquake, tornado, hurricane, building collapse, and flood, that affects our manufacturing facility's ability to produce as a potential high risk. Any damage to or disruption of our facilities would result in an inability to maintain maximum production levels.

Timeframe

Current up to one year

Magnitude of potential impact

High

Likelihood

Unlikely

Are you able to provide a potential financial impact figure? Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

0

Potential financial impact figure - maximum (currency) 698.000.000

Explanation of financial impact

Assuming a contracted module backlog of 14.1 GW for an aggregate transaction price of \$4.1 billion as of March 31, 2021, and 2021 nameplate capacity in Ohio of 2.4 gigawatts (GW)DC as of 31 March 2021, the maximum potential revenue impact if our production in Ohio was down for an entire year would be approximately \$698 million. This worst-case scenario however is unlikely. We would likely lose some production for a while in the event of a natural disaster until we are able to bring the affected buildings back into production.

Primary response to risk



Increase geographic diversity of facilities

Description of response

To mitigate the impacts of a natural disaster on our operations in Ohio, we separate our manufacturing capability across several buildings and purchase insurance to cover such losses. We have implemented our management method to reduce and minimize this risk.

Cost of response

1,700,000

Explanation of cost of response

The cost of the response is based on our approximate annual insurance costs in Ohio.

Country/Area & River basin

Viet Nam Saigon

Type of risk & Primary risk driver

Physical Rationing of municipal water supply

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

A water outage at our utility supplier would disrupt the supply of water to our manufacturing plant in Vietnam, as identified by our manufacturing facility risk scorecards. Disruption to our utility water supply would result in an inability to maintain maximum production levels. Our manufacturing operations in Vietnam represented approximately 44% of our total 2020 exit rate nameplate capacity.

Timeframe

Current up to one year

Magnitude of potential impact

High

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

0



Potential financial impact figure - maximum (currency)

68,000,000

Explanation of financial impact

Assuming a contracted module backlog of 14.1 GW for an aggregate transaction price of \$4.1 billion as of March 31, 2021, and 2021 nameplate capacity in Vietnam of 2.8 GWDC as of 31 March 2021, the maximum potential revenue impact would be approximately \$68 million assuming the water outage lasted for one month. While we would likely experience some supply disruption in the event of a water outage, it is unlikely to last for more than a month.

Primary response to risk

Secure alternative water supply

Description of response

Our facility in Vietnam has a water storage tank that can supply 8 hours of production. We also identified a second source which can supply water in the event of a water outage.

Cost of response

0

Explanation of cost of response

Cost of response are part of our normal plant operational expenditures and would be a one-off cost.

Country/Area & River basin

Malaysia Other, please specify Muda River

Type of risk & Primary risk driver

Physical Rationing of municipal water supply

Primary potential impact

Closure of operations

Company-specific description

A water outage at our utility supplier would disrupt the supply of water to our manufacturing plant in Malaysia, as identified by our manufacturing facility risk scorecards. Disruption to our utility water supply would result in an inability to maintain maximum production levels. Our manufacturing operations in Malaysia represented approximately 21% of our total 2020 exit rate nameplate capacity. Our 2021 nameplate capacity in Malaysia was 2.7 GW as of 31 March 2021

Timeframe

Current up to one year

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Magnitude of potential impact

High

Likelihood

Unlikely

Are you able to provide a potential financial impact figure? Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

0

Potential financial impact figure - maximum (currency)

65,000,000

Explanation of financial impact

Assuming a contracted module backlog of 14.1 GW for an aggregate transaction price of \$4.1 billion as of March 31, 2021, and 2021 nameplate capacity in Malaysia of 2.7 GW as of 31 March 2021, the maximum potential revenue impact would be approximately \$65 million assuming the supply disruption lasted for one month. While we would likely experience some supply disruption in the event of a natural disaster, it is unlikely to last for more than a month. We have had no historical issues with water supply and the water utility's repair cycle times are typically short so our 3 day storage is enough to cover for it.

Primary response to risk

Secure alternative water supply

Description of response

Our facility in Malaysia has a water storage tank that holds 1 day of water supply. We also have a second storage source which can supply water for another 2 days in the event of a water outage. We have had no historical issues with water supply and the water utility's repair cycle times are typically short so our 3 day storage is enough to cover for it.

Cost of response

0

Explanation of cost of response

Cost of response are part of our normal plant operational expenditures and would be a one-off cost.

W4.2a

(W4.2a) Provide details of risks identified within your value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.



Country/Area & River basin

Viet Nam Saigon

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical Severe weather events

Primary potential impact

Supply chain disruption

Company-specific description

Our manufacturing risk scorecard for Vietnam identified natural disasters at our supplier sites as a potential high risk that could disrupt our supply or shipment channels. Any disruption to our supply would result in an inability to maintain maximum production levels. Our manufacturing operations in Vietnam represented approximately 44% of our total 2020 exit rate nameplate capacity.

Timeframe

Current up to one year

Magnitude of potential impact

Medium

Likelihood

Unlikely

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

68,000,000

Explanation of financial impact

Assuming a contracted module backlog of 14.1 GW for an aggregate transaction price of \$4.1 billion as of March 31, 2021, and 2021 nameplate capacity in Vietnam of 2.8 GWDC as of 31 March 2021, the maximum potential revenue impact would be approximately \$68 million assuming the supply disruption lasted for one month. While we would likely experience some disruption to our production capacity in the event of a supply disruption, it is unlikely to last for more than a month. The magnitude of potential



impact is classed as medium and the likelihood is unlikely as the current drainage system is able to minimize the impact of flooding by safely carrying stormwater away from build-up areas.

Primary response to risk

Upstream Increase supplier diversification

Description of response

We have worked on increasing the geographic diversity of our key component suppliers to reduce and minimize this risk.

Cost of response

0

Explanation of cost of response

Cost of response are part of our normal plant operational expenditures and would be a one-off cost.

Country/Area & River basin

Malaysia Other, please specify Muda River

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Physical Severe weather events

Primary potential impact

Supply chain disruption

Company-specific description

Our manufacturing risk scorecard for Malaysia identified natural disasters that could disrupt our supply or shipment channels (primarily at supplier sites) as a potential high risk. Any disruption to our supply would result in an inability to maintain maximum production levels. Our manufacturing operations in Malaysia represented approximately 21% of our total 2020 exit rate nameplate capacity. Our 2021 nameplate capacity in Malaysia was 2.7 GW as of 31 March 2021

Timeframe

Current up to one year

Magnitude of potential impact

High

Likelihood

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More likely than not

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure - minimum (currency)

0

Potential financial impact figure - maximum (currency)

65,000,000

Explanation of financial impact

Assuming a contracted module backlog of 14.1 GW for an aggregate transaction price of \$4.1 billion as of March 31, 2021, and 2021 nameplate capacity in Malaysia of 2.7 GW as of 31 March 2021, the maximum potential revenue impact would be approximately \$65 million assuming the supply disruption lasted for one month. While we would likely experience some supply disruption in the event of a natural disaster, it is unlikely to last for more than a month.

Primary response to risk

Upstream Increase supplier diversification

Description of response

We have worked on increasing the geographic diversity of our key component suppliers to reduce and minimize this risk.

Cost of response

0

Explanation of cost of response

Cost of response are part of our normal plant operational expenditures and would be a one-off cost.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity

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Efficiency

Primary water-related opportunity

Cost savings

Company-specific description & strategy to realize opportunity

First Solar is reducing water consumption during manufacturing and recycling through the implementation of water conservation and recycling projects. In 2020, we saved approximately 290 million liters of water (equivalent to 8% of our absolute water use) by recycling rejected water from our purification system back into our raw water tank in Malaysia and recycling and reusing wastewater in our recycling process. Since 2018, all routinely operated First Solar recycling facilities in the U.S., Germany, Malaysia and Vietnam generate zero wastewater discharge under normal operations. Instead, the wastewater is recycled and converted into freshwater, which can then be reused in the recycling process.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

Low

Are you able to provide a potential financial impact figure? Yes, a single figure estimate

- Potential financial impact figure (currency) 514,000
- Potential financial impact figure minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

By recycling and reusing 300 megaliters of water in 2019, we saved approximately \$514,000, down from \$583,000 in 2019. As the price of water increases, we expect the financial benefits of water recycling and reduction efforts to increase.

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

While energy security and climate change have been important drivers for renewable energy adoption, water security provides an additional driver. The energy-water nexus associated with traditional energy sources is a growing concern particularly in water-



stressed regions. 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. In addition, First Solar's fully integrated thin film solar module manufacturing process requires less energy, water and semiconductor material than conventional crystalline silicon PV's batch manufacturing process. On a life cycle basis, First Solar's thin film modules use up to 400 times less water per MWh than conventional energy and up to 3 times less water than other solar technologies such as mono-crystalline silicon PV. Customers with their own sustainability goals are particularly interested in understanding how much carbon a First Solar PV plant displaces as well as how much water is saved by avoiding the use of grid electricity. 2020 was a strong year with shipments of 5.5GW and bookings of 5.5GW. The bookings momentum has continued in 2021, with 1.9GW of additional net bookings between January 1 and February 25, 2021. We believe the strong bookings in 2020 are evidence of the demand for renewable energy in general and our Series 6 PV modules in particular. The wholesale commercial and industrial market also represents a promising opportunity for the widespread adoption of PV solar technology as corporations undertake certain sustainability commitments. The demand for corporate renewables continues to accelerate, with corporations worldwide committing to the RE100 campaign, a collaborative, global initiative of influential businesses committed to 100% renewable electricity. We believe we also have a competitive advantage in the commercial and industrial market due to many customers' sensitivity to the sustainability, experience, bankability, and financial viability of their suppliers and geographically diverse operating locations. With our sustainability advantage, strong development expertise, financial strength, and global footprint, we are well positioned to meet these needs.

Estimated timeframe for realization

Current - up to 1 year

Magnitude of potential financial impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency) 2,700,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

100% of our revenue comes from the sale of clean energy products. Net sales for 2020 amounted to \$2.7 billion. Our gross profit increased 7.2 percentage points to 25.1% during 2020 from 17.9% during 2019 primarily due to higher gross profit on third-party module sales and improved throughput of our manufacturing facilities from the



successful ramp of various Series 6 manufacturing lines. During late 2020, we completed the capacity expansion of our manufacturing facility in Perrysburg, Ohio. As of December 31, 2020 we had 6.3 GWDC of total installed Series 6 nameplate production capacity across all our facilities. We produced 6.1 GWDC of solar modules during 2020, which represented a 59% increase in Series 6 module production from 2019. The increase in Series 6 production was primarily driven by the production capacity added in 2019 at our second facility in Ho Chi Minh City, Vietnam and our facility in Lake Township, Ohio as well as higher throughput at various facilities. Our annual manufacturing capacity has grown from 25 MW in 2005 to 7.9 GW as of March 31, 2021, with a path to increase to 13 GW based on our recently announced expansion plan.

Type of opportunity

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

Floatovoltaics or floating solar PV installations are gaining increasing popularity as a solution for installing solar in areas with limited land availability. First Solar modules have been used in floating solar installations for aquaculture and irrigation canals. Customers in Thailand have installed First Solar modules on shrimp farms using their own floating solar designs, and have also installed First Solar modules panels over canals surrounding rice paddies in Thailand and Indochina. Rice has high water requirements so the solar installation serves two purposes: powering the farming operation and reducing evaporative losses.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure? Yes, a single figure estimate

Potential financial impact figure (currency) 2,700,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact



Thailand plans to construct 2.7 GW of floating PV with estimated completion in 2037. With two-thirds of the Earth's surface covered with water, floatovoltaics have the potential to become more widespread. In addition, the cost of leasing water for solar installations is lower than that of land. However, since these installations are still in their early stages, the potential financial impact is estimated to be low-medium. The global floating solar panel market is expected to reach \$2.7 billion by 2025, according to a report by Grand View Research.

W5. Facility-level water accounting

W5.1

(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.

Facility reference number Facility 1 Facility name (optional) Perrysburg Country/Area & River basin United States of America St. Lawrence Latitude 41.557058 Longitude -83.552515 Located in area with water stress No Total water withdrawals at this facility (megaliters/year) 632 Comparison of total withdrawals with previous reporting year Much higher Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes 0 Withdrawals from brackish surface water/seawater 0 Withdrawals from groundwater - renewable



0

Withdrawals from groundwater - non-renewable 0 Withdrawals from produced/entrained water 0 Withdrawals from third party sources 631 Total water discharges at this facility (megaliters/year) 276 Comparison of total discharges with previous reporting year Much higher Discharges to fresh surface water 0 Discharges to brackish surface water/seawater 0 **Discharges to groundwater** 0 **Discharges to third party destinations** 276 Total water consumption at this facility (megaliters/year) 355 Comparison of total consumption with previous reporting year Much higher **Please explain** During late 2020, we completed the capacity expansion of our manufacturing facility in Perrysburg, Ohio. As a result of the additional site and increase in production, our water withdrawals, discharges, and consumption were much higher in 2020 compared to 2019. **Facility reference number** Facility 2 Facility name (optional) Kulim Country/Area & River basin

Malaysia Other, please specify First Solar Inc CDP Water Security Questionnaire 2021 Wednesday, July 28, 2021



Muda River

Latitude 5.428624 Longitude 100.572598 Located in area with water stress No Total water withdrawals at this facility (megaliters/year) 1,905 Comparison of total withdrawals with previous reporting year Much lower Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes 0 Withdrawals from brackish surface water/seawater 0 Withdrawals from groundwater - renewable 0 Withdrawals from groundwater - non-renewable 0 Withdrawals from produced/entrained water 0 Withdrawals from third party sources 1,905 Total water discharges at this facility (megaliters/year) 322 Comparison of total discharges with previous reporting year Much lower Discharges to fresh surface water 322 Discharges to brackish surface water/seawater 0 **Discharges to groundwater** 0 **Discharges to third party destinations**



0

Total water consumption at this facility (megaliters/year)

1,583

Comparison of total consumption with previous reporting year Higher

Please explain

Our water withdrawals and discharges were much lower in 2020 compared to 2019 due to production downtime for retooling at our manufacturing in Malaysia. Water consumption increased in 2020 as our water discharges had decreased by approximately 70% compared to 2019.

Facility reference number Facility 3 Facility name (optional)

Dong Nam

Country/Area & River basin

Viet Nam Saigon

Latitude

10.77653

Longitude

106.70098

Located in area with water stress

No

Total water withdrawals at this facility (megaliters/year)

1,113

Comparison of total withdrawals with previous reporting year

About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

Withdrawals from groundwater - non-renewable



0

Withdrawals from produced/entrained water 0 Withdrawals from third party sources 1,113 Total water discharges at this facility (megaliters/year) 753 Comparison of total discharges with previous reporting year Higher Discharges to fresh surface water 0 Discharges to brackish surface water/seawater 0 **Discharges to groundwater** 0 **Discharges to third party destinations** 753 Total water consumption at this facility (megaliters/year) 360 Comparison of total consumption with previous reporting year Lower Please explain Water withdrawals at our manufacturing facility in Vietnam remained approximately the same in 2020 compared to 2019 despite the increase in production. This is due to the enhanced throughput and water efficiency of our Series 6 manufacturing process as well as water recycling initiatives. Water discharges increased in 2020 compared to 2019

W5.1a

(W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

Water withdrawals - total volumes

due to the increase in production.

% verified Not verified

Water withdrawals – volume by source

% verified

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Not verified

Water withdrawals - quality

% verified

Not verified

Water discharges – total volumes

% verified Not verified

Water discharges - volume by destination

% verified

Not verified

Water discharges - volume by treatment method

% verified

Not verified

Water discharge quality - quality by standard effluent parameters

% verified

Not verified

Water discharge quality - temperature

% verified Not verified

Water consumption - total volume

% verified Not verified

Water recycled/reused

% verified

Not verified

W6. Governance

W6.1

(W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available



W6.1a

(W6.1a) Select the options that best describe the scope and content of your water	,
policy.	

	Scope	Content	Please explain
Row 1	Company- wide	Description of business dependency on water Description of business impact on water Description of water- related performance standards for direct operations Reference to international standards and widely-recognized water initiatives Commitment to align with public policy initiatives, such as the SDGs Commitment s beyond regulatory compliance Commitment to water- related innovation Commitment to stakeholder awareness and education Commitment to water stewardship and/or collective action Acknowledgement of the human right to water and sanitation Recognition of environmental linkages, for example, due to climate change	First Solar's water policy includes a commitment to improving the water efficiency of our operations by conserving, recycling and reusing water. The policy is publicly available on our website and describes the importance of water in our thin film manufacturing operations and how our advanced thin film PV modules help address the energy-water nexus by decoupling electricity generation from water consumption. First Solar recognizes that access to clean water is a fundamental human right, in line with Goal 6 of the United Nations' 2030 Agenda for Sustainable Development, and is committed to transparency on water usage, partnering on innovative solutions to water challenges and supporting community projects which deliver access to clean energy and water. Our water policy is publicly available at: https://www.firstsolar.com/-/media/First-Solar-Water-Policy_vf.ashx

U ¹First Solar Water Policy_vf.pdf

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization? $$_{\mbox{Yes}}$$



W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Other, please specify Board of Directors Audit Committee	The Nominating and Governance Committee of the Board of Directors has overall oversight of First Solar's environmental, social and governance (ESG) strategy and policies, which include climate-related and water-related issues. The Nominating and Governance Committee periodically reviews the Company's ESG strategy, policies and initiatives, other than initiatives delegated to other committees, and receives updates from the Company's management committee responsible for significant ESG activities. The Audit Committee of the Board of Directors has oversight over risk management for the company. The annual enterprise risk assessment process includes identifying risks that could impact the company's achievement of strategic objectives which includes water-related risks.

W6.2b

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Reviewing and guiding risk management policies Reviewing and guiding strategy	ESG updates to the Board are scheduled on a biannual or more frequent basis. Water risks and other environmental aspects are integrated into the company's enterprise risk management (ERM) process. Water scarcity and water resource availability are taken into account in the decision making process and help guide our strategy as we expand our manufacturing footprint to new countries. Our solar module manufacturing process relies on ultra pure water production so access to water is key to our operations. The results are reviewed and analyzed by the Executive Leadership Team and the Board's Audit Committee to guide the company's risk mitigation efforts. ERM updates are provided to the Board's Audit Committee at least annually or more frequently. Water risks may be included as important matters arise. Although our enterprise risk management process currently considers risks (including water risks) with a time

(W6.2b) Provide further details on the board's oversight of water-related issues.



	horizon of up to 5 years, we are conducting longer
	term risk assessments as part of our climate
	change scenario analysis.

W6.3

(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)

Chief Executive Officer (CEO)

Responsibility

Both assessing and managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

As the top owner of enterprise risk, Our Chief Executive Officer (CEO) has the highest level of direct responsibility for water risks and other environmental aspects within the company. Leveraging sustainability as a business enabler is one of the CEO's executive goals. Our CEO leads the ESG Steering Committee which consists of First Solar's Executive Leadership Team, which has the highest level of direct responsibility for ESG matters (including water-related issues) within the company. The ESG Steering Committee reports into the Board of Directors on a biannual or more frequent basis. First Solar's Energy, Emissions, and Resource Efficiency working group is responsible for measuring and monitoring progress of First Solar's resource efficiency strategy which includes setting water targets.

W6.4

(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?

	Provide incentives for management of water-related issues	Comment
Row 1	Yes	Leveraging sustainability as a business enabler is one of the CEO's executive goals which includes managing risks and identifying opportunities for growth e.g. operation cost reduction through reduced resource consumption and emissions. Executives are rewarded for achieving their operational goals and objectives.



W6.4a

(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Chief Executive Officer (CEO)	Improvements in efficiency - direct operations Other, please specify reducing operational costs and leveraging sustainability as a business enabler	Leveraging sustainability as a business enabler is one of the CEO's executive goals which includes managing risks and identifying opportunities for growth e.g. operation cost reduction through reduced resource consumption and emissions. Executives are rewarded for achieving their operational goals and objectives.
Non- monetary reward	Chief Executive Officer (CEO)	Improvements in efficiency - direct operations Other, please specify reducing operational costs and leveraging sustainability as a business enabler	Leveraging sustainability as a business enabler is one of the CEO's executive goals which includes managing risks and identifying opportunities for growth e.g. operational cost reduction through reduced resource consumption and emissions. Executives are rewarded for achieving their operational goals and objectives.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers

Yes, trade associations

Yes, other

W6.5a

(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?

Our vision "to lead the world's sustainable energy future" drives every aspect of our business strategy from developing sustainable solar markets, reducing our operational impacts, increasing the efficiency of our products, reducing the levelized cost of solar electricity, and improving the environmental life cycle benefits of our technology. This includes manufacturing thin film PV modules with the lowest water footprint in the industry and contributing to thought leadership on the energy-water nexus and educating policy makers and trade associations on the EHS impacts of PV. Our corporate policies (including the corporate sustainability and EHS policy) provide guidance on our commitment to reducing operational impacts to ensure alignment, from the manufacturing, construction, operation and end-of-life management of our



PV products and projects. We foster a culture where EHS is an integral part of our associates' work and require our contractors and suppliers to adhere to our standards and commitments. Any inconsistency is addressed with a corrective action. First Solar's Government Affairs and Market Development teams are responsible for guiding public policy and work closely with the Business Development, Sustainability, ESG and EHS teams, as well as the Executive Leadership Team to support module sales in various markets.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

First-Solar-2020-Annual-Report.pdf

W7. Business strategy

W7.1

(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

	Are water- related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water- related issues are integrated	5-10	Water-related issues such as water availability and costs are integrated into our long-term business objectives of maintaining low manufacturing costs as well as the lowest environmental footprint in the industry. Access to sufficient water availability and quality is taken into account when siting new manufacturing facilities as our manufacturing process relies on ultra-pure water production and is key to scaling our manufacturing capacity over the next few years.
Strategy for achieving long-term objectives	Yes, water- related issues are integrated	5-10	Resource conservation and water recycling projects are part of our strategy to manage manufacturing costs and maintain the lowest environmental footprint in the industry. We continue to review water consumption patterns down to the unit operation level in our manufacturing process and are challenging our process engineers to deliver additional water savings. We have set a target to achieve a 71% reduction in water usage per watt produced by



			2028, from a 2009 baseline.
Financial planning	Yes, water- related issues are integrated	5-10	Water-related issues are integrated into our long-term 5-year financial planning process since water indirectly impacts our manufacturing and recycling costs. Our facility and recycling teams include resource efficiency projects, as well as wastewater treatment plant and recycling upgrades into their budget plans.

W7.2

(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?

Row 1

Water-related CAPEX (+/- % change)

-79

Anticipated forward trend for CAPEX (+/- % change)

35

Water-related OPEX (+/- % change)

-13

Anticipated forward trend for OPEX (+/- % change)

10

Please explain

Our water CAPEX was higher in 2019 compared to 2020 due to the installation of a wastewater treatment system at our Lake Township manufacturing facility in Ohio. Water OPEX in 2020 also decreased in 2020 due to production downtime at our manufacturing facility in Malaysia, the enhanced throughput and water efficiency of our Series 6 manufacturing process as well as water recycling initiatives. The anticipated increase in CAPEX in 2021 is primarily due to wastewater treatment upgrades, water recycling retrofits, and a new wastewater treatment system at our third manufacturing facility in Ohio which was announced in 2021. The increase in OPEX is related to the increase in production.

W7.3

(W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

Use of	Comment
climate-	
related	

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	scenario analysis	
Row 1	Yes	We used forward-looking scenario analyses in considering potential climate- related and water-related risks and opportunities. For assessing physical climate-related risks, we used IPCC's assessment of 1.5°C global warming (consistent with RCP 2.6), as well as the U.S. National Climate Assessment evaluation of RCP 4.5 and RCP 8.5. We used the WWF Water Risk Filter tool to identify water risks using optimistic (RCP 2.6/4.5), current trend (RCP 4.5/6.0), and pessimistic warming scenarios (RCP 6.0/8.5) for 2030 and 2050 where our manufacturing, recycling and research and development facilities are located. We also leveraged the tool to assess water risks at potential future manufacturing locations.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

Yes

W7.3b

(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?

	Climate- related scenarios and models applied	Description of possible water- related outcomes	Company response to possible water-related outcomes
Row 1	RCP 2.6 Other, please specify RCP 4.5, RCP 6.0, RCP 8.5	We used the WWF Water Risk Filter tool to identify water risks using optimistic (RCP 2.6/4.5), current trend (RCP 4.5/6.0), and pessimistic (RCP 6.0/8.5) for 2030 and 2050. Possible water-related outcomes include very high to extreme flood risks and low to moderately low water scarcity risks at all three of our manufacturing facility locations in Ohio, Vietnam and Malaysia by 2030. Our manufacturing facility in Vietnam faces high to extreme water quality risks by 2050.	Our company response to possible water scarcity risks include increasing the water efficiency of our manufacturing process and finding new opportunities to recycle and reuse water and wastewater. We've developed a process to recycle rejected water from our purification system back into our raw water tank in Malaysia which could help us address future water quality issues in Vietnam. We have insurance in place at all three facilities to cover flood risks.

W7.4

(W7.4) Does your company use an internal price on water?



Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

We do not anticipate setting an internal price on water within the next two years.

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals Business level specific targets and/or goals Site/facility specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	As part of our company-wide EHS policy, First Solar strives to conserve natural resources (including water), minimize waste, and prevent pollution from the manufacturing and recycling of our PV products. First Solar's Energy, Emissions, and Resource Efficiency working group is responsible for measuring and monitoring progress of First Solar's resource efficiency strategy which includes setting water targets. We continue to review water consumption patterns down to the unit operation level in our manufacturing process and are challenging our process engineers to deliver additional water savings.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number Target 1 Category of target Product water intensity Level Company-wide Primary motivation Corporate social responsibility



Description of target

We have set a target to achieve a 71% reduction in water usage per watt produced by 2028, from a 2009 baseline. In conformance with sustainability leadership standard NSF 457 and EPEAT ecolabel for PV modules and inverters, First Solar is committed to achieving an average 1% reduction in total water withdrawal per unit of production (Watt produced) per year from inventory baseline (2009) at each of its global manufacturing facilities in Ohio, Malaysia and Vietnam through 2028.

Quantitative metric

% reduction per unit of production

Baseline year

2009

Start year 2017

Target year 2028

% of target achieved

96

Please explain

Since 2009, First Solar's manufacturing water intensity (water consumption per watt produced) decreased by 68% due to significant improvements in module efficiency, manufacturing throughput, and the implementation of water conservation and recycling projects in our manufacturing and recycling operations. In 2020, First Solar's manufacturing water intensity decreased by approximately 12% due to the increased throughput and efficiency of our Series 6 manufacturing process as well as water recycling initiatives. Our threshold for success is achieving an average 1% reduction in total water withdrawal per unit of production (Watt produced) per year, in conformance with sustainability leadership standard NSF 457 and EPEAT ecolabel for PV modules and inverters.

W8.1b

(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.

Goal

Other, please specify Increased resource efficiency

Level

Company-wide

Motivation



Cost savings

Description of goal

In addition to manufacturing PV modules with the lowest environmental impact in the industry, we are committed to reducing our operational impact. As part of our companywide EHS policy, First Solar strives to conserve natural resources (including water), minimize waste, and prevent pollution from the manufacturing and recycling of our PV products and installations.

Baseline year

2009

Start year

2018

End year

2028

Progress

Since 2009, First Solar's manufacturing water intensity (water consumption per watt produced) decreased by 68% due to significant improvements in module efficiency, manufacturing throughput, and the implementation of water conservation and recycling projects in our manufacturing and recycling operations. In 2020, First Solar's manufacturing water intensity decreased by approximately 12% due to the increased throughput and efficiency of our Series 6 manufacturing water intensity decreased by approximately 12% due to the increased by approximately 12% due to the increased throughput and efficiency of our Series 6 manufacturing water intensity decreased by approximately 12% due to the increased throughput and efficiency of our Series 6 manufacturing process as well as water recycling initiatives. In 2020, First Solar's manufacturing initiatives. In total, we saved more than 290 million liters of water in 2020, equivalent to approximately 8% of our absolute water use. While our production increased by 7% in 2020, our absolute water withdrawals decreased by approximately 5% due to the enhanced throughput and water efficiency of our Series 6 manufacturing process as well as water recycling initiatives.

Goal

Other, please specify Zero wastewater discharge recycling

Level

Business activity

Motivation

Reduced environmental impact

Description of goal

First Solar's recycling team are committed to finding new ways to make our recycling process more efficient and sustainable. In 2017, the team set a goal for First Solar's routinely-operated recycling facilities to have zero wastewater discharge by retrofitting our wastewater treatment plants and installing evaporators. The evaporators not only



reduce wastewater treatment costs but also minimize our recycling process' dependence on freshwater. This will enable the roll-out of mobile PV recycling solutions in areas where water utilities or wastewater treatment facilities are not available. The wastewater is recycled and converted into freshwater, which can then be reused in the recycling process.

Baseline year

2017

Start year

2018

End year

2020

Progress

Since 2018, all routinely operated First Solar recycling facilities in the U.S., Germany, Malaysia and Vietnam generate zero wastewater discharge under normal operations. Instead, the wastewater is recycled and converted into freshwater, which can then be reused in the recycling process. Since the retrofit in 2018, we've recycled more than 60 megaliters of water at our global recycling facilities. Our threshold for success is maintaining zero water discharge among our routinely operated recycling facilities.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?

No, we do not currently verify any other water information reported in our CDP disclosure

W10. Sign off

W-FI

(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category	
Row 1	Chief Quality and Reliability Officer	Other C-Suite Officer	



W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response		Public

Please confirm below

I have read and accept the applicable Terms