



Photo: HES Renewable



2024 SUSTAINABILITY IMPACT REPORT



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❖ Welcome to Silfab Solar's 2024 Sustainability Impact Report.

The content for this year's report focuses on providing multi-year data trends and analysis for our most important sustainability metrics. It builds on the strength of this being Silfab's third report, which enables trend analysis on our critical sustainability priorities: safety, employment, product driven carbon emission reductions, net zero targets, energy, carbon and water metrics, and donations to the community.

In this report, we have provided a more condensed update than in previous annual impact reports. We have aligned our reporting timing with that of our financials and will continue to use Q2 as our schedule moving forward. Our 2025 Impact Report will be more extensive as by report time, Silfab Solar's cell and module facility in South Carolina will have been operational for multiple quarters.



Our Purpose

At Silfab Solar, our purpose is to make a difference in the world by reducing carbon emissions and improving access to clean energy with every module we make.

Our Vision

Silfab Solar will become, in a sustainable manner, the largest photovoltaic (PV) supplier in North America and a leader in product and process technology.

Our Values

In a safe, healthy and diverse environment, we value:

-  Professionalism
-  Adaptability
-  Commitment
-  Excellence
-  Reliability

Our Sustainability Commitment

Sustainability has been embedded in our corporate purpose and values since the company’s inception. Our North American-based facilities are focused on strong environmental and social responsibility as well as performance, backed by rigorous accountability and governance systems.

Spotlight on Priorities | Supply Chain Traceability

Silfab Solar has established a rigorous supplier quality scorecard process that not only ensures the materials we are using are of the highest quality for our solar modules and cells, but that they also have the highest standards of sustainability considered as well. As a condition of doing business with Silfab, all vendors must comply with Silfab’s Code of Conduct and agree to uphold its values.

SILFAB SOLAR’S Q&A FOR SUPPLIERS

FORCED LABOR

- Is there a Formal Code of Conduct Statement which all suppliers acknowledge, confirm, and sign confirming that they do not use forced labor?
- Are all suppliers routinely checked against the UFLPA Entities List?
- Does the company have a corporate policy against Human-Trafficking and Forced Labor? Is the policy posted in common areas where employees work and widely communicated?

SUSTAINABILITY

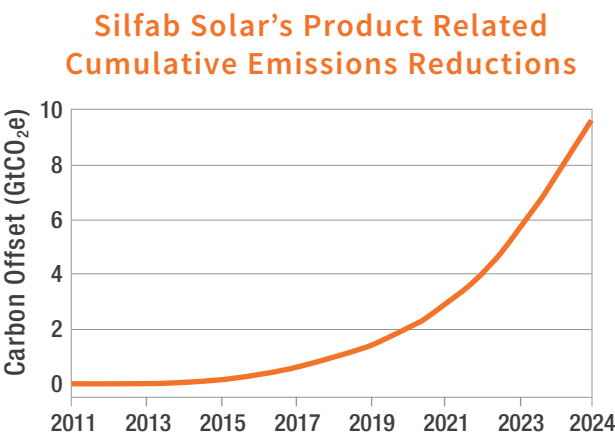
- Does the company collect monthly data in a scorecard to evaluate supplier quality, traceability, ESG, human rights, and contract compliance?
- Is there evidence of systems in place for the collection, collation, recycling and/or disposal of waste materials by a licensed contractor?
- Does the company have a due diligence exercise to identify and address the company’s ESG risks? Do these also include human and labor rights risks? Does this include risk management plans?

SILFAB SOLAR®		SUPPLIER QUALITY SCORECARD				
		Month / Year:		January / 2024		
		Supplier:				
		Category:		Glass		
Category	Score	Weight				
Audit Score	97%	25%	Overall Supplier Score (OSS)		Grade	
On-Time In-Full Score	100%	15%	96.7%		A	
Quality Score	100%	25%	Supplier Rank		Preferred	
Responsiveness Score	100%	10%				
Contract Compliance Score	83%	15%				
Price & Credit Ranking Score	100%	10%				
96.7%						
Under-Performing Supplier		< 70%	Average Supplier		80% - 89%	
Below Average Supplier		70% - 79%	Preferred Supplier		90% +	
Annual Audit Score	Input	Score	On-Time / In-Full Score	Input	Score	
Score based on 3rd Party	97%	97%	Total deliveries made OTIF	4	100%	
Audit Score			Total deliveries	4		
Quality Score	Input	Score	Contract Compliance Score	Input	Score	
Quantity of Lots Passed	2	100%	ESG Score %	72%	72%	
Quantity of Lots Inspected	2		ULPA Compliance Score %	78%	78%	
# of COA/CoC Received	2	100%	# of Trace docs within 1 week	1	100%	
# of COA/CoC Required	2		# of Trace document requests	1		
Qty of product w/SCARs	0	100%				
Quantity of Product Inspected	72705.6					

Spotlight on Priorities | Net Zero Commitment

Since the company’s inception, Silfab Solar’s modules have provided clean energy, decreasing the demand for polluting sources of electricity. We are also focused on reducing our own carbon footprint through Silfab’s net zero target which includes interim 2026 and 2030 ambitions.

NET ZERO COMMITMENT



CARBON EMISSIONS REDUCTION GOALS

2026 **30%** 2030 **50%** 2040 **100%**

SOLAR PANEL ROOF RETROFIT AT SILFAB’S WASHINGTON FACILITY WILL EQUAL 30% OF ITS ELECTRICITY DEMAND AND AVOID 600 TONNES OF GHG EMISSIONS PER YEAR.

The 2026 goal will be supported by our plan to cover the roof of Silfab Solar’s Burlington, Washington, manufacturing facility with our own solar panels. The project is scoped to be a 1.4 MW size solar installation, producing an estimated 1.5 MWh per year, which will equal 30% of the electricity demand at the facility, and avoid 600 tonnes of GHG emissions per year.

Spotlight on Priorities | Reshoring Solar Supply Chain to USA

Silfab Solar, North America’s leading solar manufacturer, advocates for clean energy policies that promote the reshoring of solar manufacturing, job creation, and a fair and competitive field for solar products.

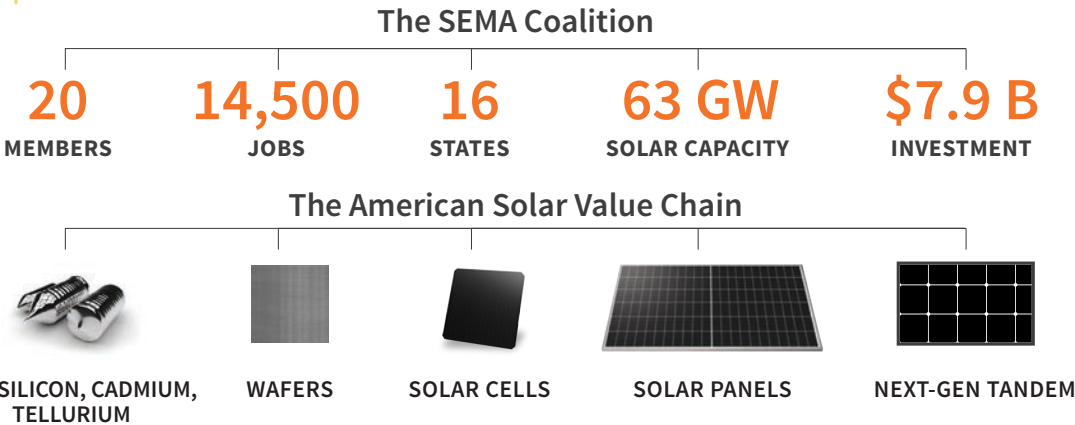
Silfab Solar is a member of the Solar Energy Manufacturers for America (SEMA) Coalition, a group of American manufacturers working to restore the US domestic solar supply chain.

SEMA members provide high-quality jobs and have a significant positive economic impact on communities throughout the US. Its members represent every step in the value chain, enabling a complete onshoring of the solar manufacturing process.

Silfab’s new Fort Mill, South Carolina factory will produce 1 gigawatt of American-made solar cells and an additional 1.3 gigawatts of PV modules, further contributing to the growth of the US supply chain. The facility will provide 800 new skilled jobs, \$17 million in property taxes to local schools, \$4.7 million taxes to York County, and, once fully staffed, an estimated annual payroll of more than \$48 million.



**BRINGING SOLAR SUPPLY CHAIN
BACK TO AMERICA** SEMACOALITION.ORG



SILFAB SOLAR INVESTMENT TIMELINE

Over the past decade, Silfab Solar and its partners have made significant investments in the US solar industry.



Spotlight on Priorities | Sustainably-Driven Innovation

Silfab Solar is focused on manufacturing the most efficient solar cells and panels in the US market, which results in more clean energy, environmental benefits, and value for our customers.

SILFAB NTC THE POWER OF INNOVATION

Silfab Solar’s operations have expanded to include solar cell manufacturing. The N-type solar cells made at Silfab’s facility in Fort Mill, South Carolina have the best energy conversion rates of any polysilicon-based solar cells in the world. Domestically made, they are the most efficient and are environmentally friendly.

HIGH EFFICIENCY

Silfab NTC solar panels are generally more efficient than P-type solar panels, achieving efficiency levels of 25.7% compared to 23.6% for P-type panels. This difference is due to various factors including the higher electron mobility in N-type silicon, which leads to better electron flow and more current.

BETTER LONG-TERM PERFORMANCE IN LOW LIGHT

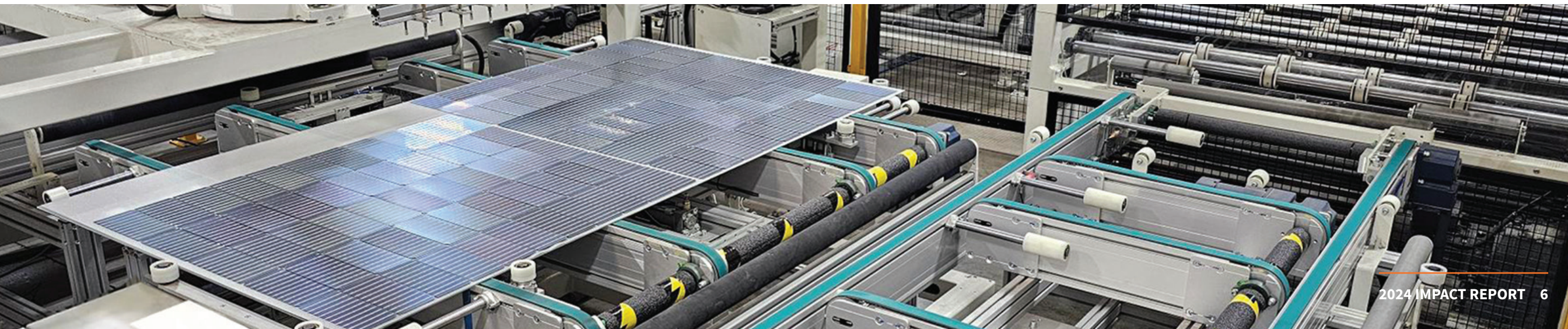
Silfab NTC technology has better long-term performance in low-light conditions (cloudy days or early mornings/late afternoons) due to enhanced sensitivity to diffused light, ensuring continuous energy generation even when sunlight is not at its peak.

LOW OPERATING TEMPERATURE / HIGH TOLERANCE

Silfab NTC maintains higher efficiency levels as temperatures rise, withstanding higher operating temperatures and providing more consistent performance and maximum power output in all weather conditions.

MADE TO WITHSTAND THE TEST OF TIME

Silfab NTC presents lower degradation in comparison to industry standard panels annually, attributed to their heightened resilience against diverse stressors, encompassing light exposure, mechanical loads, thermal fluctuations, etc.



Spotlight on Priorities | Solar Cell Plant Sustainability

Silfab Solar’s new Fort Mill solar cell and module facility is being built with the highest safety, environmental and health standards.

FORT MILL ENVIRONMENTAL HEALTH & SAFETY

AIR EMISSIONS MANAGEMENT

Silfab Solar’s advanced systems minimize air emissions and exceed regulatory standards:

Emission Abatement Integration: Multiple systems—including plasma scrubbers, a direct fire thermal oxidizer, and an acid scrubber—are consolidated into one discharge point.

Zero Untreated Releases: Interlock systems halt production automatically if any abatement unit fails, ensuring no untreated emissions are released.

Enhanced Monitoring: Increased testing frequency ensures transparency and accuracy in our reporting.



WATER USE AND TREATMENT

On-Site Treatment: All process wastewater is treated on-site in full compliance with permitted discharge requirements.

Performance Monitoring: In addition to semi-monthly municipal testing, we conduct internal testing to track treatment performance and protect community water systems.

CHEMICAL MANAGEMENT AND SAFETY

Employee Training: All facility personnel are certified in HAZWOPER 40-hour training, Hot zone 24-hour training, and receive regular training on Standard Operating Procedures (SOPs), Safety Data Sheets (SDS), fit testing, and emergency drills.

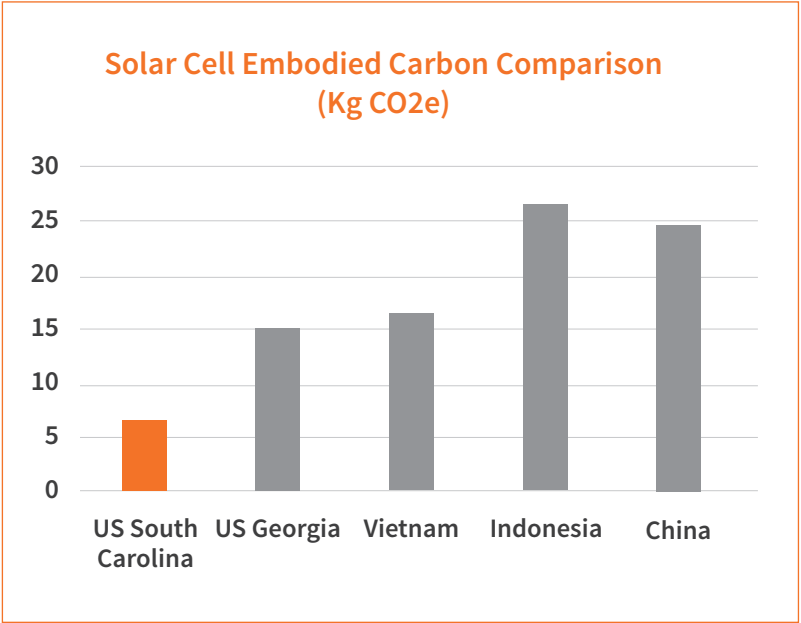
Regulatory Compliance: Our chemical treatment and disposal practices meet or exceed all regulatory requirements.

WASTE MANAGEMENT AND RECYCLING

Silfab has set out to minimize the waste from the Fort Mill facility going to the landfill. As much as possible, material will be recycled, including metal, glass, wood, plastic, and any other manufacturing waste.

LOWER CARBON FOOTPRINT

Solar cells manufactured in South Carolina will have a far lower embodied carbon footprint than those manufactured elsewhere. This is due to our supply of energy from nuclear, solar and hydropower in the region where we operate. Silfab Solar modules will achieve a lower carbon payback period once in service.



Source: Criteria for the Assessment of Ultra-Low Carbon Solar Modules / EPEAT ULCS 2023

Sustainability Strategy | Governance

Silfab Solar's 'Excellent' rating by Green Financing experts Sustainable Fitch is a strong validation of the company's sustainability performance.

GREEN FINANCING – EXCELLENT RATING

In 2024, Silfab Solar raised \$50 million in senior secured financing in the form of a Green Loan led by Breakwall Capital, an energy-focused asset manager and employee-owned firm committed to supporting the growth and improvement of conventional, renewable, and next generation energy companies. The Green Loan and equity financing will advance the overall capacity of Silfab's cell production and PV module manufacturing within its new facility in Fort Mill, South Carolina, and to reshore US-made solar products that are in high demand by the company's customers. Silfab's newest US facility will be operational by mid 2025.

Sustainable Fitch provided a second-party opinion on the Green Loan and considers the transaction to be structured in line with the Loan Market Association, Loan Syndications and Trading Association, and Asia Pacific Loan Market Association Green Loan Principles. Sustainable Fitch's view is that the Green Loan's alignment with these principles is "Excellent."



Photo: Empower Solar

Sustainability Strategy | Management Systems (ISO Certifications)

In 2024, our focus continued to be on solidifying our ISO 9001:2015 foundation with future plans to build a road map to a more advanced integrated management system (IMS). In an IMS, all systems work together aligned behind a single goal—operational excellence.

2024 HIGHLIGHTS

- Successfully renewed ISO 9001:2015 certification across all sites
- Zero major nonconformities identified during external audit
- Management systems enhanced to align with global best practices



METRIC	RESULT	BENCHMARK / COMMENT
Major Non-Conformities	0	Target Met (Industry best practices)
Audit Scope Coverage	100%	All North American facilities included
Internal Audit Completion	100%	Completed ahead of schedule
Auditor Rating	“Effective System”	Independent registrar feedback

ACTIVITIES FOR 2025 - IMPLEMENT 14001 (ENVIRONMENT) AND 45001 (SAFETY)	
Q1 2025	Awareness Training
Q2 2025	Gap analysis, documentation and system development
Q3 2025	Internal audits and pre-certification readiness review
Q4 2025	External certification audit

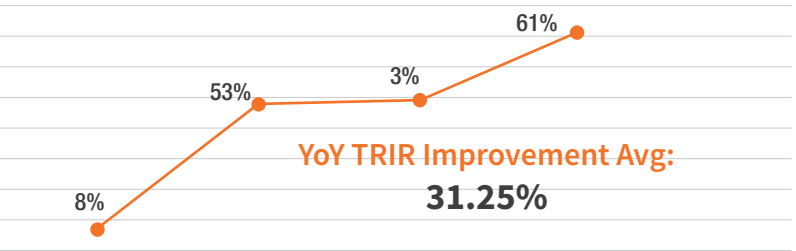
SUSTAINABILITY ALIGNMENT	ISO CERTIFICATION CONTRIBUTION
Environment	ISO 14001 will formalize environmental management, improve compliance tracking, and reduce resource use.
Social	ISO 45001 ensures employee safety, risk management, and well-being
Governance	ISO 9001 strengthens risk-based thinking, compliance, and customer satisfaction frameworks.
Corporate Social Responsibility	ISO 26000 is an international standard that provides guidance on social responsibility. It’s designed to help organizations of all types understand and address their social responsibilities, regardless of their size, location, or industry.

Social | Safety

At Silfab Solar, safety is paramount. It is a permanent KPI on our corporate scorecard, approved annually by the company’s board of directors. We are very proud of our safety results and will continue to work hard to ensure strong performance.

SAFETY PROCEDURES AND TRAINING PRIORITIES

Silfab’s safety performance has improved year over year for the past 4 years. The improvement is a result of a heightened emphasis on safety metrics and performance across the entire organization. Safety metrics are a key corporate KPI that remains in place year after year, with updates regularly informed by learnings in all areas of the company.



	2021	2022	2023	2024
TRIR Reduction %	8%	53%	3%	61%
TRIR	3.96	1.88	1.83	0.72

In 2024, Silfab Solar’s Total Recordable Incident Rate (TRIR) was well below the manufacturing average of 3.2.* (TRIR = Incidents over 200,000 Hours)
* US Bureau of Labor Statistics 2022

MANAGEMENT LEADERSHIP

- Safety policies reviewed regularly
- Tracking goals and accountability

EMPLOYEE PARTICIPATION

- Safety committees
- Daily safety stand-up toolbox talks
- See It Fix It – Increase participation through online safety portal
- Weekly inspections / audits with facility, maintenance and hourly operations personnel
- Workstation audits at commissioning
- Focus on behavioral based hazard mitigation (audits)
- Expand recognition

HAZARD PREVENTION AND CONTROL

- Engineering controls (interlocks, automatic valves)
- New procedures (SOP) (SWI)
- 5S and housekeeping
- Ergonomic review (sprains, strains, etc.)
- Emergency response and preparedness plan

EDUCATION AND TRAINING

- Developing role specific standard work instructions working with tool suppliers
- OSHA and site training for contractors
- Procured a Learning Management System for safety training

HEALTH OF THE PROGRAM / CONTINUOUS IMPROVEMENT

- KPI (Reactive and Proactive) – TRIR, Training Compliance, Hours Trained, SIFI/Near Miss, Compliance
- See It Fix It and Near Miss Trend Analysis and Action Plan
- Benchmarking External Incident Analysis and Debrief
- Prepare for 2025 Application and Compliance to standards ISO45001 (OS&H) and ISO14001 (environmental)

COORDINATION AND COMMUNICATION

- Safety alerts are shared across sites and departments and are standardized where possible

Social | Community Involvement

Community responsibility for Silfab is demonstrated through a variety of activities throughout each year. Our employees take great pride in supporting community causes.



VETERANS VILLAGE, KENTUCKY

Silfab Solar supports the Veterans Village in Shelbyville, Kentucky, with Silfab Prime solar panels to power six veteran tiny homes and their main facility. The donation was a collaboration between EightTwenty, BayWare Americas and Silfab Solar with no cost to Veterans Village or the veterans.



STRAWBERRY SPRINT & STROLL

Silfab Solar co-sponsored the Strawberry Sprint & Stroll 5K race, which is conducted annually during the South Carolina Strawberry Festival in Fort Mill. The race is sponsored by Fort Mill Economic Partners, whose aim is to improve quality-of-life opportunities in Fort Mill to ensure a thriving community.



EDUCATIONAL SUPPORT

Silfab Solar participates in local school activities and university internship programs and has established opportunities for students in the environmental, science, and renewable energy fields. We collaborate with local entities to develop scholarships, programs, and other opportunities aimed at building more prosperous communities.



SKAGIT LAND TRUST

Silfab Solar partnered with Skagit Land Trust to restore the Mud Lake Conservation Area in Skagit County. The Silfab Solar team volunteered their time to clear out invasive blackberry bushes, supporting a healthier ecosystem and creating space for native plants to thrive.

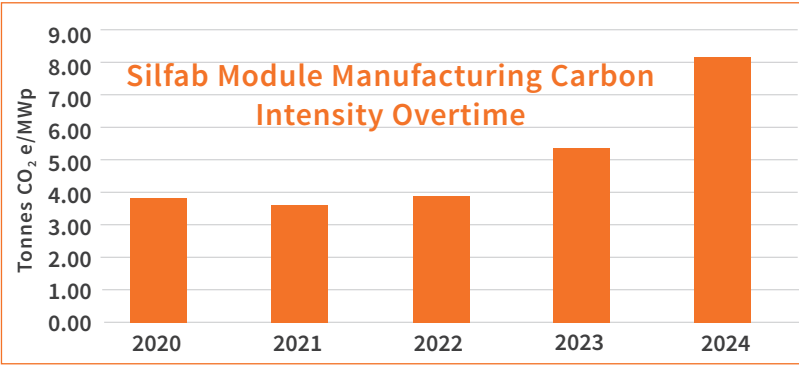
Environment | Energy, Carbon and Water Impacts

Silfab Solar’s tracking data on key environmental impact areas provides the company with important baselines and trend analysis to enable performance improvement plans.

CARBON CO₂ & ENERGY ⚡

Silfab Solar’s carbon footprint has been increasing in recent years as production shifted from Ontario, Canada to Burlington, Washington. The carbon intensity of the electricity grid in Washington State is much higher than that of Ontario. As production at Silfab’s newest site in Fort Mill, South Carolina increases, the company’s carbon footprint will begin to reduce due to the fact that the electricity grid there more resembles that of Ontario. Silfab’s facility in South Carolina is supplied by nuclear, solar and hydroelectricity generation, all close to zero for carbon intensity. In Washington State, we are keen to see the commitment for the coal generating facility on the electricity grid to be retired as planned, and the grid (and the air) to become cleaner.

	SUM OF ELECTRICITY kWh	SUM OF SCOPE 1 g/CO2e	SUM OF SCOPE 2 g/CO2e
2020	5,891,766	66,725	1,270,225
2021	13,992,846	152,404	1,887,464
2022	14,253,815	316,453	2,158,207
2023	13,526,173	224,793	2,217,874
2024	11,107,439	204,607	2,910,525



WATER 💧

Silfab’s water use has remained low given it is not necessary for the production of solar modules. In 2025, as cell manufacturing ramps up, water use will as well as it is a key input for that production process. Our water use safety measures are intensive as noted in the Fort Mill section of this report, and we will continue to report transparently on adherence to all regulatory requirements related to water use.

	WATER USE AND RETURN TO MUNICIPAL SYSTEMS (LITERS)
2022	6,464,000
2023	2,331,191
2024	1,244,933

Environment | Waste & Recycling

Silfab Solar expanded its recycling efforts in 2024, continuing its commitment to recycle manufacturing waste and packaging materials associated with our manufacturing inputs.



2024 RECYCLING SUMMARY

Silfab Solar Net Carbon Impact

229,720

kg of CO₂ Equivalent Diverted

Diverting this much carbon dioxide is equivalent** to:

70,293 MILES
driven by an average gas-powered car

28.9 HOMES
powered for one year

272 ACRES
of forest for carbon sequestration

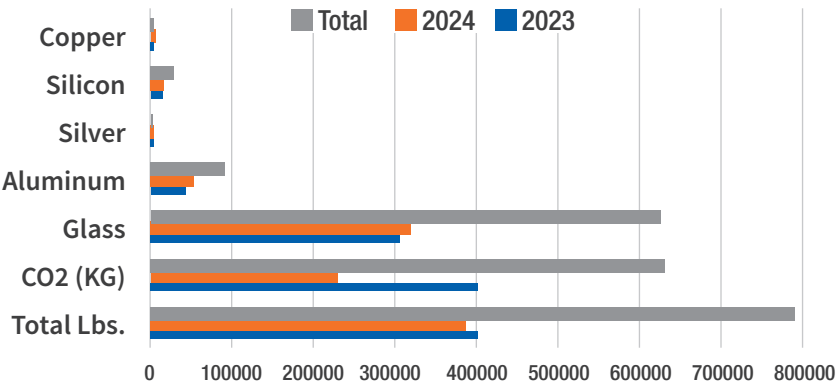
Silfab Solar Diversion Breakdown

In total you've diverted **388,941** pounds of waste.

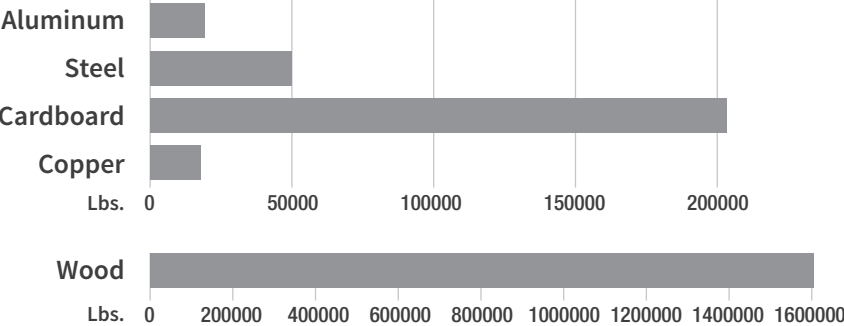
316,986 pounds of glass	15,650 pounds of silicon
108 pounds of silver	749 pounds of tin
50,252 pounds of aluminum	4,948 pounds of copper
261 pounds of lead	

*E-waste per capita of North Americans in 2019 according to The Global E-waste Monitor 2020.
 **Equivalencies calculated by EPA's Greenhouse Gas Equivalencies Calculator.

SOLAR MODULE RECYCLING BENEFITS



2024 RECYCLING AT BURLINGTON FACILITY



A particular challenge in waste management is finding recycling options for the different kinds of plastics used. We have been able to find re-use options for plastics such as shipping pallets and continue to look for new options to reduce landfill.

SILFAB
SOLAR®

GREEN TEAM

Silfab Solar’s efforts to increase employee involvement culminated in the formation of a corporate Green Team, a cross-functional group of employees who collaborate to identify methods to help the company operate more sustainably.

In 2024, Silfab established a Green Team at its Burlington facility to identify opportunities for increased environmental sustainability and enhanced community involvement. The team consists of ten people from various functions within the facility and meets once a month. Short-term initiatives include improved recycling and community donations. Longer-term initiatives include equipment donations, investments in waste reduction infrastructure, and research into alternative packaging materials.

- HUMAN RESOURCES
- LOGISTICS
- MAINTENANCE
- MARKETING
- OPERATIONS
- PRODUCTION
- SUPPLY CHAIN

Silfab regularly donates solar panels to various causes, both in the US and further afield.



YEAR	PANELS DONATED	TOTAL KW	RECIPIENT
2023	6,474	2,446	World Vision Give Power Frying Pan Tower LUTW, Peru Off Grid
2024	2,522	970.8	World Vision USA World Vision Canada CALSSA
Donations fluctuate year over year depending on availability of modules to donate and recipients.			



GivePower - Makindu Solar Water Farm Mobi+, Kenya

Sustainability Objectives

Looking forward to 2025:

- ❖ Integrated Management Systems – 9001/14001/45001/26000
- ❖ Expanded safety metrics
- ❖ Net Zero Target Progress
- ❖ Increased scope of recycling activities
- ❖ Solar cell sustainability metrics





To provide feedback on Silfab Solar's sustainability activities
please contact Silfab Solar at sustainability@silfabsolar.com.

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