



2023 IMPACT REPORT

Environmental, Social & Governance





TABLE OF CONTENTS

01 OVERVIEW	3	02 GOVERNANCE	9	03 SOCIAL	14	04 ENVIRONMENTAL	22
Silfab Solar Inc. Company Profile	4	Clean Supply Chain	10	Clean Supply Chain - Social Responsibility	15	Environmental Impact: Recycling	23
Introduction	5	Focus on Operational Excellence	11	Clean Supply Chain - Reducing Risk	16	SolarCycle Impact Report	24
Purpose / Vision / Sustainability Commitment	6	Cybersecurity	12	Assent Platform	18	Impact of Recycling vs Landfill	25
Spotlight on 2023 Priorities	7	Initiatives for Continuous Improvement	13	Health & Safety	19	Silfab Solar Environmental Footprint	26
Solar Cell and PV Module Manufacturing	8			Community Initiatives	20	OBJECTIVES	
				International Initiatives	21	Future Sustainability Objectives	27





01 OVERVIEW

- Silfab Solar Inc. Company Profile
- Introduction
- Purpose / Vision / Sustainability Commitment
- Spotlight on 2023 Priorities
- Solar Cell & PV Module Manufacturing

PHOTO: CALIFORNIA SOLAR GROUP - SIMI VALLEY, CALIFORNIA, USA

01 OVERVIEW

02 GOVERNANCE

03 SOCIAL

04 ENVIRONMENTAL

05 OBJECTIVES

SILFAB SOLAR INC. COMPANY PROFILE

- ❖ 40+ years of solar manufacturing experience
- ❖ Operating > 1 GW of manufacturing facilities with over 750 employees
- ❖ Established North American brand with trusted, premium residential and commercial products manufactured in the USA
- ❖ Coast-to-coast distribution network delivers multiple lines of product annually
- ❖ ARC Financial and co-investors made significant investments in Silfab Solar's growth in 2021 and 2023
- ❖ Growing solar panel manufacturing business to be vertically integrated with new 1GW US-based solar cell manufacturing facility



INTRODUCTION



As a leader in solar manufacturing, Silfab Solar strives to help the industry redefine what a more sustainable solar module can be, now and into the future.

Welcome to Silfab Solar’s 2023 Impact Report. Silfab Solar is a leader in the solar manufacturing industry and, through our leadership, we strive to inspire others in the sector to take on the sustainability challenge to ensure solar is the cleanest form of energy in the world.

Investing in renewable energy sources contributes to growing a clean economy that benefits everyone. As North America’s leading solar manufacturer with over 40 years of experience, Silfab Solar continues to move forward with initiatives to provide solutions for long-term sustainability while being committed to upholding its core values in business processes: providing a safe and equitable workplace for

employees, treating partners and communities with respect, and adhering to the highest ethical operating and business standards.

Through decades of experience, Silfab Solar brings proven strategies, valuable insights, and innovative ideas to achieving net-zero climate goals, a clean supply chain, sustainable photovoltaic (PV) solar panel and solar cell manufacturing, health and safety targets, and community engagement.

Silfab Solar’s team of solar industry experts employs advanced management practices and engages in partnerships that contribute to the continuing improvement of environmental, social, and governance policies that advance sustainability overall.

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 2023 PRIORITIES

HEALTH & SAFETY

INTEGRATED MANAGEMENT SYSTEM

In 2023, our focus was on solidifying our ISO 9001:2015 foundation with future plans to build a road map to a more advanced integrated management system (IMS). An IMS will be a more comprehensive approach to streamlining environmental, governance, and social responsibility procedures, as well as implementing controls to ensure that we meet our objectives. Integrating ISO 45001, an occupational health and safety management system, will provide an internationally recognized framework for managing health and safety risks, assessing hazards, and implementing risk control measures that can lead to reduced workplace injuries, illnesses, and incidents.

CLEAN SUPPLY CHAIN

SOCIAL RESPONSIBILITY

Regardless of where our raw materials come from, Silfab Solar believes we cannot realize the clean energy revolution by ignoring our social and environmental responsibilities. As a result, we are actively working with many different industry stakeholders to ensure the solar sector adheres to the highest ethical standards of labor and community practices. The company is actively investing in deepening the vertical integration of solar manufacturing by being one of the few companies building out solar cell manufacturing capacity in the United States.

NET ZERO

COMMITMENT

Silfab Solar's long history of manufacturing solar panels has resulted in significant emissions reductions. Implementing procedures and policies that focus on emissions directly or indirectly associated with the company's operations and supply chain puts Silfab Solar on track in achieving its goal of reducing Scope 1 and 2 carbon emissions by 50% by 2030 and being net zero by 2040.

RESHORING SOLAR TO USA

SOLAR CELL & PV MODULE MANUFACTURING IN USA

Our company is directly engaged in the US policy landscape regarding reshoring solar manufacturing and creating an equitable competitive landscape for solar products. With expansion into South Carolina, Silfab Solar is well-positioned to meet North America's expanding demand for domestically made high-quality solar products and support the country's goal to increase the percentage of American-made components in solar modules.

Manufacturing in North America enables access to cleaner electricity grids, which allows our solar panels to have a lower embodied carbon footprint than those made in other regions. Bringing supply chains closer to home creates jobs and lifts up local economies; important priorities, as we see value in being good neighbors in the communities where our employees live.

SOLAR CELL & PV MODULE MANUFACTURING IN USA

Silfab Solar's solar cell and PV module manufacturing plant in South Carolina, USA, will represent the next step in the company's active investment in deeper vertical integration of solar manufacturing, which will result in competitive, financial, social, and environmental benefits. South Carolina is an attractive location for expansion as it is one of the US states where solar manufacturing is supported by a government active in developing local, sustainable industries.

Access to low-carbon energy was also a key factor in our decision to establish at this location as it will enable us to make our solar products even more sustainable.

Silfab Solar has dedicated strategic resources to manage sustainable growth, continued U.S. expansion, control over its supply chain, and has put together a team of highly skilled engineers, technicians, and scientists with experience in solar cell production to bring the South Carolina facility online. Investing in US-made solar cells is a critical

component in developing a clean supply chain to support the manufacturing of solar panels for North American customers.

Silfab Solar's new factory, located in Fort Mill, South Carolina will add 1 gigawatt of American-made solar cell production and another 1.3 gigawatts of PV module production. We are committed to providing 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.

The health and safety of our employees and the community is paramount and always our top priority. Solar cell manufacturing is a safe process. Assembly occurs in an ISO 8 self-contained clean room environment with unique air filtration systems and temperature and humidity controls keeping the assembly process safe and clean. Silfab has taken precautions that exceed the requirements put forth by the South Carolina Department of Environmental Services (SCDES) and the South Carolina Department of Public Health (DPH).

Hand in hand with the new solar cell manufacturing investment, Silfab Solar has been selected for an innovation award by the U.S. Department of Energy to continue its objective of becoming a national leader in USA-produced, next-generation solar cells. The \$20 million project will develop back-contact N-type cells to demonstrate efficiencies of 26 percent or better. The Silfab Solar team is developing these innovations on a 300-MW pilot line, which will operate alongside Silfab Solar's main N-type cell manufacturing at its new South Carolina facility. The project will enable rapid scale-up of cost effective, back-contact cell technology into high-volume manufacturing of Silfab Solar's next line of premium PV solar modules.

As part of the federal government's Solar Energy Technologies Office (SETO) program to provide community benefits in project locations, Silfab Solar has begun a series of workforce development initiatives and school outreach programs to encourage youth to consider careers in renewable energy, among other efforts.



“Silfab Solar selecting York County for a project that requires a highly skilled workforce shows that our workforce development investments are paying off in a big way. Our people are South Carolina’s greatest resource, and we are confident they will help Silfab Solar thrive in its latest venture. Congratulations to Silfab Solar on this project and welcome to South Carolina.”

GOVERNOR OF SOUTH CAROLINA, HENRY McMASTER



02 GOVERNANCE

- Clean Supply Chain
- Focus on Operational Excellence
- Cybersecurity
- Initiatives for Continuous Improvement: 2023 / 2024 / 2025

PHOTO: GRANT 4D FARMS, IDAHO, USA

01 OVERVIEW

02 GOVERNANCE

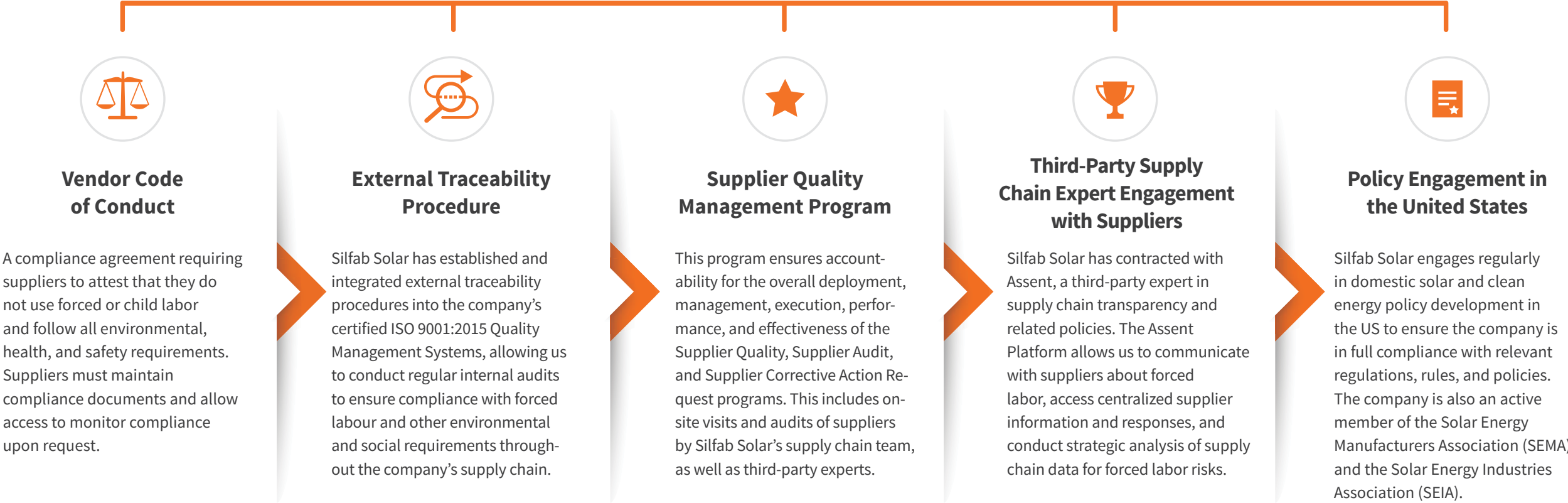
03 SOCIAL

04 ENVIRONMENTAL

05 OBJECTIVES

CLEAN SUPPLY CHAIN

Governance Procedures in Place to Ensure a Clean Supply Chain



FOCUS ON OPERATIONAL EXCELLENCE

In 2023, our focus was 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.

FUTURE INTEGRATED MANAGEMENT SYSTEM



Silfab Solar’s manufacturing facilities in Burlington, WA, and Ontario, Canada, feature fully automated production lines and are certified to the ISO 9001:2015 Quality Management System standard. The new Fort Mill, SC facility will also follow these industry leading standards. These systems ensure the execution of standard processes, with performance measured against set targets. Processes are continually evaluated for risks and opportunities for improvement, optimization, and reduction of environmental waste.

Non-discriminatory, Human Resources, and Environment, Health, and Safety (EHS) policies are part of our ISO 9001 systems and are designed to have a positive impact on the safety and social responsibilities of Silfab Solar’s workplace.

Silfab Solar’s future IMS consists of integrating its ISO 9001–2015 Quality Management System with ISO 14001, Environmental Management System, and ISO 45001, Operational Safety Management System. The company will manage all three ISO standards as one integrated IMS.

The IMS is a strategic initiative aimed at consolidating our management systems to achieve operational excellence and ensure compliance with internationally recognized standards.

By integrating ISO 9001, ISO 14001, and ISO 45001, we are committing to a comprehensive approach that addresses quality, environmental impact, and the well-being of our workforce.

WHY ARE WE IMPLEMENTING AN IMS?

1. **Holistic Approach:** The IMS allows us to manage quality, environmental impact, and occupational health and safety in an interconnected manner.
2. **Efficiency and Streamlining:** Streamlining processes across these areas will lead to increased efficiency and effectiveness.
3. **Global Recognition:** Achieving IMS certification demonstrates our commitment to excellence on a global scale.
4. **Environmental Responsibility:** Integration with ISO 14001 highlights our dedication to environmental sustainability.
5. **Employee Well-Being:** Prioritizing health and safety through ISO 45001.



CYBERSECURITY

CYBERSECURITY GOVERNANCE

We prioritize cybersecurity as a critical component of our governance framework. Our policies and practices are regularly reviewed to ensure robust protection of our digital assets and customer data.

RISK MANAGEMENT

We have implemented comprehensive risk management strategies to identify, assess, and mitigate cyber threats. Our proactive approach includes vulnerability assessments, penetration testing, and incident response planning.

DATA PROTECTION AND PRIVACY

We are committed to safeguarding the privacy and integrity of our stakeholders' data. Our data protection measures comply with global standards and regulations, ensuring secure management of personal and sensitive information.

CONTINUOUS MONITORING AND RESPONSE

Our advanced monitoring systems provide continuous surveillance of our digital infrastructure. We employ state-of-the-art detection and response solutions to swiftly address any potential cyber threats.

EMPLOYEE TRAINING AND AWARENESS

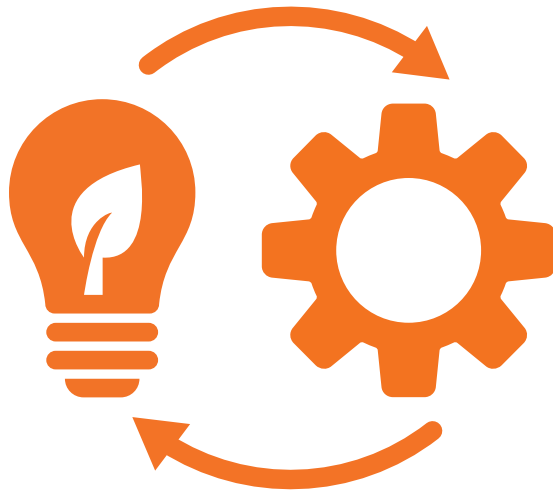
Our employees undergo regular security awareness training. Through these efforts, we strive to uphold ethical governance practices. By fostering a culture of security, we empower our employees to effectively recognize and respond to cyber risks. We are committed to achieving the highest levels of security standards.

COLLABORATION AND PARTNERSHIPS

We collaborate with industry partners and cybersecurity experts to stay ahead of emerging threats. These partnerships enhance our ability to protect our digital ecosystem and contribute to the broader cybersecurity community.

INITIATIVES FOR CONTINUOUS IMPROVEMENT

Silfab Solar fosters a culture of continuous improvement by providing strong leadership and training programs that offer innovative and creative ways to increase sustainability.



2023

1. Completed ISO 9001:2015 surveillance audit with zero major nonconformances.
2. Addition of Burlington, Washington facility to certification.
3. Began the process of partnering with a globally recognized registrar.
4. Launched supplier quality program.
5. Achieved measurable reductions in defect and scrap rates as a result of implementing a benchmarking process.

2024

1. Identified software solutions to manage documentation, non-conformities, audits, and corrective actions.
2. Improved supplier quality performance by reducing supplier-related defects through audits and partnerships.
3. Aligned ISO 9001 quality initiatives with Silfab Solar's sustainability goals by integrating sustainability and social responsibility into quality processes.
4. Began the process to develop multiple continuous improvement projects based on Lean and Six Sigma, and Kaizen initiatives.

2025

1. Expand the scope of certification to include cell manufacturing in Fort Mill, South Carolina.
2. Implement a framework across all locations for IMS (Integrated Management System 9001, 14001 and 45001, along with 26001).
3. Deploy a software solution to manage documentation, non-conformities, audits, and corrective actions.



03 SOCIAL

- Clean Supply Chain - Social Responsibility
- Clean Supply Chain - Reducing Risk
- Assent Platform Screen
- Health & Safety
- Community Initiatives
- International Initiatives

PHOTO: WESTERN SOLAR, LAKE WHATCOM

01 OVERVIEW

02 GOVERNANCE

03 SOCIAL

04 ENVIRONMENTAL

05 OBJECTIVES

CLEAN SUPPLY CHAIN: SOCIAL RESPONSIBILITY

Silfab Solar enhanced its approach to supply chain management in 2023, incorporating additional procedures and technologies to boost supplier traceability, monitoring, and accountability.

As there are important concerns regarding social issues such as forced labor and child labor in manufacturing, a strong and evolving supply chain strategy is essential to being a socially responsible and ethical organization. Silfab Solar is fully supportive of the Uyghur Forced Labor Protection Act (UFLPA) in the United States and endorses the Solar Energy Industries Association Supply Chain Traceability Protocol. Silfab Solar is of the view that no matter where we procure our input materials from, the clean energy revolution does not need to be achieved by ignoring social and environmental responsibility in manufacturing. Our Vendor Code of Conduct (referenced in this report) embodies Silfab

Solar’s values as they relate to these issues and demonstrates how we put our values to work.

As a North American company, Silfab Solar operates in accordance with strict federal, state, and provincial laws and policies and is guided by its company values, which serve as the organization’s foundation. Silfab Solar employs significant supplier compliance requirements related to health, safety, and environmental sustainability, labor and human rights, business ethics and integrity, intellectual property, and forced labor and child labor. Silfab Solar never uses forced or child labor in its own operations nor tolerates it in our supply chain.



CLEAN SUPPLY CHAIN: REDUCING RISK

INTERNATIONAL SUPPLY CHAIN

Silfab Solar’s supply chain includes suppliers from all over the world, with a particular concentration in Asia and, more recently, North America. The solar sector is currently dominated by Chinese and Southeast Asian suppliers, and the company relies on these manufacturers for many of the goods that we procure. With the advent of industrial policies such as the Inflation Reduction Act in the US, which seek to reshore clean energy manufacturing in the US, Silfab Solar is increasingly sourcing its input materials from US-based suppliers.

In order to ensure that imported goods are not produced wholly or in part with convict, forced, child, or indentured labor, we require the following from our suppliers:

- Endorsement and signing of our vendor code of conduct, which stipulates no forced labor, and a willingness to meet with our supply chain team on site at their facilities.
- Affidavits of no forced labor.
- Participation in our traceability audits and checks.
- Answer surveys and provide evidence of company policies that restrict the use of forced labor. If a company does not update its information regularly through this process, Silfab Solar engages with them and requires remedial action, which, if not provided, leads to that supplier being delisted from our approved vendor list.
- Participation in our Supplier Quality Management Program, which requires that a supplier provide detailed material information as well as forced labor-related disclosures.

Our vendors must ensure that all of their employees are hired on their own free will and guarantee that all their operations are free from forced, bonded, compulsory, indentured, prison labor, or any other form of compulsory or child labor. Silfab Solar does not tolerate the use of forced or child labor and expects the suppliers to abide by the international standards as defined by the International Labour Organization (ILO).

As a foundational element, Silfab Solar has used the “Solar Supply Chain Traceability Protocol” set out by the Solar Energy Industries Association (SEIA), to develop internal supply chain traceability policies and procedures. The development of core vendor documentation requirements related to traceability and forced labor has been implemented by Silfab Solar.

SUPPLIER’S COMPLIANCE COMMITMENT

Silfab Solar requires vendors to adhere to all applicable laws and regulations and, in particular, comply with the Vendor Code of Conduct in letter and spirit. It is the vendor’s responsibility to read and understand the contents of the code and policy. As a condition of doing business with Silfab Solar, a vendor must comply with this code and agree to uphold such values during its business association with Silfab Solar.

The vendor is required to maintain adequate documentation to demonstrate compliance with the

principles of the code and allow access to check compliance upon request with reasonable notice.

A vendor shall notify us immediately regarding any known or suspected improper behavior by anyone, including the vendor itself, relating to its dealings with Silfab Solar or any known or suspected improper behavior by Silfab Solar employees.

Silfab Solar undertakes several procedures when vetting new suppliers or vendors for forced labor risks. The supplier is required to do the following:

- i. Sign Silfab Solar’s Vendor Code of Conduct with explicit reference to the fact that no forced labor of any kind is acceptable.
- ii. For products at a high risk of exposure to forced labor, provide Silfab Solar with documentation identifying 2nd- and 3rd-tier suppliers that provide them with goods to manufacture.
- iii. Provide evidence of policies and procedures to avoid forced labor in the suppliers’ operations and own supply chain.
- iv. Submit responses to Assent’s forced labor survey (see page 18). Those responses are then reviewed by both Assent experts as well as Silfab Solar’s Director of Sustainability and the supply chain team.

In addition, Silfab Solar purchase orders explicitly require that the “seller certifies that materials sold to Silfab Solar and its upstream supplier’s raw material inputs have not used forced labor.”

PROCEDURES IN PLACE TO MANAGE FORCED LABOR RISK

Silfab Solar has three supplier audit procedures established to support efforts to avoid forced labor in supply chains.

Numerous Silfab Solar employees are involved in the implementation of these procedures and are trained on their requirements on a regular basis.

1) EXTERNAL TRACEABILITY PROCEDURE

Silfab Solar has an external traceability procedure established and integrated into the company's ISO 9001 management system, which enables us to conduct periodic internal audits to check for forced labor in the company's supply chain. The scope of the procedure applies to the procurement of all Bill of Material components that will be used in Silfab Solar finished goods sold to customers. There are responsibilities laid out separately for Silfab Solar's Director of Supply Chain, Sourcing Manager, Traceability and Standards Engineer, and Buyer.

2) SUPPLIER QUALITY MANAGEMENT PROGRAM

Silfab Solar has a Supplier Quality Management Program intended to provide, amongst many considerations, the company's ability to audit our suppliers to ensure they are adhering to the vendor code of conduct and providing the Fighting Against Forced Labour and Child Labour in Supply Chains Act (the Act) and UFLPA-adherence-related evidence through our third-party supply chain transparency partner.

The Supplier Quality Management Program assigns accountability to Silfab Solar for the overall deployment,

management, execution, performance, and effectiveness of the Supplier Quality, Supplier Audit, and Supplier Corrective Action Request programs. It ensures that Silfab Solar is maintaining effective supplier-auditing capabilities by certified auditors, maintaining and managing the supplier quality audit schedule, ensuring overall management and reporting supplier quality scorecards to the Supplier Quality Steering Committee, standardizing and communicating key process indicators and targets to site teams, communicating any supplier nonconforming process, and collaborating with Sourcing Managers, Site Team, and Supplier Quality Steering Committee to maintain an effective Supplier Quality Program.

The Supplier Quality Site Team is responsible for the overall execution, performance, and effectiveness of the Supplier Quality Program at the site level, including:

- Maintaining standard operating procedures and work instructions for receiving, inspection, and traceability of supplier raw materials, components, and products in compliance with the corporate Supplier Quality Program.
- Maintaining standard operating procedures and work instructions for control, segregation, analysis, and disposition of supplier nonconforming material in compliance with the corporate Supplier Quality Program.
- Disposition of Supplier Nonconforming Material is performed through the Nonconformance Report process or as part of the Material Review Board process. The NCR and MRB processes are described in procedures SIL-QA-SOP-008 and SIL-QA-SOP-005, respectively.
- Documenting and communicating the analysis of supplier nonconforming material through supplier

corrective action requests to the supplier as established in corporate policies and procedures.

- Tracking and following up on corrective action status.
- Ensuring the supplier has filled out and returned the SCAR sections within the time frames based on the SCAR severity.
- Ensuring the supplier has agreed upon the nonconforming material cost and updating SQM, SM, and responsible buyer.

3) THIRD-PARTY SUPPLY CHAIN EXPERT ENGAGEMENT WITH SUPPLIERS

Silfab Solar has contracted with Assent, a third-party expert in supply chain transparency and related policies. Silfab Solar uses the Assent platform to engage with suppliers on forced labor, access supplier responses and information, employ industry leading corrective actions when supplier responses are insufficient, and enable strategic analysis of supply chain data to assess for forced labor risks.

Silfab Solar uses Assent to reduce risk in the following issue areas:

1. Compliance with the Act
2. Compliance with the UFLPA
3. Human Trafficking and Slavery
4. Climate impact
5. Compliance with Title 3 of Countering America's Adversaries through the Sanctions Act
6. Compliance with US Federal Acquisition Regulation

THE ASSENT PLATFORM SCREENS FOR FORCED LABOR

Through Silfab Solar's supply chain transparency partnership with Assent, an expert firm in global procurement sustainability, suppliers are required to provide:

- A worker's age profile.
- The use of goods of potential concern, according to the US Department of Labor's Bureau of International Labor Affairs (ILAB).
- The use of recruiters for labor.
- Policy or policies explicitly prohibiting workers and agents from:
 - Engaging in all forms of forced labor and human trafficking (also referred to as modern slavery).
 - Withholding worker identity or immigration documents.
- Policy or policies explicitly ensuring:
 - Document checks (including proof of age documents) are done for all workers before hiring to confirm they are allowed to work according to legal standards and applicable organization policies.
 - Workers, including migrant workers, can cancel their work contracts at any time with no financial penalty, subject to giving reasonable notice in accordance with local law or a collective agreement.
- Workers, including those hired by recruiters, are given detailed and accurate work agreements or similar work papers (prior to relocation if relocation is required) in a language understood by the worker.
- Whether the organization issues a policy or policies explicitly prohibiting workers and agents from charging workers or potential workers recruitment fees.
- Whether the organization issues a policy or policies explicitly prohibiting workers and agents from:
 - Engaging in all forms of forced labor and human trafficking (also referred to as modern slavery).
 - Engaging in the worst forms of child labor. The worst forms of child labor include hazardous child labor, which is work performed by a person under the age of 18 that jeopardizes their physical, mental, or moral well-being. It includes work that takes place under particularly difficult conditions, such as working long hours or during the night.
 - Engaging in child labor. Child labor constitutes work performed by a person under the age for completing compulsory schooling generally not less than 15 years.



Silfab Solar uses the Assent Platform to ensure all stakeholders have the insights they need to better identify and mitigate forced labor and child labor risk and make informed decisions. Silfab Solar, along with Assent's team of regulatory subject matter experts and its Compliance Platform, manages all stages of regulatory compliance, from data acquisition to report declaration. Silfab Solar uses Assent to ensure that we have up-to-date knowledge of regulations so we are prepared to respond when our requirements change. All new vendors must complete the Assent survey prior to being provided with a purchase order.

A strong supply chain strategy is critical for a socially responsible and ethical business.

HEALTH & SAFETY: THE FOUNDATION OF OUR SUCCESS

Silfab Solar employs a variety of health and safety-related strategies. The addition of ISO 45001 to the IMS and new safety measures prioritize health and safety and will further improve employee well-being.

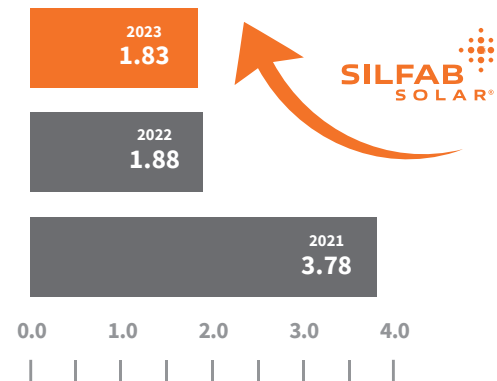
We commit to taking all necessary steps to protect the safety of everyone who works for or with Silfab Solar. Total Recordable Incident Rate (TRIR) and Lost Time Incident Rate (LTIR) are safety Key Performance Indicators (KPIs) that are permanently featured in the company’s annual performance metrics. Progress against these KPIs is reported on weekly during regular executive management team meetings.

Silfab Solar employs a wide range of tools and programs to proactively mitigate the risk of safety incidents. In 2023, they included:

1. See It, Fix It (SIFI) Program.
2. Daily safety meetings for all teams.
3. Risk assessments for all roles and responsibilities.
4. Hazard identification programs.
5. Health and fitness shift preparation routines.
6. Leveraging the 5S pillars to sustain a productive work environment.



In 2023, Silfab Solar’s TRIR continued to be well below the manufacturing average of 3.2* with a continued improvement in Lost Time Incidents as compared to 2022. While we are very proud of these industry-leading achievements, zero is always the ultimate goal for safety measures, and we are continually working to achieve it.



In 2023, Silfab Solar’s Total Recordable Incident Rate (TRIR) was well below the manufacturing average of 3.2.*
(TRIR = Incidents / 200,000 Hours)

* US Bureau of Labor Statistics 2022

LOST TIME INCIDENT RATE (LTIR)	
2022 - 12 Lost Time Incidents	1.58
2023 - 1 Lost Time Incident	.14

IN 2024, SILFAB SOLAR HAS COMMITTED TO THESE NEW SAFETY MEASURES:

- Streamline ‘Hazard Identification’ See It, Fix It (SIFI) program by utilizing Safety AMP Software to increase participation rates, QR code, tablet, easy to use.
- Standardize Contractor and Subcontractor Safety Management Program.
- Standardize Lock Out Tag Out Placard/ID Program.
- Standardize Health and Safety standards through IMS ISO 45001 (Occupational Health and Safety Management System (OHSMS).
- Standardize Safety + Leadership Training through a Learning Management System (LMS).
- Engage with SSHA (Semiconductor Environmental Safety & Health Association).
- Engage with onsite early intervention and wellness.
- Engage with risk assessment firms.

COMMUNITY INITIATIVES

Silfab Solar's initiatives to raise employee engagement resulted in community outreach events promoting social responsibility and reinforced Silfab Solar's reputation of being a good corporate citizen.



MATT'S PLACE FOUNDATION

Silfab Solar continues to support Matt's Place Foundation in Spokane, WA, a charitable organization that assists people living with ALS and their families. Silfab donated solar panels to help power a new ultimate ALS home for at-risk families battling ALS and has been involved in fundraising activities to support the next generation Matt's Place 2.0.



TRI PARISH FOOD BANK

Silfab Solar participated in a number of company-wide local charitable activities, including a holiday food drive to benefit the local food bank in Skagit County, Washington. Regular community outreach events help to boost employee engagement, social responsibility, and support Silfab Solar's goal of being a good corporate citizen.



EDUCATIONAL SUPPORT

Silfab Solar frequently participates in local school activities and university internship programs and has established various opportunities for students in the environmental, science, and renewable energy fields. When Silfab Solar opens its new solar cell and module facility in South Carolina, it will collaborate with local entities to develop scholarships, programs, and other opportunities aimed to help build a more prosperous community.



FRYING PAN LIGHT HOUSE

The Frying Pan tower, located 32 miles offshore in North Carolina, was once a functioning light station that helped ships avoid running aground in shallow waters. Officially retired in 1992, it has now evolved into a beacon of conservation. Silfab Solar donated solar panels to enable the historic Frying Pan Tower to reduce its reliance on fossil fuels and move toward 100% sustainability.

INTERNATIONAL INITIATIVES

Our continuing collaboration with international charitable organizations has helped to enhance the lives of throughout the world by supplying clean energy to power schools, medical facilities, and clean water.



World Vision

4,576 Panels Donated valued at (CDN) **\$577, 315**

7 Countries: Burundi, Democratic Republic of the Congo, Ghana, Honduras, Somalia, South Sudan, and Tanzania

Powered Medical Clinics, Schools, Airports and Clean Water Filtration Systems



givepower

Since 2020, Silfab Solar has donated over 1,900 solar panels, powering projects in the DRC, Angola, and now Kenya. Most recently the Makindu Solar Water Farm Mobi+ opened in Makueni County, Kenya, topped with Silfab Solar panels. This site alone provides clean drinking water for 26K people. This partnership has positively impacted the lives of over 1,000 households and businesses in DRC, and approximately 900 homes in Angola.



Light Up the World (LUTW)

In 2023, Silfab Solar partnered with Light Up the World, an international organization dedicated to providing access to energy. Silfab Solar donated 22, 370Wp HC modules generating power for over 1000 beneficiaries in four rural Peruvian communities. Health clinics now have enough energy to run the equipment they need to deliver better care, and schools can power tablets and computers, enhancing the quality of community education.



04 ENVIRONMENTAL

- Environmental Impact: Recycling
- SolarCycle Impact Report
- Impact of Recycling vs Landfill
- Silfab Solar Environmental Footprint

01 OVERVIEW

02 GOVERNANCE

03 SOCIAL

04 ENVIRONMENTAL

05 OBJECTIVES

ENVIRONMENTAL IMPACT: RECYCLING

We place a high priority on our products' environmental performance throughout their entire life cycle.

WASTE / RECYCLING INITIATIVES

In 2023, Silfab Solar significantly improved its approach to recycling manufacturing waste. The company secured recycling supply contracts with two industry-accredited recyclers. Solar panel recycling is in its infancy, and as such, securing environmentally responsible waste management partners is a challenge in the sector. As solar energy begins to dominate the new energy landscape, understanding how manufacturing and end-of-life waste is handled has become increasingly important for sustainability.



Recycling processes focus on advanced techniques such as thermal hot knife delamination, water jet frame removal, mechanical crushing and sizing, sulfuric acid leaching, and cyclic electrowinning to maximize the recovery of critical materials like copper, silicon, and aluminum from used silicon PV modules.

The solar panel recycling processes are designed to effectively remove specific contaminants like gallium, tin, and silver, ensuring the purity and quality of recovered materials while minimizing the risk of environmental pollution. Environmental responsibility is prioritized by incorporating strategies to extract high-value organic polyvinylidene fluoride (PVDF) backsheets and regenerate

organic solvents, thereby reducing impact and promoting sustainability within the PV module recycling process.

The objectives for recycling solar panels in the US are to establish a sustainable supply chain where recovered materials from post-consumer PV modules serve as cost-effective raw materials for manufacturing processes, thus reducing reliance on primary sources and promoting resource efficiency. Additionally, the recycling process seeks to advance the solar energy industry by developing and disseminating innovative recycling technologies and practices, facilitating the adoption of sustainable and environmentally responsible approaches across the sector.



SOLARCYCLE ENVIRONMENTAL IMPACT REPORT

2023 Annual Environmental Impact Report

CRYSTALLINE SILICON (C-Si) | Company: Silfab Solar Inc.

The SOLARCYCLE report calculates the environmental benefit and landfill diversion achieved by contracting with SOLARCYCLE. This table summarizes the environmental impact of the c-Si solar panels that Silfab Solar Inc. sent to SOLARCYCLE for recycling or reuse in the 2023 calendar year.



Year-End Total
Panels Received

TYPE	RECYCLE	REUSE
SILICON	7,925	NA

LANDFILL DIVERSION

You successfully diverted
402,091
pounds of material from landfills.

That's equivalent* to
8,727
people's e-waste for a year.



NET CARBON IMPACT

kg of CO₂ Equivalent Diverted

401,248

Diverting this much carbon dioxide is equivalent** to:

995,980 MILES
driven by an average gas-powered car

50 HOMES
powered for one year

475 ACRES
of forest for carbon sequestration

DIVERSION BREAKDOWN

In total you've diverted
402,091
pounds of waste.

306,137 **pounds of glass**
68 **pounds of silver**
41,720 **pounds of aluminum**
19 **pounds of lead**

11,920 **pounds of silicon**
134 **pounds of tin**
373 **pounds of copper**
41,720 **pounds of plastics**

*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.

ENVIRONMENTAL IMPACT OF RECYCLING VS LANDFILL

ENVIRONMENTAL IMPACT OF RECYCLING		
CATEGORY	ENVIRONMENTAL BENEFIT	UNIT
Acidification	2,152.15	molc H+eq
Climate change	401,248.13	kg CO2 eq
Freshwater ecotoxicity	8,553,880.61	CTUe
Freshwater eutrophication	275.40	kg P eq
Human toxicity, cancer effects	0.10	CTUh
Human toxicity, non-cancer	0.28	CTUh
Ionizing radiation Ecosystems (E)	0.25	CTUe
Ionizing radiation Human	110,890.39	kg U235 eq
Marine eutrophication	304.58	kg N eq
Ozone depletion	0.02	kg CFC-11 eq
Particulate matter	211.57	kg PM2.5 eq
Photochemical ozone formation	988.53	kg NMVOC eq
Abiotic Resource Depletion	7.59	kg Sb eq
Terrestrial eutrophication	3,009.36	molc N eq

ENVIRONMENTAL IMPACT OF LANDFILLING		
CATEGORY	ENVIRONMENTAL BENEFIT	UNIT
Acidification	-58.91	molc H+eq
Climate change	-13,642.44	kg CO2 eq
Freshwater ecotoxicity	-211,567,196.41	CTUe
Freshwater eutrophication	-5.09	kg P eq
Human toxicity, cancer effects	-0.01	CTUh
Human toxicity, non-cancer	-0.31	CTUh
Ionizing radiation Ecosystems (E)	0.00	CTUe
Ionizing radiation Human	-1,271.23	kg U235 eq
Marine eutrophication	-27.36	kg N eq
Ozone depletion	0.00	kg CFC-11 eq
Particulate matter	-4.29	kg PM2.5 eq
Photochemical ozone formation	-70.58	kg NMVOC eq
Abiotic Resource Depletion	-0.39	kg Sb eq
Terrestrial eutrophication	-229.81	molc N eq

The Environmental Impact Breakdown. Positive numbers = environmentally friendly, negative numbers = environmentally detrimental. Impact breakdown is calculated based on: Dias, et al. (2022) Renewable and Sustainable Energy Rev.



SILFAB SOLAR ENVIRONMENTAL FOOTPRINT

CARBON & ENERGY

In order to support rising demand and maximize the benefits of solar, it is critical that the industry focus on its own carbon footprint. Silfab Solar’s most impactful decision to lower our embodied carbon footprint has been to locate our facilities in North American jurisdictions with clean energy grids. As the United States becomes more focused on clean energy, manufacturing and transportation-related emissions are on the decline. Silfab Solar’s upcoming US solar cell production facility will further reduce the carbon footprint of Silfab Solar panels.

We are committed to reducing our Scope 1 and 2 carbon emissions by 50% by 2030 and being net zero by 2040. Furthermore, we have established a 2026 goal to show progress on our net zero interim target through energy efficiency and renewable energy measures at our facilities. The initial results of these efforts will be reported on as they are implemented in 2024.

Silfab Solar’s carbon emissions are primarily the result of the electricity consumption associated with manufacturing our solar panels. The electricity grids in our three manufacturing locations, Washington State, South Carolina, and Ontario, all have relatively low carbon intensity. We consume a small amount of natural gas for domestic heating purposes at each of our facilities, and it is included in our energy and carbon data.

As defined by the Greenhouse Gas Protocol (GHG Protocol), Scope 4 covers emissions avoided when a product is used as a substitute for other goods or services, fulfilling the same functions but with a lower carbon intensity.

Silfab Solar has taken a proactive approach to Scope 4 emissions, a relatively new and evolving concept, by analyzing emissions reductions that occur throughout its product’s life cycle, investing in manufacturing R&D, and partnering with industry leaders to further catalyze reductions.

2023 INVENTORY

SCOPE 1 (KG CO2E)	SCOPE 2 (KG CO2E)	TOTAL (KG CO2E)
224,773	562,589	787,362

SCOPE 3 EFFORTS

Silfab Solar began surveying its suppliers in 2023 for their climate commitments, carbon footprint data, and objectives for reducing greenhouse gas emissions. The following information is being collected from suppliers:

- GHG inventory data, Scope 1, 2, 3
- Public climate reporting
- Goals or targets to reduce greenhouse gas emissions
- Renewable energy consumption / total energy consumption

SCOPE 4

Energy Generation: 20.5TWh Carbon Reduction: 9 Mt CO2e

Energy and Water Data

	Electricity (kWh)	Gas (m3)	Water (liter)
Totals	13,502,129	115,733	2,331,191

WASTE

Solar panel manufacturing creates waste associated with both the packaging we receive our materials in as well as the manufacturing process. We work with our suppliers to reduce packaging waste where possible. Our manufacturing waste is minimized wherever possible, and we prioritize recycling of items such as cardboard, wood pallets, metal, broken cells, and aluminum directly from our facilities.

WATER

Solar panel manufacturing does not require direct water consumption. Any water consumed by Silfab Solar is for conventional domestic water needs amongst employees at our offices and facilities. As Silfab Solar began the process in 2022 of planning for additional vertical integration of solar manufacturing processes with a focus on cell production, the company developed a broader view of water sustainability at future sites. Solar cell production requires water inputs into manufacturing; however, when managed responsibly, that water resource can be treated properly on site and returned to municipal systems without any quality concerns. The data presented in the water consumption table for 2023 only covers panel manufacturing for Silfab Solar. Once the cell plant is operational, water use for that process will be reported in updated sustainability impact reports.

WATER SUSTAINABILITY AT SILFAB SOLAR’S NEW FACILITY IN SOUTH CAROLINA

The water we use will undergo two treatment cycles from our permitted water purification system before it is released. Next, the City of Rock Hill will do an additional cleanse in its sanitary sewer facility before releasing the water. After a stringent cleaning process that includes pH neutralization and fluoride precipitation in our waste water pretreatment system, Silfab Solar releases 90% of the water back to be cleaned again and used by the City of Rock Hill. The wastewater being discharged by Silfab Solar is regularly tested by a certified third party in compliance with the City of Rock Hill permit requirements and to ensure it also meets and exceeds federal standards. Silfab Solar will also treat the incoming city water used for cell production to meet “ultra-pure” standards, which is required for our process.

FUTURE SUSTAINABILITY OBJECTIVES

Future objectives will cover:

- Corporate Green Teams
- IMS (Integrated Management Systems)
- Waste Reduction Targets
- On-Site Energy Efficiency
- Environmental Impact Reduction
- New Safety Measures
- Expanded Community Involvement





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

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