Solar Industry Commitment to Environmental & Social Responsibility

The solar energy industry delivers sustainability solutions to customers by producing energy with low greenhouse gas impacts, improving energy security, and creating jobs and economic development. These considerations, however, are only a small part of the industry's role in sustainability. More broadly, the solar energy industry has a responsibility to mitigate and manage its full range of social and environmental impacts, which include respecting the human rights of workers, ensuring that the rights of communities and other stakeholders are respected, and making business operations safe and environmentally responsible.

Taking this responsibility seriously is essential for advancing several strategic aims for individual solar companies as well as the industry as a whole:

- To gather the broad support needed from customers, investors, communities, government agencies, and media to enable the sector's growth;
- To position the growing sector for integrating the most efficient and effective approaches to sustainability management while it is still young and flexible; and
- To establish a generally accepted measurement framework that allows industry companies to differentiate themselves through investments which are transparent, credible and comparable.

To advance comprehensive sustainability performance of the solar industry in support of the above aims, the Solar Energy Industries Association (SEIA) has developed the Commitment for Environmental and Social Responsibility ("the Commitment").[1] The Commitment defines common practices and expectations for all solar industry participants, including manufacturers, suppliers, subcontractors, and customers in the solar value chain.

The Commitment consists of two parts:

Part 1 Solar Specific Topics: Part 1 articulates items that are of particular interest to the solar industry and/or its stakeholders. Part 1 may include themes that are also addressed in Part 2.

Part 2 Core Compliance: Part 2 provides a broad set of foundational expectations for sustainability. In order to reduce duplication, promote harmonization, and advance shared approaches, SEIA has adopted the Electronics Industry Code of Conduct ("EICC") V.3.0 (developed by the Electronic Industry Citizenship Coalition) as its core compliance standards for Labor, Health & Safety, the Environment, Management Systems, and Ethics (see appendix for more information on use of the EICC as part of this Commitment).

By adopting the Commitment, a company will publically declare its support and implement the practices articulated, and thus will become a participant ("Participant"). A Participant shall also, at a minimum, require its next tier suppliers to acknowledge and strive to meet the Commitment.

In addition to implementing the Commitment in its entirety, Participants, in all of their activities, must operate in full compliance with the laws, rules and regulations of the countries in which they operate.

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[1] The Commitment is not intended to create new and additional third party rights, including for workers.

However, the Commitment encourages Participants to go beyond legal compliance, drawing upon internationally recognized standards, to advance social and environmental responsibility. As part of the Commitment, it is expected that participants will develop transparent processes for communication with key stakeholders on relevant social and environmental impacts. In addition, Participants should commit to identifying best practices on emerging issues through industry dialogue, raising awareness about them, and advancing continuous improvement over time.[2]

SEIA is committed to ongoing engagement with the industry and stakeholders in the continued development, improvement, and implementation of the Commitment.

Part I: Solar Specific Topics

1) Human Rights
In accordance with the United Nations Guiding Principles on Business and Human Rights and the Universal Declaration of Human Rights, Participants are expected to operate with respect for human rights and establish appropriate policies and processes to avoid infringement on human rights through Participant operations or business relationships. Participant should track and make available to relevant stakeholders information on their human rights performance.

2) Electrical Safety
Participants must comply with electrical design and installation standards (e.g. the IEC/NEC or equivalent) to ensure electrical safety, including when systems are installed in ground-mount (free-field) or rooftop environments.

3) Energy and Environment
Participants should actively work to reduce the consumption of natural resources including raw materials, water, and energy taking into consideration the entire product life-cycle from raw material sourcing through end-of-life. Scrap materials and end of life products should be reused or recycled through public or private programs. Key environmental impacts of manufacturing processes, product technology or key business operations should be identified and appropriate controls should be used to minimize these impacts including tracking water use, energy use, and related greenhouse gas emissions, while maximizing energy efficiency throughout business operations. Participants should make available to relevant stakeholders information on all of these processes and activities.

4) Fall Protection
Participants must comply with all applicable fall prevention requirements including, as relevant, fall prevention safety plans, training, monitoring, mitigation activities, corrective action plans as well as any additional activities to eliminate fall risk.

5) Reporting Misconduct
If a supplier[3] believes that anyone acting on behalf of the company requesting adherence to the

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[2] Initial priority topics include (1) installation, (2) materials and chemical use, and (3) lifecycle energy impacts.
[3] Supplier is defined as a company who is asked to provide a product or service for the company requesting adherence to this Commitment.

Commitment is engaged in illegal or unethical conduct, the supplier should report this to the company. A good-faith report of suspected misconduct will not adversely impact the supplier.

Part II: Code for Core Compliance

LABOR

Participants are committed to uphold the human rights of workers, and to treat them with dignity and respect as understood by the international community. The recognized standards, as set out in the annex, were used as references in preparing the Code and may be a useful source of additional information.

The labor standards are:

1) Freely Chosen Employment
Forced, bonded or indentured labor or involuntary prison labor shall not to be used. All work will be voluntary, and workers shall be free to leave upon reasonable notice. Workers shall not be required to hand over government-issued identification, passports or work permits to the Participant or Labor Agent as a condition of employment.

2) Child Labor Avoidance
Child labor is not to be used in any stage of manufacturing. The term "child" refers to any person under the age of 15 (or 14 where the law of the country permits), or under the age for completing compulsory education, or under the minimum age for employment in the country, whichever is greatest. The use of legitimate workplace apprenticeship programs, which comply with all laws and regulations, is supported. Workers under the age of 18 shall not perform work that is likely to jeopardize the health or safety of young workers.

3) Working Hours
Studies of business practices clearly link worker strain to reduced productivity, increased turnover and increased injury and illness. Workweeks are not to exceed the maximum set by local law. Further, a workweek should not be more than 60 hours per week, including overtime, except in emergency or unusual situations. Workers shall be allowed at least one day off per seven-day week.

4) Wages and Benefits
Compensation paid to workers shall comply with all applicable wage laws, including those relating to minimum wages, overtime hours and legally mandated benefits. In compliance with local laws, workers shall be compensated for overtime at pay rates greater than regular hourly rates. Deductions from wages as a disciplinary measure shall not be permitted. The basis on which workers are being paid is to be provided in a timely manner via pay stub or similar documentation.

5) Humane Treatment
The Participant's disciplinary policies and procedures shall be clearly defined and communicated to

workers. There is to be no harsh and inhumane treatment, including any sexual harassment, sexual abuse, corporal punishment, mental or physical coercion or verbal abuse of workers: nor is there to be the threat of any such treatment.

6) Non-Discrimination

Participants should be committed to a workforce free of harassment and unlawful discrimination. Companies shall not engage in discrimination based on race, color, age, gender, sexual orientation, ethnicity, disability, pregnancy, religion, political affiliation, union membership or marital status in hiring and employment practices such as promotions, rewards, and access to training. In addition, workers or potential workers should not be subjected to medical tests that could be used in a discriminatory way.

7) Freedom of Association

Open communication and direct engagement between workers and management are the most effective ways to resolve workplace and compensation issues. Participants are to respect the rights of workers to associate freely, join or not join labor unions, seek representation, join workers' councils in accordance with local laws. Workers shall be able to communicate openly with management regarding working conditions without fear of reprisal, intimidation or harassment.

HEALTH and SAFETY

Participants recognize that in addition to minimizing the incidence of work-related injury and illness, a safe and healthy work environment enhances the quality of products and services, consistency of production and worker retention and morale. Participants also recognize that ongoing worker input and education is essential to identifying and solving health and safety issues in the workplace.

Recognized management systems such as OHSAS 18001 and ILO Guidelines on Occupational Safety and Health were used as references in preparing the Code and may be a useful source of additional information.

The health and safety standards are:

1) Occupational Safety

Worker exposure to potential safety hazards (e.g., electrical and other energy sources, fire, vehicles, and fall hazards) are to be controlled through proper design, engineering and administrative controls, preventative maintenance and safe work procedures (including lockout/tagout), and ongoing safety training. Where hazards cannot be adequately controlled by these means, workers are to be provided with appropriate, well-maintained, personal protective equipment. Workers shall not be disciplined for raising safety concerns.

2) Emergency Preparedness

Emergency situations and events are to be identified and assessed, and their impact minimized by implementing emergency plans and response procedures, including: emergency reporting, employee notification and evacuation procedures, worker training and drills, appropriate fire detection and suppression equipment, adequate exit facilities and recovery plans.

3) Occupational Injury and Illness

Procedures and systems are to be in place to prevent, manage, track and report occupational injury and illness, including provisions to: a) encourage worker reporting; b) classify and record injury and illness cases; c) provide necessary medical treatment; d) investigate cases and implement corrective actions to eliminate their causes; and e) facilitate return of workers to work.

4) Industrial Hygiene

Worker exposure to chemical, biological and physical agents is to be identified, evaluated, and controlled. Engineering or administrative controls must be used to control overexposures. When hazards cannot be adequately controlled by such means, worker health is to be protected by appropriate personal protective equipment programs.

5) Physically Demanding Work

Worker exposure to the hazards of physically demanding tasks, including manual material handling and heavy or repetitive lifting, prolonged standing and highly repetitive or forceful assembly tasks is to be identified, evaluated and controlled.

6) Machine Safeguarding

Production and other machinery is to be evaluated for safety hazards. Physical guards, interlocks and barriers are to be provided and properly maintained where machinery presents an injury hazard to workers.

7) Sanitation, Food, and Housing

Workers are to be provided with ready access to clean toilet facilities, potable water and sanitary food preparation, storage, and eating facilities. Worker dormitories provided by the Participant or a labor agent are to be maintained clean and safe, and provided with appropriate emergency egress, hot water for bathing and showering, and adequate heat and ventilation and reasonable personal space along with reasonable entry and exit privileges.

ENVIRONMENTAL

Participants recognize that environmental responsibility is integral to producing world class products. In manufacturing operations, adverse effects on the community, environment and natural resources are to be minimized while safeguarding the health and safety of the public.

Recognized management systems such as ISO 14001, the Eco Management and Audit System (EMAS) were used as references in preparing the Code and may be a useful source of additional information.

The environmental standards are:

1) Environmental Permits and Reporting

All required environmental permits (e.g. discharge monitoring), approvals and registrations are to be obtained, maintained and kept current and their operational and reporting requirements are to be followed.

2) Pollution Prevention and Resource Reduction

Waste of all types, including water and energy, are to be reduced or eliminated at the source or by practices such as modifying production, maintenance and facility processes, materials substitution, conservation, recycling and re-using materials.

3) Hazardous Substances

Chemical and other materials posing a hazard if released to the environment are to be identified and managed to ensure their safe handling, movement, storage, use, recycling or reuse and disposal.

4) Wastewater and Solid Waste

Wastewater and solid waste generated from operations, industrial processes and sanitation facilities are to be characterized, monitored, controlled and treated as required prior to discharge or disposal.

5) Air Emissions

Air emissions of volatile organic chemicals, aerosols, corrosives, particulates, ozone depleting chemicals and combustion by-products generated from operations are to be characterized, monitored, controlled and treated as required prior to discharge.

6) Product Content Restrictions

Participants are to adhere to all applicable laws, regulations and customer requirements regarding prohibition or restriction of specific substances, including labeling for recycling and disposal.

MANAGEMENT SYSTEM

Participants shall adopt or establish a management system whose scope is related to the content of this Code. The management system shall be designed to ensure (a) compliance with applicable laws, regulations and customer requirements related to the participant's operations and products; (b) conformance with this Code; and (c) identification and mitigation of operational risks related to this Code. It should also facilitate continual improvement.

The management system should contain the following elements:

1) Company Commitment

Corporate social and environmental responsibility policy statements affirming Participant's commitment to compliance and continual improvement, endorsed by executive management.

2) Management Accountability and Responsibility

The Participant clearly identifies company representative[s] responsible for ensuring implementation of the management systems and associated programs. Senior management reviews the status of the management system on a regular basis.

3) Legal and Customer Requirements

Identification, monitoring and understanding of applicable laws, regulations and customer requirements.

4) Risk Assessment and Risk Management

Process to identify the environmental, health and safety[4] and labor practice and ethics risks associated with Participant's operations. Determination of the relative significance for each risk and implementation of appropriate procedural and physical controls to control the identified risks and ensure regulatory compliance.

5) Improvement Objectives

Written performance objectives, targets and implementation plans to improve the Participant's social and environmental performance, including a periodic assessment of Participant's performance in achieving those objectives.

6) Training

Programs for training managers and workers to implement Participant's policies, procedures and improvement objectives and to meet applicable legal and regulatory requirements.

7) Communication

Process for communicating clear and accurate information about Participant's policies, practices, expectations and performance to workers, suppliers and customers.

8) Worker Feedback and Participation

Ongoing processes to assess employees' understanding of and obtain feedback on practices and conditions covered by this Code and to foster continuous improvement.

9) Audits and Assessments

Periodic self-evaluations to ensure conformity to legal and regulatory requirements, the content of the Code and customer contractual requirements related to social and environmental responsibility.

10) Corrective Action Process

Process for timely correction of deficiencies identified by internal or external assessments, inspections, investigations and reviews.

11) Documentation and Records

Creation and maintenance of documents and records to ensure regulatory compliance and conformity to company requirements along with appropriate confidentiality to protect privacy.

ETHICS

To meet social responsibilities and to achieve success in the marketplace, Participants and their agents are to uphold the highest standards of ethics including:

1) Business Integrity

The highest standards of integrity are to be expected in all business interactions. Participants shall

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[4] Areas to be included in a risk assessment for environmental health and safety are production areas, warehouse and storage facilities, plant/facilities support equipment, laboratories and test areas, sanitation facilities (bathrooms), kitchen/cafeteria and worker housing/dormitories.

prohibit any and all forms of corruption, extortion and embezzlement. Monitoring and enforcement procedures shall be implemented to ensure conformance.

2) No Improper Advantage
Bribes or other means of obtaining undue or improper advantage are not to be offered or accepted.

3) Disclosure of Information
Information regarding business activities, structure, financial situation and performance is to be disclosed in accordance with applicable regulations and prevailing industry practices.

4) Intellectual Property
Intellectual property rights are to be respected; transfer of technology and know-how is to be done in a manner that protects intellectual property rights.

5) Fair Business, Advertising and Competition
Standards of fair business, advertising and competition are to be upheld. Appropriate means to safeguard customer information must be available.

6) Protection of Identity
Programs that ensure the confidentiality and protection of supplier and employee whistleblower[5] are to be maintained.

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[5] Whistleblower definition: Any person who makes a disclosure about improper conduct by an employee or officer of a company, or by a public official or official body.

Appendix: Use of the EICC Code

The EICC Code provides guidelines for performance and compliance with critical CSR policies for the Information and Communication Technology (ICT) industry. The EICC Code was developed through a multi-stakeholder process and is now being used by over 40 well-known ICT brands and over 1000 of their suppliers, and it has been translated into sixteen languages.[6] In order to minimize duplicity and use language that participants and stakeholders are familiar with, we have leveraged the EICC framework as a basis for the SEIA statement, and added unique issues for solar as are pertinent. We understand that the EICC Code is likely to evolve in the future, and we intend to take its advances under consideration as the SEIA statement evolves.

The following standards were used to develop the EICC Code of Conduct and may be a useful source of additional information. The following standards may or may not be endorsed by each Participant.

ILO Code of Practice in Safety and Health
www.ilo.org/public/english/protection/safework/cops/english/download/e000013.pdf

National Fire Protection Agency www.nfpa.org/catalog/home/AboutNFPA/index.asp

ILO International Labor Standards
www.ilo.org/public/english/standards/norm/whatare/fundam/index.htm

OECD Guidelines for Multinational Enterprises www.oecd.org

United Nations Convention Against Corruption
www.unodc.org/unodc/en/crime_convention_corruption.html

United Nations Global Compact www.unglobalcompact.org

Universal Declaration of Human Rights www.un.org/Overview/rights.html

ISO 14001 www.iso.org

SA 8000 www.cepaa.org/

SAI www.sa-intl.org

Ethical Trading Initiative www.ethicaltrade.org/

OHSAS 18001 www.bsi-global.com/index.xalter

Eco Management & Audit System www.quality.co.uk/emas.htm

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[6] See http://www.eicc.info/EICC%20CODE.htm