How US Solar Companies Can Manage Supply Chain Risk Following Customs WRO On Hoshine

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Part 1: WRO Overview

Part 2: Rulings and Impacts

Part 3: Traceability

- Legal Framework on Forced Labor and Imports
- CBP Forced Labor Enforcement
- WRO and Findings Statistics
- WRO Detention Timeline
- China’s Anti-Sanctions Law

Legal Framework on Forced Labor & Imports

Section 307 of the Tariff Act of 1930

Prohibits imports of all merchandise mined, produced, or manufactured **wholly or in part** in any foreign country by convict or/and forced labor or/and indentured labor

CBP Forced Labor Enforcement – WROs

- WRO – Withhold Release Orders
- Process: Commissioner will promptly advise all port directors, usually also a public press release
- Standard: Evidence supporting WRO must be reasonable but not conclusive
- Goods may be detained

Source: CBP.gov

CBP Forced Labor Enforcement – Findings

- Findings
- Process: CBP makes a determination of forced labor. Published in Customs Bulletin and Federal Register
- Standard: Evidence supporting finding must be conclusive
- Goods may be seized

Sources: CBP.gov

WROs and Findings Statistics

https://www.cbp.gov/trade/programs-administration/forced-labor/withhold-release-orders-and-findings

49 Active WROs

- 30 since 2016

8 Active Findings

- Most in 1990s
- First finding since 1996 issued on 10/20/2020 on Stevia from China
- Most recent finding 3/29/2021 on certain gloves from Malaysia

Timeline for WRO-Related Detentions of Cargo

1. Cargo will appear delayed for unknown reason
2. Official detention notice
   - Decide to fight, export or abandon
3. 3 months for importer to submit support to release AND for CBP to make a decision
4. Cargo deemed excluded after 3 months whether or not official exclusion notice issued
5. Protest within 180 days of deemed exclusion or 60 days of written exclusion
   - Cargo deemed abandoned 60 days after written exclusion notice (if issued)
6. Protest deemed denied after 30 days – option to proceed in Court of International Trade after approximately 4 months

Big Picture

- 696 shipments detained between October 1, 2020 – June 25, 2021
- Very few successful in getting release
- Most exported or abandoned
- One pending court case challenging CBP's review process

CBP Information on Hoshine WRO

https://www.cbp.gov/trade/programs-administration/forced-labor/hoshine-silicon-industry-co-ltd-withhold-release-order-frequently-asked-questions

- Metallurgic grade silicon, silicon oxide, silicones in primary forms, semiconductor devices, integrated circuits, additives for aluminum alloys and concrete, photovoltaic cells, solar generators, solar panels, electronics, adhesives, lubricants
- CBP may consider silica to be de minimis if insignificant in imported good: quantity, quality, functionality
- Records tracing product from finished goods back to silica provider, including purchase orders, invoices, payment, production records, transportation records, etc.

New China Anti-Sanctions Law

- Consequences on individuals or organizations that directly or indirectly participate in implementing foreign sanctions against Chinese citizens or organizations
- Proceed with caution when discussing supply chain with Chinese personnel or vendors

Questions?

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Part 1: WRO Overview

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Part 3: Traceability

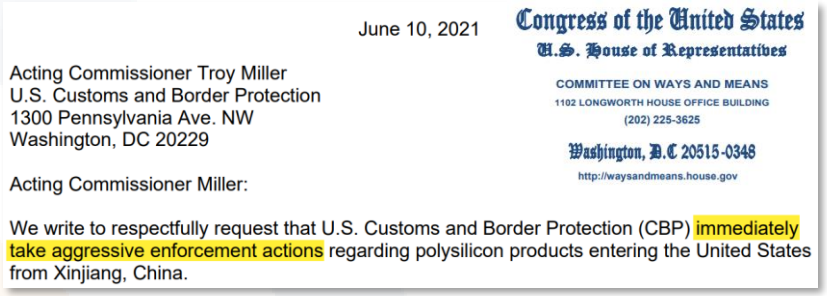
- Prior to June 21
- DOL: China Polysilicon
- DOC: Five Additions to Entity List
- CBP: WRO – Hoshine Silicon Metal
- US Advisory - Xinjiang
- US Senate S.65 - Xinjiang
- Impact on Supply Sources
- Impact on Traceability

United States House Ways And Means Democrats Request CBP To Rapidly Act On Polysilicon, Amnesty International Releases Report

On June 10, majority members of the House of Representatives Committee on Ways and Means sent a letter to the United States Customs and Border Protection (CBP) requesting the CBP to issue a Withhold Release Order (WRO) on polysilicon products entering the United States from the province of Xinjiang in China.

In the letter, the Committee requested “immediate, aggressive enforcement actions” citing “overwhelming evidence of the use of forced labor in polysilicon production.”

Although the new legislation aimed at preventing imports of polysilicon from Xinjiang has not been passed, CBP may block products suspected of containing the raw material from entering the country based on Section 307 of the Tariff Act of 1930.



June 10, 2021

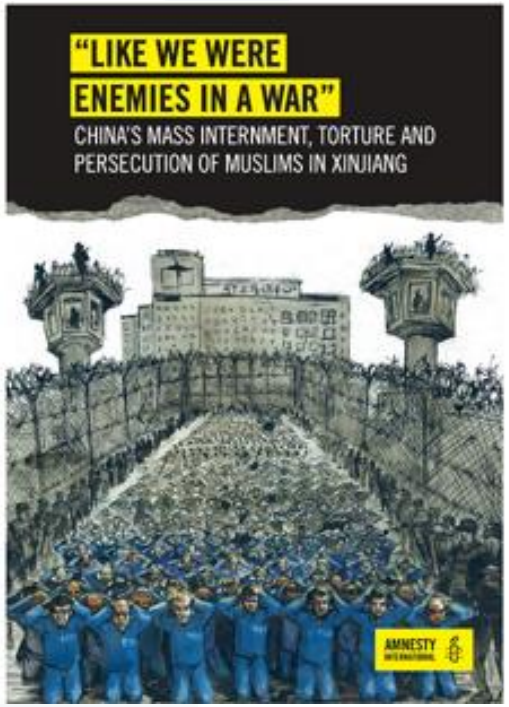
Congress of the United States
U.S. House of Representatives

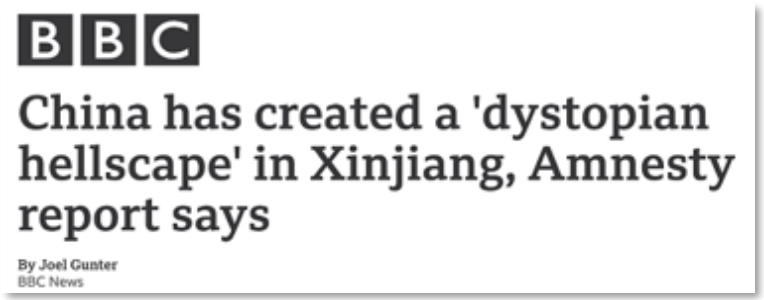
COMMITTEE ON WAYS AND MEANS
1102 LONGWORTH HOUSE OFFICE BUILDING
(202) 225-3625
Washington, D.C 20515-0348
http://waysandmeans.house.gov

Acting Commissioner Troy Miller
U.S. Customs and Border Protection
1300 Pennsylvania Ave. NW
Washington, DC 20229

Acting Commissioner Miller:

We write to respectfully request that U.S. Customs and Border Protection (CBP) immediately take aggressive enforcement actions regarding polysilicon products entering the United States from Xinjiang, China.





BBC

China has created a 'dystopian hellscape' in Xinjiang, Amnesty report says

By Joel Gunter
BBC News

In a report published on June 10, Amnesty International called on the United Nations to investigate, and said China had subjected Uyghurs, Kazakhs, and other Muslims to mass detention, surveillance, and torture.

Based on interviews with 55 former detainees, Amnesty said there was evidence the Chinese state had committed “at least the following crimes against humanity: imprisonment or other severe deprivation of physical liberty in violation of fundamental rules of international law; torture; and persecution.”

Solar Energy Industries Association (SEIA) Solar Supply Chain Traceability Protocol

SOLAR SUPPLY CHAIN TRACEABILITY PROTOCOL 1.0

INDUSTRY GUIDANCE

April 2021

www.seia.org

INTRODUCTION

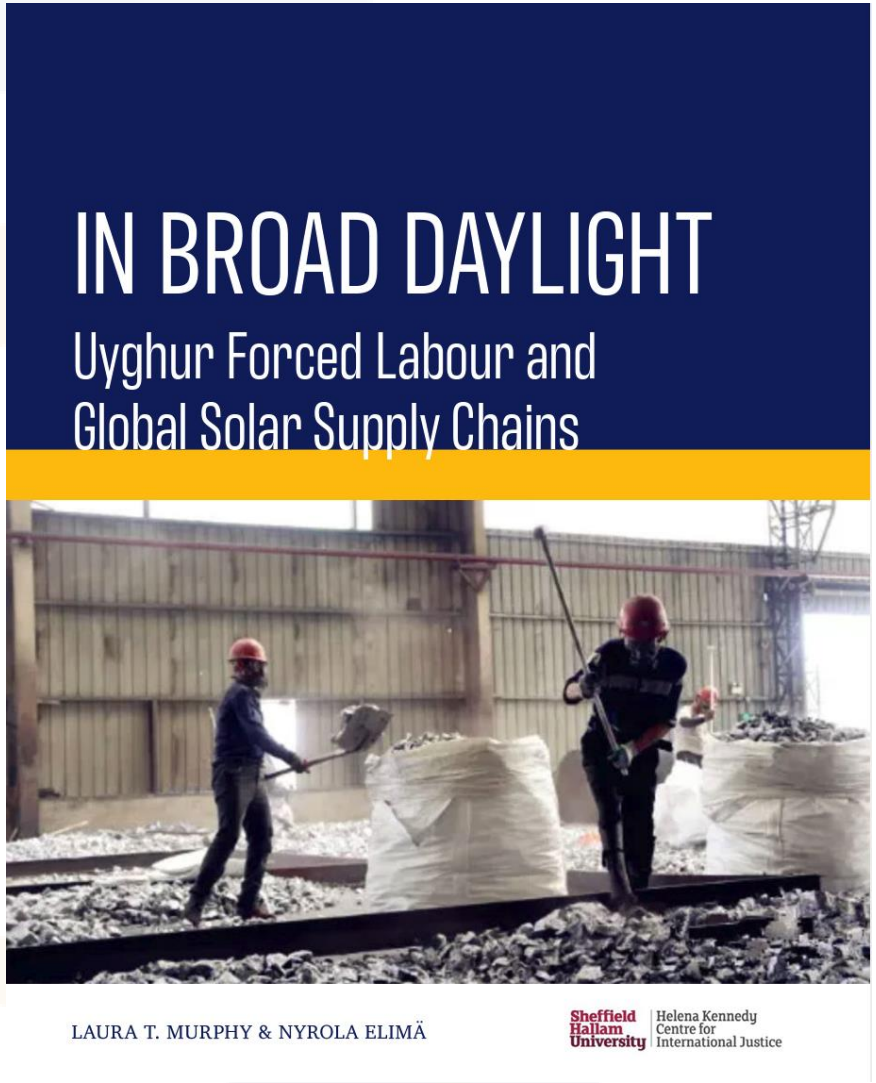
Transparency of supply chains is paramount. Equipment purchasers, electricity end-users, and other stakeholders demand transparency for reasons ranging from sustainability to corporate social responsibility to import compliance. In this environment, manufacturers must have the proper systems in place to meet stakeholder needs and build trust. To assist the industry, SEIA, with the support of Clean Energy Associates (CEA) and Senergy Technical Services (STS), has developed this Solar Supply Chain Traceability Protocol 1.0 (Protocol) to help manufacturers and importers demonstrate the provenance of their products by developing and implementing a traceability program consistent with the general principles herein.

The Protocol is organized into three primary sections: (i) Principles of Transparency; (ii) Integration of Transparency into Management Systems; and (iii) Integration of Transparency into Operational Processes. The document also provides a case study applying the Protocol to the solar module supply chain and Annexes on Risk Management and Product Traceability Due Diligence.

The Protocol is also intended to help importers meet their U.S. customs law reasonable care obligations and improve an importer's ability to respond to U.S. Customs and Border Protection (CBP) requests for information and audit inquiries. By following the Protocol and producing the documentation recommended herein, an importer should be well-positioned to demonstrate both provenance (where something comes from) and avoidance (locations that are not involved in the production of the product).

Looking forward, questions will arise as suppliers implement and use the Protocol, and new challenges and needs may also come up. To that end, the Protocol will be regularly reviewed and updated to improve clarity and usability and offer additional guidance.

An Alarm, Especially For Europe, About The Extent Of The Issue



A call for change – not just the product you buy, but a complete change in who you buy from

A situation that affects several key global industries, including aluminum and steel, silicones, adhesives, cosmetics in addition to polysilicon (used to make semiconductor wafers)

Department of Labor (DOL)

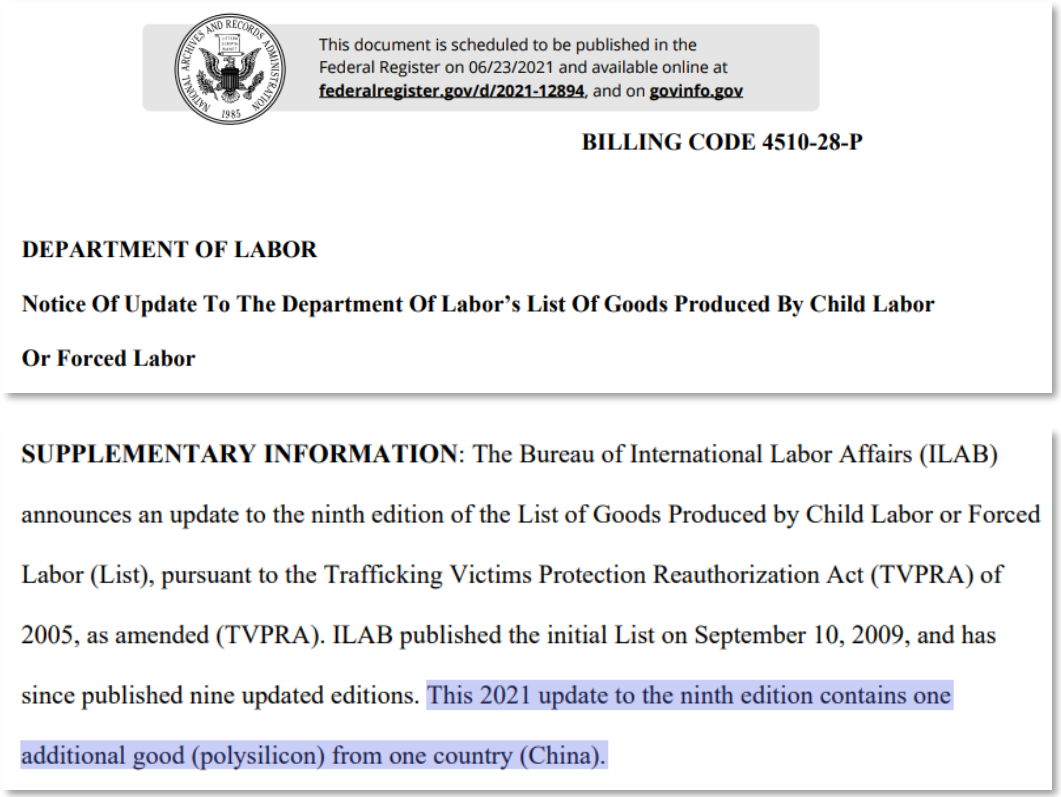
Department Of Labor Adds Polysilicon from China to TVPRA

On June 23, 2021, the Federal Register published an updated List of Goods Produced by Child Labor or Forced Labor maintained by the Department Of Labor.

Polysilicon from China has been added to the list of items made with forced labor.

Following the June 10 letter from the Democratic wing of the House of Representatives Committee on Ways and Means to the United States Customs and Border Protection, the update of the List is another indicator that CBP would issue a Withhold Release Order on PV modules in the near future.

The List contains goods from countries that the Bureau of International Labor Affairs (DOL) has reason to believe are produced by forced labor or child labor in violation of international standards, including, to the extent practicable, goods that are produced with inputs that are produced with forced labor or child labor.



This document is scheduled to be published in the Federal Register on 06/23/2021 and available online at **federalregister.gov/d/2021-12894**, and on **govinfo.gov**

BILLING CODE 4510-28-P

DEPARTMENT OF LABOR

Notice Of Update To The Department Of Labor's List Of Goods Produced By Child Labor Or Forced Labor

SUPPLEMENTARY INFORMATION: The Bureau of International Labor Affairs (ILAB) announces an update to the ninth edition of the List of Goods Produced by Child Labor or Forced Labor (List), pursuant to the Trafficking Victims Protection Reauthorization Act (TVPRA) of 2005, as amended (TVPRA). ILAB published the initial List on September 10, 2009, and has since published nine updated editions. This 2021 update to the ninth edition contains one additional good (polysilicon) from one country (China).

Department of Commerce (DOC)

Exports to Five Entities from the US Must Stop (unless a license is granted)

Hoshine, the largest producer of metallurgical grade silicon, aka silicon metal, aka industrial silicon (on the order of 98% to 99% pure silicon, produced from silica/quartz/quartzite), three producers of polysilicon and XPCC have been added to the DOC list of companies that the US can no longer export to (without a license). All are located within Xinjiang. The entities were selected on the basis of labor issues.

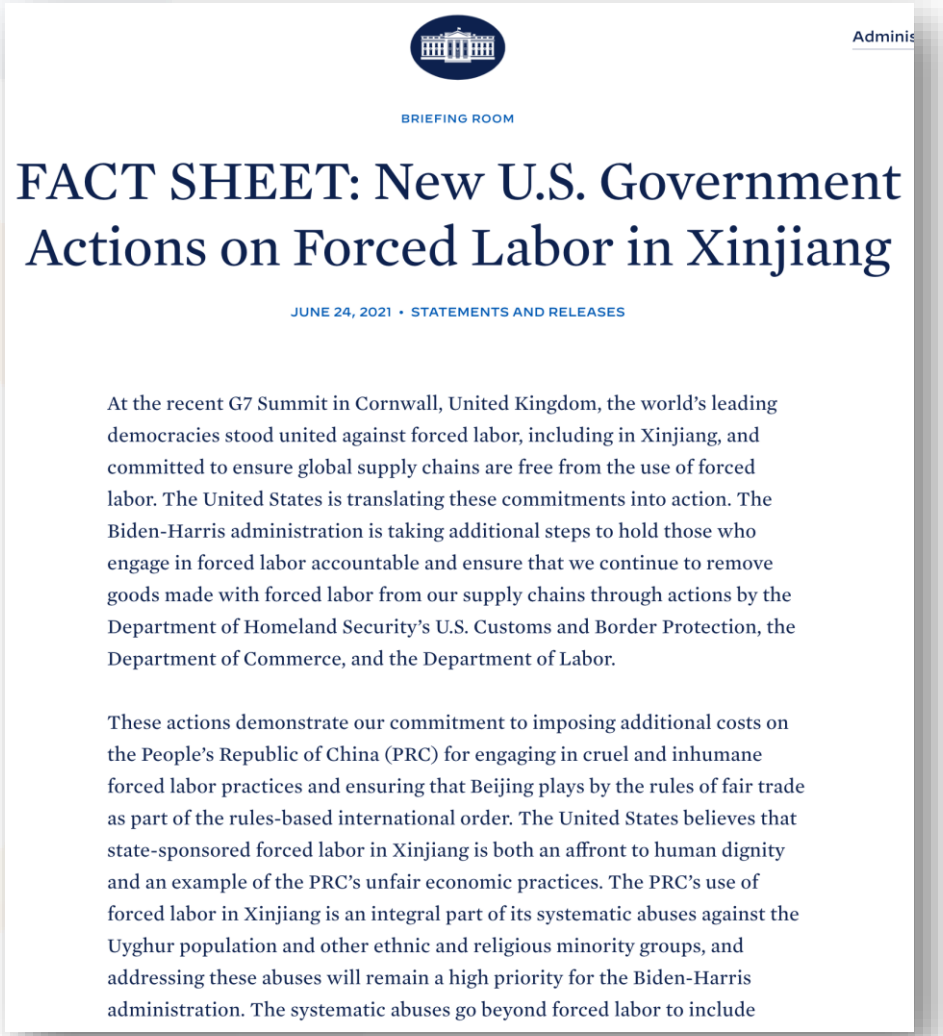
Note: Hoshine sells mg-Si to the identified three polysilicon suppliers and is believed to have sold to all 8 of the world's top (by annual production) polysilicon suppliers.

Customs and Border Protection (CBP)

White House Fact Sheet: New US Government Actions on Forced Labor in Xinjiang

"The systematic abuses go beyond forced labor to include sexual violence and large-scale forced detentions, and the PRC continues to commit genocide and crimes against humanity in Xinjiang."

- White House



BRIEFING ROOM

FACT SHEET: New U.S. Government Actions on Forced Labor in Xinjiang

JUNE 24, 2021 • STATEMENTS AND RELEASES

At the recent G7 Summit in Cornwall, United Kingdom, the world's leading democracies stood united against forced labor, including in Xinjiang, and committed to ensure global supply chains are free from the use of forced labor. The United States is translating these commitments into action. The Biden-Harris administration is taking additional steps to hold those who engage in forced labor accountable and ensure that we continue to remove goods made with forced labor from our supply chains through actions by the Department of Homeland Security's U.S. Customs and Border Protection, the Department of Commerce, and the Department of Labor.

These actions demonstrate our commitment to imposing additional costs on the People's Republic of China (PRC) for engaging in cruel and inhumane forced labor practices and ensuring that Beijing plays by the rules of fair trade as part of the rules-based international order. The United States believes that state-sponsored forced labor in Xinjiang is both an affront to human dignity and an example of the PRC's unfair economic practices. The PRC's use of forced labor in Xinjiang is an integral part of its systematic abuses against the Uyghur population and other ethnic and religious minority groups, and addressing these abuses will remain a high priority for the Biden-Harris administration. The systematic abuses go beyond forced labor to include

Bloomberg: US to Block Some Solar Goods Made in Xinjiang Region

Bloomberg

Politics

U.S. to Block Some Solar Goods Made in Xinjiang Region

By Jenny Leonard, Jennifer A Dlouhy, Brian Eckhouse, and Ari Natter
June 23, 2021, 1:39 PM PDT *Updated on June 23, 2021, 2:09 PM PDT*

Customs and Border Protection is expected to announce a “withhold and release order,” targeting Hoshine Silicon Industry (Shanshan) Co., Ltd. Imports from that company would be blocked from entry at U.S. ports and only released if they can prove the goods are not made with forced labor.

Separately, the Commerce Department will add five Chinese entities to its export blacklist. According to a notice set to be published in the government’s Federal Register on Thursday, they are Hoshine; Xinjiang Daqo New Energy, Co. Ltd; Xinjiang East Hope Nonferrous Metals Co. Ltd.; Xinjiang GCL New Energy Material Technology, Co. Ltd; and Xinjiang Production and Construction Corps. American companies that sell to those entities will then require approval from the U.S. government.

From Sand to Polysilicon

Silica
Silicon + Oxygen
Quartzite

Silicon Metal
(mg-Si)
Hoshine is a producer

Polysilicon Rods + Chunk

CBP's "Frequently Asked Questions"

Hoshine Silicon Industry Co. Ltd Withhold Release Order Frequently Asked Questions

Printer-friendly version

- What is the scope of the Hoshine WRO? Does it apply only to silica-based products produced in Xinjiang, or does it also cover products made in other parts of China, or third countries using inputs made by Hoshine and its subsidiaries?
- Are finished products that contain a small percentage of silica-based products sourced from Hoshine or its subsidiaries subject to the WRO?
- How will this WRO affect imports into the United States for goods containing silica?
- What indicators of forced labor did CBP identify against Hoshine?
- What kind of evidence will CBP expect from importers seeking release of detained shipments?

Finished Goods: photovoltaic cells, solar generators, solar panels, electronics, adhesives, and lubricants.

….The importer's statement should be sufficiently detailed and **include proof** that the goods were not produced, wholly or in part, with forced labor.

Affidavit from the provider of the silica and its initially processed forms (i.e., silicon metal, metallurgical grade silicon, chemical-grade silicon, silicon, etc.) and **identification of the source of the silica** and its initially processed forms that identifies where the silica and its initially processed forms were sourced. **Purchase Orders, Invoices, and Proof of Payment for the silica** and its initially processed forms and/or silica containing components. List of **production steps and production records** from the imported merchandise back through the supply chain to the unprocessed silica and its initially processed forms. Transportation **documents from raw silica source (quarry or other)** through silica's initially processed forms to the imported merchandise. Daily process reports that relate to the unprocessed silica and its initially processed forms sold to the downstream producer(s) and the list of entities that supplied inputs for the silica containing products being imported.

Imports That Contain Material From Hoshine Must Stop (Unless The Importer Can Demonstrate The Absence Of Forced Labor)

The operating framework: products that have material from Hoshine are now considered to be made with forced labor, unless proven otherwise to the satisfaction of CBP.

Proving that Hoshine has no forced labor is virtually impossible without unfettered access to conduct a comprehensive independent audit of Hoshine facilities.

In order to avoid getting detained by CBP, importers should be prepared to show provenance all the way to mg-Si without any portion coming from Hoshine.

PV industry suppliers have been preparing tools, procedures, etc. to demonstrate provenance of polysilicon and to take steps to avoid having products bound for the USA contain polysilicon from Xinjiang. The WRO takes the need for traceability upstream to the mg-Si step and further identifies Hoshine as the producer that is believed by CBP to have forced labor.

As a result, the WRO effectively applies to all polysilicon producers (not just those in Xinjiang) who source mg-Si from Hoshine and incorporate Hoshine's mg-Si in the product.

How Will CBP Decide What To Inspect?

CBP won't examine every shipment; expected to focus on manufacturers with connections to Hoshine

- CBP identified $150M imports of downstream products over past 2.5 years so far
- Investigations are ongoing

WRO will remain in effect until underlying conditions change

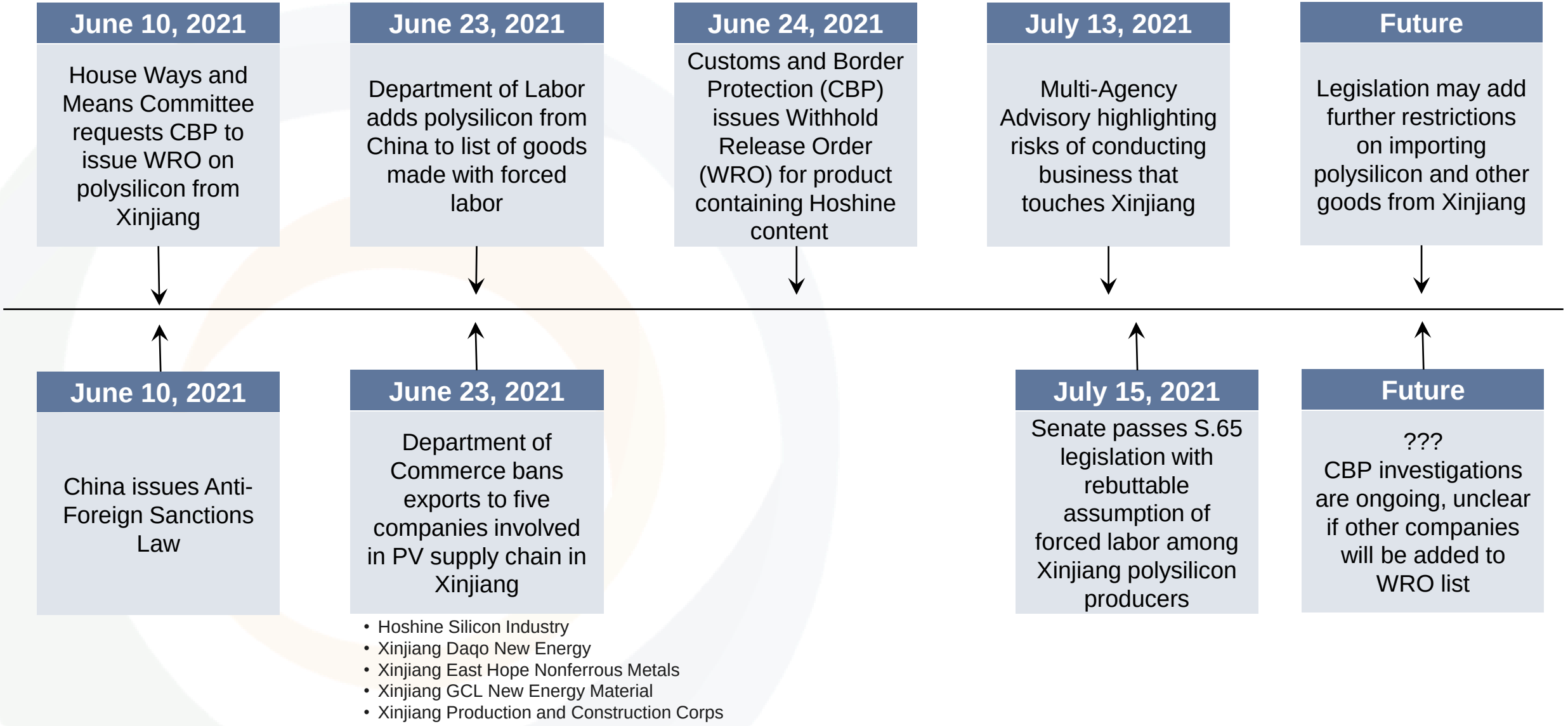
- Some WRO's have been in effect since the 1950's

The WRO Can Be Disruptive – Especially In The Short Term

- Current and past production may not have traceability to the source of mg-Si
- A polysilicon producer who exclusively uses mg-Si from others (i.e., zero use of Hoshine material) is well positioned
- A poly producer who uses some / all of their feedstock from Hoshine must now separate product that is non-Hoshine and product that is Hoshine-based and demonstrate no inter-mixing within any individual facility or from link to link
    - **This is not trivial** and could take months to accomplish; that puts near-term shipments at some risk; this risk could cause some suppliers who are unprepared and/or unable to demonstrate provenance to non-Hoshine for 100% of the mg-Si in the US-bound product to delay shipments until such capability exists

And that’s not all…

Timeline


June 10, 2021
House Ways and Means Committee requests CBP to issue WRO on polysilicon from Xinjiang
June 23, 2021
Department of Labor adds polysilicon from China to list of goods made with forced labor
June 24, 2021
Customs and Border Protection (CBP) issues Withhold Release Order (WRO) for product containing Hoshine content
July 13, 2021
Multi-Agency Advisory highlighting risks of conducting business that touches Xinjiang
Future
Legislation may add further restrictions on importing polysilicon and other goods from Xinjiang
June 10, 2021
China issues Anti-Foreign Sanctions Law
June 23, 2021
Department of Commerce bans exports to five companies involved in PV supply chain in Xinjiang
• Hoshine Silicon Industry
• Xinjiang Daqo New Energy
• Xinjiang East Hope Nonferrous Metals
• Xinjiang GCL New Energy Material
• Xinjiang Production and Construction Corps
July 15, 2021
Senate passes S.65 legislation with rebuttable assumption of forced labor among Xinjiang polysilicon producers
Future
??? CBP investigations are ongoing, unclear if other companies will be added to WRO list

Part 1: WRO Overview

Part 2: Rulings and Impacts

Part 3: Traceability

- Complicating factors
- Traceability; How to assess?
- Best Practices
- CEA's approach to support PV industry

Focus on Hoshine Increases Complexity

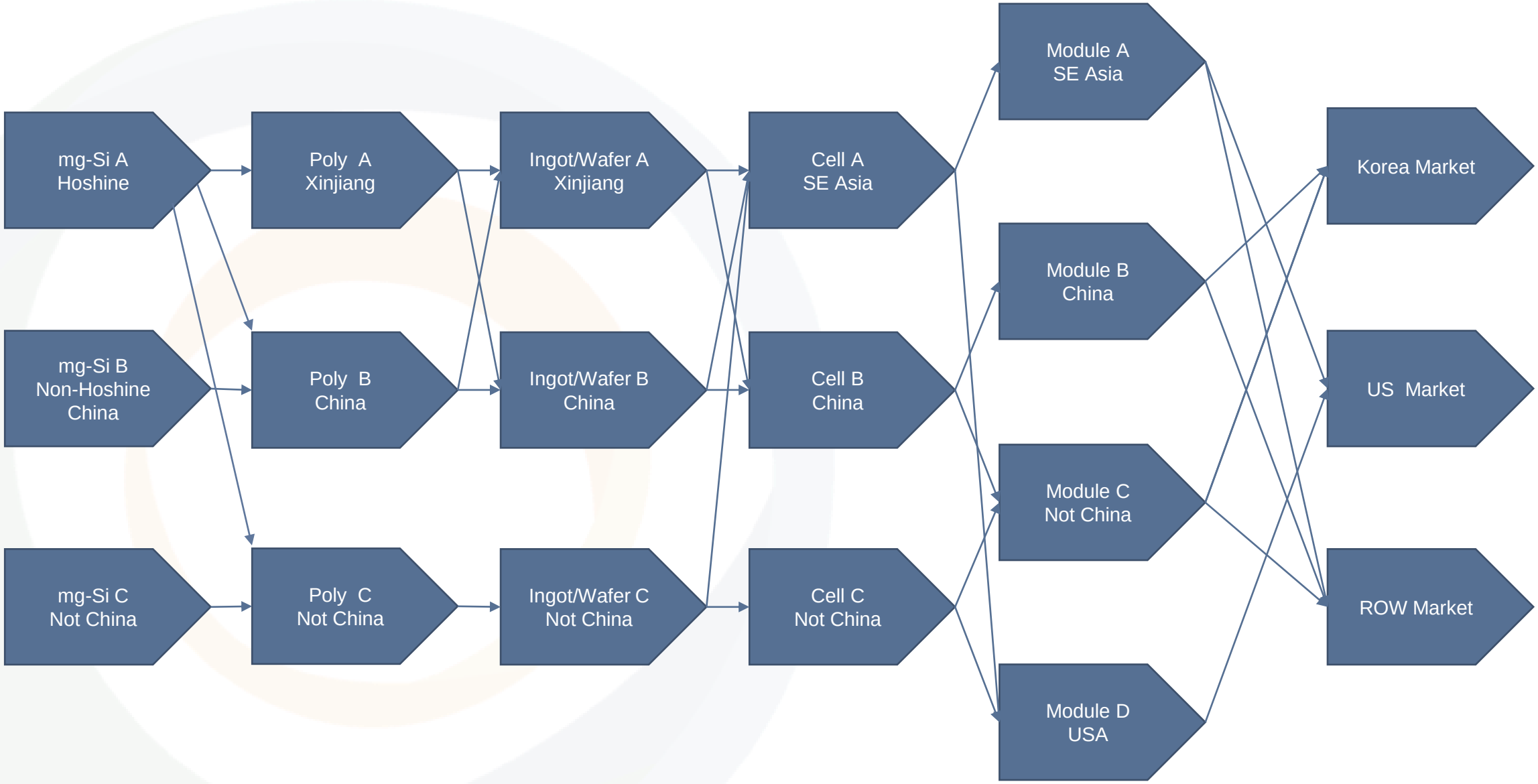
Facts

- According to public sources, Hoshine has sold mg-Si to many polysilicon manufacturers globally
- Polysilicon producers often blend mg-Si from multiple suppliers
- Current production might not have traceability capability

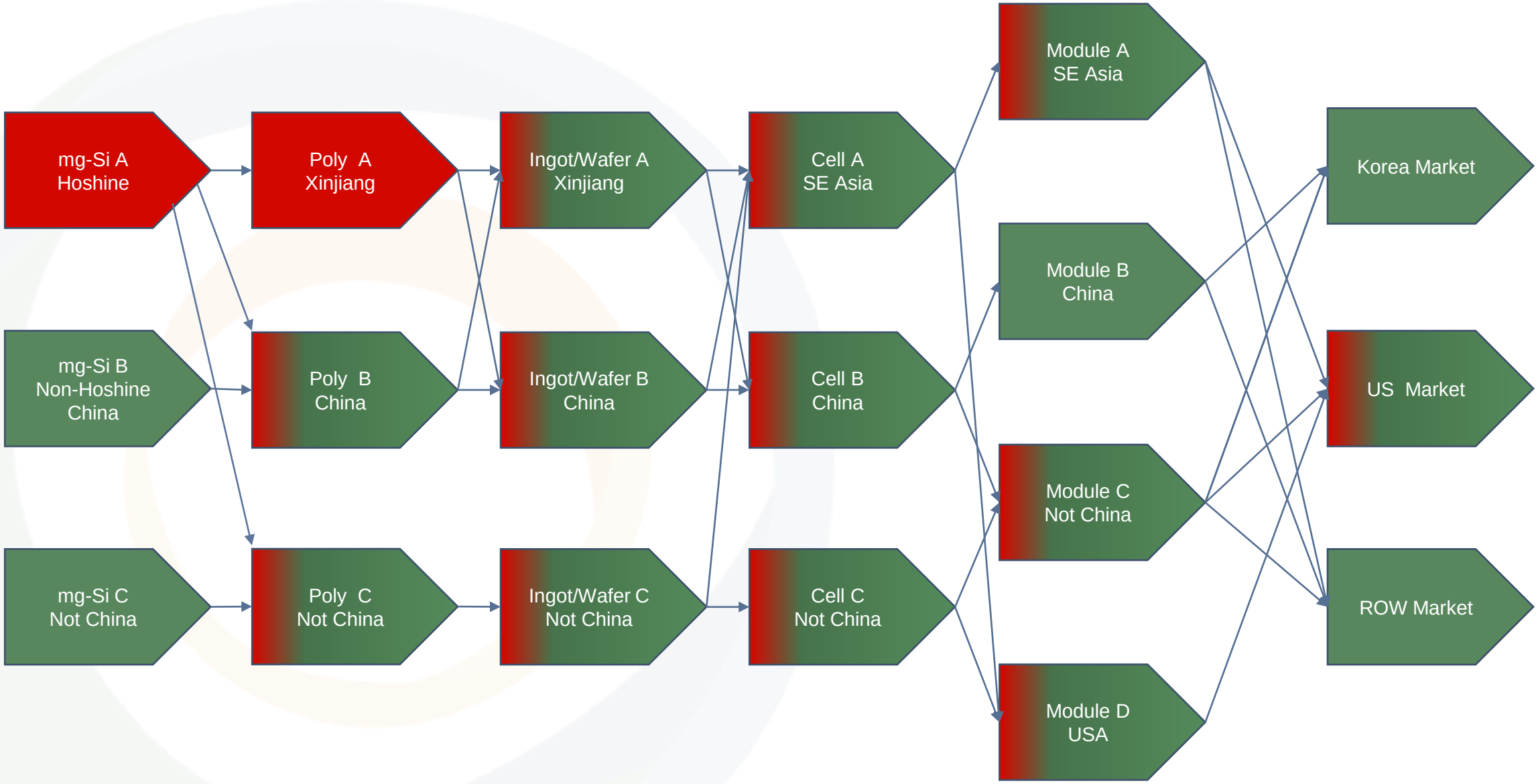
Implications

- Any polysilicon producer who doesn't buy from Hoshine has an advantage
- All others expecting to serve the US market must separate product streams…
- …which could take months
- Shipping delays could begin as polysilicon producers revamp processes

PV Supply Chains Are Complex…



PV Supply Chains Are Complex…



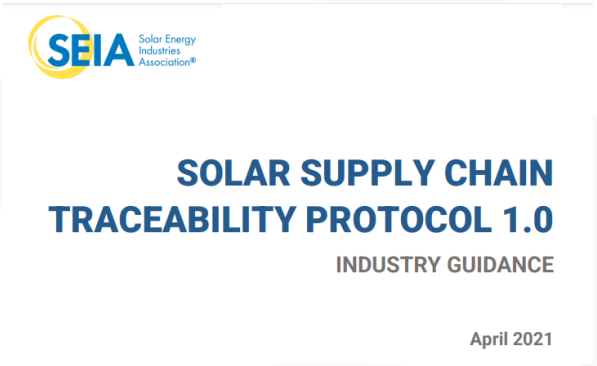
What Do Buyers and Suppliers Have To Do?

	Code of Conduct	Force Majeure	Traceability	Contract Structure
Buyers	Include supplier's Code of Conduct as contract exhibit	Force Majeure clause should exclude WRO delays/failures	Contract should require supplier provide traceability documentation	**Avoid becoming the importer of PV modules**

	Code of Conduct	Supply Chain Map	New Procedures	New Recipe
Suppliers	Collect Code of Conduct documents from all companies in supply chain	Map all supply chain nodes and update continuously	Develop practices and procedures to clearly separate product flows (with/without Hoshine content)	Polysilicon and ingot producers may need to change how/when materials from multiple suppliers are blended

What Capabilities Do You Need From Outside Experts?

Monitoring of ongoing Chinese legislation and supplier movements



Expertise in SEIA Traceability Protocol and CBP Procedures

Ongoing process to account for new nodes and processes

Initial Desktop Review and On-site audits of upstream supply chain nodes

ESG Disclosure; Includes Supply Chain (HKeX)

Overview of the HKSE proposed "comply or explain" KPIs

General Disclosures

Information on:
(a) the policies; and
(b) compliance with relevant laws and regulations that have a significant impact on issuer

Aspect A – Environmental
- Air and greenhouse gas emissions, discharges into water and land, generation of hazardous and non-hazardous wastes
- Efficient use of resources
- Minimizing the impact on the environment and natural resources
- Identifying and mitigating significant climate-related issues

Aspect B – Social
- Employment
- Occupational safety and health
- Training and development
- Prevention of child and forced labor
- Environmental and social risks management of supply chain
- Product health and safety, advertising, labelling and privacy matters
- Bribery, extortion, fraud, money laundering
- Community engagement

Environmental

Aspect A1 – Emissions
- Types of emissions and emissions data
- Direct (Scope 1) and indirect (Scope 2) greenhouse gas emissions and intensity
- Total hazardous waste produced and intensity
- Total non-hazardous waste produced and intensity
- Emissions targets and steps taken to achieve them
- How hazardous and non-hazardous wastes are handled, reduction targets and steps taken to achieve them

Aspect A2 - Use of resources
- Direct and/or indirect energy consumption
- Water consumption and intensity
- Energy use efficiency targets and steps taken to achieve them
- Issue in sourcing water, water efficiency targets and steps taken to achieve them
- Total packaging materials used for finished products produced

Aspect A3 - The environment and natural resources
- Significant impacts of activities on the environment and natural resources and the actions taken to manage them

Aspect A4 – Climate change
- Significant climate-related issues which have actual/potential impact on the issuer, and actions taken to manage them

Social

Aspect B1- Employment
- Total workforce
- Employee turnover rate

Aspect B2 - Health and safety
- Number and rate of work-related fatalities for past three years
- Lost days due to work injury
- Occupational health and safety measures, and their implementation and monitoring

Aspect B3 - Development and training
- Percentage of employees trained
- Average training hours per employee

Aspect B4 - labor standards
- Measures to review employment practices to avoid child and forced labor
- Steps taken to eliminate such practices when discovered

Aspect B5 - Supply chain management
- Number of suppliers by geographical location
- Practices relating to engaging suppliers, number of suppliers engaged with practices implemented, and their implementation and monitoring
- Practices used to identify environmental and social risks along the supply chain, and their implementation and monitoring
- Practices used to promote environmentally preferable products and services, and their implementation and monitoring

Aspect B6 - Product responsibility
- Percentage of total products sold or shipped subject to recalls for safety and health reasons
- Number of complaints and how they are dealt with
- Practices relating to observing and protecting intellectual property rights
- Quality assurance and recall procedures
- Consumer data protection and privacy policies and their implementation and monitoring

Aspect B7 - Anti-corruption
- Number of concluded legal cases regarding corrupt practices and the outcomes of the cases
- Preventive measures and whistle-blowing procedures, and their implementation and monitoring
- Anti-corruption training provided to directors and staff

Aspect B8 - Community investment
- Focus areas of contribution
- Resources contributed to the focus area

Source: Deloitte-ESG reporting-2019

Source: Deloitte-ESG reporting-2019

Aspect B4: Labour Standards

KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	These KPIs are concerned with the issuer's ability to respect, protect and promote fundamental human rights. Due diligence is expected of the issuer to prevent and combat all forms of child and forced labour within its activities. It is also expected to avoid contributing to or becoming linked with the use of child and forced labour through its relationships with others (e.g. suppliers, clients). Disclosures for these KPIs may be closely linked with KPI B5.3.
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	

What to report

- A qualitative description of relevant measures adopted by the issuer to review employment practices.
- Relevant information may include:
  - Description of operations and/or suppliers considered to have significant risk for incidents of child or forced labour in terms of type(s) of activity (such as manufacturing) and/or countries and geographical areas
  - If applicable, a negative statement to the effect that no such operations and/or suppliers have been identified
  - Measures taken by the issuer in the reporting period intended to contribute to the elimination of all forms of child or forced labour

How to report

- **Definitions**

  According to International Labour Organization (ILO) Conventions 138 'Minimum Age Convention' and 182 'Worst Forms of Child Labour Convention', child labour is work that 'deprives children of their childhood, their potential and their dignity, and that is harmful to their physical or mental development including by interfering with their education. Specifically, it means types of work that are not permitted for children below the relevant minimum age. Issuers should refer to relevant laws and regulations that apply across all jurisdictions in which they operate.

  According to ILO Convention 29 'Forced Labour Convention', forced or compulsory labour is defined as 'all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily.' Some recognised forms of forced labour include human trafficking, coercion in employment, forced labour linked to exploitative labour contract systems, and debt-induced forced labour.

- **Data collection**

  The process for identifying operations and suppliers can draw upon the issuer's approach to enterprise risk assessment and may make reference to recognised international data sources, such as the International Labour Organisation (ILO)Information and reports on the application of ILO Conventions and

Useful reference(s)

- GRI 409: Forced or Compulsory Labour 2016: https://www.globalreporting.org/standards/media/1024/gri-409-forced-or-compulsory-labour-2016.pdf
- GRI 408: Child Labour 2016: https://www.globalreporting.org/standards/media/1023/gri-408-child-labour-2016.pdf

KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	This KPI is specifically concerned with an issuer's supply chain environmental and social risk assessment.

What to report

- A qualitative description of relevant measures adopted by the issuer, including supplier assessments, how they are implemented and monitored
- Relevant information may include:
  - How the issuer defines environmental and social risks
  - Processes used, such as due diligence, to identify and assess significant actual and potential negative environmental and Social impacts in the supply chain
  - How the issuer identifies and prioritises suppliers for assessment of environmental and social impacts
  - The nature of risks typically found or expected to be found
  - Who is responsible, what they do and who they report to
  - Systems used to screen new suppliers
  - Nature and frequency of supplier assessments
  - Actions taken to address significant actual and potential negative environmental and social impacts identified in the supply Chain, and whether the actions are intended to prevent, mitigate, or remediate the impacts
  - Corrective action plans and follow-up activities; consequences for non-compliance
  - Leading indicators used to inform management and other stakeholders (e.g. suppliers) about supply chain performance

How to report

(1) Definitions

This KPI covers environmental and social risks as defined by the issuer with reference to its enterprise risk management process.

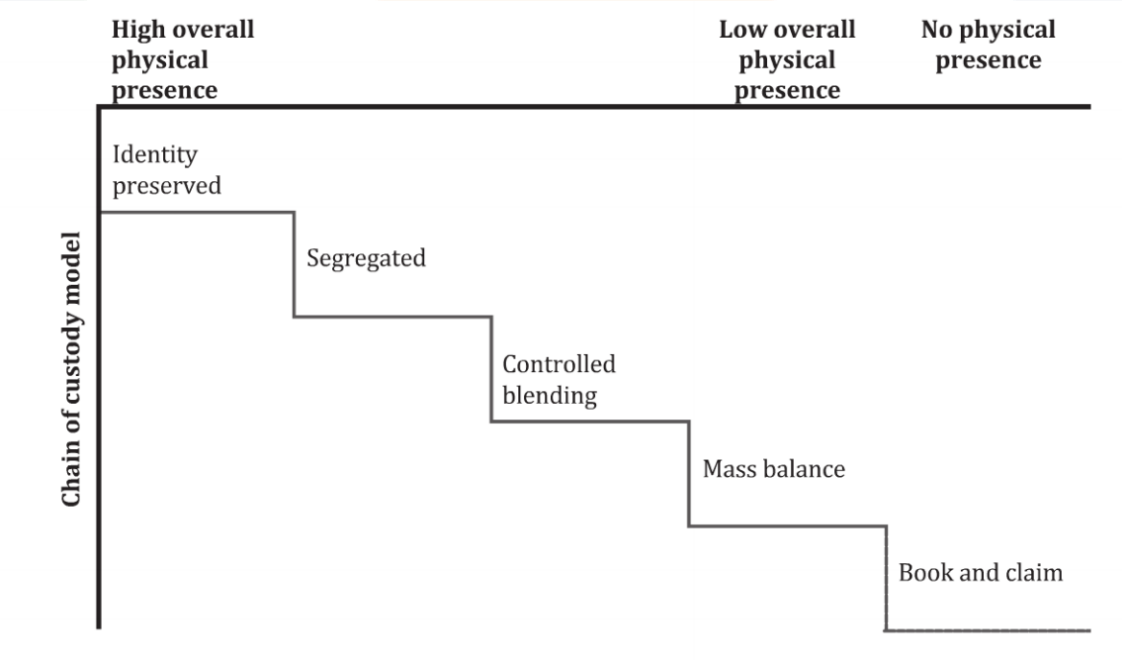
Supplier assessments can involve site visits, questionnaires, external sustainability agencies, stakeholder information, external databases, news watches, etc.

(2) Data Collection

Information about environmental and social risk assessment may be available from an issuer's risk management team. Data on suppliers can be obtained from the issuer's procurement team.

Traceability vs Chain of Custody Models vs Current State

	Models without mixing		Models with mixing		
Properties of chain of custody models	**Identity preserved**	**Segregated**	**Controlled blending**	**Mass balance**	**Book and claim**



INTERNATIONAL STANDARD **ISO 22095**

First edition
2020-10

Chain of custody — General terminology and models

Traceability and chain of custody

Traceability is defined as the ability to trace the history, application or location of a product[3]. It delivers the ability to follow the movement of a product and its components through specified stages of production, processing and distribution. For example, ISO 22005[15] defines the requirements for the design of a traceability system within the food supply chain or in the plastics industry EN 15343[25].

Although frequently considered as interchangeable, the concepts of traceability and chain of custody are not identical. A chain of custody is a chain of responsibility for the custodianship of materials or products as they move through a supply chain. Its purpose is to ensure that the specified characteristics that are claimed for a particular material or product (or for the market as a whole) are indeed the ones that are actually delivered in the output.

A chain of custody system can use traceability records to identify the supply chain actors that take legal ownership or physical control over a material or product. While the implementation of some chain of custody models will imply a particular level of the physical presence of specified characteristics, the implementation of other chain of custody models (for some sectors) may reduce the need to trace specific materials or products to support the claims being made.

CEA's 4S Assessment Methodology Overview

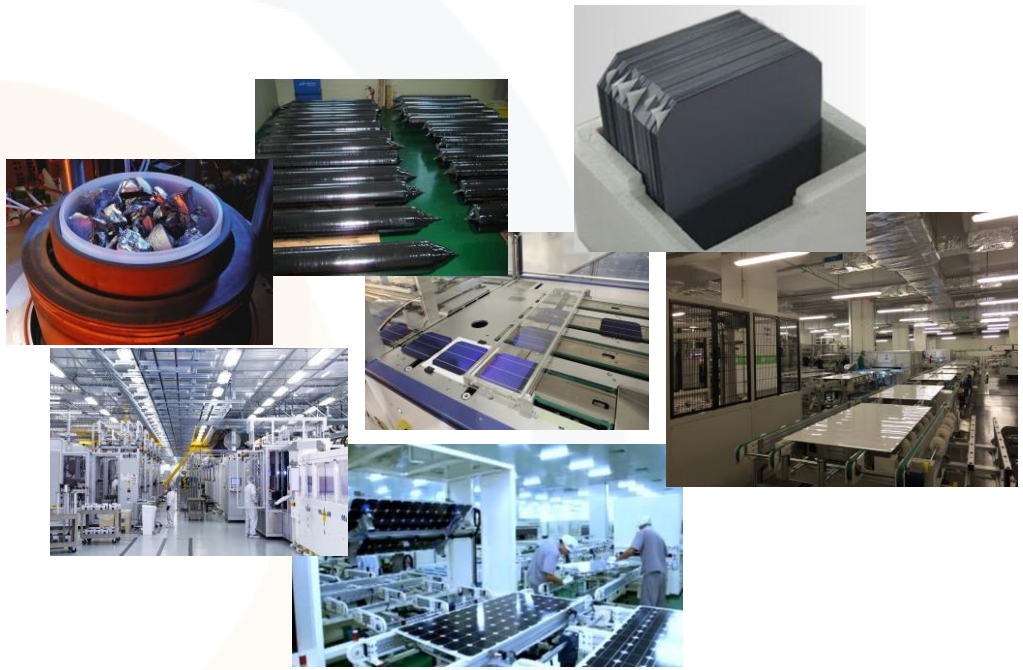
Site visits

Premises tour, department visits, check product and document flow, Critical Control Point (CCP) check, systems test through sampling

Subjects

Auditing implementation of policies, procedures, work instructions, workflow at shopfloor and departments through interviewing and assessment.

CEA's client's variable audit scope



Systems checks

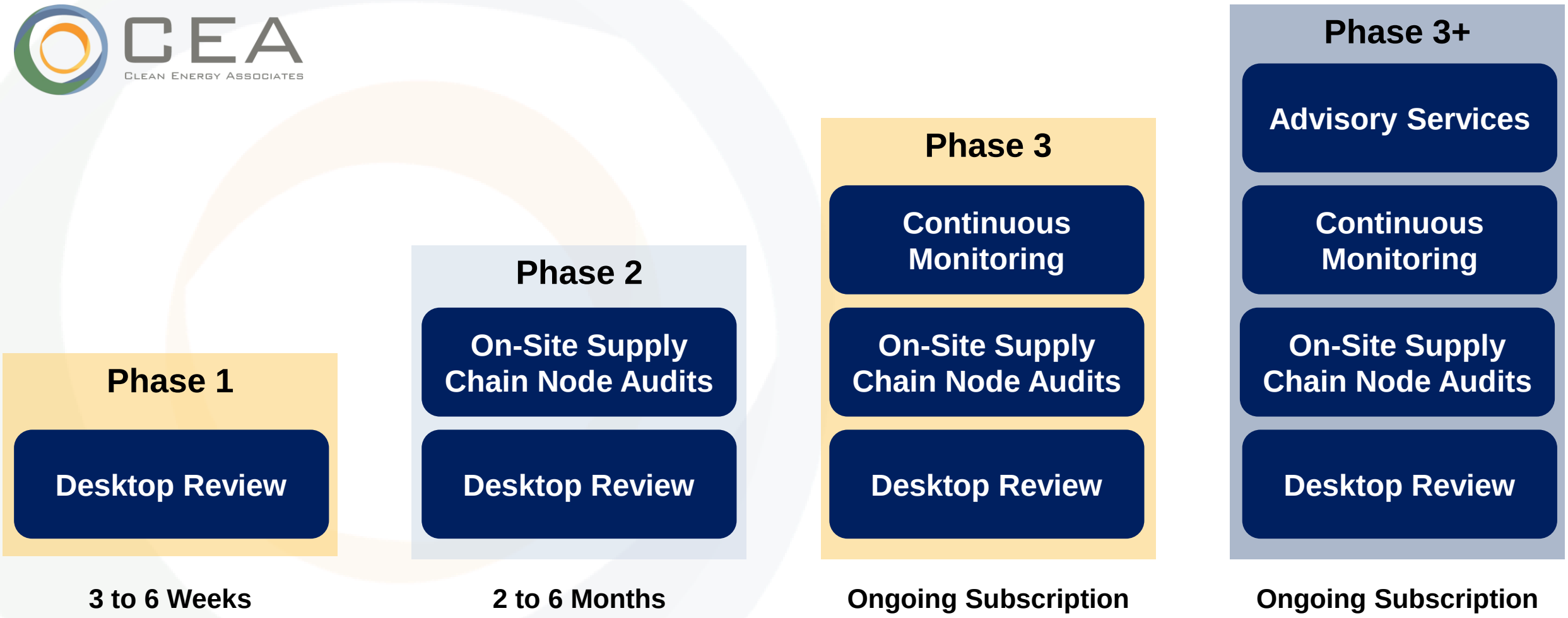
Utilizing auditee's Manufacturing Execution System (MES), Enterprise Resource Planning (ERP), Application Program Interface (API), IT systems, digital paper flows, hard copies, archives to test "paper" and/or "digital" trail accompanying the physical part of process based on sampling

Samples

Selecting units from e.g. production line, incoming materials, inventory, MES to test up- & downstream traceability onsite and connection to nodes information.

CEA
Clean Energy Associates

CEA's Phased Approach Follows SEIA's Solar Supply Chain Traceability Protocol



About CEA

Clean Energy Associates is a Technical Advisory Company that Provides Unrivaled Insight into the Solar PV and Energy Storage Industries

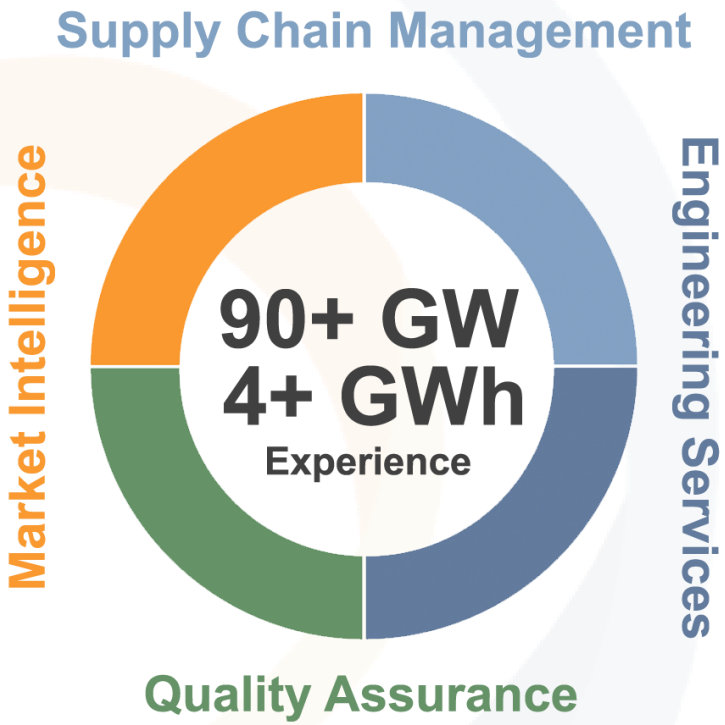
1,000+
Years of industry experience

170+
Professionals

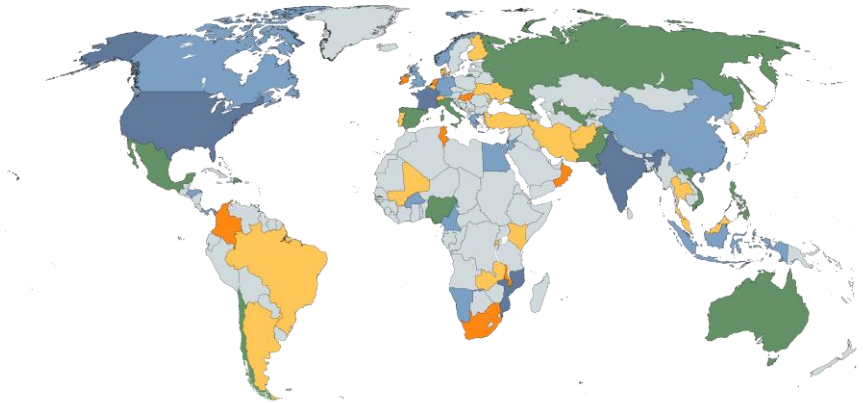
140+
Engineers

13
Year track record

13
Countries with a physical presence



Client engagements in **60+** countries



Engagements in **350+** solar and storage factories worldwide

Proud member of:

SEIA Solar Energy Industries Association® Member

ESA Energy Storage Association Member Company

SolarPower Europe

CESA California Energy Storage Alliance

End-to-End Engineering and Technical Support Services for PV and Energy Storage from Project Start to Close, and Beyond

- Quality Assurance (QA/QC)
- Supply Chain Management (SCM)
- Engineering Services (ES)
- Market Intelligence (MI)

Project Development	Technology Selection	Supplier Benchmarking	Product Due Diligence	ESG and Traceability	Production Process Oversight	Final Product Inspection	System Integration
ES	SCM				QA	QC	ES
	MI				MI		

Questions?

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