

Ensuring an Ethical & Sustainable Solar Supply Chain

Background & Context

- The Xinjiang Uyghur Autonomous Region in China is home to manufacturing facilities for a variety of industries, as well as millions of Uyghurs.
- The Uyghurs are an ethnic group. Uyghur people speak a different language and practice a different religion (Sunni Islam) than the majority of Chinese.
- There are many credible reports of human rights abuses being perpetrated by the Chinese government against Uyghurs, including forced labor in factories across the Xinjiang region.
- An estimated 50% of the global supply of polysilicon – a critical component of solar modules – is produced in the Xinjiang region.
- Most polysilicon production in Xinjiang only recently came online. Since January 2018, the polysilicon industry in Xinjiang has quadrupled.

Congressional Action

- The House of Representatives [passed a bill in September](#) by a 406-3 margin to ban imports from the Xinjiang region, including products made with material produced in the region.
- The legislation would require companies to provide “clear and convincing” evidence that their supply chain products do not use forced labor to be exempted from the ban.
- The Senate is expected to pass a similar bill soon and ultimately, this legislation is likely to become law.
- Separate legislation passed in the House (H.R. 6270) would require publicly traded companies to report whether anyone in their supply chain is using forced labor.

SEIA & Industry Response

The reports of human rights abuse out of the Xinjiang region are reprehensible. We support efforts in Congress to stamp out these abuses and are taking parallel action to ensure the solar supply chain does not include forced labor. The industry also supports the inclusion of strong and fully enforceable labor and environmental standards in trade agreements.

SEIA is strongly encouraging companies to immediately move their supply chains out of the region and many are doing just that. Due to the complexity and scope of the global solar supply chain, proving that fully-assembled modules imported into the U.S. have zero polysilicon from the Xinjiang region will be challenging.

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To meet this challenge, SEIA is developing a Solar Supply Chain Traceability Protocol to establish that solar imports do not include products produced in Xinjiang or, if produced in Xinjiang, are free of forced labor. We are also encouraging all SEIA members and other industry participants to sign the [Forced Labor Prevention Pledge](#), indicating that they are opposed to forced labor practices within the solar supply chain. We also note that as part of their membership commitment to SEIA, companies pledge to conduct their businesses in an ethical manner and uphold the integrity of the solar industry.

There are other pathways outside of Xinjiang for obtaining the necessary components to build solar cells and modules, including a fairly robust polysilicon industry here in the United States. Trade allows U.S. solar businesses to access inputs such as solar panels that are not produced in adequate quantities domestically to meet customer demand and meet aggressive greenhouse gas emissions reduction targets. Nonetheless, the industry needs to take all action necessary to ensure that the solar supply chain does not include goods produced with forced labor.

Most importantly, this must be absolutely crystal clear: human rights abuses are abhorrent. Our commitment to social and environmental justice is paramount to our ongoing mission, and we will not tolerate industry suppliers being involved in these types of abuses.

Emissions from Electricity Generation in Xinjiang

On the issue of electricity sources for global polysilicon production, the carbon-cutting value of the solar industry is critical if we're going to meaningfully address climate change. The fastest way to decarbonize is through rapid clean energy deployment.

While the electricity emissions associated with polysilicon production are a concern, we are making important progress in reducing solar panels' carbon footprint, already 20 times better than other forms of electricity generation, [according to research published in Nature Energy](#). In particular, we have increased the efficiency of polysilicon production and both reduced the amount of polysilicon used and improved its power output on a per watt basis. As a result, it takes less polysilicon to produce more solar energy today, and these technological improvements will only continue.

We are also seeing new investments in polysilicon production technology that uses significantly less electricity than traditional production processes. Companies are moving their supply chains to areas with greater use of renewable energy, particularly hydropower, and solar-equipment-producing countries' electricity mix will only continue to improve with the growing adoption of renewable energy.

Many solar companies publish sustainability metrics and there are national and international standards for social responsibility and sustainability that manufacturers have been evaluating and to which some solar manufacturers are certified. Two of the world's largest solar module manufacturers have committed to 100% clean production by 2025, with more likely to follow suit.