IN BROAD DAYLIGHT

Uyghur Forced Labour and Global Solar Supply Chains

Excellent information - full picture - sample relevant contents.

Federal law effective June 21, 2022 effecting supply chain and JINKO

LAURA T. MURPHY & NYROLA ELIMÄ

Sheffield Hallam University | Helena Kennedy Centre for International Justice

Relative to 7.333 Longi panels, (PFAS issue) now JINKO panels.

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MAY 2021

IN BROAD DAYLIGHT

Uyghur Forced Labour and Global Solar Supply Chains

LAURA T. MURPHY & NYROLA ELIMÄ

Sheffield Hallam University | Helena Kennedy Centre for International Justice

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THE HELENA KENNEDY CENTRE FOR INTERNATIONAL JUSTICE AT SHEFFIELD HALLAM UNIVERSITY is a leading centre for social justice and human rights research, practice, and pedagogy. It provides a vibrant environment at the cutting edge of legal and criminal justice practice which prepares students for excellence in their chosen professional careers.

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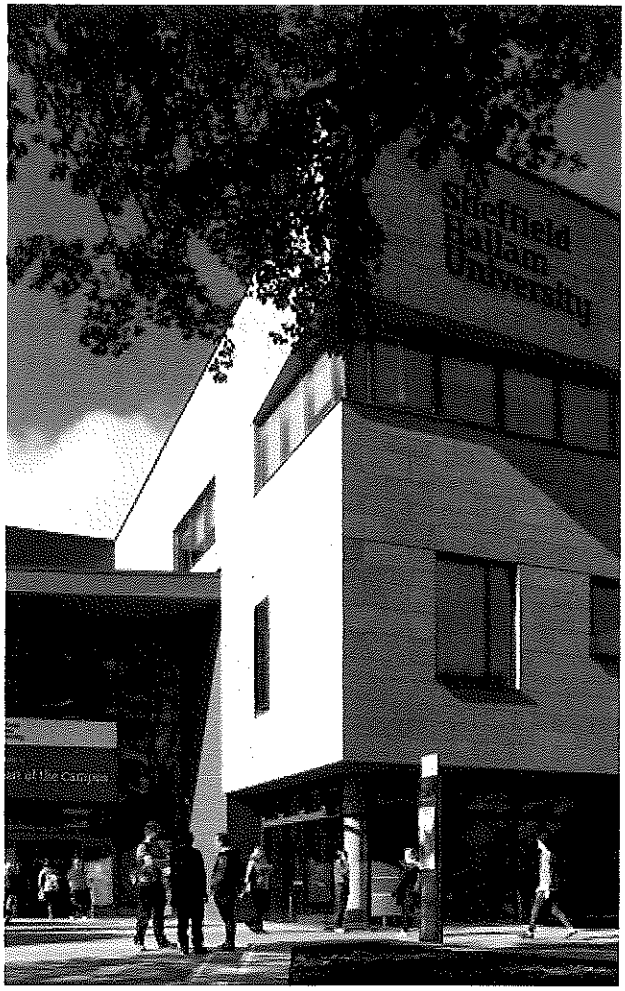

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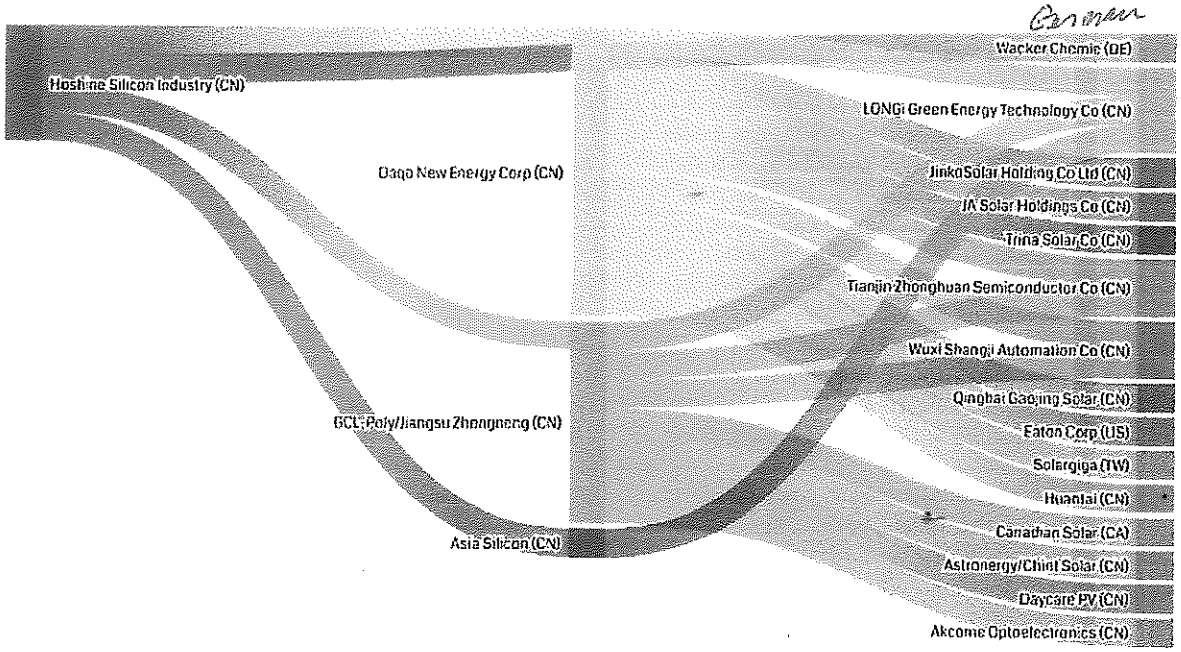
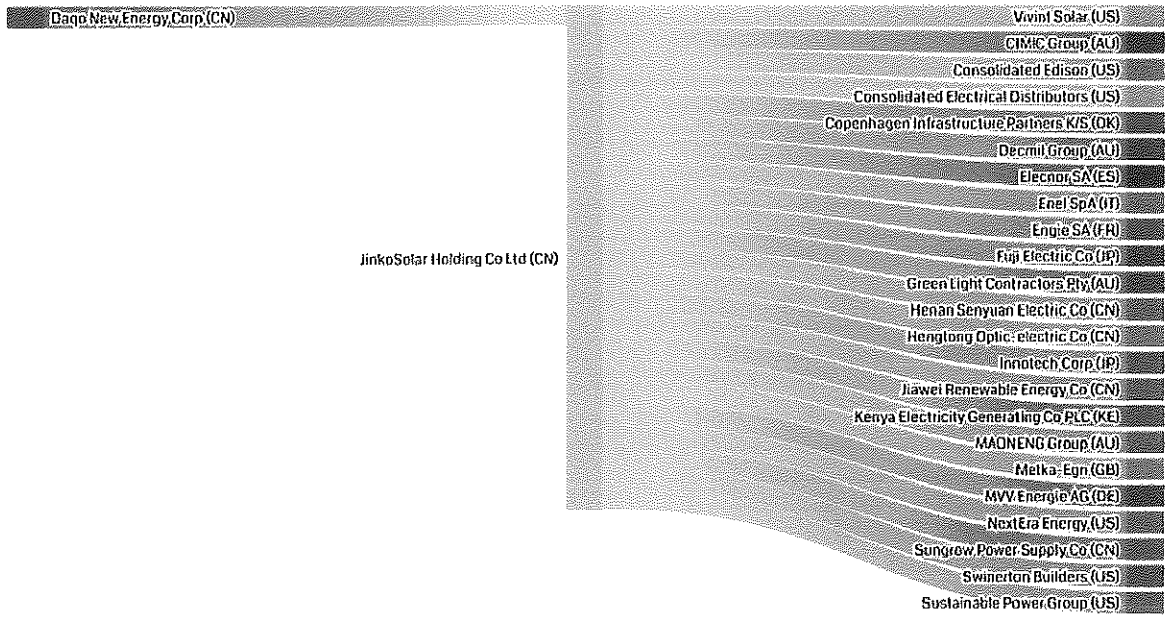


Hoshine Silicon Industry's downstream customers

A mapping of Hoshine's confirmed downstream supply chain alone begins to give us a sense of how significant the effects of Xinjiang forced labour are on the international solar market. Hoshine has indicated in its own corporate filings that it supplies polysilicon manufacturers Daqo, Jiangsu Zhongneng (a subsidiary of GCL-Poly), Asia Silicon, and Wacker. Daqo alone supplies all four of the solar module manufacturers with the largest market share in 2019 – LONGi, JinkoSolar, JA Solar, and Trina Solar.[308] The fifth, seventh, and eighth ranked module manufacturers – Canadian Solar, Risen, and Astronergy/Chint – all also have a risk of labour transfers in their supply chains.

The downstream companies that are potentially affected by forced labour span the globe (see the Supply Chain Exposures table at the end of this report). JinkoSolar's connection to Daqo alone and its own engagement in labour transfer programmes affect end users globally. A review of JinkoSolar's confirmed recent contracts is indicative of the potential global exposure to Xinjiang forced labour.

With the recent call to action and due diligence protocol released by the Solar Energy Industries Association designed to "ensure the solar supply chain does not include abhorrent forced labour practices,"[309] this issue has garnered significant attention within the industry. The call to action has been signed by 245 solar industry companies as of the end of March 2021,[310] which suggests a nearly industry-wide commitment to addressing the problems reported in this study.[311] Signatories include JinkoSolar, LONGi, JA Solar, and Trina Solar, all of whom would have to make significant



CON EDISON

Daqo New Energy > JinkoSolar downstream customers

changes to adhere to their commitment to ensure that they are not purchasing raw materials made with Xinjiang forced labour or participating in labour transfers themselves. In addition to the companies that have publicly announced contracts with the suppliers employing forced labour programmes in Xinjiang, there are scores more that have signed on to the SEIA pledge and may yet be exposed through relationships with suppliers that we have not identified here. The work to identify all affected companies in the solar supply chain will be an arduous task, but it is not at all impossible. This report is intended to assist in that process.

While Xinjiang-made raw materials and polysilicon dominate the market, there are alternatives. Polysilicon market analyst Johannes Bernreuter reminds us that while Xinjiang accounts for 45% of the world's solar-grade polysilicon supply, 35% more of it comes from other regions of China, and 20% from outside of China. [312] Experts agree that this is enough to supply the United States and Europe's needs for solar modules.[313] However, this does not account for the companies in the interior of China and internationally whose supply chains are likely affected by manufacturing in the Uyghur Region, especially those whose supply chains reach back to Hoshine. The extent to which Xinjiang metallurgical-grade silicon and polysilicon pervades the market means that module manufacturers that want to avoid producing goods that are potentially tainted by forced labour in Xinjiang will have to scrutinise their supply chains thoroughly, all the way to the raw quartz materials, to determine if they are produced with forced labour or blended with affected materials. They will have to demand that the polysilicon that goes into the manufacture of their wafers is not sourced from companies engaged in forced labour transfers. This effectively leaves only a few Chinese alternatives with no confirmed exposure to forced labour in the Uyghur Region.

IN LAW - June 21, 2022

As the United States ponders the Uyghur Forced Labour Prevention Act, locating alternatives to Xinjiang-sourced solar energy products becomes increasingly critical – not only for U.S. manufacturers and retailers but also for those other global markets where U.S. sanctions could mean Xinjiang-made goods head their way. Bernreuter predicted in March that "what will likely happen is this: Wafer manufacturers, who usually blend polysilicon volumes from different suppliers, will exclude feedstock from Xinjiang from the

1

Gmail

Annie Hayes <hayesannie@gmail.com>

jinko slave labor coal dumping

1 message

Annie Hayes <hayesannie@gmail.com>
To: Annie Hayes <hayesannie@gmail.com>

Wed, Jun 29, 2022 at 3:53 PM

The American Prospect

Bipartisan Non-Coalition for a Prosperous American, Mike Stump, "SEIA is an agent of LONGI and Jinko." Read p. 3

In other times it would be subject to FARA (Foreign Agents Registration Act)

p. 45 of In Plain Sight shows ~~subsidiary~~ downstream customer (?) of JINKO holding and JINKO SOLAR holding as downstream ~~a subsidiary~~ customer of DTQO New Energy Corp.

Home Energy and the Environment

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Knowledge Tracker

Trade Group Driving Solar Controversy Includes Slave-Labor Companies

Companies working to sideline the Commerce Department investigation into Chinese trade violations are reliant on components made by Uyghur workers.

BY DAVID DAYEN MAY 12, 2022

Note on page 3 "SEIA member includes US subsidiaries of Chinese producers. JINKO SOLAR, JA SOLAR, TRINA SOLAR, BYD and LONGI SOLAR."

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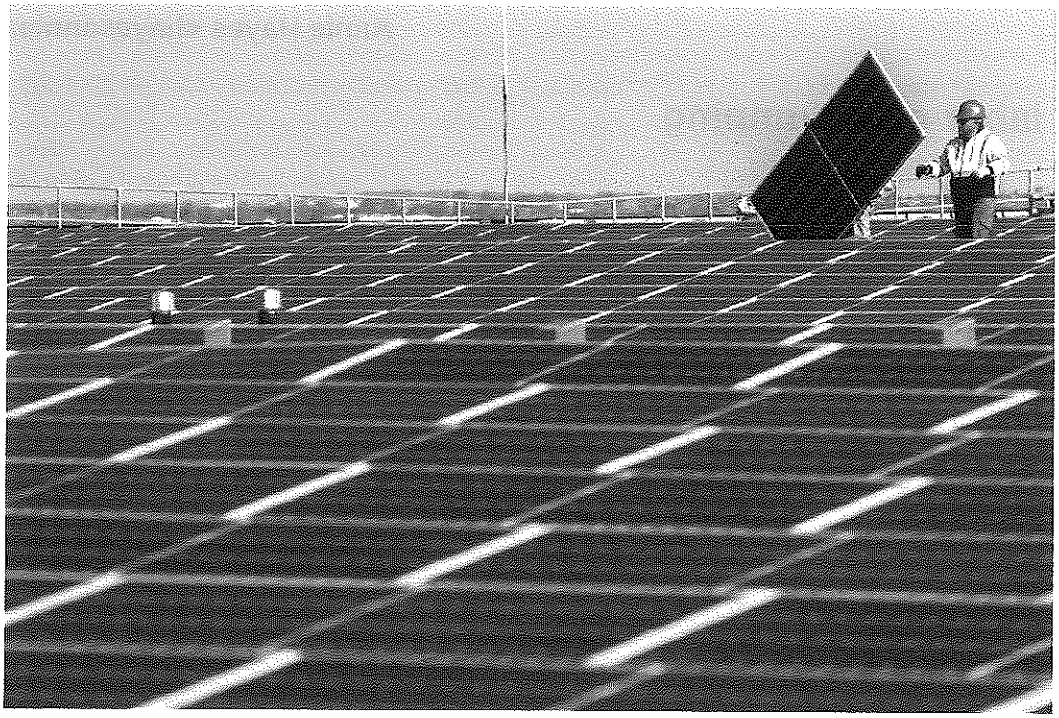

MARY ALTAFFER/AP PHOTO

Electricians with IBEW Local 3 install solar panels on top of the Terminal B garage at LaGuardia Airport, November 9, 2021, in Queens, New York.

Over the past few weeks, one trade group in Washington has triggered a media firestorm about a Commerce Department investigation into trade violations on imports of solar panel components. The organization, known as the Solar Energy Industries Association, has warned that the uncertainty surrounding the investigation has stopped imports of most solar components, canceling or delaying hundreds of large-scale solar projects, leading to probable layoffs and an attenuated build-out of renewable energy.

SEIA has been wildly successful in mainlining its views. *The New York Times*, *The Wall Street Journal*, and *The Washington Post* have all done major stories about the controversy, warning of a "frozen" solar industry and a collapse of the green transition, while heaping blame on Auxin Solar, the small manufacturer that initiated the legal process that led to the Commerce investigation. As Bloomberg has reported, 22 senators from both parties have pleaded with President Biden to expedite matters at

Commerce; key officials inside the administration like climate envoy John Kerry have lobbied for the same. Energy Secretary Jennifer Granholm expressed her concern publicly in Senate testimony. One progressive group has created an attack website against Auxin, accusing it of "close ties" to Republicans and the Koch brothers.

While all of these media reports, politicians, and assorted groups either quote or borrow heavily from the narrative of the Solar Energy Industries Association, at no time do they disclose that among its leading members are the same Chinese-owned companies that are implicated not only in the investigation of illegal tariff evasion, but in the use of slave labor to produce solar components and coal-fired energy to power the factories.

More from David Dayen

Dan Whitten, vice president of public affairs for SEIA, responded to *Prospect* queries with a series of comments, but regarding its membership would only say that "SEIA represents the American solar and storage industries and American workers, full stop." This ducks the fact that SEIA's membership includes U.S. subsidiaries of Chinese producers JinkoSolar, JA Solar, Trina Solar, BYD, and LONGi Solar, which are the dominant solar component manufacturers in the world. In addition, SEIA counts as members Hanwha Q Cells and Canadian Solar, which are headquartered in Korea and Canada, respectively. Canadian Solar has a large manufacturing base in China and its subsidiary CSI Solar was listed on the Shanghai Stock Exchange; Q Cells has manufacturing in China, though it has other factories in the U.S. and recently announced a new one. As recently as 2019, Jinko gained a seat on SEIA's board of directors, and Hanwha Q Cells still holds one today.

The Commerce Department investigation involves attempts by Chinese-owned companies to evade anti-dumping and countervailing duties (AD/CVD) placed on solar imports from China back in 2012. The main tactic is to route exports through third countries not subject to the duties, and pretend that the products originate there. The companies subject to the duties include JinkoSolar, JA Solar, LONGi Solar, Trina Solar, BYD, Hanwha Q Cells, and Canadian Solar, all of whom are SEIA members.

"If you look at SEIA, if they have to advocate on one side or the other, they always benefit Chinese solar companies," said Nick Iacovella of the Coalition for a Prosperous America, a bipartisan nonprofit. His colleague Mike Stumo was blunter. "SEIA is an agent of LONGi and Jinko. In other times it would be subject to FARA," he said, referring to the Foreign Agents Registration Act, a disclosure requirement on lobbyists for foreign governments.

The Commerce Department investigation involves attempts by Chinese-owned companies to evade anti-dumping and countervailing duties placed on solar imports from China.

While the Commerce investigation is about circumvention of anti-dumping laws, it's impossible to dissociate it from a looming statutory prohibition on imports using forced labor in the solar-producing region of Xinjiang, which comes into force at the end of June. Many see the current fight as a dry run for the attempt to overturn enforcement of a congressional statute. Several Chinese-owned firms in SEIA's membership have also publicly admitted to using slave labor. Yet SEIA allowed all these companies to sign a pledge it organized committing to ban forced labor from the solar supply chain.

The need to build out the green transition is great, and solar is a key facet of that. But SEIA has overhyped the destruction of solar in the past, and there's reason to be skeptical of its apocalyptic claims today.

Moreover, the battle of who will control solar production in the future, and whether it will continue to be dominated by China, is critical to the future of clean energy. We are still living through a pandemic that revealed the dangers of centralizing production and breaking supply chain resiliency in the interest of cheap goods. That lesson has implications for solar, even outside of the environmental and human rights concerns of leaving all production to China.

THE DUTIES DATE BACK to Barack Obama's administration. Since December 2012, the U.S. has collected anti-dumping and countervailing duties on solar imports from China. These were intended to offset the effect of Chinese state-owned companies, which control about 80 percent of the solar supply chain, overproducing and underpricing polysilicon wafers, solar cells, and modules in order to gain market share on production. It's a rather overt tactic: China's latest five-year plan only outlines getting 20 percent of its own energy from renewables by 2025, but since 2005, it has made solar production a strategic focus. And this is a common way that Chinese companies have dominated industries.

The response to the countervailing duties was similarly deliberate. Suddenly, solar component imports to the U.S. from four Southeast Asian countries—Cambodia, Malaysia, Thailand, and Vietnam—spiked. Today, they account for "82 percent of the most popular type of solar modules used in the United States," the *Times* noted.

Critics argue that the strategy was clear: Chinese companies were transshipping solar components (nearly all polysilicon originates in China) to neighboring nations to circumvent the duties. In the face of that, any U.S. solar manufacturer could file a circumvention claim, which must by law be investigated by the International Trade Administration, the Commerce Department's trade enforcement arm, in a quasi-judicial process with court review.

The dispute comes down to this question: Are the factories in the four Southeast Asian countries making significant modifications to Chinese solar cells and panels, or are they engaging in "minor processing," serving mainly as a pass-through for largely intact Chinese imports to avoid duties.

CHARLES KRUPA/AP PHOTO

Secretary of Commerce Gina Raimondo speaks during an address at Brown University, March 15, 2022, in Providence, Rhode Island. The Commerce Department says it is investigating whether imports of solar panels from Southeast Asia are circumventing anti-dumping rules that block imports from China.

In the investigation, which began April 1 and is scheduled to end August 30, Commerce will send questionnaires to the largest producers in these four countries, asking them to certify the sources of their components and their manufacturing process within 20 days, under a process in place since the duties commenced in 2012. If the companies establish that they source from countries other than China or produce in-house, they pay no duty. If they source from China but make major modifications, they pay no duty. If they source from China and are found to make minor modifications, duties are paid based on an annual rate that is specifically laid out and known to everyone in the industry.

A Commerce spokesperson explained that this process "is transparent, internationally accepted, and has been the law of the land since 1930." The spokesperson added that "imported solar cells and panels remain important to advancing current efforts, and Commerce is committed to holding foreign producers accountable to playing by the same rules as U.S. producers."

These duties are applied at the company level. For 90 percent of all imports from China, the rate is, in total, between 12 and 20 percent, and that's only assessed on the components, not the entire solar panel. Canadian Solar, BYD, and LONGi are at 12 percent, and Jinko is at 20 percent. Hanwha Q Cells is at about 28 percent, and Trina and JA, which have been cited for dumping more severely, are much higher. As Commerce Secretary Gina Raimondo reiterated in Senate hearings yesterday, only if the companies cannot demonstrate any separation from the Chinese government would the duties rise above 250 percent.

But SEIA has gone with the 250 percent number. Whitten also cited to the *Prospect* "the retroactive nature of the tariffs" (they are not tariffs, but duties that offset Chinese

subsidies) as a killer for the industry. It wants Commerce to preempt its own investigation and issue a preliminary ruling showing no harm.

But the key point is that any company that knows its supplier knows exactly what it would have to pay in the worst-case scenario. It's written down on a sheet of paper. "The investment guys are in a panic because it will limit [profit] margin, but it's not the end of the business," said Lori Wallach, who runs Rethink Trade for the American Economic Liberties Project.

The only real existential threat would be for any company that doesn't know its supply chain, or has been trying to hide what it's sourcing out of Xinjiang. Which raises this question: If the investigation is truly "meritless," as SEIA has repeatedly claimed, and solar installers are so confident that nothing they're doing violates these duties or any other orders, why have the shipments stopped?

SOLAR INSTALLERS AND OTHER MEMBERS OF SEIA lived with this threat for ten years, enough time to diversify their supply chains, to prevent any investigation from having a large impact. SEIA told the *Prospect* that it "strongly supports domestic manufacturing," and has endorsed clean-energy tax credits that would help get there. However, its main strategy for the past ten years has been to lament restrictions on Chinese solar production.

For example, in 2018, Donald Trump levied Section 201 tariffs on solar cells and modules emanating from China. SEIA condemned the move, saying that "even the slightest increase in the price of modules can mean that homeowners, utilities and businesses will choose an alternative for their power generation." Projects would not "pencil out." Jobs would be lost. And it wouldn't assist U.S. manufacturing.

> The pricing war with Europe and the political machinations to break the back of trade enforcement underscore the broader need for domestic sources of supply.

But in 2019, U.S. solar manufacturers reached a ten-year high in global market share, at 19.8 percent, according to figures from the Energy Information Administration. (Sadly, this is seen as a high number, despite the fact that U.S. researchers invented solar in the 1950s.) And solar installations grew by 43 percent in 2020, after the Section 201 tariffs were imposed. Module prices also continued to fall steadily. SEIA's pre-tariff report estimated 15 gigawatts (GW) of installations in 2020; actual installations were over 19 GW. In 2021, that rose to 24 GW, despite the tariffs.

SEIA has done very well along with the industry. Its publicly available tax returns show millions of dollars in annual revenue—$16.3 million in 2019, with $1.3 million in expenditures that year to major lobbying groups like Squire Patton Boggs.

Today, there does seem to be an actual problem, as solar shipments dry up and installers are unable to find quick alternatives. One utility company in Indiana, amid delays of a solar build-out, had to keep a coal-fired power plant online.

But there are multiple factors beyond the anti-dumping investigation for the lack of shipments. First of all, U.S. installers are being outbid by the Europeans, who have reached peak levels of urgency to install renewables amid Russia's invasion of Ukraine and threats to the supply of Russian natural gas. Even before the war, European solar wholesale prices were rising, thanks to tight gas supplies. Now it's being called an "insane" rush to installation. Forward prices for corporate power purchase agreements are up 103 percent in

recent months, according to a Bloomberg New Energy Finance survey. That's a gold mine for suppliers, who can break their U.S. contracts and supply EU producers.

Others argue that the Asian companies are deliberately stopping component shipments to try to force Commerce to stand down. "The Chinese are smart, they know how the political system works," said Iacovella. "They know climate is a strong motivator among Democratic politicians and the Biden White House." The Coalition for a Prosperous America has called this a "game of chicken."

Solar companies have come close to admitting this. In a letter to the Commerce Department, over 50 smaller solar installers explained that "the manufacturers exporting from the countries named in the petition will not ship us the [solar] modules we've ordered."

SEIA's Whitten insists that "solar module shipments have stopped because the risk of doing business in the U.S. solar market is untenable." But again, if there was nothing to worry about from this investigation, there wouldn't be any need for companies to immediately stop shipping components to the U.S. to avoid the retroactive duties.

The pricing war with Europe and the political machinations to break the back of trade enforcement underscore the broader need for domestic sources of supply, which could have been built out anytime over the past decade, and were built out when tariffs were placed on solar. Biden extended the Trump solar tariffs but exempted bifacial solar modules, the most-imported types of panels, and stateside production fizzled. (In its 2019 tax return, SEIA takes credit for that exemption.)

It is important to note that the preponderance of the delays are from massive commercial solar arrays for governments and utilities, not rooftop solar. "They want the least expensive hardware," said Wallach. "Yet they have known since the original AD/CVD cases of 2012 that Chinese sourcing was risky."

And duty circumvention is not the only source of risk.

ALEX BRANDON/AP PHOTO

Members of the East Turkistan National Awakening Movement protest China's treatment of Uyghurs, during a protest near the State Department, December 22, 2021, in Washington.

THE UYGHUR FORCED LABOR PREVENTION ACT is designed to prohibit any imports from the Xinjiang region, where detention camps run rampant. It passed the House 428-1 and the Senate by voice vote, and was signed by the president last December. The bulk of the solar components produced in China, and about half of the world's polysilicon, comes from this region.

While the Chinese government has called the use of forced labor in Xinjiang "a rumor," it has been acknowledged by virtually everyone involved in the industry. Polysilicon from China is on an official Department of Labor list of goods produced by forced labor. "It is a problem," John Kerry conceded in House testimony last year.

In February 2021, SEIA had 175 member companies sign a pledge that opposed forced labor in the solar supply chain. "We hereby commit to helping ensure that the solar supply chain is free of forced labor and raising awareness within the industry on this important issue," the pledge reads.

But incredibly, among the companies signing that pledge were U.S. subsidiaries of Chinese firms that have been credibly accused of engaging in forced labor. LONGi, one of the signatories, had its shipments seized by Customs and Border Protection (CBP) under a separate anti-slavery statute last November. JinkoSolar, Canadian Solar, and Trina Solar have also had imports blocked. Jinko and Trina are also signatories to the pledge. A U.K. report in April 2021 named those two companies and JA Solar as users of Uyghur forced labor. JA Solar also signed the pledge.

A March 2021 letter from Sens. Jeff Merkley (D-OR) and Marco Rubio (R-FL) notes that Jinko, JA, and LONGi have all "publicly indicated that they source polysilicon" from Xinjiang.

Asked about the signatories to the pledge, SEIA's Whitten said that the organization created a traceability tool to help companies maintain an ethical supply chain, and "has been calling on all U.S. solar companies to immediately leave the Xinjiang region since October 2020." But it's hard to square that with pledge-signers including subsidiaries of Chinese companies still producing in Xinjiang.

For their part, the Chinese companies have implausibly intimated that they have a floor in their factories where non-slaves make components for the U.S. market, according to sources.

The connection between the anti-dumping/countervailing duty investigation and the looming forced labor order is unmistakable.

This will all come to a head June 23, when the Uyghur Forced Labor Prevention Act takes effect. Instead of short-term delays on shipments that can be sourced back to Xinjiang, there will be a full-on prohibition of those goods.

At least, that's the theory. While CBP has caught some goods with slave labor, they have been criticized for mild disinterest in enforcement. The way it works is that the importer must affirmatively prove its goods are free of forced labor, and CBP must create an entities

list that is prohibited, and a standard for how companies can get off the list. None of that has been completed yet, according to sources. "By statute, they should stop everything, but are they really going to do that?" asked Wallach.

The connection between the anti-dumping/countervailing duty investigation and the looming forced labor order is unmistakable. If the solar industry can stop a Commerce Department inquiry, they can set a standard to quietly ignore goods made with slave labor, as long as it's in the name of hitting climate goals.

Those climate goals are in question, too. Solar component production uses large quantities of energy, and the Xinjiang plants rely on low-cost coal. In 2020, China started more coal plants than the world decommissioned combined, much of it in the solar-producing region. It takes years for a solar plant using coal to return to carbon neutrality. Domestic manufacturing would not have the same kind of problems.

Most important, holding the future of the green transition subservient to one country is folly, as two years of evidence with pandemic-era disruptions of concentrated supply more than proves. Even if you think that China is a rational actor that won't overprice or hold back solar to get what it wants, any disruption can cause chaos, not just an anti-dumping investigation. Several Chinese cities are currently under lockdown because of the country's zero-COVID policy. Floods have delayed production significantly. Extreme heat last year shut down factories due to government restrictions on energy. And Europe's situation with natural gas and Russia should spark caution about how political unrest can upend supposedly stable supply.

Plenty of businesses and public officials are using this moment to consider decoupling from China to increase supply chain resiliency. The solar industry appears to want to do the opposite, looking the other way at slave labor and increased dirty-energy use.

Raimondo, in a speech earlier this year, said that domestic manufacturing was critical. "The more we rely on other countries to make things for us, the more vulnerable we become to supply chain disruptions like we have seen over the past two years," she said in the March 15 speech.

SEIA has made the climate cost the centerpiece of their campaign. But it's worth questioning whether climate and trade goals have to necessarily conflict in this case. If Chinese solar panels are dirtier to produce, some of the climate benefit is muted. If they're made with forced labor, it shocks the conscience. And if they are wantonly violating trade laws, then the share of Chinese dominance will grow, adding a host of problems, not just for the economy, but for the climate as well.

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Is the U.S. solar industry ready to prove its panels aren't made with Uyghur forced labor?

Article By:
Curtis M. Dombek
Reid Whitten
Julien Blanquart
Mario Andres Torrico

The U.S. photovoltaic (PV) industry, solar module suppliers, manufacturers, and renewable energy developers are facing new regulatory challenges with the implementation of new legislation which has a significant impact on such imports. Among the most significant is the Uyghur Forced Labor Prevention Act, Pub. L. No. 117-78, 135 Stat. 1525 (2021) ("UFLPA"), whose provisions became fully effective on June 21, 2022.

As indicated in a previous blog update (see here), the UFLPA creates a rebuttable presumption that U.S. imports of goods, wares, articles, and merchandise in whole or in part produced, mined, or manufactured in the Xinjiang Uyghur Autonomous Region (XUAR) are the product of forced labor, violating 19 U.S.C. § 1307. Further,

all Withhold Release Orders (WRO) that have a connection with XUAR are subsumed by UFLPA and subject to the same standards.

U.S. Customs and Border Protection (CBP) already invoked 19 U.S.C. § 1307 multiple times in the solar sector by imposing WRO's to target entities/manufacturers or locations, imposing civil penalties, or ordering the seizure of goods. CBP will now also apply the rebuttable presumption unless it is overcome by the importer.

Identifying and removing forced labor from supply chains is not new for solar module consumers and their suppliers. The UFLPA, however, adds materially to the due diligence requirements on U.S. importers and manufacturers in the solar industry given that four of the five largest suppliers of solar panels are headquartered in China, and the fifth is also heavily invested there. The vertical supply chain is mostly controlled by Chinese producers from the polysilicon ingot right up to the module.

With the UFLPA presumption now in force, industry is watching to see what CBP actually does at the border. CBP published its own U.S. Customs and Border Protection Operational Guidance For Importers ("CBP Guidance") on June 13, 2022 and has conducted three webinars to give guidance to importers. CBP's Guidance is complementary to the guidance that the UFLPA required the Forced Labor Enforcement Task Force (FLETF) to publish. The FLETF published its Strategy to Prevent the Importation of Goods Mined, Produced, or Manufactured with Forced Labor in the People's Republic of China ("Strategy") in a report to Congress published on June 17. The Strategy also contains a list of companies working in Xinjiang that are known to use forced labor. No down-stream solar companies are listed, but a few polysilicon firms are, including Hoshine, Daqo, GCL and East Hope.

CBP has made it clear in its public statements about the UFLPA that there is no de minimis rule, and "wholly or in part" will be applied literally. The expansive scope is also clear from what the FLETF Strategy demands of importers:

To conduct a forced labor risk assessment, importers must map supply chains for their imported goods and then identify steps at risk of using forced labor.

In making a forced labor risk assessment, factors to consider include, but are not limited to:

- Origin of imported goods and any raw materials or components in the imported good;
- Transactions among entities along the supply chain tied to the specific imported goods;
- Locations and identities of entities in the supply chain;
- Business relationships among entities in the supply chain;
- Use of publicly available datasets to estimate probability that raw materials or components originated in Xinjiang (when there are indications that raw materials or components do not originate from the stated location, such as inputs from countries that are known to lack production capacity that matches its output volume, additional due diligence is needed); and
- Indications that a supplier at any tier of the supply chain is using detainee or ex-detainee labor or is receiving workers from Xinjiang through PRC government-labor programs.

Strategy, at 42-43 (emphasis added).

The rigor with which the UFLPA forces companies to search at remote levels up the supply chain bears more resemblance to the effort years ago to trace conflict minerals up the supply chain in the electronics sector, which resulted in the Conflict Mineral-Free Sourcing Initiative's white list of smelters and refiners that industry could use to comply with their due diligence and reporting obligations. Some service companies with global databases of suppliers and supply chains have already begun offering risk assessment reports for U.S. importers under the UFLPA which they say will make use of vast datasets and artificial intelligence to reduce UFLPA risks.

Under the UFLPA, one of the goods targeted as a priority for enforcement is polysilicon. It was even named explicitly in section 2(d)(2)(B)(viii) of the UFLPA text. Polysilicon, a high-purity form of silicon, is a key raw material in the solar photovoltaic supply chain.

It has been estimated that almost 50% of the world's polysilicon comes from the Xinjiang region. The Strategy asserts that companies in China which produce silica-based products are offered government subsidies to use the labor of ethnic minority groups. It refers to "credible reports" which detail the work conditions in these companies and indicate that coercive recruitment, intimidation and threats, retribution for religious beliefs, exclusion from community and social life; and threatened workers' family members are commonly used in this sector. U.S. importers of silica-based products must be very diligent as to where the raw materials as well as the whole supply chain come from. The FLETF also highlights that these risks can come from third countries or provinces in the manufacturing processes and transshipments. It follows that Companies sourcing photovoltaic products from China need to be

The CBP Guidance indicates that companies should obtain an "independent verification" of the implementation and effectiveness of their due diligence system and should report their performance with respect to due diligence to the public. Id. at 14. This implies a need to have counsel or consultants independently review a company's due diligence. Industry trade groups like the Solar Energy Industries Association (SEIA) have been working to establish supply chain traceability protocols to assist solar developers and manufacturers in their efforts to use cruelty-free products. One is reminded again of the experience with independent reviews in the conflict minerals setting.

By interpreting the UFLPA to require tracing all the way up the supply chain, the Strategy and CBP Guidance come into conflict with China's Anti-Foreign Sanctions Law, whose Article 12(1) provides that "Any organisation and individual shall not implement or assist in the implementation of discriminatory restrictive measures taken by any foreign country against any Chinese citizen or organisation." (see our previous article here). We expect the difficulty of gathering evidence up supply chains in China under the UFLPA to be compounded greatly by this blocking statute.

In the case of conflict minerals, industry was able to develop very useful tools to aid in verifying that supply chains were compliant. One hopes that in time similar tools may become available in solar photovoltaic and other priority sectors under the UFLPA.

Claire Le Tollec is a Leal Consultant in the firm's Brussels office and contributed to this article.

especially vigilant. But it is not just China. CBP has made it clear that it will also target goods from other countries if it believes they have content from Xinjiang or companies on the UFLPA Entity List, or otherwise involve forced labor. Further, U.S. companies that do not import are also required to be diligent when they purchase goods from abroad.

If CBP has information suggesting that goods have content from Xinjiang, or from companies on the UFLPA Entity List, or otherwise involve forced labor, CBP will do one of three things at import: Detention, Exclusion or Seizure. CBP has also said that it may require redelivery of goods already cleared for entry within the preceding 30 days if it obtains such information after entry.

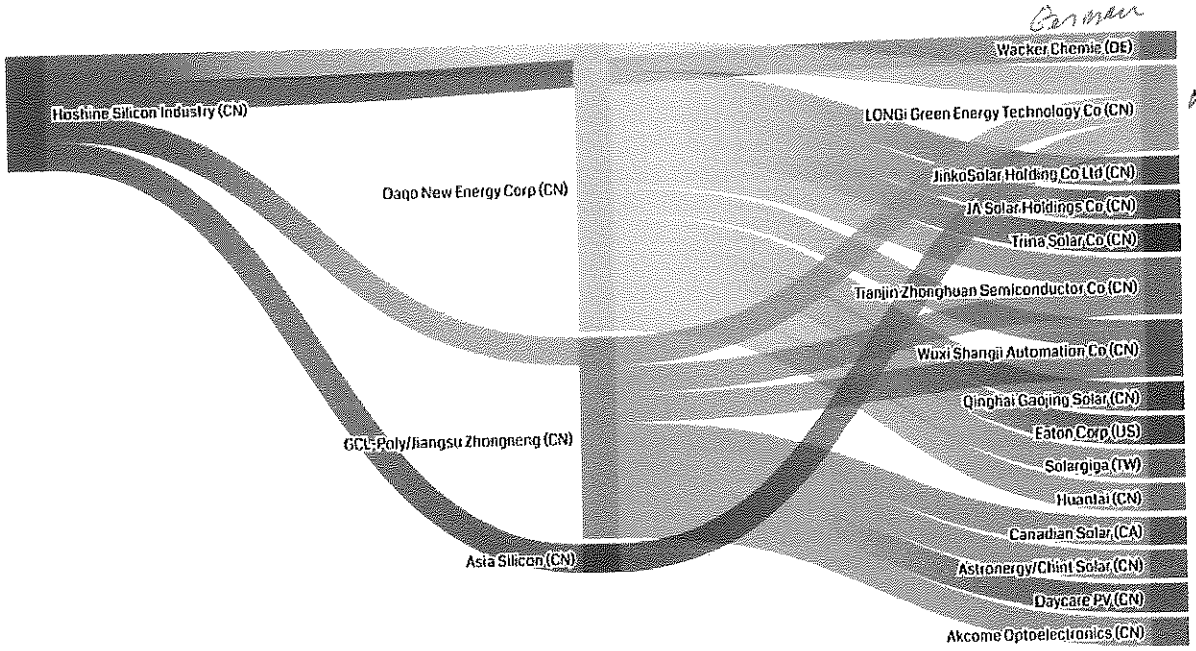
Unless and until CBP actually seizes the goods, the importer is free to re-export them to another country.

Customs Border Protection

After a detention, if the importer produces evidence substantiating that "the imported goods and their inputs are sourced completely from outside Xinjiang and have no connection to entities on the UFLPA Entity List," CBP will allow the goods to enter assuming they are otherwise in compliance with U.S. law. CBP Guidance at 17.

In a case where the importer does not refute the Xinjiang or UFLPA Entity List connection but establishes by "clear and convincing" evidence that forced labor was not used, then CBP will grant an exception and allow the goods to enter. "Clear and convincing evidence" is, needless to say, a heavy burden to meet, and much will depend upon how reasonably and fairly CBP applies the test. When CBP finds an importer's evidence satisfactory and allows goods to enter, it will "make available to the public a report identifying the good and the evidence considered in granting the exception." CBP Guidance at 10.

5. CONCLUSIONS & FUTURES

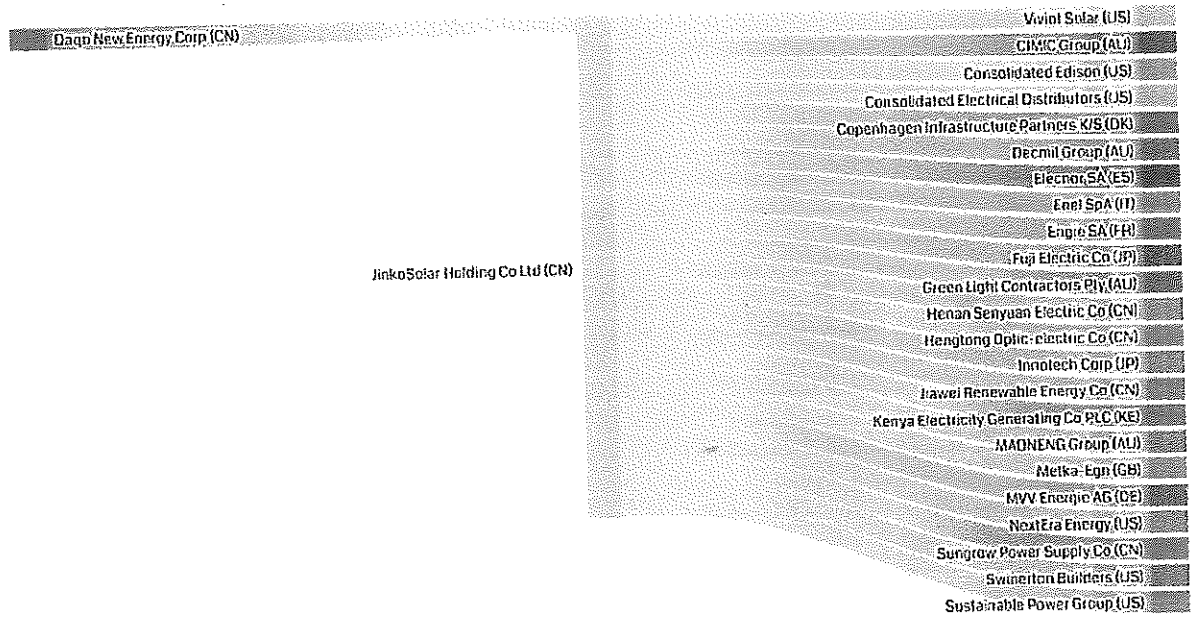


Hoshine Silicon Industry's downstream customers

A mapping of Hoshine's confirmed downstream supply chain alone begins to give us a sense of how significant the effects of Xinjiang forced labour are on the international solar market. Hoshine has indicated in its own corporate filings that it supplies polysilicon manufacturers Daqo, Jiangsu Zhongneng (a subsidiary of GCL-Poly), Asia Silicon, and Wacker. Daqo alone supplies all four of the solar module manufacturers with the largest market share in 2019 – LONGi, JinkoSolar, JA Solar, and Trina Solar.[308] The fifth, seventh, and eighth ranked module manufacturers – Canadian Solar, Risen, and Astronergy/Chint – all also have a risk of labour transfers in their supply chains.

The downstream companies that are potentially affected by forced labour span the globe (see the Supply Chain Exposures table at the end of this report). JinkoSolar's connection to Daqo alone and its own engagement in labour transfer programmes affect end users globally. A review of JinkoSolar's confirmed recent contracts is indicative of the potential global exposure to Xinjiang forced labour.

With the recent call to action and due diligence protocol released by the Solar Energy Industries Association designed to "ensure the solar supply chain does not include abhorrent forced labour practices,"[309] this issue has garnered significant attention within the industry. The call to action has been signed by 245 solar industry companies as of the end of March 2021,[310] which suggests a nearly industry-wide commitment to addressing the problems reported in this study.[311] Signatories include JinkoSolar, LONGi, JA Solar, and Trina Solar, all of whom would have to make significant



Daqo New Energy > JinkoSolar downstream customers

changes to adhere to their commitment to ensure that they are not purchasing raw materials made with Xinjiang forced labour or participating in labour transfers themselves. In addition to the companies that have publicly announced contracts with the suppliers employing forced labour programmes in Xinjiang, there are scores more that have signed on to the SEIA pledge and may yet be exposed through relationships with suppliers that we have not identified here. The work to identify all affected companies in the solar supply chain will be an arduous task, but it is not at all impossible. This report is intended to assist in that process.

While Xinjiang-made raw materials and polysilicon dominate the market, there are alternatives. Polysilicon market analyst Johannes Bernreuter reminds us that while Xinjiang accounts for 45% of the world's solar-grade polysilicon supply, 35% more of it comes from other regions of China, and 20% from outside of China. [312] Experts agree that this is enough to supply the United States and Europe's needs for solar modules.[313] However, this does not account for the companies in the interior of China and internationally whose supply chains are likely affected by manufacturing in the Uyghur Region, especially those whose supply chains reach back to Hoshine. The extent to which Xinjiang metallurgical-grade silicon and polysilicon pervades the market means that module manufacturers that want to avoid producing goods that are potentially tainted by forced labour in Xinjiang will have to scrutinise their supply chains thoroughly, all the way to the raw quartz materials, to determine if they are produced with forced labour or blended with affected materials. They will have to demand that the polysilicon that goes into the manufacture of their wafers is not sourced from companies engaged in forced labour transfers. This effectively leaves only a few Chinese alternatives with no confirmed exposure to forced labour in the Uyghur Region.

IN LAW - June 21, 2022

As the United States ponders the Uyghur Forced Labour Prevention Act, locating alternatives to Xinjiang-sourced solar energy products becomes increasingly critical – not only for U.S. manufacturers and retailers but also for those other global markets where U.S. sanctions could mean Xinjiang-made goods head their way. Bernreuter predicted in March that "what will likely happen is this: Wafer manufacturers, who usually blend polysilicon volumes from different suppliers, will exclude feedstock from Xinjiang from the

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Making Sense of the Solar Supply Chain Issues

As noted in "Trade Group During Solar Controversy Includes Slave-Labor Companies"
p. 3 "This ducks the fact that The Solar Energy Industries Ass.'s membership includes US subsidiaries of Chinese producers JINKO solar, JA SOLAR, TRINA, BYD and LONGI solar. JINKO holds seat on Board of Directors"
Page 3. "SEIA is an agent of LONGI and JINKO

Article By:
Kristyn M. Melvin
Matt Bonovich

As current supply chain issues continue to threaten the U.S. photovoltaic solar industry, solar module suppliers, manufacturers, renewable energy developers and utilities alike face great uncertainty surrounding the immediate future of the solar module supply market. The bottom-line is that supply chain issues are increasing shipping and equipment costs for solar cells and panels, however, there are several independent factors that are working together to drive this surge in pricing and constrained market. These factors include the following:

1. The Antidumping and Countervailing Duties (AD/CVD) Anti-Circumvention Petition filed by Auxin Solar

2. Section 201 Tariffs

3. The Uyghur Forced Labor Prevention Act and Forced Labor WROs

4. General Global Supply Chain Issues (likely resulting from COVID-19)

This article takes a closer look at each of the factors listed above in an effort to explain the current landscape of the supply chain issues threatening the solar module supply market.

Antidumping and Countervailing Duties (AD/CVD) Anti-Circumvention Petition filed by Auxin Solar

On February 8, 2022, California based Auxin Solar filed a petition with the Department of Commerce asking federal trade officials to investigate whether to impose tariffs on crystalline silicon photovoltaic ("CSPV") cells and modules that are assembled in Malaysia, Thailand, Vietnam and Cambodia using parts and components from China[1] (the "Petition"). The Petition argues that Chinese manufacturers have shifted production of CSPV cells and modules to affiliated companies in Malaysia, Thailand, Vietnam and Cambodia in order to circumvent U.S. anti-dumping (AD) laws and countervailing duties (CVD), which were implemented ten years ago after the U.S. International Trade Commission found that dumped and subsidized imports of Chinese CSPV cells and modules caused material injury to the U.S. CSPV industry.[2] Further, the Petition argues that while the end of the production process has been shifted to Malaysia, Thailand, Vietnam and Cambodia in order to serve the U.S. market, nearly all of the R&D, raw materials and capital investment is still coming from Chinese manufacturers.

The Petition is similar to the one rejected by the Department of Commerce just four short months ago, but with three notable differences:

1. The Petitioner has identified itself. Auxin Solar is a domestic manufacturer of modules based in San Jose, California, which affirmatively asserts standing as a producer of like products to those for which it is requesting the investigation.

2. The prior petition requested review of a limited number of Chinese companies while the current Petition requests review of all imports coming from Malaysia, Thailand, Vietnam and Cambodia that use Chinese components.

3. While Malaysia, Thailand and Vietnam were named in the prior petition, Cambodia has been added to the current Petition. A list of the major manufacturers alleged to be engaged in the circumvention is as follows:

   - Malaysia: Jinko Solar Technology Sdn. Bhd.; LONGi (Kuching) Sdn. Bhd. and its affiliate Vina Cell Technology Company Limited and Vina Solar Technology Company Limited; JA Solar (Malaysia) Co., Ltd. or JA Solar Malaysia Sdn. Bhd.

   - Thailand: Canadian Solar Manufacturing (Thailand) Co., Ltd.; Trina Solar Science & Technology (Thailand) Co., Ltd.; Talesun Solar Technologies Thailand or Talesun Technologies (Thailand) Co., Ltd.; Astroenergy Solar Thailand Co., Ltd.

   - Vietnam: Trina Solar (Vietnam) Science & Technology Co., Ltd.; Canadian Solar Manufacturing (Vietnam) Co., Ltd.; China Sunergy Co., Ltd. in Vietnam; Boviet Solar Technology (Vietnam) Co., Ltd. or Boviet Solar Technology Co., Ltd.; GCL System Integration Technology (Vietnam) Co. Ltd.; Vina Cell Technology Company Limited and Vina

Solar Technology Company Limited; LONGi Green Energy Technology Co., Ltd.; JinkoSolar (Vietnam) Co., Ltd.

- Cambodia: New East Solar Cambodia, EnAlex, Shenglong PV-Tech (Cambodia) Co., Ltd., Jintek Photovoltaic Technology Co., Ltd.[3]

Since the prior petitions rejection was based on the Petitioner not identifying themselves and the Department of Commerce's resulting uncertainty of their standing to bring the petition, the first difference listed above may prove considerable this time around. In the event that the Department of Commerce does decide to investigate whether CSPV cells and modules should be subject to U.S. anti-dumping laws and countervailing duties, the Department of Commerce will determine and asses whether:

1. The process of assembly or completion in the foreign county is "minor or insignificant";

2. The value of merchandise produced in the county subject to the antidumping or countervailing duties order is a significant portion of the merchandise exported to the United States; and

3. The action is appropriate to prevent evasion of such order or finding.[4][5]

Based on the current timeline, the Department of Commerce has until March 25, 2022 to accept Petition's request and initiate an investigation or reject the Petition. A decision could come sooner than that deadline, or the Department of Commerce could effectively extend that timeline by requesting more information from the Petitioner. Once the Department of Commerce does come to a decision on whether to initiate an investigation, if it (a) rejects the

Petition, thus not initiating an investigation, the case will end or (b) accepts the Petition, thus initiating an investigation, the timeline for clarity can be as long as one year with significant costs imposed during that year. The timeline for such an investigation is 150 days from the Department of Commerce's acceptance for a preliminary determination, and 300 days for a final determination.[6]

If the result of the investigation is that the government finds that circumvention has occurred, it may impose duties (i.e., import taxes) on subject modules that could range from a few percentage points up to or exceeding 90%. These duties can be applied to imports from the initiation of the case. Further, while the investigation is pending (so as early as March 25, 2022), the U.S. Government can impose a "cash deposit" requirement which would require an importer to post a cash deposit as security for the potential duties. These cash deposits would impose a significant cost burden on the importation of subject modules.

The impact of the Auxin Solar Petition remains to be seen. If the Department of Commerce initiates an investigation, it could take some time for closure on the matter (in the range of a year) and, during that time, significant cost could be imposed on subject modules (in the form of cash deposits). More information should be known in the coming weeks.

Section 201 Tariffs

On February 4, 2022, the Biden administration extended Trump-era tariffs (known as Section 201 tariffs) on imported crystalline silicon photovoltaic cells ("CSPV") for an additional four years.[7] In addition to extending the tariffs on monofacial solar cells and modules, the Biden administration also made several modifications

to existing provisions including (i) increasing the capacity of monofacial solar cells that can initially be imported each year free of safeguard tariffs from 2.5 gigawatts to 5 gigawatts and (ii) excluding bifacial solar cells and modules from the tariff.[8] Imports of CSPV cells that exceed the 5 gigawatt tariff-rate quota, and all imports of covered CSPV modules will be subject to the following tariffs:

- Year 5 (February 7, 2022 – February 6, 2023) – 14.75%
- Year 6 (February 7, 2023 – February 6, 2024) – 14.5%
- Year 7 (February 7, 2024 – February 6, 2025) – 14.25%
- Year 8 (February 7, 2025 – February 6, 2026) – 14%[9]

While seeking to remedy injury to domestic manufacturing and create jobs in the U.S. solar section, the Section 201 tariffs have solicited mixed reactions from solar industry stakeholders. Industry trade groups have argued that the extension of the tariffs threaten President Biden's goal to decarbonize the U.S. electricity sector by 2035[10] as solar companies have relied on cheap imports to compete with energy produced from fossil fuels. The Solar Energy Industries Association, which represents various companies throughout the solar value chain (including manufacturers, installers, and project developers), outwardly opposed the original tariff noting that "the U.S. will continue to import 80% to 90% of our solar cells and modules at a higher cost due to the tariff, potentially putting solar out of reach for many homeowners, making some utility-scale projects uneconomical, and driving up prices for ratepayers"[11]. Although the modifications made by the Biden administration have eased various aspects of the tariff, it continues as a contributing factor to

the increasing shipping and equipment costs for solar cells and panels.

The Uyghur Forced Labor Prevention Act and Forced Labor WROs

On December 23, 2021, President Biden signed the Uyghur Forced Labor Prevention Act ("UFLPA") intending to reinforce the existing prohibitions against the importation of goods made with forced labor. UFLPA effectively creates a rebuttable presumption that all goods manufactured wholly or in part in the Xinjiang Uyghur Autonomous Region are the product of forced labor, and are therefore banned from importation into the United States.[12] The rebuttable presumption will apply unless an importer is able to demonstrate that it:

1. Fully compiled with new importer guidance and any regulations issued to implement that guidance;

2. Completely and substantively responded to all inquires for information submitted by the Commissioner of Customs and Border Protection to ascertain whether forced labor was used; and

3. Provided clear and convincing evidence, that the good, ware, article or merchandise was not mined, produced or manufactured wholly or in part by forced labor.[13]

UFLPA's rebuttable presumption is set to take effect 180 days after its enactment, on June 21, 2022. During this time, the Forced Labor Enforcement Task Force is soliciting comments and devising its strategy of implementation of the rules and regulations of UFLPA.

Although there is a great deal of uncertainty that remains, the enforcement of the UFLPA could have a chilling effect on the solar module supply market in the near future, lasting through 2024, and potentially into 2025. The evidentiary requirements to overcome the rebuttable presumption detailed above will be significant and will most likely involve traceability across the entire supply chain. Manufacturers and related companies with supply chain exposure to the Xinjiang Uyghur Autonomous Region should (i) prepare for an increasingly complex regulatory landscape in the near future, (ii) begin to carefully review the Forced Labor Enforcement Task Force's upcoming guidance on how to conduct due diligence on supply chain issues while assessing their supply chain risks, and (iii) consider engaging with the Forced Labor Enforcement Task Force through the public comment period to inform the implementation of the UFLPA in a manner that is consistent with their practices.

General Global Supply Chain Issues (likely resulting from COVID-19)

Like numerous other supply chains, the solar module supply chain has felt significant pressure as a result of the COVID-19 pandemic. Specifically, the fallout from COVID-19 has resulted in (i) a shortage of the shipping containers that ship cargo, (ii) a spike in demand for steel (iii) too few ships and dock workers, (iv) a shortage of truck drivers, (v) an increase in gasoline prices, and (vi) an increase in key solar panel components such as polysilicon, all of which have caused an increase in shipping cost as well as significant shipping delays. Additionally, city-wide shutdowns in Asian export hubs have halted the manufacturing of various components and raw materials all together for months on end.

The Shanghai Freight Index, which tracks the cost of shipping a freight container from Shanghai to numerous ports around the world, has increased roughly six-fold from the pre-pandemic baseline.[14] This has proven especially problematic for the U.S. solar energy sector as most CSPV cells and modules are manufactured in China and Southeast Asia.

Summary – How Have These Factors Affected the Solar Energy Sector?

While any of the contributing factors detailed above would singularly threaten the solar module supply chain, each of these factors working together has caused a chilling effect in the U.S. solar energy sector. Many solar developers have adopted the "wait and see" approach, postponing utility-scale solar projects planned for 2022. The level of uncertainty surrounding supply chain issues (specifically the Antidumping and Countervailing Duties (AD/CVD) Petition filed by Auxin Solar) has also caused developers to become increasingly cautious about holding risks associated with increasing costs. This has led to cost allocation and schedule provisions being heavily negotiated in recent utility scale contracts.

With several factors impacting the solar supply chain, it is not clear when there will be clarity in the market. In the near term, stakeholders should anticipate an uncertain and constrained market. Also during this time, we should expect to see the allocation of cost, schedule and risk amongst stakeholders to be steadily and significantly evolving and changing.

FOOTNOTES

[1] Circumvention Petition Filed 2.8.22.pdf (seia.org)

[2] *Id.*

[3] *Id.*

[4] Prevention of Circumvention of Antidumping and Countervailing Duty Orders, 19 U.S.C. § 1677j (2012).

[5] In determining whether the process of assembly or completion is "minor or insignificant", the Department of Commerce will take into account the following factors: (i) the level of investment in the foreign county, (ii) the level of research and development in the foreign county, (iii) the nature of the production process in the foreign county, (iv) the extent of production facilities in the foreign county, and (v) whether the value of the processing performed in the foreign county represents a small portion of the value of merchandise imported into the United States.

[6] Circumvention Inquiries, 19 C.F.R. § 351.226.

[7] A Proclamation to Continue Facilitating Positive Adjustment to Competition From Imports of Certain Crystalline Silicon Photovoltaic Cells (Whether or Not Partially or Fully Assembled Into Other Products) | The White House

[8] *Id.*

[9] QB 22-507 Solar Cells and Modules 2022 | U.S. Customs and Border Protection (cbp.gov)

[10] Biden admin eases Trump-era solar tariffs but doesn't end them | Reuters

[11] Section 201 Solar Tariffs | SEIA

[12] Act of Dec. 23, 2021, Pub. L. No. 117–78, § 3(a), 135 Stat. 1529.

[13] *Id.* at § 3(b).

[14] How are supply chain issues impacting solar power projects? | World Economic Forum (weforum.org).

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Source URL: https://www.natlawreview.com/article/making-sense-solar-supply-chain-issues

1

Homeland Security

U.S. Department of Homeland Security application or after June 21/2022

UFLPA Entity List

page 2 Xinjiang Daqo New Energy Co. LTD
(3 aliases

Read the FLETF's Strategy to Prevent the Importation of Goods Mined, Produced, or Manufactured with Forced Labor in the People's Republic of China (/uflpa-strategy) .

CBP's UFLPA importer guidance is available at CBP.gov (https://www.cbp.gov/trade/forced-labor/UFLPA) .

The UFLPA Entity List can be found in the Strategy to Prevent the Importation of Goods Mined, Produced, or Manufactured with Forced Labor in the People's Republic of China (/publication/uflpa-strategy) .

A list of entities in Xinjiang that mine, produce, or manufacture wholly or in part any goods, wares, articles and merchandise with forced labor Section 2(d)(2)(B)(i) (https://www.govinfo.gov/app/details/PLAW-117publ78)
Baoding LYSZD Trade and Business Co., Ltd.
Changji Esquel Textile Co. Ltd. (and one alias : Changji Yida Textile)
Hetian Haolin Hair Accessories Co. Ltd. (and two aliases: Hotan Haolin Hair

2

Accessories; and Hollin Hair Accessories)
Hetian Taida Apparel Co., Ltd (and one alias: Hetian TEDA Garment)
Hoshine Silicon Industry (Shanshan) Co., Ltd (including one alias: Hesheng Silicon Industry (Shanshan) Co.) and subsidiaries
Xinjiang Daqo New Energy, Co. Ltd (including three aliases: Xinjiang Great New Energy Co., Ltd.; Xinjiang Daxin Energy Co., Ltd.; and Xinjiang Daqin Energy Co., Ltd.) see In Broad Daylight 5. Conclusions
Xinjiang East Hope Nonferrous Metals Co. Ltd. (including one alias: Xinjiang Nonferrous)
Xinjiang GCL New Energy Material Technology, Co. Ltd (including one alias: Xinjiang GCL New Energy Materials Technology Co.)
Xinjiang Junggar Cotton and Linen Co., Ltd.
Xinjiang Production and Construction Corps (including three aliases: XPCC; Xinjiang Corps; and Bingtuan) and its subordinate and affiliated entities

A list of entities working with the government of Xinjiang to recruit, transport, transfer, harbor or receive forced labor or Uyghurs, Kazakhs, Kyrgyz, or members of other persecuted groups out of Xinjiang Section 2(d)(2)(B)(ii) (https://www.govinfo.gov/app/details/PLAW-117publ78)
Aksu Huafu Textiles Co. (including two aliases: Akesu Huafu and Aksu Huafu Dyed Melange Yarn)
Hefei Bitland Information Technology Co., Ltd. (including three aliases: Anhui Hefei Baolongda Information Technology; Hefei Baolongda Information Technology Co., Ltd.; and Hefei Bitland Optoelectronic Technology Co., Ltd.)
Hefei Meiling Co. Ltd. (including one alias: Hefei Meiling Group Holdings Limited)

KTK Group (including three aliases: Jiangsu Jinchuang Group; Jiangsu Jinchuang Holding Group; and KTK Holding)
Lop County Hair Product Industrial Park
Lop County Meixin Hair Products Co., Ltd.
Nanjing Synergy Textiles Co., Ltd. (including two aliases: Nanjing Xinyi Cotton Textile Printing and Dyeing; and Nanjing Xinyi Cotton Textile)
No. 4 Vocation Skills Education Training Center (VSETC)
Tanyuan Technology Co. Ltd. (including five aliases: Carbon Yuan Technology; Changzhou Carbon Yuan Technology Development; Carbon Element Technology; Jiangsu Carbon Element Technology; and Tanyuan Technology Development)
Xinjiang Production and Construction Corps (XPCC) and its subordinate and affiliated entities

A list of entities that exported products described in clause (iii) from the PRC into the United States Section 2(d)(2)(B)(iv) (https://www.govinfo.gov/app/details/PLAW-117publ78)
Entities identified in sections (i) and (ii) above may serve as both manufactures and exporters. We have not identified additional exporters at this time but will continue to investigate and gather information about additional relevant entities.

A list of facilities and entities, including the Xinjiang Production and Construction Corps, that source material from Xinjiang or from persons working with the government of Xinjiang or the Xinjiang Production and

Construction Corps for purposes of the "poverty alleviation" program or the "pairing-assistance" program or any other government-labor scheme that uses forced labor Section 2(d)(2)(B)(v) (https://www.govinfo.gov/app/details/PLAW-117publ78)
Baoding LYSZD Trade and Business Co., Ltd.
Hefei Bitland Information Technology Co. Ltd.
Hetian Haolin Hair Accessories Co. Ltd.
Hetian Taida Apparel Co., Ltd.
Hoshine Silicon Industry (Shanshan) Co., Ltd., and Subsidiaries
Xinjiang Junggar Cotton and Linen Co., Ltd.
Lop County Hair Product Industrial Park
Lop County Meixin Hair Products Co., Ltd.
No. 4 Vocation Skills Education Training Center (VSETC)
Xinjiang Production and Construction Corps (XPCC) and its subordinate and affiliated entities
Yili Zhuowan Garment Manufacturing Co., Ltd.

Contact Us

For further inquiries, please contact the UFLPA Entity List Team at FLETF.UFLPA.EntityList@hq.dhs.gov. (mailto: FLETF.UFLPA.EntityList@hq.dhs.gov?subject=Entity%20List%20Inquiry%3A%20)

Gmail Annie Hayes <hayesannie@gmail.com>

(no subject)
1 message

Annie Hayes <hayesannie@gmail.com> Tue, Jul 5, 2022 at 1:55 PM
To: Annie Hayes <hayesannie@gmail.com>

Solar energy stocks have a new best friend.

What happened

Shares of solar power inverter-maker **Enphase Energy (ENPH -4.83%)**, solar module manufacturer **JinkoSolar (JKS -0.92%)**, and polysilicon producer **Daqo New Energy (DQ -0.24%)** all popped today -- to varying degrees and on various news items affecting the solar industry.

In 2:10 p.m. EDT trading, Enphase shares are up 4%, Jinko is up 6.8%, and Daqo is doing best of all, enjoying a 16.6% bump in stock price.

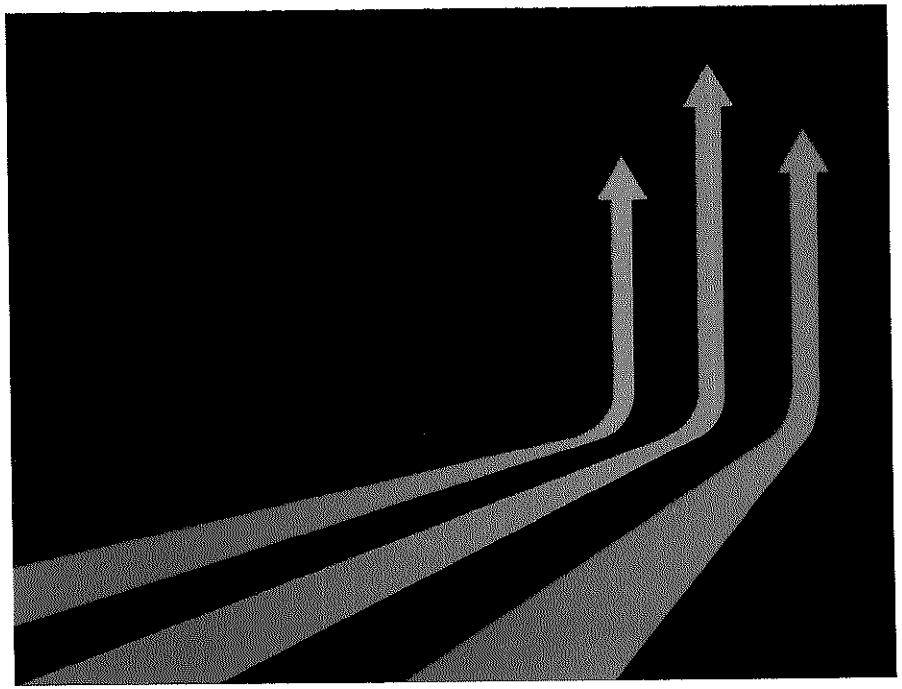


IMAGE SOURCE: GETTY IMAGES.

regulations

So what

The reasons for the price rises vary with the specific stocks. Enphase Energy, for example, is responding to a pre-earnings hike in the price target from stock analysts at J.P. Morgan. As TheFly.com reports today, J.P. believes investors will experience volatility in renewable energy stocks over the next few weeks as earnings reports come out and various stocks either surge or take hits on disappointing news.

Should the latter happen, J.P. advises investors to keep an eye out for "buying opportunities," as Enphase -- which the analyst says is worth $238 a share -- gets discounted even below today's $179-ish share price.

At Daqo, there's an entirely different catalyst at work. Last week Daqo announced that it is IPO'ing 300 million shares of its subsidiary Xinjiang Daqo on the Shanghai Stock Exchange's Sci-Tech innovation board tomorrow. Reportedly, the IPO price will be RMB 21.49 per share, but if the IPO pops to a higher price, this would benefit Daqo proper, as the owner of 80.7% of the subsidiary's shares. Today's share price action, by the way, strongly suggests that investors think the IPO *will* pop -- to Daqo's benefit.

Now what

Now what about the third solar stock on this list? What about JinkoSolar?

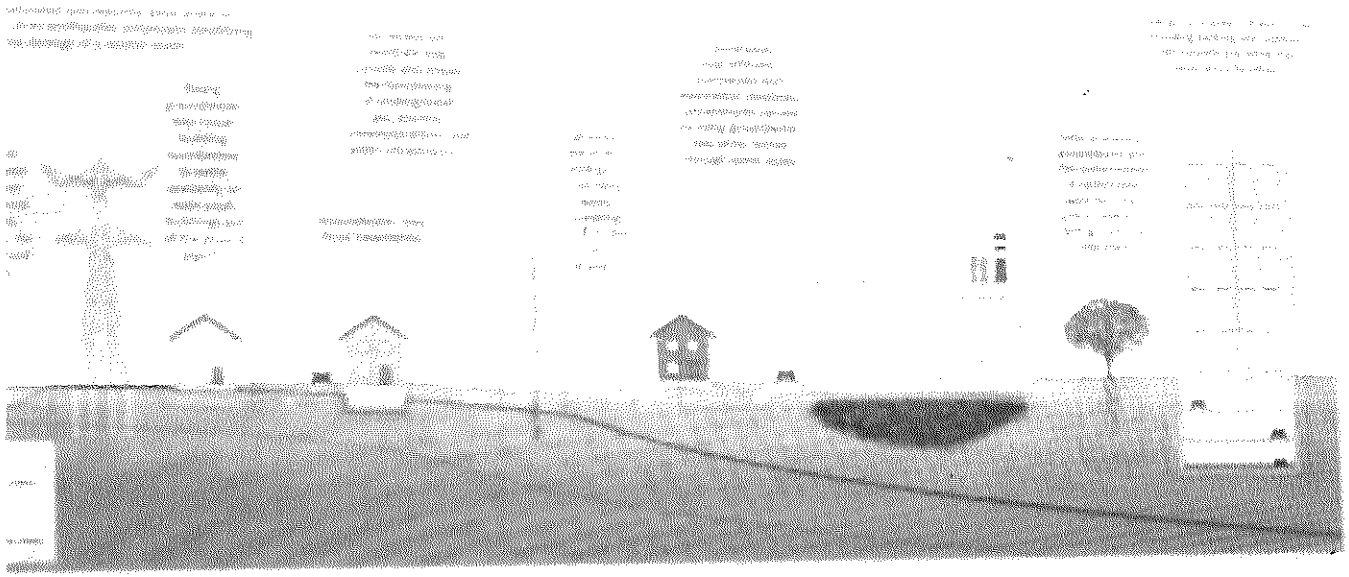
In contrast to Enphase and Daqo, there's no specific news about JinkoSolar on the wires today. What there is, however, is an even bigger story -- one that may encompass Enphase and Daqo as well. Specifically, *The Wall Street Journal* just reported that

on the opposite side of the Sea of Japan from Jinko, the Japanese government has just announced an ambitious plan to double its use of renewable energy in order to halve its use of fossil fuels "over the next decade."

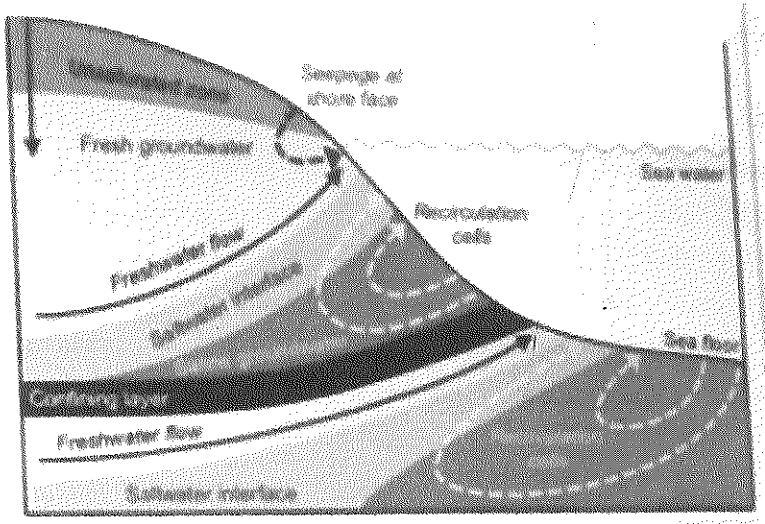
A revival of the country's nuclear power plans, as well as exploratory efforts in the use of hydrogen fuel, appear to be at the center of Japan's renewable energy plans. However, wind and solar power will also make up a large part of the shift toward renewable -- which should be good news for Jinko, and good news for solar stocks in general.

Should you invest $1,000 in Daqo New Energy Corp. right now?

and submarine groundwater discharge (SGD) in a
ifer (a) and in a heterogeneous aquifer (b) (Michael et



structure and freshwater-saltwater groundwater systems (Tada, 2019).



Coastal groundwater system with freshwater-saltwater interface and a confining layer (cite)

— fresh groundwater

- watershed destruction topography alteration
- impervious surfaces
- fresh water holding, disposal storing
- increased drought
- increased site temp (panels)
- wetlands impact from above and increased drought to less fresh water (?)

+ salt water

- flooding from sea level rise
- armored shore blocking sea water pressure dissipating
- diminished fresh water pushing counterforce
- erosion
- warming water

Plymouth SWI Taskforce

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There is a phenomenon known as the saltwater/freshwater interface. We are litera surrounded by an ocean of saltwater that presses against the land and against a subterranean interface with our precious freshwater.

When that interface is in balance fresh and saltwater push against each other, but rarely make much headway. But when sea level rises, when we withdraw too much water and climate change translates to excessively hot and arid summers the imbalance increases and saltwater can begin to intrude into our rivers, ponds, into the water that we drink and which flows through our woods and wildlands.

Biodiversity, Community Ecology, and the Dilution Effect

LYME's

CARY Environmental Institute - How diseases (Lyme's, a main concern) spread when ecosystems / habitat destruction force them into neighborhoods.

This happened to multiple neighbors who, with Feasinghill destruction, LYME's → fear an increased risk after suffering life threatening Lyme's.

Lead Scientist(s): Dr Richard S Ostfeld (/science/our-scientists/dr-richard-s-ostfeld)

What is the Dilution Effect?

A major effort in the Ostfeld lab is the theoretical development and empirical testing of the Dilution Effect, which describes the mechanisms by which vertebrate diversity protects people against exposure to zoonotic diseases. Intensive study of the ecology of Lyme disease has been instrumental in developing this theory

In forested landscapes of the eastern and central United States, the white-footed mouse is typically one of the most abundant vertebrates. Imagine a recently hatched larval tick waiting on the forest floor, nearly immobile, waiting for a potential vertebrate host to approach. If the tick is born in a habitat that favors white-footed mice, and/or in a year of high mouse density, the tick has a high probability of obtaining its first blood meal from a mouse. Because a high percentage (#) of white-footed

mice carry the spirochete bacterium that causes Lyme, it is very likely the tick will be infected. When it molts from a larvae into an infected nymph during the spring or summer, it will be dangerous to humans.

Two situations should reduce a questing larval tick's probability of encountering a white-footed mouse. One is a reduction in the population density of mice, the other an increase in the number of non-mouse hosts in the forest. When host diversity is high, there is a lower probability that ticks will feed on a white-footed mouse host. Larval ticks are less likely to become infected with B. burgdorferi when they feed on other vertebrate animals, such as chipmunks, lizards, or ground-dwelling birds. When tick's obtain their larval blood meal without becoming infected, they are not dangerous to humans when they feed as nymphs the following year.

The second situation, termed the Dilution Effect by Ostfeld and Keesing (2000 a, b), occurs when high host diversity dilutes the impact of white-

footed mice, reducing mouse-tick interactions and subsequent disease risk. Empirical and theoretical support for the dilution effect is growing. An assessment of major tick host species at our New York study sites revealed that Lyme disease risk is lower when diverse host communities are present. Conversely, disease risk escalates in species-poor communities (LoGiudice et al. 2003). Computer simulation models (Van Buskirk and Ostfeld 1995, 1998, Schmidt and Ostfeld 2001) suggest mechanisms behind the dilution effect. Human-induced environmental changes, such as landscape fragmentation and predator suppression, can inadvertently increase disease risk by reducing biodiversity.

The dilution effect appears to be a general phenomenon, not restricted to the Lyme disease system. For the dilution effect to apply to a vector-borne zoonosis, the following conditions must hold:

The vector must be a generalist that parasitizes at least several host species, including humans

Hosts parasitized by the vector must vary strongly in their reservoir competence, such that some are highly infective and others are dilution hosts

Vectors must acquire the pathogen via blood meals rather than relying predominantly on transovarial transmission

The most competent reservoir host(s) must be dominant members of the host community, feeding a high proportion of the tick population. A corollary of condition (4) is that host species with lower reservoir competence will tend to occur only in more diverse communities.

The extent to which these conditions are met is the subject of ongoing assessments.

Habitat Fragmentation

The conversion of forest into suburban developments and agricultural fields has resulted in the fragmentation of forested landscapes in eastern and central North America. The result is a series of landscapes in which a gradient of forest patches exists, from small woodlots (<1 hectare) to expanses of continuous forest. Recent field studies in Indiana and Illinois indicate that population densities of white-footed mice are considerably higher in forest patches than in continuous forest, and that mouse density tends to be inversely correlated with patch size. The ecological mechanisms behind this pattern are not entirely clear, but a possible mechanism is that natural enemies of mice, such as carnivores,

raptors, and competing small mammals decline or disappear when forest habitat is highly fragmented.

Studies by Nupp and Swihart (1996, 1998) and Rosenblatt et al. (1999) reveal that rodents that compete with mice for food, such as chipmunks, gray squirrels (Sciurus carolinensis), and fox squirrels (S. niger), decline or disappear in small forest patches. Similarly, mammals that prey on mice, such as long-tailed weasels (Mustela frenata), red foxes (Vulpes vulpes), gray foxes (Urocyon cinereoargenteus), and coyotes (Canis latrans), require large expanses of forest and are absent from small woodlots (Rosenblatt et al. 1999). Other studies suggest that avian predators on mice, such as barred owls (Strix varia), are less abundant in highly fragmented landscapes than in more continuous old-growth forest. [Citations in Allan et al. 2003, Ostfeld and LoGiudice 2003].

Reduced vertebrate diversity in highly fragmented landscapes can affect Lyme disease dynamics through two different pathways. First, the loss of vertebrate diversity results in a high proportion of tick meals being taken from mice. As a result, habitat alteration reduces host diversity and weakens the dilution effect. Second, reductions in predators on and competitors with mice may be responsible for increased absolute mouse density, which should increase disease risk.Although the mechanisms are still under intensive study, recent research in Dutchess County, NY, shows that the abundance and infection prevalence of nymphal ticks is considerably higher in small woodlots than in larger forested areas. In patches less than 5 acres, risk of human exposure to Lyme disease was almost 5 times greater than in larger forested areas (Allan et al. 2003). Computer modeling suggests that the patterns of species loss with habitat fragmentation will determine how rapidly disease risk will increase (Ostfeld and LoGiudice 2003).

Predators

Monkeypox, hantavirus pulmonary syndrome (HPS), Lassa fever, Argentine and Bolivian hemorrhagic fevers, Lyme disease, granulocytic ehrlichiosis, leishmaniasis, Bubonic plague, scrub typhus, tick-borne encephalitis, Crimean-Congo hemorrhagic fever - for these diseases and many more, we are the unwitting victims of pathogens that cycle, often cryptically, within rodent populations.

It seems likely that disease transmission will be reduced when rodent populations occur both at chronically low densities and away from human habitation. Conversely, disease risk will increase with increasing rodent density, magnitude of fluctuations, and tendency to invade human dwellings.

In a literature review combined with new theory, we (Ostfeld and Holt 2004) recently found that rodent predators have a strong potential to protect human health. Generalist or highly mobile predators seem likely to be most effective at regulating rodent numbers at low levels, whereas specialist predators of limited mobility appear responsible for dramatically fluctuating rodent populations. Medium-sized mammalian predators and raptors illustrate the type of predators most likely to play a strong role in regulating rodents.

Habitat destruction and degradation generally affect predatory vertebrates more strongly than more herbivorous ones. As a consequence of predator loss, which we term "missing weapons of mouse destruction," we expect many rodent populations, and the pathogens they transmit, to perform well in fragmented landscapes. Although some studies support his expectation, further research is needed. Research frontiers include: correlations between rodent

by Kenneth Rapoza

June 21, 2022

China Solar Stocks Rise by 10%-Plus After Not Making Forced Labor List

Two Chinese solar companies listed in the U.S. saw their share values skyrocket Tuesday after the Department of Homeland Security released its list of companies that will be carefully watched as the new Uyghur Forced Labor Prevention law goes into force starting this week. Both Daqo New Energy and JinkoSolar, which has a factory in Florida, were not on the list of companies believed to be using prison labor in Xinjiang. Their shares rose by more than 10% on Tuesday, the first day of trading this week.

Homeland released its report to Congress as required by the new law on June 17. The report, titled "Strategy to Prevent the Importation of Goods Mined, Produced, or Manufactured with Forced Labor in the People's Republic of China" outlines resources needed, and a strategy plan for dealing with imports from Xinjiang.

China's two solar stocks listed in the U.S. were never mentioned in the report.

JinkoSolar has contracted with Daqo in the past, signing two-year agreements for polysilicon as recent as 2019. In that press release, Daqo New Energy is described as making polysilicon in Xinjiang.

Daqo New Energy put itself in the spotlight last year when it took journalists on tours of its Xinjiang facilities to prove it was clean.

Oddly enough, Homeland lists Daqo's parent, Xinjiang Daqo New Energy as using forced labor. But this is the same exact business and shares senior staff and board members. They both manufacture high-purity polysilicon for solar cells, with Daqo New Energy also using that polysilicon to manufacture solar cells.

Daqo New Energy is listed on the NYSE and has its offices in Shanghai. While Xinjiang Daqo New Energy is listed on the Shanghai stock exchange and is based in Xinjiang, the far Western providence that is the heart of China's war on terrorism and human rights abuses. The parent company on the Homeland list today is part of the Vanguard Emerging Markets Stocks Index, a mutual fund with $71 billion in assets under management. Wall Street is investing client money in companies Homeland has reiterated again on Friday to be suspected of using Uyghur prison labor.

It is highly probable to assume that the NYSE-listed Daqo uses polysilicon from its Xinjiang parent.

While the companies share a different address, thousands of miles apart, Long Gen Zhang is CEO at Daqo New Energy and vice chairman of the board of directors of the Xinjiang parent.

Qiang Min Zhou is listed as a general manager and director of the parent company in Xinjiang, and chief operating officer of the Daqo branch in Shanghai.

Guang Fu Xu is the board chairman of both entities.

Xiang Xu is a member of both boards, as is Da Feng Shi.

Roughly 17 Xinjiang-based companies were put on a list of companies to be screened by the Forced Labor Enforcement Task Force. The Uyghur Forced Labor Prevent Act required this task force to make such a list. The companies were also listed on Commerce's Entity List or were subject to Withhold Release Orders by Customs and Border Protection (CBP).

The launch of the enforcement strategy last Friday precedes the June 21 launch date in which CBP will begin to enforce the Uyghur Forced Labor law. Pursuant to Section 307 of the Tariff Act of 1930, the importation of any goods, wares, articles, and merchandise mined, produced, or manufactured wholly or in part in the Xinjiang Uyghur Autonomous Region of China, or produced by certain entities, will be subject to investigation and possible confiscation at the ports.

CBP has not returned requests for comments regarding China solar panels made with inputs from Hoshine Silicon — on the receiving end of a WRO last year and in Homeland's report to Congress — ended up making it to its final buyer or was returned to sender.

"The Uyghur Forced Labor Prevention Act's enforcement strategy demonstrates the Biden Administration's unwavering commitment to fully enforce our laws prohibiting the import of goods made by forced labor into the United States," U.S. Trade Representative Katherine Tai said in a statement last week. "It highlights our resolve to fight against the economic exploitation and human rights abuses committed against Uyghurs and other ethnic and religious minorities in the People's Republic of China. This enforcement strategy will help us in our work to eliminate this practice from our global supply chains."

Judging by Tuesday's Daqo gains, the market believes the Shanghai company listed in New York is a whole other operation, unaffiliated, and not reliant on its Xinjiang parent, one of the largest producers of solar-grade polysilicon in the world. And one in which Homeland and Customs is supposed to be on the lookout for products made from there due to human rights abuses.

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