

Commerce Investigation into Solar Imports Already Devastating Solar Industry

It has been just a few weeks since the Department of Commerce initiated its investigation into imports of crystalline silicon photovoltaic (c-Si PV or CSPV) solar cells and modules (panels) from Cambodia, Malaysia, Thailand, and Vietnam. Here's what you need to know:



CSPV imports from these four countries represent the **majority of U.S. solar module supply**. Outside of China, there isn't enough manufacturing capacity anywhere in the world to make up for the loss of supply.



CSPV imports from the four countries that had not cleared U.S. customs before the investigation began are now at risk of **tariff liabilities up to 250%** with final duties unknown for up to a year.



Duties of 250% translate to a risk of **\$62.5 million** on a 100-megawatt solar power plant that would normally cost **\$100 million** to build, or a **62.5% increase** in total cost – an untenable risk.



For an 8-kilowatt residential solar project, a **250% duty** translates to **\$6,000** – a similarly untenable risk.



Because the tariff risk is retroactive and potentially very high, importers have almost completely **halted shipments**. Some containers that arrived at U.S. ports but hadn't cleared customs as of April 1st have even been put back on ships and sent back to Asia.



Domestic CSPV module manufacturers all rely on cell imports. In 2021, nearly **half those cells** came from the four impacted countries and those imports are also at risk of high duties.



It takes **2-3 years** to set up new factories but these tariffs alone do not reduce the risk of building a factory in the U.S. For that we need industrial policy like the **Solar Energy Manufacturing for America Act**.

Looking for alternate module supplies is tenuous at best.



- Chinese modules are subject to heavy duties that are also at risk of retroactive changes.
- Changing modules can require a solar installation to be completely redesigned, including different racking, different inverters, refinancing and even having to repermit the entire facility. All these things cause added delays and costs.
- All module suppliers not subject to this investigation are getting the same frantic calls and they do not have enough supply to meet demand.



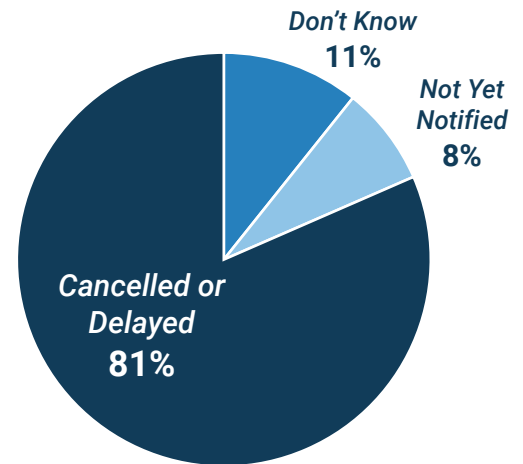
Commerce Investigation into Solar Imports Already Devastating Solar Industry

As of 4/13/22, SEIA has received 670 responses to a survey on how this case has impacted solar businesses. Of those that buy or use modules in their business, 81% have now been notified that their module supply has been delayed or canceled. (The distinction between canceled and delayed is very thin as some delays are drawing out and others are being converted to cancelations daily.)

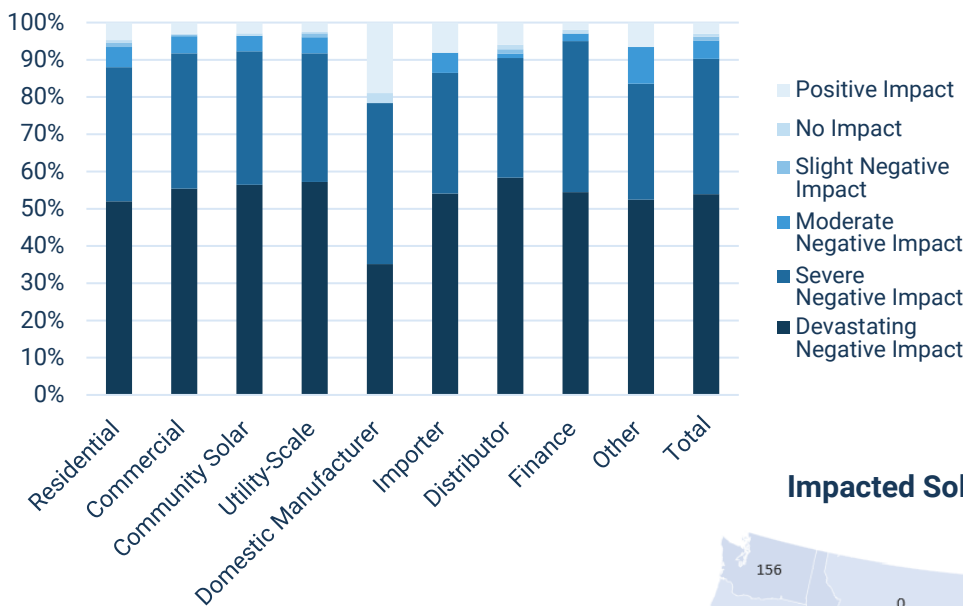
Some companies report staff already leaving the industry, the beginning of a potentially devastating workforce shortage from which it could take years to recover.

Across sectors — residential and commercial installation, utility-scale construction, and even manufacturing — companies responding to our survey report overwhelmingly negative impacts from this trade action.

Current Module Supply Status



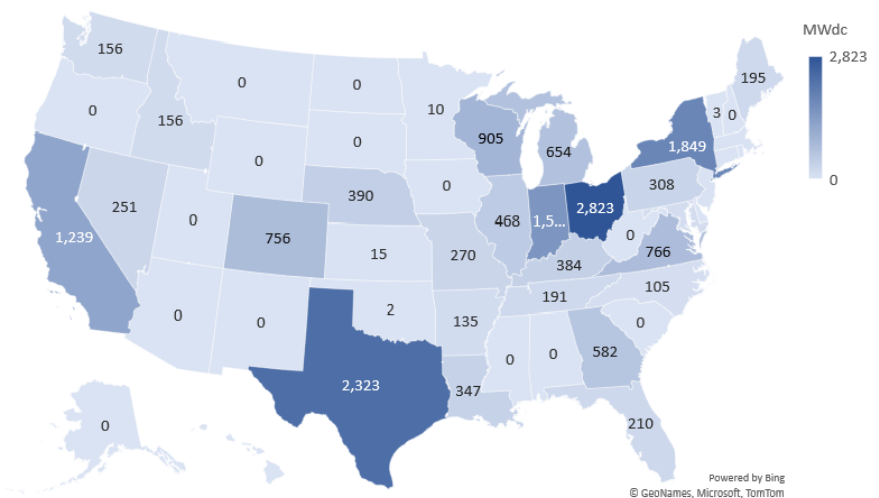
Expected Impact on Solar Business by Company Type



Wood Mackenzie Power and Renewables published an estimate that this action could lead to a module shortage of an average of 16 gigawatts/year (GW, or one billion watts) for the next few years. Even smaller shortages would result in increased emissions of 10's of millions of metric tons of CO2.

Voluntary reporting to SEIA as of 4/13/22 from utility-scale solar project developers and construction firms has already identified roughly 130 specific plants totaling more than 17 GW across more than 30 states that are impacted by this trade action. When combining this data with plant-level data reported to ACP, total impact identified likely exceeds 25 GW.¹

Impacted Solar Projects Reported to SEIA



¹Data combined by using the higher MW total from each respective state from the SEIA and ACP data sets.