

Opening Presentation of the Domestic Solar Industry

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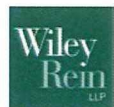
Crystalline Silicon Photovoltaic Cells, Whether Or Not
Partially or Fully Assembled Into Other Products

USITC Inv. No. TA-201-75

August 15, 2017

Introduction

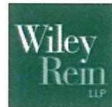
- The domestic industry
- The legal standard
- Conditions of competition
- Imports
- Serious injury
- Threat
- Conclusion



The Domestic Industry

- The domestic industry lost most of its producers between 2012 and 2017
 - Nearly 30 U.S. solar cell and module producers forced to close since 2012
 - SolarWorld and Suniva are the two largest U.S. producers
- SolarWorld Americas, based in Hillsboro, Oregon, is the largest solar manufacturer in North America, with 40 years of experience
 - Peak of 1300 workers, now only 300 workers
- Suniva, based in Norcross, Georgia, has facilities in Georgia and Michigan
 - Suniva declared bankruptcy and was forced to close in 2017

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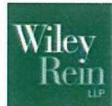


SolarWorld Americas Inc.

- Most Recommended and Carried by U.S. Installers – EuPD Research
- Highest Quality Standards – TÜV Rheinland
- Leading Sustainable Solar Manufacturer – Silicon Valley Toxics Coalition
- Green Brand Certified – Green Brands
- Green Certified Products – National Green Building Standard
- A+ Rating – Better Business Bureau
- 2016 Manufacturer of the Year – Portland Business Journal
- Innovation Award for Automatic 2016 USA – Automation Network Dresden



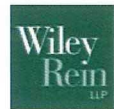
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Suniva

- 2016 Georgia Manufacturer of the Year
- Renewable Energy Exporter of the Year -- Export-Import Bank of the United States
- Top Venture-Backed Clean-Tech Companies – The Wall Street Journal
- Top 50 Fastest Growing Companies in Atlanta

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Closed U.S. Solar Manufacturing 2012-2017

- 1Soltech
- Advanced Solar Photonics
- Alternative Energies Kentucky
- Beamreach Solar
- Flextronics/SunPower
- Helios
- Isofoton
- Kyocera
- Mage Solar
- Mission Solar
- Motech
- MX Solar
- Navajo Universal
- NuSun
- Schott Solar
- Sharp
- Silicon Energy (2)
- Siliken
- Solar Power Industries (2)
- Solartech Renewables
- SolarWorld (CA)
- Suniva (2)
- Suntech (AZ)
- tenKSolar
- Transform Solar
- Twin Creeks Technologies

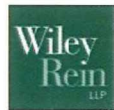
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The Legal Standard

- The Commission must determine whether imports have increased in such quantities as to be a substantial cause of serious injury to a domestic industry, or threat thereof
- Serious injury means “a significant overall impairment in the position of a domestic industry”
- Substantial cause means “a cause which is important and not less than any other cause”
- All of these factors are present in this case

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Conditions of Competition: Demand

- Demand in the United States grew strongly during the period of investigation
 - U.S. solar installations increased by about 350 percent from 2012 to 2016
 - Demand in other major markets, including Europe and Japan, has been stagnant
 - Demand in China grew substantially in the first half of 2016, then plunged, and is expected to level off in 2017

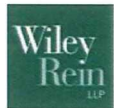
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Conditions of Competition: Global Overcapacity

- Global capacity has expanded dramatically, leading to massive global overcapacity
 - The largest producers are China, Taiwan, Malaysia, and Korea
 - More recently, new producers such as Thailand, Singapore, and Vietnam have emerged as well
- Many foreign producers have production operations in multiple countries
 - Producers are able to shift production and exports rapidly from country to country

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Solar industry set for renewed oversupply and shakeout

Research from IHS Technology forecasts that there will be a new period of oversupply in the solar industry, due to a sharp drop in global demand, which will cause a shakeout in the industry.

JUNE 2, 2016 SAM POTHECARY

- “The first half of 2016 has seen unprecedented levels of PV installations driven by China, and it will be China that causes a dramatic slump in global demand for solar PV cells and modules in the second half of the year.”
- “As China pulls back its installations, prices are expected to plummet . . .”
- “huge expansions of production capacity will add to the oversupply . . .”
- “These factors combined will put a huge strain on PV module suppliers, who are already in financially precarious situations . . .”

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Solar Industry Braces With Looming Glut Eroding Panel Prices

By **Joe Ryan**

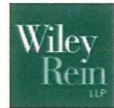
August 23, 2016, 7:00 PM EDT

Updated on August 24, 2016, 9:57 AM EDT

— Panelmakers boosting capacity 18% this year as demand slows

- “Solar manufacturers that are ramping up production now face a looming glut of panels . . .”
- “Oversupply appears to be business as usual in the solar industry.” (Jenny Chase, Bloomberg New Energy Finance)
- “The manufacturers are locked in a race to build bigger and more advanced factories to crank out panels faster and cheaper. Just as they start rolling off the lines, demand is expected to slow, especially in China . . .”

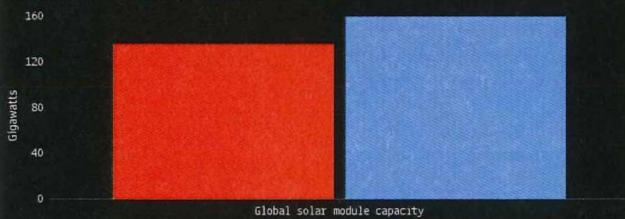
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Solar Production Capacity Rises

Photovoltaic manufacturers on pace to increase capacity 18 percent in 2016

■ First Quarter, 2016 ■ Fourth Quarter, 2016



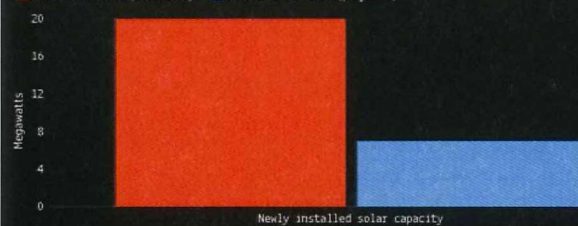
Source: Bloomberg New Energy Finance

Bloomberg

Demand for Solar in China Falls

Development expected to slow in second half of 2016 after officials cut key subsidy

■ First half of 2016 (estimated) ■ Second half of 2016 (projected)



Source: Bloomberg New Energy Finance

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Bloomberg

No 'new China' to save the day as solar faces glut: BNEF

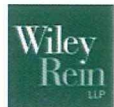
The global solar module industry is careening towards one of the worst supply gluts in its history, and this time there is no big market set to take off and rescue it, warns Ethan Zindler, head of Americas at Bloomberg New Energy Finance.

by Karl-Erik Stromsta in Las Vegas

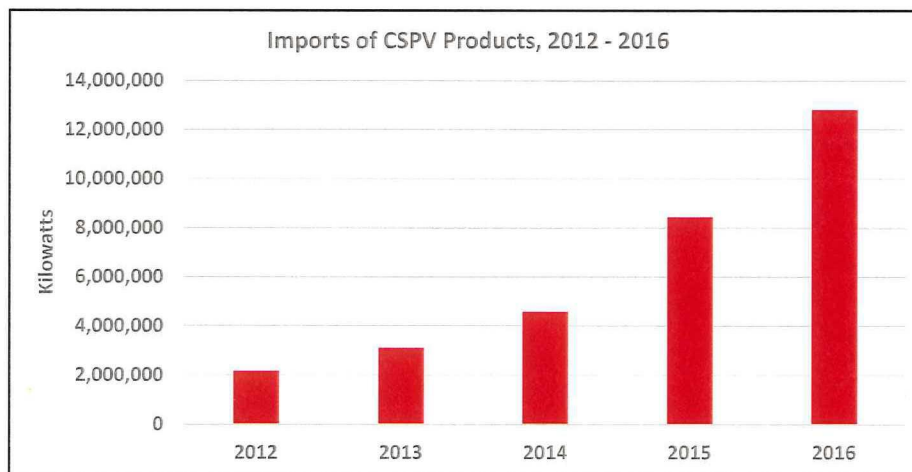
14 September 2016
Updated 25 October 2016

- “The result of the oversupply will be heavy pressure on module prices . . .”
- “the sheer scale of the oversupply may still be lost on many in the industry.”
- “The situation will feel familiar to anyone who was in the solar business earlier this decade, when China’s PV giants scaled up massively . . .”

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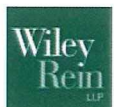


Imports Increased by Nearly 500% During POI

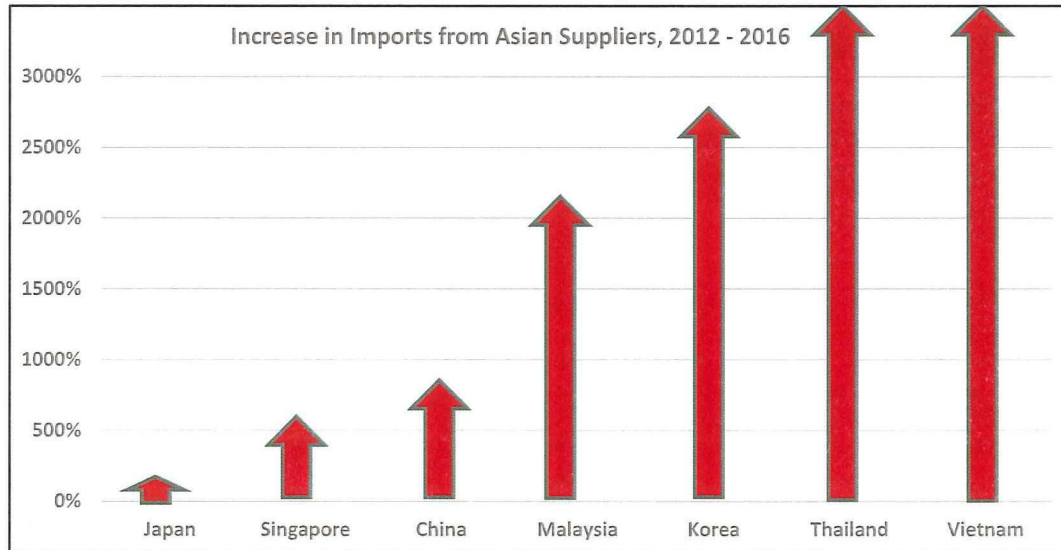


Source: Public Prehearing Staff Report at II-2

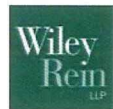
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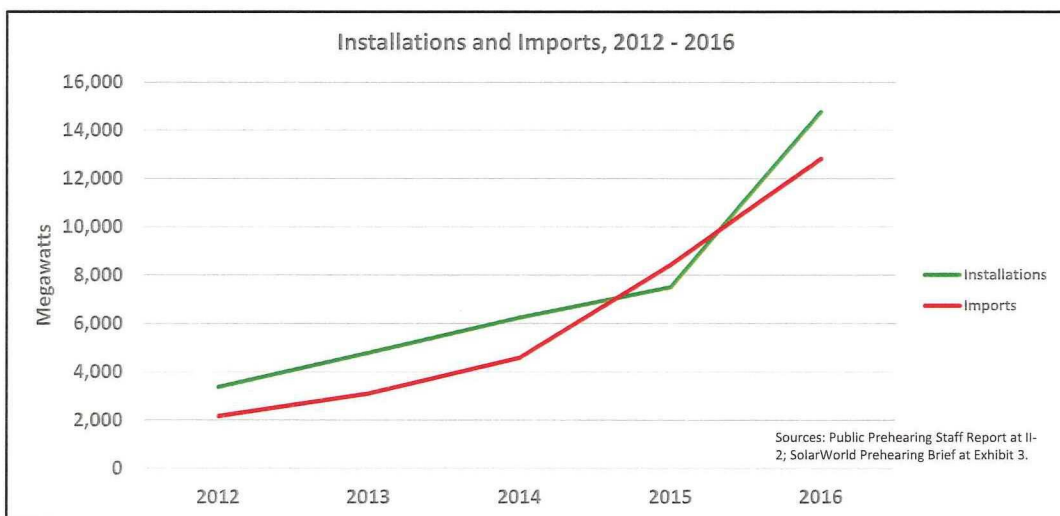
Imports from Asia Skyrocketed



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Imports Captured Practically All of the Increase in Demand

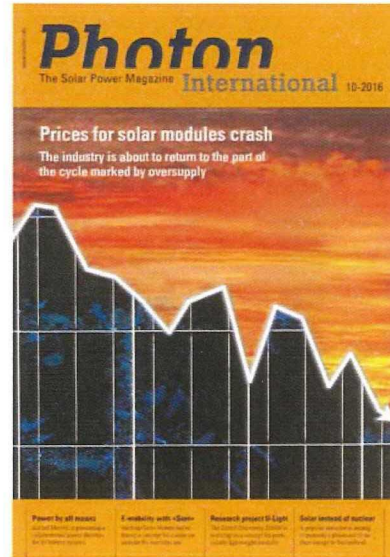


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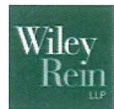


The Destruction of the U.S. Industry

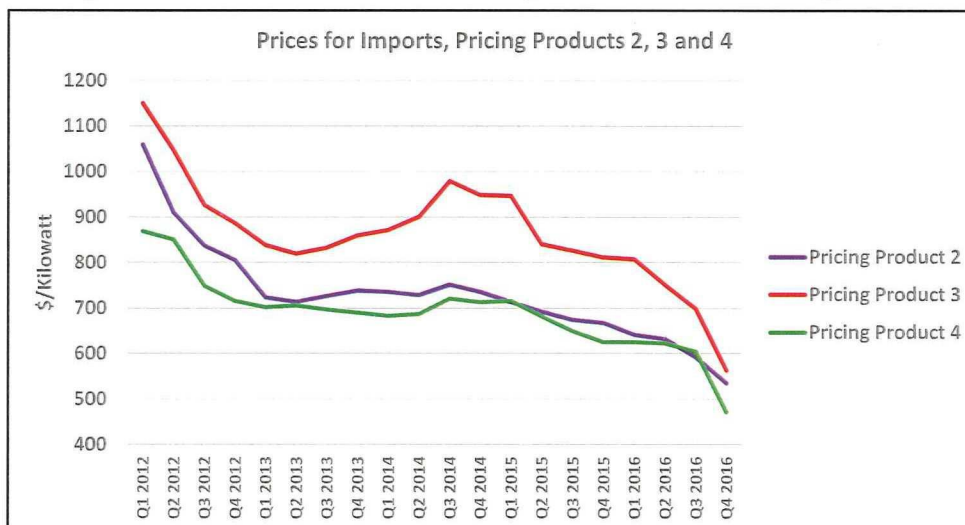
- Nearly 30 CSPV production facilities closed in the United States
- 19 firms closed permanently during the POI
- Both SolarWorld and Suniva closed facilities
- Massive net and operating losses
- Layoffs



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Import Prices Collapsed During the POI

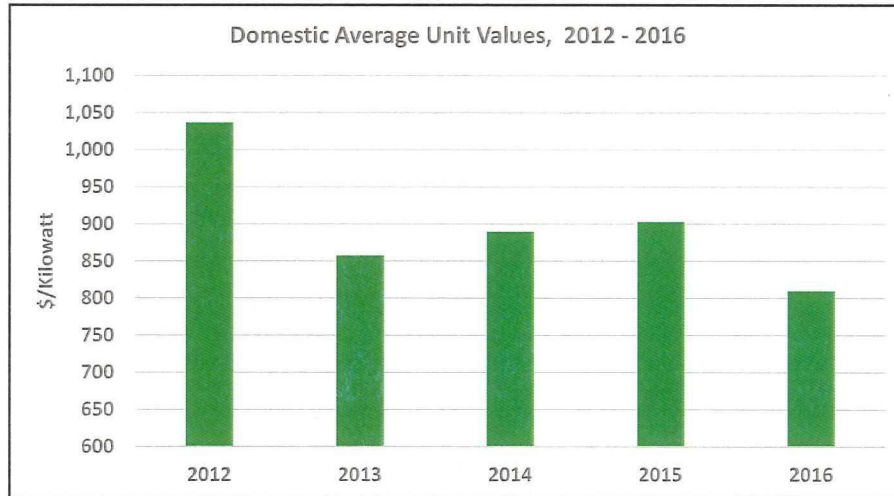


Source: Public Prehearing Staff Report

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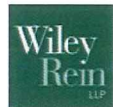


Domestic Average Unit Values Crashed



Source: Public Prehearing Staff Report at III-18

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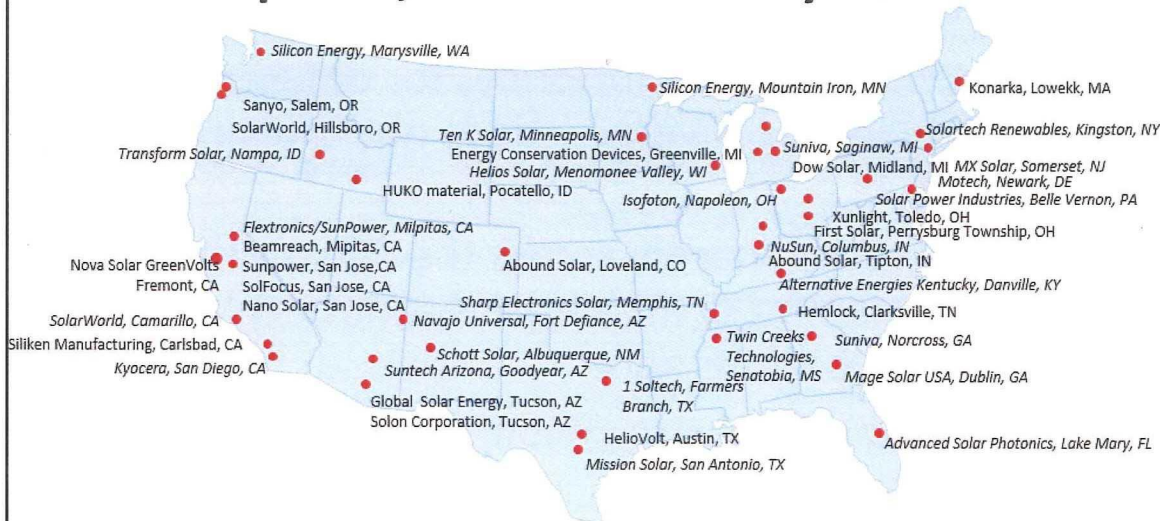
The Domestic Industry Has Suffered Serious Injury

- The statutory indicators of serious injury are present
 - Significant idling of facilities: nearly 30 production facilities closed over the POI
 - Inability to make a profit: the domestic modules industry incurred operating losses in every year of the POI, with a total operating loss of \$865 million
 - Unemployment: employment in the industry fell by 14% from 2012 to 2015, then increased in 2016
 - However, Suniva's shutdown and layoffs by SolarWorld this year means the industry lost employment from 2012 to 2017

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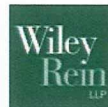


Bankruptcies, Closures and Layoffs 2012-2017



1. Facilities listed in italics are CSPV cell and module producers identified in the US International Trade Commission, PreHearing Staff Report (Aug. 1, 2017) at Table III-3.
2. Other listed producers manufactured other CSPV products and solar products.

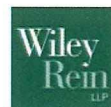
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Increased Imports Were a Substantial Cause of Serious Injury

- The global import surge captured practically all of increased demand
- The domestic industry lost market share to imports
- The combination of flat sales, lost market share, and falling prices cost the U.S. industry hundreds of millions of dollars, and prevented it from recovering its massive investment in production facilities

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Alternative Causes Do Not Explain the Domestic Industry's Losses

- Grid parity – the impetus for prices for different energy products to converge – does not explain the sharp decline in prices, particularly in 2015 and 2016
- Demand increased sharply across the POI, so that changes in government incentives cannot explain the industry's poor performance
- Prices during the POI were decoupled from raw material costs

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NAFTA Countries Contribute to Injury

- The Commission must determine whether
 - Imports from NAFTA countries represent a substantial portion of total imports, and, if so
 - Whether they contributed importantly to serious injury
- Mexico was a top 5 supplier of modules
- Producers in both Canada and Mexico are owned by companies in third countries, who can quickly and easily shift production to Canada and Mexico if they are excluded

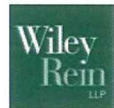
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Treatment of FTA Countries

- The United States has free trade agreements with Korea and Singapore
- If the Commission makes an affirmative determination, it must then make a separate finding as to whether imports from these countries individually are a substantial cause of serious injury or threat thereof, and report that finding to the President
- The President can then decide whether to include imports from these countries in any remedy provided

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Imports Threaten the Domestic Industry with Serious Injury

- The U.S. industry has suffered declining market share and incurred large losses
- There is extensive global overcapacity, and foreign producers can increase production rapidly
- Foreign producers can rapidly shift exports to the United States

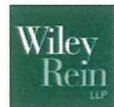
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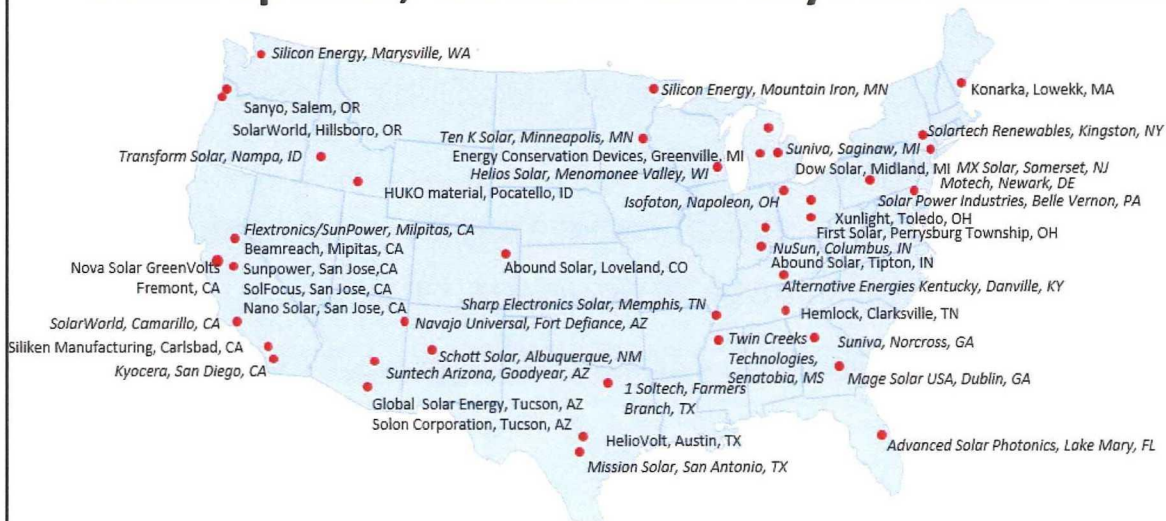
Conclusion

- This case easily satisfies *all* of the criteria for a finding of serious injury
- Global imports increased substantially
- The domestic industry has suffered serious injury
- There is a clear relationship between the increased imports and the domestic industry's financial losses
- Imports also threaten the domestic industry with serious injury

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Bankruptcies, Closures and Layoffs 2012-2017



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