BEFORE THE
UNITED STATES INTERNATIONAL TRADE COMMISSION

Inv. No. TA-201-075 (Extension)
Total Pages: 54

Confidential Business Information
Removed from Pages: 13-16, 18-31, 33-35, 38-44, 46, and 48-49.

NON-CONFIDENTIAL VERSION

CRYSTALLINE SILICON PHOTOVOLTAIC CELLS (WHETHER OR NOT PARTIALLY OR FULLY ASSEMBLED INTO OTHER PRODUCTS)

PREHEARING BRIEF ON BEHALF OF AUXIN SOLAR INC.

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October 27, 2021

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I. INTRODUCTION & SUMMARY

In 1954, three scientists at Bell Labs in New Jersey — Daryl Chapin, Calvin Fuller, and Gerald Pearson — applied for a patent on what was the first practical solar cell. That cell could convert six percent of all incoming light into electricity and would become the model for today's silicon solar cells.[1] Despite the American innovation that originated this technology, and the growing U.S. demand for solar energy solutions, the domestic industry has endured a decade of pummeling by low-priced, predatory imports of crystalline silicon photovoltaic ("CSPV") products.

Foreign producers — particularly those in China and their affiliates — manifested their ambition to dominate the U.S. market, often invoking unscrupulous practices to advance their position. But with the support of the U.S. trade laws, the domestic industry has been fighting back, drawing on reserves of determination that American workers and manufacturers belong in this industry and can compete on a level playing field.

Auxin Solar Inc. ("Auxin") is one of the few American CSPV manufacturers to have survived the onslaught of imports. Auxin continues to believe that the solar supply chain should exist here — in America — to safeguard our global competitiveness and energy security. The safeguard remedy is one necessary step in reclaiming American leadership in solar technology and production, and ensuring that our electricity grid is independent from the Chinese Communist Party.

Auxin seeks an extension of the safeguard on imports of CSPV cells and modules because, while the domestic industry is making a positive adjustment to import competition,

[1] Megan Gambino, *Document Deep Dive: The Patent for the First Practical Solar Cell*, Smithsonian Magazine (June 11, 2013).

more work remains to be done, and continuation of the remedy is needed to remedy and prevent serious injury. An extension also supports the onshoring or reshoring of the full solar supply chain — including wafers and cells — which is critical to America's long term competitiveness and energy security.

A. The Events Leading Up to the Original Safeguard Determination

On October 19, 2011, SolarWorld Industries America, Inc. ("SolarWorld") filed antidumping duty ("AD") and countervailing duty ("CVD") petitions regarding CSPV cells and modules from China.[2] The U.S. International Trade Commission (the "Commission") determined that the domestic industry was materially injured by reason of Chinese imports that benefitted from countervailable subsidies of up to 15.97 percent and dumping margins of 18.32 to 249.96 percent.[3] The Commission found a causal nexus between subject imports and the material injury to the domestic industry based on several findings: (1) the domestic industry's market share steadily declined despite phenomenal demand growth; (2) the significant and increasing volume of Chinese imports captured market share from the domestic industry; (3) Chinese imports significantly undersold, depressed, and suppressed the domestic industry's prices; (4) the domestic industry consistently lost money despite astonishing demand growth and

[2] *Crystalline Silicon Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Final), USITC Pub. 4360 (Nov. 2012) at I-1 ("*CSPV 1*").

[3] *CSPV 1*, USITC Pub. 4360 at 1; *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules from the People's Republic of China*, 77 Fed. Reg. 63,788 (Oct. 17, 2012); 77 Fed. Reg. 63,791 (Oct. 17, 2012). *See also Implementation of Determinations Under Section 129 of the Uruguay Round Agreements Act*, 80 Fed. Reg. 48,812 (Aug. 14, 2015) (following litigation before the World Trade Organization ("WTO") and at the instruction of the United States Trade Representative ("USTR") under section 129 of the Uruguay Round Agreements Act, Commerce modified the antidumping duty cash deposit rates to account for double remedies, resulting in rates that ranged from 6.68 percent to 238.88 percent).

significant cost reductions; (5) many domestic industry performance factors that previously improved deteriorated by the end of the period; and (6) the domestic industry had to write-off assets and/or costs related to closure of its production assets, revalued inventories, and/or asset impairments.[4] Following the Commission's affirmative injury determinations, which were affirmed on appeal,[5] Commerce issued *CSPV 1* orders that defined the modules' country of origin based on the CSPV cell manufacturing location. As a result, the orders excluded U.S. imports of CSPV modules assembled in China from non-Chinese cells.[6]

Chinese producers quickly exploited the loophole in the *CSPV 1* orders, forcing SolarWorld to bring new petitions on December 31, 2013.[7] In February 2015, the Commission determined that the domestic industry was materially injured by reason of unfairly traded imports

[4] *CSPV 1*, USITC Pub. 4360 at 38. The Commission split regarding whether the record warranted retroactively applying duties, with four Commissioners reaching negative critical circumstances determinations because import increases occurred during a period of tremendous demand increases. *Id*. at 38-45. Commissioners Pinkert and Williamson determined that the surge in highly interchangeable imports outpaced demand increases, resulting in an overhang of increased inventories that put pressure on the domestic industry's prices. *Id*. at 47-49.

[5] *Changzhou Trina Solar Energy Co., Ltd. v. United States International Trade Commission*, 100 F. Supp. 3d 1314 (Ct. Int'l Trade 2015), *aff'd* 879 F.3d 1377 (Fed. Cir. 2018).

[6] *Certain Crystalline Silicon Photovoltaic Products from China and Taiwan*, Inv. Nos. 701-TA-511 and 731-TA-1246 to 1247 (Final), USITC Pub. 4519 (Feb. 2015) at 3-4 ("*CSPV 2*"). The *CSPV 1* orders remain in effect because in the first five-year reviews, Commerce and the Commission determined that revocation would likely lead to the continuation or recurrence of dumping, subsidies, and material injury. *Crystalline Silicon Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Review), USITC Pub. 4874 (Mar. 2019); 84 Fed. Reg. 10,299 (Mar. 20, 2019); *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Continuation of Antidumping Duty Order*, 84 Fed. Reg. 10,300 (Mar. 20, 2019); *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Continuation of Countervailing Duty Order*, 84 Fed. Reg. 10,299 (Mar. 20, 2019).

[7] *CSPV 2*, USITC Pub. 4519 at 3-4.

from China and Taiwan.[8] The Commission explained that the significant cumulated volume of subject imports, which were highly substitutable for the domestic like product, engaged in significant underselling, and competed against the domestic industry in all market segments with all forms of CSPV products.[9] As apparent U.S. consumption grew, the subject imports captured market share from the domestic industry.[10] Although numerous U.S. firms were manufacturing CSPV products, the domestic industry's capacity fell overall because a substantial number were forced to shutter their facilities.[11] Operating at very low capacity, the domestic industry had to lay off many workers.[12] Even after AD/CVD orders had been imposed on certain CSPV products from China in 2012, the domestic industry's financial condition remained poor despite strong and increasing demand.[13] The domestic industry remained unable to devote more than limited resources to capital expenditures ("CAPEX") and research and development ("R&D"),

[8] The scope of the *CSPV 2* investigations included CSPV modules assembled in China from CSPV cells made in Taiwan; CSPV modules assembled in China from CSPV cells made in third countries; CSPV cells made in Taiwan; CSPV modules assembled in Taiwan from Taiwanese cells; and CSPV modules assembled in non-Chinese third countries from CSPV cells made in Taiwan. Commerce assigned subsidy margins ranging from 27.64 to 49.79 percent for China, *ad valorem* dumping margins of 26.71 to 165.04 percent for subject imports from China and 11.45 to 27.55 percent for subject imports from Taiwan. *Countervailing Duty Investigation of Certain Crystalline Silicon Photovoltaic Products from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 79 Fed. Reg. 76,962 (Dec. 23, 2014); *Certain Crystalline Silicon Photovoltaic Products from the People's Republic of China: Final Determination of Sales at Less Than Fair Value*, 79 Fed. Reg. 76,970 (Dec. 23, 2014); *Certain Crystalline Silicon Photovoltaic Products from Taiwan: Final Determination of Sales at Less Than Fair Value*, 79 Fed. Reg. 76,966 (Dec. 23, 2014).

[9] *CSPV 2*, USITC Pub. 4519 at 44.

[10] *Id*. at 45.

[11] *Id*.

[12] *Id*.

[13] *Id*. at 46.

which are the lifeblood of the solar industry.[14] The U.S. Court of International Trade subsequently sustained the Commission's affirmative determinations on appeal.[15]

By May 1, 2014, the U.S. Department of Justice issued a 31-count indictment against members of the People's Liberation Army ("PLA") of China that included conspiracy to commit computer fraud and abuse, economic espionage, trade secret theft, *etc*. The indictment named SolarWorld as one of the firms whose computers were compromised.[16] Officers of the Third Department of the PLA's General Staff Department stole thousands of sensitive files from SolarWorld on at least twelve occasions between May and September 2012, while the Commission conducted its *CSPV 1* investigations. The files included detailed manufacturing metrics, technological innovations, and production line information that would enable a Chinese manufacturer to mimic SolarWorld's production without the need for R&D; and specific production costs for all manufacturing inputs. Clearly, "such information would have enabled a Chinese competitor to target SolarWorld's business operations aggressively from a variety of angles."[17] Using this stolen technical know-how, Chinese solar companies became world leaders overnight. The hard work and ingenuity that led to the first practical solar cell at Bell Labs gave way to state-sponsored espionage and outright theft of American technology.

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[14] *Id*.

[15] *Kyocera Solar, Inc. v. United States International Trade Commission*, 121 F. Supp. 3d 1354 (Ct. Int'l Trade 2015), *aff'd* 844 F.3d 1334 (Fed. Cir. 2016).

[16] *CSPV 2*, USITC Pub. 4519 at I-4 n.12.

[17] USTR, Findings of the Investigation into China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation Under Section 301 of the Trade Act of 1974 (Mar. 22, 2018) at 157-160 (citing *United States v. Wang Dong et al.*, (W. D. Pa May 1, 2014) (Crim. No. 14-118 W.D. Pa.)).

Effective May 17, 2017, the Commission instituted a global safeguard investigation in response to a petition from Suniva, Inc. ("Suniva"), a U.S. producer of CSPV cells and CSPV modules.[18] On May 25, 2017, SolarWorld joined as a co-petitioner.[19] The Commission defined the domestic industry as all U.S. producers of CSPV cells (whether or not partially or fully assembled into other products), including integrated producers of CSPV cells and modules and independent module producers, including firms that relied on imported cells for their module assembly operations.[20] The Commission concluded that CSPV products were being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry producing a like or directly competitive article.[21] CSPV imports increased each year and overall by *492.4 percent* from 2012 to 2016.[22] The Commission based its serious injury determination on the significant idling of domestic production facilities; significant unemployment and underemployment of American CSPV workers; the inability of a significant number of domestic producers to generate reasonable profits or adequate capital to finance the modernization of their plants and equipment or to maintain R&D expenditures; the status of the U.S. market as a focal point for exports; the domestic industry's increasing inventories and declining sales and market share; deterioration in other performance indicators despite explosive

[18] *Crystalline Silicon Photovoltaic Cells (Whether or not Partially or Fully Assembled into Other Products*, Inv. No. TA-201-75, USITC Pub. 4739 (Nov. 2017) at 6 ("*CSPV Safeguard*").

[19] *Id*. at 18.

[20] *Id*.

[21] *Id*. at 5-6 (also describing the Commission's additional findings under the implementing statutes of certain free trade agreements and under statutory provisions related to certain preferential trade programs).

[22] *Id*. at 21.

demand growth; and other evidence of a significant overall impairment in the domestic industry's position.[23]

The record demonstrated that increased imports were a substantial cause of the domestic industry's serious injury.[24] The domestic industry held the dominant market share in 2009, the beginning of the period investigated in *CSPV 1*, but Chinese imports overtook the industry in 2010, and doubled in size by 2011, before being nearly fully replaced by the imports from China and Taiwan that were subject merchandise in *CSPV 2*.[25] Before the *CSPV 2* orders took effect, imports from additional countries entered the U.S. market, nearly doubling in volume from 2014-2015 and increasing into 2016. Notably, during this period, imports from Korea, Malaysia, Thailand, and Vietnam — the four countries where Chinese affiliates added both CSPV cell and CSPV module capacity — increased substantially.[26] These highly substitutable imports were lower priced than the domestic industry's products, squeezing the domestic industry's prices, and causing the domestic industry to lose sales and market share, reduce prices and/or roll back announced price increases, and incur hundreds of millions of dollars in net and operating losses. This in turn limited the domestic industry's ability to engage in CAPEX and R&D to develop next-generation products necessary in this highly capital-intensive and technologically

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[23] *Id*. at 43.

[24] *Id*. at 43-50.

[25] *Id*. at 44.

[26] *Id*. at 44-45 (noting that "without closing any of their existing capacity in China, the six largest firms producing CSPV cells and CSPV modules in China increased their global capacity to produce cells …, with four of the six firms adding CSPV cell manufacturing capacity in one or more of the following five countries during that time: Korea, Malaysia, the Netherlands, Thailand, and Vietnam {and that these} same six firms also increased their global capacity to produce CSPV modules . . . without closing any of their existing capacity in China, with four of the six firms adding CSPV module capacity in one or more of the following six countries: Canada, Indonesia, Korea, Malaysia, Thailand, and Vietnam.") (footnotes omitted).

sophisticated market.[27] The domestic industry's capacity and production levels did not increase commensurately with demand growth, and its low capacity utilization declined, despite the need for capacity increases that would permit needed economies of scale.[28] Consistently unable to compete with low-priced imports, many domestic producers ceased production, with even petitioners Suniva declaring bankruptcy and SolarWorld issuing WARN Act notices about additional layoffs.[29]

The Commission determined that imports were an important cause of this serious injury, not less than any other cause, and rejected respondents' arguments regarding alleged missteps by the domestic industry or alleged factors other than imports that led to declines in domestic prices.[30]

B. The Safeguard Remedy, as Implemented, Differed Meaningfully from the Remedy Recommended by a Majority of Commissioners

After receiving the Commission's report of its serious injury determination and remedy recommendations, and in order to "facilitate efforts by the domestic industry to make a positive adjustment to import competition," the President imposed a safeguard in the form of (1) a tariff-rate quota ("TRQ") on imports of CSPV cells not partially or fully assembled into other products and (2) an increase in duties on imports of CSPV modules for a period of four years,

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[27] *Id*. at 45-47.

[28] *Id*. at 47-49.

[29] *Id*. at 49.

[30] *Id*. at 50-65. A WTO dispute settlement panel subsequently upheld the Commission's serious injury determination in its entirety, rejecting all claims brought by the Government of China. Panel Report, *United States – Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products*, WT/DS562/R (Sept. 2, 2021). On September 16, 2021, China notified the WTO Dispute Settlement Body of its intent to appeal the panel's decision, but it acknowledged that no division of the Appellate Body exists to hear the appeal.

effective February 7, 2018,[31] as shown in **Table 1**. Of particular note, the in-quota volume of 2.5 GW for CSPV cells greatly exceeded the in-quota volume recommended by Commissioners Johanson, Schmidtlein, and Williamson.[32]

Table 1
Summary of Safeguard

	CSPV Cells				CSPV Modules
	In-Quota Volume	**In-Quota Tariff**	**Over-Quota Tariff**		**Tariff**
Year 1	2.5 gigawatts	Free	30%		30%
Year 2	2.5 gigawatts	Free	25%		25%
Year 3	2.5 gigawatts	Free	20%		20%
Year 4	2.5 gigawatts	Free	15%		15%

The initial safeguard remedy identified several product exclusions, and USTR granted further exclusions on September 19, 2018 and June 13, 2019. One such product exclusion was for "bifacial modules" based on a misunderstanding that such bifacial modules were not produced commercially in the United States, when in fact they were being produced domestically, including by Auxin.

Meanwhile, as a result of its determinations regarding China's unfair acts, policies, and practices related to technology transfer, intellectual property, and innovation under Section 301

[31] Proclamation 9693, *To Facilitate Positive Adjustment to Competition from Imports of Certain Crystalline Silicon Photovoltaic Cells (Whether or Not Partially or Fully Assembled into Other Products)*, 83 Fed. Reg. 3,541 (Jan. 25, 2018) (noting that the safeguard applied to imports from all countries, except for certain WTO member developing countries, provided the imports from such countries individually or collectively did not exceed specified thresholds). The in-quota quantity of the TRQ resets every year, and the President did not impose individual country allocations for the TRQ.

[32] Commissioner Schmidtlein recommended an in-quota volume on CSPV cells of 0.5 GW, whereas Commissioners Johanson and Williamson recommended an in-quota volume of CSPV cells that would increase from 1.0 GW in year 1 to 1.2 GW in year 2, 1.4 GW in year 3, and 1.6 GW in year 4. *CSPV Safeguard*, USITC Pub. 4739 at 81, 104.

of the Trade Act of 1974,[33] effective August 16, 2018, USTR separately imposed an additional 25 percent *ad valorem* duty on various products, including CSPV cells and CSPV modules. USTR also imposed additional duties on certain feedstock used to manufacture CSPV products or used as balance of system components under List 2 or List 3.[34]

C. The Commission's Monitoring Proceeding Found that the Domestic Industry Made Some Positive Adjustments But That Further Progress Was Impeded

On February 7, 2020, the Commission issued a monitoring report of developments with respect to the domestic CSPV industry.[35] According to the report, after the safeguard took effect, CSPV cell imports rose, domestic CSPV cell capacity and production fell, financial performance generally declined, and Suniva's bankruptcy and SunPower's acquisition of SolarWorld otherwise impacted domestic cell operations.[36] With respect to CSPV modules, imports fell in 2018 compared to 2017, but were higher in H1-2019 than in H1-2018.[37] Domestic production capacity, production, and market share for CSPV modules increased, with at least three firms launching greenfield CSPV module operations and at least two additional firms — Auxin and Heliene — expanding or increasing capacity at existing module facilities.[38] After declining from

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[33] *Notice of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation*, 83 Fed. Reg. 40,823 (Aug. 16, 2018).

[34] Memorandum INV-TT-118 (Oct. 20, 2021) in *Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled into Other Products*, Inv. No. TA-201-075 (Extension) at I-9 to I-10 ("Prehearing Report") (noting that certain small and low-wattage products were excluded from the Section 301 duties).

[35] *Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled into Other Products: Monitoring Developments in the Domestic Industry*, Inv. No. TA-201-075 (Monitoring), USITC Pub. 5021 (Feb. 2020) ("*CSPV Monitoring Report*").

[36] *Id*. at 1.

[37] *Id*.

[38] *Id*. at 6.

2016 to 2018, apparent U.S. consumption of CSPV modules increased in the first half of 2019, and U.S. module manufacturers collectively reported an improvement in their overall operating losses.[39] Prices of CSPV products continued to decline, but the parties agreed that prices were higher than they would have been without the safeguard.[40] In addition to acquisitions and industry restructuring, several firms introduced new, innovative products.[41] On this basis, the Commission concluded that "the safeguard measure resulted in positive industry adjustments, particularly for U.S. CSPV module producers."[42] Chair Kearns observed that, without the imposition of a safeguard, "the domestic industry, including both CSPV cell and module producers, would likely cease to exist."[43] He also noted that "there has been a fairly robust industry response to the safeguard measures with respect to new and expanded domestic module capacity and production."[44]

The Commission's Monitoring Report also recognized several shortcomings in the domestic industry's adjustment to import competition. Imports from Malaysia, Korea, Thailand, and Vietnam collectively replaced imports from China and Taiwan after the AD/CVD orders took effect on those imports.[45] These imports gained market share throughout the monitoring period, and their increase in H1-2019 also led to an increase in importers' inventories.[46] The

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[39] *Id*. at 1.

[40] *Id*.

[41] *Id*. at 7.

[42] *Id*. at 6.

[43] *CSPV Safeguard*, USITC Pub. 4739 at 86-87.

[44] *CSPV Monitoring Report*, USITC Pub. 5021 at Additional Comments of Commissioner Jason E. Kearns, 4.

[45] *Id*. at 4.

[46] *Id*.

domestic industry's adjustment efforts were impeded by: (1) stockpiling of imports before the safeguard took effect; (2) the stepdown of tax credit incentives in 2019; (3) exporters' absorption of tariffs; (4) increased costs for transportation and certain inputs; (5) the exclusion of bifacial CSPV modules from the safeguard; (6) the large size of the CSPV cell quota; and (7) tariffs on certain imported components.[47] As requested by USTR, the Commission also issued a report analyzing the effect of increasing the TRQ on CSPV cells from 2.5 gigawatts ("GW") to 4.0, 5.0, or 6.0 GW, without other changes to the remedy.[48]

After receiving the Commission's reports, the President revoked the June 13, 2019 exclusion for bifacial solar panels as of October 25, 2020 and increased the above-quota tariff on cells and the duty on modules from 15 to 18 percent for the fourth year of the safeguard.[49] The President recognized that the domestic industry had "begun to make positive adjustment to import competition, shown by the increases in domestic module production capacity, production, and market share," but he acknowledged that "the exclusion of bifacial panels from application of the safeguard tariff has impaired and is likely to continue to impair the effectiveness of the action" for domestic CSPV module producers.[50]

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[47] *Id*. at 7.

[48] *Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled into Other Products: Advice on the Probable Economic Effect of Certain Modifications to the Safeguard Measure*, Inv. No. TA-201-075 (Modification), USITC Pub. 5032 (Mar. 2020).

[49] Proclamation 10101, *To Further Facilitate Positive Adjustment to Competition from Imports of Certain Crystalline Silicon Photovoltaic Cells (Whether or Not Partially or Fully Assembled into Other Products)*, 85 Fed. Reg. 65,639 (Oct. 16, 2020) ("*Modification Proclamation*").

[50] *Id*.

D. Extension of the Remedy Is Needed to Remedy and Prevent Serious Injury and Support Further Adjustment to Import Competition, Including the Expansion of Domestic Cell Operations

The current record confirms that many of the observations in the Commission's Monitoring Report and in the President's Proclamation 10101 remain accurate today. The domestic industry continues to make a positive adjustment to import competition, particularly when focusing on CSPV module operations from 2018-2020, as discussed in **Section II.A**, *infra*. U.S. CSPV module manufacturers increased their capacity, production, and capacity utilization from 2018-2020.[51] Financial performance for CSPV module producers improved, as their COGS to net sales ratio declined.[52] Their net assets improved overall, and they collectively expended increasing amounts on R&D.[53] Certain domestic producers remain in operation, and several new entrants are adding greenfield operations in the United States. For example, the Hanwha Q Cells USA $157 million CSPV module assembly plant in Dalton, Georgia began production in February 2019; JinkoSolar (U.S.) Industries Inc. began commercial production of mono-PERC modules in early 2019 at its $50.5 million facility in Jacksonville, Florida; LG Electronics U.S.A. Inc. began commercial production of high-performance n-type solar modules in February 2019 at its new $[ ] Huntsville, Alabama facility; and Tesla, Inc. began volume production in 2019 of solar roof tiles in its Buffalo, New York facility.[54]

And without question, the safeguard preserved and increased American jobs. Certain employment indicators improved for U.S. CSPV module manufacturers, such as worker

[51] Prehearing Report at Table C-2.

[52] *Id*.

[53] *Id*.

[54] *Id*. at III-2 to III-3, III-6 to III-7.

headcounts, productivity, and unit labor costs.[55] Importantly and contrary to the tired arguments the Commission heard in the original safeguard investigation and during the monitoring proceeding, the safeguard did not stifle demand for CSPV products. Apparent U.S. consumption of CSPV cells and CSPV modules increased overall from 2018-2020, and CSPV module consumption also increased between interim periods.[56] PV installations and CSPV installations in the United States also increased overall from 2018-2020, and in each of the three major segments (utility, residential, and non-residential).[57]

Nevertheless, the Commission's Monitoring Report identified several factors that impeded the domestic industry's adjustment to import competition, as noted above.[58] Three additional factors also prevented the domestic industry's adjustment — including the persistent underselling by subject imports, the effects of the COVID-19 pandemic, and circumvention of the safeguard — as discussed in **Section III**.

The domestic industry requires an extension of the safeguard to adjust to import competition for the reasons explained in **Section IV**. Whereas domestic CSPV module producers have experienced some improvements, U.S. CSPV cell operations ceased altogether by [ ], following Suniva's bankruptcy, Sunpower's acquisition of SolarWorld, and the cessation of cell manufacturing at SolarWorld's Hillsboro, Oregon facility, and the

[55] *Id*. at Table C-2.

[56] *Id*. at Table C-1, Table C-2.

[57] *Id*. at I-31, Table I-12.

[58] These included (1) stockpiling of imports before the safeguard took effect; (2) the stepdown of tax credit incentives in 2019; (3) exporters' absorption of tariffs; (4) increased costs for transportation and certain inputs; (5) the exclusion of bifacial CSPV modules from the safeguard; (6) the large size of the CSPV cell quota; and (7) tariffs on certain imported components. *CSPV Monitoring Report*, USITC Pub. 5021 at 7.

closure of [ ] CSPV cell production facility.[59] An extension of the safeguard measure would allow Suniva to restart CSPV cell production, [60] Auxin to re-shore wafer and eventually cell production,[61] and encourage the opening of three new U.S. CSPV cell plants that have been announced or are under consideration by Violet Power, Maxeon Solar, and Ubiquity Solar.[62] These significant investments are critical, and require the support of an extended safeguard remedy covering not only CSPV modules, but also cells.

Without an extension, low-priced imports threaten the continuation or recurrence of serious injury to the domestic industry, as explained in **Section V**. Although domestic CSPV module producers' market share rose to a period peak of 14.6 percent in 2019, it fell in 2020 and H1-2021 as they continued to lose market share to lower-priced imports that continued growing despite the COVID-19 global pandemic. And in the last three years, the foreign industries reported shifting their operations to manufacture different CSPV products (*e.g.*, monocrystalline instead of multicrystalline, bifacial instead of one-sided, and PERC, n-type, or other CSPV products) and they advanced quickly from one form factor to another. Form factor, however, has no impact on cell efficiency or efficacy. Without an extension of the safeguard and concomitant onshoring of domestic wafer production, domestic CSPV module producers will be unable to keep pace with the necessary technological and product developments given China's control over the vast majority of wafer production.

[59] Prehearing Report at III-11 to III-14, Table C-1.

[60] *Id*. at III-4.

[61] Petition on behalf of Auxin and Suniva at 5.

[62] Prehearing Report at I-21 to I-22, Table I-9.

Foreign CSPV producers also reported the ability to export significant volumes of CSPV cells and CSPV modules to the U.S. market. They expanded capacity and production and progressively increased their U.S. exports over the period. Without even having to divert shipments from other markets to the United States, the foreign industries had unused capacity [ ] U.S. demand for CSPV cells and CSPV modules. Responding foreign producers projected further annual increases in their capacity, production, and U.S. exports from 2021-2023. Foreign producers have demonstrated an insatiable drive to export substantial and increasing volumes of CSPV products to the United States during the *CSPV 1*, *CSPV 2*, and global safeguard proceedings and even after those imports became subject to AD/CVD, safeguard, and Section 301 duties as well as special measures to respond to forced labor operations. More recently, Chinese firms have tried to take advantage of Cambodia's status as a developing country under the safeguard law.

E. The Future of America's Solar Supply Chain, Energy Independence, and National Security Hang in the Balance

As the Commission recognized in the underlying safeguard investigation, absent relief, "the domestic industry, including both CSPV cell and module producers, would likely cease to exist in the short term," and "the loss of the domestic industry . . . could have significant long-term consequences for U.S. economic and national security interests."[63] In his separate comments in the Monitoring Report, Chair Kearns understood the significance of the domestic solar industry to U.S. energy independence and national security. As he explained, China "essentially fully supplies its large domestic market and, at the same time, exports massive quantities of CSPV products abroad. For China, addressing climate change means jobs. One has

[63] *CSPV Safeguard*, USITC Pub. 4739 at 86-87.

to wonder whether there would be greater support for efforts to address climate change in the United States if the U.S. had as many CSPV factories and jobs as China does."[64]

The record of this extension proceeding validates these concerns. Not only have U.S. CSPV cell and CSPV modules lost sales, market share, and American jobs to a surge of low-priced imports, U.S. manufacturers of upstream CSPV products — from polysilicon ingots, wafers, and other CSVP raw materials — also have ceased production. Producers in China now monopolize a substantial and growing share of the global CSPV manufacturing supply chain for polysilicon, wafers, and PV glass.

As explained in more detail below, extension of the safeguard on imports of both CSPV cells and modules is needed to remedy and prevent serious injury to America's solar industry.

II. THE DOMESTIC INDUSTRY BEGAN TO MAKE A POSITIVE ADJUSTMENT TO IMPORT COMPETITION UNDER THE SAFEGUARD

The safeguard has incentivized significant investment in the U.S. CSPV industry. Under the safeguard, domestic CSPV module capacity has grown. Preexisting domestic producers like Auxin reinvested in its plant and equipment to expand their module production capacity. Meanwhile, new entrants such as Hanwha QCells and LG have established new production operations. Whether by expanding existing facilities or producing from greenfields, these CSPV module expansions contributed to the preservation and creation of high-paying American manufacturing jobs. With the safeguard in place, U.S. producers increased shipments and began to reclaim market share from imports. Financial performance improved. The progress achieved by the domestic industry in adjusting to import competition — reflected by the first two years of

[64] *CSPV Monitoring Report*, USITC Pub. 5021 at Additional Comments of Commissioner Jason E. Kearns, 4.

the safeguard — confirm both the ability of the remedy to be effective, as well as the need for extension in light of continuing challenges.

A. The Safeguard Supported Expanded Capacity, Investments in American Manufacturing, and Increased American Jobs

Prior to the President's imposition of the safeguard action, the domestic CSPV industry was quickly eroding. Chair Kearns inferred that "the domestic industry, including both CSPV cell and module producers, would likely cease to exist."[65] Because of the relief provided by the measure, domestic CSPV module producers have begun to recover from the serious injury imposed by imports and have started to reinvest in domestic solar energy production.

1. Because of the safeguard, domestic module capacity expanded

Domestic CSPV module producers have demonstrated a willingness and capability to make positive adjustments under the safeguard. Chair Kearns positively remarked that "there has been a fairly robust industry response to the safeguard measures with respect to new and expanded domestic module capacity and production."[66] The safeguard has motivated new entrants and pre-existing manufacturers alike to invest in domestic CSPV production.[67] Because

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[65] *CSPV Safeguard*, USITC Pub. 4739 at 86-87.

[66] *CSPV Monitoring Report*, USITC Pub. 5021 at Additional Comments of Commissioner Jason E. Kearns, 4.

[67] The safeguard measure motivated significant greenfield investments and expansion of existing domestic CSPV module manufacturing facilities, including:

[
]. Prehearing Report at Table III-1, Table VIII-2.

[
]. *Id*. at Table III-1.

[
]. *Id*. at Table III-1, Table VIII-2, Table VIII-6.

of the safeguard, Auxin — a U.S. manufacturer of CSPV modules since 2008 — was able to justify investments to increase its capacity by [ ] percent in 2019.[68] Over the safeguard period, [ ].[69]

As shown in **Table 2**, the domestic industry response to the safeguard was swift and strong, more than doubling domestic CSPV module capacity in the first two years of the safeguard.

Table 2
Capacity, Research and Development, and Assets

	2018	2019	2020	H1-2020	H1-2021
Capacity	1,066,000	3,593,217	3,720,309	1,906,097	1,771,321
R&D ($1,000)	[				]
Assets ($1,000)	[				]

Source: Prehearing Report at Table C-2

Domestic CSPV producer capacity jumped 237 percent from 2018 to 2019. Despite the headwinds encountered in 2020, CSPV module capacity continued to grow another 3.5 percent from 2019 to 2020, declining 7.1 percent across interim periods.[70] By increasing production capacity, U.S. CSPV module producers are better able to meet increasing demand and compete with imports.

[ ]. *Id.* at Table III-1.

[ ]. [ ]. *Id.* at Table III-4.

[ ]. *Id.* at Table III-1.

[68] [ ] U.S. Producer QR at II-13.

[69] Prehearing Report at Table VIII-6.

[70] *Id.* at III-15 ("total U.S. capacity to assemble CSPV modules increased by more than two hundred percent (from 1,066 MW in 2018 to 3,720 MW in 2020)").

Beyond capacity, to remain competitive in a capital-intensive and technologically sophisticated industry such as solar energy, CSPV manufacturers also must invest in cutting edge equipment and continued R&D — and both indicators rose under the safeguard.[71]

While domestic CSPV producers would have preferred to spend valuable resources on capacity expansion, domestic CSPV module producers were forced to devote CAPEX to accommodate larger form factors (*i.e.*, larger cell sizes). The wafer — a primary underlying raw material input for CSPV cells — controls cell sizes. "A few Chinese companies account for most global wafer production capacity."[72] When upstream wafer producers impose form factor changes on the CSPV industry, U.S. manufacturers must update their equipment and associated certifications to accommodate the form factor changes. A change in form factor does not constitute new technology, efficacy, or efficiency of the solar cell; rather, it simply reflects a shift in cell size. Of the available form factors, seven U.S. producers reported actual production using M2 size cells, six reported using G1 cells, and five reported using M6 cells.[73] No U.S. producer reported actual production using cells larger than M6.[74] Auxin [

[71] Domestic CSPV module producers' R&D increased [ ] percent from 2018-2020; net assets increased [ ] percent from 2018-2020. *Id*. at Table C-2.

[72] *Id*. at I-15 (also noting "China was the largest producer, accounting for 96 percent of wafer production capacity in 2019").

[73] *Id*. at Table III-8.

[74] *Id*.

].[75] Given Chinese control of wafer production and China's interest in dominating all aspects of the solar supply chain, [ ] foreign producers reported production using the M6 form factor and [ ] reported planned production of CSPV products using a form factor larger than M6.[76] These form factor changes were pushed by Chinese wafer producers and do not reflect better technology.

2. The domestic industry's adjustment to import competition promoted the creation of high-paying American manufacturing jobs

Maintaining and increasing production capacity and investing in new and expanded production facilities also preserved and increased employment opportunities. As the Commission observed in the Monitoring Report, domestic CSPV module producers' "employment indicators such as hours worked, wages paid, hourly wages, and productivity" generally increased between 2017 and 2018 and between the first half of 2018 and 2019.[77] The current record confirms that domestic CSPV module producers increased employment commensurate with increasing capacity.

As shown in **Table 3**, employment more than doubled over the safeguard period, increasing over 150 percent from 2018-2020. Productivity similarly increased year-over-year from 419 watts/hour in 2018 to 534 watts/hour in 2019 and 542 watts/hour in 2020, reaching 629 watts/hour in the first half of 2021.

[75] [ ] U.S. Producer QR at II-7b.

[76] Prehearing Report at Table VI-94.

[77] *CSPV Monitoring Report*, USITC Pub. 5021 at 5.

Table 3 Employment Indicators					
	2018	**2019**	**2020**	**H1-2020**	**H1-2021**
Average number of PRWs	829	1,899	2,079	2,081	1,714
Productivity (watts per hour)	418.9	534.1	542.1	531.8	629.4

Source: Prehearing Report at Table C-2

The relief provided by the safeguard supported the significant increase in American jobs from 2018-2020. [

].”[78]

In fact, numerous U.S. producers reported jobs created by the safeguard. [

].[79] [

].[80] [ ].[81] [

].[82]

These positive PRW data have so far been limited to domestic CSPV module production. But if the safeguard is extended and the domestic CSPV supply chain comes back online, more direct and indirect U.S. manufacturing jobs will result up through the solar supply chain, as discussed *infra* at **Section IV.A**.

[78] Prehearing Report at Table VIII-2.

[79] *Id*.

[80] *Id*.

[81] *Id*.

[82] *See* [ ] U.S. Producer QR at II-17.

B. The Safeguard Remedy Facilitated Efforts by Domestic CSPV Module Producers to Compete with Imports through Increased Market Presence, Leading to Financial Improvement

1. As demand increased and with the safeguard remedy in effect, domestic CSPV module producers were able to gain market share

Contrary to arguments from respondents, the safeguard has not stifled demand for CSPV products or chilled new installations. Rather, demand for CSPV products — and modules, in particular — has increased significantly since the safeguard was announced January 2018. Demand for CSPV modules increased over 275 percent from 2018 to 2020.[83] Because of the adjustment measures implemented by the domestic CSPV module industry, U.S. shipments increased 368 percent, from a mere 455,275 kW in 2018 to 1,928,578 kW in 2019, and 2,131,717 kW in 2020.[84]

Table 4
Apparent U.S. Consumption

Quantity = kilowatts	**2018**	**2019**	**2020**	**H1-2020**	**H1-2021**
U.S. Shipments	455,275	1,928,578	2,131,717	1,113,965	1,103,289
Imports	4,886,827	11,312,499	17,998,600	9,308,224	9,995,254
Apparent U.S. Consumption	5,342,102	13,241,077	20,130,317	10,422,189	11,098,543
Market Share					
	2018	**2019**	**2020**	**H1-2020**	**H1-2021**
Domestic	8.5%	14.6%	10.6%	10.7%	9.9%
Imports	91.5%	85.4%	89.4%	89.3%	90.1%

Source: Prehearing Report at Table C-2

Auxin's U.S. shipments [ ] from [ ] kW in 2018 to [ ] kW in 2019, an [ ] of [ ] percent.[85] Auxin's shipments [ ] in 2020 to [ ] kW

[83] Prehearing Report at Table C-2.

[84] *Id*.

[85] [ ] U.S. Producer QR at II-14.

and further [ ] from [ ] kW in H1-2020 to [ ] kW in H1-2021 due in large part to COVID-19 headwinds.[86]

The data in **Table 4** above also demonstrate that the increasing shipments translated into market share gains for domestic CSPV module producers since the safeguard remedy took effect. Domestic CSPV module producers increased their overall market share by 2.1 percentage points, rising 6 percentage points from 8.5 percent market share in 2018 to 14.6 percent in 2019 before receding to 10.6 percent in 2020, largely as a result of COVID-19.[87] While the domestic industry took steps to keep employees safe,[88] imports opportunistically gained market share at the expense of domestic module producers in 2020, rising 4 percentage points (from 85.4 percent in 2019 to 89.2 percent in 2020).[89] Low-priced imports have not ceded these market share gains. Import market share continued to increase in the interim period from 89.3 percent to 90.1 percent, while domestic CSPV module manufacturers' share decreased from 10.7 to 9.9 percent.[90]

2. Domestic CSPV module producers' financial performance showed signs of improvement

Domestic CSPV module producers' financial performance temporarily improved after the safeguard took effect. During the initial safeguard investigation, "the Commission found that the increase in imports led to lower prices and declining financial performance for the domestic

[86] *Id*. *See infra* at **Section III.D**.

[87] Prehearing Report at Table C-2.

[88] Safety measures included safe distance protocols, plastic dividers in work stations, mask requirements, hand sanitizer stations, and contact tracing measures.

[89] Prehearing Report at Table C-2.

[90] *Id*.

industry."[91] In the Monitoring Report, the Commission observed that, "as a whole, both U.S. cell and module producers were unprofitable throughout the period, however, unlike for U.S. cell producers, U.S. module producers' operating losses declined from 2017 to 2018."[92]

The updated record shows some improvements in financial performance under the safeguard. In 2016, the last full year of data collected by the Commission prior to the safeguard investigation, domestic CSPV module producers were sustaining operating [ ] of $[ ].[93] Since that time, the financial experience of domestic module producers has [ ]. Domestic CSPV module producers' operating [ ] from $[ ] in 2018 to $[ ] in 2019 before [ ] in 2020.[94] Auxin's operating [ ] from $[ ] in 2018 to $[ ] in 2020.[95]

Improvements in pricing behavior contributed to this [ ] improvement in the domestic CSPV module producers' financial indicators. That said, while consistent with the historical downward trend in prices for CSPV product,[96] CSPV modules could have been priced higher but for the price depression and price suppression of domestic producer prices by imports. Imports continued to undersell the domestic like product with staggering frequency — "prices for imported CSPV products were below those for U.S.-produced product in 63 of 68

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[91] *CSPV Monitoring Report*, USITC Pub. 5021 at 1.

[92] *Id*. at 5.

[93] *Crystalline Silicon Photovoltaic Cells (Whether or not Partially or Fully Assembled into Other Products)*, Inv. No. TA-201-075, USITC Pub. 4739 (Confidential Version) EDIS Doc. 754890 (Nov. 2017) at Table C-3a.

[94] Prehearing Report at Table C-2.

[95] *See* [ ] U.S. Producer QR at III-9c.

[96] *CSPV Monitoring Report*, USITC Pub. 5021 at 1.

comparisons" or 93 percent of the time.[97] Imports' significant underselling also translated into price suppression. Raw material costs to domestic CSPV module producers [ ] the safeguard. "The share of COGS accounted for by total raw material costs ranged from [ ] percent (January-June 2020) to [ ] percent (January-June 2021)."[98]

In this environment of [ ] and rising costs, low-priced subject imports placed a ceiling on the prices that U.S. CSPV module producers could charge, resulting in a "cost-price squeeze."

Table 5
Imports Caused a Cost-Price Squeeze

($1,000)	**2018**	**2019**	**2020**	**H1-2020**	**H1-2021**
Cost of goods sold	[				]
Total net sales	[				]
COGS to net sales	[				]

Source: Prehearing Report at Table C-2

As shown above in **Table 5**, domestic CSPV producers' financial performance [ ] the ratio of their COGS to net sales, which [ ] from [ ] percent in 2018 to [ ] percent in 2019 before [ ] to [ ] percent in 2020 and [ ] to [ ] in interim 2021.

In short, while the safeguard initially allowed domestic CSPV module producers to make some progress towards adjusting to import competition, headwinds prevented the industry from fully realizing the relief intended by the safeguard remedy and completing its adjustment to import competition within the first four years.

[97] Prehearing Report at VII-20.

[98] *Id*. at IV-11.

III. SEVERAL FACTORS HAVE IMPEDED FULL ADJUSTMENT TO IMPORT COMPETITION

As detailed below, several unanticipated events have slowed the positive adjustments to import competition already begun by the domestic industry. An extension of the safeguard is therefore necessary to remedy the serious injury already experienced, prevent recurrence of serious injury, and allow domestic producers of CSPV cells and modules to complete their adjustment to import competition.[99]

A. The Bifacial Exclusion Undercut the Effectiveness of the Remedy

Auxin had been a market leader in solar technology. It was on the cutting edge of bifacial panel production as early as 2016, before bifacial panels were being produced in commercial volumes in the United States. Even its standard monofacial panels were the highest powered in the market until it could no longer keep pace with the equipment demands imposed by imported components. From June 13, 2019[100] to October 25, 2020,[101] the safeguard carved out an exclusion for bifacial panels based on a false premise that bifacial panels or substitute products were not available domestically. This exclusion created a loophole in the remedy that left the domestic industry vulnerable to the "rapidly increas{ing}" imports of bifacial modules.[102]

Subject imports exploited the bifacial loophole to Auxin's detriment. This came at a time when Auxin invested millions of dollars to expand its capacity [ ].[103]

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[99] *See* 19 U.S.C. § 2254(c)(1).

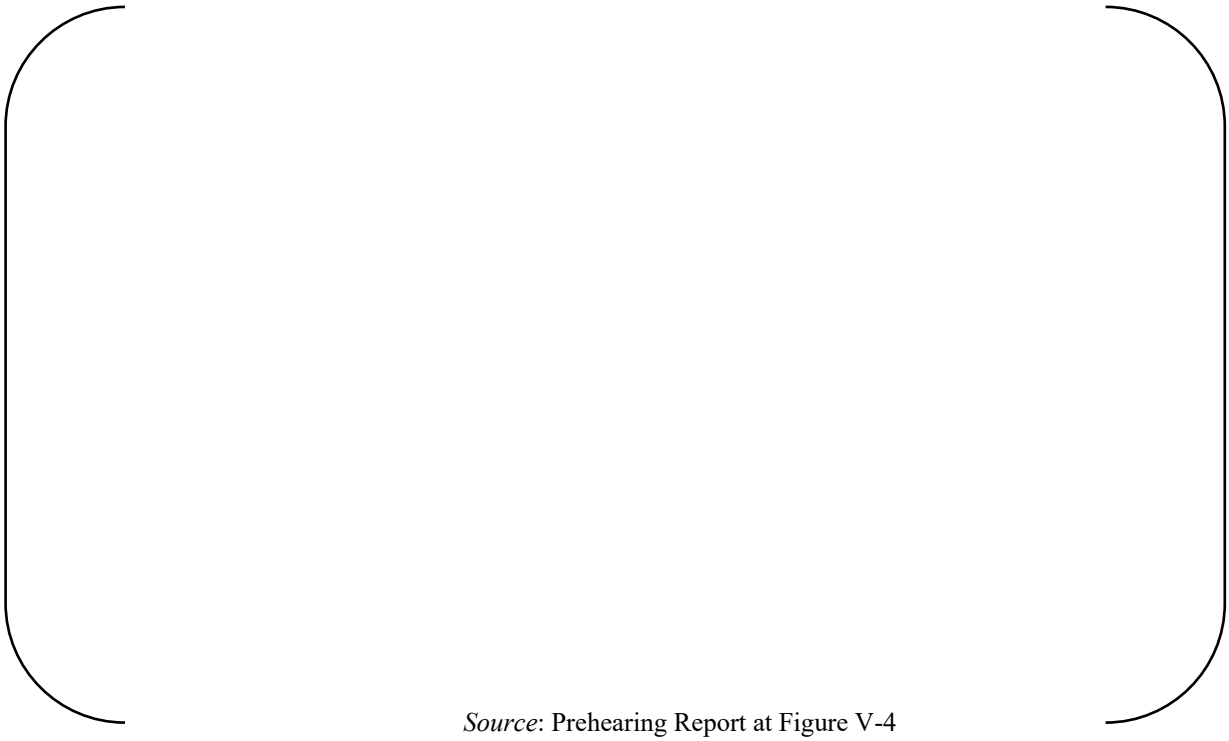
[100] *Exclusion of Particular Products from the Solar Products Safeguard Measure*, 84 Fed. Reg. 27,684 (June 13, 2019).

[101] *Modification Proclamation*, 85 Fed. Reg. at 65,639.

[102] *CSPV Monitoring Report*, USITC Pub. 5021 at I-75.

[103] [ ]. [ ] U.S. Producer QR at II-13.

Indeed, "{w}hile initially nearly all imports were of non-bifacial cells in the first half of 2018, ***modules containing bifacial cells comprised more than 70 percent of the share of total imports from March to June 2021***."[104] Imports of bifacial CSPV cells increased by 42.8 percentage points to their highest level in any period in 2020, accounting for 43.6 percent of all CSPV module imports in that year.[105] As shown in figure V-4 from the Prehearing Report, bifacial imports [ ] and becoming the major source of imports, all because of the bifacial exclusion.



Source: Prehearing Report at Figure V-4

Indeed, a responding U.S. producer attributed the bifacial exclusion to a market shift toward bifacial products.[106] "Several firms (including 4 U.S. producers, 6 importers, and 5 purchasers) also highlighted the bifacial exemption and shift toward more bifacial use,

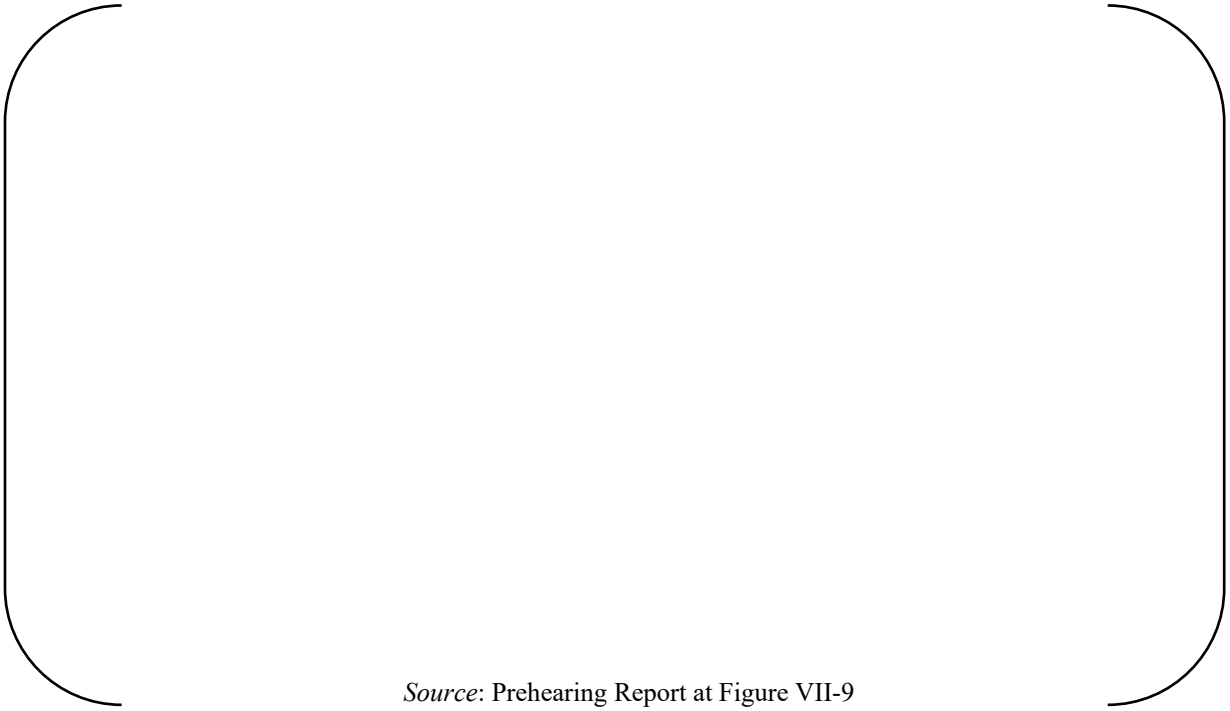
[104] Prehearing Report at V-22.

[105] *Id*. at V-14.

[106] *Id*. at II-17.

particularly in the utility sector, with several firms noting that bifacial modules are dominant in the utility sector."[107] End users chose imported bifacial modules because they were consistently a fraction of the price of domestically produced bifacial modules.

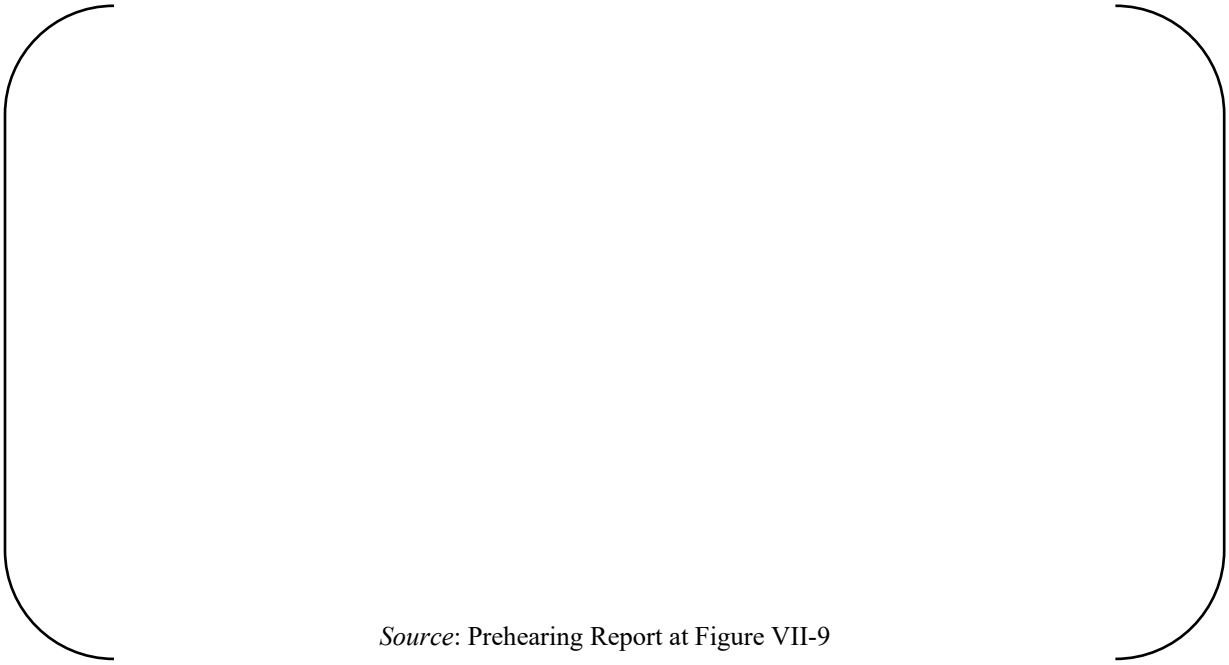
Information obtained for U.S. shipments of pricing product 6 bear this out:



Source: Prehearing Report at Figure VII-9

This aggressive underselling led to a [ ] of imported bifacial modules:

[107] *Id*. at II-18.



Source: Prehearing Report at Figure VII-9

The President himself saw the error in the bifacial exclusion when he noted that it "impaired and is likely to continue to impair the effectiveness of the {safeguard} action."[108]

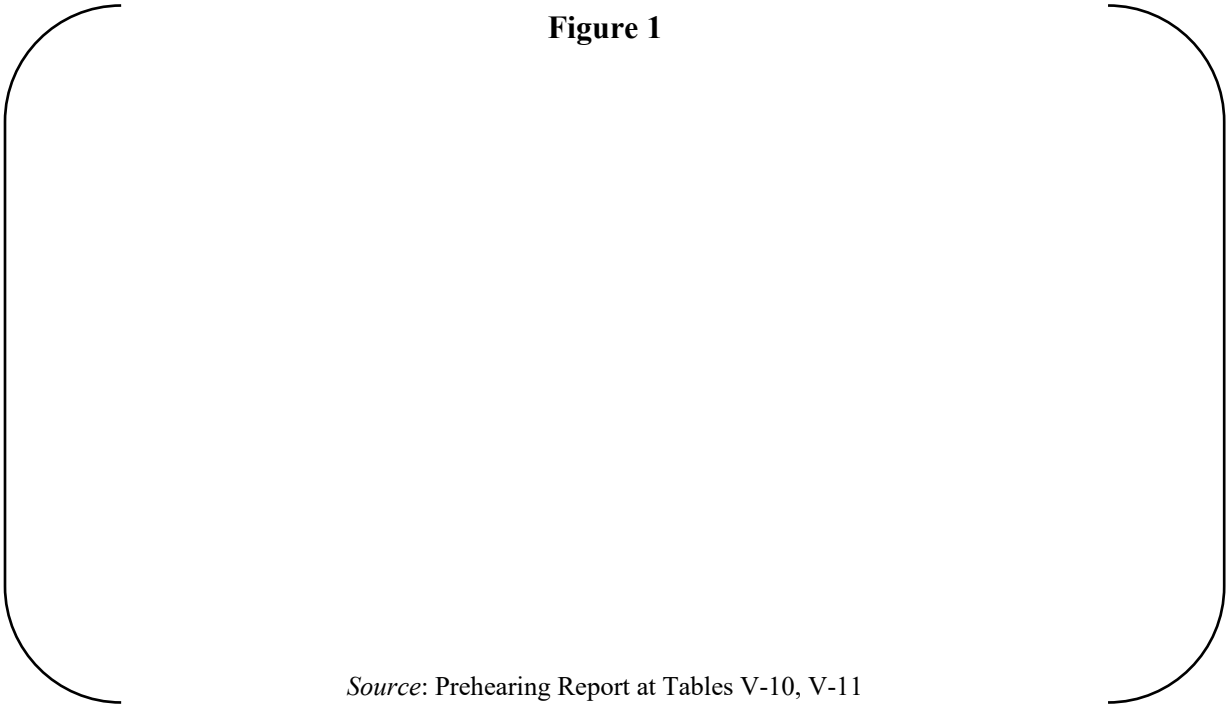
Sadly, it was too late. After two years of unchecked bifacial panel imports, the damage was done. Auxin lost the ability to capitalize on its investment in this technology and bifacial modules became commodities. Despite being one of the first to produce bifacial panels in meaningful volumes in the United States, Auxin watched the decimation of its bifacial business by imports, and imports also soured the environment for any other domestic producers to establish bifacial panel production. Rather than providing the domestic industry with the opportunity to adjust to imports through investment and capitalizing on its own R&D, the bifacial panel exclusion allowed imports to take market share in a market segment that American companies — and Auxin, in particular — created, and then turn it into a commodity grade CSPV module with commodity pricing.

[108] *Modification Proclamation*, 85 Fed. Reg. at 65,639.

B. Stockpiling Undermined the Remedy at Its Inception and Again During the Midpoint of the Remedy

Stockpiling undermined the remedy at its inception and again during the midpoint of the remedy. The data collected by the Commission demonstrate the stockpiling foreign producers engaged in before the safeguard took effect and with the safeguard in place when the stepdown of tax credit incentives was scheduled to take place. As shown in **Figure 1**, CSPV module imports surged in [ ], remained significant, surged again in [ ], increased significantly during [ ], and remained significant through [ ].

Figure 1



Source: Prehearing Report at Tables V-10, V-11

At a time of increasing demand, imports captured market share in 2020 and 2021 using cut-rate pricing, and the domestic CSPV module industry lost nearly all of the share gains achieved in 2019.[109] Imports continue to account for 90 percent of the U.S. market, just 1.5 percentage points less than their market share at the remedy's inception.[110]

[109] Prehearing Report at Table C-2.

[110] *Id*.

C. Persistent Underselling Continues to Depress Domestic Producer Prices and Stifle Investment

Foreign producers show no sign of curbing their practice of increasing and maintaining market share through pervasive underselling. When the safeguard took effect in February 2018, the domestic industry was being forced to defend its market share at least in part by reducing prices to compete with lower-priced CSPV imports. In the safeguard investigation covering 2012-2016, imports undersold domestic CSPV products in 33 of 52 possible comparisons.[111]

Unfortunately, imposing a 30 percent tariff on over-quota CSPV cell imports and CSPV module imports in 2018, with incremental annual phase downs, did not prevent imports from continuing to pressure the domestic industry's prices. In the monitoring investigation covering pricing practices through Q3-2019, prices for imported CSPV modules undersold domestic producers in 32 of 43 comparisons.[112] Subject import underselling accounted for 9.0 GW of imported CSPV modules. According to the Prehearing Report, ***pervasive underselling continued in 63 out of 68 comparisons accounting for a whopping 29.9 GW of imported CSPV modules***.[113]

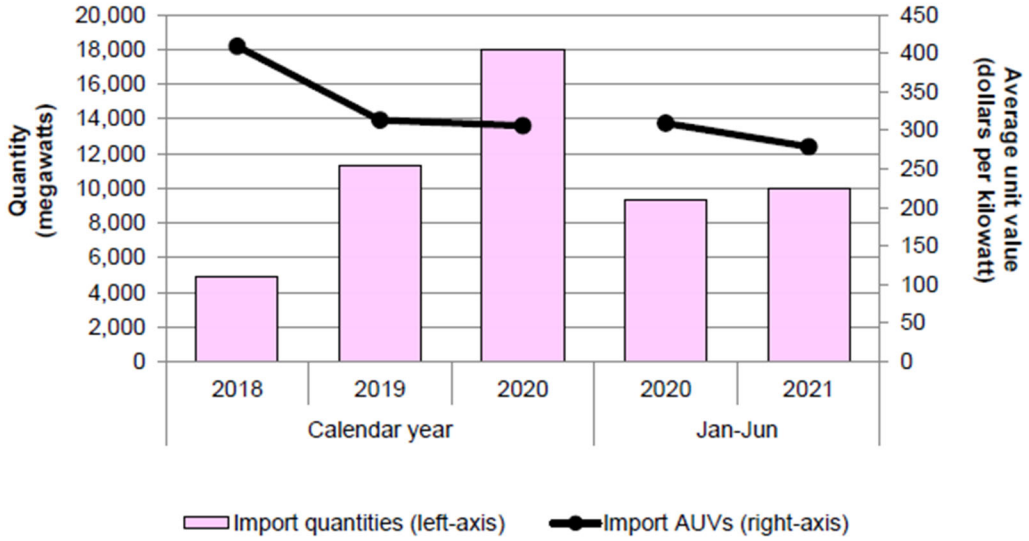
Across the board, and not just limited to the six pricing products for which the Commission has pricing data, imported CSPV modules gained market share by using cut-rate pricing. As shown in Figure V-2 of the Prehearing Report, reproduced below, import AUVs declined while import quantities increased since the imposition of the safeguard:

[111] *CSPV Safeguard*, USITC Pub. 4739 at V-26.

[112] *CSPV Monitoring Report*, USITC Pub. 5021 at VI-28.

[113] Prehearing Report at VII-20.

Figure V-2
CSPV modules: U.S. import quantities and average unit values, by period



Source: Compiled from data submitted in response to Commission questionnaires.

Source: Prehearing Report at Figure V-2

The safeguard action did not afford the intended relief from low-priced imports. Auxin has been unable to compete with the low prices of imported CSPV modules, which prevented Auxin from expanding its market share. This reality is particularly disappointing given Auxin's unique bifacial module offerings discussed *supra* and demand increases following the safeguard. Other U.S. module producers were forced to chase import pricing down to acquire or preserve their market share.[114] Auxin had hoped the safeguard would enable it to pursue sales opportunities with better pricing, allowing it to be sufficiently profitable on its sales to begin investing in new production equipment. That hope never materialized.

The Prehearing Report confirms Auxin's particular experience.[115] Auxin lost sales to imports priced [ ] of what Auxin could offer. Had the remedy worked as

[114] *Id*. (accounting for 5 quarters of overselling by imports).

[115] *Id*. at VII-18 to VII-20.

intended, domestic module producers would have been able to sell modules at profitable prices and reinvest those profits into new production equipment and onshoring of the upstream supply chain. But competing with low-priced imports, coupled with domestic wage increases and costs associated with COVID-19 mitigation measures, quickly eroded any profitability on Auxin's module sales. Persistent import underselling continues to be a significant problem.

D. Effects of the COVID-19 Pandemic

The Prehearing Report notes that "most U.S. producers . . . reported higher average other factory costs of varying magnitudes" that staff found "generally consistent with COVID-19…measures that disrupted production."[116] This "black swan" event significantly impacted supply chains and lead times.[117]

COVID-related challenges are reflected in the data presented in the Prehearing Report. The domestic industry's module production fell from 1,143,872 kW in H1-2020 to 1,098,348 kW in H1-2021. Average CSPV module production related workers fell from 2,081,000 in H1-2020 to 1,714,000 in H1-2021, which reflects domestic producers' challenges to hire, train, and retain workers in this environment.[118] Shipments also fell in H1-2021 relative to H1-2020. Given the positive developments in the industry in 2019 as compared to 2018, COVID-19 presented a significant headwind that was unforeseeable when the Commission recommended its remedy and the President imposed it in February 2018.

Auxin's data illustrate these challenges. Auxin [ ] CSPV modules in H1-2020 than in all of 2018. In May of 2020, Auxin was [ ] its 2019

[116] *Id*. at IV-13.

[117] *Id*. *See also id*. at IV-14 n.27 ([ ]), IV-16 n.33 [ ], IV-17 n.36 ([ ], IV-18 n.39 ([ ]), IV-18 n.41 ([ ]).

[118] *Id*. at Table C-2.

production volume when the bottom fell out of the U.S. economy because of the impact of COVID-19. Under California state rules, Auxin periodically needed to close production completely because of a positive COVID-19 test or a close encounter between employees and an individual that received a positive COVID-19 test. At the same time, orders ceased because projects were put on hold indefinitely. At times, production stopped completely. Auxin only operated one shift throughout the second half of 2020. Auxin, like other domestic CSPV module producers, prioritized precautionary measures to protect its employees over its adjustment plans. Auxin reallocated its resources to institute tracing measures, safe distance protocols, masks, hand sanitizer stations, and plastic dividers in all work stations. While Auxin was not able to meaningfully resume operations until 2021, low-priced imports continued, and the company was unable to realize the full promise of the safeguard.

E. Circumvention of the Safeguard Remedy

Imports from certain developing countries that are WTO members and are excluded from the safeguard measures under Proclamation 9693 have also increased during the remedy period. For example, imports from Cambodia — which were zero in 2018 — increased substantially in H1-2021, while presently remaining less than 3 percent of total imports.[119] The Prehearing Report notes that Cambodia is currently rapidly expanding its CSPV module capacity to 2.6 GW by the fall of 2021.[120] Of the Cambodian foreign producers that responded to the Commission, New East reported that [ ] percent of its exports were destined for the United States.[121] Based on publicly available information, New East is a "Cambodian solar cell and solar module

[119] *Id*. at H-4 (according to official import statistics, Cambodia accounts for [ ] of total CSPV imports).

[120] *Id*. at VI-98.

[121] *Id*. at Table VI-75.

manufacturer" "headquartered in Phnom Penh, Cambodia, with manufacturing in Cambodia and China."

No other Cambodian firms provided responses, but several exist that have ties to China. EnAlex Cambodia is a Cambodian solar company founded in 2018 that operates in the Phnom Penh Special Economic Zone ("SEZ"), which is dominated by Chinese investment, labor, and affiliated companies. Shenglong PV-Tech (Cambodia) Co., Ltd. is a Cambodian solar company that is affiliated with Suzhou Shenglong PV-Tech Co., Ltd, a Chinese photovoltaic module manufacturer. Finally, Chinese solar manufacturer ET Solar has reported that it will add 300 MW of cell capacity to be produced in Cambodia, where it will also assemble modules. Thus, it should not be surprising that U.S. imports of CSPV modules from Cambodia increased dramatically at a time when China significantly increased exports to Cambodia of the primary inputs used to manufacture CSPV cells and modules (wafers and ingots) and associated other key components of the CSPV module bill of material (glass, junction boxes, frames, inverters).

Cambodia serves at China's beck and call since entering into a Comprehensive Strategic Partnership with China in 2010. China's year-over-year investments in Cambodia have skyrocketed, and as of 2019, account for forty-three percent of all foreign direct investment in Cambodia.[122] In exchange, Cambodia has allowed extensive Chinese development, including that of Cambodia's infrastructure and SEZs, which provide unfettered Chinese access to Cambodia's economy. Though ostensibly located in Cambodia, these SEZs are filled with Chinese laborers, Chinese capital equipment, CCP direction, and Chinese raw materials.

[122] *See* Petition on behalf of Auxin and Suniva at Attachment 5 (D. Touch, "What Does Chinese Investment Mean for Cambodia?," *The Diplomat* (Feb. 2, 2018)).

As a result of the Belt and Road Initiative ("BRI"), China has become Cambodia's "largest economic influencer, being the largest foreign investor, largest bilateral donor, largest trading partner, largest buyer of Cambodian rice, and the largest source of foreign tourists in the country."[123] Cambodian Commerce Minister Sorasek recently remarked that "the BRI is vital for Cambodia's economy which relies on the inflows of foreign direct investments that are conditional to the capability of sufficient physical infrastructures." The U.S. embassy in Cambodia has asked the Cambodian government to halt circumvention schemes using the SEZs.[124]

China's influence in Cambodia could not be more pronounced and influential than in the solar industry. Solar power "capacity has been on a sharp ascent in Cambodia recently, increasing at a 10% annual rate."[125] According to Cambodian Minister of Mines and Energy Suy Sem, "China has played a major role in the development of Cambodia's energy sector through investing in energy generation and distribution grid as well as providing capacity building."[126] In March 2021, a 39 MW solar power plant in Cambodia's Banteay Meanchey province was brought online with "all photovoltaic (PV) modules for the project" supplied by "Shenzhen-listed solar development company JA Solar Technology Co., Ltd."[127] The "solar farm was contracted by Shanxi Electric Power Engineering Co., Ltd. (SEPEC), an affiliate of China Energy

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[123] *Id*. (S. Kha, "The Belt and Road in Cambodia: Successes and Challenges," *The Diplomat* (Apr. 30, 2019)).

[124] *See id*. (South China Morning Post, "US urges Cambodia to help stop firms using special economic zone to evade China tariffs" (June 2019)).

[125] *Id*. ("Cambodia Solar Energy Profile," Solar Mag. (Oct. 21, 2019)).

[126] *Id*. (Mao Pengfei, Nguon Sovan, "Interview: China Plays Key Role in Cambodia's Energy Development, Says Minister," XINHUA (June 27, 2018)).

[127] *Id*. ("Cambodia: Banteay Meanchey Solar Farm Adds 39 MW to National Grid" THE STAR (Mar. 14, 2021)).

Engineering Group."[128] In 2020, "Chinese-based Risen Energy inked a long-term debt financing agreement worth $45 million to back a 60 MW solar energy project in Battambang province."[129] An 80-megawatt solar farm that came online: in 2019 in Kampon Speu province. "SchneiTec, the project's developer, is a joint Chinese-Cambodian venture and JinkoSolar, a China-based company that is the largest solar panel manufacturer in the world, supplied the site's panels."[130]

Imports from WTO member developing countries are excluded from the safeguard as long as each such country's share of total imports of the product, based on imports during a recent representative period, do not exceed 3 percent, and provided that imports that are the product of all such countries with less than 3 percent import share collectively account for not more than 9 percent of total imports of the product. Given publicly known information on Cambodian producers, Chinese investment and other support in developing Cambodia's solar industry appears to be a concerted effort to circumvent the safeguard remedy.

IV. EXTENSION OF THE SAFEGUARD IS NEEDED TO REMEDY SERIOUS INJURY AND HELP DOMESTIC PRODUCERS COMPLETE THEIR ADJUSTMENT TO IMPORT COMPETITION

A. An Extension is Needed for U.S. CSPV Cell Operations

The domestic industry requires an extension of the safeguard to further adjust to import competition, ***particularly in the area of cell production***.

Recall that, by 2018, only three domestic manufacturers reported CSPV cell manufacturing operations, and by 2020, only one firm ([ ]) reported any U.S.

[128] *Id*. ("Cambodia: Banteay Meanchey Solar Farm Adds 39 MW to National Grid" THE STAR (Mar. 14, 2021)).

[129] *Id*. (Thou Vireak, "China Firm Backs Battambang Solar Farm," THE PHNOM PENH POST (Dec. 23, 2020)).

[130] *Id*. (Lili Pike, "In Cambodia, Solar Power Surges," China Dialogue (Dec. 3, 2019)).

production of CSPV cells.[131] For example, Mission Solar Energy ("Mission Solar") opened its manufacturing plant in San Antonio, Texas in 2014 but had to close its n-type monocrystalline CSPV cell production lines by September 2016 and now relies on imported CSPV cells for its module operations.[132] Petitioner Suniva began producing CSPV cells in Norcross, Georgia in November 2008, expanded its cell capacity from 32 MW to 450 MW by 2015, but ceased CSPV cell production in April 2017 when it filed for bankruptcy protection.[133] SolarWorld's Hillsboro, Oregon facility opened in 2008, with integrated CSPV cell operations that grew monocrystalline crystals, sliced the ingots into wafers, and produced CSPV cells.[134] It added module production capacity in 2010, and produced [ ] CSPV cells and modules, with a nameplate capacity of [ ] for CSPV cells and [ ] for CSPV modules by 2017.[135] SunPower Corporation acquired SolarWorld's U.S. manufacturing plant on October 1, 2018, [ ], and by the beginning of 2019 had retired the Hillsboro CSPV cell line.[136] As of [ ], Tesla [ ] entering into an agreement with Panasonic Solar North America ("Panasonic") to manufacture CSPV cells and modules in Buffalo, New York.[137] Panasonic [ ] but announced in February 2020 that it would end such

[131] Prehearing Report at III-11.

[132] *Id*. at III-3 to III-4.

[133] *Id*. at III-4. Suniva reorganized and successfully emerged from bankruptcy under new leadership in April 2019. *Id*.

[134] *Id*. at III-5.

[135] *Id*.

[136] *Id*.

[137] *Id*. at III-6 to III-7.

production by the end of May 2020.[138]

As a result of these developments, the domestic industry's CSPV cell production capacity declined from [ ] kW in 2018 to [ ] kW in 2020, and [ ] kW in H1-2021, as capacity utilization declined irregularly from [ ] percent in 2018 to [ ] percent in 2020 [ ], and fell from [ ] percent in H1-2020 to [ ] percent in H1-2021.[139] CSPV module producers in the United States continued to seek CSPV cells for their module assembly operations throughout this period, with apparent U.S. CSPV cell consumption increasing from 2018-2020 and CSPV cell consumption in H1-2021 [ ], despite a decline between interim periods.[140] With COGS to net sales ratios of [ ] percent in 2018 and [ ] percent in 2020 and marginal operating [ ] percent during 2018-2020, it is not surprising that [

] before ceasing CSPV cell production altogether.[141]

Because of the exceedingly large cell TRQ level, existing producers of CSPV cells, such as Suniva, never realized the promise of the safeguard remedy. U.S. module manufacturers were able to rely on imported CSPV cells [ ] reaching the oversized TRQ threshold, and they were incentivized to rely on lower-priced imported cells to compete against significant increases in low-priced CSPV module imports.

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[138] *Id*. at III-7.

[139] *Id*. at Table C-1.

[140] *Id*.

[141] *Id*.

With an extension of the safeguard — [

]142 — U.S. firms are now poised to resume and expand CSPV cell operations to supply the U.S. market. Suniva retained its production facility and equipment, and is now [

]."143

Moreover, three new U.S. CSPV cell plants have been announced or are under consideration, including Violet Power's CSPV cell and module manufacturing plant due to begin production this year and fully ramp up to an initial 1.4 GW in production by 2022, a planned 3 GW U.S. CSPV cell and module plant scheduled to start in approximately 2023 for which Maxeon Solar has applied for a U.S. Department of Energy loan guarantee, and a new CSPV cell plant with 350 MW of capacity in New York that Ubiquity Solar expects to commission by the end of 2022.144

Auxin, for its part, has plans to expand into cell production by manufacturing [ ] of cells, requiring an investment of $[ ] million to become a fully integrated domestic CSPV producer.145 In the first phase of cell production, [

]. Beyond CSPV cells, Auxin is also committed to reshoring other essential elements of the solar supply chain with the hopes that the United States can incentivize additional onshoring of production of other elements of the solar module bill of materials.

142 *Id*.

143 *Id*. at III-4.

144 *Id*. at I-21 to I-22, Table I-9.

145 [ ] U.S. Producer QR at II-6 ([ ]).

The current, import-dependent environment provides no guarantee of a steady supply of components such as ingots, wafers, EVA, glass, and junction boxes if foreign producers deem a company insufficiently loyal.[146] Combined with lead times for ingots or wafer equipment of 6-7 months, foreign competitors can easily place U.S. cell and module producers in a precarious position. In an industry that is rapidly evolving and developing, such uncertainty and long lead times render domestic producers vulnerable. With the extension of the safeguard, Auxin expects that the economics will support its investment of $[ ] million to onshore ingot furnaces and an additional $[ ] million for wafer slicing equipment.[147]

In short, economic headwinds and foreign government policies have created a situation in which the United States depends in large part on foreign supply for a major percentage of the CSPV module bill of materials. The cost of the cell is the largest component of module raw material costs.[148] With no active domestic production of CSPV cells, all domestic CSPV module producers rely on imported CSPV cells.[149] An extension of the safeguard is needed to allow U.S. CSPV cell operations to resume — and to increase — in the United States, and thereby adjust to import competition.

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[146] This is not idle speculation. In fact, retaliation has manifested itself on the Commission's record. For example, [ ] Importer QR at II-14 ("[

].").

[147] [

]. Prehearing Report at Table VIII-6.

[148] *Id*. at IV-11 to IV-12 (noting that the cost of a purchased, foreign-produced, cell ranged from [ ] percent of total raw material cost in 2018 to [ ] percent in 2020).

[149] *Id*. at I-20 to I-21; *id*. at Table F-13 ("[

]).”

B. An Extension is Needed for U.S. CSPV Module Operations

U.S. CSPV module manufacturers also require an extension to adjust to import competition. Eight U.S. CSPV module plants closed after the safeguard took effect, including four in 2018, one in 2019, one in 2020, and one in 2021.[150] U.S. CSPV module manufacturers' capacity and production levels fell between interim periods and their ending inventory balances also rose.[151] Domestic CSPV module producers' market share rose to a period peak of 14.6 percent in 2019, but fell in 2020 and H1-2021 as they lost market share to lower-priced imports that continued growing despite the COVID-19 global pandemic.[152] U.S. CSPV module producers' utilization never approached full capacity at any point since 2018.[153] For a product where economies of scale matter, such utilization levels meant that U.S. CSPV module manufacturers' COGS to net sales ratio [ ] percent.[154] Understandably, domestic module manufacturers collectively reported [ ].[155]

An extension of the safeguard would provide additional time for new U.S. CSPV module manufacturers to adjust to import competition. Public announcements report the opening of nine new CSPV module plants, with two planning to start operations by the end of 2021, five

[150] *Id*. at I-23, Table I-10.

[151] *Id*. at Table C-2.

[152] *Id*.

[153] *Id*.

[154] *Id*.

[155] *Id*.

intending to begin in 2022, and one seeking to commence in 2023.[156] These firms will join approximately 20 existing U.S. CSPV module manufacturing plants, including plants that began operations after the safeguard took effect, such as Jinko Solar, PowerFilm, and Solar Electric America (2018); Hanwha Q-Cells and LG (2019); and CHERP Solar, Crossroads Solar, and Silfab (2021).[157]

V. EXTENSION OF THE SAFEGUARD IS ALSO NEEDED TO PREVENT RECURRENCE OF SERIOUS INJURY

Without an extension of the safeguard, low-priced imports threaten the continuation or recurrence of serious injury to the domestic industry. Producers in China accounted for [ ] of reported foreign production of CSPV cells and CSPV modules.[158] In the last three years, the foreign industries reported shifting their operations to manufacture different CSPV products [ ].[159]

The primary product shifting occurred because of opportunism. Because of the bifacial exclusion, Chinese producers [ ] foreign producers collectively shifted their production from other cells to bifacial cells in a matter of years, with bifacial cells accounting for 16.6 percent of Chinese production in 2018, 77.2 percent in 2020, and 97.9 percent in H1-

[156] *Id*. at I-25, Table I-11.

[157] *Id*. at I-23, Table I-10.

[158] *Id*. at Table VI-1.

[159] *Id*. at Figure I-15, Figure I-16, Table VI-93, Table VI-94.

2021.[160] For the responding foreign producers collectively, bifacial cells accounted for 10.2 percent of total production in 2018, 64.5 percent in 2020, and 87.1 percent in H1-2021.[161] For the industry in China, modules using bifacial cells increased from 5.4 percent of total production in 2018 to 56.8 percent in 2020 and 63.4 percent in H1-2021.[162] Modules using bifacial cells increased from 3.9 percent of the foreign producers' total production in 2018 to 51.1 percent in 2020 and 61.9 percent in H1-2021.[163] The domestic industry was never provided with the ability to shift production based on market needs, with accompanying R&D expenditures and capital investment. No doubt that with the bifacial loophole closed, foreign producers will seek out other avenues either through different form factors — which renders certain U.S. producer equipment obsolete or requires investment to upgrade — or by using other export platforms like Cambodia.

The foreign industries also reported the ability to export significant volumes of CSPV cells and CSPV modules to the U.S. market. Responding foreign CSPV cell producers expanded capacity and production from 2018-2020 and between interim periods,[164] but progressively increased their U.S. exports over the period.[165] CSPV cell producers retained substantial available capacity throughout this period.[166] Responding foreign CSPV module producers also progressively increased capacity, production, and U.S. shipments, and they had substantial and

[160] *Id*. at Table VI-18.

[161] *Id*. at Table VI-88.

[162] *Id*. at Table VI-91.

[163] *Id*.

[164] *Id*. at Table VI-87.

[165] *Id*.

[166] *Id*.

growing available capacity throughout this period.[167] Without even having to divert shipments from other markets to the United States, the foreign industries had unused capacity [

] apparent U.S. consumption of CSPV cells and CSPV modules, as shown in **Table 6**.

Table 6
Collective Foreign Industries Have Substantial Available Capacity and Production

	2018	2019	2020	H1-2020	H1-2021
	CSPV cells (kW)				
Capacity	50,636,526	65,488,676	91,646,178	35,495,983	52,633,742
Production	42,174,867	52,271,812	69,901,473	29,909,415	45,252,446
Utilization	83.3	79.8	76.3	84.3	86.0
Unused capacity	8,461,659	13,216,864	21,744,705	5,586,568	7,381,296
U.S. exports	624,233	1,954,995	1,773,530	804,826	1,284,986
App US consumpt	[				]
	CSPV modules				
Capacity	54,018,797	72,567,604	100,899,586	45,348,092	68,881,670
Production	44,357,383	61,406,634	83,685,793	35,203,349	48,684,715
Utilization	82.1	84.6	82.9	77.6	70.7
Unused capacity	9,661,414	11,160,970	17,213,793	10,144,743	20,196,955
U.S. exports	4,770,832	12,486,870	17,992,872	9,397,202	9,563,302
App US consumpt	5,342,102	13,241,077	20,130,317	10,422,189	11,098,543

Source: Prehearing Report at Table VI-87, Table VI-90, Table C-1, Table C-2

Despite substantial existing excess capacity, responding foreign producers projected further annual increases in their capacity, production, and U.S. exports from 2021-2023.[168] The size of their projected unused production capacity remained quite high through 2023, as shown in **Table 7**.

[167] *Id*. at Table VI-90. Importers also reported a substantial volume of arranged imports. *Id*. at V-17.

[168] *Id*. at Table VI-89.

Table 7 Foreign Producers Plan Further Capacity Expansions			
	2021	2022	2023
	CSPV cells (kW) (projections)		
Capacity	121,144,969	151,373,185	164,455,540
Production	104,544,495	133,322,876	149,796,994
Utilization	86.3	88.1	91.1
Unused capacity	16,600,474	18,050,309	14,658,546
U.S. exports	2,559,552	2,620,105	3,271,821
	CSPV modules (kW) (projections)		
Capacity	157,407,001	189,212,777	213,720,853
Production	108,612,703	134,085,474	153,825,098
Utilization	69.0	70.9	72.0
Unused capacity	48,794,298	55,127,303	59,895,755
U.S. exports	22,267,449	28,093,557	30,136,285

Source: Prehearing Report at Table VI-89, Table VI-92

The record also shows that the foreign industries have the incentive to ship significant volumes of CSPV products to the U.S. market unless the safeguard is extended. Despite the claims of opponents of the safeguard, apparent U.S. consumption of CSPV cells and CSPV modules continued to grow since 2018, and "the vast majority of responding firms reported that demand for CSPV products increased since February 7, 2018 and will continue to increase across all sectors."[169] State, local, and Federal programs encourage the use of CSPV products.[170] Moreover, demand for solar products for the three main segments where they are used (utility, residential, non-residential) continued to increase.[171] Indeed, demand for utility installations, involving individual projects of much larger scale than residential and non-residential projects, now account for the largest share of installations in the United States,[172] increasing the incentive for suppliers to compete for sales to this market.

[169] *Id*. at II-13, Table C-1, Table C-2.

[170] *Id*. at II-11 to II-13.

[171] *Id*. at Table II-4.

[172] *Id*. at II-10 to II-11, Table II-4.

As discussed above, foreign producers, including Chinese producers, have demonstrated an insatiable drive to export substantial and increasing volumes of CSPV products to the United States during the *CSPV 1*, *CSPV 2*, and global safeguard proceedings and even after those imports became subject to AD/CVD, safeguard, and Section 301 duties as well as special measures to respond to forced labor operations. More recently, Chinese firms have tried to take advantage of China's dominance of the wafer market by unilaterally changing wafer sizes to the detriment of less-favored trading partners. They are also taking advantage of Cambodia's status as a developing country under the safeguard law as they significantly increased exports of primary inputs used to manufacture CSPV cells and modules to Cambodia (*e.g.*, glass, junction boxes, frames, inverters), and imports from Cambodia, which were zero in 2018, increased substantially in 2021.[173]

As the Commission recognized in the underlying safeguard investigation, absent relief, "the domestic industry, including both CSPV cell and module producers, would likely cease to exist in the short term," and "the loss of the domestic industry . . . could have significant long-term consequences for U.S. economic and national security interests."[174] In his separate comments in the Monitoring Report, Chair Kearns understood the significance of the domestic solar industry to U.S. energy independence and national security. As he explained, China "essentially fully supplies its large domestic market and, at the same time, exports massive quantities of CSPV products abroad. For China, addressing climate change means jobs. One has to wonder whether there would be greater support for efforts to address climate change in the

[173] As the Prehearing Report noted, Commission staff are continuing efforts to obtain a questionnaire response from [ ]. *Id*. at V-1 n.2.

[174] *CSPV Safeguard*, USITC Pub. 4739 at 86-87.

United States if the U.S. had as many CSPV factories and jobs as China does."[175] The record bears out these concerns. Not only have U.S. CSPV cell and CSPV modules lost sales, market share, and American jobs to waves of low-priced imports, U.S. manufacturers of upstream CSPV products, from polysilicon ingots, wafers, and other CSVP raw materials also have ceased production.

Producers in China now monopolize a substantial and growing share of the global CSPV manufacturing supply chain. For example, China is the largest global polysilicon producer, accounting for 68 percent of global production in 2019, and by 2020, the China Photovoltaic Industry Association estimated that China accounted for 76 percent of global polysilicon production.[176] The four large producers with facilities in Xinjiang, home to suppressed minorities such as the Uyghur that are subjected to forced labor, accounted for approximately 65 percent of Chinese production in 2020.[177] China's share of global polysilicon capacity increased from [ ] percent in 2018 to [ ] percent in 2020, and is forecast to exceed [ ] percent in 2023, with Xinjiang's share of global polysilicon capacity increasing from [ ] percent in 2018 to [ ] percent in 2020.[178] On June 24, 2021, three U.S. agencies had to take steps to try to limit trade with firms that engage in forced labor.[179] China also dominates

[175] *CSPV Monitoring Report*, USITC Pub. 5021 at Additional Comments of Commissioner Jason E. Kearns, 4.

[176] Prehearing Report at I-13 to I-14.

[177] *Id*. at I-14.

[178] *Id*. at I-15.

[179] *Id*. at I-30 (noting that (1) the U.S. Department of Labor added polysilicon to the list of goods made with forced labor; (2) U.S. Customs and Border Protection issued a Withhold Release Order regarding silica-based products made by Hoshine Silicon Industry, and materials and goods (such as polysilicon) derived from or produced using such products; and (3) Commerce's Bureau of Industry and Security added Xinjiang GCL New Energy Material Technology, Xinjiang Daqo New Energy, Xinjiang East Hope Nonferrous Metals, Hoshine Silicon Industry

wafer production, accounting for 96 percent of global wafer production capacity in 2019, with the two largest Chinese wafer producers (Longi and Zonghuan) alone accounting for 62 percent of global wafer production capacity in 2020.[180] Additionally, China accounts for 86 percent of global PV glass production as of 2019.[181]

Without an extension of relief, CSPV cell and module production will become China's to dominate, and along with it, the control of America's electricity grid, which would amount to a national security crisis. Just as America once made investments to become oil and gas independent, so too policies like the safeguard extension are needed for America to forge a path toward solar energy independence.

(Shanshan), and Xinjiang Production and Construction to the Entity List due to their use of forced labor).

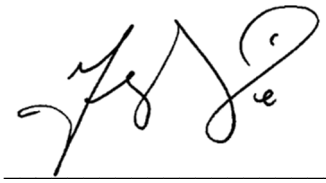
[180] *Id*. at I-15 to I-16.

[181] *Id*. at I-16.

VI. CONCLUSION AND REQUEST FOR EXTENDED RELIEF

For the foregoing reasons, Auxin requests that the Commission determine, pursuant to section 204(c) of the Trade Act (19 U.S.C. § 2254(c)) and 19 C.F.R. § 206.54(d), that the domestic industry is making a positive adjustment to import competition and that the action taken under section 203 of the Trade Act continues to be necessary to prevent or remedy serious injury. Based on its findings, the Commission should recommend that the President extend the safeguard with very limited liberalization of the tariff remedy on CSPV modules and no change to the quota on CSPV cells.

Respectfully submitted,



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