



ORIGINAL

October 19, 2011

1776 K STREET NW
WASHINGTON, DC 20006
PHDNE 202.719.7000
FAX 202.719.7049

7925 JDNES BRANCH DRIVE
McLEAN, VA 22102
PHONE 703.905.2800
FAX 703.905.2820

www.wileyrein.com

DOC Investigation Nos. A-570-979
and C-570-980

USITC Investigation Nos. 701-TA-
_____, 731-TA-_____

Total Pages: 3176

Investigation

Contains Business Proprietary

Information Redacted from the pages
and the exhibits identified in this
cover letter.

PUBLIC VERSION

CBI 12-030

BY HAND DELIVERY

The Honorable Rebecca M. Blank
Acting Secretary of Commerce
Attn: Import Administration
APO/Dockets Unit, Room 1870
U.S. Department of Commerce
14th Street and Constitution Ave., NW
Washington, D.C. 20230

Mr. James R. Holbein
Secretary
U.S. International Trade Commission
500 E Street, S.W., Room 112
Washington, D.C. 20436

DOCKET NUMBER
2848
Office of the Secretary Int'l Trade Commission

Re: Petition for the Imposition of Antidumping and
Countervailing Duties: Crystalline Silicon Photovoltaic
Cells, Whether or Not Assembled into Modules, from the
People's Republic of China

Dear Madame Acting Secretary and Secretary Holbein:

We file the enclosed petitions on behalf of SolarWorld Industries
America, Inc. ("Petitioner"), pursuant to Sections 701 and 731 of the
Tariff Act of 1930 with respect to unfairly traded imports of crystalline
silicon photovoltaic cells, whether or not assembled into modules, from
the People's Republic of China.

We request that certain information contained in the text and exhibits of this petition be protected as business proprietary information pursuant to 19 C.F.R. § 201.6(b) and 19 C.F.R. § 351.304(a)(1)(i) (2011). The release of the information for which we seek proprietary treatment would cause substantial harm to the competitive position of Petitioner and its information sources, and would impair the ability of the Department of Commerce and the International Trade Commission to obtain the information necessary to perform their statutory functions.

Specifically, Petitioner requests business proprietary treatment for the information enclosed in square brackets (“[]”) on the pages and in the exhibits indicated as follows:

(1) *Production data, costs of production, consumption rates, trade secrets, and information regarding domestic producers’ proprietary manufacturing processes, including the types of raw materials used and their quantities* (19 C.F.R. § 351.105(c)(2) (2011): contained in Volume I: Table of Contents, pages 3, 5, 6, 27, 32, 34, 35, 36, 37, 38, 51, 52, Exhibits I-3(B)-(G), I-9; Volume II: pages 20-21, 24-26, 29-30, and Exhibits II-1, II-19, II-20, II-21. Petitioner requests proprietary treatment of this data because it is proprietary business information, the disclosure of which would cause substantial harm to the competitive interests of Petitioner.

(2) *Data on the terms of individual sales or offers for sale, including sales dates, sales prices, merchandise characteristics, destinations, payment terms, and other sale-related business secrets* (19 C.F.R. §§ 351.105(c)(4) – (5) (2011)), contained in Volume I: pages 6, 29, 31, 32, 35, 38, 51, Exhibit I-8; Volume II: Table of Contents, pages 4-5, 9-13, 16, 31, and Exhibits II-2, II-3, II-6, II-13, II-20, II-28. This request also covers the same data used in the calculations of the ex-factory export prices, ex-factory normal values, and dumping margins. Petitioner requests proprietary treatment for this data because it would disclose the identity of the sources of information to persons knowledgeable in the industry producing the subject merchandise. Disclosure of the identity of these sources would compromise their ability to obtain such information in the future and subject them to commercial retaliation. As a result, disclosure of the information would cause substantial harm to the competitive interests of Petitioner and to its sources.

(3) *The identities of Petitioner’s customers, including the identities of customers from whom Petitioner lost sales or revenues because of unfair import competition, and information tending to identify those customers or their locations* (19 C.F.R. § 351.105(c)(6) (2011)),

contained in Volume I: Exhibit I-8. Petitioner requests proprietary treatment for this data because it is proprietary business information, the disclosure of which would cause substantial harm to Petitioner. In certain cases, we bracketed publicly available information because this information would tend to reveal customer identities, the disclosure of which could subject them to commercial retaliation.

(4) *Names of individuals or organizations that provided price, cost, and other production, freight, sales or market information, information which would tend to identify those individuals or organizations, and other information that would cause harm to the providers' and/or submitter's competitive position* (19 C.F.R. § 351.105(c)(9) (2011)), contained in Volume I: pages 5, 6, 30, 31, 32, 35, Exhibit List, Exhibits I-3(B)-(G); Volume II: pages 3, 9-12, 29-30, 34, Exhibits II-1, II-2, II-6, II-13, II-19; Volume III: pages 36-37, Exhibits III-50-51, III-53-62; and Volume IV: pages 7, 8, Exhibit List, and Exhibit IV-15. Petitioner requests proprietary treatment for this data because its disclosure would cause harm to the sources' ability to perform their jobs, would compromise their ability to obtain such information in the future, and would subject them to commercial retaliation. In addition, disclosure of the sources of sales data would tend to disclose customer identities. Therefore, this information is proprietary business information, the disclosure of which would cause substantial harm to Petitioner.

(5) The position of a domestic producer or workers regarding a petition (19 C.F.R. § 351.105(c)(10)(2011)), contained in Volume I pages 5-6, and Exhibits I-3(B)-(G). Petitioner requests proprietary treatment of this data because it is proprietary business information, the disclosure of which would cause harm to the Petitioner and the parties submitting the information.

(6) *Any other specific business information the release of which to the public would cause substantial harm to the competitive position of the submitter* (19 C.F.R. § 351.105(c)(11) (2011)), contained in Volume I: pages 2, 16, 44, Exhibit I-24; Volume II: pages 12,34, Exhibits II-4, II-21, II-22, II-24; Volume III: pages 36-37, 43-44, Exhibits III-50-51, III-53-62, and III-75; and Volume IV: Exhibit IV-14. This data includes information obtained from proprietary subscription sources, as well as other data the public disclosure which would harm the commercial position of the submitters and would interfere with the Department of Commerce's and the International Trade Commission's ability to obtain similar information in future investigations.



The Honorable Rebecca M. Blank
Mr. James R. Holbein
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Pursuant to 19 C.F.R. § 351.304(c)(1) (2011), we have ranged sufficient numerical data in the public version of the petition to provide a reasonable understanding of the contents of that information. We have ranged data regarding prices. However, we have not ranged data regarding costs or adjustments; this data is not susceptible to ranging because the disclosure even of ranged data would reveal or permit the discovery of confidential information and would therefore cause harm to Petitioner. Where a number is too small to permit effective ranging, we have so indicated by the use of asterisks.

If you have any questions regarding these matters, please do not hesitate to contact the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tim Brightbill", written over a horizontal line.

Timothy C. Brightbill, Esq.
Adam H. Gordon, Esq.
Robert E. DeFrancesco, Esq.

WILEY REIN LLP
1776 K Street, N.W.
Washington, D.C. 20006
(202) 719-7000

*Counsel to SolarWorld Industries
America Inc.*

ATTORNEY CERTIFICATION

*Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules,
from the People's Republic of China*

Inv. Nos. _____ (Preliminary)

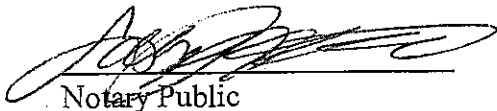
In accordance with section 207.3(a) of the Commission's rules (19 C.F.R. § 207.3(a)), I, Timothy C. Brightbill of Wiley Rein LLP, counsel to SolarWorld Industries America, Inc., certify that under penalty of perjury under the laws of the United States of America and pursuant to the Commission's regulations:

- (1) I have read the foregoing submission in the above referenced case; and
- (2) to the best of my knowledge and belief, the information contained therein is accurate and complete; and
- (3) in accordance with section 201.6(b)(3)(iii) of the Commission's rules (19 C.F.R. § 201.6(b)(3)(iii)), that information substantially identical to that for which we request confidential treatment is not available to the general public and the public disclosure of such information would cause substantial harm to the persons, firms, and other entities from which the information was obtained.



Timothy C. Brightbill

Sworn and subscribed to before me
this October 19, 2011.



Notary Public

Larry E. Jefferson
Notary Public, District of Columbia
My Commission Expires 1/14/2012

My commission expires: _____

REPRESENTATIVE CERTIFICATION

I, Timothy C. Brightbill, with Wiley Rein LLP, counsel or representative to SolarWorld Industries America, Inc, certify that I have read the attached submission of a petition for the imposition of antidumping and countervailing duties regarding crystalline silicon photovoltaic cells, whether or not assembled into modules, from the People's Republic of China, AD/CVD Case Numbers A-570-979 and C-570-580. In my capacity as an adviser, counsel, preparer or reviewer of this submission, I certify that the information contained in this submission is accurate and complete to the best of my knowledge. I am aware that U.S. law (including, but not limited to, 18 U.S.C. § 1001), imposes criminal sanctions on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the Department may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that I am filing a copy of this signed certification with this submission to the U.S. Department of Commerce and that I will retain the original for a five-year period commencing with the filing of this document. The original will be available for inspection by U.S. Department of Commerce officials.



Timothy C. Brightbill

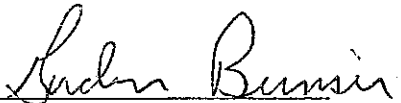
Date: October 19, 2011

COMPANY CERTIFICATION

I, Gordon Brinser, President of SolarWorld Industries America, Inc., certify that:


(1) I have reviewed the attached submission and (2) the information contained in this submission is, to the best of my knowledge and belief, complete and accurate.

Dated: 19 October 2011


Gordon Brinser

COMPANY CERTIFICATION

I, Gordon Brinser, President of SolarWorld Industries America, Inc., certify that I prepared or otherwise supervised the preparation of the attached submission of a petition for the imposition of antidumping and countervailing duties on crystalline silicon photovoltaic cells, whether or not assembled into modules, from the People's Republic of China, AD/CVD Case Numbers A-570-579 and C-570-580. I certify that the information contained in this submission is accurate and complete to the best of my knowledge. I am aware that the information contained in this submission may be subject to verification or corroboration (as appropriate) by the U.S. Department of Commerce. I am also aware that U.S. law (including, but not limited to, 18 U.S.C. § 1001) imposes criminal sanctions on individuals who knowingly and willfully make material false statements to the U.S. Government. In addition, I am aware that, even if this submission may be withdrawn from the record of the AD/CVD proceeding, the Department may preserve this submission, including a business proprietary submission, for purposes of determining the accuracy of this certification. I certify that I am filing a copy of this signed certification with this submission to the U.S. Department of Commerce and that I will retain the original for a five-year period commencing with the filing of this document. The original will be available for inspection by U.S. Department of Commerce officials.


Gordon Brinser

Date: 19 October 2011

ORIGINAL

DOC Investigation Nos. A-570-979 and
C-570-980

USITC Inv. Nos. 701-TA-____, 731-TA-

Total Pages: 409

Investigation

Petitioner's Business Proprietary

Information Deleted from the Table of
Contents, pages 2-3, 5-6, 16, 27, 29-32,

34-38, 44, and 51-52, Exhibit List,

Exhibits I-3(B)-(G), I-8-I-9, I-13, and I-24

PUBLIC VERSION

**BEFORE THE
INTERNATIONAL TRADE ADMINISTRATION
UNITED STATES DEPARTMENT OF COMMERCE
AND THE
UNITED STATES INTERNATIONAL TRADE COMMISSION**

**CRYSTALLINE SILICON PHOTOVOLTAIC CELLS, WHETHER OR
NOT ASSEMBLED INTO MODULES, FROM THE PEOPLE'S
REPUBLIC OF CHINA**

**PETITION FOR THE IMPOSITION
OF ANTIDUMPING AND COUNTERVAILING DUTIES PURSUANT TO
SECTIONS 701 AND 731 OF THE TARIFF ACT OF 1930, AS AMENDED**

VOLUME I

COMMON ISSUES AND INJURY

Timothy C. Brightbill, Esq.
Adam H. Gordon, Esq.
Robert E. DeFrancescso, Esq.
WILEY REIN LLP
1776 K Street, N.W.
Washington, D.C. 20006
(202) 719-7000
*Counsel to SolarWorld Industries
America Inc.*

October 19, 2011

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BEFORE THE
UNITED STATES DEPARTMENT OF COMMERCE
AND THE
UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

PETITION FOR THE IMPOSITION
OF ANTIDUMPING AND COUNTERVAILING DUTIES AGAINST
CRYSTALLINE SILICON PHOTOVOLTAIC CELLS FROM
THE PEOPLE'S REPUBLIC OF CHINA

These Petitions are presented on behalf of SolarWorld Industries America Inc. (“SolarWorld” or “Petitioner”) and are supported by the Coalition for American Solar Manufacturing.¹ Petitioner alleges that crystalline silicon photovoltaic cells (hereinafter “CSPV cells”) imported from the People’s Republic of China,² whether individually or partially or fully assembled into modules or panels,³ are being or are likely to be sold at less than normal value within the meaning of section 731 of the Tariff Act of 1930, *as amended*, 19 U.S.C. § 1673 (hereinafter “the Act” or “the Tariff Act”). Petitioner further alleges that Chinese producers and exporters of CSPV cells and modules imported into the United States have benefited from subsidies that are countervailable within the meaning of section 701 of the Act, *as amended*, 19 U.S.C. § 1671. Finally, Petitioner alleges that these unfairly traded imports are a cause of material injury to the United States domestic industry producing CSPV cells and modules and threaten to cause further material injury if remedial action is not taken. These Petitions contain

¹ The Coalition for American Solar Manufacturing consists of the following companies: SolarWorld, [*Company Name* *Company Name* *Company Name*].
See Exhibit I-3(B-G).

² U.S. producers of thin-film products, such as Solyndra, are not part of the domestic CSPV industry on whose behalf these Petitions are being filed.

³ The terms “module” and “panel” are used interchangeably herein. For purposes of this Petition, both terms refer to multiple CSPV cells strung together.

Business Proprietary Information Deleted

information reasonably available to Petitioner in support of these allegations and are filed in conformity with 19 C.F.R. § 351.202 and 19 C.F.R. § 207.11.

As described in detail below, from 2008 through 2011, the Chinese CSPV industry has made a deliberate and concerted effort to push large and growing volumes of subject imports into the U.S. market using dumped and subsidized pricing, causing material injury to the domestic industry:

- “Suntech, to build market share, is selling solar panels on the American market for less than the cost of the materials, assembly and shipping.”⁴ - Shi Zhengron, chief executive and founder of Suntech Power Holdings, a Chinese manufacturer of CSPV cells and panels that is now the world’s largest producer.
- “The Chinese strategy is very clear. They are engaging in predatory financing and they’re trying to drive everybody else out of the market. When you’ve got free money you can out-dump everybody below cost. . . . If something isn’t done, no one will be making solar PV in the U.S.”⁵ - Bryan Ashley, chief marketing officer for Suniva Inc., a large U.S. manufacturer of CSPV cells and panels.
- “When it comes to . . . solar panels, the differential in labor costs is relatively small, but if we don’t get busy – if {China} continue{s} to give free land, subsidies and rig their currency – we’re going to lose all production of solar panels in this country, the prediction is, within five years.”⁶ – Rep. Sander Levin
- Senate Finance trade subcommittee Chairman Ron Wyden recently went so far as to urge the U.S. Government to take “aggressive action” to counter China’s unfair trade practices, including self-initiating a trade remedy case against Chinese subject imports.⁷

⁴ Keith Bradsher, *China Racing Ahead of U.S. in the Drive to Go Solar*, The N.Y. Times, Aug. 25, 2009, included at **Exhibit I-24**. This article sparked a firestorm of press articles in which Dr. Shi claimed that he had misunderstood the newspaper’s question, despite having been asked about the issue twice in the original interview. See Keith Bradsher, *Chinese Solar Firm Revises Price Remark*, The N.Y. Times, Aug. 27, 2009, included at **Exhibit I-24**.

⁵ Stephen Lacey, *How China Dominates Solar Power: Huge Loans from the Chinese Development Bank are Helping Chinese Solar Companies Push American Solar Firms Out of the Market*, The Guardian, Sept. 12, 2011, included at **Exhibit I-24**.

⁶ [**Article**], included at **Exhibit I-24**.

Year

⁷ *Id.*

Business Proprietary Information Deleted

Fueled by billions of dollars of government subsidies, Chinese capacity grew exponentially over the period (defined herein as 2008 – June 2011). Almost all of Chinese CSPV production was exported, with Chinese producers and exporters increasingly targeting the U.S. market during the period. Imports of CSPV cells and modules⁸ rose by more than 350 percent from 2008 to 2010, and accelerated to more than 44.6 million units in the first eight months 2011, a 157 percent increase from full year 2010. In fact, nearly as many CSPV cells and modules were imported in July 2011 as in all of 2010.⁹ Subject imports, which were pushed into the market through unfair pricing, far outpaced the growth in U.S. demand in the latter portion of the period. Chinese producers and exporters used dumped prices to force volume into the U.S. market and gain market share. As a result, Chinese prices caused market prices to collapse. At a time when it should have been benefitting from healthy demand, the domestic industry¹⁰ suffered from significant and growing operating losses. Due to the collapse in pricing caused by subject imports, several producers have declared bankruptcy and/or shut down U.S. operations, and more than 1,600 workers have been laid off. There is no doubt that Chinese subject imports caused and are causing material injury to the domestic industry.

Domestic producers and workers also are threatened with additional material injury if the unfair pricing practices of Chinese imports are not restrained by antidumping and countervailing duty orders. With U.S. prices and profitability plummeting, several U.S. producers have already

⁸ Subject imports include both imports of cells (HTSUS 8541.40.6030) and cells assembled into modules or panels (HTSUS 8541.40.6020). These are the primary HTSUS subheadings covering CSPV cells, modules, and panels. While subject modules or panels may be imported under HTSUS subheadings 8501.61.00.00 and 8507.20.80, the vast majority of subject imports over the period entered under HTSUS subheadings 8541.40.6020 and 8541.40.6030. Accordingly, references to import volumes throughout this Petition include combined data from these two HTSUS subheadings.

⁹ See Exhibit I-6.

¹⁰ As the [Narrative Narrative].

shuttered U.S. facilities, and with prospects for a “double-dip” global recession mounting, the domestic industry is extremely vulnerable to further material injury. In the absence of relief, the future of the domestic CSPV industry will be in peril. Chinese producers have enormous and growing CSPV capacity, are export-oriented, and have demonstrated that they can and will rapidly ship huge volumes of dumped and subsidized product into the U.S. market, irrespective of actual demand. Indeed, the sheer size of China’s substantial capacity compels Chinese producers and exporters to export virtually all of their production at dumped and subsidized prices. With demand in China’s alternative export markets stagnating, Chinese producers and exporters are poised to continue to increase shipments of dumped and subsidized product to the United States. Given the growing vulnerability of the U.S. industry, any hope of recovery will be dashed if AD and CVD orders are not imposed.

Separate volumes regarding the allegations of dumping by Chinese producers and exporters, countervailable subsidies provided to Chinese producers and exporters, and critical circumstances are being filed simultaneously at both the U.S. Department of Commerce (the “Department”) and the U.S. International Trade Commission (the “Commission” or the “ITC”). Petitioner requests that antidumping and countervailing duties be imposed to offset the dumping and subsidy margins detailed in the specific antidumping and countervailing duty volumes.

I. COMMON ISSUES

This section contains information required in antidumping, countervailing duty, and critical circumstances petitions by 19 C.F.R. §§ 351.202(b)(1)-(9) and 19 C.F.R. § 207.11.

A. The Name and Address of the Petitioner (19 C.F.R. § 351.202(b)(1))

Petitioner is a company that produces the domestic like product in the United States. Accordingly, Petitioner is a domestic interested party within the meaning of 19 U.S.C. § 1677(9)

and 19 C.F.R. § 351.102(b). Petitioner's address and telephone number are provided in **Exhibit I-1**.

B. Identity of the Industry on Whose Behalf the Petition Is Filed (19 C.F.R. § 207.11(b)(2)(ii); 19 C.F.R. § 351.202(b)(2))

These Petitions are filed on behalf of the United States industry that produces certain CSPV cells, whether or not fully or partially assembled into modules or panels. In addition to information relating to the Petitioner, the names, addresses, and telephone numbers of all other domestic producers in the United States are provided in **Exhibit I-2A**. According to the best information available to Petitioner, **Exhibits I-1** and **I-2A** identify all known producers of the subject merchandise in the United States.¹¹

C. Information Relating to the Degree of Industry Support for the Petitions (19 C.F.R. § 351.202(b)(3))

According to 19 U.S.C. §§1671a(c)(4)(A) and 1673a(c)(4)(A), a petition is filed by or on behalf of the domestic industry if: (1) petitioning domestic producers account for at least 25 percent of the total production of the domestic like product, and (2) domestic producers who support the petition account for more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for or opposition to the petition.

As shown in **Exhibit I-3**, the Petitions meet both of these requirements. Based on production data published by Photon International, a leading source for the solar PV industry, affidavits of support provided by domestic producers, and Petitioner's detailed knowledge of U.S. CSPV cell capacity and production, SolarWorld alone represents approximately [] percent of 2010 U.S. production. [*Narrative*]

¹¹ See **Exhibit I-3A**. For purposes of the Commission's injury analysis, **Exhibit I-2B** provides a list of U.S. CSPV module and panel producers.

Company Company].¹² In total, domestic producers who support the Petitions account for [70] percent of 2010 CSPV cell production.¹³

Therefore, domestic producers who support the Petitions account for at least 25 percent of the total production of the domestic like product and more than 50 percent of the production of the domestic like product produced by that portion of the industry expressing support for or opposition to the Petitions.

D. Previous Requests for Import Relief for the Merchandise (19 C.F.R. § 351.202(b)(4))

Petitioner has not previously filed for relief from imports of the subject merchandise under Section 337 of the Act, Section 701 of the Act, or Section 731 of the Act. Nor has Petitioner sought relief from imports under either Section 201 or Section 301 of the Trade Act of 1974, or under Section 232 of the Trade Expansion Act of 1962.

E. Scope of the Investigation and a Detailed Description of the Subject Merchandise (19 C.F.R. § 351.202(b)(5))

1. Scope of Investigation

The scope of this proceeding is defined as follows:

The merchandise subject to these proceedings consists of crystalline silicon photovoltaic ("PV") cells, whether or not

¹² See **Exhibit I-3**.

¹³ These calculations do not include Evergreen Solar Inc.'s production, because Evergreen should be excluded from the industry support analysis. In 2010, Evergreen entered into a joint venture in China to produce CSPV cells and began shifting its U.S. production to its Chinese affiliate, and therefore its position must be disregarded as a producer related to a foreign producer. In addition to its relationship to a Chinese producer, Evergreen shut down all of its U.S. operations in March of this year. As a result, because Evergreen no longer produces in the United States, now produces in China, and would be shipping subject merchandise from China to the United States, Evergreen's 2010 reported production of 157 MW should not be included in the standing and support calculation. 19 U.S.C. § 1671a(c)(4)(B); Greg Turner and Jerry Kronenberg, *Evergreen Solar Files for Bankruptcy, Plans Asset Sale*, The Boston Herald, Aug. 15, 2011, included at **Exhibit I-24**; Keith Bradsher, *Solar Panel Maker Moves Work to China*, The N.Y. Times, Jan. 14, 2011, included at **Exhibit I-24**; Photon International Survey, *Year of the Tiger*, Science & Technology at 194 (Mar. 2011) ("March 2011 Photon Int'l Survey"), included at **Exhibit I-10**.

individually or partially or fully assembled into other products, including, but not limited to, modules, laminates, panels and building integrated materials.

These proceedings cover crystalline silicon PV cells of thickness equal to or greater than 20 micrometers, having a heterogeneous, homogeneous or patterned p/n junction, heterojunction, metal-insulator-semiconductor junction or charge-induced junction. The junction may be formed by any means, including but not limited to dopant diffusion, ion implantation, epitaxial growth, any other deposition or growth of semiconductors, insulators or metals, or bonding of dissimilar materials. The merchandise subject to these petitions may be either partially or fully processed.

Subject merchandise may be described at the time of importation as parts for final finished products that are assembled after importation, including, but not limited to, modules, laminates, panels, building-integrated modules, building-integrated panels, or other finished goods kits. Such parts that otherwise meet the definition of subject merchandise are included in the scope of this proceeding.

Excluded from the scope of these proceedings are thin film PV products produced from amorphous silicon (a-Si), cadmium telluride (CdTe), or copper indium gallium selenide (CIGS).

Unless explicitly excluded from the scope of these proceedings, crystalline silicon PV cells possessing the physical characteristics of subject merchandise are covered by these proceedings.

Merchandise covered by these proceedings is currently classified in the Harmonized Tariff System of the United States ("HTSUS") under subheadings 8501.61.00.00, 8507.20.80, 8541.40.60.20 and 8451.40.60.30. These HTSUS subheadings are provided for convenience and customs purposes; the written description of the scope of these proceedings is dispositive.

2. Technical Characteristics and Uses

CSPV cells, which are made from crystalline silicon, are the building blocks of solar photovoltaic power-generation systems. CSPV cells are produced from ultra-refined polysilicon. CSPV cells convert the energy of sunlight directly into electricity, by the photovoltaic effect. Specifically, CSPV cells have a positive-negative junction ("p/n junction"), which is an interface

of a p-type semiconductor and an n-type semiconductor that is usually formed by dopant additions to create an intrinsic or extrinsic charge state.¹⁴ The p/n junction can be heterogeneous (*i.e.*, non-uniform dopant distribution, resulting in sections of the substrates responding differently to sunlight); homogeneous (*i.e.*, uniform dopant species or concentrations, resulting in a uniform response to sunlight); or patterned (*i.e.*, alternative dopant species or concentrations to purposefully create either a different response to sunlight or improve the ability to extract current from the cell). Positive and negative charge carriers are released in the cells through light radiation, causing electrical current (direct current) to flow.

Depending on the characteristics of the crystal growth process, CSPV cells can be mono-crystalline (also referred to as c-Si), having a single crystal lattice, or multi-crystalline (also referred to as polycrystalline or mc-Si), having variable crystal lattice patterns. In general, CSPV cells may vary with respect to efficiency, wattage output, length and width, the types of dopants employed (*e.g.*, n-type and p-type dopants), surface diffusion, surface texture, the types of conductive metallic pastes or inks applied to either side of the cell surface to produce conductive fingers, grid lines, and bus bars, and surface coating.

CSPV cells typically form the basic element of solar panels or modules but can be utilized in other products as well, including building integrated photovoltaic (“BIPV”) materials.¹⁵ CSPV cells used in solar panels or modules are conductively connected to one

¹⁴ The p/n junction can be formed by several means, including, but not limited to, dopant diffusion (*i.e.*, the process of using a concentration gradient of one species along with temperature and/or energy to insert those species into another); ion implantation (*i.e.*, the process of using a potential field to accelerate charged species, colliding those species with another to insert at a prescribed depth proportional to the applied potential field); epitaxial growth (*i.e.*, the process of using a gas or liquid that contains a concentration of species to grow atop a layer of another); or bonding of dissimilar materials (*i.e.*, the process of combining two materials that have differing species concentrations).

¹⁵ BIPV products are PV products that replace traditional building materials and can be used in several applications, including windows, paint, roofing tiles, facades, and siding. These products are relatively new market entrants and do not comprise a significant portion of the CSPV market.

another, laminated to strengthen and weather-proof the cells, and can be mounted into frames, depending on the final application. The resulting system of solar panels or modules are often installed on or above the roofs of residential and non-residential buildings, as free field installations, or as stand-alone units. If required to produce an alternating current, they can be connected to an inverter, which converts the direct current generated by the CSPV cells to alternating current that can be fed into the utility grid or directly into the residential or non-residential structure. The inverter can be integrated into the module itself, individually attached to the module, or several modules could be grouped into one larger inverter.

3. Production Methodology

The manufacturing process for CSPV cells includes up to five phases: (1) crystallization; (2) wafer production; (3) cell conversion; (4) module assembly; and (5) packing and inspection.¹⁶

a. Crystallization¹⁷

Wafer production begins with pure polysilicon chunks. These chunks are characterized by ultra-high silicon purity levels and are refined to an extremely high degree. Several methods for crystallization exist to produce a CSPV cell; the information below describes only one of the many methods.

The highly-refined polysilicon is placed in a quartz crucible along with a dopant – typically boron – which ensures proper electrical orientation of the metalloid crystals. The crucible and silicon are then placed inside a graphite insulation container, which is placed inside a cylindrical furnace.¹⁸ The furnace is then heated to approximately 2,500 degrees Fahrenheit to fully melt the silicon into liquid form. A seed crystal of refined silicon is introduced into the

¹⁶ See SolarWorld Production Brochure, at **Exhibit I-11**.

¹⁷ Some producers may purchase wafers instead of producing wafers on their own.

¹⁸ Owing to the extreme temperatures and conditions, a crucible can be used only two or three times before it must be replaced. In multi-crystalline production, the furnace is square or rectangular instead of cylindrical.

furnace and slowly placed into contact with the molten liquid to serve as the basis for crystal growth.

With the seed crystal in contact with the liquid, the furnace crucible begins to rotate while the seed crystal rotates in the opposite direction.¹⁹ After a period of time (over three days since the crucible was charged with polysilicon material), the molten silicon will fully solidify and adhere to the seed crystal as it is drawn out. This process results in a silicon crystal that is several inches in diameter and multiple feet in length. The completed crystal is then transferred to the production room for further processing.²⁰

b. Wafer Production

In the wafer production room, the silicon crystal is sliced in a state-of-the-art cutting area where a saw cuts off the ends of the crystal and cuts the crystal body into lengths (ingots) that are each approximately two feet in length for the next production step. These ingots can then be “squared,” whereby they are upended on their long ends and sawed in a second sawing machine that turns the crystal from a cylindrical shape into a quasi-square shape with rounded corners. The shape of the ingots depends on the final configuration and can be left round, squared to full-square or quasi-square dimensions. The “squared” ingot is then sliced into wafers, using a highly precise wire saw. The “wafers” are each less than 0.50 millimeters in thickness. At this stage, the silicon crystal has been turned into a crystalline silicon wafer.²¹

¹⁹ In multi-crystalline production, there is no need to introduce a silicon seed crystal as there is no need to orient all of the crystals in the same direction.

²⁰ *See* SolarWorld Production Brochure, at **Exhibit I-11**.

²¹ *See id.*

c. Cell Conversion

Cell conversion involves the processing of silicon wafers into solar cells that are capable of generating electricity. There are many process sequences that can convert the wafer into a solar cell. One such sequence is described below.

First, each raw wafer is transferred into a “clean room” where it is treated with chemicals and heat in a chemical bath. This is done to improve light absorption. The treated wafers are then placed in oven-like chambers where a dopant of opposite electrical property of the wafer is diffused into a thin layer of the wafers’ surface to impart an opposite electrical orientation to the cell surface. This orientation complements the electrical orientation of the underlying material, and results in a positive-negative diode – critical in the functioning of a solar cell. The cells are then moved to a chamber where they are coated with silicon nitride, which results in a blue-purple color to increase light absorption.

The coated cells then undergo a process akin to silk-screening, where conductive metals such as silver are painted or printed through masks onto the surface of the cell to form electrically conductive channels known as gridline or bus bars. These metal lines serve to channel electricity generated by the cell into electricity collection points. During this stage, an individual cell is completed.²²

d. Module or Panel Assembly

The next production step involves the assembly of cells into modules or panels. Grouping CSPV cells together significantly increases their potential for power generation. Solar panels or modules are by far the most common downstream application for CSPV cells.

²² See *id.*

First, solar cells are conductively connected, typically into a string of ten cells – although a string could have more or fewer cells depending on the intended power output of the module. A string of cells is then typically mated with five other strings to form a rectangular matrix of sixty solar cells – although a module could have more or fewer cell strings depending on the intended power output of the module. The matrix is then laminated with special solar glass, which helps to transmit solar energy to the cells as well as protect the cells from damage. The laminated cells and glass can be encased in a frame, if required for the specific application, which provides strength to the overall module and serves as a protective covering against weather and damage. Additionally, an electrical junction box is soldered or joined to the module. Once these tasks are accomplished, a solar module is considered to be complete.²³

e. Packing and Inspection

Completed solar modules undergo rigorous inspection and cleaning prior to dispatch from the production facilities. The modules are inspected for cracks, imperfections, poor framing, proper electrical connections, glass surface quality and cleanliness, and total output power rating. Once the module has been quality-control-checked, it is carefully packed in cartons or on pallets (with sufficient quantities of shock-absorbing materials) and prepared for shipment.²⁴

4. Tariff Classification

U.S. Customs and Border Protection (“CBP”) currently classifies CSPV cells under Harmonized Tariff Schedule of the United States (“HTSUS”) subheading 8541.40.6030. CSPV

²³ See *id.* In some cases, an electrical inverter (for converting direct current electricity (the type of electricity created by solar modules)) into alternating current electricity (the type used in household electrical systems) also can be soldered or joined to the module. The inclusion of an inverter is much more dependent upon the particular customer order. As an inverter is used to convert DC power to AC power, only one inverter may be needed for a number of finished modules.

²⁴ See *id.*

cells that are assembled into modules or panels are currently classified under HTSUS subheading 8541.40.6020. Solar panels with inverters or batteries attached can be classified under HTSUS subheadings 8501.61.00.00 and 8507.20.80, respectively. Excerpts from the current HTSUS are attached as **Exhibit I-4**.

For purposes of the volume data provided in this Petition, Petitioner relies on data from HTSUS subheadings 8541.40.6020 and 8541.40.6030. These are the two primary HTSUS subheadings for subject merchandise, while the other HTSUS subheadings provided above include many products not subject to this proceeding, such as electric generators.

The tariff numbers are provided for the convenience of the U.S. government and do not define the scope of the Petitions.

F. The Name of the Home Market Country and the Name of Any Intermediate Country Through Which the Merchandise Is Transshipped (19 C.F.R. § 351.202(b)(6))

Subject merchandise covered by these Petitions is manufactured in and exported to the United States from the People's Republic of China. Petitioner currently does not have any evidence indicating that the subject merchandise is produced in a country other than that from which it is exported. Petitioner expressly notes, however, that subject merchandise produced in China remains subject to this proceeding regardless of the country from which it is exported to the United States.

G. The Names and Addresses of Each Person Believed to Sell the Merchandise at Less Than Normal Value and the Proportion of Total Exports to the United States (19 C.F.R. § 351.202 (b)(7)(i)(A))

The names and addresses of the entities believed by Petitioner to be producing and exporting subject merchandise are provided in **Exhibit I-5**. Petitioner attempted to identify as many foreign sources of subject merchandise as possible through information provided by

Photon International, an independent and authoritative publication that gathers, analyzes, and publishes data regarding the solar industry. Information reasonably available to Petitioner does not allow it to identify the proportion of total exports to the United States accounted for during the most recent 12-month period by the producers listed in these exhibits. Petitioner believes, however, that the companies listed in **Exhibit I-5** account for a large proportion of subject exports.

H. All Factual Information Related to the Calculation of Export Price and the Constructed Export Price of the Subject Merchandise and the Normal Value of the Foreign Like Product for Non-Market Economy Countries (19 C.F.R. § 351.202(b)(7)(i)(B) and (C))

Volume II of these Petitions contains the necessary information concerning the calculation of the export price and the constructed export price for subject merchandise produced and exported from the People's Republic of China. As the People's Republic of China is currently considered to be a non-market economy ("NME"), Petitioner's calculation of normal value is based upon a "factors of production" analysis as discussed in Volume II.²⁵

I. The Names and Addresses of Each Person Believed to Benefit from a Countervailable Subsidy Who Exports the Subject Merchandise to the United States and the Proportion of Total Exports to the United States (19 C.F.R. § 351.202 (b)(7)(ii)(A))

The names and addresses of the entities believed by Petitioner to be benefiting from a countervailable subsidy and who have exported the subject merchandise are provided in **Exhibit I-5**. Petitioner attempted to identify as many foreign sources of subject merchandise as possible through information provided by Photon International, an independent and authoritative publication that focuses on the solar industry. Information reasonably available to Petitioner does not allow it to identify the proportion of total exports to the United States accounted for

²⁵ See 19 C.F.R. § 351.408.

during the most recent 12-month period by the producers listed in these exhibits. Petitioner believes, however, that the companies listed in **Exhibit I-5** account for the vast majority of subject exports.

J. The Alleged Countervailable Subsidies and Factual Information Relevant to the Alleged Countervailable Subsidies (19 C.F.R. § 351.202 (b)(7)(ii)(B))

Volume III of these Petitions contains information concerning the alleged countervailable subsidies as well as factual information relevant to the alleged countervailable subsidies; the law, regulations, and the decrees under which the subsidies were bestowed; the manner in which the subsidies were paid; and Petitioner's estimation – to the extent practicable – of the value of the subsidies to Chinese producers and exporters of the subject merchandise.

K. The Volume and Value of the Merchandise Imported During the Most Recent Three-Year Period (19 C.F.R. § 351.202(b)(8))

Subject imports from the People's Republic of China have increased significantly during the most recent three-year period. By volume under the relevant HTS numbers, imports from China increased from 3.8 million units in 2008 to 17.4 million units in 2010, an increase of more than 350 percent. Moreover, subject imports increased to 44.6 million units in the first eight months of 2011 alone.²⁶ By value, subject imports rose from \$233.34 million in 2008 to \$1.21 billion in 2010. In the first eight months of 2011, subject imports reached \$1.69 billion by value.²⁷ The source for these data is the official import statistics from the U.S. Census Bureau.²⁸

²⁶ See **Exhibit I-6**.

²⁷ *Id.*

²⁸ See *id.* These import statistics include both imports of cells (HTS 8541.40.6030) and cells assembled into panels (HTS 8541.40.6020). Given the highly aberrational average unit values reported under the cells assembled into panels HTS subheading, it appears that some importers are not consistently reporting the number of cells per panel under this HTS subheading, and instead are occasionally reporting simply the number of panels. Consequently, the import volumes of CSPV cells reported in the HTS subheadings may be understated.

L. The Names and Addresses of Each Entity the Petitioner Believes Imports or Is Likely to Import the Merchandise (19 C.F.R. § 207.11(b)(2)(iii); 19 C.F.R. § 351.202(b)(9))

The names and addresses of importers of the subject merchandise from the People's Republic of China that are known to the Petitioner at this time are listed in **Exhibit I-7**. Petitioner compiled this list based on [Source] bill of lading data. Petitioner believes, however, that there may be a number of importers of the subject merchandise from the People's Republic of China that are unknown to Petitioner at this time. Petitioner respectfully requests that the Department and the Commission obtain information from U.S. Customs and Border Protection to determine the full universe of importers. Petitioner does not have access to this information.

II. DOMESTIC LIKE PRODUCT AND DOMESTIC INDUSTRY

A. Domestic Like Product

The Tariff Act defines the domestic like product as being "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."²⁹ The Commission normally will consider a number of factors when defining the domestic like product. These factors include the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions; (5) common manufacturing facilities, production processes, and employees; (6) and price.³⁰ Based upon the scope of the investigation as well as evidence contained herein, this proceeding involves a single domestic like product: certain CSPV cells, whether individually or partially or fully assembled into modules or panels. The like product in this proceeding, therefore, is identical to the definition of the subject merchandise. The domestic like product only includes

²⁹ - 19 U.S.C. § 1677(10).

³⁰ See, e.g., *Uranium from Kazakhstan*, Inv. No. 731-TA-539-A, USITC Pub. 3213 at 4-5 (July 1999) (Final), citing *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996); *Nippon Steel Corp. v. United States*, 19 C.I.T. 450, 455 (1995).

CSPV cells, whether individually or partially or fully assembled into modules or panels. Thin-film technologies are not covered by the Petitions. Apart from some overlapping uses, thin-film technologies differ markedly from CSPV cells and modules/panels in terms of physical characteristics; interchangeability; channels of distribution; market perceptions; manufacturing facilities, production processes, and employees; and price.

1. Physical Characteristics and Uses

CSPV cells are made from crystalline silicon. They are thin silicon wafers that are treated to become a diode with a p/n junction, coated with specific chemicals to increase light absorption, and painted or printed with metals to add pinstripe “fingers” and bus-bar circuitry in order to gather electricity and collect and channel the power. Depending on the characteristics of the crystal growth process, CSPV cells can be mono-crystalline, having a single crystal lattice, or polycrystalline, having a patchwork of varying crystal patterns.³¹ CSPV cells are round, quasi-square, or square in shape and typically are 50 micrometers or more in thickness. The cells, which are building blocks of solar photovoltaic power-generation systems, convert the energy of light directly into electricity by the photovoltaic effect. CSPV cells are used for solar panels or modules, which are often installed on or above roofs of residential and non-residential buildings or as stand-alone (freestanding) units, as well as for other products, such as BIPV.

Thin-film products are physically distinguishable from CSPV cells and modules. CSPV cells and modules are made from crystalline silicon. Thin-film products do not use crystalline silicon and instead use a thin layer of a compound, such as cadmium telluride, copper indium gallium selenide, or amorphous silicon, which is sputtered or otherwise applied onto a substrate like glass. Thin-films take on the shape of the surface on which they are applied and require

³¹ Epitaxy and film recrystallization technology also can be utilized.

more units to generate the same power as CSPV technology in light of their significantly reduced efficiency as compared to CSPV cells. Thin-film products also typically are 20 micrometers or less in thickness, whereas CSPV cells are at least 20 micrometers in thickness and often more than 150 micrometers in thickness. While thin-film products are capable of being used in some of the same applications as CSPV cells, as detailed below, thin-film products are much less efficient and therefore less suited for applications with space constraints, such as rooftops. Instead, thin-film products are often used in environments without space limitations and/or environments with high temperatures or low light.

2. Interchangeability

CSPV cells and modules/panels, whether produced domestically, in China, or in a non-subject country, are used to convert light to electricity, and are interchangeable. CSPV cells and modules are all made from crystalline silicon and generally meet industry safety standards, such as UL and/or International Standard IEC standards.

While CSPV cell and thin-film applications may overlap, because of the different physical characteristics of the products, these products often are not interchangeable. As an ITC report has recognized, thin-film products are less efficient than CSPV cells.³² As a result, thin-film products require a significantly greater surface area than CSPV cells in order to generate the same amount of electricity. Because thin-film products weigh more and require more space than CSPV cell modules and panels, they are much less suitable than CSPV cells for use on top of residential and space-restricted non-residential buildings, where space and maximum load are limited. Thin-film products typically are used in applications without weight or space

³² See Andrew David, *U.S. Solar Photovoltaic (PV) Cell and Module Trade Overview*, USITC Executive Briefings on Trade (June 2011), included at **Exhibit I-12**.

installation constraints and in high temperature and/or low light environments. Because of this, the ability to substitute thin-film products for CSPV products is limited.

Moreover, CSPV cells and modules are often manufactured to industry safety standards, including UL 1703 and International Standard IEC 61215. Notably, International Standard IEC 61215 applies only to crystalline silicon products; a separate standard – IEC 61646 – applies to thin-film products, further demonstrating the distinctions between these two products.³³

3. Channels of Distribution

CSPV cells are typically internally consumed to produce solar modules and panels, or are sold to companies that fabricate modules or panels. Solar modules and panels generally are sold through the following channels of distribution: distributors, installers, and utilities/developers. Within these channels, there are three primary market segments: (1) utility-scale, where large-scale solar panel arrays are installed as stand-alone units; (2) commercial, where panels are affixed to large, flat non-residential rooftops or installed in stand-alone systems; and (3) residential, where panels are affixed to residential rooftops or installed in stand-alone systems. The utility-scale channel uses large-scale, free-standing arrays of solar panels to generate power for electricity consumers.

As noted above, CSPV cell modules and panels are more efficient than thin-film products. CSPV cell modules and panels are used in the residential and commercial sectors, but also can be used in large-scale utility arrays. Thin-film products, on the other hand, typically are not sold in the residential and restricted-space commercial channels because they weigh more and require much more surface area, and therefore space, to generate an amount of electricity equivalent to CSPV cells. Residential and restricted-space commercial rooftops pose surface-

³³ See International Electrotechnical Commission, *Crystalline Silicon Terrestrial Photovoltaic (PV) Modules – Design Qualification and Type Approval*, Int'l Standard IEC 61215 (2d Ed. 2005-04), included at **Exhibit I-13**.

area and load-bearing constraints that limit the use of thin-film products. Sales of thin-film products are comparatively strongest in the utility-scale market sector, where solar panel arrays are installed in large, open spaces, such as deserts, and therefore space efficiency and weight are not an issue.

4. Customer and Producer Perceptions

CSPV cells and modules produced domestically, in China, or in a non-subject country are generally viewed similarly by customers and producers. However, due to different physical characteristics, end uses, and manufacturing processes, CSPV cells and modules and thin-film products are viewed differently by customers and producers.

In this regard, CSPV cells and modules are recognized by customers and producers as the stalwart PV technology, and account for most global production of PV products. Thin-film technology, on the other hand, is a newer, less established PV technology that uses a deposited or sputtered film, rather than the crystalline silicon manufacturing process. As noted above, thin-film products weigh more and require more space than CSPV cell modules and panels because they are less efficient than CSPV cell modules and panels and therefore are not perceived in the same manner by customers.

5. Common Manufacturing Facilities, Production Processes, and Employees

The manufacturing facilities, production processes, and employees used for crystalline silicon production are entirely different from those used for thin-film products. As detailed above, the manufacture of CSPV cells is a highly automated, capital-intensive, and technologically sophisticated process, requiring skilled technicians and employees with advanced degrees. Thin-film manufacturing, on the other hand, bypasses the most fundamental aspect of

the entire CSPV cell manufacturing process by applying materials onto a substrate. Petitioner is not aware of any companies that produce both CSPV cells and thin-film products.

6. Price

CSPV cells and modules are sold on the basis of price per kilowatt. Thin-film products, which offer lower power density and have a lower cost of manufacturing than CSPV cells and modules, are generally less expensive than CSPV cells and modules on a per-watt basis.³⁴

7. Conclusion

The like product in this proceeding is contiguous to the scope of this proceeding. Aside from some overlapping uses, thin-film technologies differ significantly from CSPV cells and modules in terms of physical characteristics; interchangeability; channels of distribution; market perceptions; manufacturing facilities, production processes, and employees; and price.

B. Domestic Industry

Section 771(4)(A) of the Tariff Act defines the relevant domestic industry as the “producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”³⁵ Based upon the single like product defined above, the Commission should analyze a single domestic industry in this investigation: the domestic industry that produces CSPV cells

³⁴ Other solar products include solar thermal and concentrated solar power (“CSP”). These products differ significantly from CSPV cells, and, therefore, the domestic like product also excludes these two technologies. Both solar thermal and CSP do not use crystalline silicon, and indeed are not photovoltaic technologies (*i.e.*, technologies that use the process of converting light to electricity). Neither product is included in UL 1703 or International Standard IEC 61215. Solar thermal is a non-PV technology that transfers heat energy directly to water, must be connected to plumbing, and is often used as an alternative source for hot water or air. CSP is a non-PV technology that uses mirrors or lenses to concentrate sunlight onto a small area. The concentrated light typically is used as heat or a heat source for power plants and industrial processes. These products are not viewed as interchangeable with CSPV cells and use different manufacturing facilities, production processes, and employees. As a result, the domestic like product excludes solar thermal and CSP technologies.

³⁵ See 19 U.S.C. § 1677(4)(A).

and modules. The identities of the domestic producers that have manufactured the like product during the period are identified in sections I.A. and I.B., *supra*.

C. Related Parties

The Tariff Act provides that a domestic producer may be excluded from the domestic industry if it is either related to the exporters or importers of the subject merchandise, or if it is itself an importer of the subject merchandise.³⁶ The Commission considers a number of factors in making this determination, including the percentage of domestic production attributable to the related producer; the reasons the U.S. producer imports subject merchandise; and whether inclusion or exclusion of the related party will skew the data for the rest of the industry.³⁷

1. Evergreen Solar Inc.

As discussed above, in 2010, Evergreen Solar Inc. (“Evergreen”), a producer of CSPV cells, entered into and shifted production to a joint venture in China, and therefore its position regarding the Petitions must be disregarded under the Tariff Act.³⁸ In addition to its relationship to a subject producer, Evergreen shut down all of its U.S. operations in March 2011 and moved its remaining production to China. Because Evergreen no longer produces in the United States, now produces in China, and would be shipping subject merchandise from China to the United States, Evergreen’s interests do not principally lie in domestic CSPV cell production.³⁹ By its own admission, Chinese competition forced Evergreen to shutter its U.S. operations such that the

³⁶ *Id.* § 1677(4)(B).

³⁷ *See Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int’l Trade 1992), *aff’d without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int’l Trade 1989) *aff’d without opinion*, 904 F.2d 46 (Fed. Cir. 1990).

³⁸ 19 U.S.C. § 1671a(c)(4)(B); Greg Turner and Jerry Kronenberg, *Evergreen Solar Files for Bankruptcy, Plans Asset Sale*, The Boston Herald, Aug. 15, 2011, included at **Exhibit I-24**; Keith Bradsher, *Solar Panel Maker Moves Work to China*, The N.Y. Times, Jan. 14, 2011, included at **Exhibit I-24**.

³⁹ *See id.* Evergreen declared bankruptcy in August 2011, and its equipment will be auctioned at the end of October 2011, with most of the potential buyers being from China. Andrew Dodson, *Report: Most Potential Buyers in Evergreen Solar Auction are From China*, MLive.com, Oct. 12, 2011, included at **Exhibit I-24**.

Commission should consider the loss of jobs and U.S. capacity as an impact of dumped and subsidized Chinese competition. As a result of Chinese practices, Evergreen moved its production to a joint venture in China. Accordingly, Evergreen should be excluded from the domestic industry.

2. -- Suntech Arizona, Inc.

Suntech Arizona, Inc. is not a domestic producer of CSPV cells but does assemble solar panels in the United States using CSPV cells made in China. Suntech Power Holdings Co. Ltd. ("Suntech"), a company headquartered in Wuxi, China, is currently the world's largest producer of solar cells and controls several subsidiaries in China, including Wuxi Suntech Power Co., Ltd., along with Suntech Arizona, Inc.⁴⁰ Suntech opened its small U.S. solar module assembly plant in Goodyear, Arizona, in October 2010.⁴¹ Dr. Shi Zhengron, chief executive and founder of Suntech, stated prior to the opening of the U.S. module assembly facility that 90 percent of the workers at the U.S. facility would be welding together panels made from solar cells imported from China.⁴² Thus, it is clear that Suntech Arizona, Inc. has a direct interest in ensuring an abundant supply of unfairly traded subject imports, at the expense of domestic CSPV cell production. Dr. Shi went so far as to note that "Suntech has encouraged executives in its United States operations to take the top posts at the two main American industry groups, partly to make sure that these groups do not rally opposition to imports."⁴³

⁴⁰ 19 U.S.C. § 1677(4)(B)(ii)(I) and (III).

⁴¹ See *Suntech's Arizona Manufacturing Operations*, <http://am.suntech-power.com/en/about/44-suntech-about-press-center-arizona-pla>, attached at **Exhibit I-24**.

⁴² Keith Bradsher, *China Racing Ahead of U.S. in the Drive to Go Solar*, The N.Y. Times, Aug. 25, 2009, included at **Exhibit I-24**. See also Tom Cheyney, *Raising Arizona Solar: Suntech Bets on US Market With Goodyear Module Manufacturing Plant*, May 18, 2011 (noting that the CSPV cells are sourced from Suntech China), included at **Exhibit I-24**.

⁴³ *Id.*

Suntech Arizona Inc.'s interests do not principally lie in domestic CSPV cell production. Instead, Suntech's U.S. operation has a direct interest in ensuring that Chinese subject imports continue to enter the United States in increasing quantities and at unfair prices. Suntech's U.S. trade and financial data likely will reflect the fact that it is sourcing its primary input at dumped and subsidized prices. Therefore, when the Commission collects and analyzes trade and financial data from solar module or panel assembly operations in the United States, Suntech's U.S. operation should be excluded from the domestic industry.

3. Motech Americas, LLC

Similarly, Motech Americas, LLC ("Motech") is a subsidiary of Motech Industries, Inc., a CSPV cell manufacturer headquartered in Taiwan. Motech assembles PV solar modules in the United States. Motech Industries, Inc., the seventh largest cell producer in the world in 2010, has cell production operations not only in Taiwan, but also in China. Motech Industries, Inc.'s Chinese subsidiary, Motech (Suzhou) Renewable Energy Co. Ltd., produced 235 MW of solar cells in 2010.⁴⁴ This amounted to approximately one-fourth of Motech Industries, Inc.'s total cell production in 2010.⁴⁵ Because Motech is related to a Chinese CSPV cell producer and has a direct interest in ensuring that Chinese subject imports continue to enter the United States in increasing quantities and at unfair prices, the Commission should exclude Motech's data from its injury analysis.

4. Wanxiang New Energy LLC

Wanxiang New Energy LLC (also known as Universal Solar) ("Wanxiang") is a U.S. solar module manufacturer and wholly owned subsidiary of Wanxiang America Corporation. Wanxiang is part of the Wanxiang Group, which is based in China, and is related to Wanxiang

⁴⁴ See March 2011 Photon Int'l Survey at 204-205, included at Exhibit I-10.

⁴⁵ *Id.*

Solar, a Chinese PV module producer.⁴⁶ Wanxiang America Corporation explicitly notes on its website that customers can deal directly with China without ever leaving the United States: “If you have a product not being made in China or are considering having products made in China, you need to be in contact with Wanxiang America.”⁴⁷ Because Wanxiang’s interests do not lie with domestic production, Wanxiang should be excluded from the Commission’s injury analysis.

III. THE DOMESTIC INDUSTRY PRODUCING THE DOMESTIC LIKE PRODUCT IS MATERIALLY INJURED BY REASON OF UNFAIRLY TRADED IMPORTS FROM THE PEOPLE’S REPUBLIC OF CHINA

In determining whether the domestic industry has been injured by reason of the imports that are subject to this investigation, the Commission must consider the following:

- (1) the volume of imports of the subject merchandise;
- (2) the effect of imports of that merchandise on prices in the United States for domestic like products; and
- (3) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States....⁴⁸

As demonstrated below, overwhelming evidence demonstrates that the domestic industry is suffering material injury by reason of subject imports. The record shows an incredible surge in Chinese imports, causing significant disruptions in the marketplace. Driven by massive and

⁴⁶ See *id.* at 198; See also Zhejiang Wanxiang Solar Co., Ltd. Company Profile, <http://www.wanxiang-solar.com.cn/english/about1.asp>, included at Exhibit I-24.

⁴⁷ Wanxiang America Corporation, China-America Source Program, <http://www.wanxiang.com/source.html>, included at Exhibit I-24.

⁴⁸ See 19 U.S.C. §§ 1677(7)(B)(i)(I) – (III). The Tariff Act provides additional specificity with respect to the price effects of imports. Specifically, 19 U.S.C. § 1677(7)(C)(ii) provides that:

In evaluating the effect of imports on such merchandise on prices, the Commission shall consider whether

- (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
- (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents prices increases, which otherwise would have occurred, to a significant degree.

unprecedented subsidies from the Government of China, Chinese producers built gigawatts of capacity during the period. With a very limited home market for such products, Chinese producers shipped nearly all of their CSPV cell and module production to export markets during the period, increasingly targeting the U.S. market.

Subject imports grew by more than 350 percent from 2008 to 2010. The surge of Chinese imports swamped the marketplace in the first eight months of 2011, accelerating to more than 44.6 million cells and panels, a 157 percent increase from *full year* 2010.⁴⁹ Needing to utilize their capacity and wanting to build market share, Chinese producers and exporters used large and growing margins of underselling to push huge volumes of subject product into the U.S. market. The chief executive and founder of one of the largest CSPV cell and panel manufacturers in China admitted as much, stating that his company sold solar panels to the U.S. market for less than the cost of the materials, assembly, and shipping in order to rapidly increase U.S. market share.⁵⁰ The growth in U.S. demand in the latter portion of the period, while healthy, was nowhere near sufficient to absorb these massive volumes of unfairly traded imports. As a result, despite the fact that U.S. demand was relatively strong in 2010 and the first half of 2011,⁵¹ Chinese pricing practices caused prices in the U.S. market to collapse, falling more than 40 percent in less than a year.

These volumes of unfairly priced Chinese subject imports are a cause of material injury to the domestic industry. The collapse in U.S. pricing prevented U.S. producers from taking advantage of increasing demand, and has had a devastating impact on the domestic industry.

⁴⁹ See Exhibit I-6.

⁵⁰ Keith Bradsher, *China Racing Ahead of U.S. in the Drive to Go Solar*, The N.Y. Times, Aug. 25, 2009, included at Exhibit I-24.

⁵¹ See Solar Energy Industries Association, *U.S. Solar Market Insight: 2010 Year in Review, Executive Summary* at 2-3 (2010), included at Exhibit I-14.

The need to decrease prices to maintain sales, along with the corresponding inability to set prices sufficiently high to cover costs, resulted in significant losses. [

S4

Narrative

Narrative

...].⁵²

Harm to corporate financial results is but one type of injury caused by the influx of dumped and subsidized subject imports. The unabated wave of unfairly traded Chinese imports has inflicted considerable damage to the U.S. industry, resulting in at least seven domestic producers shutting down U.S. facilities or slashing their workforces. More than 1,600 U.S. workers have already lost their jobs. Suffering from lost sales, bankruptcies, shutdowns, and layoffs, the domestic industry is in dire straits. All of these trends reflect the causal link between imports from China and the material injury being suffered by the domestic industry.

A. The Volume and Market Share of Subject Imports Increased Dramatically and to Unprecedented Levels During the Period

In evaluating the volume of imports, the Commission must “consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.”⁵³ Fueled by aggressive pricing and underselling of the domestic industry, the volume of Chinese subject imports increased significantly during the period. The total volume of imports from China soared from 3.8 million units in 2008 to 17.4 million units in 2010, an increase of 358 percent.⁵⁴ In the first eight months

⁵² See Exhibit I-9 (Performance Data). Exhibit I-9 provides Petitioner’s financial information that was reasonably available at the time of filing. Further refinements to this information may be made as Petitioner gathers and finalizes data in response to the Commission’s questionnaires.

⁵³ 19 U.S.C. § 1677(7)(C)(i).

⁵⁴ See Exhibit I-6. As noted above, these import statistics include both imports of cells (HTS 8541.40.6030) and cells assembled into panels (HTS 8541.40.6020). Given the highly aberrational average unit values reported

of 2011, imports from China reached 44.6 million units, a figure already almost three times as large as Chinese imports in full year 2010.⁵⁵

Because import statistics are measured in units, and industry publications measure the size of the U.S. market and the domestic industry in watts, Petitioner is unable to provide an exact ratio of Chinese imports to U.S. apparent consumption over the period.⁵⁶ Given that the industry sells product on a per watt basis, Petitioner requests that the Commission collect trade and financial data on a per unit and kilowatt basis.⁵⁷ Nonetheless, a June 2011 ITC study documented the rapid expansion in Chinese imports of subject merchandise.⁵⁸ In 2008, China represented approximately 8.6 percent of total imports of cells and panels.⁵⁹ By 2010, imports of CSPV cells and panels from China represented 20 percent of all CSPV cell and panel imports – by itself a substantial import market share for a single country.⁶⁰ In the first eight months of 2011 alone, China's share of total CSPV cell and panel imports increased to a remarkable 45.6 percent of all imports.⁶¹

This explosion in subject import volumes was a direct result of the extent to which Chinese CSPV cells and panels undersold the rest of the market. Chinese CSPV cell producers, which accounted for approximately 50 percent of global capacity and production in 2010, rely on

under the cells assembled into panels HTS subheading, it appears that some importers are not consistently reporting the number of cells per panel under this HTS subheading, and instead are occasionally reporting simply the number of panels. Consequently, the import volumes of CSPV cells reported in the HTS subheadings may be understated.

⁵⁵ *Id.*

⁵⁶ See March 2011 Photon Int'l Survey, included at **Exhibit I-10**.

⁵⁷ See *Large Power Transformers from Korea*, Inv. No. 731-TA-1189, USITC Pub. 4256 (Sept. 2011) (Prelim.).

⁵⁸ See Andrew David, *U.S. Solar Photovoltaic (PV) Cell and Module Trade Overview*, USITC Executive Briefings on Trade (June 2011), included at **Exhibit I-12**.

⁵⁹ **Exhibit I-6**.

⁶⁰ *Id.*

⁶¹ *Id.* Imports from China easily surpass the negligibility threshold established by the Act. 19 U.S.C. § 1677(24)(A)(i)(I).

dumped and subsidized pricing to offload nearly all of their production to export markets.⁶² The U.S. solar market grew to \$6 billion in 2010, up from \$3.6 billion in 2009, and grid-connected PV installations reached 878 MW in 2010, up from 435 MW in 2009, and continued to grow in 2011.⁶³ As U.S. demand grew during the latter portion of the period, U.S. production and non-subject imports increased modestly to track this demand.⁶⁴ However, the surge in dumped and subsidized Chinese imports completely overwhelmed the U.S. market. The 1,064 percent increase in Chinese imports from 2008 through August 2011 far outpaced demand (along with both U.S. shipments and non-subject shipments), causing a crash in U.S. prices and preventing U.S. producers from further increasing production and U.S. shipments.⁶⁵

The lost sales information discussed below and provided in **Exhibit I-8** demonstrates that subject imports are capturing [*Narrative*] would otherwise be domestic volume on the basis of price alone. In 2011, subject imports from China already have captured a total of [*123,456*] panel sales (or [*30*] of sales volume) worth approximately [*47.666*] *Company*] alone, but for substantial underselling.⁶⁶ It should be noted that these lost sales are only those reported by a single company. Many others likely will be reported to the Commission by other U.S. producers.⁶⁷

⁶² See March 2011 Photon Int'l Survey at 206, included at **Exhibit I-10**; European Photovoltaic Industry Association, *Global Market Outlook For Photovoltaics Until 2015* at 36-37, included at **Exhibit I-15**.

⁶³ See Solar Energy Industries Association, *U.S. Solar Market Insight: 2010 Year in Review, Executive Summary* at 2-3 (2010), included at **Exhibit I-14**; Solar Energy Industries Association, *U.S. Solar Market Insight: 2nd Quarter 2011, Executive Summary* at 2 (2011), included at **Exhibit I-16**.

⁶⁴ See **Exhibit I-6**; **Exhibit I-9** (Performance Data).

⁶⁵ See **Exhibit I-6**.

⁶⁶ **Exhibit I-8** (lost sales).

⁶⁷ Yingli Green Energy Holding Co. Ltd., one of China's largest CSPV cell producers, boasts in its recent Form 6-K that it gained 46 new customers in the first half of 2011 alone. Yingli Green Energy Holdings Co. Ltd. Form 6-K for the Month of August 2011 at 1, included at **Exhibit I-17A**.

This sharp increase in subject imports, both absolutely and on a relative basis, was a cause of material injury to the U.S. CSPV industry.

B. Unfairly Traded Subject Imports Have Had Significant Negative Price Effects on the Domestic Industry

In evaluating the effect of subject imports on prices, the Commission must consider whether “there has been significant price underselling by the imported merchandise,” and whether the effect of imports “otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.”⁶⁸ Here, there is no question that subject imports have consistently and significantly undersold the market and depressed prices for U.S. products.

Regardless of the channel of sale, the main driver in the decision making process for U.S. customers is the price of a cell or panel per watt.⁶⁹ Chinese producers and exporters are using low prices to push massive volumes of unfairly traded subject imports into the U.S. market at the expense of the domestic industry. Chinese companies sold and continue to sell subject merchandise at dumped and subsidized prices, preventing U.S. producers from reaping the benefits of increasing demand. By the end of 2009, Chinese companies had pushed the price of solar panels down by almost half from the previous year.⁷⁰ Pricing pressures on domestic producers increased as Chinese imports accelerated in the latter portion of the period. Bryan Ashley, chief marketing officer for Suniva Inc., a large U.S. manufacturer of CSPV cells and panels, commented that “{t}he Chinese strategy is very clear. They are engaging in predatory

⁶⁸ 19 U.S.C. § 1677(7)(C)(ii).

⁶⁹ See [] Aff., included at Volume II of the Petitions, Exhibit II-1.

⁷⁰ Keith Bradsher, *China Racing Ahead of U.S. in the Drive to Go Solar*, The N.Y. Times, Aug. 25, 2009, included at Exhibit I-24.

Business Proprietary Information Deleted

financing and they're trying to drive everybody else out of the market. When you've got free money[,] you can out-dump everybody below cost."⁷¹

One Chinese producer noted that average selling prices fell by \$0.25 per watt in one quarter and "dropped drastically" in June 2011.⁷² In July 2011, an informal industry survey indicated that Chinese panel producers were offering CSPV modules at prices as low as \$1.19 per watt.⁷³ [*Company*], one of the largest Chinese manufacturers, offered its CSPV modules for only \$[*] per watt in the third quarter of 2011.⁷⁴ At the same time, [*Company*], another large CSPV cell and panel producer, offered modules for \$[*] per watt in the third quarter.⁷⁵ Globally, as a result of Chinese producers' dumped and subsidized pricing, module prices have dropped dramatically during the period: "This situation is pressuring margins for all technology manufacturers in regions other than China."⁷⁶

U.S. producers have borne the brunt of unfair Chinese prices. As the Chinese import surge accelerated in 2011, [*Narrative*].
[*Company* * * *Year*].⁷⁷

⁷¹ Stephen Lacey, *How China Dominates Solar Power: Huge Loans from the Chinese Development Bank are Helping Chinese Solar Companies Push American Solar Firms out of the Market*, The Guardian, Sept. 12, 2011, included at **Exhibit I-24**.

⁷² Bronte Capital, *Trina Solar Conference Call Notes*, Aug. 24, 2011, included at **Exhibit I-18A**.

⁷³ Photon International Survey, *Plummeting Prices: Falling Module Prices Took Center Stage at the Intersolar Europe Trade Fair in Munich*, Science & Technology at 78 (July 2011) ("July 2011 Photon Int'l Survey"), included at **Exhibit I-24**.

⁷⁴ See Volume II of the Petitions at **Exhibit II-2**.

⁷⁵ See *id.*

⁷⁶ Paula Mints, *PV Market Analysis: Mid-2011 Pause for Reflection – Just Don't Pause for Long*, Aug. 11, 2011, included at **Exhibit I-24**. See also Shai Oster, *World's Top Polluter Emerges as Green-Technology Leader*, The Wall Street Journal, Dec. 15, 2009, at 3 ("[Chinese] solar-power panel makers, including Suntech Power Holdings Co., Yingli Green Energy and Trina Solar Ltd., export most of their product to Europe and the U.S., contributing to a 30% drop in world solar-power prices."), included at **Exhibit I-24**.

⁷⁷ See Performance Data, included at **Exhibit I-9**.

[Company * Year * Narrative]⁷⁸ [Narrative]

], particularly during a time of strong demand, is clearly attributable to the influence of unfairly traded Chinese imports.

The lost sales evidence included in the Petitions at Exhibit I-8 further demonstrates that Chinese pricing is, on average, well below [Company]⁷⁹

].⁷⁹ Import prices from China show consistent, widespread, and substantial underselling of prices offered by U.S. producers. [Company Narrative]

].⁸⁰ Indeed, large Chinese producers such as Suntech, Trina, and Yingli Green Energy Holding Co., Ltd. ("Yingli") "have taken numerous customers away from [Company Narrative]

Company Company]⁸¹

This underselling, which existed throughout the period and became more prevalent and widespread in 2011, was directly responsible for the loss of [] sales volumes and revenues by U.S. producers. For example, in [Year], [Company Company] quoted [21,000] at \$[*] per watt. The price quoted by domestic producers to fill this same order was \$[*] per watt.⁸² This is but one example of a growing trend in which unfairly traded Chinese subject imports have undersold U.S. CSPV cell and module offers. U.S. producers find themselves forced to match these low-priced imports or lose

⁷⁸ Id.
⁷⁹ See id; Exhibit I-8 (lost sales).
⁸⁰ Exhibit I-8 (lost sales).
⁸¹ [Name] Aff., included at Volume II of the Petitions, Exhibit II-1.
⁸² Exhibit I-8 (lost sales).

the sales. Chinese prices have adversely affected the financial performance of the domestic industry by drawing millions of dollars of business and revenues away from U.S. companies.

These facts plainly indicate that underselling by Chinese producers has been significant. Petitioner also believes that underselling will be clearly evidenced in the data that the Commission collects on prices of particular products. Based on how the industry prices products and compares pricing, it is important that the Commission collect pricing product data on a dollar-per-watt basis. Therefore, the Commission should collect the total watts sold per product per quarter and the total revenue per product per quarter for the following products:

Product 1: Crystalline silicon module, with a peak power wattage of between 226 to 230 Wp

Product 2: Crystalline silicon module, with a peak power wattage of between 231 to 235 Wp.

Product 3: Crystalline silicon module, with a peak power wattage of between 236 to 240 Wp

Product 4: Crystalline silicon module, with a peak power wattage of between 241 to 245 Wp

C. Unfairly Traded Subject Imports Have Had an Injurious Impact on the Domestic Industry

In examining the impact of subject imports on the domestic industry, the Commission must consider “all relevant economic factors which have a bearing on the state of the industry within the United States.”⁸³ Such factors include declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity; factors affecting domestic prices; negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment; and negative effects on production and development efforts.⁸⁴ All relevant

⁸³ 19 U.S.C. § 1677(7)(C)(iii).

⁸⁴ *Id.*

factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”⁸⁵

Chinese producers’ and exporters’ practices have had grievous consequences for the domestic industry. The sharp increase of dumped and subsidized Chinese imports at extraordinarily low prices caused U.S. prices to freefall, even as demand in the United States grew. Indeed, although the U.S. solar market grew to \$6 billion in 2010, up from \$3.6 billion in 2009, and grid-connected PV installations reached 878 MW in 2010, up from 435 MW in 2009,⁸⁶ plummeting U.S. prices resulted in extraordinary losses in the U.S. industry, as U.S. producers had to significantly reduce prices to compete with Chinese product or lose U.S. sales. As a result, the domestic industry suffered from a cost-price squeeze and staggering losses at a time when it should have been profitable. These losses continue to mount. Several U.S. cell and panel producers have declared bankruptcy, slashed their workforces, and/or completely shut down U.S. facilities. Thus, dumped and subsidized Chinese imports have caused material injury to the domestic industry. As a representative of Suniva Inc. has noted, “[i]f something isn’t done, no one will be making solar PV in the U.S.”⁸⁷

1. [*Narrative*] **Demonstrate the Injurious Impact of the Substantial Volumes of Unfairly Traded Imports From China**

Despite growing U.S. demand in 2010 and 2011, the surge in dumped and subsidized Chinese imports prevented the domestic industry from taking advantage of the significant growth

⁸⁵ *Id.*

⁸⁶ See Solar Energy Industries Association, *U.S. Solar Market Insight: 2010 Year in Review, Executive Summary* at 2-3 (2010), included at **Exhibit I-14**. See also Solar Energy Industries Association, *U.S. Solar Market Insight: 2nd Quarter 2011, Executive Summary* at 3 (2011) (noting that U.S. demand has continued to grow in 2011, while global demand has been sluggish), included at **Exhibit I-16**.

⁸⁷ Stephen Lacey, *How China Dominates Solar Power: Huge Loans From the Chinese Development Bank are Helping Chinese Solar Companies Push American Solar Firms Out of the Market*, *The Guardian*, Sept. 12, 2011, included at **Exhibit I-24**.

in the market. Domestic producers have been forced to choose between simply losing sales to the Chinese or lowering prices to compete with dumped and subsidized Chinese imports such that they cannot cover their costs, resulting in a classic cost-price squeeze. Indeed, while

[Company
Year
Company
Year
Year
Time Period
Year

Year].⁸⁸ This indicates that while U.S. demand increased in 2011, resulting in an increase in sales, domestic producers [Company Narrative] due to the price suppressing and depressing effects of Chinese imports.

[Company]. As discussed below, the entire domestic industry has suffered heavy losses, and several U.S. manufacturers have been forced to declare bankruptcy and/or shut down operations due to the surge in dumped and subsidized Chinese imports.

2. Numerous U.S. Producers Have Shuttered U.S. Production, Reduced Workforces, and/or Declared Bankruptcy

The growing U.S. market for CSPV cells and panels should have resulted in a strong and profitable domestic industry. However, the collapse in market pricing and the significant increase in operating losses that resulted from the influx of Chinese imports forced U.S. manufacturers to shut down facilities, significantly reduce workforces, and declare insolvency. In September 2011, the adverse effects of huge volumes of unfairly traded Chinese subject

⁸⁸ See Exhibit I-9 (Performance Data).

imports forced SolarWorld to idle its Camarillo, California facility and layoff 186 workers.⁸⁹ Several other U.S. CSPV manufacturers have recently shut down U.S. operations, laid off workers, and/or filed for bankruptcy. For example:

- Evergreen Solar Inc., one of the largest domestic CSPV cell producers, closed its U.S. operations in March 2011, resulting in the loss of 800 American jobs. The company's CEO explained that "Solar manufacturers in China have received considerable government and financial support."⁹⁰ Evergreen declared bankruptcy in August 2011, and its equipment will be auctioned at the end of October 2011, with most of the potential buyers being from China.⁹¹ Evergreen also transferred its operations to China.⁹²
- Solon Corp., a U.S. module producer, shut down its Tucson, Arizona facility in August 2011, resulting in the loss of 65 jobs.⁹³
- Solar Power Industries Inc., a U.S. cell and panel producer, significantly reduced its workforce at its Rostraver, Pennsylvania plant in June 2011, citing an inventory glut and overseas competition.⁹⁴
- SpectraWatt Inc. shut down its Fishkill, New York solar cell plant in April 2011, resulting in the loss of 117 jobs, due in large part to dumping by Chinese producers.⁹⁵ SpectraWatt ultimately declared insolvency in August 2011. Its 140,000-square-foot state-of-the-art facility and equipment were auctioned in September 2011. SpectraWatt's equipment was auctioned to Canadian Solar Inc., a Chinese company, at 5 cents on the dollar, and its equipment likely will be moved to China.⁹⁶

89

[

Company Year]

90

Exhibit I-19 (chart of U.S. plant shutdowns).

91

Andrew Dodson, *Report: Most Potential Buyers in Evergreen Solar Auction are From China*, MLive.com, Oct. 12, 2011, included at Exhibit I-24.

92

Keith Bradsher, *Solar Panel Maker Moves Work to China*, The N.Y. Times, Jan. 14, 2011, included at Exhibit I-24.

93

See Exhibit I-19 (chart of U.S. plant shutdowns).

94

Id.

95

Id.

96

Press Release, SpectraWatt Solar Cell Manufacturing Facility to be Auctioned on September 28 (Sept. 7, 2011), included at Exhibit I-24.

- BP Solar shut down its Frederick, Maryland CSPV plant, which employed 320 workers, in March 2010. BP has indicated that it will move its production to other locations, including China.⁹⁷
- In mid-September 2011, Calisolar Inc., a U.S. producer of CSPV cells located in Sunnyvale, California, laid off 80 workers. Calisolar recently shifted entirely to production of polysilicon and wafers. According to news reports, two-thirds of the solar silicon bricks will be exported to China and other countries.⁹⁸

Dumped and subsidized Chinese imports are pushing U.S. manufacturers out of the CSPV cell and module industry. These facts constitute overwhelming evidence that dumped and subsidized imports from China have had a significant impact on domestic producers.

3. The Domestic Producers that Remain Have Not Been Able to Effectively Utilize Their Existing Capacity

Although demand in the United States grew over the period, the surge in dumped and subsidized imports captured much of this demand, continually forcing reductions in U.S. market prices. While [

Year Year

Narrative

].⁹⁹ The domestic industry had ample available capacity to service increasing demand. One need only consider the [*Narrative*] experienced at the hands of subject imports to appreciate their detrimental impact. But for the sudden increase of unfairly traded subject imports capturing U.S. sales, the domestic industry would have been able to further increase its production and shipments and maintain its prices [].

⁹⁷ See Exhibit I-19 (chart of U.S. plant shutdowns).

⁹⁸ See Carmen K. Sisson, *Senator: Correnti Made Solar Deal More Attractive*, The Dispatch, Sept. 15, 2011, included at Exhibit I-24.

⁹⁹ See Exhibit I-9 (Performance Data).

4. [*Narrative*] Lost Sales Due to the Surge
in Chinese Imports

The causal link between increased volumes and market share of subject imports, and declining profits and market share of the U.S. industry, is corroborated by documented lost sales and lost revenue information. As demonstrated in **Exhibit I-8**, Petitioner has provided evidence that it has lost sales of subject merchandise to competing Chinese imports. In 2011 alone, [*Company*] as a result of unfairly traded imports from China.¹⁰⁰ The [*Company*] to Chinese imports in 2011 represents [*Year*].¹⁰¹ This information is indicative of the injury that unfairly traded imports from China have caused to the U.S. domestic industry.

IV. THE DOMESTIC INDUSTRY IS THREATENED WITH MATERIAL INJURY BY REASON OF UNFAIRLY TRADED SUBJECT IMPORTS

In addition to analyzing present material injury, Section 771(7)(F) of the Tariff Act requires the Commission to determine whether the domestic industry is threatened with material injury by reason of unfairly traded imports from China. In making this determination, the Commission is directed to examine a number of factors. These factors include the following:

- (1) If a countervailable subsidy is involved, such information as to the nature of the subsidy, and whether imports of the subject merchandise are likely to increase;
- (2) Any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States;
- (3) Any rapid increase in the U.S. market penetration and the likelihood that the penetration will increase to an injurious level;

¹⁰⁰ Exhibit I-8 (lost sales).

¹⁰¹ *Id.*; Exhibit I-9 (Performance Data).

- (4) Price depression or suppression resulting from subject imports;
- (5) Inventories of the subject merchandise;
- (6) The actual and potential negative effects on the existing development and production effects of the domestic industry; and
- (7) Any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of subject imports.¹⁰²

The Tariff Act states that the Commission shall consider the above factors as a whole.

The Act further directs the Commission to make this determination on the basis of “whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued . . . under this subtitle. . . . Such a determination may not be made on the basis of mere conjecture or supposition.”¹⁰³

In addition to the present material injury caused by subject imports, Chinese subject imports pose a real and imminent threat of additional material injury to the domestic industry and its workers. The domestic CSPV industry is at a critical juncture, and requires relief from the continually increasing volume of dumped and subsidized Chinese imports. Several U.S. producers have already declared bankruptcy, slashed their workforces, and/or completely shut down facilities. Without relief from unfairly traded Chinese imports, this number will undoubtedly increase. U.S. prices and profitability continue to plummet, making domestic producers highly vulnerable. Making matters more grim, the global economy has taken a sharp downturn in recent months, and prospects for a “double-dip” recession are mounting.

In the absence of relief, Chinese producers will continue to ship enormous volumes of CSPV cells and panels to the U.S. market. Fueled by massive and unprecedented government subsidies, China’s capacity is large and growing exponentially every year. Chinese producers

¹⁰² 19 U.S.C. § 1677(7)(F)(i).

¹⁰³ *Id.* § 1677(7)(F)(ii).

are planning to double their capacity by the end of 2011 (to 37 GW), and will have unused capacity in 2011 (9 GW) that is several times larger than the U.S. market.¹⁰⁴ This capacity is expected to continue to swell in the next few years. Moreover, China is an export platform. Chinese producers and exporters are almost entirely dependent on exports to offload capacity.¹⁰⁵ During the period, the volume of Chinese imports rapidly accelerated, reaching 44.6 million cells and panels in the first eight months of 2011.¹⁰⁶ With demand for PV products in Europe stagnating due to tight credit markets and reduced incentives for renewable energy,¹⁰⁷ China, in coming years, almost certainly will increasingly target the U.S. market, which has abundant rooftop and land availability and high electricity consumption.

Chinese producers have demonstrated the ability, willingness, and desire to ship enormous volumes of dumped and subsidized product into this market in a very short period of time, and irrespective of actual demand. Given the vulnerability of the U.S. industry, in the absence of AD and CVD orders, any hope of recovery for domestic producers and their workers will be shattered, resulting in many more workers losing their jobs and the possible closure of additional domestic facilities. In light of the fact that several domestic producers have already shut down their U.S. operations, such a development will put the very future of the domestic industry at risk.

¹⁰⁴ Chinese Capacity Chart, included at **Exhibit I-20**.

¹⁰⁵ *Fits and Starts in China's Polysilicon Industry*, The China Sourcing Blog (May 20, 2011, 10:20 am), included at **Exhibit I-24**.

¹⁰⁶ See **Exhibit I-6**.

¹⁰⁷ European Photovoltaic Industry Association, *Global Market Outlook For Photovoltaics Until 2015* at 25, included at **Exhibit I-15**. See also *id.* at 34.

A. All Issues Relevant to the Commission's Threat of Material Injury Analysis Should Be Considered in Light of the Current Economic Crisis

In assessing the threat of material injury by reason of subject imports, the Commission should analyze the relevant statutory factors in light of the economic crisis that began in 2008 and greatly affected the United States and other world economies,¹⁰⁸ and continues to have particular implications for the renewable energy market, including the subject merchandise and the domestic like product. Demand for CSPV cells and panels depends in part on the ability to finance new solar energy projects, which require significant amounts of capital. The financial crisis in 2008 and the severe credit crunch throughout the global economy limited access to capital, thereby limiting growth in all sectors of the economy, including solar development.

These macroeconomic factors do not, of course, dictate the results in any particular investigation. They are, however, relevant to the Commission's consideration of the statutory factors here, as well as its consideration of the vulnerability of the domestic industry to threat of material injury by reason of subject imports. This is made clear by the Statement of Administrative Action ("SAA") accompanying the Uruguay Round Agreements Act:

In threat determinations, the Commission must carefully assess current trends and competitive conditions in the marketplace to determine the probable future impact of imports on the domestic industry and whether the industry is vulnerable to future harm.¹⁰⁹

¹⁰⁸ See International Monetary Fund, *World Economic Outlook UPDATE: Contractionary Forces Receding But Weak Recovery Ahead* (July 8, 2009), attached at **Exhibit I-21A** (describing the economic crisis as a "recession unprecedented in the post-World War II era"). In 2009, President Obama stated that the United States is in the "midst of our greatest economic crisis since the Great Depression." GPO, *The President's Weekly Address* (Feb. 7, 2009), available at <http://www.gpo.gov/fdsys/pkg/PPP-2009-book1/pdf/PPP-2009-book1-Doc-pg55.pdf>.

¹⁰⁹ Uruguay Round Agreements Act, Statement of Administrative Action, H.R. Rep. 103-316 at 885 (1994), reprinted in 1994 U.S.C.A.N. 4040, 4210 ("SAA").

In other words, the SAA recognizes that market conditions (such as the current economic crisis) may weaken the domestic industry such that subject imports could threaten material injury. As demonstrated below, that is certainly the case here.

As credit markets began to thaw in the United States and new projects began to come back on-line, the domestic industry should have been able to take advantage of new opportunities. U.S. PV installations doubled from 2009 to 2010, and continued to increase in 2011.¹¹⁰ Yet, through substantial margins of underselling, subject imports captured most of the increase in demand, surging into the U.S. market at the expense of the domestic industry.

Recently, Federal Reserve Chairman Ben Bernanke warned that the limited economic recovery that has taken place “is close to faltering” as a result of a jobs crisis in the United States and a debt crisis in Europe.¹¹¹ The U.S. CSPV industry’s share of those job losses is attributable, in large part if not entirely, to Chinese imports. The current global economic situation is precarious and the prospects for a double-dip recession are mounting. In its September 2011 World Economic Outlook, the International Monetary Fund (“IMF”) concluded that “{t}he global economy is in a dangerous new phase. Global activity has weakened and become more uneven, confidence has fallen sharply recently, and downside risks are growing.”¹¹² As growth prospects have dimmed since August, “worries have extended to more European countries and to

¹¹⁰ See Solar Energy Industries Association, *U.S. Solar Market Insight: 2010 Year in Review, Executive Summary* at 2-3 (2010), included at **Exhibit I-14**; Solar Energy Industries Association, *U.S. Solar Market Insight: 2nd Quarter 2011, Executive Summary* at 2 (2011), included at **Exhibit I-16**.

¹¹¹ Martin Crutsinger and Christopher S. Rugaber, *Bernanke Warns Recovery ‘Close to Faltering’*, Associated Press, Oct. 4, 2011, included at **Exhibit I-24**.

¹¹² International Monetary Fund, *World Economic Outlook: Slowing Growth, Rising Risks* at xv (Sept. 2011), included at **Exhibit I-21B**.

countries beyond Europe – from Japan to the United States.”¹¹³ These worries have led to a partial freeze of financial flows.¹¹⁴

As a result, the IMF’s outlook for advanced economies is for a “weak and bumpy” recovery, with “prospects for emerging market economies ... becom{ing} more uncertain again.”¹¹⁵ Real gross domestic product (“GDP”) in advanced economies is projected to expand at an “anemic” pace of just over 1 percent in 2011 and 2 percent in 2012.¹¹⁶ However, these projections assume that the growing downside risks do not materialize. These risks include the European sovereign debt crisis, decreasing economic activity and deteriorating financial conditions in the United States, and increasing volatility in global financial markets.¹¹⁷ According to the IMF, these downside risks are “very real” and could have “severe repercussions for global growth,” rendering both advanced and developing economies “unusually vulnerable.”¹¹⁸

The World Bank has echoed similar concerns regarding the imminent downside risks to the global economy. In a September 22, 2011 press conference, World Bank President Robert Zoellick stated that “the world is in a danger zone.”¹¹⁹ Zoellick noted that the European debt crisis represents “a new and larger risk loom{ing}” over the global economy and that any

¹¹³ *Id.* at xiii.

¹¹⁴ *Id.*

¹¹⁵ *Id.* at xv.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.* at xiv, xvi. In fact, Wells Fargo Securities recently concluded that the Eurozone has gone from “bad to worse,” including the fact that the “flash” purchasing managers’ indices (“PMIs”) for September declined even further with the manufacturing and services sectors in contraction. Wells Fargo Security, *Weekly Economic and Financial Commentary* at 1 (Sept. 23, 2011), included at **Exhibit I-22**.

¹¹⁹ Annual Meetings 2011 Opening Press Conference, World Bank Group President Robert B. Zoellick (Sept. 22, 2011), available at <http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:23008987~pagePK:34370~piPK:34424~theSitePK:4607,00.html>.

worsening of the European crisis would create a damaging cycle in the global economy, resulting in sharp growth declines in advanced and developing economies.¹²⁰

The economic outlook for the U.S. economy is similarly grim. On September 27, 2011, the chief economist for the Dallas Federal Reserve Bank stated that the U.S. economy is on a “knife edge” between growth and contraction and that the economy was “at a tipping point where things might not go the right way.”¹²¹ He concluded that the U.S. economy is “in the midst of the Second Great Contraction” and that the “patient is still not ready to get out of the hospital.”¹²² Indeed, the growing uncertainty in the U.S. and world economies has already hit the U.S. manufacturing sector.¹²³ For example, Moody’s Investors Service recently cautioned that “slower growth” is ahead for North American manufacturers.¹²⁴ The current global economic uncertainty has the potential to limit future demand for CSPV products.

Such macroeconomic factors make the domestic industry increasingly vulnerable to additional material injury by reason of dumped and subsidized subject imports.

B. China Encourages Exportation of Subject Merchandise Through Countervailable Subsidies

The Government of China and local and provincial governments within China provide numerous export subsidies identified in Articles 3 and 6.1 of the Subsidies Agreement to Chinese producers of subject imports. Among the most significant examples are the following:

¹²⁰ *Update: World Bank Chief Warns of Pull-Back in Emerging Markets*, Dow Jones Newswire, Sept. 19, 2011, included at **Exhibit I-24**.

¹²¹ *U.S. on “Knife Edge” of Contraction: Fed Economist*, Reuters, Sept. 27, 2011, included at **Exhibit I-24**.

¹²² *Id.*

¹²³ The Institute for Supply Management’s monthly purchasers managers index (“PMI”) registered 50.9 in July, down from 55.3 in June and its lowest point since July 2009 – suggesting that growth in the U.S. manufacturing sector is stalling. [**ARTICLE** **Date**], included at **Exhibit I-24**.

¹²⁴ [**Article** **Date**], included at **Exhibit I-24**.

- **Raw Material Inputs for Less than Adequate Remuneration:** There are different means by which the Chinese government likely provides material inputs (including polysilicon, aluminum, water, and power) to its CSPV cell producers for less than adequate remuneration. Perhaps most importantly, the polysilicon industry in China is state-owned. Polysilicon is the primary input for CSPV production. In addition, China currently maintains export restrictions on various grades of silicon, which ensures an abundant domestic supply of silicon in China, thus artificially depressing the domestic price of polysilicon and providing raw material inputs to CSPV cell producers for less than adequate remuneration.¹²⁵ The World Trade Organization (“WTO”) already has found that China’s export quotas and taxes on silicon and silicon carbide are not permissible, and distort trade by lowering prices in China and increasing prices for the rest of the world.¹²⁶
- **Preferential Loans at Below Market Rates:** There is abundant evidence that the Chinese government directly subsidizes CSPV cell producers through massive and unprecedented preferential loans, grants, and other direct infusions of funds, primarily from state-owned banks. In previous cases, the Department has found that the Chinese banking industry is primarily controlled by state-owned banks. These banks’ lending policies are driven by political directives from the central or provincial governments, rather than creditworthiness or other market-based factors. These “policy loans” have generally gone to state-owned enterprises and to industries favored by the government (including, now, the solar energy industry) on preferential, non-commercial terms. Petitioner has presented evidence of more than \$40 billion in loans and loan guarantees to solar producers.¹²⁷
- **Export Financing:** The Government of China has several programs in place to subsidize exports of “high-tech products,” including solar products. For example, exporters of products listed on the government’s “Catalogue of Chinese High-Tech Products for Export” (which includes “solar photovoltaic power generation systems”) are eligible to receive export seller credits and other financing from the Export-Import Bank of China (“China ExIm Bank”). Various reports indicate that the terms upon which financing is provided by China ExIm Bank are highly concessional and below the rates at which OECD-member export credit agencies provide financing.¹²⁸
- **Export Insurance:** The Government of China provides subsidized export credit insurance for green technology goods through the China Export and Credit Insurance Corporation (“Sinasure”). Sinasure provides what it calls “Green

¹²⁵ See Volume III of the Petitions at VI.B.2.

¹²⁶ *China - Measures Related to the Exportation of Various Raw Materials*, Report of the Panel, WT/DS394/R ¶¶ 7.95-7.98 (July 5, 2011).

¹²⁷ See Volume III of the Petitions at VI.D.

¹²⁸ *Id.* at VI.G.

Express” treatment, or a package of preferential policies, to high-tech exporters, such as exporters of solar products. Solar energy has been a key focus for Sinosure. Sinosure underwrote \$1.25 billion in photovoltaic exports from China, covering nearly half of all Chinese exports of this product, in the first half of 2009 alone. The premiums charged by Sinosure for export credit insurance are reportedly so low that they are inadequate to cover long-term operating costs and losses of the program.¹²⁹

- ***Other Types of Government Directed Capital Infusions:*** China’s solar industry also is expected to benefit from significant additional subsidies as China’s 12th Five-Year Plan is implemented. The plan identifies seven “Strategic Emerging Industries” (“SEIs”) that China considers vital to continued economic growth. Solar energy is included within “clean” or “new energy,” one of the SEIs identified by the 12th Five-Year Plan. The Plan contemplates massive subsidies for the SEIs, and China will reportedly invest \$760 billion over the next 10 years in the “clean energy” sector, with more than \$35 billion to be invested in solar energy alone.¹³⁰

These subsidies and others, which are described in detail in the countervailing duty volume of the Petitions, strongly indicate that the surge in exports from China is likely to increase. Accordingly, this statutory factor indicates that subject imports threaten the domestic industry with additional material injury.

C. Subject Producers Have Significant Volumes of New and Unused Capacity, Which Indicate the Likelihood of Substantially Increased Imports

The unprecedented increase in Chinese CSPV capacity weighs heavily in favor of an affirmative threat determination. Chinese producers shipped more than 44.6 million units of subject imports in the first eight months of 2011 alone. This was enough high volume, low-priced product to cause a collapse in U.S. prices, even during a time of relatively strong demand. Chinese producers already account for approximately 50 percent of global CSPV cell capacity.¹³¹

¹²⁹ *Id.* at VI.H.

¹³⁰ *Id.* at III.B.1.

¹³¹ European Photovoltaic Industry Association, *Global Market Outlook For Photovoltaics Until 2015* at 37, included at **Exhibit I-15**.

According to Photon International, China's CSPV cell capacity in 2010 was nearly 18 GW.¹³² Further, Chinese producers had approximately 5 GW of unused capacity in 2010.¹³³ This unused capacity alone is enough to saturate the U.S. market several times over.

Making matters worse, despite the fact that global production capacities in 2010 were "substantially higher" than demand for PV products, resulting in a glut of inventory,¹³⁴ China is continuing to expand its PV CSPV cell and panel capacity. Production of polysilicon in China, the main raw material for CSPV cells, is expected to rise dramatically in coming years.¹³⁵ Reports indicate that some Chinese companies, including Trina Solar Ltd., one of China's largest producers, have long-term, high-volume polysilicon procurement contracts that essentially require them to continue to expand capacity and production regardless of market conditions.¹³⁶

Photon International estimates that by the end of 2011, Chinese CSPV cell capacity will have doubled, reaching nearly 37 GW.¹³⁷ Not surprisingly, China's unused capacity is also expected to grow from 2010, rising to approximately 9 GW by the end of 2011.¹³⁸ Examples of major projects in China include:

- Yingli, one of the world's largest CSPV cell producers, is planning a capacity expansion of 700 MW in its Baoding and Hainan Province facilities by the end of this year, despite acknowledging existing oversupply in the industry.¹³⁹ This

¹³² Chinese Capacity Chart, included at **Exhibit I-20**.

¹³³ *Id.*

¹³⁴ European Photovoltaic Industry Association, *Global Market Outlook For Photovoltaics Until 2015* at 37, included at **Exhibit I-15**; Photon at 78-79 (July 2011), included at **Exhibit I-24**.

¹³⁵ Solar Industry, *PV Polysilicon Output From Chinese Manufacturers to Rise Dramatically*, Aug. 12, 2011, included at **Exhibit I-24**.

¹³⁶ See Bronte Capital, *Trina Solar: Somebody Got Lucky, but it was an Accident*, Aug. 10, 2011, included at **Exhibit I-18B**.

¹³⁷ Chinese Capacity Chart, included at **Exhibit I-20**.

¹³⁸ *Id.*

¹³⁹ Yingli Green Energy Holdings Co. Ltd. Form 20-F for the Period Ending Dec. 31, 2010 at 11, 50, and 54, included at **Exhibit I-17B**; Yingli Green Energy Holdings Co. Ltd. Form 6-K for the Month of August 2011 at 1, included at **Exhibit I-17A**; March 2011 Photon Int'l Survey at 192, included at **Exhibit I-10**; Michael Forsythe,

expansion will bring Yingli's total cell capacity to 1.7 GW, an increase of 70 percent from 2010.¹⁴⁰

- Hareon Solar Technology, one of the fastest growing producers, is planning to boost capacity to 1,560 MW, an increase of approximately 170 percent from 2010 levels.¹⁴¹
- Jinko Solar Holding Co. Ltd. plans to expand its capacity from 600 MW to 1,500 MW.¹⁴²
- Group Dmegg Magnetics Co. Ltd. plans to nearly triple its capacity, from 360 MW to 1,000 MW.¹⁴³

The U.S. market likely will be targeted to absorb China's massive CSPV cell and panel capacity. Chinese CSPV cell and panel producers rely almost entirely on exports. Demand in Europe, which has been one major outlet for China's overwhelming capacity, is expected to shrink, or, at best, remain relatively flat, in the next few years, due to cuts in solar power incentives and difficulties in obtaining financing for new renewable energy projects.¹⁴⁴ The Solar Energy Industries Association predicts a "slowdown in major European markets (most notably Italy and Germany)" in 2011.¹⁴⁵ The European Photovoltaic Industry Association has noted that "{t}he major growth experienced by the EU market last year {2010} is unlikely to be reproduced in coming years. . . . EPIA expects the market to at best stabilise in the EU in 2011 and 2012

Yingli CEO Says Solar Company Prepared for Drop in Panel Prices, Bloomberg.com, June 20, 2011, included at **Exhibit I-24**.

¹⁴⁰ Yingli Green Energy Holdings Co. Ltd. Form 20-F for the Period Ending Dec. 31, 2010 at 11, 50, and 54, included at **Exhibit I-17B**; March 2011 Photon Int'l Survey at 192, included at **Exhibit I-10**.

¹⁴¹ March 2011 Photon Int'l Survey at 205, included at **Exhibit I-10**.

¹⁴² *Id.* at 210

¹⁴³ *Id.* at 212.

¹⁴⁴ See Cassandra Sweet, *Solar-Panel Firms' Outlook Dims, May Remain Darker*, Dow Jones Newswires, Oct. 3, 2011, included at **Exhibit I-24**.

¹⁴⁵ Solar Energy Industries Association, *U.S. Solar Market Insight: 1st Quarter 2011, Executive Summary* at 2 (2011), included at **Exhibit I-23**.

before recovering in 2013.”¹⁴⁶ Moreover, Europe is still in the midst of a debt crisis, and it appears unlikely that Europe will absorb the PV capacity that it previously had developed, much less additional Chinese capacity.¹⁴⁷

Losses in the European market likely will not be replaced by increasing domestic shipments in China’s home market. Although China’s home market is expected to grow, it is small and will not be nearly large enough to absorb China’s capacity. Indeed, “China made half of the world’s solar panels in 2010, {but} only 1% was {sic} domestically installed.”¹⁴⁸ According to The New York Times, well over 90% of Chinese production is exported.¹⁴⁹ In this regard, for example, Yingli, one of China’s largest CSPV cell and panel producers, exported approximately 95 percent of its production in each year of the period.¹⁵⁰ Yingli also has specifically noted that it intends to further grow its business in the United States.¹⁵¹

Given that global PV growth is slowing, Chinese producers are likely to increasingly target the U.S. market. With abundant rooftop and land availability, an abundant and high-quality photovoltaic resource, and high electricity consumption, the United States is considered to be one of the most attractive markets for CSPV cells and panels.¹⁵² These factors will provide Chinese producers with even more incentive to shift enormous export volumes from other

¹⁴⁶ European Photovoltaic Industry Association, *Global Market Outlook For Photovoltaics Until 2015* at 25, included at **Exhibit I-15**. See also *id.* at 34.

¹⁴⁷ Martin Crutsinger and Christopher S. Rugaber, *Bernanke Warns Recovery ‘Close to Faltering’*, Associated Press, Oct. 4, 2011, included at **Exhibit I-24**.

¹⁴⁸ *Fits and Starts in China’s Polysilicon Industry*, The China Sourcing Blog (May 20, 2011, 10:20 am), included at **Exhibit I-24**.

¹⁴⁹ See Keith Bradsher, *China Racing Ahead of U.S. in the Drive to Go Solar*, The N.Y. Times, Aug. 25, 2009, included at **Exhibit I-24**.

¹⁵⁰ Yingli Green Energy Holdings Co. Ltd. Form 20-F for the Period Ending Dec. 31, 2010 at 17, included at **Exhibit I-17B**.

¹⁵¹ *Id.*

¹⁵² Solar Energy Industries Association, *U.S. Solar Market Insight: 2010 Year in Review, Executive Summary* at 4, 13 (2010), included at **Exhibit I-14**.

markets to the United States, demonstrating a threat of additional material injury to domestic producers.

D. The Volume and Market Penetration of Subject Imports Have Increased, Indicating the Likelihood of Substantially Increased Imports

As detailed above, both the volume and market penetration of Chinese imports increased enormously over the period. Chinese imports rose from 3.8 million units in 2008 to 17.4 million units in 2010, an increase of 358 percent. In the first eight months of 2011 alone, Chinese CSPV imports reached a remarkable 44.6 million units, comprising 45.6 percent of all U.S. imports. When this volume is annualized, imports are expected to reach nearly 66.8 million units by the end of 2011.

The fact that Chinese imports have risen by such an extraordinary amount, both in terms of volume and market penetration, strongly indicates that such imports are quickly increasing their presence in the U.S. market. With Chinese producers planning to double total production in 2011 – from 13 GW in 2010 to 28 GW in 2011 – and continue increasing production in coming years, this trend will undoubtedly accelerate in the absence of affirmative determinations by the Commission.¹⁵³ Accordingly, the rapid and sharp increase in imports during the period indicates “the likelihood of substantially increased imports” and supports a finding that the domestic industry is threatened with additional material injury.¹⁵⁴

E. Subject Imports are Entering at Prices that are Likely to Have a Significant Depressing or Suppressing Effect on Domestic Prices, and are Likely to Increase Demand for Further Imports

Subject imports dramatically undersold the domestic like product throughout the period, and this underselling has had significant effects on U.S. pricing. As noted above, price per watt

¹⁵³ Chinese Capacity Chart, included at Exhibit I-20.

¹⁵⁴ 19 U.S.C. § 1677(7)(F).

is the main driver in purchasing decisions. [*Name* *
Year * *Year*] as a result of dumped and subsidized Chinese pricing.¹⁵⁵ Some Chinese producers have gone so far as to say that they are looking forward to falling prices, presumably to allow them to push even more dumped and subsidized imports into the United States.¹⁵⁶ This price pressure from low-price, subsidized Chinese producers is expected to continue to be an issue, which likely will result in additional plant closures. Accordingly, this statutory factor shows that the domestic industry is threatened with additional material injury from subject imports.

F. Inventories of the Subject Merchandise Threaten the Domestic Industry with Additional Material Injury

Petitioner does not have access to data regarding inventories of CSPV cells and panels in China. However, the surge in Chinese imports, particularly in the latter portion of the period, resulted in inventories of dumped and subsidized Chinese CSPV imports in the United States.¹⁵⁷ [*Name* *Narrative*], as Chinese CSPV imports surged into the U.S. market.¹⁵⁸

Globally, CSPV capacity far exceeds demand, and inventories are increasingly becoming a “serious issue.”¹⁵⁹ In the U.S. market, as demand increased, the domestic industry increased

¹⁵⁵ Exhibit I-9 (Performance Data).

¹⁵⁶ See Michael Forsythe, *Yingli CEO Says Solar Company Prepared for Drop in Panel Prices*, Bloomberg.com, June 20, 2011, included at Exhibit I-24.

¹⁵⁷ While Petitioner does not have access to Chinese inventory data for the CSPV cell industry as a whole, Trina Solar Ltd.’s inventories grew from \$79 million to \$180 million from the quarter ending Dec. 31, 2010 to the quarter ending March 31, 2011. Trina Solar is one of the largest CSPV cell and panel producers in China, and, therefore, its data likely is illustrative of the growing inventories of Chinese producers. See Bronte Capital, *Trina Solar: Somebody Got Lucky, but it was an Accident*, Aug. 10, 2011, included at Exhibit I-18B. See also Paula Mints, *PV Market Analysis: Mid-2011 Pause for Reflection – Just Don’t Pause for Long*, Aug. 11, 2011, included at Exhibit I-24 (“Currently, most of the held inventory is in China.”).

¹⁵⁸ Exhibit I-9 (Performance Data).

¹⁵⁹ Paula Mints, *PV Market Analysis: Mid-2011 Pause for Reflection – Just Don’t Pause for Long*, Aug. 11, 2011, included at Exhibit I-24. See also July 2011 Photon Int’l Survey at 78-79, included at Exhibit I-24;

production. However, subject imports swamped the market, far outstripping U.S. demand and creating an inventory overhang. Domestic producers will likely lose significant sales volumes over the coming months and/or will be forced to further reduce prices in order to compete with CSPV cells and panels that are already in inventory. Therefore, the Commission should conclude that this factor also indicates that the domestic industry is threatened with further material injury by reason of unfairly traded imports.

G. Subject Imports are Hindering the Existing Development and Production Efforts of the Domestic Industry

CSPV cell production is highly capital-intensive and technologically sophisticated. As discussed above, [*Company* *narrative*] several U.S. producers have already declared bankruptcy. The presence of enormous volumes of subject imports has forced several domestic producers to close their facilities and lay off workers at a time when they should be able to sell CSPV cells and panels for a profit. In this regard, for example, SolarWorld recently idled its Camarillo, California facility and laid off 186 workers. Continuing harm of this type will make it difficult, if not impossible, for domestic producers to continue to adequately fund their development and production efforts.

H. Other Demonstrable Adverse Trends Indicate the Probability that There is Likely to Be Material Injury by Reason of Subject Imports

In addition to the factors discussed above, several other adverse trends demonstrate that subject imports are likely to cause additional material injury to the domestic industry.

First, the Chinese government believes that it must maintain economic growth – including export growth – in order to maintain social stability and regardless of profitability. China responded to the economic crisis that began in 2008 by promoting exports, including

Cassandra Sweet, *Solar-Panel Firms' Outlook Dims, May Remain Darker*, Dow Jones Newswires, Oct. 3, 2011, included at Exhibit I-24.

CSPV cells and panels, in order to export its way out of the recession. This export-oriented model continues today, and likely will continue for the foreseeable future.

Further, the global economic recovery is in a precarious position. The European economies are experiencing their own financial crisis, which is tempering economic growth in the United States and around the world. To the extent the European financial crisis causes the United States to slip back into a recession, solar project development could experience a slowdown. At the same time, the domestic industry is experiencing significant financial losses and is already vulnerable to significant additional material injury by reason of the subject imports. A slowdown in solar projects would exacerbate the material injury caused by the subject imports.

Finally, the Section 1603 Treasury Cash Grant program under the American Recovery and Reinvestment Tax Act of 2009 is set to expire at the end of 2011. This program reimburses applicants up to 30 percent of the eligible costs of installing solar energy property used in a trade or business.¹⁶⁰ While an Investment Tax Credit, which reduces overall tax liability, will still be available for solar projects until 2016, this tax credit is viewed as a less favorable incentive than the cash grant. Qualified solar energy installation property must either be placed in service by the end of 2011 or construction must begin by the end of 2011 in order to be eligible for the cash grant. This program and its 2011 expiration date likely will explain some growth in U.S. demand in the latter portion of 2011, as applicants attempt to lock down 5 percent of their project construction costs by the end of the year to ensure eligibility for the grant. The expiration of this program almost certainly will hamper U.S. demand for CSPV cells and panels in the non-residential and utility sectors, as less funding will be available for large projects. As a result, the

¹⁶⁰ See U.S. Department of the Treasury, *Recovery Act, 1603 Program: Payments for Specified Energy Property in Lieu of Tax Credits*, available at <http://www.treasury.gov/initiatives/recovery/Pages/1603.aspx>.

domestic industry will be that much more vulnerable to unfairly priced Chinese subject imports. Without cash incentives, not only will demand likely decrease, but price – namely, China’s extraordinarily low prices – will become that much more important in purchasing decisions.

V. CONCLUSION

All statutory factors support a finding that subject imports of certain CSPV cells and modules from China have caused material injury to the domestic industry and threaten the domestic industry with additional material injury. Chinese producers and exporters have pushed and will continue to push large and growing volumes of dumped and subsidized CSPV products into the U.S. market, regardless of demand. In the absence of the restraining effects of antidumping and countervailing duty orders, the domestic industry faces a grim future. Accordingly, the Commission should make an affirmative decision in favor of the domestic industry.

EXHIBIT LIST

<u>Exhibit</u>	<u>Description</u>	
I-1	Petitioner's Contact Information	Public
I-2	Domestic Producers	Public
I-2A	List of Non-Petitioners	Public
I-2B	List of U.S. CSPV Module and Panel Producers	Public
I-3	Information Related to the Degree of Industry Support for the Petition	
I-3A	Affidavit of Gordon Brinser	Public
I-3B	[Name] Declaration	BPI
I-3C	[Name] Declaration	BPI
I-3D	[Name] Declaration	BPI
I-3E	[Name] Declaration	BPI
I-3F	[Name] Declaration	BPI
I-3G	[Name] Declaration	BPI
I-4	Applicable HTS Inserts	Public
I-5	Foreign Producers of CSPV Cells and Modules	Public
I-6	U.S. Imports of CSPV Cells and Modules from China	Public
I-7	List of Importers	Public
I-8	Lost Sales and Lost Revenue	BPI
I-9	Performance Data	BPI
I-10	Photon International Survey, Year of the Tiger	Public
I-11	SolarWorld Production Brochure	Public

I-12	USITC Executive Briefings on Trade, U.S. Solar Photovoltaic (PV) Cell and Module Trade Overview	Public
I-13	International Standard IEC 61215 (Selected Pages)	BPI
I-14	SEIA, U.S. Solar Market Insight: 2010 Year in Review	Public
I-15	EPIA, Global Market Outlook for Photovoltaics Until 2015	Public
I-16	SEIA, U.S. Solar Market Insight: 2nd Quarter 2011	Public
I-17	Yingli Green Energy Holding Company Limited SEC Filings	
	I-17A Form 6-K	Public
	I-17B Form 20-F (Selected Pages)	Public
I-18	Bronte Capital Articles	
	I-18A Trina Solar Conference Call Notes	Public
	I-18B Trina Solar: Somebody Got Lucky, But it Was an Accident	Public
I-19	U.S. Shutdowns and Layoffs	Public
I-20	Chinese Capacity	Public
I-21	International Monetary Fund Reports	
	I-21A Contractionary Forces Receding But Weak Recovery Ahead	Public
	I-21B World Economic Outlook: Slowing Growth, Rising Risks (Selected Pages)	Public
I-22	Wells Fargo: Weekly Economic and Financial Commentary	Public
I-23	SEIA, U.S. Solar Market Insight: 1st Quarter 2011	Public
I-24	Articles	Public/BPI

EXHIBIT I-7

List of Importers

CSPV Importers

ACA TECHNOLOGY INC
 ADVANCED SOLAR PHOTONICS
 AEE SOLAR INC
 AES ILLUMINA LLC
 AFFORDABLE SOLAR GROUP LLC
 AFRICAN ENERGY LLC
 AGRATRONIX LLC
 AION SOLAR INC
 AIR TIGER EXPRESS COMPANIES, INC.
 AIR VENT INC
 AKEENA SOLAR INC
 ALLIED SUN TECHNOLOGIES
 ALPHA ENERGY
 ALPS TECHNOLOGY INC
 ALTAIR ENERGY INC
 ALTERIS RENEWABLES INC
 AM SOLAR, INC
 AMEC KAMTECH, INC.
 AMERESCO SOLAR
 AMERICAN CAPITAL ENERGY
 AMERICAN PRESTO CORP
 AMOSS TRADING SERVICES INC
 ANATONE CORP
 ANDERSON CARGO SERVICES INC
 ANDROID INDUSTRIES
 APAC LINK GROUP INC.
 APOLLO GATE OPERATORS INC
 AQT SOLAR INC.
 ASIA CONNECTION LLC
 ASSOCIATED REPRESENTATIVE CO LTD
 ASTRONERGY SOLAR INC
 AT THE BRIDGE AFFORDABLE SOLAR
 ATLANTIC CLEAN ENERGY SUPPLY
 ATTIC BREEZE
 AUTOMATION-X CORP.
 AXEL RAMIREZ
 BAP POWER CORPORATION
 BATTERY STUFF CO
 BATTERY WORLD
 BIG LOTS STORES, INC
 BIRHGWAY GLOBAL, LLC
 BLUE WAVE

Importer Address 1

15370-A FAIRFIELD RANCH ROAD
 400 RINEHART RD
 1121 STRIKER AVE SUITE 130
 R-3, D STREET, EXT ALTO APOLO
 4840 PAN AMERICAN FRONTAGE RD NORTH
 237 S. MILLER LANE
 10375 STATE RT 43
 1257 LAKESIDE DR. #1231
 1501 WEST MILITARY HWY 281
 4117 PINNACLE POINT DR.#400
 16005 LOS GATOS BLVD
 557 PETER PLACE
 3765 ALPHA WAY
 3930 VALLEY BOULEVARD #B
 3765 ALPHA WAY BELLINGHAM
 122 GALLISON HILL ROAD MONTPELIER
 3555 MARCOLA ROAD
 667 BAY ROAD SUITE 3B
 202 SOUTH LIVE OAK SUITE B
 15 TYNGSBORD RD SUITE 4A
 4001 E SANTA ANA STREET
 5333 RIVER ROAD SUITE E
 301 S. LEMON CREEK DR SUITE B-148
 917 LONE OAK ROAD SUITE #400
 4444 W MAPLE AVENUE
 1987 UNA COURT FERMONT
 12902 DELIVERY DRIVE
 1145 SONORA COURT
 200 EAST 90TH STREET SUITE 4H
 1741 W TORRANCE BLVD B
 377 SWIFT AVENUE
 W9230 STATE ROAD
 18 CULNEN DRIVE SOMERVILLE
 4582 KING WOOD DRIVE SUITE E-154,
 620 S. CARLTON
 7101 N MESA NUMBER 191
 2784 GATEWAY ROAD, SUITE 102
 467-B CLEWIS LANE
 1749 BOUNDARY ROAD
 2306 ENTERPRISE BLVD.
 349 PIERSON AVE
 1745 WALLACE AVE

Importer Address 2

CHINO HILLS, CA 91709
 LAKE MARY, FL 32746
 SACRAMENTO, CA 95834
 GUAYNABO, P.R. 00969
 ALBUQUERQUE, NM 87109
 SAINT DAVID, AZ 85630
 STREETSBORO, OH 44241
 SUNNYVALE, CA 94085
 PHARR, TX 78877
 DALLAS, TX 75211
 LOS GATOS CA 95032
 SIMI VALLEY, CA 93065
 BELLINGHAM, WA 98226
 WALNUT, CA 91789
 BELLINGHAM, WA 98226
 MONTPELIER, VT 05602
 SPRINGFIELD, OR 97477
 QUEENSBURY, NY 12804
 TOMBALL, TX 77375
 NORTH CHELMSFORD, MA
 ONTARIO, CA, 91761
 NEW ORLEANS, LA 70123
 WALNUT, CA 91788 US
 EAGAN, MN 55121
 FLINT, MI 48507
 FERMONT, CA 94539 T:510
 SAN ANTONIO TX 78247
 SUNNYVALE CA 94086
 NEW YORK, NY 10128-355
 TORRANCE CA 90501 USA
 SOUTH SAN FRANCISCO CA
 WAUTOMA WI 54982
 SOMERVILLE, NY 08876
 KINGWOOD, TEXAS 77345
 FARMINGTON NM 87402
 EL PASO TX 79912
 CARLSBAD, CA 92009
 GRANT'S PASS, OR 97526
 VANCOUVER BC V5M 3Y7
 DURANT, OK 74701
 EDISON, NJ 08837
 ST. CHARLES, IL 60174

Tel Number

909-606-8000
 407-804-1000 X534
 707-923-2277
 787-671-4761
 505-944-4242
 520-720-9527
 330-562-0053
 209-406-4225
 408-499-6556
 805-583-1100
 909-468-1800
 802-279-8767
 541-726-1091
 518-761-2433
 951-600-1130
 866-307-5370
 909-390-5288
 504-773-0080
 909-952-7842
 651-556-3400
 510-366-3518
 985-8487-1600
 650-392-2779
 888-900-1581
 281-229-9709
 505-564-2019
 760-603-1933
 1-604-473-950
 516-520-3050

List of Importers

CSPV Importers

Importer Address 1	Importer Address 2	Tel Number
BOMBARD ELECTRIC, LLC	LAS VEGAS, NEVADA 89118	702-263-3570
BOOMER CONSTRUCTION INC.	SHOW LOW, AZ 85901	619-792-1156
BORREGO SOLAR SYSTEMS, INC	EL CAJON, CA 92020	972-287-1216
BOSS BUCK INC.	SEAGOVILLE TX 75159	301-698-4200
BP SOLAR INTERNATIONAL, LLC	FREDERICK MD 21703	
BRETT DESCHAMPS	NEW YORK, PR 09456-3413	
BRIGHTWATTS INC.	OAKLAND PARK, FL 33311	954-556-4063
BRIGHTWAY GLOBAL, LLC	EDISON NEW JERSEY 08837	718-765-1915
BROAD ELM MANAGEMENT INC	BUFFALO NY 14150	302-690-4086
BROADWAY ELECTRICAL CO. INC	BOSTON, MA 02122-3592	617-288-7900
BRUNTON OUTDOOR GROUP	MEMPHIS TN 38118	307-857-4725
BURGHLI HOMES	HOUSTON, TX 77022	
BURLINGAME INDUSTRIES, INC.	RIALTO, CA 92377	
BYD AMERICA CORP.	ARLINGTON HEIGHTS IL	213-822-2716
C AIR INTERNATIONAL, INC.	ANAHEIM, CA 92802	
CA SOLAR LLC	UNION CITY, CA 94587	510-380-8899
CALIFORNIA GLOBAL EXPORT	SAN YSIDRO, CA 92173	619-781-6384
CALMONTE CORPORATION	SAN GABRIEL, CA 91776	626-262-4739
CAMPING WORLD WCDC	BAKERSFIELD CA 93308	
CANADIAN SOLAR (USA) INC	SAN RAMON, CA 94583	925-866-7160
CANADIAN TIRE CORPORATION, LTD.	TORONTO, ON, M4P 2V8	
CARMANAH TECHNOLOGIES CORP	ANNACIS BUS PARK DELTA,	
CBC(AMERICA)CORP	COMMACK NY 11725	631-864-9700
CED-GREENTECH	PHOENIX, AZ 85034	602-437-4200
CENERGY POWER	CHOWCHILLA CA 93610	760-603-1933
CENTROMAX GROUP INC	HAYWARD, CA 94545	
CENTRON SOLAR INC	EUGENE, OREGON 97402	541-228-8888
CENTROSOLAR AMERICA, INC.	SCOTTSDALE, AZ 85260	480-348-2555
CHINA CONTAINER LINE LTD	EL SEGUNDO, CA 90245	310-725-0500
CHINA CUSTOM MANUFACTURING LTD	FREMONT CA 94539	
CHINA INTERNATIONAL EXHIBITION CENT	SAN FRANCISCO CA 94103	
CHINT SOLAR ZHEJIANG CO LTD	SAN FRANCISCO CA 94080	
CHOICE MECHANICAL INC	NASHVILLE, TN 37203	
CLARK ASSOCIATES, INC	PA 17602	
CLEAN ENERGY CONSTRUCTORS, LLC	CARROLLTON, TX 75007	972-971-1195
CLEAN ENERGY DEPOT INC	SOMERSET NJ 08873	415-459-4201
CLEAN ENERGY SOLUTIONS, INC	BOULDER, CO 80301	415-495-6320
COASTAL BEND TRADING COMPANY	CORPUS CHRISTI TX 78466	361-852-1161
CONERGY INC	DENVER, CO 80211	505-563-4482
CONNEXA ENERGY	BOERNE TX 78006	
CONNIE LENCER	SEATTLE WA 98148	
CONSOLIDATED ELECTRICAL DISTRIBUTOR	LONG BEACH CA 90806	
COPPERHILL ALTERNATE ENERGY INC	ETOBICOKE, ON M9W4N8	866-820-7906

List of Importers

CSPV Importers	Importer Address 1	Importer Address 2	Tel Number
CORMAC INC	6591 NW 82 AVE	MIAMI FL 33166	305-4775494
COSMOS SOLAR ENERGY INC	31-35 61ST	WOODSIDE NY 11377	718-278-8866
CROSSROADS MEDIA INC	8194 SIMPSON SPRINGS RD	EAGLE MOUNTAIN UT 84005	801-789-5711
CRUISE CAR INC	1932 WHITFIELD PARK LOOP	SARASOTA, FL 34243	941-929-1630
CS AND E INC- CLEAN SOURCE AND ENERGY	1154 CADILLAC CT.	MILPITAS, CA 95035	
CSI NORTHERN CALIF WAREHOUSE	3865 RAILROAD AVE	PITTSBURG, CA 94565	926-439-1145
CSI SOLAR INC	14408 ISELI RD	SANTA FE SPRINGS, CA	
CTS LOGISTICS USA INC.	230-59 INTERNATIONAL AIRPORT CENTER	JAMAICA, NY 11413	718 632 0020
CUSTOM DESIGN TECHNOLOGY INC	1112 WALSH AVE	SANTA CLARA, CA 95050	408-982-0990
CX ENTERPRISE,INC.	14408 ISELI ROAD	SANTA FE SPRINGS,CA 90670	562-407-1088
DAKARA SOLAR	7568 WEST THUNDERBIRD ROAD SUITE 1	PEORIA,AZ 85381	
DALLAS CONVENTION CENTER	650 S. GRIFFIN ST	DALLAS TEXAS 75202	
DANIEL GIBLETT	9571 ARGYLE DR AUSTIN TX 78749	AUSTIN TX 78749	310-900 0300
DAVID LEVY COMPANY,INC.	12753 MOORE ST.	CERRITOS, CA 90703 US	562-404-9998
DE WELLL CONTAINER SHIPPING,INC	17800 CASTLETON STREET SUITE 630	CITY OF INDUSTRY,CA 91748	
DEMAND ELECTRIC INC	711 VALLEYST.NH 03103	MACHESTER, NH 03103	
DEPENDABLE DISTRIBUTION	S.CHERRY AVENUE	FRESNO, CA 93706	
DESERT POWER INC.	77380 MICHIGAN DR.	PALM DESERT,CA 92211	760-360-9060
DFEC ENTERPRISE INC.	13951 CENTRAL AVE.	CHINO, CA	
DIRECT MANUFACTURING INTERNATIONAL	2560 CORPORATE PLACE,SUITE C102	MONTEREY PARK,CA 91754	
DM SOLAR,LLC	8076 NW 111TH TER PARKLAND, FL 3307	PARKLAND, FL 3307	800-422-2088
DOHENY ENTERPRISES INC.	6950 51ST STREET	KENOSHA, WI 53144	262-605-3006
DOMETIC CORPORATION	1201 PENDALE	EL PASO,TX 79907	
DOW CORNING CORPORATION	10330 HERCULES DRIVE	FREELAND MI 48823	
DRIENERGY,CORP	17182 ARMSTRONG AVENUE	IRVINE,CA 92614	
DUKE ENERGY CAROLINAS LLC	1725 DRYWALL DRIVE	MOUNT HOLLY, NC 28120	704-382-5225
DYN GLOBAL CALIFORNIA CORP	760 16TH ST BUILDING H	COSTA MESA, CA 92627 USA	949-584-6198
E.T. SOLAR INC.	4900 HOPYARD ROAD SUITE 290	PLEASANTON CA 94588 USA	925-460-9898
EAGLE ROOFING PRODUCTS	4555 SOUTH MCKINLEY AVENUE.	STOCKTON CA 95206	909-822-600
EAGLE SOLAR	3546 N RIVERSIDE AVE	RIALTO, CA 92377 USA	
EASY SOLAR CORPORATION	944 MEL AVE	PALM SPRINGS CA 92262	224-522-8953
ECO SOLAR TECHNOLOGY	3123 GROVELAND DR	ORANGE PARK,FL 32065	904-219-0807
ECOLOGICAL SYSTEMS LLC	220 COUNTY ROAD 522 MANALAPAN,NJ 07	MANALAPAN, NJ 07726	718-632-6008
ECOSOLARLY INC	1370 REYNOLDS AVE SUITE 116	IRVINE CA 92614	866-299-2565
ECXCO LEE CONNER	15445 INNOVATION DRIVE	SAN DIEGO, CA 92128	
EI SOLUTIONS	2171 FRANCISCO BLVD,SUITE H	SAN RAFALE,CA 94901	415-524-4333
EL PASO COMMUNICATIONS SYSTEMS,INC	1630 E. PAISANO DR.,	EL PASO, TX. 79901	
ENEL NORTH AMERICA INC	1755 E PLUMB LANE SUITE 155	89502 RENO, NV	
ENXCO DEVELOPMENT CORPORATION	15445 INNOVATION DRIVE	SAN DIEGO CA 92128	858-521-3395
ESSCO WHOLESale ELECTRIC, INC	175 E CORPORATE PI CHANDLER AZ 852	CHANDLER AZ 85225	480-497-8000
ETA ENGINEERING,INC.	4049 EAST PREIDIO STREET.#117	MESA, ARIZONA 85215	480-966-1380
EVERBRIGHT SOLAR, INC.	4425 ENTERPRISE STREET	FREMONT, CA 94538 USA	
EVERGREEN SOLAR	138 BARTLETT STREET	MARLBORO MA 01752	

List of Importers

CSPV Importers	Importer Address 1	Importer Address 2	Tel Number
EXPEDITORS INTL OF WA INC	245 ROGER AVENUE	INWOOD, NY 11096	912-201-0202
EXPOLINK TRADING, INC.	1107 DEVONSHIRE ROAD	HAUPPAUGE NY 11788	631-630-1902
FARMTEK FARMTEK DIV	1440 FIELD OF DREAMS WAY	DYERSVILLE IA 52040	
FIRE ENERGY USA INC	1320 N.SAN GABRIEL BLVD.	ROSEMead, CA 91770	818-812-9561
FLEXTRONICS SYSTEM TEXAS LTD	10900 CASH ROAD	STAFFORD, TX 77477	
FOCUSED ENERGY INC.	1730 CAMINO CARLOS REY	SANTA FE, NM 87507	505-216-7834
FOOD FOR THE POOR INC	6401 LYONS ROAD	COCONUT CREEK FL 33073	
FOUR STAR CARGO	7640 N.W 63RD STREET	MIAMI FL 33165	
FRONT ENGINEERED SOLUTIONS, INC.	1612 HUTTON DRIVE SUITE 140	CARROLLTON TX 75006	972-466-0707
FUTURE SOLAR SYSTEMS LLC	21 DAVIS RD	MILLBURY MA 01527	508-560-9421
G&S SOLAR INSTALLERS LLC	1180 WRIGHT WAY	NEW YORK NY 10017	
GARDEN SUN LIGHT INC	3121 HARTSFIELD ROAD TALLAHASSEE FL	CITY OF INDUSTRY, CA 91748	
GATES THAT OPEN LLC	1499 POINSETTIA AVE.	TALLAHASSEE FL 32303 USA	
GECKOLOGIC-USA, INC.	7602 Woodland Dr, Ste 200	VISTA, CA 92081	
General Supply and Service	13261 TIMBERLINE PLAZA STE.B	Indianapolis IN 46278-2715	
GENPRO ENERGY SOLUTIONS	1126 YOSEMITE DRIVE	PIEDMONT, SD 57701 US	605-341-9920
GEOSIS CORP	2875 N BERKELEY LAKE RD NW,	MILPITAS, CA 95035 U.S.A.	408-262-5887
GEOSOLUTION/QL ENT. INC.	P O BOX 340	DULUTH GA 30096	
GICON PUMPS & EQUIPMENT	225 HIGH RIDGE ROAD	ABERNATHY, TX 79311-0340	
GIFT SERVICES INC	9550 FLAIR DR, SUITE #212	STAMFORD CT 06905	
GLOBAL ALLIANCE CORPORATION LTD.	1941 DAVIS STREET, STE. B UNIT 30	EL MONTE, CA 91731 UNITED	626-258-2900
GLOBAL E-COMMERCE SERVICES CO.,LTD	1800 ASSOCIATES LANE, SUITE E,	SAN LEANDRO, CA 94577	510-501-4151
GLOBE EXPREE SERVICES	1840 GATEWAY DR, SUITE 209,	CHARLOTTE NC 28217 US	
GLT IRONWEED SOLAR LLC	161 BLOSSOM CIRCLE 2C	SAN MATEO, CA94404	1-650-576-6876
GOLDEN SUN SOLAR INC	5911 SCHAEFER AVE.	SAN MATEO CA 94403	650 638 1930
GOODHOPE BAGS INC	11020 CHERRY AVENUE,	CHINO, CA 91710 US	909-627-6788
GOSTART INTERNATIONAL INC.	1305 S BERTELSEN RD	FONTANA CA 92337	909-595-4888-100
GRAPE SOLAR INC	1090 AEROWOOD DR.UNIT 1	EUGENE, OR 97402	541 349 9000
GREEN EDGE PRODUCTS	10 TALL PINES DR	MISSISSAUGA, TORONTO, CA	
GREEN ENERGIES, LLC	135 PARKWAY OFFICE COURT, SUITE 201	BARRINGTON, RI 02806	255-401-556-6298
GREEN TECH RENEWABLE SOLUTIONS,LLC	31 SUTTONS LANE	CARY, NC 27518	732-985-5171
GREEN TECH SOLAR USA	618 BACON STREET	PISCATAWAY, NJ 08854	732-985-5171
GREENLAND RESOURCES	46400 FREMONT BLVD	SAN FRANCISCO, CA 94134	415-467-6296
GREENVOLTS INC	9001 SMITH STREET	FREMONT CA 94538	
GREENWORKS ENERGY	601 OLD RIVER ROAD, SUITE 3	YORKTOWN, IN 47396 US	260-479-8000
GROSOLAR	3385 ROY ORR BLVD	WHITE RIVER JUNCTION, VT	802-295-4415
GSM LLC	3121 HARTSFIELD RD	GRAND PRAIRIE, TX 75050	
GTO INC	25767 JEFFERSON AVE	TALLAHASSEE, FL 32303	
HELIOPOWER, INC	1103 PROSPECT ST.	MURRIETA, CA 92562	626-284-8833
HI ENERGY ALTERNATIVES INC	26 CHRISTAMON STREET	HONOLULU, HI 96822	808-531-5585
HITEQ ELCTERIC INC	1075 OPAKAPAKA STREET	IRVINE, CA 92620	
HOKU SOLAR INC	7253 FOOTHILL BLVD.	KAPOLEI, HI 96707	
HULK ELECTRONICS INC.		TUJUNGA, CA. 91042 USA	

List of Importers

CSPV Importers	Importer Address 1	Importer Address 2	Tel Number
HUNT ELECTRIC CORPORATION	2300 TERRITORIAL ROAD	ST. PAUL, MN 55114	
ICP GLOBAL TECHNOLOGIES	8311 EASTPOINT DRIVE 400	DALLAS TX 75227	
IMI ENERGY SOLUTIONS	46453 LANDING PARKWAY	FREMONT, CA 94538 US	
INTEGRATED POWER CORPORATION	504 REDWOOD BLVD. SUITE 230	NOVATO, CA 94947 USA	415-884-5555
INTERCISE DEVELOPMENT&FABRICATION	7975 CAMERON DRIVE, BLDG 1700, STE1	WINDSOR, CA 95492, US	707-836-8418
INTER-ISLAND SOLAR SUPPLY C/O	8425 ALMERIA AVE	FONTANA, CA 92335	
INTERSTATE TRADER LLC	24221 N HIGH DUNGS DRIVE	FLORENCE, AZ 85232	
K N RIALTO	2580 W. WALNUT AVE	RIALTO, CA 92376	
KAWNEER-VISALIA LLC.	7200 DOE AVE	VISALIA, CA 93291	
KENCOVE FARM FENCE INC	344 KENDALL ROAD	BLAIRSVILLE, PA 15717	724-459-8991
KING OF FANS, INC.	1951 N.W. 22ND STREET	FT. LAUDERDALE, FL 33311	954-556-4063
KOHLER DISTRIBUTING COMPANY	150 WAGARAW ROAD	HAWTHORNE, NJ 07506	
KRAFT CONSTRUCTION	10501 FCGU BLVD	FL 33965	904-891-3355
KRANNICH-SOLAR INC.	3226 SYLON BLVD	HAINESPORT, NJ 08036	856-802-0991
KUDO PARTNERS,LTD	3703 NORTH PAN AM EXPRESSWAY	SAN ANTONIO TX 78219	
KUEHNE & NAGEL INCORPORATED	810 LANDMARK DRIVE, SUITES 221-229	GLEN BURNIE MD 21061	
L.A. LIQUIDATORS	7661 DENSMORE AVE UNIT 10,	VAN NUYS, CA 91406-2016	
LAKE LITE INC	2301 FAIRFIELD AVE,SUITE 107	FORT WAYNE, IN 46807	
LANDSTAR GLOBAL LOGISTICS INC	531 WEST ROOSEVELT ROAD,	WHEATON, IL 60187	630-597-2000
LAVIE SOLAR INC	10055 BELKNAP # 107	SUGAR LAND, TX 77498	
LDK SOLAR TECH USA INC	1290 OAKMEAD PARK WAY SUITE 306	SUNNYVALE CA 94085	408-887-5488
LEEUS COMPANY	1928 W HOLT AVE	POMONA CA 91768 USA	909-622-0212
LEEX INCORPORATED	5264 16TH AVENUE SW	SEATTLE WA 98106	
LIFELINE ENERGY INTERNATIONAL,INC	2900 WILCREST DR. STE.495	HOUSTON TX 77042	
LIGHTHOUSE SOLAR	2000 S.7TH	AUSTIN, TX 78704	
LIPA BROOKHAVEN NATIONAL LABORATORY	EAST GATE 11973	UPTON,NY 11973	
LITE SOLAR CORP.	3711 LONG BEACH BVD,SUITE 900	LONG BEACH CA 90807	
LIVINGSTON INTERNATIONAL, INC.	SUITE 114 400 OYSTER POINT BOULEVARD	SAN FRANCISCO, CA 94080	
LKT ENTERPRISE	5623 AMBER DR	ODESSA, TX 79762	432-208-8888
LL BUILDING PRODUCTS	295 MCKOY ROAD	BURGAW NC 28425	
LUMA RESOURCES	2691 LEACH ROAD	ROCHESTER HILLS, MI 48309	
LUMETA	14275 WICKS BLVD	SAN LEANDRO, CA 94577	
LUMOS INC	3650 FRONTIER AVENUE SUITE C 2		303-449-2394
MACK GROUP INC	608 WARM BROOK ROAD	BOULDER, CO 80301	
MAGE SOLAR INC.	720 INDUSTRIAL BOULEVARD	ARLINGTON,VT 05250 USA	
MARDEL SOUZA INC	4255 OLD HWY 77	DUBLIN, GA 31021 USA	1-478-609-6700
MATSON GLOBAL DISTRIBUTION SERVICES	PACAM 9401 SAN LEANDRO STREET,	BROWNSVILLE, TX 78520	956 459 3604
MAX GROUP CORPORATION	17011 GREEN DRIVE	OAKLAND, CA 94603, USA	1-877-304-4003
MEGGITT TRAINING SYSTEMS	296 BROGDON ROAD, SUWANEE, GA 30024	City of Industry, CA 91745-1812	
MELINK CORPORATION	5140 RIVER VALLEY ROAD	ATTN : LISA HUDSON PHONE	678-288-1254
MERCURY SOLAR SYSTEMS, INC	36 MLDLAND AVENUE PORT CHESTER NJ	MILFORD, OH 45150 USA	1-513-965-7308
MIRACLE PRODUCTS LLC	3616 E. NEBRASKA AVE SUITE W	PORT CHESTER, NJ 10573	914-600-6732
ML SOLAR,LLC	385 LAWNSDALE AVE	SPOKANE, WA. 99217 USA	1-509-232-4040
		CAMPBELL, CA 95008 USA	1-408-425-2079

List of Importers

CSPV Importers	Importer Address 1	Importer Address 2	Tel Number
MOTECH AMERICAS LLC	231 LAKE DR	NEWARK DE 19072 USA	1-302-451-2699
MOULTRIE FEEDERS	150 INDUSTRIAL RD	ALABASTER AL 35007 USA	205-664-6700
MR TREVOR SAMOIL CO LTD	7225 RANDOLPH AVE	BURNABY BC V5J4W5	604-290-6155
MS SOLAR SOLUTIONS CORP	2000 WESTCHESTER AVE 1ST FL	PURCHASE, NY 10577 USA	914-225-1593
MUNRO DISTRIBUTING CO,INC.	83 AMES STREET	BROCKTON, MA 02302 US	509-821-3722
N.F.SMITH ASSOCIATES,LP	5306 HOLLISTER	HOUSTON, TX 77040 US	713-430-3986
NB SOLAR USA INC.	15338 EI PRADO ROAD	CHINO,CA 91710 USA	1-909-606-8055
NBO GROUP INC.	10440 PIONEER BLVD UNIT#6B	SANTA FE SPRING, CA 90670	562-946-8677
NERC MIDDLESEX SOLAR I, LLC.	12 RIDGEWOOD ROAD	BURLINGTON, CT 06013	609-826-9600
NEWENERGYGATES INC	2778 RIVERSIDE DR	MOORE HAVEN, FL 33471	863-227-0286
NEXT GENERATION ENERGY LLC	75 WANEKA PARKWAY	LAFAYETTE,CO 80026 USA	800-262-759
NEXT SOLAR SYETEMS,INC.	9620 S.LA CIENEGA BLVD	LOS ANGELES, CA 90301	1-310-258-9900
NLH1 SOLAR LLC	1840 GATEWAY DRIVE SUITE 209	SAN MATEO CA 94404 USA	1-650-576-6876
NORTHERN TOOL EQUIPMENT COMPANY	2800 SOUTHCROSS DRIVE WEST	BURNSVILLE, MN 55337 USA	952-894-9510
NORWOOD OPERATING COMPANY,LLC	5151 MOUNDVIEW DRIVE	RED WING, MN 55066 USA	317-275-2500
NULIGHT SOLUTIONS	1350 DEKK AVE SUITE 202	CAMPBELL, CA 95008 USA	408-370-3696
NUVOSUN, INC.	1565 BARBER LANE	MILPITAS, CA 95035-7409 USA	408 514-6200
NVT, LLC	12500 BALTIMORE AVENUE	BELTSVILLE, MD 20705 USA	1-443-909-7200
OCEAN FIELD ENTERPRISES LTD	C/O 499-7TH AVE 19TH NORTH,	NEW YORK, NY 10018 USA	656-7629
OMNI PRO ELECTRONICS,INC.	3220 COMMANDER DR #102	CARROLLTON, TX 75006 USA	1-877-786-8649-105
OMNIEFFICIENT INC	655 WEST EVELYN AVENUE SUITE 2	MOUNTAIN VIEW, CA 94041	760-966-4500
ONESOURCE DISTRIBUTORS LLC	3951 OCEANIC DR.	OCEANSIDE, CA 92056	405-634-8500
OPECO INC	601 SE 30TH STREET OKLAHOMA CITY	OKLAHOMA, 73129 U.S.A.	418-800-3569
OPEL SOLAR,INC	3 CORPORATE DRIVE SUITE 204	SHELTON, CT 06484 USA	
OPSUN TECHNOLOGIES INC.	4780 Saint-Felix Street	SAINT-AUGUSTIN-DE-	
P3 POWER SYSTEMS LLC	443 BAYLOR ROAD	WENONAH, NJ 08090 USA	800-281-7782
PACIFIC ELECTRONICS CORPORATION	10200 U.S. ROUTE 14,	WOODSTOCK, IL 60098 USA	
PACIFIC GEAR INC	19007 VILLA BERGAMO LANE	HOUSTON, TX 77094 USA	
PACIFIC WEST TRADE SERVICES INC	3720 EMERALD STREET NO H2	TORRANCE, CA 90503 USA	
PACRIM MANUFACTURING INC.	17769 72ND PLACE	MAPLE GROVE, MN 55311	
PATRIOT SOLAR GROUP LLC	1007 INDUSTRIAL AVENUE	ALBION, MICHIGAN 49224-	517-945-6605
PERLIGHT SALES NORTH AMERICA LLC	2444 205TH STREET UNIT A4	TORRANCE, CA 90501 USA	424-242-8058
PERPETUAL ENERGY SYSTEMS	340 ROYAL POINCIANA WAY, SUITE 305,	PALM BEACH, FL 33480 USA	818-668-2834
PETRA SOLAR INC	300 G CORPORATE COURT	SOUTH PLAINFIELD, NJ 07080	732-379-5566
PFISTER ENERGY INC	80 EAST 5TH STREET	PATERSON,NJ 07524	1-973-653-9880
P1 SOLAR LLC	51 JFK PARKWAY, SUITE 1 WEST	SHORT HILLS,NJ07078	559-262-4497
PLATT ELECTRIC SUPPLY INC	WAREHOUSE 75 10605 SW ALLEN BLVD	BEAVERTON, OR 97005 USA	503-643-4671
POWER UP SOLAR	12230 EASTERN AVE	BALTIMORE MD 21220 USA	1-410-344-9206
POWERFIELDS A.J.L. WILLIAMS COMPANY	1510 N.W. 17TH STREET	FRUITLAND, ID 83619 USA	208-452-6864
POWERSAVE ENERGY CO	142 CROSS ST #100	SAN LUIS OBISPO,CA 93401	1-886-297-7192
PREMIER SHEEP SUPPLIES	2031 300TH STREET	WASHINGTON, IA 52353 USA	319-653-7622
PROINSO US LLC	1430 ENTERPRISE BLVD	WEST SACRAMENTO, CA	1-415-367-599
PUREFORMS,INC.	2419 SALEROSO DRIVE	ROWLAND HEIGHTS, CA	626-964-0188

List of Importers

CSPV Importers

Q CELLS NORTH AMERICA,
 Q-STAR TECHNOLOGY LLC
 QUALITY ELECTRIC & SOLAR LLC
 QUALITY ENERGY SOLUTIONS.,CORP
 QUICKLOK FITTINGS CORPORATION
 RAY ANGELINI, INC
 RCMC TRADING COMPANY LLC
 READY SOLAR,INC.
 REC SOLAR US LLC
 RECURRENT ENERGY EPC,LP
 REGENESIS POWER LLC
 REGIONAL SCHOOL
 RENEWABLE TECHNOLOGIES,INC.
 RENOGY LLC
 RESURS2 CORPORATION
 RLH INDUSTRIES INC
 ROSENDIN ELECTRIC, INC.
 RUSSELL PACIFIC LLC
 S.A.W TECHNOLOGY
 S2 SOLAR TECHNOLOGY
 SCHENKER CARSON AG AGENT OF SCHENKER OCEAN
 SCHEUTEN SOLAR USA INC.
 SCHUECO INTERNATIONAL KG
 SCHUECO USA
 SEMITECH ENGINEERING
 SENERGY SOLAR SYSTEMS LTD.
 SEPTIC CONTROL,INC.
 SESSION SOALR
 SET-SOLAR CORPORATION
 SGC INTERNATIONAL INC
 SGC INTERNATIONAL INC
 SGC INTERNATIONAL INC
 SGC INTERNATIONAL INC
 SHARP MANUFACTURING COMPANY
 SHENWEI USA INC
 SHERRY FU SOLARTECH POWER,INC.
 SHEWAS INC
 SILICON SOLAR INC
 SILRAY INC
 SMALLBEARD SOLAR LLC
 SOL INC.
 SOLAR BLVD
 SOLAR CAPITAL LLC

Importer Address 1

96 FEDERAL STREET SAN FRANCISCO,
 2730 MONTERE STREET SUITE 106
 5528 VISION QUEST CT.
 774 AVE SAN PATRICIO
 2215 LEE AVENUE
 105 BLACKWOOD- BARNSBORO RD
 4051 HAGGERTY ROAD
 2929 CAMPUS DRIVE SUITE 110
 775 FIERO LANE, SUITE 200
 300 CALIFORNIA ST, 8TH FLOOR
 331 SCIENCE DRIVE MOORPARK
 DISTRICT 7
 MORADA PRODUCE - 500 N JACKTONE ROAD
 8000 GSRI AVE LBTC BUILDING 3085
 160 ESSEX AVE EAST AVENEL
 936 NORTH MAIN STREET
 5572 FRESCA DRIVE LA PALMA
 SAN CARLOS SNW OF 3RD STREET
 3466 JORIC CR. MISSISSAUGA
 3135 KASHIWA STREET,UNIT B
 D/B/A SCHENKER OCEAN 890 EAST 233RD ST.
 30152 ESPERANZA 92688
 KAROLINENSTRA E 1-15
 240 PANE RD NEWINGTON
 17 HAMMOND, SUITE 404
 JOEL HARVEY 320 BAXTER ST.
 1239 REGENT ST
 60 OLD EI PUEBLO RD
 655 WEST EVELYN AVENUE, SUITE #2
 14539 MARQUARDT AVENUE
 14539 MARQUARDT AVENUE SANTA FE
 14539 MARQUARDT AVENUE SANTA FE
 14539 MARQUARDT AVENUE SANTA FE
 SHARP PLAZA BOULEVARD
 33278 CENTRAL AVENUE, SUITE 102
 13811 BENTLEY PL
 1251 POMONA ROAD SUITE 108
 2917 STATE HIGHWAY 7
 503 LYTTON AVE, 2ND FLOOR
 21-40 CROTON LAKE RD
 3210 S.W. 42ND AVENUE
 1870 TOWN AND COUNTRY DRIVE, SUITE 102
 18280 SOUTH WEST 108TH AVENUE

Importer Address 2

SAN FRANCISCO, CA 94107
 TORRANCE, CA 90503 USA
 LAS VEGAS, NEVADA 89139
 SAN JUAN, P.R. 00921
 SOUTH EL MONTE, CA USA
 SWELL, NJ 08080
 WEST BLOOMFIELD,
 SAN MATEO, CA 94403 USA
 SAN LUIS OBISPO, CA 93401
 SAN FRANCISCO, CA 94104
 MOORPARK, CA 93021 USA
 100 BATTISTONI DRIVE
 MODESTO, CA 95358
 BATON ROUGE, LA 70820
 AVENEL, NJ 07001 USA
 ORANGE, CA 92867 USA
 LA PALMA, CA 90623 USA
 SAN CARLOS CA 93921 USA
 TORONTO ON L5M 7G6CA
 TORRANCE, CA 90505 USA
 TR CARSON, CA 90745 USA
 RANCHO SANTA MARGARI,
 33809 Bielefeld, Germany 0521
 NEWINGTON, CT 06111 USA
 IRVINE, CA 92619 USA
 EUGENE, OR 97402 USA
 LANCASTER, CA 93534 USA
 SCOTTS VALLEY, CA 95066
 MOUNTAIN VIEW, CA 94041
 SPRINGS CA 90670 USA
 SPRINGS CA 90670 USA
 SPRINGS CA 90670 USA
 MEMPHIS, TN 38193-0001
 UNION CITY, CA 94587 USA
 CERRITOS, CA 90703 USA
 CORONA, CA 92882 USA
 BAINBRIDGE, NY 13733 USA
 PALO ALTO, CA 94301 USA
 KATONAH, NY 10536 USA
 PALM CITY, FL 34990 USA
 NORCO, CA 92860 USA
 TUALATIN, OR 97062 USA

Tel Number

415-541-9300
 310-294-8194
 1-702-782-8084
 1-787-705-0908, 1-787-
 1-609-228-5666
 248-366-5000
 650-299-9854-1003
 414-501-9530
 805-531-8800
 860-379-1084
 1-800-550-7652
 225-578-5182
 973-484-1800
 1-714-532-1672
 714-521-8113,
 619-501-6665
 310-792-8200
 310-221-3236
 949-742-7014
 49- 521-7830
 1-860-666-0505
 949-600-9849
 541-255-5740
 661-208-5286
 1-510-653-5900
 877-786-8649
 901-367-5266
 1-510-429-8692
 562-926-1089
 951-279-8100
 1-800-786-0329
 1-866-497-1901/1-815-55
 347-746-8885
 1-772-286-9461
 951-279-8100
 1-503-218-4866

List of Importers

CSPV Importers	Importer Address 1	Importer Address 2	Tel Number
SOLAR CITY	393 VINTAGE PARK DRIVE SUITE 140	FOSTER CITY, CA 94404 USA	1-650-876-0751
SOLAR DEPOT	1240 HOLM ROAD	PETALUMA, CA 94954 USA	707-766-7727
SOLAR DEVELOPMENT, INC	5420 DOUGLAS BLVD, SUITE F	GRANITE BAY, CA 95746	916-960-2226
SOLAR ENERGY SYSTEM LLC	7584 W 950 N	NAPPANEE, IN 46550 USA	574-646-2150
SOLAR FLARI ENERGY	11 MAYHEW STREET	FRAMINGHAM, MA 01702, USA	508-293-4293
SOLAR GAIN INC	7332 E BROADWAY BLVD	TUCSON, AZ 85710 US	520-822-8377
SOLAR LIBERTY	6225 SHERIDAN DR SUITE 102	BUFFALO, NY 14221 USA	866-807-3639
SOLAR ONE SOLUTIONS INC.	330 RESERVOIR ST.	NEEDHAM, MA 02494 USA	339-225-4530
SOLAR OUTDOOR LIGHTING	3210 S W 42ND AVENUE	PALM CITY, FL 34990 USA	772-286-9461
SOLAR PANELS PLUS LLC	533 BYRON STREET SUITE E	CHESAPEAKE, VA 23320 USA	757-549-1494
SOLAR POWER & PUMP COMPANY	301 W.12TH ST	ELK CITY, OK 73644 USA	580-243-6593
SOLAR POWER INC	1115 ORLANDO AVE	ROSEVILLE, CA 95661-5247	916-745-0920
SOLAR POWER INDUSTRIES INC	440 JONATHAN WILLEY ROAD,	BELLE VERNON, PA 15012	724-379-6500
SOLAR POWER LLC	425 NORTHERN BLVD SUITE #6	GREAT NECK, NY 11021 USA	516-439-4133
SOLAR RESOURCES LLC	771 SHREWBURY AVE,	SHREWSBURY, NJ 07702 USA	758-741-1600
SOLAR SHINES LLC.	70380 HIGHWAY 21 SUITE 205	COVINGTON LA 70433	985-898-0950
SOLAR SOLUTIONS AND DISTRIBUTION	700 W 48TH AVENUE SUITE S	DENVER, CO 80216 USA	303-948-6300
SOLAR WAREHOUSE	9628 VALLEY BLVD	ROSEMEAD, CA 91770 USA	626-262-4739
SOLAR WINDS	PMB 120 5150 FAIR OAKS BLVD	CARMICHAEL, CA 95608 USA	916-485-1990
SOLARIA CORPORATION	46420 FREMONT BLVD	FREMONT, CA 94538 USA	510-270-2499
SOLARLAND USA CORPORATION	4001 E.SANTA ANA ST.	ONTARIO, CA 91761	516-482-9200
SOLARMAX TECHNOLOGY INC	17011 GREEN DRIVE	CITY OF INDUSTRY CA 91745	626-965-4286
SOLARNET	1500 VALLEY HOUSE DR. SUITE 210	ROHNERT PARK, CA 94928	707-992-3100
SOLARROOFS.COM	5840 GIBBONS DRIVE SUITE H	CARMICHAEL, CA 95608 USA	916-481-7200
SOLARTECH POWER INC	1070 KRAEMER PLACE	ANAHEIM, CA 92806 USA	714-630-8880
SOLARTRON TECHNOLOGIES	15663 VILLAGE DRIVE SUITE C	VICTORVILLE, CA 92394 USA	760-955-3466
SOLATUBE INTERNATIONAL INC	2210 OAK RIDGE WAY	VISTA CA 92081	760-597-4400
SOLON CORPORATION	6950 SOUTH COUNTRY CLUB DR	TUCSON, AZ 85756 USA	520-807-1300
SOLTECH INC	671 N PLANO RD SUITE #202	RICHARDSON, TX 750801	1-972-231-1158
SOLUTION AND SYSTEM INC	411 HACKENSACK AVENUE	HACKENSACK, NJ 07601 USA	1-201-488-7770
SOLUTIONS FROM SCIENCE INC	815 W. MAIN ST P.O.BOX 518	THOMSON, IL 61285 USA	1-815-259-3862
SOLVINTI LLC	2070 ANGSTADT RD.	QUAKERTOWN, PA 18961	610-360-3989
SOLYNDRA INC	41552 BOSCELL ROAD	FREMONT, CA 94538 USA	510-440-3542
SOPRAY SOLAR USA CORP	2215 LEE AVE SOUTH	EL MONTE, CA 91733 USA	858-205-9328
SOUTH STATE, INC.	202 REEVES ROAD	BRIDGETON, NJ 08302	856-451-5300
SPG SOLAR INC	20 LEVERONI COURT	NOVATO, CA 94949 USA	415-740-0669
STAG-PARKWAY, INC	4621 EAST GUASTI RD	ONTARIO, CA 91761 USA	909-974-0301
STANDARD RENEWABLE ENERGY	1401 MCKINNEY ST	HOUSTON, TX 77010 USA	936-689-2292
STANDARD SOLAR, INC.	202 PERRY PARKWAY	GAITHERSBURG, MD 20877	1-301-944-1200
STAR HARVEST SOLAR LLC	1919 OXMOOR RD #242	BIRMINGHAM, AL 35209 USA	1-205-281-0377
SUMEC EUROPE GMBH	HANNS-MARTIN-SCHLEYER-STR. 18A	47877 WILLICH STUTTGART	49-172-748-9845
SUMEC NORTH AMERICA	9595 SIX PINES DR., SUITE 8210	LOS ANGELES	
SUN EDISON, LLC	12500 BALTIMORE AVE	BELTSVILLE MD, 20705 USA	609-209-6643

List of Importers

CSPV Importers

SUN ELECTRONICS INTL INC
 SUN STREAM USA LLC
 SUNDURANCE ENERGY,LLC
 SUNERGY POWER INC
 SUNFLOWER TRADING INC
 SUNGEN INTERNATIONAL INC
 SUNIVA INC
 SUNLAN SOLAR INC
 SUNPERFECT SOLAR INC
 SUNPOWER CORPORATION
 SUNPOWERLINK
 SUNRISE SOLAR
 SUNTECH AMERICA INC
 SUNTECH AUTOMOTIVE INDUSTRIES
 SUNVALLEY SOLAR INC.
 SUNWIZE TECHNOLOGIES, INC.
 SVG GENERAL STORE
 SW CLOSEOUTS
 SYNCARPHA SOLAR, LLC
 SYNTHESIS POWER
 TAB DISTRIBUTION
 TALMAGE SOLAR.C/O
 TARRIFF POWER INC
 TEKTRUM DEVELOPMENT CORPORATION
 TENKSOLAR INC
 TENSOR ENERGY,INC
 THE ENERGY MIL
 THE NOCO COMPANY
 THINKSOLAR,INC
 TIANWEI NEW ENERGY (CHENGDU) PV
 TIDELAND SIGNAL CORPORATION
 TKS, LLC
 TO THE ORDER OF SIERRA NEVADA CORPORATION
 TOP SOLAR CORPORATION
 TOPOCEAN CONSOLIDATION SERVICE (LOS ANGELES)
 TRAFFIC AND PARKING CONTROL CO INC AKA TAPCO
 TRANSWORLD PRODUCTS INC
 TRINA SOLAR (U S) INC
 TRINITY HEATING & AIR, INC.
 TRINITY SOLAR SYSTEMS
 TRI-VALLEY WHOLESAL,INC
 TRU-TEST INC.
 TURNSTYLE ENTERPRISES INC.

Importer Address 1

511 NE 15TH STREET MIAMI
 286 WEST MONTAUK HIGHWAY
 1 CRAGWOOD RD
 3701 WILSHIRE BOULEVARD SUITE UNIT
 9188 BELLAIRE BLVD SUITE X
 17800 CASTLEON STREET,SUITE 366
 5775 PEACHTREE INDUSTRIAL BLVD
 1967 W.HOLT AVE.,POMONA,CA 91768
 3101 N FIRST ST 107
 44320 OSGOOD ROAD
 1754 HOUREY COURT
 10455W 93RD AVENUE
 71 STEVENSON ST 10TH FLOOR
 (SHANGHA) INC.11-F,ZHONGDA PLAZA.
 398 LEMON CREEK DR SUITE A
 8830 ROCHESTER AVE. SUITE 100
 HIGGINSON STREET KINGSTOWN
 11362 WESTMINSTER AVENUE UNIT E
 645 MADISON AVENUE, 14th Floor
 13353 SW 35 AVE
 3200 EAST TRENT AVENUE BUILDING 3C
 KOHLER DISTRIBUTING COMPANY 150 WAGARAW ROAD
 ELDEN AVE SUITE A COSTA
 5631 PALMER WAY SUITE J
 9549 PENN AVENUE SOUTH SUITE D
 119 ESSEX STREET, BSMT
 290 NORTH 1300 EAST
 23200 COMMERCE PARK
 1078 60TH STREET
 MODULE CO.,LTD.NO.1,TIANWEI ROAD,
 4310 DIRECTORS ROW
 3385 ROY ORR BLVD
 444 SALOMON CIRCLE
 10830 ADA AVE.
 2727 WORKMAN MILL RD.
 800 WALL STREET
 13312 5TH STREET SUITE A
 100 CEENTURY CENTER COURT, STE 340
 800 US HIGHWAY 9 SOUTH
 800 US HIGHWAY 9 SOUTH
 707 ALDRIDGE RD SUITE A
 528 GRANT ROAD WOLTERS INDUSTRIAL PART
 328 TILLER DRIVE

Importer Address 2

MIAMI, FL 33132-1411 USA
 HAMPTON BAYS, NY 11946
 SOUTH PLAINFIELD, NJ 07080
 412 LOS ANGELES CA 90010
 HOUSTON, TX 77036 USA
 CITY OF INDUSTRY,CA
 NORCOSS, GA 30092 USA
 POMONA,CALIFORNIA,91768,
 SAN JOSE, CA 95134 USA
 FREMONT, CA 94539 USA
 MILPITAS, CA 95035 USA
 ST JOHN, IN 46373 USA
 SAN FRANCISCO,CA 94105
 NO.989 DONGFANG
 WALNUT,CA 91789 USA
 RANCHO CUCAMONGA, CA
 ST VINCENT & THE
 GARDEN GROVE, CA 92843
 NEW YORK, NY 10022
 MIAMI,FL 33186 USA
 SPOKANE,WASHINGTON
 HAWTHORNE, NJ 07506 USA
 COSTA MESA, CA 92627 USA
 CARLSBAD, CA 92010 USA
 BLOOMINGTON, MN 55431
 NEW YORK, NY 10002 USA
 BOUNTIFUL, UT 84010 USA
 CLEVELAND, OH 44122-5921
 OAKLAND,CA 94608 USA
 SOUTHWEST AIRPORT
 HOUSTON, TX 77092
 GRAND PRAIRIE, TX 75050
 SPARKS, NV 89434 USA
 MONTCLAIR, CA 91673 USA
 CITY OF INDUSTRY, CA 90601
 ELM GROVE, WI 53122
 GRANDVIEW, MO 64030 USA
 SAN JOSE, CA 95112
 FREEHOLD, NJ 07728 USA
 FREEHOLD, NJ 07728 USA
 OAKLAND, CA 95688 USA
 MINERAL WELLS, TX 76067
 PAWLEYS ISLAND, SC 29585

Tel Number

305-536-9917
 631-283-0057
 908-868-5500
 1-325-608-8458
 713-880-1488
 1-650-616-8833
 404-477-2700
 626-252-1080
 408-232-8081
 408-240-5500
 550-575-2642
 219-558-2211
 650-787-2926
 21-511-9555 CN
 909-598-0618
 1-866-476-9493
 784-457-5259
 714-467-7678
 212-419-4840
 305-969-1200
 509-232-4041
 301-2875
 949-336-0222
 1-760-216-0341
 952-303-7640
 212-380-1670
 801-951-5332
 1-216-464-8131
 510-653-5900
 86-286-705-0041
 713-681-6101
 1-972-606-8866
 775-849-6528
 909-628-2533
 562-908-1688
 262-814-7000
 816-765-6388
 408-392-0342
 301-247-1615
 301-247-1615
 925-455-4675
 800-874-8494
 843-527-3530

List of Importers

Company Name	Importer Address 1	Importer Address 2	Tel Number
CSPV Importers			
TWIN SOLAR USA INC	3434 TARECO DR	LOS ANGELES, CA 90068	323-532-6671
UFRA TE INC	20380 TOWN CENTER LN, SUITE 135	CUPERTINO, CA 95014 USA	408-865-1544
ULBRICH PRECISION FLAT WIRE	692 PLANT ROAD WESTMINSTER	SC 29693	
ULBRICH PRECISION FLAT WIRE	692 PLANT ROAD WESTMINSTER,	SC 29693	
UNDERWRITER LABORATORIES, INC.	SAMPLE RECELVING	BUILDING 5 RECELVING	
UNDERWRITERS LABORATORIES INC.	333 PFINGSTEN ROAD	NORTHBROOK IL 60062-2096	
UNDERWRITERS LABORATORIES, INC.	2191 ZANKER ROAD	SAN JOSE CA 95131-1230	
UNICO INC	3725 NICHOLSON ROAD	FRANKSVILLE WI, 53126 USA	262-504-7228
UNID OCEAN TRANSPORT INCORPORATED	9660 FLAIR DRIVE, SUITE 230	EL MONTE, CA 91731 USA	454-5100
UNITED PROMOTIONAL PRODUCTS INC	DBA UNITED AUTO ACCESSORIES	31-35 61ST STREET	
UNITED RENEWABLE ENERGY	5895 SHILOH RD. SUITE 107	ALPHARETTA, GA 30005 USA	678-881-0014
UNIVERSAL POWER GROUP	3800 LAPEER ROAD	AUBURN HILLS, MI 48326 USA	248-475-0100
UPSOLAR AMERICA INC	1720 HAYDEN DR.	CARROLLTON, TX 75006 USA	469-892-1122
VANLI USA LLC	600 MONTGOMERY STREET, 45TH FLOOR	SAN FRANCISCO, CA 94111	415-263-9921
VANTEC WORLD TRANSPORT	7130 ENGINEER ROAD	SAN DIEGO, CA 92111 USA	858-874-4362
VBN SALES LLC	1353 LOWRIE AVENUE SOUTH	SAN FRANCISCO, CA 94080	310-525-2900/2960
VDC ELECTRONICS INC	16915 SE 27ND STREET, SUITE 100-105	COVINGTON, WA 98042 USA	206-383-3599
VENTAMATIC, LTD.	147 WOODBURY ROAD, SUITE D	HUNTINGTON, NY 11743 USA	631-423-8220
VICO PLASTICS INC	100 WASHINGTON ST. P.O. BOX 728	MINERAL WELLS, TX 76067	214-912-5959
VIS SOLIS LLC	411 GOEDE ROAD	EDGERTON, WI 53534 USA	1-608-290-6404
WAGAN CORPORATION	198 EAST MAIN STREET	FRANKLIN, TN 37064 USA	615-796-3512
WANCO INC	31088 SAN CLEMENT STREET	HAYWARD, CA 94544 USA	510-471-9221
WANXIANG AMERICA CORPORATION	5870 TENNYSON STREET	ARVADA, CO 80003 USA	303-427-5700
WARNER ENERGY	5985 LOGISTICS PARK WAY	ROCKFORD, IL 61109 USA	815-226-0884
WESCO DISTRIBUTION INC.	7526 MORGAN ROAD	LIVERPOOL, NY 13090 USA	315-476-1279
West Marine	1030 MAPUNAPUNA ST HONOLULU HI	HONOLULU, HI 96819 USA	808-839-7261
West TEXAS FEEDER SUPPLY	860 Marine Dr.	Rock Hill SC 29730	US 803-909-6000
WOODSTREAM CORPORATION	1669 N.FLAMINGO AVE.	ODESSA, TEXAS 79763, USA	432-385-1303
WORENS GROUP DBA AGRA TRONICS	69 N. LOCUST STREET	LITITZ, PA 17543 USA	717-626-2125
WORLDWIDE ENERGY AND MANUFACTURING	POWER WIZARD FARMEX ELECTRONICS 10375 STATE	STREETSBORO, OH 44241	330-562-2222
XC3 INTERNATIONAL	408 N.CANAL STREET UNIT A & B SOUTH	SAN FRANCISCO, CA 94080	1-650-794-9888
XMD GLOBAL INC.	# 1017 5348 VEGAS DRIVE	LAS VEGAS NV 89108-2347	505-292-5969
XTREME GADGET CO.	928 C STREET	SAN DIEGO, CA 92101 USA	619-403-4145
XUNLIGHT CORP.	9360 CABOT DRIVE	SAN DIEGO CA 92126 USA	858-689-8899
YES! SOLAR, INC.	3145 NEBRASKA AVE	TOLEDO, OH 43607 USA	419-469-8600
YINGLI GREEN ENERGY AMERICAS	1175 ORLANDO AVENUE	ROSEVILLE, CA 95661 USA	916-745-0920
ZAMP SOLAR	618 HIGHWAY 230	CAVE CITY, AR 72521 USA	
ZAP USA	245, 5TH AVENUE, 23/F, SUITE 2301	NEW YORK, NY 10016-8728	1-212-686-8889
ZIGOR FLORIDA USA CORP	62988 NE LAYTON AVE. STE-102	BEND, OREGON 97707 USA	1-541-408-5387
	WORLD HEADQUARTERS 501 FOURTH STREET	SANTA ROSA, CA 95401 USA	1-707-525-8658
	7383 NW 54 STREET	MIAMI, FL 33166 USA	305-885-5601