



A-570-979
Circumvention Inquiry
Cambodia 2022
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December 1, 2022

MEMORANDUM TO: Lisa W. Wang
Assistant Secretary
for Enforcement and Compliance

FROM: James Maeder
Deputy Assistant Secretary
for Antidumping and Countervailing Duty Operations

SUBJECT: Antidumping and Countervailing Duty Orders on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Preliminary Decision Memorandum for the Circumvention Inquiry With Respect to the Kingdom of Cambodia

I. SUMMARY

The U.S. Department of Commerce (Commerce) preliminarily determines that imports of crystalline silicon photovoltaic cells, whether or not assembled into modules (solar cells and modules), from the Kingdom of Cambodia (Cambodia) are circumventing the antidumping duty (AD) and countervailing duty (CVD) orders on solar cells and modules from the People's Republic of China (China).¹

II. BACKGROUND

On April 1, 2022, Commerce initiated a circumvention inquiry pursuant to section 781(b) of the Tariff Act of 1930, as amended, (the Act) to determine whether imports of solar cells and/or modules completed or assembled in Cambodia using parts and components manufactured in China are circumventing the *Orders*.²

On March 29, 2022, we released entry data from U.S. Customs and Border Protection (CBP) for

¹ See *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Amended Final Determination of Sales at Less Than Fair Value, and Antidumping Duty Order*, 77 FR 73018 (December 7, 2012); see also *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Countervailing Duty Order*, 77 FR 73017 (December 7, 2012) (collectively, *Orders*).

² See *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Initiation of Circumvention Inquiry on the Antidumping Duty and Countervailing Duty Orders*, 87 FR 19071, 19072 (April 1, 2022) (*Initiation Notice*), and a accompanying Circumvention Initiation Memorandum, at 1.



the period January 1, 2016, through December 31, 2021, to all interested parties under an administrative protective order and invited interested parties to comment on the data.³ We relied on these data, as well as a list of Cambodian producers of solar cells and/or modules in the request for circumvention inquiries made by Auxin Solar Inc. (Auxin), a member of the U.S. solar industry,⁴ to identify the largest exporters or producers of inquiry merchandise in Cambodia. On March 31, 2022, we issued questionnaires to 12 of these companies in which we requested the quantity and value (Q&V) of their sales of solar cells and modules to the United States during calendar years 2016, through 2021, as well as information regarding their sourcing of solar cells and module inputs from China.⁵ We also invited parties to which we did not issue the Q&V questionnaire to respond to it by the deadline for responses.⁶

Between April 20 and 22, 2022, we received timely Q&V questionnaire responses from 11 companies.⁷ On April 28, 2022, we received comments on respondent selection from Auxin.⁸ We subsequently selected BYD (H.K.) Co., Ltd. (BYD HK) and New East Solar (Cambodia) Co., Ltd. (NE Solar) as the mandatory respondents in this circumvention inquiry⁹ and issued circumvention inquiry questionnaires to these companies.¹⁰ BYD HK¹¹ and NE Solar¹² submitted timely responses to these questionnaires.

In May 2022, after we provided interested parties with an opportunity to comment on potential certification requirements,¹³ we received comments on certifications from numerous interested

³ See Memorandum, “Release of Customs and Border Protection Entry Data,” dated March 29, 2022.

⁴ See Auxin’s Letter, “Auxin Solar’s Request for an Anti-Circumvention Ruling Pursuant to Section 781(b) of the Tariff Act Of 1930, as Amended,” dated February 8, 2022 (Circumvention Request), at Exhibit 2.

⁵ See Commerce’s Letters, “Quantity and Value Questionnaire for Circumvention Inquiries With Respect to Cambodia, Malaysia, Thailand, and Vietnam,” dated March 31, 2022.

⁶ See Memorandum, “Notification of Issuance of Q&V Questionnaires to Certain Cambodian Companies,” dated March 31, 2022.

⁷ See Memorandum, “Confirmed Delivery of Quantity and Value Questionnaires,” dated May 12, 2022. FedEx was unable to deliver the Q&V questionnaire to Da Chuan Investment (Cambodia) Co., Ltd. See the appendix to this memorandum for a listing of the companies from whom we requested questionnaire responses.

⁸ See Commerce’s Letter, “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People’s Republic of China: Comments on Respondent Selection—Cambodia,” dated April 28, 2022.

⁹ See Memorandum, “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People’s Republic of China - Circumvention Inquiry with Respect to Cambodia: Respondent Selection,” dated May 12, 2022.

¹⁰ See Commerce’s Letters, “Circumvention Inquiry Questionnaire,” dated May 13 and 16, 2022.

¹¹ See BYD HK’s Letters, “2022 Circumvention Inquiry of Antidumping Duty Order on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People’s Republic of China: Response to Initial Questionnaire,” dated June 7, 2022 (BYD HK Initial QR Part I); and “2022 Circumvention Inquiry of Antidumping Duty Order on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People’s Republic of China: Response to Second Circumvention Inquiry Questionnaire,” dated June 23, 2022 (BYD HK Initial QR Part II).

¹² See NE Solar’s Letters, “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People’s Republic of China; Circumvention Inquiry Questionnaire Response,” dated June 3, 2022 (NE Solar Initial QR Part I); and “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People’s Republic of China; Circumvention Inquiry Questionnaire Response Part 2,” dated June 23, 2022 (NE Solar Initial QR Part II).

¹³ See Memorandum, “Circumvention Inquiries With Respect to Cambodia, Malaysia, Thailand, and Vietnam – Potential Certification Requirements” dated May 2, 2022.

parties.¹⁴ We also received comments on, and factual information to rebut, clarify, and correct factual information in, Auxin's request to initiate circumvention inquiries from various interested parties,¹⁵ as well as rebuttal comments from Auxin.¹⁶

In May 2022, we provided interested parties with a surrogate country list and invited them to comment on the list, the selection of surrogate countries, and the selection of surrogate values.¹⁷ We also requested surrogate value information from interested parties in July 2022.¹⁸ From May through August 2022, interested parties provided comments in response to these requests,¹⁹ as

¹⁴ See Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Comments on Certification Regime and Applicable Cash Deposit Rates," dated May 19, 2022; BYD(H.K.) Co., Ltd.'s (BYD HK) Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: BYD Comments Regarding the U.S. Department of Commerce's May 2, 2022 Memorandum," dated May 19, 2022; Clearway's Letter, "Solar Anti-Circumvention Inquiries and Proposed Certification Requirements, Case Nos. A-570-979, C-570-980 (CIRC-From Cambodia 2022, CIRC-From Malaysia 2022, CIRC-From Thailand 2022, CIRC-From Vietnam 2022)," dated May 19, 2022; EGP North America's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Comments on Potential Certification Requirements," dated May 19, 2022; NextEra's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Comments on Potential Certification Requirements," dated May 19, 2022; Pine Gate Renewables, LLC's Letter, "Circumvention Inquiries with Respect to Cambodia, Malaysia, Thailand, and Vietnam: Response to Commerce's Request for Comments on Proposed Certifications," dated May 19, 2022; Silfab WE Inc.'s (Silfab) Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Response to U.S. Department of Commerce's May 2, 2022 Request for Comments Regarding Potential Certification Requirements," dated May 19, 2022; and Tesla Inc. (Tesla)'s Letter, "Response to the Department's Request for Comments on Any Certification Regime the Department May Implement," dated May 19, 2022.

¹⁵ See BYD HK's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: BYD Group Comments and Factual Information to Rebut, Clarify and Correct Factual Information in Auxin's Request for a Circumvention Ruling," dated May 2, 2022; EGP North America's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Comments Requesting Rescission of Anti-Circumvention Inquiries," dated May 2, 2022; Imperial Star's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from China: Circumvention Inquiry - Cambodia 2022; Imperial Star Comments and Factual Information Submission," dated May 2, 2022; NextEra's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: NextEra Comments on Auxin's Circumvention Ruling Request," dated May 2, 2022; Silfab's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Comments and Factual Information to Rebut, Clarify and Correct Factual Information Contained in Auxin's Request for a Circumvention Ruling," dated May 2, 2022; and Tesla's Letter, "New Factual Information and Comments on the Department's Circumvention Inquiry Initiation," dated May 2, 2022.

¹⁶ See Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Auxin's Response to Rebuttal Comments and Factual Information," dated May 16, 2022.

¹⁷ See Memorandum, "Request for Economic Development, Surrogate Country Comments and Information," dated May 13, 2022 (Request for Comments on Surrogate Countries).

¹⁸ See Memorandum, "Request for Surrogate Value Comments and Information," dated July 14, 2022.

¹⁹ See Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Comments on Surrogate Country List—Cambodia, Malaysia, and Thailand," dated May 20, 2022; BYD HK's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Comments on the List of Economically Comparable Countries," dated May 20, 2022; Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Surrogate Country Comments—Malaysia, Thailand, Cambodia," dated June 28, 2022;

well as rebuttal comments.²⁰

In July 2022, we provided interested parties with an opportunity to submit information regarding the investment required to construct and start-up, and research and development (R&D) expenses for operations in, certain types of facilities in China and Cambodia related to the production of solar cells and modules.²¹ We received investment and R&D information from Auxin in response to our request,²² as well as rebuttal comments from NextEra Energy Constructors, LLC (NextEra), an interested party.²³

Between July and October 2022, we issued supplemental questionnaires to BYD HK and NE Solar,²⁴ to which they responded between August and November 2022.²⁵

BYD HK's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Selection of Primary Surrogate Country Comments," dated June 28, 2022; Hanwha Q CELLS Malaysia Sdn. Bhd.'s Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules From People Republic of China: Hanwha Q CELLS Malaysia Sdn. Bhd.'s Comments on Surrogate Country Selection," dated June 28, 2022; NE Solar's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China; New East Solar's Comments on Surrogate Country List," dated June 28, 2022; Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Submission of Surrogate Value Information for Chinese Factors of Production," dated July 27, 2022; and BYD HK's Letter, "2022 Circumvention Inquiry of Antidumping Duty Order on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Response to July 14, 2022 Request for Surrogate Value Comments and Information," dated July 27, 2022.

²⁰ See BYD HK's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Rebuttal to Petitioner's Primary Surrogate Country Comments," dated July 5, 2022; and BYD HK's Letter, "2022 Circumvention Inquiry regarding the Antidumping Duty and Countervailing Duty Orders on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Rebuttal to Auxin's July 27, 2022 Submission of Surrogate Value Information for Chinese Factors of Production," dated August 3, 2022.

²¹ See Memorandum, "Circumvention Inquiries with Respect to Cambodia, Malaysia, Thailand, and Vietnam- Request for Information," dated July 14, 2022.

²² See Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Submission of Investment and Research and Development Information," dated July 29, 2022.

²³ See NextEra's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Response to Auxin's Submission of Investment and Research and Development Information," dated August 12, 2022.

²⁴ See Commerce's Letters, "First Supplemental Questionnaire," dated July 27, 2022; "Supplemental Questionnaire," dated July 27, 2022; "Surrogate Value Supplemental Questionnaire," dated August 10, 2022; "Second Supplemental Questionnaire," dated August 10, 2022; "Circumvention Inquiry with Respect to Cambodia: Supplemental Questionnaire," dated September 26, 2022; "Third Supplemental Questionnaire," dated September 26, 2022; and "Supplemental Questionnaire," dated October 28, 2022.

²⁵ See BYD HK's Letter, "2022 Circumvention Inquiry of Antidumping Duty Order on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Response to First Supplemental Questionnaire," dated August 9, 2022 (BYD HK's August 9, 2022 SQR); BYD HK's Letter, "2022 Circumvention Inquiry of Antidumping Duty Order on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Response to Second Supplemental Questionnaire," dated August 19, 2022 (BYD HK's August 19, 2022 SQR); BYD HK's Letter, "2022 Circumvention Inquiry of Antidumping Duty Order on Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China: Response to Third Supplemental Questionnaire," dated October 12, 2022 (BYD HK's October 12, 2022 SQR); NE Solar's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not

On August 22, 2022, Commerce extended the deadline for issuing the preliminary determination in this circumvention inquiry by 90 days, until November 28, 2022.²⁶ On November 14, 2022, Commerce further extended this deadline by three days, until December 1, 2022.²⁷

III. SCOPE OF THE *ORDERS*

The merchandise covered by the *Orders* is crystalline silicon photovoltaic cells, and modules, laminates, and panels, consisting of crystalline silicon photovoltaic cells, whether or not partially or fully assembled into other products, including, but not limited to, modules, laminates, panels and building integrated materials.

The *Orders* cover crystalline silicon photovoltaic cells of thickness equal to or greater than 20 micrometers, having a p/n junction formed by any means, whether or not the cell has undergone other processing, including, but not limited to, cleaning, etching, coating, and/or addition of materials (including, but not limited to, metallization and conductor patterns) to collect and forward the electricity that is generated by the cell.

Merchandise under consideration 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 merchandise under consideration are included in the scope of the *Orders*.

Excluded from the scope of the *Orders* are thin film photovoltaic products produced from amorphous silicon (a-Si), cadmium telluride (CdTe), or copper indium gallium selenide (CIGS). Also excluded from the scope of the *Orders* are crystalline silicon photovoltaic cells, not exceeding 10,000mm² in surface area, that are permanently integrated into a consumer good whose function is other than power generation and that consumes the electricity generated by the integrated crystalline silicon photovoltaic cell. Where more than one cell is permanently integrated into a consumer good, the surface area for purposes of this exclusion shall be the total combined surface area of all cells that are integrated into the consumer good.

Assembled Into Modules, from the People's Republic of China; Circumvention Inquiry Supplemental Questionnaire I Response," dated August 8, 2022 (NE Solar's August 8, 2022 SQR); NE Solar's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China; Circumvention Inquiry Supplemental Surrogate Value Questionnaire Response," dated August 17, 2022 (NE Solar's August 17, 2022 SQR); NE Solar's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China; Circumvention Inquiry Supplemental Questionnaire III Response," dated October 11, 2022 (NE Solar's October 11, 2022 SQR); and NE Solar's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China; Circumvention Inquiry Supplemental Questionnaire Response," dated November 4, 2022 (NE Solar's November 4, 2022 SQR).

²⁶ See Auxin's Letter, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People's Republic of China: Request for Extension of the Deadline for the Preliminary Determination and the Deadline for Pre-Preliminary Comments," dated August 11, 2022; and Memorandum, "Extension of Preliminary Determinations in Circumvention Inquiries," dated August 22, 2022.

²⁷ See Commerce's Letter, "Second Extension of Preliminary and Final Determinations in Circumvention Inquiries," dated November 14, 2022.

Additionally, excluded from the scope of the *Orders* are panels with surface area from 3,450 mm² to 33,782 mm² with one black wire and one red wire (each of type 22 AWG or 24 AWG not more than 206 mm in length when measured from panel extrusion), and not exceeding 2.9 volts, 1.1 amps, and 3.19 watts. For the purposes of this exclusion, no panel shall contain an internal battery or external computer peripheral ports.

Also excluded from the scope of the *Orders* are:

- 1) Off grid crystalline silicon photovoltaic cells (CSPV) panels in rigid form with a glass cover, with the following characteristics:
 - (A) A total power output of 100 watts or less per panel;
 - (B) a maximum surface area of 8,000 cm² per panel;
 - (C) do not include a built-in inverter;
 - (D) must include a permanently connected wire that terminates in either an 8mm male barrel connector, or a two-port rectangular connector with two pins in square housings of different colors;
 - (E) must include visible parallel grid collector metallic wire lines every 1–4 millimeters across each solar cell; and
 - (F) must be in individual retail packaging (for purposes of this provision, retail packaging typically includes graphics, the product name, its description and/or features, and foam for transport); and
- 2) Off grid CSPV panels without a glass cover, with the following characteristics:
 - (A) A total power output of 100 watts or less per panel;
 - (B) a maximum surface area of 8,000 cm² per panel;
 - (C) do not include a built-in inverter;
 - (D) must include visible parallel grid collector metallic wire lines every 1–4 millimeters across each solar cell; and
 - (E) each panel is
 1. permanently integrated into a consumer good;
 2. encased in a laminated material without stitching, or
 3. has all of the following characteristics: (i) the panel is encased in sewn fabric with visible stitching, (ii) includes a mesh zippered storage pocket, and (iii) includes a permanently attached wire that terminates in a female USB–A connector.

In addition, the following CSPV panels are excluded from the scope of the *Orders*:

- 1) Off-grid CSPV panels in rigid form with a glass cover, with each of the following physical characteristics, whether or not assembled into a fully completed off-grid hydropanel whose function is conversion of water vapor into liquid water:
 - (A) A total power output of no more than 80 watts per panel;
 - (B) A surface area of less than 5,000 square centimeters (cm²) per panel;
 - (C) Do not include a built-in inverter;
 - (D) Do not have a frame around the edges of the panel;

- (E) Include a clear glass back panel; and
- (F) Must include a permanently connected wire that terminates in a two-port rectangular connector.

Modules, laminates, and panels produced in a third country from cells produced in China are covered by the *Orders*; however, modules, laminates, and panels produced in China from cells produced in a third country are not covered by the *Orders*.

Merchandise covered by the *Orders* is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheadings 8501.71.0000, 8501.72.1000, 8501.72.2000, 8501.72.3000, 8501.72.9000, 8501.80.1000, 8501.80.2000, 8501.80.3000, 8501.80.9000, 8507.20.8010, 8507.20.8031, 8507.20.8041, 8507.20.8061, 8507.20.8091, 8541.42.0010, and 8541.43.0010. These HTSUS subheadings are provided for convenience and customs purposes; the written description of the scope of the *Orders* is dispositive.²⁸

IV. MERCHANDISE SUBJECT TO THE CIRCUMVENTION INQUIRY

This circumvention inquiry covers: (A) crystalline silicon photovoltaic cells that meet the physical description of crystalline silicon photovoltaic cells in the scope of the underlying AD/CVD orders, subject to the exclusions therein, whether or not partially or fully assembled into other products, that were produced in Cambodia from wafers produced in China; and (B) modules, laminates, and panels consisting of crystalline silicon photovoltaic cells, subject to the exclusions for certain panels in the scope of the underlying orders, whether or not partially or fully assembled into other products, that were produced in Cambodia from wafers produced in China *and* where more than two of the following components in the module/laminate/panel were produced in China: (1) silver paste; (2) aluminum frames (3) glass; (4) backsheets; (5) ethylene vinyl acetate sheets; and (6) junction boxes. If modules, laminates, and panels consisting of crystalline silicon photovoltaic cells do not meet both of the conditions in item (B) above, then this circumvention inquiry does not cover the modules, laminates, and panels, or the crystalline silicon photovoltaic cells within the modules, laminates, and panels, even if those crystalline silicon photovoltaic cells were produced in Cambodia from wafers produced in China. Wafers produced outside of China with polysilicon sourced from China are not considered to be wafers produced in China for purposes of this circumvention inquiry.

V. PERIOD OF THE CIRCUMVENTION INQUIRY

The period of the inquiry is January 1, 2008, through December 31, 2021.

VI. NON-MARKET ECONOMY METHODOLOGY FOR VALUING MATERIAL INPUTS FROM CHINA

In this circumvention inquiry, Commerce must determine whether Chinese-produced merchandise that is assembled and completed in a third country and then sold to the United States is

²⁸ See *Orders*; see also *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Final Results of Changed Circumstances Reviews, and Revocation of Antidumping and Countervailing Duty Orders, in Part*, 86 FR 71616-17 (December 17, 2021) (excluding certain off-grid CSPV).

circumventing the *Orders*. As part of that analysis, as explained below, section 781(b)(1)(D) of the Act requires Commerce to determine whether the value of the merchandise that is produced in the foreign country to which an order applies, which, in these proceedings, is China, and that is assembled and completed in a third country, is a significant portion of the total value of the final product exported from the third country to the United States.

Commerce considers China to be a non-market economy (NME) country.²⁹ Pursuant to section 771(18) of the Act, “the term ‘nonmarket economy country’ means any foreign country that {Commerce} determines does not operate on market principles of cost or pricing structures” Consequently, valuing the China-produced parts and components for purposes of section 781(b)(1)(D) of the Act falls under the purview of Commerce’s NME methodology, which by statute presumes that NME costs and prices are inherently unreliable and requires Commerce to value Chinese-produced material inputs using surrogate values from one or more market economy countries. While Commerce may use the prices paid for China-produced inputs in market economy proceedings, as noted above, this circumvention inquiry involves AD and CVD orders on China, which is an NME country, and we are attempting to determine whether Chinese-produced merchandise that is completed and assembled in a third country is circumventing those orders.

In accordance with section 773(c)(4) of the Act, Commerce’s NME methodology involves valuing factors of production, including material inputs, to the extent possible, based on the prices or costs in one or more market economy countries that are: (1) at a level of economic development comparable to that of the NME country; and (2) significant producers of comparable merchandise. In this circumvention inquiry, Commerce identified Bulgaria, Chile, Costa Rica, Malaysia, Romania, and Turkey as countries economically comparable to China.³⁰

Commerce preliminarily selected Malaysia as the primary surrogate country for valuing Chinese-produced parts and components because record evidence indicates that: (1) Malaysia is at a level of economic development comparable to that of China; (2) Malaysia is a significant producer of merchandise comparable to the merchandise subject to the *Orders*; (3) we have reliable surrogate value data from Malaysia on the record covering nearly all of the parts and components from China that need to be valued (which is not the case for any of the other potential surrogate countries);³¹ and (4) there is no record evidence calling into question the reliability of the Malaysian surrogate value data. Therefore, except for solar glass, we calculated the value of Chinese-produced parts and components using Malaysian prices. Specifically, we valued

²⁹ See *Antidumping Duty Investigation of Certain Aluminum Foil from the People’s Republic of China: Affirmative Preliminary Determination of Sales at Less-Than-Fair Value and Postponement of Final Determination*, 82 FR 50858, 50861 (November 2, 2017), and a accompanying Preliminary Decision Memorandum (PDM) (citing Memorandum, “China’s Status as a Non-Market Economy,” dated October 26, 2017), unchanged in *Certain Aluminum Foil from the People’s Republic of China: Final Determination of Sales at Less Than Fair Value*, 83 FR 9282 (March 5, 2018).

³⁰ See Request for Comments on Surrogate Countries at Attachment 1.

³¹ While we selected Malaysia as the primary surrogate country for China, because of unit of measure issues, we used surrogate value data from Romania and Bulgaria to value solar glass.

Chinese-produced material inputs using the average unit value of imports into Malaysia during 2021 as reported by Global Trade Atlas.³²

VII. STATUTORY AND REGULATORY FRAMEWORK FOR THE CIRCUMVENTION INQUIRY

Circumvention inquiries are conducted pursuant to section 781 of the Act and 19 CFR 351.226.³³ With respect to merchandise assembled or completed in a third country, section 781(b) of the Act provides that Commerce may find circumvention of AD and CVD orders when merchandise imported into the United States was assembled or completed in a foreign country other than the country to which the order applies and the merchandise is of the same class or kind as the merchandise subject to the orders. Section 781(b)(1) of the Act provides that, after taking into account any advice provided by the U.S. International Trade Commission (ITC) under section 781(e) of the Act, Commerce may include imports of merchandise assembled or completed in a third country within the scope of an order at any time the order is in effect if:

- (A) the merchandise imported in the United States is of the same class or kind as any merchandise produced in a foreign country that is the subject of an AD and/or CVD order;
- (B) before importation into the United States, such imported merchandise is completed or assembled in another foreign country from merchandise which (i) is subject to such order, or (ii) is produced in the foreign country with respect to which such order applies;
- (C) the process of assembly or completion in the foreign country is minor or insignificant;
- (D) the value of the merchandise produced in the foreign country to which the antidumping and/or countervailing duty order applies is a significant portion of the total value of the merchandise exported to the United States; and
- (E) Commerce determines that action is appropriate to prevent evasion of an order.

In determining whether the process of assembly or completion in a third country is minor or insignificant under section 781(b)(1)(C) of the Act, section 781(b)(2) of the Act directs Commerce to consider:

- (A) the level of investment in the foreign country;
- (B) the level of R&D in the foreign country;

³² See Memorandum, “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People’s Republic of China - Circumvention Inquiries with Respect to Cambodia, Malaysia and Thailand: Factor Valuation Memorandum,” dated concurrently with this memorandum.

³³ The legislative history to section 781(b) of the Act indicates that Congress intended Commerce to make determinations regarding circumvention on a case-by-case basis, in recognition that the facts of individual cases and the nature of specific industries are widely variable. See S. Rep. No. 103-412 (1994) at 81-82.

- (C) the nature of the production process in the foreign country;
- (D) the extent of production facilities in the foreign country; and
- (E) whether the value of the processing performed in the foreign country represents a small proportion of the value of the merchandise imported into the United States.

No single factor, by itself, controls Commerce's determination of whether the process of assembly or completion in a third country is minor or insignificant.³⁴ Accordingly, it is Commerce's practice to evaluate each of five factors in section 781(b)(2) of the Act, as they exist in the third country, and consider the totality of our analysis of those factors in making a determination.³⁵ The importance of any one of the factors listed under section 781(b)(2) of the Act can vary from case to case based on the particular circumstances unique to each circumvention inquiry.³⁶

Moreover, Commerce's substantial transformation analysis under 19 CFR 351.225(j) and the test for determining whether a product was completed or assembled in other foreign countries under section 781(b) of the Act (19 CFR 351.226(i)) are two distinct analyses used for different purposes. Commerce's substantial transformation analysis is used in scope rulings and other proceedings to determine a particular product's country-of-origin, while the factors that it considers when determining whether merchandise is being completed or assembled into a product in a third country are specific to a circumvention analysis under section 781 of the Act to determine if the product is circumventing an AD or CVD order. Because these analyses are distinct and serve different purposes, Commerce's application of a substantial transformation analysis does not preclude it from also applying an analysis based on the statutory criteria established in section 781(b) of the Act.³⁷ Additionally, Commerce has noted that "there is nothing contradictory in finding an input to be substantially transformed into a finished product, in terms of its physical characteristics and uses, while also finding the process of effecting that transformation to be minor {vis-à-vis} the manufacturing process of producing a finished product."³⁸

Finally, section 781(b)(3) of the Act sets forth additional factors to consider in determining whether to include merchandise imported into the United States that was assembled or completed in a third country within the scope of an AD and/or CVD order. Specifically, Commerce shall take into account such factors as:

³⁴ See Statement of Administrative Action Accompanying the Uruguay Round Agreements Act, H.R. Doc. No. 103-316, Vol. I (1994) (SAA), at 893.

³⁵ See *Hydrofluorocarbon Blends from the People's Republic of China: Final Negative Scope Ruling on Gujarat Fluorochemicals Ltd.'s R-410A Blend; Affirmative Final Determination of Circumvention of the Antidumping Duty Order by Indian Blends Containing Chinese Components*, 85 FR 61930 (October 1, 2020) (*HFC Blends from China*), and accompanying Issues and Decision Memorandum (IDM), at 20.

³⁶ *Id.*

³⁷ See *Bell Supply Co., LLC v. United States*, 888 F.3d 1222, 1231 (Fed. Cir. 2018) ("{E}ven where an article is substantially transformed, Commerce can still find that it is subject to an AD or CVD order after conducting a circumvention inquiry.").

³⁸ See *Regulations To Improve Administration and Enforcement of Antidumping and Countervailing Duty Laws*, 86 FR 52300, 52343 (September 20, 2021).

- (A) the pattern of trade, including sourcing patterns;
- (B) whether the manufacturer or exporter of the subject merchandise, or the merchandise produced in the order country, that is completed or assembled in a third country, is affiliated with the person who performs the completion or assembly in order to produce the merchandise that is subsequently imported into the United States; and
- (C) whether imports into the third country of the merchandise that is completed or assembled in the third country, have increased after the initiation of the investigation that resulted in the issuance of an order.

VIII. STATUTORY ANALYSIS FOR THE CIRCUMVENTION INQUIRY

Section 781(b) of the Act directs Commerce to consider the criteria described in the “Statutory and Regulatory Framework for the Circumvention Inquiry” section of this memorandum above, to determine whether merchandise completed or assembled in a third country is circumventing an order. Below we analyze those statutory criteria based on record evidence.

Merchandise of the Same Class or Kind

Section 781(b)(1) of the Act provides that Commerce may include imports of merchandise assembled or completed in a third country within the scope of an order at any time the order is in effect if, among other things, the merchandise imported in the United States is of the same class or kind as any merchandise produced in a foreign country that is the subject of an AD and/or CVD order.

BYD HK reported that it “does not directly engage in the production of solar cells and modules in Cambodia for the U.S. market, rather BYD HK produces cells and modules through toll processing arrangements with unaffiliated tollers.”³⁹ Further, BYD HK stated that it exported the inquiry merchandise made through this tolling process to the United States during the inquiry period. According to BYD HK, the merchandise produced by the unaffiliated Cambodian tollers and exported by BYD HK is of the same class or kind as the merchandise subject to the *Orders* during the period of inquiry.⁴⁰

NE Solar reported that it produced and exported merchandise of the same class and kind as the merchandise subject to the *Orders* during the period of inquiry.⁴¹

Based on the foregoing, in accordance with section 781(b)(1)(A) of the Act, we find that the available information indicates that inquiry merchandise imported into the United States from Cambodia is of the same class or kind of merchandise as the merchandise subject to the *Orders*.

³⁹ See BYD HK Initial QR Part II at 3.

⁴⁰ *Id.* at 4 and Exhibit B3.

⁴¹ See NE Solar Initial QR Part II at 1-5 and Exhibit II-1.

Whether, Before Importation into the United States, Such Merchandise is Completed or Assembled in Cambodia from Merchandise that is Subject to the *Orders* or Produced in China

Section 781(b)(1) of the Act provides that Commerce may include imports of merchandise assembled or completed in a third country within the scope of an order at any time the order is in effect if, among other things, before importation into the United States, such imported merchandise is completed or assembled in another foreign country from merchandise which: (i) is subject to such order, or (ii) is produced in the foreign country with respect to which such order applies.

BYD HK reported that unaffiliated tollers in Cambodia produced solar cells and modules from inputs sourced from China during the period of inquiry.⁴² BYD HK obtained Chinese-origin wafers from its affiliated producer, BYD (Shangluo) Industrial Co., Ltd. (Shangluo BYD), and it also purchased other raw material inputs from China.⁴³ In addition, BYD HK provided sample sales and shipping documentation demonstrating how the company determined the country of origin for the parts/components purchased during the period of inquiry.⁴⁴ Thus, BYD HK, through the use of Cambodian tollers, produces inquiry merchandise using Chinese parts and components before importation into the United States.

NE Solar reported that it produced solar cells and modules from inputs sourced from Cambodia and China during the period of inquiry.⁴⁵ NE Solar obtained Chinese-origin wafers and other raw material inputs from its affiliated suppliers.⁴⁶ NE Solar noted that its Chinese-affiliated input suppliers are exporters that are not in the business of manufacturing solar modules, solar cells, polysilicon, or polysilicon wafers that can be used to make solar cells.⁴⁷ In addition, NE Solar provided sample sales and shipping documentation for solar modules sold to the United States during the period of inquiry.⁴⁸ Thus, NE Solar produces inquiry merchandise using Chinese parts and components before importation into the United States.

Thus, record evidence supports a preliminary determination, in accordance with section 781(b)(1)(B) of the Act, that solar cells and modules imported into the United States were completed or assembled in Cambodia from merchandise (*i.e.*, silicon wafers and other materials) produced in China.

⁴² See BYD HK Initial QR Part II at 2, 15, and 39-53.

⁴³ *Id.* at 2 and 17. These inputs included, but were not limited to, a aluminum paste, silver paste, solar glass, ethyl vinyl acetate (EVA), backsheet, a aluminum frames, sealant, pottant, interconnect, junction box, and busbar insulation.

⁴⁴ *Id.* at 16-17 and Exhibits B14-1 through B14-1.11.

⁴⁵ See NE Solar Initial QR Part II at 8-9 and Exhibit II-4.

⁴⁶ *Id.*; see also NE Solar's August 17, 2022 SQR at 12; and NE Solar's October 11, 2022 SQR at Exhibit SQ3-4. These inputs included, but were not limited to, wafers, paste, frames, junction box, and backsheet. NE Solar also obtained packing materials from these suppliers as well.

⁴⁷ See NE Solar Initial QR Part I at 9 and 11; see also NE Solar's August 8, 2022 SQR at 3.

⁴⁸ See NE Solar Initial QR Part I at 7 and Exhibits 9.1 and 9.2.

Whether the Process of Assembly or Completion in Cambodia is Minor or Insignificant

Section 781(b)(1) of the Act provides that Commerce may include imports of merchandise assembled or completed in a third country within the scope of an order at any time the order is in effect if, among other things, the process of assembly or completion in the third country is minor or insignificant.

Under section 781(b)(2) of the Act, Commerce considers five factors to determine whether the process of assembly or completion of merchandise in a foreign country is minor or insignificant: (1) the level of investment in the foreign country in which the merchandise is completed or assembled; (2) the level of research and development in the foreign country in which the merchandise is completed or assembled; (3) the nature of the production process in the foreign country in which the merchandise is completed or assembled; (4) the extent of production facilities in the foreign country in which the merchandise is completed or assembled; and (5) whether the value of the processing performed in the foreign country in which the merchandise is completed or assembled represents a small proportion of the value of the merchandise imported into the United States.

The SAA explains that no single factor listed in section 781(b)(2) of the Act will be controlling.⁴⁹ Accordingly, Commerce's practice is to evaluate each of the factors in section 781(b)(2) of the Act as it exists in the third country and consider the totality of our analysis of those factors in making a determination.⁵⁰ The importance of any one of the factors listed under section 781(b)(2) of the Act can vary from case to case depending on the particular circumstances unique to each circumvention inquiry.

In this inquiry, Commerce based its analysis on both qualitative and quantitative factors in determining whether the process of assembly or completion in Cambodia is minor or insignificant, in accordance with the criteria of section 781(b)(2) of the Act. This approach is consistent with our analysis in prior circumvention inquiries.⁵¹ Additionally, in evaluating these factors, we compared the production of inquiry merchandise by the Cambodian respondents to that of the respondents' affiliated producers in China.

As discussed in detail below, Commerce preliminarily finds that the process of assembly or completion of inquiry merchandise is minor or insignificant for BYD HK and not minor or insignificant for NE Solar. With respect to the mandatory respondents, much of the information used to determine whether the process of assembly or completion in Cambodia is minor or

⁴⁹ See SAA at 893.

⁵⁰ See *HFC Blends from China* IDM at 20.

⁵¹ See *Anti-Circumvention Inquiry of the Antidumping and Countervailing Duty Orders on Certain Pasta from Italy: Affirmative Preliminary Determination of Circumvention of Antidumping and Countervailing Duty Orders*, 68 FR 46571, 46575 (August 6, 2003), unchanged in *Anti-Circumvention Inquiry of the Antidumping and Countervailing Duty Orders on Certain Pasta from Italy: Affirmative Final Determinations of Circumvention of Antidumping and Countervailing Duty Orders*, 68 FR 54888 (September 19, 2003); see also *Certain Corrosion-Resistant Steel Products from the People's Republic of China: Affirmative Preliminary Determination of Circumvention Involving the United Arab Emirates*, 85 FR 8841 (February 18, 2020), unchanged in *Certain Corrosion-Resistant Steel Products from the People's Republic of China: Affirmative Final Determination of Circumvention Involving the United Arab Emirates*, 85 FR 41957 (July 13, 2020) (*CORE from China*).

insignificant is business proprietary in nature; therefore, where necessary, we discussed this information in company-specific preliminary analysis memoranda.⁵²

(1) Level of Investment in Cambodia

BYD HK is a Hong Kong company that was established in 1999 using capital provided by its Chinese parent company, BYD Company Limited (BYD LTD), which owns 100 percent of BYD HK.⁵³ BYD HK stated that it does not engage in production operations or have manufacturing equipment.⁵⁴ Therefore, to produce inquiry merchandise in Cambodia, BYD HK made tolling agreements with three unaffiliated Cambodian toll processors.⁵⁵ These tollers were founded in 2018 and 2019, and they commenced operations in 2019 and 2020.⁵⁶ BYD HK provided information related to the total investment required for its Cambodian tollers to construct and start up their facilities in Cambodia, as well as for BYD HK's Chinese affiliate, Shangluo BYD, who produces ingots and wafers; BYD HK classified these investments into the following production stages: the production of solar modules, solar cells, wafers, and ingots.⁵⁷ We compared BYD HK's own investments in Cambodia related to the production of inquiry merchandise to the reported investments of its affiliate in China, and preliminarily find that BYD HK's investments in Cambodia were minor or insignificant, and thus, weigh in favor of finding circumvention. For a complete analysis of BYD HK's level of investments, *see* the BYD HK Preliminary Analysis Memorandum.

NE Solar was established in March 2019 and began production of solar cells and modules in August 2019 from its production facility located in Phnom Penh, Cambodia.⁵⁸ NE Solar notes that its Chinese affiliates are exporters and not in the business of manufacturing solar modules, solar cells, polysilicon, or polysilicon wafers that can be used to make solar cells.⁵⁹ NE Solar provided information regarding its total capital expenses in Cambodia from its establishment in 2019 until 2021, including production facility information broken out by the production of cells and modules.⁶⁰ Because NE Solar did not source inputs from affiliated producers in China, we preliminarily find that NE Solar's investments in Cambodia were not minor or insignificant, and

⁵² *See* Memoranda, "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic from China – Circumvention Inquiry with Respect to Cambodia: Preliminary Analysis Memorandum for BYD(H.K.)Co., Ltd.," dated concurrently with this memorandum (BYD HK Preliminary Analysis Memorandum); and "Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic from China – Circumvention Inquiry with Respect to Cambodia: Preliminary Analysis Memorandum for NE Solar," dated concurrently with this memorandum (NE Solar Preliminary Analysis Memorandum).

⁵³ *See* BYD HK Initial QR Part I at 6; *see also* BYD HK's October 12, 2022 SQR at S3-9.

⁵⁴ *See* BYD HK Initial QR Part I at 1 and 7; and BYD HK Initial QR Part II at 1 and 3. BYD HK reported that the production equipment and facilities for the manufacturing of solar cells and modules in Cambodia are owned and operated by the unaffiliated Cambodian toll processors. *See* BYD HK Initial QR Part I at 7.

⁵⁵ *See* BYD HK Initial QR Part I at 2; *see also* BYD HK's October 12, 2022 SQR at S3-14.

⁵⁶ *See* BYD HK Initial QR Part I at 12; and BYD HK's October 12, 2022 SQR at S3-13 to S3-14 and Exhibit S3-12-A.

⁵⁷ *See* BYD HK Initial QR Part II at 2; BYD HK's August 9, 2022 SQR at Exhibit S1-12.2.a; and BYD HK's October 12, 2022 SQR at S3-12 and Exhibit S3-12-A.

⁵⁸ *See* NE Solar Initial QR Part I at 3.

⁵⁹ *Id.* at 9 and 11; *see also* NE Solar's August 8, 2022 SQR at 3.

⁶⁰ *See* NE Solar's November 4, 2022 SQR at Exhibit SQ4-1.

thus weigh against finding circumvention. For a complete analysis of NE Solar's level of investments, *see* the NE Solar Preliminary Analysis Memorandum.

(2) Level of Research and Development in Cambodia

BYD HK reported that it does not engage in "research and development related to CSPV cells and/or modules."⁶¹ Further, BYD HK reported that it does not have information on the R&D conducted by the unaffiliated tollers.⁶² With respect to BYD HK's affiliates' R&D in China, BYD HK indicated that its Chinese affiliates, Shangluo BYD and Shanghai BYD Company Limited, conduct R&D related to solar cells and modules.⁶³ Based on BYD HK's lack of R&D activities in Cambodia, we preliminarily find that BYD HK's R&D expenses in Cambodia during the inquiry period were minor or insignificant, and thus, weigh in favor of finding circumvention. For a complete analysis of BYD HK's level of R&D in Cambodia, *see* the BYD HK Preliminary Analysis Memorandum.

NE Solar reported that it conducted R&D activities in Cambodia related to the solar cells and modules it produces there,⁶⁴ in order to remain competitive by developing new products and improving existing ones.⁶⁵ Further, NE Solar stated that none of its affiliates in China conducted R&D activities related to the production of solar cells and modules, polysilicon, or wafers.⁶⁶ Because NE Solar's only R&D expenses during the inquiry period were in Cambodia, we preliminarily find that NE Solar's R&D activities in Cambodia were not minor or insignificant, and thus, weigh against finding circumvention. For a complete analysis of NE Solar's level of research and development, *see* the NE Solar Preliminary Analysis Memorandum.

Based on the foregoing, we preliminarily find that this factor weighs in favor of finding circumvention for BYD HK and against finding circumvention for NE Solar.

(3) Nature of the Production Process in Cambodia

Because the respondents treated certain production processes as business proprietary information,⁶⁷ we did not associate the production processes described below with a particular respondent. However, we find our all-inclusive description of the production processes below covers the range of production scenarios applicable to various respondents and covers the comparisons required to reach a determination with respect to the nature of production.

According to the ITC, to produce ingots, polysilicon rocks are placed into a quartz crucible along with a small amount of boron, which is used to provide a positive electric orientation. The crucible is then heated in a furnace to approximately 2,500 degrees Fahrenheit to produce

⁶¹ BYD HK Initial QR Part I at 17.

⁶² *Id.*

⁶³ *See* BYD HK Initial QR Part I at 17; BYD HK's August 9, 2022 SQR at S-6; and BYD HK's October 12, 2022 SQR at Exhibit S3-9.

⁶⁴ *See* NE Solar Initial QR Part I at 12.

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ In the preliminary analysis memorandum for each respondent, we identify the inputs that the respective respondent's Chinese affiliates produced/provided.

monocrystalline silicon, currently the most common form of polysilicon used in producing solar cells. Once the polysilicon is melted, a seed crystal is lowered into the material and rotated, with the crucible rotated in the opposite direction. The melt starts to solidify on the seed and the seed is slowly raised out of the melt—creating a single long crystal. The crystal is then cooled before it is moved onto the next step. The process of growing the crystal takes approximately 2.5 days.⁶⁸

To produce wafers, the top and tail of the ingot are cut off and the remaining portion is cut into equal length pieces and then squared. A wire saw is used to slice the ingots into wafers. Typically, diamond wire saws are used for monocrystalline wafer slicing. The wafers are then cleaned, dried, and inspected.⁶⁹

Solar cell production typically involves phosphorus being diffused into a thin layer on the wafer surface at high heat, which gives the surface of the wafer its negative potential electrical orientation. The combination of that layer, and a boron-doped layer below, creates the positive-negative (p/n), junction. A thin layer of silicon is removed from the edge of the solar cell to separate the positive and negative layers. A silicon nitride antireflective coating is then added to the solar cell to increase the absorption of sunlight and metals are printed on the solar cell to collect electricity. Aluminum and silver layers are applied, and then the solar cell is placed in a furnace, where the high temperature causes the silver paste to become imbedded in the surface of the silicon layer, forming a reliable electrical contact. The final step in the process is testing and sorting the solar cells based on their characteristics and efficiency.⁷⁰

To assemble solar cells into solar modules, a piece of glass is placed on the production line, and EVA or another encapsulant is placed on top of the glass. Then a group of solar cells is placed in a line and soldered together, creating a string. The strings are then placed on top of the encapsulant, and the string interconnections are soldered together. After this, another layer of EVA and a backsheet are added, and the product is laminated and cured. Usually a frame is added, and a junction box is attached to the back of the module.⁷¹

As noted above, the process for producing monocrystalline silicon ingots requires melting polysilicon then forming the crystal and pulling it into an ingot. These processes utilize extremely expensive furnaces that consume enormous amounts of electricity,⁷² and despite the few steps, it typically takes approximately four days to grow an ingot from raw polysilicon.⁷³ The diamond saws that are used to slice ingots into thinner than paper wafers are also expensive and technologically advanced. In in a market survey, Bloomberg NEF, a prominent research provider for the solar industry, found that:

⁶⁸ See *Crystalline Silicon Photovoltaic Cells, Whether or Not Partially or Fully Assembled Into Other Products: Monitoring Developments in the Domestic Industry*, Investigation No. TA-201-075 (Monitoring), Publication 5021 (February 2020), at I-62.

⁶⁹ *Id.* at I-64.

⁷⁰ *Id.* at I-65 to I-66.

⁷¹ *Id.* at I-67.

⁷² See Memorandum, “Meeting with the Department of Energy,” dated June 3, 2022, at Attachment 2 (containing *Solar Photovoltaics: Supply Chain Deep Dive Assessment. U.S. Department of Energy Response to Executive Order 14017, “America’s Supply Chains,”* dated July 29, 2022 (*DOE Solar Report*), at 31).

⁷³ *Id.* at 29.

“{w}afers factories required high upfront capital expenditure and bear many technical hurdles, which makes it difficult for new factories to be built outside of China.”⁷⁴

Technical hurdles are highest for plants that make polysilicon and wafers. These plants are also costly to build and take longest to construct. Cell and module factories can be built faster and can respond quicker to technological trends and policy developments like import tariffs.⁷⁵

Thus, the process in China for producing ingots and wafers requires significant technological expertise. Meanwhile, record evidence indicates that the labor demands of ingot and wafer production are slightly less than the labor required to produce solar cells and modules.⁷⁶

However, relative to ingot and wafer production, solar cell and module production involves a greater number of stages, each requiring a high level of technological sophistication. Specifically, the process for turning wafers into solar cells requires an expensive, multi-stage assembly line requiring high-technological machinery and workers with strong technological knowledge. While ingot and wafer production require large amounts of upfront capital and technical capabilities, the ITC found solar cell production to be the “most capital intensive part of the manufacturing process,” and “a highly automated, capital intensive, and technologically sophisticated process, requiring skilled technicians and employees with advanced degrees.”⁷⁷

Moreover, module production also involves a large number of varied inputs consumed in a complex, multi-step production process that requires precision, highly skilled workers, and accurate quality-testing equipment at multiple stages.⁷⁸ Furthermore, the physical transformation of polysilicon rocks into wafers (*i.e.*, the portion of the production process occurring in China) is less extensive than the transformation of wafers into solar modules (*i.e.*, the portion of the production process occurring in third countries).⁷⁹ Only a handful of inputs are used to convert polysilicon rocks into wafers, whereas converting a solar cell into a solar module requires approximately 100 different inputs.

Additionally, Commerce previously noted that cell production is where the essence of a solar module is realized. Specifically, Commerce noted that:

⁷⁴ See Circumvention Request at Exhibit 4 (“Solar PV Trade and Manufacturing: A Deep Dive February 2021, Bloomberg NEF,” dated February 2021, at “Executive Summary”).

⁷⁵ *Id.* at PDF page 15.

⁷⁶ See *DOE Solar Report* at 12.

⁷⁷ See *Crystalline Silicon Photovoltaic Cells and Modules from China, Inv. Nos. 701-TA-481 and 731-TA-1190* (Final), USITC Pub. No. 4360 (November 2012), at I-18.

⁷⁸ See Auxin’s Letter, “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules from the People’s Republic of China: Submission of Investment and Research and Development Information,” dated July 29, 2022, at Exhibit 1.

⁷⁹ For example, a typical solar module requires 72 wafers to produce a solar module. Further, the weight of 72 wafers is approximately 0.72 grams, while a module weighs approximately 20 kilograms (kg); thus, the nature of the resulting solar modules is 30,000 times heavier than the original input into the process.

once a wafer is doped and an opposite electrical orientation is imparted on the surface, it results in the creation of a p/n junction. When sunlight strikes the cell, the positive and negative charge carriers are released, causing electrical current to flow. It is at this point that the cell is capable of generating electricity from sunlight.⁸⁰

Therefore, Commerce has determined that it is only when the p/n junction is created that a wafer is no longer just a wafer, but is a solar cell that is subject to the *Orders*.⁸¹ Commerce also noted in the underlying investigation that, “{t}he essential component of solar modules/panels is the solar cell since the purpose of solar modules/panels is to convert sunlight into electricity and this process occurs in the solar cells.”⁸²

Moreover, if we disregarded the polysilicon-to-ingot part of the production process in China and started with the production of wafers from ingots in China, the relative proportion of the production process that takes place in the third country when producing solar cells and modules from wafers would be even greater compared to the production in China. Thus, we find that the nature of the production performed by the respondents in the third country is not minor or insignificant compared to either processing polysilicon into wafers, or ingots into wafers, in China, which does not weigh in favor of finding circumvention.

(4) Extent of Production Facilities in Cambodia

BYD HK and NE Solar provided information regarding the cost of the land, equipment, and buildings of, the square footage of, the number of production workers employed in, and the capacity of, their Cambodian solar cell and module production facilities, and BYD HK provided those of their affiliated wafer and/or ingot producers in China.⁸³ NE Solar’s Chinese affiliated suppliers do not have wafer production facilities.

As stated above, BYD HK is a trading company not involved in production operations related to solar cells and modules. The company does not invest in manufacturing equipment nor conduct R&D related to solar cells and modules. Thus, we preliminarily find that the extent of BYD HK’s production facilities in Cambodia is minor or insignificant, compared to the extent of its affiliates’ production facilities in China, and thus, weighs in favor of finding circumvention for BYD HK.

⁸⁰ See NextEra’s Letter, “Pre-Preliminary Determination Comments,” dated October 20, 2022, at Attachment 22 (Memorandum, “Antidumping and Countervailing Duty Orders on Crystalline Silicon Photovoltaic Cells from the People’s Republic of China, and Certain Crystalline Silicon Photovoltaic Products from Taiwan: The Solaria Corporation Scope Ruling (A-570-979, C-570-980, A-583-853),” dated April 8, 2021, at 10-11.)

⁸¹ See NextEra’s Letter, “Request to Reject Anti-Circumvention Ruling Requests and to Decline Initiation,” dated September 15, 2021, at Attachment 14 (citing Memorandum, “SunSpark Technology Inc. Scope Ruling,” dated October 23, 2020, at 6).

⁸² See Next Era’s Letter, “Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People’s Republic of China: NextEra Comments on Auxin’s Circumvention Ruling Request,” dated May 2, 2022, at 14-15 (citing Memorandum, “Scope Clarification Memorandum,” dated March 19, 2012, at 6).

⁸³ See BYD HK Initial QR Part II at 2; see also BYD HK’s October 12, 2022 SQR at S3-12 (stating “Shangluo BYD receives the solar-grade polysilicon and manufactures the ingot, which is cut into squares and sliced into wafers.”).

NE Solar's Chinese affiliated suppliers are trading companies not involved in production related to solar cells and modules. Because NE Solar has no affiliated wafer production facilities in China, we preliminarily find that the extent of NE Solar's production facilities in Cambodia is not minor or insignificant, and thus, weighs against finding circumvention for NE Solar. For a complete analysis of the extent of their production facilities, *see* the BYD HK and NE Solar Preliminary Analysis Memoranda.

(5) Whether the Value of Processing in Cambodia Represents a Small Proportion of the Value of the Merchandise Imported into the United States

To determine the percentage of the value of imported inquiry merchandise represented by third country processing, we summed the per-unit costs incurred in the third country by each mandatory respondent for non-Chinese material inputs, labor, fixed and variable overhead, selling, general, and administrative items, and interest and divided the sum by the per-unit weighted-average value of the respondent's U.S. sales of inquiry merchandise during 2021. Based on our calculations, we preliminarily find that the value of the processing performed in Cambodia by BYD HK and NE Solar is a small proportion of the value of the inquiry merchandise imported into the United States, and thus, weighs in favor of finding circumvention. For a complete analysis of the value of processing in Cambodia, *see* the BYD HK and NE Solar Preliminary Analysis Memoranda.

Whether the Value of the Merchandise Produced in China is a Significant Portion of the Total Value of the Merchandise Exported to the United States

Section 781(b)(1) of the Act provides that Commerce may include imports of merchandise assembled or completed in a third country within the scope of an order at any time the order is in effect if, among other things, the value of the merchandise produced in the foreign country to which the AD and/or CVD order applies is a significant portion of the total value of the merchandise exported to the United States.

To determine the percentage of the value of exported inquiry merchandise represented by the parts and components produced in China that were used to produce the merchandise, for each respondent we summed the per-unit value of each Chinese part and component and divided the sum by the per-unit weighted-average value of the respondent's U.S. sales of inquiry merchandise during 2021. Because China is an NME country, we valued the parts and components produced in China using surrogate values. Based on our calculations, we preliminarily find that the value of the merchandise produced in China that was used by BYD HK and NE Solar to produce inquiry merchandise is a significant portion of the total value of the merchandise exported to the United States, and thus, weighs in favor of finding circumvention. For a complete analysis of the value of the merchandise produced in China, *see* the BYD HK and NE Solar Preliminary Analysis Memoranda.

Other Factors to Consider

Section 781(b)(3) of the Act directs Commerce to consider additional factors in determining whether to include merchandise assembled or completed in a foreign country within the scope of an order, such as:

(A) the pattern of trade, including sourcing patterns; (B) whether the manufacturer or exporter of the merchandise ... is affiliated with the person who uses the merchandise ... to assemble or complete in the foreign country the merchandise that is subsequently imported into the United States; and (C) whether imports into the foreign country of the merchandise ... have increased after the initiation of the investigation which resulted in the issuance of such order.

(1) Pattern of Trade and Sourcing Patterns

We analyzed patterns of trade by comparing publicly available U.S. import statistics for imports of solar cells and solar modules from 2011 (the year of initiation of the investigations which resulted in the *Orders*) to 2021.⁸⁴ Based on U.S. import data, the value of U.S. imports of solar cells and solar modules from Cambodia dramatically increased during this period, from \$0 in 2011 to \$231,568,494 in 2021 (*i.e.*, an exponential increase). In contrast, the value of U.S. imports of solar cells and solar modules from China significantly decreased during this period, from \$2,803,830,639 in 2011 to \$21,320,358 in 2021 (*i.e.*, a decrease of more than 99 percent). This pattern of trade indicates a shift in exports of solar cells and solar modules to the United States from China to Cambodia, and thus, weighs in favor of finding circumvention.⁸⁵

We also analyzed patterns of trade with respect to the mandatory respondents. Each of the mandatory respondents reported the value and volume of its and its Chinese affiliates' shipments of solar cells and solar modules to customers in the domestic market, the U.S. market, and other third country markets from 2008 through 2021. The data provided by BYD HK and NE Solar indicate a pattern of trade that weighs in favor of finding circumvention. For a complete analysis of the patterns of trade with respect to the mandatory respondents, *see* the BYD HK and NE Solar Preliminary Analysis Memoranda.

⁸⁴ We obtained publicly-available U.S. import data from the Global Trade Atlas for Harmonized Tariff Schedule (HTS) subheadings 8541.40.6020 ("Solar Cells Assembled Into Modules Or Panels") and 8541.40.6030 ("Solar Cells, Not Assembled Into Modules Or Made Up Into Panels") for 2011 through 2018, and HTS subheadings 8541.40.6015 ("Solar Cells, Crystalline Silicon Photovoltaic Cells Of A Kind Described In Stat Note 11 To This Chapter, Assembled Into Modules Or Panels") and 8541.40.6025 ("Solar Cells, Crystalline Silicon Photovoltaic Cells Of A Kind Described In Stat Note 11 To This Chapter, Neso") for 2018 through 2021.

⁸⁵ *See, e.g., CORE from China; see also Certain Uncoated Paper from Brazil: Affirmative Preliminary Determination of Circumvention of the Antidumping Duty Order for Uncoated Paper Rolls*, 86 FR 7261 (January 27, 2021), unchanged in *Certain Uncoated Paper from Brazil, the People's Republic of China, and Indonesia: Affirmative Final Determinations of Circumvention of the Antidumping Duty Orders and Countervailing Duty Orders for Certain Uncoated Paper Roll*, 86 FR 71025 (December 14, 2021); and *Oil Country Tubular Goods from the People's Republic of China: Preliminary Affirmative Determinations of Circumvention*, 86 FR 43627 (August 10, 2021), unchanged in *Oil Country Tubular Goods from the People's Republic of China: Final Affirmative Determinations of Circumvention*, 86 FR 67443 (November 26, 2021).

(2) Affiliation

Generally, Commerce considers circumvention to be more likely to occur when the manufacturer of the subject merchandise or of inputs from the order country that are completed or assembled in a third country is affiliated with the entity in the third country that performs the completion or assembly. As described above, in analyzing the “minor or insignificant” factors in section 781(b)(2) of the Act, we found that certain of the selected respondents sourced parts and components from affiliated suppliers. These affiliations are described in more detail below.

BYD HK is a subsidiary of BYD LTD (which is in China), and is part of the BYD Group, which includes Chinese producers of solar cells, solar modules, and inputs used to manufacture solar cells and solar modules. During the inquiry period, BYD HK was affiliated with entities in China that provided parts and components used by BYD HK to produce solar cells and solar modules. Thus, BYD HK’s affiliations weigh in favor of finding circumvention.

During the inquiry period, NE Solar was affiliated with entities in China that provided parts and components used by NE Solar to produce solar cells and solar modules. Thus, NE Solar’s affiliations weigh in favor of finding circumvention. Accordingly, this factor weighs in favor of finding circumvention.

For a complete analysis of affiliations, *see* the BYD HK and NE Solar Preliminary Analysis Memoranda.

(3) Whether Shipments of Inputs from China to the Third Country Increased

To determine whether shipments of the inputs from China that were used to complete or assemble the final product in the third country increased, we examined the mandatory respondents’ purchases of Chinese-produced inputs from 2008 to 2021 that they used to manufacture solar cells/modules. Both BYD HK and NE Solar reported purchasing wafers and other parts and components from China and used those inputs to manufacture solar cells/modules. Proprietary information indicates that purchases of such inputs increased since initiation of the investigations that resulted in the *Orders*, which weighs in favor of finding circumvention.⁸⁶

IX. SUMMARY OF STATUTORY ANALYSIS

As discussed above, to make an affirmative determination of circumvention, all the criteria under section 781(b)(1) of the Act must be satisfied, taking into account the factors listed under section 781(b)(2) of the Act for determining whether completion or assembly in the third country is minor or insignificant. Moreover, pursuant to section 781(b)(3) of the Act, in determining whether to include merchandise assembled or completed in a foreign country within the scope of an order, Commerce must take into account such factors as the pattern of trade, including sourcing patterns, affiliations, and whether imports into the foreign country of the merchandise described in section 781(b)(1)(B) of the Act have increased after initiation of the investigation that results in the order.

⁸⁶ For Commerce’s full analysis, including business proprietary information, *see* the BYD HK and NE Solar Preliminary Analysis Memoranda.

Pursuant to section 781(b)(1)(A) and (B) of the Act, Commerce preliminarily finds that the inquiry merchandise imported into the United States is within the same class or kind of merchandise as the class or kind of merchandise subject to the *Orders* and that this merchandise is being completed and assembled, in part, from parts and components produced in China, the country with respect to which the applicable *Orders* apply.

Based on the factors listed under section 781(b)(2) of the Act, pursuant to section 781(b)(1)(C) of the Act, Commerce preliminarily finds that the production of inquiry merchandise in Cambodia is minor or insignificant for BYD HK. We find that the particular circumvention scenario, namely BYD HK's reliance on tollers and lack of production facilities, accords particular importance to Commerce's consideration of the extent of BYD HK's investment and production facilities.⁸⁷ Further, given the uniquely complex nature of solar cell and module production, we give particular importance to BYD HK's insignificant amount of research and development. Therefore, although record evidence shows that the nature of the production process in Cambodia for solar cells and modules is significant, based on our evaluation of the other criteria, pursuant to sections 781(b)(1)(C) and 781(b)(2) of the Act, we preliminarily find that the totality of the factors indicates the process of assembly or completion in Cambodia is minor and insignificant.⁸⁸

Based on the factors listed under section 781(b)(2) of the Act, pursuant to section 781(b)(1)(C) of the Act, Commerce preliminarily finds that the production of inquiry merchandise in Cambodia is not minor or insignificant for NE Solar.

Pursuant to section 781(b)(1)(D) of the Act, Commerce preliminarily finds that the value of the merchandise produced in China that was used to produce inquiry merchandise is a significant portion of the total value of the merchandise exported from Cambodia to the United States for both BYD HK and NE Solar.

Concerning the three factors under section 781(b)(3) of the Act, (*i.e.*, pattern of trade and sourcing, affiliations, and whether imports of parts and components from China increased), Commerce preliminarily finds that each of these factors supports a preliminary affirmative determination of circumvention for BYD HK and NE Solar.

Based on an analysis of the totality of the information on the record of these circumvention inquiries related to BYD HK, we preliminarily find that BYD HK is circumventing the *Orders* in accordance with section 781(b) of the Act.

Based on an analysis of the totality of the information on the record of these circumvention inquiries related to NE Solar, we preliminarily find that NE Solar is not circumventing the *Orders* in accordance with section 781(b) of the Act. Thus, we preliminarily find that NE Solar's exports of inquiry merchandise produced with wafers exported by the specific parties reported in its questionnaire response are not subject to this preliminary finding. However, we are unable to implement this preliminary finding with respect to NE Solar because it has not disclosed for the

⁸⁷ See SAA at 893 ("Commerce will evaluate each of these factors as they exist either in the United States or a third country, depending on the particular circumvention scenario. No single factor will be controlling.")

⁸⁸ See *Uncovered Innerspring Units from the People's Republic of China: Affirmative Preliminary Determination of Circumvention of the Antidumping Duty Order*, 78 FR 41784 (July 11, 2013).

public record the names of its exporters of wafers in China. Therefore, upon public disclosure of this information to Commerce, we will notify CBP that NE Solar's exports of inquiry merchandise produced using wafers from these exporters are excluded from this preliminary country-wide affirmative finding of circumvention for Cambodia. Until and unless such public disclosure is made, we will notify CBP that all entries of inquiry merchandise exported by NE Solar will be subject to the cash deposit requirements in the accompanying *Federal Register* notice.

Furthermore, upon consideration of section 781(b)(3) of the Act, we also preliminarily determine that action is warranted to prevent evasion of the *Orders* pursuant to section 781(b)(1)(E) of the Act.

X. VERIFICATION

As provided by 19 CFR 351.226(f)(3), Commerce intends to verify the information relied upon in making this preliminary determination.

XI. CERTIFICATION PROCESS AND COUNTRY-WIDE AFFIRMATIVE DETERMINATION OF CIRCUMVENTION

As noted above, Commerce identified the universe of potential producers of solar cells and modules in, and exporters of solar cells and modules from, Cambodia using CBP import data. We then issued Q&V questionnaires to certain companies, invited all other companies to respond to the Q&V questionnaire, and selected, as mandatory respondents, companies that exported the largest quantity of solar cells and modules to the United States from Cambodia based on information reported in response to the Q&V questionnaire. Under 19 CFR 351.226(m)(1), Commerce is authorized, based on available evidence, to take the appropriate remedy to address circumvention and prevent evasion of an order, including the application of a determination on a country-wide basis. Commerce found that BYD HK is circumventing the *Orders*. BYD HK accounts for a significant amount of Cambodian solar cells and modules exported to the United States. Because Commerce was unable to examine all Cambodian producers of solar cells and modules, Commerce has determined that a country-wide determination is most appropriate to prevent further circumvention of the *Orders* by non-examined producers of inquiry merchandise in Cambodia. Therefore, with the exception of shipments of inquiry merchandise from NE Solar produced using wafers from specific exporters (and subject to the caveat above regarding the public disclosure of the names of those exporters), Commerce is applying this preliminary affirmative determination of circumvention to all shipments of inquiry merchandise from Cambodia on or after April 1, 2022, the date of publication of the *Initiation Notice*.

In order to administer this preliminary country-wide affirmative determination of circumvention, and the company-specific preliminary negative determination of circumvention, and to implement the Proclamation described below, Commerce has established the following types of certifications: (1) importer and exporter certifications that specific entries meet the regulatory definition of "Applicable Entries"; (2) importer and exporter certifications that specific entries are not subject to suspension of liquidation or the collection of cash deposits based on the preliminary negative circumvention determinations with respect to NE Solar (in combination with certain of

its wafer exporters);⁸⁹ and (3) importer and exporter certifications that specific entries of inquiry merchandise are not subject to suspension of liquidation or the collection of cash deposits pursuant to this preliminary country-wide affirmative determination of circumvention because the merchandise was not manufactured using certain components produced in China. For copies of each type of certification and information regarding the certification requirements, *see* the accompanying *Federal Register* notice.

Accordingly, companies that were not individually examined can certify whether their products are subject to suspension of liquidation or the collection of cash deposits based on the requirements and process described in the accompanying *Federal Register* notice.

XII. PRESIDENTIAL PROCLAMATION

On June 6, 2022, the President of the United States signed Proclamation 10414, “Declaration of Emergency and Authorization for Temporary Extensions of Time and Duty-Free Importation of Solar Cells and Modules from Southeast Asia” (the Proclamation). In the Proclamation, the President directed the Secretary of Commerce (the Secretary) to:

consider taking appropriate action under section 1318(a) of title 19, United States Code, to permit, until 24 months after the date of this proclamation or until the emergency declared herein has terminated, whichever occurs first, under such regulations and under such conditions as the Secretary may prescribe, the importation, free of the collection of duties and estimated duties, if applicable, under sections 1671, 1673, 1675, and 1677j of title 19, United States Code, {(sections 701, 731, 751 and 781 of the Act)} of certain solar cells and modules exported from the Kingdom of Cambodia, Malaysia, the Kingdom of Thailand, and the Socialist Republic of Vietnam, and that are not already subject to an antidumping or countervailing duty order as of the date of this proclamation⁹⁰

On September 12, 2022, Commerce added Part 362 to its regulations to implement the Proclamation. Pursuant to 19 CFR 362.103(b)(1)(i), Commerce will direct CBP to discontinue the suspension of liquidation and collection of cash deposits that were ordered based on Commerce’s initiation of this circumvention inquiry. In addition, pursuant to 19 CFR 362.103(b)(1)(ii) and (iii), Commerce will not direct CBP to suspend liquidation of, and require cash deposits of estimated ADs and CVDs based on this affirmative preliminary determination of circumvention for, any “Applicable Entries.” However, Commerce will direct CBP to suspend liquidation of, and collect cash deposits of estimated ADs and CVDs based on this affirmative preliminary determination of circumvention for, imports of Southeast Asian-completed solar cells and solar modules that are not “Applicable Entries.” For further information regarding these regulations and the definition of “Applicable Entries,” *see* the accompanying *Federal Register* notice.

⁸⁹ As noted above, this exclusion is predicated upon the public disclosure of the names of these exporters to Commerce by no later than 14 days after the publication date of this notice in the *Federal Register*.

⁹⁰ *See Declaration of Emergency and Authorization for Temporary Extensions of Time and Duty-Free Importation of Solar Cells and Modules from Southeast Asia*, 87 FR 35067 (June 9, 2022).

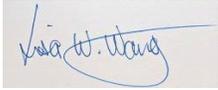
XIV. RECOMMENDATION

We recommend finding, pursuant to 781(b) of the Act, that, with the exception of shipments of inquiry merchandise by NE Solar, in combination with certain wafer exporters, imports of solar cells and modules, completed in Cambodia using certain parts and components manufactured in China, are circumventing the *Orders*.

Agree

Disagree

12/1/2022

X 

Signed by: LISA WANG

Lisa W. Wang
Assistant Secretary
for Enforcement and Compliance

APPENDIX - Cambodia

Companies to Whom Commerce Issued a Q&V Questionnaire

1. BYD HK
2. Comalex PV. (KH) Technology Co., Ltd.
3. Enalex Energy (KH) Co., Ltd.
4. ET Solar Technology (Cambodia) Co., Ltd./FC Solar (Cambodia) Co., Ltd.
5. Hounen Solar Inc Co Ltd
6. Imperial Star Solar (Cambodia) Co. Ltd.
7. Jintek Photovoltaic Technology Co., Ltd.
8. NE Solar
9. Shenglong PV-Tech (Cambodia) Co., Ltd.
10. Shengtian New Energy Vina Co., Ltd.
11. Venus Energy (Cambodia) Co., Ltd.

Companies to Which the Q&V Questionnaire Was Not Delivered

1. Da Chuan Investment (Cambodia) Co., Ltd.