

**UNITED STATES INTERNATIONAL TRADE COMMISSION  
WASHINGTON, D.C.**

**Before The Honorable David P. Shaw  
Administrative Law Judge**

In the Matter of

**CERTAIN SILICON PHOTOVOLTAIC  
CELLS AND MODULES WITH  
NANOSTRUCTURES, AND PRODUCTS  
CONTAINING THE SAME**

**Investigation No. 337-TA-1271**

**RESPONDENT BOVIET’S RESPONSE TO COMPLAINANT’S COMPLAINT UNDER  
SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED,  
AND THE NOTICE OF INVESTIGATION**

Respondents Boviet Solar Technology Co., Ltd., Ningbo Boway Alloy Material Co., Ltd., Boviet Renewable Power LLC, and Boviet Solar USA Ltd. (collectively, “Respondent” or “Boviet”), pursuant to 19 C.F.R. § 210.13, respectfully submit this Response to the Complaint of Complainant Advanced Silicon Group Technologies, LLC (“Complainant” or “ASGT”) under Section 337 of the Tariff Act of 1930, as Amended (the “Complaint”), and the Notice of Investigation (the “Notice of Investigation”).

**RESPONSE TO THE COMPLAINT**

Boviet responds to the Complaint dated June 11, 2021, and entitled “Verified Complaint Of Advanced Silicon Group Technologies, LLC Under Section 337 of the Tariff Act of 1930, as Amended,” and the supplements dated June 17, 2021 and July 7, 2021, in like-numbered paragraphs, as follows. Certain headings are reproduced from the Complaint for the sake of convenience, but are not an admission of the content of the Complaint or the specific allegations therein. Any allegations not specifically admitted are hereby denied.

## I. INTRODUCTION

1. Boviet admits that Complainant Silicon Group Technologies, LLC (“Complainant,” “ASGT,” or “ASG Technologies”) requested that the United States International Trade Commission (the “Commission”) institute an investigation under Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337. Boviet denies that it has imported, sold for importation, and/or sold after importation in the United States any silicon photovoltaic cells and modules with nanostructures and products containing the same in violation of Section 337. Boviet denies that any of its silicon photovoltaic cells and modules (“SPCM” or “SPCMs”) and products containing the same (“Accused Products”) infringe any valid and enforceable claims of the Asserted Patents in violation of Section 337. Boviet admits that ASGT refers to “Products containing the same” as a photovoltaic module that is a power-generating unit and may consist of any number of photovoltaic cells. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in this paragraph, and therefore deny the same.

2. Boviet admits that ASGT alleges that the entities listed in paragraph 2 are proposed respondents. Boviet denies that Ningbo Boway Alloy Material Co., Ltd. and Boviet Renewable Power, LLC should be named as proposed Respondents because they have not imported, sold for importation, and/or sold after importation in the United States any Accused Products.

3. Boviet admits that the Complaint purports to specify the Asserted Patents that each Respondent is alleged to infringe in paragraph 3, and further admits that Exhibits 1, 3, 5, 7, 9, and 11 purport to be certified copies of the Asserted Patents. Boviet denies that it has engaged in unfair acts in violation of Section 337 through and in connection with the unlicensed importation into the United States, sale for importation into the United States, and/or sale within

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the United States after importation of the Accused Products that allegedly infringe one or more claims of the Asserted Patents. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in paragraph 3, and therefore deny the same.

4. Boviet admits that the table in paragraph 4 purports to specify the claims of the Asserted Patents that the proposed Respondents' Accused Products allegedly infringe. Boviet denies that its products infringe any claims of the Asserted Patents, either literally or under the doctrine of equivalents. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in paragraph 4, and therefore denies the same.

5. Boviet admits that Exhibits 2A-2D, 4A-4D, 6A-6D, 8A-8E, 10A-10E, and 12A-12D purport to be copies of the recorded assignment documents related to each of the Asserted Patents. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in this paragraph, and therefore denies the same.

6. Boviet admits that ASGT alleges that a domestic industry exists or is in the process of being established. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in this paragraph, and therefore denies the same.

7. Boviet admits that ASGT seeks a permanent limited exclusion order, a permanent cease and desist order, and a bond during the presidential review under Section 337. Boviet denies the existence of the predicates and requirements for liability under Section 337. Boviet further denies that any of its Accused Products infringe any valid and enforceable claims of the Asserted Patents in violation of Section 337 and that ASGT is entitled to any of its requested remedies. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in this paragraph, and therefore denies the same.



## **II. COMPLAINANT**

8. Boviet admits that ASGT is the Complainant. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations in this paragraph, and therefore denies the same.

## **III. PROPOSED RESPONDENTS**

### **A. Canadian Solar**

9. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

10. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

11. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

12. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

13. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.



14. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

15. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

16. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

17. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

18. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

19. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

20. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**B. Hanwha**

21. This paragraph relates to Respondents other than Boviet. Thus, no responses are

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required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

22. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

23. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

24. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

25. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

26. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

27. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

28. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

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29. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

30. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

31. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

32. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**C. Boviet**

33. Boviet admits that Boviet Solar Technology Co., Ltd. is a corporation existing under the laws of the Socialist Republic of Vietnam, with the principal place of business at B5-B6, Song Khe - Noi Hoang Industrial Zone, Bac Giang City, Bac Giang Province, Vietnam. Boviet denies that Boviet Solar Technology Co., Ltd.'s principal place of business is at B5-B6, Song Khe-Industrial Zone, Noi Hoang District, Bac Giang Province, Socialist Republic of Vietnam. Boviet admits that Exhibit 15 purports to contain some address information for Boviet Solar Technology Co., Ltd. and the other Boviet entities, but denies the accuracy of the information. Boviet admits that Boviet Solar Technology Co., Ltd. sells its Accused Products for importation, but denies that Boviet Solar Technology Co., Ltd. imports into the United States and sells within the United States after importing the Accused Products. Boviet admits that Ningbo

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Boway Alloy Material Co., Ltd. is a corporation existing under the laws of the People's Republic of China, is a Chinese public company listed on the Shanghai stock exchange, and is the parent company for entities affiliated with the Boviet group of companies with its principal place of business at No. 1777 Yinzhou Dadao Dong Duan, Ningbo City, Zhejiang Province, People's Republic of China. Boviet denies that Ningbo Boway Alloy Material Co., Ltd., or through its affiliates, imports into the United States, sells for importation, and/or sells within the United States after importing the Accused Products.

34. Boviet admits that Boviet Renewable Power LLC is part of the Boviet group of companies, and is a corporation existing under the laws of the State of Delaware with the principal place of business at 2701 North 1st Street, Suite 550, San Jose, California 95131. Boviet denies that Boviet Renewable Power LLC's principal place of business is at 1740 Technology Drive, Suite 205, San Jose, California 95110. Boviet denies that Boviet Renewable Power LLC directly or indirectly imports into the United States, sells for importation, and/or sells within the United States after importing the Accused Products.

35. Boviet admits that Boviet Solar USA Ltd. is part of the Boviet group of companies, and is a corporation existing under the laws of the State of Delaware. Boviet admits that Boviet Solar USA Ltd.'s principal place of business is at 2701 North 1st Street, Suite 550, San Jose, California 95131. Boviet admits that Boviet Solar USA Ltd. imports into the United States and/or sells within the United States after importing the Accused Products, but denies that Boviet Solar USA Ltd. sells the Accused Products for importation.

#### **IV. THE ACCUSED PRODUCTS**

36. Boviet denies the accuracy and completeness of ASGT's characterizations regarding the technology and products at issue, and therefore deny the same.

37. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

38. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

39. Boviet admits that ASGT accuses Boviet's module BVM6612P-330 of infringing the Asserted Patents. Boviet denies that these products infringe any of valid or enforceable claim of the Asserted Patents. Boviet admits that Exhibit 20 purports to be a datasheet for Boviet's module BVM6612P-330.

40. Boviet admits that ASGT requests a remedy in this Investigation, but denies that ASGT is entitled to any such remedy. Boviet denies any remaining allegations in this paragraph.

#### **IV. THE PATENTS-AT-ISSUE**

##### **A. U.S. Patent No. 8,450,599**

##### **1. Identification of the patent and ownership by ASGT**

41. Boviet admits that the '599 Patent states on its face that: it is titled "Nanostructured Devices," was filed on November 16, 2009 as U.S. Patent Application No. 12/619,092 and issued on May 28, 2013; it claims the benefit of priority to U.S. Provisional Application No. 61/114,896 filed November 14, 2008, U.S. Provisional Application No. 61/157,386, filed March 4, 2009, and U.S. Provisional Application No. 61/250,418, filed October 9, 2009; it is subject to a patent term adjustment of 388 days; and it identifies Brent A. Buchine, Marcie R. Black, and Faris Modawar as the inventors. Boviet lacks sufficient

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knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

42. Boviet admits that Appendix A purports to include a certified copy of the prosecution history of the '599 Patent, and Appendix B purports to include pages of each technical reference mentioned in the certified prosecution history of the '599 Patent. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

43. Boviet admits that Exhibits 2A-2D purport to be a copy of the assignment record for the '599 Patent, and that Exhibit 21 purport to be a license agreement licensing the '599 Patent to ASG Inc. Boviet denies that the '599 Patent is valid, enforceable, and is currently in full force and effect. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

## **2. Non-technical description of the invention of the '599 Patent**

44. This paragraph reflects ASGT's apparent understanding of the '599 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

45. This paragraph reflects ASGT's apparent understanding of the '599 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

46. This paragraph reflects ASGT's apparent understanding of the '599 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

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47. This paragraph reflects ASGT's apparent understanding of the '599 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Foreign counterparts to the '599 Patent**

48. Boviet admits that the table in this paragraph purports to list all foreign patents and foreign patent applications corresponding to the '599 patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

**B. U.S. Patent No. 8,852,981**

**1. Identification of the patent and ownership by ASGT**

49. Boviet admits that the '981 Patent states on its face that: it is titled "Electrical Contacts to Nanostructured Areas," was filed on September 19, 2012 as U.S. Patent Application No. 13/622,864 and issued on October 7, 2014, and claims the benefit of priority to U.S. Provisional Application No. 61/536,243 filed September 19, 2011; it is subject to 140 days of patent term adjustment; and it identifies Marcie R. Black, Joanne Forziati, Michael Jura, Jeff Miller, Brian Murphy, and Adam Standley as the inventors. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

50. Boviet admits that Appendix C purports to include a certified copy of the prosecution history of the '981 Patent, and Appendix D purports to include pages of each technical reference mentioned in the certified prosecution history of the '981 Patent. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

51. Boviet admits that Exhibits 4A-4D purport to be a copy of the assignment record for the '981 Patent, and that Exhibit 21 purport to be a license agreement licensing the '981 Patent to ASG Inc. Boviet denies that the '981 Patent is valid, enforceable, and is currently in full force and effect. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

**2. Non-technical description of the invention of the '981 Patent**

52. This paragraph reflects ASGT's apparent understanding of the '981 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

53. This paragraph reflects ASGT's apparent understanding of the '981 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Foreign counterparts to the '981 Patent**

54. Boviet admits that the table in this paragraph purports to list all foreign patents and foreign patent applications corresponding to the '981 patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

**C. U.S. Patent No. 9,601,640**

**1. Identification of the patent and ownership by ASGT**

55. Boviet admits that the '640 Patent states on its face that: it is titled "Electrical Contacts to Nanostructured Areas," was filed on August 25, 2014 as U.S. Patent Application No. 14/468,219 and issued on March 21, 2017, and claims the benefit of priority to U.S. Provisional Application No. 61/536,243 filed September 19, 2011 and to U.S. Patent Application No.

13/622,864 filed September 19, 2012; it is subject to 249 days of patent term adjustment; and it identifies Marcie R. Black, Joanne Forziati, Michael Jura, Jeffrey Miller, Brian Murphy, and Adam Standley as the inventors. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

56. Boviet admits that Appendix E purports to include a certified copy of the prosecution history of the '640 Patent, and Appendix F purports to include pages of each technical reference mentioned in the certified prosecution history of the '640 Patent. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

57. Boviet admits that Exhibits 6A-6D purport to be a copy of the assignment record for the '640 Patent, and that Exhibit 21 purport to be a license agreement licensing the '640 Patent to ASG Inc. Boviet denies that the '640 Patent is valid, enforceable, and is currently in full force and effect. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

## **2. Non-technical description of the invention of the '640 Patent**

58. This paragraph reflects ASGT's apparent understanding of the '640 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

59. This paragraph reflects ASGT's apparent understanding of the '640 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

60. This paragraph reflects ASGT's apparent understanding of the '640 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Foreign counterparts to the '640 Patent**

61. Boviet admits that the table in this paragraph purports to list all foreign patents and foreign patent applications corresponding to the '640 patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

**D. U.S. Patent No. 9,768,331**

**1. Identification of the patent and ownership by ASGT**

62. Boviet admits that the '331 Patent states on its face that: it is titled "Screen Printing Electrical Contact to Nanowire Areas," was filed on July 23, 2014 as U.S. Patent Application No. 14/338,752 and issued on September 19, 2017, is a continuation of International Application No. PCT/US2013/025958 filed on February 13, 2013, and claims the benefit of priority to U.S. Provisional Application No. 61/598,717 filed February 14, 2012; it is subject to 288 days of patent term adjustment; and it identifies Michael Jura, Marcie R. Black, Jeffrey B. Miller, Joanne Yim, Joanne Forziati, Brian P. Murphy, and Richard Chleboski as the inventors. Boviet admits that ASGT asserts the '331 Patent is subject to a terminal disclaimer. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

63. Boviet admits that Appendix G purports to include a certified copy of the prosecution history of the '331 Patent, and Appendix H purports to include pages of each technical reference mentioned in the certified prosecution history of the '331 Patent. Boviet lacks

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sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

64. Boviet denies that Exhibits 8A-8E is a copy of the assignment record for the '981 Patent. To the extent that the patent identification was a typographical error, Boviet admits that Exhibits 8A-8E purports to be a copy of the assignment record for the '331 Patent. Boviet admits that Exhibit 21 purport to be a license agreement licensing the '331 Patent to ASG Inc. Boviet denies that the '331 Patent is valid, enforceable, and is currently in full force and effect. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

## **2. Non-technical description of the invention of the '331 Patent**

65. This paragraph reflects ASGT's apparent understanding of the '331 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

66. This paragraph reflects ASGT's apparent understanding of the '331 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

67. This paragraph reflects ASGT's apparent understanding of the '331 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

## **3. Foreign counterparts to the '331 Patent**

68. Boviet admits that the table in this paragraph purports to list all foreign patents and foreign patent applications corresponding to the '331 patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

**E. U.S. Patent No. 10,269,995**

**1. Identification of the patent and ownership by ASGT**

69. Boviet admits that the '995 Patent states on its face that: it is titled "Screen Printing Electrical Contacts to Nanostructured Areas," and was filed on June 14, 2017 as U.S. Patent Application No. 15/622,422 and issued on April 23, 2019; it is a continuation of U.S. Application No. 14/338,752 filed on July 23, 2014, which issued as the '331 Patent that is a continuation of International Application No. PCT/US2013/025958 filed on February 13, 2013; it claims priority to provisional application No. 61/598,717 filed on Feb. 14, 2012; it is not subject to any patent term adjustment; and it identifies Michael Jura, Marcie R. Black, Jeffrey B. Miller, Joanne Yim, Joanne Forziati, Brian P. Murphy, and Richard Chleboski as the inventors. Boviet admits that ASGT asserts the '995 Patent is subject to a terminal disclaimer over the '331 Patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

70. Boviet admits that Appendix I purports to include a certified copy of the prosecution history of the '995 Patent, and Appendix J purports to include pages of each technical reference mentioned in the certified prosecution history of the '995 Patent. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

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71. Boviet denies that Exhibits 10A-10E is a copy of the assignment record for the '981 Patent. To the extent that the patent identification was a typographical error, Boviet admits that Exhibits 10A-10E purports to be a copy of the assignment record for the '995 Patent. Boviet admits that Exhibit 21 purport to be a license agreement licensing the '995 Patent to ASG Inc. Boviet denies that the '995 Patent is valid, enforceable, and is currently in full force and effect. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

**2. Non-technical description of the invention of the '995 Patent**

72. This paragraph reflects ASGT's apparent understanding of the '995 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

73. This paragraph reflects ASGT's apparent understanding of the '995 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Foreign counterparts to the '995 Patent**

74. Boviet admits that the table in this paragraph purports to list all foreign patents and foreign patent applications corresponding to the '995 patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

**F. U.S. Patent No. 10,692,971**

**1. Identification of the patent and ownership by ASGT**

[REDACTED]

75. Boviet admits that the '971 Patent states on its face that: it is titled "Process for Fabricating Silicon Nanostructures," was filed on August 3, 2018 as U.S. Patent Application No. 16/054,457, and issued on June 23, 2020; it was filed as a continuation application of U.S. Patent Application No. 15/826,005, filed November 29, 2017 (now abandoned), which is a divisional application of U.S. Patent Application No. 14/924,273 filed on October 27, 2015 (now U.S. Patent No. 9,859,366), which is a continuation application of U.S. Patent Application No. 14/444,361 filed July 28, 2014 (now U.S. Patent No. 9,202,868), which is a continuation application of U.S. Patent Application No. 13/305,649 filed November 28, 2011 (now U.S. Patent No. 8,791,449), which is a continuation application U.S. Patent Application No. 12/423,623 filed April 14, 2009 (now U.S. Patent No. 8,143,143); it claims the benefit of priority to U.S. Provisional Application Nos. 61/114,082 (filed on December 29, 2008) and 61/044,573 (filed April 14, 2008); it is not subject to any patent term adjustment; and it identifies Brent A. Buchine, Marcie R. Black, and Faris Modawar as the inventors. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

76. Boviet admits that Appendix K purports to include a certified copy of the prosecution history of the '971 Patent, and Appendix L purports to include pages of each technical reference mentioned in the certified prosecution history of the '971 Patent. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

77. Boviet denies that Exhibits 12A-12D is a copy of the assignment record for the '981 Patent. To the extent that the patent identification was a typographical error, Boviet admits that Exhibits 12A-12D purports to be a copy of the assignment record for the '971

Patent. Boviet admits that Exhibit 21 purport to be a license agreement that licenses the '971 Patent to ASG Inc. Boviet denies that the '971 Patent is valid, enforceable, and is currently in full force and effect. Boviet lacks sufficient knowledge or information to admit or deny any remaining allegations of this paragraph, and therefore denies the same.

## **2. Non-technical description of the invention of the '971 Patent**

78. This paragraph reflects ASGT's apparent understanding of the '971 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

79. This paragraph reflects ASGT's apparent understanding of the '971 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

80. This paragraph reflects ASGT's apparent understanding of the '971 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

81. This paragraph reflects ASGT's apparent understanding of the '971 Patent. Thus, no response is required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

## **3. Foreign counterparts to the '971 Patent**

[REDACTED]

82. Boviet admits that the table in this paragraph purports to list all foreign patents and foreign patent applications corresponding to the '971 patent. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

## **VI. UNLAWFUL AND UNFAIR ACTS - PATENT INFRINGEMENT**

### **A. Canadian Solar**

#### **1. Representative involved articles**

83. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

84. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

85. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

86. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

87. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

#### **2. Infringement of the Asserted Patents**

88. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**a. Testing Analysis**

89. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**b. Infringement of the '599 Patent**

90. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

91. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**c. Infringement of the '981 Patent**

92. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

93. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**d. Infringement of the '640 Patent**

94. This paragraph relates to Respondents other than Boviet. Thus, no responses are

required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

95. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**e. Infringement of the '331 Patent**

96. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

97. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**f. Infringement of the '995 Patent**

98. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

99. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**g. Infringement of the '971 Patent**

100. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

101. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Specific instance of importation, sale for importation, or sale after importation**

102. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

103. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

104. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**B. Hanwha**

**1. Representative involved articles**

105. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

106. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

107. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or

[REDACTED]

information to admit or deny the allegations of this paragraph, and therefore denies the same.

108. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

109. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

110. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**2. Infringement of the Asserted Patents**

111. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**a. Testing Analysis**

112. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**b. Infringement of the '599 Patent**

113. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

114. This paragraph relates to Respondents other than Boviet. Thus, no responses are

[REDACTED]

required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

115. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**c. Infringement of the '981 Patent**

116. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

117. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**d. Infringement of the '640 Patent**

118. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

119. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**e. Infringement of the '331 Patent**

120. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

[REDACTED]

121. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**f. Infringement of the '995 Patent**

122. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

123. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**g. Infringement of the '971 Patent**

124. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

125. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Specific instance of importation, sale for importation, or sale after importation**

126. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

127. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or

[REDACTED]

information to admit or deny the allegations of this paragraph, and therefore denies the same.

128. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

129. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**C. Boviet**

**1. Representative involved articles**

130. Boviet admits that ASGT accuses Boviet's BVM6612P-330 module of infringing the Asserted Patents. Boviet denies that its products infringe any valid or enforceable claim of the Asserted Patents. Boviet denies any remaining allegations in this paragraph.

131. Denied.

132. Boviet admits that this paragraph lists the claims of the Asserted Patents that ASGT alleges Boviet infringes. Boviet denies that its products infringe any valid or enforceable claim of the Asserted Patents. Boviet denies any remaining allegations in this paragraph.

**2. Infringement of the Asserted Patents**

133. Denied. Prior to the filing of this complaint, Boviet ceased any manufacturing, importation, and sale for importation into the United States, of the accused Boviet BVM6612P-330 module. Boviet denies any remaining allegations in this paragraph.

**a. Testing Analysis**

134. Boviet admits that ASGT alleges it directed third parties to test a Boviet BVM6612P-330 module. Boviet denies any remaining allegations in this paragraph.

**b. Infringement of the '599 Patent**

135. Boviet admits that ASGT accuses the Boviet BVM6612P-330 module of infringing claims 15, 17, 23, 24, 25, and 27 of the '599 Patent, and that Exhibit 49 at pages 2-17 purports to be a claim chart that applies claims 15, 17, 23, 24, 25, and 27 of the '599 Patent to the Boviet BVM6612P-330 module. Boviet denies that its products infringe any valid or enforceable claim of the '599 Patent, either literally or under the doctrine of equivalents.

136. Denied.

**c. Infringement of the '981 Patent**

137. Boviet admits that ASGT accuses the Boviet BVM6612P-330 module of infringing claims 1, 2, 4, 13, 18, 23, 26, and 27 of the '981 Patent, and that Exhibit 49 at pages 18-32 purports to be a claim chart that applies claims 1, 2, 4, 13, 18, 23, 26, and 27 to the accused Boviet BVM6612P-330 module. Boviet denies that its products infringe any valid or enforceable claim of the '981 Patent, either literally or under the doctrine of equivalents.

138. Denied.

**d. Infringement of the '640 Patent**

139. Boviet admits that ASGT accuses the Boviet BVM6612P-330 module of infringing claims 1, 4, 11, 12, 13, 14, 16, 17, and 18 of the '981 Patent (which appears to be a typographical error and should be the '640 Patent). Boviet admits that Exhibit 49 at pages 33-55 purports to be a claim chart that applies claims 1, 4, 11, 12, 13, 14, 16, 17, and 18 to the accused Boviet BVM6612P-330 module. Boviet denies that its products infringe any valid or enforceable claim of the '640 Patent, either literally or under the doctrine of equivalents.

140. Denied.

**e. Infringement of the '331 Patent**

141. Boviet admits that ASGT accuses the Boviet BVM6612P-330 module of infringing claims 1, 2, and 10 of the '331 Patent, and that Exhibit 49 at pages 66-77 purports to be a claim chart that applies claims 1, 2, and 10 to the accused Boviet BVM6612P-330 module. Boviet denies that its products infringe any valid or enforceable claim of the '331 Patent, either literally or under the doctrine of equivalents.

142. Denied.

**f. Infringement of the '995 Patent**

143. Boviet admits that ASGT accuses the Boviet BVM6612P-330 module of infringing claims 1,2 and 7-11 of the '995 Patent, and that Exhibit 49 at pages 78-102 purports to be a claim chart that applies claims 1, 2, and 7-11 of the '995 Patent to the accused Boviet BVM6612P-330 module. Boviet denies that its products infringe any valid or enforceable claim of the '995 Patent, either literally or under the doctrine of equivalents.

144. Denied.

**g. Infringement of the '971 Patent**

145. Boviet admits that ASGT accuses the Boviet BVM6612P-330 modules of infringing claims 1, 7, 8, 10, and 15 of the '971 Patent, and that Exhibit 49 at pages 56-65 purports to be a claim chart that applies claims 1, 7, 8, 10, and 15 to the accused Boviet BVM6612P-330 module. Boviet denies that its products infringe any valid or enforceable claim of the '971 Patent, either literally or under the doctrine of equivalents.

146. Denied.

**3. Specific instance of importation, sale for importation, or sale after importation**

147. Boviet admits that Exhibit 50 purports to be a January 27, 2021 S&P Capital IQ Report, but denies that Boviet still manufactures BVM6612P-330 modules and similar polycrystalline silicon products in Vietnam. Boviet denies that when this Complaint was filed, it was still manufacturing the Boviet BVM6612P-330 modules outside of the United States and importing the products for sale to customers in the United States. Boviet denies any remaining allegations in this paragraph.

148. Boviet admits that Exhibit 51 purports to include a purchase order, a payment confirmation, and a bill of lading that ASGT purchased, within the United States, eight Boviet BVM6612P-330 modules on January 29, 2021. Boviet admits that Exhibit 52 purports to be a label of a Boviet BVM6612P-330 module indicating that the module was “Made in Vietnam.” Boviet denies any remaining allegations in this paragraph.

## **VII. CLASSIFICATION OF THE INFRINGING PRODUCTS UNDER THE HARMONIZED TARIFF SCHEDULE**

149. Boviet denies the accuracy and completeness of ASGT’s characterizations regarding the technology and products at issue in this paragraph, and therefore deny the same. Boviet admits that it imports products under HTSUS number 8541.40.6015.

## **VIII. LICENSEES**

150. Boviet admits that Exhibit 21 purports to be a copy of the license relating to the Asserted Patents ASGT granted to ASG Inc. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

## **IX. DOMESTIC INDUSTRY**

### **A. The Technical Prong of The Domestic Industry Requirement**

151. Boviet admits that Exhibit 53 purports to be a confidential declaration of Marcie Black, PhD, the CEO of both ASGT and ASG Inc. Boviet lacks sufficient knowledge or

[REDACTED]

information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

152. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

153. Boviet admits that Exhibit 54 appears to include a claim chart showing ASG Inc.'s Domestic Industry Product practices at least one claim from each of the Asserted Patents. Boviet lacks sufficient knowledge or information to admit or deny the remaining allegations of this paragraph, and therefore denies the same.

**B. The Economic Prong of The Domestic Industry Requirement**

154. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

155. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**1. Significant investment in plant and equipment – 337(a)(3)(A)**

156. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

157. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

158. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

159. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

160. Boviet lacks sufficient knowledge or information to admit or deny the

allegations of this paragraph, and therefore denies the same.

**2. Significant employment of labor and capital – 337(a)(3)(B)**

161. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**3. Substantial investments in research and development and engineering – 337(a)(3)(C)**

162. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**4. A domestic industry is in the process of being established**

163. Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**X. RELATED LITIGATION**

164. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

165. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

166. Admitted.

167. This paragraph relates to Respondents other than Boviet. Thus, no responses are required. To the extent a response is required, Boviet lacks sufficient knowledge or information to admit or deny the allegations of this paragraph, and therefore denies the same.

**XI. RELIEF REQUESTED**

Boviet denies that it has engaged in any unfair acts in violation of Section 337. Thus,

[REDACTED]

Boviet denies that the ASGT is entitled to any relief in this Investigation, including the relief sought in subparts (a)-(f) of Section XI of the Complaint.

**ADDITIONAL INFORMATION REQUIRED UNDER  
COMMISSION RULE 210.13(b)**

In accordance with the requirements of 19 C.F.R. § 210.13(b), Boviet states as follows: With respect to the statistical data on the quantity and value of the imports of the involved articles, based on the investigation to date, Boviet states that it has imported approximately [REDACTED] units since January 2020 with an approximate total value of [REDACTED]

The HTSUS number under which the involved articles have been imported is: 8541.40.6015.

Boviet Solar Technology Co., Ltd. has the capacity to manufacture the involved articles.

The United States market represents a [REDACTED] of Boviet's overall sales of the involved articles.

**AFFIRMATIVE DEFENSES**

Boviet alleges and asserts the following defenses in response to the allegations in the Complaint. Boviet asserts the following defenses without regard to asserting or otherwise shifting any applicable burdens of proof. Boviet notes that discovery in this Investigation is in its early stages, and Boviet has not yet had sufficient time to collect and review all the information that may be relevant to its potential defenses. Accordingly, Boviet, under 19 U.S.C. §§ 210.14(b) and 210.14(c), reserves the right to modify its defenses and/or to raise additional defenses as discovery proceeds.

**FIRST AFFIRMATIVE DEFENSE  
(Non-Infringement)**

Boviet has not and does not infringe, contribute to the infringement, and/or induce the infringement of any valid and enforceable claim of the Asserted Patents, either literally or under

[REDACTED]

the doctrine of equivalents, and has not otherwise committed any acts in violation of 35 U.S.C. § 271 or 19 U.S.C. § 1337.

Boviet further states that it is not violating, and has not violated, Section 337 by importing, selling for importation, and/or selling within the United States after importation any product that allegedly infringes the Asserted Patents, at least because the Asserted Claims are invalid under one or more sections of the Patent Act. “[A]n invalid claim cannot be infringed.” *Viskase Corp. v. Am. Nat’l Can Co.*, 261 F.3d 1316, 1323 (Fed. Cir. 2001).

Boviet further states that none of its Accused Products infringe the Asserted Patents for at least the reasons detailed below. Boviet’s review and investigation are ongoing, and Boviet reserves the right to amend and/or supplement this defense as necessary based on additional facts or information that may become available as discovery progresses, as well as ASGT’s statements, allegations, and contentions, including with respect to claim construction.

- Boviet’s Accused Products do not include at least the limitation “the p-n junction [] located at least about 30 nm from the bottom of the nanowires” as required by asserted independent claim 15 of the ’599 Patent;
- The process for manufacturing Boviet’s Accused Products do not include at least the step of “removing the nanostructured material and electrically insulating material at least partially from a portion of the surface” as required by asserted independent claim 1 of the ’981 Patent, and do not include at least the step of “removing the nanostructured material from a portion of the surface” as required by asserted independent claim 27 of the ’981 Patent;
- Boviet’s Accused Products do not include at least the limitation “the nanostructures are at least partially broken or removed” as required by asserted independent claim

1 of the '640 patent, and do not include at least the limitation “a first segment of the nanostructured area including a plurality of holes in the passivation layer” as required by asserted independent claim 14 of the '640 patent;

- Boviet’s Accused Products do not include at least the limitation “one or more contacts comprising a comb-like pattern of metal directly contacting the nanostructured area” as required by asserted independent claim 1 of the '331 Patent;
- Boviet’s Accused Products do not include at least the limitation “a first contact comprising a comb-like pattern of metal directly contacting the nanostructured area” as required by asserted independent claims 1 and 11 of the '995 Patent; and
- Boviet’s Accused Products do not include at least the limitation for a “process for etching a substrate comprising polycrystalline silicon to form polycrystalline silicon nanostructures” as required by asserted independent claim 1 of the '971 Patent.

**SECOND AFFIRMATIVE DEFENSE**  
(Invalidity)

All of the asserted claims of the Asserted Patents are invalid and/or unenforceable for failing to meet one or more requirements of patentability set forth in Title 35 of the United States Code,<sup>1</sup> including but not limited to §§ 101, 102, 103, 112, 116, 132 and/or 156, the Rules and Regulations of the U.S. Patent and Trademark Office, and/or pursuant to any other statutory, regulatory, or judicially created doctrine of invalidity, including but not limited to obviousness-type double patenting.

**A. Invalidity under 35 U.S.C. §§ 102 and/or 103**

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<sup>1</sup> Because the applications from which of the Asserted Patents claim priority were filed before the March 16, 2013 effective date of the AIA, citations are to the pre-AIA statute.

[REDACTED]

By statute, the claimed subject matter must be novel and not obvious. 35 U.S.C. §§ 102–103. A person is not entitled to a patent where “the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.” 35 U.S.C. § 102(a). A person is not entitled to a patent where “the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b). A person is not entitled to a patent where “the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2)(a) of such treaty in the English language.” 35 U.S.C. § 102(e)(1) and (2).

“A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a).

The Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. §§ 102 and/or 103 in view of at least the prior art of record in the prosecution of the Asserted Patents, all other related U.S. and foreign applications, admissions in the Asserted Patents and/or their file



[REDACTED]

was filed, the inventor possessed a best mode for practicing the invention. This is a subjective inquiry which focuses on the inventor's state of mind at the time of filing. Second, if the inventor did possess a best mode, it must be determined whether the written description disclosed the best mode such that a person skilled in the art could practice it. This is an objective inquiry, focusing on the scope of the claimed invention and the level of skill in the art. *Eli Lilly & Co. v. Barr Labs. Inc.*, 251 F.3d 955, 963 (Fed. Cir. 2001). All applicants are required to disclose for the claimed subject matter the best mode contemplated by the inventor even if the inventor was not the discoverer of that mode. *Benger Labs. Ltd.v. R.K. Laros Co.*, 209 F. Supp. 639 (E.D. Pa. 1962). Failure to disclose the best mode need not rise to the level of active concealment or inequitable conduct -- where an inventor knows of a specific material or method that will make possible the successful reproduction of the claimed invention, but does not disclose it, the best mode requirement has not been satisfied. *Union Carbide Corp.v.Borg-Warner*, 550 F.2d 355 (6th Cir. 1977).

“The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112, ¶ 2. This requires that the claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. A patent claim is indefinite if it is limited by a technical parameter without clarity on how to measure that limiting parameter.

At least the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 112, ¶ 1 because the Asserted Patents fail to contain a sufficient written description of the alleged inventions set forth in the claims.

At least the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 112,

¶ 1 because the Asserted Patents fail to disclose the manner and process of making and using the alleged inventions set forth in the claims in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.

At least the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 112, ¶ 1 because the Asserted Patents fail to contain a disclosure of the best mode for carrying out the alleged inventions set forth in the claims.

At least the Asserted Claims of the Asserted Patents are invalid under 35 U.S.C. § 112, ¶ 2 for failing to particularly point out and distinctly claim the subject matter which the applicant(s) regard as their invention.

The investigation is in its early stages and Boviet's investigation is ongoing. While efforts to collect and analyze prior art are ongoing, Boviet has not yet had sufficient time and/or lacks sufficient information to prepare a full analysis comparing the asserted claim language to the prior art. Boviet reserves the right to rely on additional prior art references, prior art products, prior uses, prior sales, and other prior art. Further, the allegations set forth herein are made on information and belief, and Boviet reserves the right to alter, amend, and/or supplement its affirmative defenses as this Investigation proceeds.

**THIRD AFFIRMATIVE DEFENSE**  
(Prosecution History Estoppel and/or Disclaimer)

Based on admissions and/or statements made (a) to the U.S. Patent and Trademark Office during prosecution of the Asserted Patents or related patent applications, and (b) in the specifications of the Asserted Patents, ASGT cannot rely on the doctrine of equivalents or advance constructions that were disclaimed during prosecution of the patents or that are otherwise precluded by the doctrine of prosecution history estoppel and/or disclaimer.

[REDACTED]

On information and belief, ASGT's claims are barred by the doctrine of estoppel, including without limitation, equitable estoppel and prosecution history estoppel. In particular, ASGT is estopped by virtue of the cancellations, amendments, representations, and concessions made to the Patent and Trademark Office during the pendency of the applications for the Asserted Patents and for related patents and patent applications, from construing any asserted claim to have been infringed by any Accused Product.

In such circumstances, the Federal Circuit makes clear that an "applicant's statements to the PTO characterizing its invention may give rise to prosecution disclaimer. Prosecution disclaimer can arise from both claim amendments and arguments made to the PTO." *Tech. Properties Ltd. LLC v. Huawei Techs. Co., Ltd.*, 849 F.3d 1349, 1357-58 (Fed. Cir. 2017). To that end, the "doctrine of prosecution disclaimer is well established in Supreme Court precedent, precluding patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323-24 (Fed. Cir. 2003).

Moreover, the "doctrine of prosecution history estoppel prevents a patent owner from recapturing with the doctrine of equivalents subject matter surrendered to acquire the patent." *Honeywell Int'l., Inc. v. Hamilton Sundstrand Corp.*, 523 F.3d 1304, 1312 (Fed. Cir. 2008). Accordingly, if "claim scope is relinquished during prosecution on grounds of patentability, the doctrine of prosecution history estoppel provides that the relinquished scope cannot be recovered by operation of the doctrine of equivalents." *Merck & Co., v. Mylan Pharms., Inc.*, 190 F.3d 1335, 1340 (Fed. Cir. 1999).

Boviet further states that its review and investigation are ongoing, and it reserves the right to amend and/or supplement this defense as necessary based on additional facts or

information that may become available as discovery progresses.

**FOURTH AFFIRMATIVE DEFENSE**  
(Ensnarement)

On information and belief, ASGT's claims of infringement under the doctrine of equivalents are barred in whole or in part by the doctrine of ensnarement. Specifically, to the extent ASGT's asserted range of equivalence encompasses the Accused Products, it would also impermissibly encompass the prior art, including, on information and belief, one or more of the prior art references cited by the Examiner during prosecution of the Asserted Patents.

**FIFTH AFFIRMATIVE DEFENSE**  
(No Domestic Industry)

ASGT has not adequately alleged and cannot prove the existence of a domestic industry or that a domestic industry is in the process of being established, as required by 19 U.S.C. § 1337(a)(2) and defined by 19 U.S.C. § 1337(a)(3), in connection with any of the Asserted Patents, or that such a domestic industry is in the process of being established.

**SIXTH AFFIRMATIVE DEFENSE**  
(No Unfair Act)

Boviet has committed no unfair act and has not engaged in any unfair competition under 19 U.S.C § 1337.

**SEVENTH AFFIRMATIVE DEFENSE**  
(Lack of Standing)

To the extent that Boviet determines through discovery and investigation that ASGT lacks standing to pursue its claims for relief under the Asserted Patents in this Investigation, Boviet reserves the right to assert the defense of lack of standing.

**EIGHTH AFFIRMATIVE DEFENSE**  
(Failure to State Claim)

ASGT has failed to state a claim upon which relief can be granted under Section 337 in

[REDACTED]

that ASGT has failed to sufficiently allege facts with required specificity that ASGT can satisfy the technical and/or economic prongs of domestic industry and/or that the Accused Products infringe the Asserted Patents.

**NINTH AFFIRMATIVE DEFENSE**  
(No Importation)

The Commission's jurisdiction and institution of this Investigation predicates on the existence of importation of the Accused Products into the United States. *See* 19 U.S. Code § 1337(a). To the extent that Boviet's Accused Products are limited to polycrystalline silicon products, the Commission does not have the jurisdiction over Boviet's Accused Products, which Boviet had stopped importing into the United States before ASGT's complaint was filed.

**TENTH AFFIRMATIVE DEFENSE**  
(Unenforceability)

ASGT has made claims that are barred in whole or in part by the doctrines of acquiescence, estoppel, waiver, patent exhaustion, unclean hands and/or other equitable doctrines.

**ELEVENTH AFFIRMATIVE DEFENSE**  
(Inventorship)

To the extent that the alleged inventors did not invent the purported inventions, or to the extent that the actual inventors are not named as inventors, the Asserted Patents are unenforceable.

**TWELFTH AFFIRMATIVE DEFENSE**  
(Defenses of Inequitable Conduct at the United States Patent Office and  
Unclean Hands to the '331 and '995 patents)

Inequitable Conduct Defense: On information and belief, the '331 and '995 patents are unenforceable for inequitable conduct. Boviet incorporates by reference herein the affirmative defenses of any of the other Respondents in this Investigation.

**[REDACTED]**

Unclean Hands Defense: On information and belief, the '331 and '995 patents are unenforceable for unclean hands. Boviet incorporates by reference herein the affirmative defenses of any of the other Respondents in this Investigation.

**THIRTEENTH AFFIRMATIVE DEFENSE**  
(Reservation)

Boviet specifically reserves the right to assert any and all defenses, affirmative or otherwise, that may become available through information developed in discovery, at trial, or otherwise, or that are asserted by any Respondent in this Investigation.

**RESPONSE TO THE NOTICE OF INVESTIGATION**

Boviet acknowledges that the Commission has instituted an investigation as set forth in the Commission's Notice of Investigation, issued on July 14, 2021, and published in the Federal Register on July 20, 2021, and that Boviet is named as a respondent therein. Boviet otherwise denies the existence of the predicates and requirements for liability under such an Investigation and/or Section 337, and therefore deny any allegations therein.

Dated: August 18, 2021

Respectfully submitted,

/s/ Stephanie L. Roberts

Eric S. Namrow

Stephanie L. Roberts

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*Counsel for Respondents*

*Boviet Solar Technology Co., Ltd.;*

*Ningbo Boway Alloy Material Co., Ltd.; Boviet*

*Renewable Power, LLC; and*

*Boviet Solar USA Ltd.*

## VERIFICATION

I, Jinjing LIU, state that I am the Executive Assistant to General Manger at Boviet Solar Technology Co., Ltd., and am authorized to sign this verification on behalf of Respondents Boviet Solar Technology Co., Ltd., Ningbo Boway Alloy Material Co., Ltd., Boviet Renewable Power LLC, and Boviet Solar USA Ltd. (collectively, "Boviet"). I have read the Boviet's Response to the Complaint and Notice of Investigation, and in accordance with 19 C.F.R. § 210.4(c) and 210.13(b), declare that to the best of my knowledge, information, and belief, based upon reasonable inquiry:

(1) the Response is not being presented for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of the investigation or related proceeding;

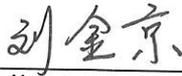
(2) the claims, defenses, and other legal contentions therein are warranted by existing law or by a non-frivolous argument for the extension, modification, or reversal of existing law or the establishment of new law;

(3) the allegations and other factual contentions have evidentiary support or, if specifically so identified, are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery; and

(4) the denials of factual contentions are warranted on the evidence or, if specifically so identified, are reasonably based on a lack of information or belief.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

August 18, 2021

  
\_\_\_\_\_  
Jinjing LIU  
Executive Assistant to General Manger  
Boviet Solar Technology Co., Ltd.

**CERTIFICATE OF SERVICE**

I, James R. Donnelly, hereby certify that on August 18, 2021, copies of the foregoing **RESPONDENT BOVIET'S RESPONSE TO COMPLAINANT'S COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED, AND THE NOTICE OF INVESTIGATION** were served as follows:

<p>The Honorable Lisa R. Barton Secretary U.S. International Trade Commission 500 E Street, SW Washington, D.C. 20436</p>	<p><input checked="" type="checkbox"/> Via EDIS <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Overnight Delivery <input type="checkbox"/> First Class Mail <input type="checkbox"/> Not Served</p>
<p>The Honorable David P. Shaw U.S. International Trade Commission 500 E Street, SW Washington, D.C. 20436</p>	<p><input checked="" type="checkbox"/> Via EDIS <input checked="" type="checkbox"/> Via Email: <i>Shaw337@usitc.gov</i> <i>Pyong.Yoon@usitc.gov</i> <input type="checkbox"/> Via Overnight Delivery <input type="checkbox"/> First Class Mail <input type="checkbox"/> Not Served</p>
<p>Vu Bui, Esq. Investigative Attorney Office of Unfair Import Investigations U.S. International Trade Commission 500 E Street, SW Washington, DC 20436</p>	<p><input checked="" type="checkbox"/> Via Email: <i>Vu.Bui@usitc.gov</i> <input type="checkbox"/> Via Overnight Delivery <input type="checkbox"/> First Class Mail <input type="checkbox"/> Not Served</p>
<p><b><i>Counsel for Complainant Advanced Silicon Group Technologies, LLC</i></b></p>	
<p>Jeffrey M. Telep Brian White Dara M. Kurlancheek Joseph Eng Brian Hill Mercedes Morno Richard Lutz, Consultant KING &amp; SPALDING LLP 1700 Pennsylvania Avenue, N.W. Washington, D.C. 20006</p> <p>Michael F. Heafey THE LAW OFFICES OF MICHAEL F. HEAFEY 1325 Howard Street, No. 160 Burlingame, California 94010</p> <p>Karen Boyd Robert Kent Zhuanjia Gu</p>	<p><input checked="" type="checkbox"/> Via Email: <i>ASG_ITC_1271@kslaw.com</i> <i>ASG1271Service@TurnerBoyd.com</i> <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Express Delivery <input type="checkbox"/> First Class Mail <input type="checkbox"/> Not Served</p>

<p>Cyndi Claxton  Vyson Hsu  TURNER BOYD LLP  702 Marshall Street, Suite 640  Redwood City, California 94063</p>	
<p><b><i>Counsel for Hanwha Q Respondents</i></b></p>	
<p>S. Alex Lasher  K. Kevin Chu  QUINN EMANUEL URQUHART &amp;  SULLIVAN, LLP  1300 I Street, NW, Suite 900  Washington, D.C. 20005</p> <p>Sean S. Pak  QUINN EMANUEL URQUHART  &amp; SULLIVAN, LLP  50 California St., 22nd Floor  San Francisco, CA 94111</p> <p>David Nelson  QUINN EMANUEL URQUHART &amp;  SULLIVAN, LLP  191 N Upper Wacker Dr #2700  Chicago, IL 60606</p> <p>D. James Pak  QUINN EMANUEL URQUHART  &amp; SULLIVAN, LLP  865 S. Figueroa St., 10th Floor  Los Angeles, CA 90017</p> <p>Sean Gloth  QUINN EMANUEL URQUHART  &amp; SULLIVAN, LLP  51 Madison Ave., 22nd Floor  New York, NY 10010</p>	<p><input checked="" type="checkbox"/> Via Email:  <i>qe-hsc-1271@quinnemanuel.com</i></p> <p><input type="checkbox"/> Via Hand Delivery</p> <p><input type="checkbox"/> Via Express Delivery</p> <p><input type="checkbox"/> First Class Mail</p> <p><input type="checkbox"/> Not Served</p>
<p><b><i>Counsel for Canadian Solar Respondents</i></b></p>	
<p>Michael R. Franzinger  SIDLEY AUSTIN LLP  1501 K Street, N.W.  Washington, D.C. 20005</p>	<p><input checked="" type="checkbox"/> Via Email:  <i>CanadianSolar-ASGTSidleyTeam@sidley.com</i></p> <p><input type="checkbox"/> Via Hand Delivery</p> <p><input type="checkbox"/> Via Express Delivery</p> <p><input type="checkbox"/> First Class Mail</p> <p><input type="checkbox"/> Not Served</p>

/s/ James R. Donnelly  
James R. Donnelly

**CERTIFICATE OF SERVICE**

I, James R. Donnelly, hereby certify that on August 20, 2021, copies of the foregoing **PUBLIC VERSION OF RESPONDENT BOVIET’S RESPONSE TO COMPLAINANT’S COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED, AND THE NOTICE OF INVESTIGATION** were served as follows:

<p>The Honorable Lisa R. Barton Secretary U.S. International Trade Commission 500 E Street, SW Washington, D.C. 20436</p>	<p><input checked="" type="checkbox"/> Via EDIS <input type="checkbox"/> Via Hand Delivery <input type="checkbox"/> Via Overnight Delivery <input type="checkbox"/> First Class Mail <input type="checkbox"/> Not Served</p>
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<p>Vu Bui, Esq. Investigative Attorney Office of Unfair Import Investigations U.S. International Trade Commission 500 E Street, SW Washington, DC 20436</p>	<p><input checked="" type="checkbox"/> Via Email: <i>Vu.Bui@usitc.gov</i> <input type="checkbox"/> Via Overnight Delivery <input type="checkbox"/> First Class Mail <input type="checkbox"/> Not Served</p>
<p><b><i>Counsel for Complainant Advanced Silicon Group Technologies, LLC</i></b></p>	
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