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**Reference F.No. 22011/68/2017**

New Delhi, 5th January 2018

**Subject: Safeguard investigation concerning imports of “Solar Cells whether or not assembled in modules or panels” into India – Preliminary Findings - Proceedings under the Customs Tariff Act, 1975 and the Custom Tariff (Identification and Assessment of Safeguard Duty) Rules, 1997 - Reg.**

**(A) Introduction**

1. An application dated 28.11.2017 has been filed before me on 05.12.2017 under Rule 5 of the Customs Tariff (Identification and Assessment of Safeguard Duty) Rules, 1997 (hereinafter also referred to as the “said Rules”) by the Indian Solar Manufacturers Association (ISMA) on behalf of five Indian producers, namely (i) M/s Mundra Solar PV Limited, Adani House, Meetha Khali 6 Road, Navrangpura, Ahmedabad-380009, Gujarat; (ii) M/s Indosolar Limited, 3C/1, EcoTech-II, Udyog Vihar, Dist: Gautam Budh Nagar, Greater Noida-201306, Uttar Pradesh; (iii) M/s Jupiter Solar Power Limited, Village Katha, Post Office Baddi, Teh. Nalagarh, Dist. Solan, Himachal Pradesh-173205; (iv) M/s Websol Energy Systems Limited, Falta SEZ Sector-II, Falta, Dist: 24 South Praganas, West Bengal-743504; and (v) M/s Helios Photo Voltaic Limited, 43B, Okhla Industrial Estate, Phase-III, New Delhi-110020, through M/s Athena Law Associates, 808, L&T Building, Sector 18B, Dwarka, New Delhi-110075, seeking imposition of Safeguard Duty on imports of “Solar Cells whether or not assembled in modules or panels” (hereinafter also referred to as the “product under consideration” or “PUC”) into India to protect the Domestic Industry of like or, directly competitive products from serious injury / threat of serious injury caused by their increased imports. The applicants have claimed that on account of the surge in imports of the PUC many domestic producers have kept their production facilities almost idle and the heavy losses have crippled the Domestic Industry. For this reason, the applicants have also requested for imposition of provisional Safeguard Duty as a measure to mitigate their injury.

**(B) Procedure Followed**

2. An examination of the application and the evidence / details / documents submitted therewith led to the conclusion that the application satisfies the requirements of Rule 5 of the

said Rules. Therefore, a Safeguard investigation against imports of the PUC into India was initiated vide Notice of Initiation (NOI) dated 19.12.2017. The NOI was published in the Gazette of India, Extraordinary dated 19.12.2017 vide GSR No.1522 (E).

3. In accordance with sub-rules (2) and (3) of Rule 6 of the said Rules, a copy of the NOI dated 19.12.2017 and a copy of a Non-confidential Version (NCV) of the application dated 28.11.2017 filed by the Domestic Industry were forwarded to the Central Government in the Ministry of Commerce & Industry, Ministry of Finance and Ministry of New and Renewable Energy, the Governments of major exporting countries through their Embassies in India, and the interested parties mentioned in the said application. Further, the questionnaire to be answered by the exporters / importers / domestic producers, as prescribed under Rule 6(4) of the said Rules, was forwarded to the known interested parties with a request to make their views known in writing within 30 days from the date of issue of the NOI.

4. On 20.12.2017, the two associations of the domestic Solar Cells producers, namely (i) M/s Indian Solar Manufacturers Association (ISMA) and (ii) M/s Solar Power Developers Association (SPDA) were sent a copy of the NOI dated 19.12.2017, a copy of the NCV of the application dated 28.11.2017 and the questionnaire to be answered by the exporters / importers / domestic producers.

### **(C) Observations**

5. I have carefully examined the said application and the duly certified financial and other records produced by the applicants. My preliminary observations on various factors that are relevant to the present proceedings of investigating imposition of a Safeguard Duty on imports of “Solar Cells whether or not assembled in modules or panels” into India to protect the Domestic Industry of like and directly competitive products against serious injury / threat of serious injury caused by their increased imports are as follows:

#### **5.1 The Product Under Consideration (PUC)**

5.1.1 The PUC is “Solar Cells whether or not assembled in modules or panels” classifiable under Tariff Heading 8541 and Tariff Item 85414011 of the Customs Tariff Act, 1975. Solar Cells are also known as Photovoltaic Cells in the market parlance. Photovoltaic technology enables direct conversion of sunlight into electricity at the atomic level and Solar Cells are solid state electrical devices that convert sunlight directly into electricity by the photovoltaic effect. For practical use, Solar Cells are packaged and connected into an assembly and such an assembly of Solar Cells is referred to as a Solar Panel or Solar Module. The electrical connections are made to the Solar Cells in series to achieve desired output wattage and / or in parallel to provide a desired current capability.

5.1.2 The PUC is being manufactured using either of the two major technologies: (1) Crystalline Silicon (c-Si) based Solar Cell technology, also known as Silicon Wafer based technology, and (2) Thin Film technology. The c-Si technology may use n-type and p-type Silicon, and also mono crystalline and multi crystalline Silicon materials. The Thin Film technology may use Amorphous Silicon, Cadmium Tellurium (CdTe) or Copper Indium

Gallium Selenium as semi-conductor materials. Solar Cells based on both c-Si technology and Thin Film technology are imported into India.

5.1.3 The applicants manufacture Solar Cells / modules / panels using only c-Si technology and not Thin Film technology. The applicants have claimed that Solar Cells based on both c-Si and Thin Film technologies are used in Solar power plants. According to the applicants, the Central Government projects such as Jawaharlal Nehru National Solar Mission (JNNSM) or projects of various State Governments neither differentiate the technologies nor award separate auction price for projects based on different technologies. Moreover, there are no material differences between Solar Cells based on either of these technologies and these are all meant for the same end uses. Therefore, the applicants contend that the domestically produced PUC based on c-Si technology are like and directly competitive products to the imported PUC based on either c-Si technology or Thin Film technology.

## 5.2 Domestic Industry (DI)

5.2.1 Clause (b) of sub-section (6) of Section 8B of the Customs Tariff Act, 1975 defines Domestic Industry (hereinafter also referred to as the "DI"), as follows:

*(b) "Domestic industry" means the producers -*

- i. as a whole of the like article or a directly competitive article in India; or*
- ii. whose collective output of the like article or a directly competitive article in India constitutes a major share of the total production of the said article in India.'*

5.2.2 The applicants have claimed that their collective production accounts for more than 50% of the total production of the PUC in India, as indicated in the table below. The applicants contend that by virtue of this fact, they represent a major proportion of the total Indian or domestic industry of the PUC and therefore, they have the standing to file the present application and be treated as the Domestic Industry.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (Upto Sept. 2017)	2017-18 (Annualized)
Total Indian production	MW	246	305	798	544	1,164
Production of the DI (applicants)	MW	237	295	473	381	838
Share of production of the DI in total Indian production	%	96	97	59	70	72

5.2.3 After taking into account the information on record, it is determined that the production of the applicants constitutes a major share of the total production of the said products in India. Accordingly, the applicants constitute the Domestic Industry or the DI in terms of clause (b) of sub-section (6) of Section 8B of the Customs Tariff Act, 1975.

5.2.4 In the context of determining the applicants as the DI, it is noted that three of the applicants, namely M/s Mundra Solar PV Limited, M/s Websol Energy Systems Limited and M/s Helios Photo Voltaic Limited are based in Special Economic Zones (SEZ). The SEZ scheme is an export promotion scheme of the Ministry of Commerce and Industry, Government of India. This scheme extends certain fiscal and non-fiscal benefits to the units operating thereunder with a view to encourage exports. In this direction, by creating a legal fiction, the SEZ units are treated as if these are outside India. However, the SEZ units are physically very much in India and in like manner of other domestic manufacturing units, these units adhere to domestic laws (though at times with some relaxations), generate employment, make domestic sales etc. Thus, increase in imports of any item also impacts SEZ units in like manner as it does any other domestic producer operating outside the SEZs. Therefore, the applicant SEZ units qualify as part of the DI (indeed, by virtue of the quantum of production of the applicants, as the DI itself). All other SEZ units that are similarly engaged in production of like or directly competitive products would also be treated as a part of the DI.

### **5.3 Period of Investigation (POI)**

5.3.1 The Customs Tariff Act, 1975 and the said Rules as well as the WTO Agreement on Safeguards and Article XIX of GATT neither define nor provide guidance regarding the period of investigation. However, it is evident that the investigation period should be adequately long and sufficiently recent in time to allow reasonable conclusions to be drawn on the basis of various relevant factors such as domestic market conditions, performance of DI etc., as to whether or not the increased imports are indeed causing serious injury or threatening to cause serious injury to the DI and therefore justify the need for imposition of Safeguard Duty. On this basis, in the present case, it is considered reasonable and just to determine the period of investigation (POI) as 2014-15 to 2017-18 (Annualized).

### **5.4 Source of Information**

5.4.1 The DI have submitted transaction-wise import data for the PUC, which has been sourced from: (i) Directorate General of Commercial Intelligence & Statistics (DGCI&S), Department of Commerce, Government of India for the period from 2014-15 till the end of First Quarter of 2017-18; and (ii) M/s Infodrive India, New Delhi for the period of the second quarter (July, 2017 to September, 2017) of 2017-18. The corresponding data for the period 2014-15 to 2017-18 (upto September, 2017) in respect of the DI itself has been submitted by the applicants and the same has been verified on the basis of their (i) cost audit reports; (ii) financial records; (iii) various other records pertaining to production, sales, inventory etc. In addition, the import data for the period July, 2017 to September, 2017 have been separately obtained from DGCI&S, Ministry of Commerce, Kolkata. All this data has been taken into consideration for analysis.

## 5.5 Confidentiality of Information Submitted

5.5.1 The DI have provided some information in their application on confidential basis and has requested that it be treated as confidential. The DI have also provided a non-confidential version (NCV) of their application, as required under Rule 7 of the said Rules read with Trade Notice dated 21.12.2009 issued by Director General (Safeguards) under File No. D-22011/75/2009. Further, the DI have submitted reasons justifying their claim of confidentiality of this information.

5.5.2 In terms of Rule 7 of the said Rules, the applicant may choose not to disclose information which is by nature confidential and provide a non-confidential summary thereof. The DI have submitted reasons for claiming confidentiality of the information and furnished a non-confidential summary of the information filed on confidential basis. Upon a careful examination of the reasons advanced by the DI, I find that these reasons satisfy the requirements of Rule 7 of the said Rules. Accordingly, the confidentiality claimed by the applicants is hereby granted.

## 5.6 Increasing Imports in Absolute Terms

5.6.1 The PUC is being imported into India from various countries including China PR, Malaysia, Singapore and Taiwan. The major quantity of the PUC is being imported from China PR. As seen, the import volumes of the PUC have increased from 1,275 MW in 2014-15 to 9,474 MW in 2017-18 (Annualized). This is an increase of 643% in 2017-18 (Annualized) from the base year 2014-15. Thus, there is no doubt that the import volumes have increased significantly each year. Moreover, there has been a sudden surge in imports volumes during the first six months of 2017-18 which is 74% of the imports in 2016-17. The increasing import volumes of the PUC both in absolute terms and per cent. terms during the period 2014-15 to 2017-18 (Annualized) is indicated in the table below.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
Total imports	MW	1,275	4,186	6,375	4,737	9,474
% increase in imports over previous year	%	-	228	52	-	49

## 5.7 Increasing Imports in Relative Terms

5.7.1 Relative to domestic production, imports of the PUC are found to have consistently increased between 2014-15 and 2017-18 (Annualized). The growth rate of such imports as a percentage of the domestic production was a remarkable 1,371% during the intervening year 2015-16. Even the overall growth rate of the imports of the PUC relative to its domestic production is very significant, rising from 519% in 2014-15 to 814% in 2017-18 Thus, during the entire POI, the import volumes of the PUC relative to its domestic production have consistently increased significantly, as indicated in the

table below.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (Upto Sept. 2017)	2017-18 (Annualized)
Total imports	MW	1,275	4,186	6,375	4,737	9,474
Indian production	MW	246	305	798	544	1,164
Imports as a % of Indian production	%	519	1,371	799	871	814

## 5.8 Unforeseen Developments

5.8.1 Neither Section 8B of the Customs Tariff Act, 1975 nor the Rules made thereunder impose an obligation on the Director General (Safeguards) to analyze the unforeseen developments as a result of which the increased imports have occurred. The legal provisions neither contain any parameters that must be verified to identify the unforeseen developments nor do they specify any methodology that must be followed in the analysis of such unforeseen developments. However, the WTO Agreement on Safeguards read with Article XIX of GATT obligates the national authorities to examine “unforeseen developments” that led to the increase in imports and the consequent serious injury to the DI. In view of this requirement, this Directorate has consistently been examining the issue of “unforeseen developments” in its investigations. Therefore, even in the present case, it is considered appropriate to examine the unforeseen developments or circumstances that have led to the sharp increase in the imports of the PUC during the period of investigation. However, in order to do so, it is necessary to first appreciate the import of the term “unforeseen developments or circumstances” and for this, a reference needs to be made to various rulings of the Appellate Body of WTO.

5.8.2 The Appellate Body of WTO in *Argentina–Footwear (EC)*<sup>1</sup> case held that imports in such increased quantities and under such conditions as to cause or threaten to cause serious injury to domestic producers, must have been ‘unexpected’. In that case it was also held that the development of increased imports must have been due to “unforeseen developments”. Similarly, the Appellate Body of WTO in *Korea–Dairy*<sup>2</sup> case held that unforeseen developments are developments not foreseen or expected when member incurred that obligation. In that case it was also recognized that unforeseen developments are *circumstances* which must be demonstrated as a matter of fact. In another case, the Panel on *US–Steel Safeguards*<sup>3</sup> concluded that the confluence of several events can unite to form the basis of an unforeseen development. It was also noted that increased imports must

<sup>1</sup> Appellate Body Report, *Argentina – Footwear (EC)*, para. 91  
[https://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds121\\_e.htm](https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds121_e.htm);

<sup>2</sup> Appellate Body Reports, *Korea – Dairy*, para. 85 and 89  
[\[https://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds98\\_e.htm\]](https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds98_e.htm).

<sup>3</sup> Appellate Body Report, *US – Steel Safeguards*, para. 315  
[\[https://www.wto.org/english/tratop\\_e/dispu\\_e/248\\_259\\_abr\\_e.pdf\]](https://www.wto.org/english/tratop_e/dispu_e/248_259_abr_e.pdf).

be an outcome of unforeseen developments i.e., it is the unforeseen developments that resulted in increased imports.

5.8.3 Applying the aforementioned findings to the present case, it is clear that the temporal nature of the increase in imports of the PUC so as to cause serious injury to the DI or give rise to a threat of such serious injury must have been unforeseen or unexpected and factual. Whereas the event of increased imports itself must be demonstrable on the basis of data on imports, a finding on its unforeseen or unexpected nature must be contextual. In the present case, a relevant context for this would be the event or events that resulted in tariff concessions on the import of the PUC into India. In other words, the factum of increased imports of the PUC during the POI must have been unforeseen at the time of incurring the obligations i.e., accession to WTO, resolving to abide by the commitments under various WTO Agreements, providing tariff concessions and subsequently amending those tariff concessions through the Ministerial Declaration on Trade in Information Technology Products (ITA-1) on 13<sup>th</sup> December, 1996.

5.8.4 In the context of determining if the present development of a significant and sharp increase in imports of the PUC during the POI was indeed an unforeseen or unexpected development, the evidence furnished by the applicants has been examined and the findings thereon are, as follows:

- (i) China<sup>4</sup> has more than doubled its production capacity of Solar Cells from 11.12 GW in 2012 to 27.78 GW in 2016. Similarly, the production capacity of Solar Modules increased from 12.46 GW in 2012 to 35.47 GW in 2016. Further, data of 35 producers who collectively account for 57% of Solar Cells and 67% of Solar Modules production in China reveals excess capacity, as indicated in the table below. This aspect of having a huge production base coupled with excess capacity have a bearing on the applicants' case that there has been a surge in imports of the PUC from China.

<b>Solar Cells</b>					
<b>In GW</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Capacity (Cells)	16.70	19.30	22.19	26.46	33.13
Production (Cells)	11.12	14.03	18.54	22.72	27.78
Domestic consumption	10.68	13.06	17.31	22.26	26.76
Exports	0.40	0.81	0.87	0.52	0.50
Idle capacity	33.41%	27.31%	16.49%	14.13%	16.15%
<b>Solar Modules</b>					
Capacity (Solar Modules)	20.13	22.77	27.99	34.71	46.40
Production (Solar Modules)	12.46	16.32	22.07	28.79	35.47
Domestic	2.46	5.94	7.73	12.86	20.69

<sup>4</sup> Findings of the United States International Trade Commission [USITC] in Section 201 proceedings against Crystalline Silicon Photovoltaic Cells (Whether or not Partially or Fully Assembled into Other Products) - Publication No. 4739 [https://www.usitc.gov/trade\_remedy/731\_ad\_701\_cvd/investigations/pub4739-vol\_i\_and\_vol\_ii\_0.pdf]

consumption					
Exports	9.61	10.39	13.64	15.62	13.93
Idle capacity	38.10%	28.32%	21.15%	17.05%	23.99%
Exports share in production	77.12%	63.66%	61.80%	54.25%	39.27%

- (ii) China's export orientation in respect of the PUC is unquestionable, but a material fact that emerges is that during the past two years, both its direction and volume of export trade changed in a significant manner *towards* India, as is established from the table below. To illustrate, while China's exports to India constituted a paltry 1.52% of its total global exports during 2012, this increased to 21.58% during 2016.

<b>Chinese Exports To (USD 000')<sup>5</sup></b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
World	12,775,263	10,150,759	12,319,183	12,938,427	11,347,462
Japan	892,923	2,794,236	4,394,922	3,341,833	2,558,724
India	193,756	510,278	488,619	1,356,754	2,448,216
USA	1,416,963	1,208,074	1,818,175	1,634,799	1,368,664
EU	8,283,128	2,914,197	2,352,842	2,054,177	1,288,605
Share of India	1.52%	5.03%	3.97%	10.49%	21.58%
Share of EU + USA	75.93%	40.61%	33.86%	28.51%	23.42%

- (iii) The aforementioned shift in direction of Chinese exports of the PUC to India gets re-confirmed from the data of more current times. As indicated in the table below, during the first half of 2016 (H1 2016) Chinese exports to India were 18.51% of its total exports, as compared to which its combined exports to EU and USA were 30.65% (of its total exports). The situation turned dramatically during the succeeding two half yearly periods. In the second half of 2016 (H2 2016), China's exports to India constituted 25.09% while its exports to EU & USA fell to 15.12%. Again, in the first half of 2017 (H1 2017), China's exports to India increased to a staggering 38.77% of its total exports while its exports to EU and USA shrunk to just 5% (of its total exports). Such a significant shift in pattern of trade in which China started targeting the Indian market more vigorously as compared to developed countries / markets like EU and USA etc. could not have been foreseen.

<b>Chinese Exports To (USD 000')<sup>6</sup></b>	<b>H1 2016</b>	<b>H2 2016</b>	<b>H1 2017</b>
World	6,062,679	5,284,783	5,350,966

<sup>5</sup> www.trademap.org

<sup>6</sup> www.trademap.org



India	1,122,083	1,326,133	2,074,573
Japan	1,219,493	1,339,231	1,095,773
EU	838,606	450,002	233,481
USA	1,019,870	348,793	34,268
Share of India	18.51%	25.09%	38.77%
Share of EU + USA	30.65%	15.12%	5.00%

5.8.5 Another unforeseen development that contributed in the surge in imports of the PUC in India and a shift away from other foreign markets was the imposition of trade remedy measures by the EU and USA on imports from China. The Anti-dumping and Countervailing duty orders in the USA associated with (i) the Crystalline Silicon Photovoltaic (CSPV 1) investigations became effective on 07.12.2012 and (ii) the CSPV 2 investigations became effective on 18.02.2015. Also, in the EU, the provisional measure came into effect on 05.06.2013 [Commission Regulation (EU) No. 513/2013 of 04.06.2013] and the final measure was imposed on 05.12.2013 [Commission Regulation (EU) No. 1238/2013 of 02.12.2013]. The immediate impact of these measures was not visible in India because of the requirement of Domestic Content Requirements (DCR) under the Jawaharlal Nehru National Solar Mission (JNNSM). Thus, the DI had the assurance of a captive domestic market to the extent dictated by the DCR. However, in 2013, the USA challenged the DCR under JNNSM before the WTO Dispute Settlement Body and the outcome was that in October 2016, the WTO Appellate Body held the DCR to be inconsistent with Article III:4 of the GATT 1994 and Article 2.1 of the TRIMs Agreement. Hence, India withdrew the DCR. Pursuant to the withdrawal of DCR, the changes in the pattern of trade became more pronounced with imports of the PUC increasing substantially. As afore stated, these developments could not have been foreseen.

5.8.6 In 2015, India committed to the Paris Agreement on climate change for reduction of CO2 emissions by 33-35% from 2005 levels, to address global warming. In line with this commitment, India established a target of achieving 100 GW of Solar power generation by the year 2022. This commitment pushed up the demand for Solar power generation projects in India. It is clear that the commitment given by India under the Paris Agreement that was signed by 197 countries (as on date ratified by 172 countries) was unforeseen at the time the import tariff concession for the PUC was agreed to under ITA-1 on 13<sup>th</sup> December, 1996. Similarly, the huge increase in the demand for the PUC in India in a short period of time which has in part fuelled the surge in imports was also unforeseen.

5.8.7 Another relevant factor that has emerged is that the imports of the PUC are taking place at very low prices; there has been a sudden and appreciable drop in the landed value of the imported PUC, as evident from the table below. The immediate impact of this has been that the Domestic Industry faced a drop in sales realisation of their products. Thus, the surge in imports at consistently falling landed price changed the competitive relationship between imports and domestic production, to the disadvantage of the latter. This has hampered the

DI's ability to compete and make and sell the PUC. It is but evident that this change in the competitive relationship was entirely unforeseen.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
<b>Landed value of imports</b>						
Solar Cells	Rs./Watt	18.78	18.81	15.42	14.04	14.04
Solar Modules	Rs./Watt	36.95	36.18	29.20	24.77	24.77
<b>Net sales realisation of Domestic Industry</b>						
Solar Cells (Indexed)	Rs./Watt	100	94	88	62	62
Solar Modules (Indexed)	Rs./Watt	100	103	82	92	92

5.8.8 India's import tariff on the PUC falling under Customs Tariff Item 85414011 of the Customs Tariff Act, 1975 is 'Free'. This 'Free' tariff was introduced pursuant to the obligations on India under GATT 1994, including the tariff concessions thereunder read with the Ministerial Declaration on Trade in Information Technology Products dated 13th December, 1996 (hereinafter also referred to as the "ITA-1"). The PUC is covered under Attachment A, Section 1 of the ITA-1. The ITA-1 mandated elimination of Customs duties and other duties / charges of any kind within the meaning of Article II:1(b) of GATT 1994 on the products listed therein. Since India is a signatory to ITA-1, the imports of PUC are free of Customs duties. Thus, ITA-1 binds India's "freedom of action"<sup>7</sup> with respect to the imported PUC and prevents it from taking other WTO-consistent measures, such as increasing the Customs duties. It merits mention that India truly believed that its DCR under JNNSM was consistent with the exceptions contained in Article XX of GATT 1994, but after the rejection of this measure by the WTO Appellate Body in 2016, the Indian market for the PUC became open for unrestricted imports from all countries. Thus, India's obligation under GATT 1994 and ITA-1 to allow unrestricted tariff free imports of the PUC without giving preference to domestic production has led to a significant and unforeseen increase in the import volumes of the PUC into India.

5.8.9 The conclusion is that the sudden and sharp increase in imports of the PUC during the POI is an outcome of a combination of various global and domestic events, all of them unforeseen and unexpected. For purposes of clarity, these unforeseen and unexpected developments are briefly reiterated, as follows:

- (i) When faced with hindrances in exports to the EU and USA, China's huge production and excess capacities of the PUC which even otherwise is export oriented, had to find an alternative outlet, which they found in India;
- (ii) The imposition of protective measures on the PUC imported from China into the EU and USA shifted China's export focus towards India;

<sup>7</sup> Panel Report, *Ukraine – Passenger Cars*, para. 7.96.  
[ [http://www.worldtradelaw.net/reports/wtopanels/ukraine-passengercars\(panel\).pdf.download](http://www.worldtradelaw.net/reports/wtopanels/ukraine-passengercars(panel).pdf.download)]

- (iii) The USA challenge to India's DCR under JNNSM resulting in the WTO Dispute Settlement Body holding the DCR to be inconsistent with Article III:4 of the GATT 1994 and Article 2.1 of the TRIMs Agreement, led to its withdrawal and consequential surge in imports to fill the space lost by the DI;
- (iv) India's commitment to the 2015 Paris Agreement paved the way for a domestic commitment to enhance the use of the PUC, which coupled with other events led to a surge in imports;
- (v) Declining landed price of the increasing imports of the PUC combined with other factors to change the competitive equation and place the DI at a disadvantage which was manifested in them i.e., the DI losing its share of the domestic market of the PUC to the imports; and
- (vi) India's obligations under GATT 1994 and the ITA-1 led to its Customs tariff on the imports of the PUC being made 'Free'.

5.8.10 As a result of the various aforementioned global and domestic unforeseen and unexpected developments, there has been an unquestionable verified surge in imports of the PUC into India. This surge in imports has significantly modified the competitive relationship between the imported and domestically produced PUC to the disadvantage of the DI.

## 5.9 Serious Injury and / or Threat of Serious Injury

5.9.1 The next matter for determination is whether the substantially increased imports of the PUC have caused and / or are threatening to cause serious injury to the Domestic Industry of like or directly competitive products. By its very nature this is a complex exercise as injury to the DI of the PUC is a function of various parameters like its share in the domestic market viz. a viz. imports; sales; production; capacity utilization, to name a few. Moreover, it is important that any negative parameter must not be a one-off event but it must display a consistent trend. Accordingly, various relevant parameters, as indicated below, are being examined to assess whether or not the increased imports of the PUC during the POI have caused and / or are threatening to cause serious injury to the Domestic Industry of like or directly competitive products.

- (i) **Share of domestic market:** Despite the rapid expansion in domestic demand, the market share of the DI has decreased; the DI had a market share of 13% in 2014-15 which declined to 7% during 2017-18 (A). During the same period, the market share of imports increased from 86% to 90%.

Market Share	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
Imports	1,275 (86%)	4,186 (94%)	6,375 (89%)	4,737 (90%)	9,474 (90%)
Domestic sales by the applicants / DI	191 (13%)	276 (6%)	457 (6%)	358 (7%)	774 (7%)
Domestic sales by other	9	8	325	162	325

Indian producers	(1%)	(0%)	(5%)	(3%)	(3%)
Total domestic sales by the DI	200 (14%)	284 (6%)	782 (11%)	520 (10%)	1,099 (10%)
Domestic Demand	1,476 (100%)	4,471 (100%)	7,157 (100%)	5,257 (100%)	10,573 (100%)

(ii) **Sales:** The above table also reveals that sales of the domestic producers increased from 200 MW to 1,099 MW i.e. by 899 MW. However, it is material that while domestic sales increased by 899 MW, imports increased by 8,199 MW. Thus, the increase in imports was more than 9 times that of the increase in sales of the DI. Also, as the domestic demand increased from 1,476 MW in 2014-15 to 10,573 MW in 2017-18 (Annualized), it is clear that the increased imports of the PUC have substituted for the domestic production in meeting the domestic demand for the PUC.

(iii) **Production:** Production of the DI increased from 237 MW in 2014-15 to 838 MW in 2017-18 (Annualized). There has also been significant addition of 1,000 MW to the installed capacity of the DI in 2017-18 (Annualized). However, despite this increase in installed capacity in 2017-18, the production that year increased by only 365 MW. Also, while the import volumes of the PUC have increased from 1,275 MW in 2014-15 to 9,474 MW in 2017-18 (Annualized) i.e., an increase of 643%, in comparison the production of DI increased 254% during the same period. This conclusion is based on the data in the table below.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (Upto Sept. 2017)	2017-18 (Annualized)
Total imports	MW	1,275	4,186	6,375	4,737	9,474
Production of DI	MW	237	295	473	381	838

(iv) **Capacity utilisation** The capacity utilisation of the DI increased from 60% in 2014-15 to 78% in 2016-17 but fell down to 51% during 2017-18 (Annualized). Further, in 2017-18 (Annualized) itself, the production capacity was enhanced by 1,000 MW, but only 35% of this additional capacity was actually utilised, as shown in the table below. Even otherwise, the production facilities of the DI were grossly underutilised during the entire POI. Coupled with the increasing trend of imports of the PUC, this low level of capacity utilization is a clear indication of current injury and imminent threat of further injury to the DI.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
Installed Capacity	MW	392	573	604	727	1,653

Production of DI	MW	237	295	473	381	838
Capacity Utilisation	%	60%	52%	78%	53%	51%

- (v) **Employment:** The employment generated by the DI has declined despite significant capacity addition. The recent entry of one applicant – M/s. Mundra Solar PV Ltd. (MSPVL) in May 2017 - has contributed to the overall increase in the total number of employees in the industry as a whole, but this is not reflective of the industry trend. In fact, if the number of employees of MSPVL is removed, the declining employment in the industry as a whole is evident. Further, as the Domestic Industry were and are operating far below their installed capacity [as seen at (iv) above] there has been a significant loss in potential employment opportunities.

Particulars	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)
No. of employees excluding MSPVL (Indexed)	100	135	128	127
No. of actual employees (Indexed)	100	135	128	460

- (vi) **Productivity:** The trend of production per employee shows a declining trend throughout the period of investigation, as evident from the table below. It merits mention that even with the addition of a significant number of employees by the new entrant MSPVL in May 2017, the industry production did not increase proportionately. Per employee production was 0.316 MW during 2014-15, which fell down to 0.291 MW in 2015-16. Though this parameter rose to 0.492 MW in 2016-17, it declined again in 2017-18 to a low of only 0.243 MW. Thus, productivity (production per employee) was moving up and down and the current figures indicate a downturn that is likely to extend at least in the near future. It is clear that the DI have simply been unable to utilise their installed capacities to optimize productivity.

Particulars	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
Production of DI (MW)	237	295	472	381	838
No. of employees	749	1014	960	3445	3445
Productivity per employee (MW)	0.316	0.291	0.492	0.221	0.243

- (vii) **Profit / Loss** – The DI have incurred significant losses on domestic sales over the POI. The losses have more than doubled during 2017-18 (Annualized) compared to 2016-17, i.e. from 155 indexed units to 418 indexed units. Also, the Domestic Industry incurred an indexed loss of 418 during 2017-18 as compared to the base year of 2014-15. Such increase in losses has to be seen in the light of contrasting parameters such as the increase in capacity, increase in production and increase in domestic sales. Further, due to a significant decline in net sales realization, losses have compounded during 2017-18 (upto September, 2017) as compared to 2014-15.

Particulars	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
Loss in Rs. Lakhs (Indexed)	100	351	155	187	418
Loss in Rs. Watt (Indexed)	100	243	65	100	103

- (viii) **Inventory:** The inventory carried by the DI increased by more than 4 times during the POI, as indicated in the table below.

Particulars	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)
Closing Inventory (Indexed)	100	82	152	411

- (ix) **Price Undercutting :** There was a significant price undercutting by the imported goods throughout the POI, as borne out from the table below. It is evident that the high level of price undercutting prevented the DI from increasing their prices to the break-even level as a result of which they suffered losses.

Particulars	Unit	2014-15	2015-16	2016-17	2017-18 (upto Sept. 2017)	2017-18 (Annualized)
<b>Landed value of imports</b>						
Solar Cells	Rs./Watt	18.78	18.81	15.42	14.04	14.04
Solar Modules	Rs./Watt	36.95	36.18	29.20	24.77	24.77
<b>Net sales realisation of Domestic Industry</b>						
Solar Cells (Indexed)	Rs./Watt	100	94	88	62	62
Solar Modules (indexed)	Rs./Watt	100	103	82	92	92
<b>Price Undercutting</b>						
Solar Cells (Indexed)	Rs./Watt	100	83	100	37	37

Solar Modules (Indexed)	Rs./Watt	100	173	121	458	458
<b>Price undercutting %</b>						
Solar Cells (Indexed)	%	100	83	122	49	49
Solar Modules (Indexed)	%	100	176	153	684	684

## 5.10 Causal Link between Increased Import and Serious Injury / Threat of Serious Injury

5.10.1 The WTO Panel on *Korea-Dairy*<sup>8</sup> set forth the basic approach for determining “causation”, as follows:

*“In performing its causal link assessment, it is our view that the national authority needs to analyse and determine whether developments in the industry, considered by the national authority to demonstrate serious injury, have been caused by the increased imports. In its causation assessment, the national authority is obliged to evaluate all relevant factors of an objective and quantifiable nature having a bearing on the situation of that industry. In addition, if the national authority has identified factors other than increased imports which have caused injury to the Domestic Industry, it shall ensure that any injury caused by such factors is not considered to have been caused by the increased imports. To establish a causal link, Korea has to demonstrate that the injury to its Domestic Industry results from increased imports. In other words, Korea has to demonstrate that the imports of SMPP cause injury to the Domestic Industry producing milk powder and raw milk. In addition, having analyzed the situation of the Domestic Industry, the Korean authority has the obligation not to attribute to the increased imports any injury caused by other factors.”*

5.10.2 The analysis of data for the period 2014-15 to 2017-18 (upto Sept., 2017) indicates that imports of the PUC have remained at significantly higher levels and also the import prices of the PUC have come down drastically. This has led to the DI revising their own prices downwards. As a result, the net sales realization of the DI has sharply declined when compared to the base year, as detailed in the table under paragraph 5.9.1(ix) above

5.10.3 As a result of significant price undercutting by the imports, domestic selling

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<sup>8</sup> WTO Panel on *Korea-Dairy*. Para VII.887

[[https://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/ds98\\_e.htm](https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds98_e.htm)]

prices saw significant price depression, as shown in the table below.

<b>Particulars (Indexed)</b>	<b>Unit</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18 (upto Sept., 2017)</b>	<b>2017-18 (Annualized)</b>
Selling price	Rs./watt	100	87	78	81	84
Price depression (Y-o-Y)	Rs./watt		100	66	(-)22	(-)47
Price depression (cumulative)	Rs./watt		100	166	145	119
Cost of sales	Rs./watt	100	109	76	82	83
Cost increase (Y-o-Y)	Rs./watt		100	(-)353	61	78
Price suppression (Y-o-Y)	Rs./watt		100	(-)124	16	10
Extent of prevention of price increase	Rs./watt	100	243	65	88	79

5.10.4 The following factors are also relevant in regard to determining the cause and effect relationship of increased imports and the serious injury during the POI and the threat of serious injury in the future, to the DI:

- (i) The volume of imports has increased significantly from 1275 MW to 9474 MW in absolute terms;
- (ii) The market share of imports has increased from 86% to 90% and, consequently, market share of the DI has declined from 13% to 7%;
- (iii) As the imports are available at prices lower than the selling price of the DI and are also decreasing over the time, the consumers are switching over to imported PUC with the effect that the DI are unable to not only sustain their prices but also have to face rising inventories (of the PUC);
- (iv) Another impact of the increased imports at low prices is that the DI are unable to increase their production and sales as compared to the rate of increase in demand / consumption of the PUC in India;
- (v) Though the DI established capacities to meet the growing demand for the PUC, the substantially increased imports at consistently reducing landed prices have led to idle production capacities, falling sales realization etc.; and
- (vi) The DI is incurring very heavy losses.

5.10.5 To sum up, a comprehensive evaluation of parameters enumerated above demonstrates that serious injury is being caused to the DI and is likely to continue in future by the significantly increased and continually increasing imports of the PUC. It is



also relevant to note that while arriving at this conclusion, all relevant factors of an objective and quantifiable nature having a bearing on determining the causation of serious injury to the DI have been evaluated.

**(D) Critical Circumstances**

**6.** Rule 9 of the said Rules authorizes the Director General (Safeguards) to proceed expeditiously with the conduct of the investigation and in critical circumstances, record a preliminary finding regarding “serious injury” or ‘threat of serious injury’. In terms of Rule 2(b) of the said Rules, the “critical circumstances mean circumstances in which there is clear evidence that imports have taken place in such increased quantities and under such circumstances as to cause or threaten to cause serious injury to the DI and delay in imposition of provisional Safeguard Duty would cause irreparable damage to the DI.

**6.1** As stated herein above, imports have taken place in such increased quantities and under such circumstances as to have already caused and further threatening to cause serious injury to the DI. The existence of critical circumstances are evaluated herein below.

- (i) The volume of imports of the PUC have risen significantly during the POI and still rising steadily and also the import prices are on the decline as shown in the table below. Further, imports of the PUC during each of the last two half yearly periods were significantly higher (2.7 times higher) than the imports during the first half of 2016-17. The import prices have also come down to Rs. 23.04 per watt during first half of 2017-18, a decline of over 23%. As import prices decline, ability of the DI to get remunerative prices also declines. As a consequence, sales and capacity utilization also suffer adversely.

<b>Year</b>	<b>Import Quantity (MW)</b>	<b>Import Value (Rs. In Crores)</b>	<b>Import Price (Rs./Watt)</b>
2016-17 (First Half)	1,720	5,158	30.00
2016-17 (Second Half)	4,656	12,375	26.58
2017-18 (First Half)	4,737	11,022	23.04

- (ii) On account of increasing and unabated imports of the PUC, the net sales realization of the DI declined sharply. Sales and capacity utilization also suffered adversely.
- (iii) The productivity per employee has declined sharply and the closing inventories have also increased.
- (iv) The domestic industry is incurring significant losses due to sharply declining import prices and the price undercutting is positive during the entire POI.

**6.2** It is clear that any delay in imposition of provisional Safeguard measures would cause further damage to the DI. Accordingly, I observe that critical circumstances very much exist warranting the immediate imposition of Safeguard measures.

**(E) Preliminary Findings**

**7.** To sum up, during the period of investigation there was an overall deterioration in the functioning of the DI. Moreover, the trend of the deteriorating parameters is indicative of the threat of serious injury continuing in the coming days. The parameter-wise finding of the serious injury suffered by the DI on account of enhanced imports of the PUC is summarized as under:

- (a) The volume of imports of the PUC have increased and are continuing to increase both in absolute and relative terms;
- (b) The DI's market share has declined, whereas the market share of imports has increased;
- (c) The increased imports of the PUC have substituted for the sales of the DI;
- (d) While the production of the DI has increased, their capacity utilization has decreased significantly;
- (e) Despite the increase in domestic demand for the PUC, the capacity utilization remained very low;
- (f) The DI are faced with a significant loss of potential employment opportunities;
- (g) The productivity per employee of the DI has shown a declining trend;
- (h) The DI are experiencing significant losses;
- (i) The inventories of the PUC have increased within the DI; and
- (j) The price undercutting by the imported PUC is positive throughout the POI.

**7.1** It is relevant to note that the DI continue to suffer serious injury and are facing further threat of serious injury. The trend in import volumes strongly suggests that imports of PUC are likely to increase in future due to excess capacity in China, export orientation of producers in China and opportunities lost by Chinese producers/exporters in other significant markets like USA and EU which would force such producers / exporters to target India. As the imported goods undercut the prices of Indian domestic industry to a significant degree, the DI would need time to restructure themselves to meet international competition. Otherwise, they would suffer further serious injury. Thus, an imminent threat of serious injury is also found in this case.

**7.2** In view of the above, my preliminary findings are that there is a direct correlation between the increase in imports and serious injury already suffered by the DI. Pertinently, all indicators exist to lead to the finding that the increased imports, which show no sign of abating and on the contrary are further increasing significantly, threaten to cause serious injury to the DI in the coming days. Thus, critical circumstances exist requiring imposition of provisional Safeguard Duty immediately in order to save the DI from further serious injury which would be difficult to repair, if the application of this Safeguard measure is delayed. These are, of course, preliminary findings on the basis of the documents and information on record and if any other factors that have a material bearing come to light during the course of investigation, they would be examined in detail in due course.

**(F) Developing Nations**

**8.** Proviso to Section 8B(1) of the Customs Tariff Act, 1975 provides that Safeguard Duty shall not be imposed on article originating from a developing country so long as its share of imports does not exceed 3% of the total imports of that article or, where the article is originating from more than one developing country, then, so long as the aggregate of the imports from all such developing countries, each with less than 3% import share taken together, does not exceed 9% of the total imports of that article. Further, Notification No.19/2016-Custom (NT), dated 5th February, 2016 specifies the developing countries for the purposes of this provision. Upon applying this legal provision read with the said notification to the available data in the present case, the finding is that import of the PUC is originating from more than one specified developing country including China PR and Malaysia. However, as a percentage of the total imports of the PUC into India, the imports from China PR and Malaysia individually account for more than 3% while the share of every other developing country is individually less than 3%. Also, the collective share of the developing countries whose individual share is less than 3% does not exceed 9% of the total imports of the PUC into India. Therefore, it must be held that the import of the PUC originating from developing countries (except China PR and Malaysia) will not attract Safeguard Duty in terms of proviso to Section 8B(1) of the Customs Tariff Act, 1975.

**(G) Coverage of Safeguard Measures**

**9.** As aforementioned, the applicants include SEZ units and they qualify to be treated as the DI. SEZ units are governed by the SEZ Act, 2005 and Section 30 thereof provides that any goods removed from a SEZ to the domestic tariff area shall be chargeable to duties of Customs including Safeguard Duty, where applicable, under the Customs Tariff Act, 1975. Thus, in the present case, if the PUC were to be cleared by an SEZ unit into the domestic market then any Safeguard Duty that is imposed on direct imports of the PUC into the country would get attracted on such clearances. The implication of this is that a portion of the DI that operates in SEZs would not only lose the protection of the Safeguard measure but to make matters worse, they would themselves be subjected to the said measure / levy. In other words, the application of Section 30 of the SEZ Act, 2005 would negate the imposition of Safeguard measures under Section 8B of the Customs Tariff Act, 1975 and be counter-productive. The remedy to this

could be a duty exemption to the extent of the Safeguard measure when the PUC is cleared by a SEZ unit into the domestic market. This would maintain the relevance of the Safeguard measures in the interest of the DI. This would also satisfy the cannon of equity by placing all domestic producers or all constituents of the DI at par with regard to the applicability of the Safeguard measures on the imported PUC. However, this matter falls outside the ambit of the present proceedings which are governed strictly by the provisions of the Section 8B of the Customs Tariff Act, 1975 read with its Rules and is, therefore, left for the consideration of the Government. Needless to state, the provisions of Section 8B(2A)(ii) of the Customs Tariff Act, 1975 dealing with the levy of Safeguard Duty, if an article subjected to a Safeguard Duty on import is cleared as such from the SEZ into the domestic market or is used in the manufacture of any goods that are cleared by the SEZ unit into the domestic tariff area would apply.

**(H) Recommendations**

**10.** In view of the aforementioned analyses and findings, I find that the product under consideration viz. “Solar Cells whether or not assembled in modules or panels” is being imported into India in such increased quantities and under such conditions so as to cause or threaten to cause serious injury to the DI manufacturing like or directly competitive products. I also find that existing critical circumstances justify the immediate imposition of a provisional Safeguard Duty in order to save the DI from further serious injury, which would be difficult to repair, if the application of the recommended Safeguard measure is delayed. Accordingly, I make the following recommendations:

- (i) I recommend that pending a final determination, considering the average cost of sales by the Domestic Industry arrived at on the basis of import quantity ratio of Solar cells and Solar modules (confidential), a reasonable return on the cost of sales excluding interest, the present level of import duties, and the present average import prices, a provisional Safeguard Duty be imposed at the rate of 70% (Seventy percent) *ad valorem* on the imports of the PUC viz. “Solar Cells whether or not assembled in modules or panels” falling under Customs Tariff Item 85414011 of the Customs Tariff Act, 1975 from all countries with the exception of the developing countries indicated in clause (iii) below. The Tariff Item mentioned herein is indicative only and the description of the imported goods will determine the applicability of the recommended Safeguard Duty.
- (ii) I also recommend that the provisional Safeguard Duty on the import of the said product, as above, be levied for a period of 200 days (two hundred days), which is considered to be the minimum period of time required to protect the interests of the Domestic Industry.
- (iii) As the imports from the developing countries listed in Notification No.19/2016-Custom (NT), dated 5th February, 2016, other than China PR and Malaysia, do not exceed 3% individually and 9% collectively, the imports of “Solar Cells whether or not assembled in modules or panels” originating from such developing countries (other than China PR and Malaysia) will not attract

the recommended provisional Safeguard Duty in terms of proviso to Section 8B(1) of the Customs Tariff Act, 1975.

**(I) Further Process**

**11.** The information provided by various parties may be subjected to verification where necessary, for which they will be informed separately. This preliminary finding is borne out from the data submitted by the DI (as indicated above) and it would be subject to further investigation by the authority.

**11.1** A public hearing will be held in due course before making a final determination, for which the date will be informed separately.

**(Sandeep M. Bhatnagar)**  
**Director General**