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COMMISSION REGULATION (EU) No 513/2013

of 4 June 2013

imposing a provisional anti-dumping duty on imports of crystalline silicon photovoltaic modules and key components (i.e. cells and wafers) originating in or consigned from the People's Republic of China and amending Regulation (EU) No 182/2013 making these imports originating in or consigned from the People's Republic of China subject to registration

(OJ L 152, 5.6.2013, p. 5)

Amended by:

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THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Regulation (EC) No 1225/2009 of 30 November 2009 on protection against dumped imports from countries not members of the European Community [1] ('the basic Regulation'), and in particular Article 7 and Article 14(5) thereof,

After consulting the Advisory Committee,

Whereas:

A. PROCEDURE

1. Initiation

(1) On 6 September 2012, the European Commission ('the Commission') announced, by a notice published in the *Official Journal of the European Union* [2] ('Notice of Initiation'), the initiation of an anti-dumping proceeding with regard to imports into the European Union ('the Union') of crystalline silicon photovoltaic modules and key components (i.e. cells and wafers) originating in the People's Republic of China ('the PRC' or the 'country concerned').

(2) The investigation was initiated following a complaint lodged on 25 July 2012 by EU ProSun ('the complainant') on behalf of producers representing more than 25 % of the total Union production of crystalline silicon photovoltaic ('PV') modules and key components. The complaint contained prima facie evidence of dumping of the said product and of material injury resulting therefrom, which was considered sufficient to justify the initiation of an investigation.

[1] OJ L 343, 22.12.2009, p. 51.
[2] OJ C 269, 6.9.2012, p. 5.

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2. **Registration**

(3) Following a request by the complainant supported by the required evidence the Commission adopted on 1 March 2013 Regulation (EU) No 182/2013 ([1]) making imports of crystalline silicon PV modules and key components (i.e. cells and wafers) originating in or consigned from the PRC subject to registration as of 6 March 2013.

3. **Parties concerned by the proceeding**

(4) The Commission officially advised the complainant, other known Union producers, the known exporting producers, the PRC authorities and known importers of the initiation of the investigation. The Commission also advised producers in the USA, which was envisaged as a possible analogue country.

(5) Interested parties were given the opportunity to make their views known in writing and to request a hearing within the time limit set in the Notice of Initiation. All interested parties, who so requested and showed that there were particular reasons why they should be heard, were granted a hearing.

(6) In view of the large number of exporting producers in the country concerned, unrelated importers and Union producers involved in the investigation, and in order to complete the investigation within the statutory time limits, the Commission announced in the Notice of Initiation that it had decided to limit to a reasonable number the exporting producers in the country concerned, unrelated importers and Union producers that would be investigated by selecting a sample in accordance with Article 17 of the basic Regulation (this process is also referred to as 'sampling').

(a) *Sampling of Union producers*

(7) The Commission announced in the Notice of Initiation that it had provisionally selected a sample of Union producers. All known Union producers and known producers' association were informed about the selection of the provisional sample of Union producers. This provisional sample consisted of 9 Union producers out of the around 220 Union producers that were known prior to the initiation of the investigation to produce the like product (see recital 26 below), selected on the basis of the largest representative volume of production, taking into account the sales volume and the geographical location that could reasonably be investigated within the time available. It was ensured that the sample covers both vertically integrated and non-integrated Union producers. Interested parties were also invited to make their views known on the provisional sample. A number of interested parties commented on the provisional sample and one party requested a hearing with the Hearing Officer.

([1]) OJ L 61, 5.3.2013, p. 2.

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(8) Several interested parties raised the following objections concerning the provisional sample of Union producers:

(i) Some parties submitted that the limited information provided with regard to the provisionally selected sample was insufficient and prevented them from making any meaningful comments on the proposed sample. In particular, they criticised that the identity of the Union producers was kept confidential and requested that the Member States where the sampled Union producers were located should be disclosed, as well as the selected Union producers' share of production in the total production volume of PV modules, cells and wafers and the percentage of production and sales represented by the sampled companies individually and by the sample as a whole.

(ii) The method used for selection of the sample was contested on the grounds that it 'confuses three different steps', namely the support for the initiation of the investigation, definition of the Union industry and sampling. Therefore, it was claimed that it was unclear whether the Union industry was already defined at the time of the selection of the sample, and therefore whether the sample could be considered as representative. Without defining the Union industry at sampling stage, interested parties were prevented from verifying whether the provisional sample was representative, and thus whether on the basis of the sample, the situation of the Union industry during the investigation period as defined in recital 19 below could be correctly assessed. Furthermore, it was claimed that it was inappropriate to select the provisional sample on the basis of the replies of the Union producers to the examination of the support for the initiation of the investigation.

(iii) It was also claimed that the provisional sample was selected merely on the basis of companies which have expressed their support to the present investigation.

(iv) One party claimed that since vertically integrated companies are included in the provisional sample, the production volume of wafers and cells may be double or triple counted which casts doubts on the overall representativity of the sample. It was requested that for vertically integrated producers only the production volume of modules should be counted, but not the volume of cells and wafers.

(v) The same party alleged that the data on which the selection of the sample was based were at least partly unreliable which could have an impact on the representativity of the provisional sample as a whole.

(vi) One party provided a list containing allegedly around 150 additional Union producers of the like product, claiming that they should have been taken into consideration for the purposes of selecting a sample of Union producers.

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(9) The arguments raised by the parties were addressed as follows:

(i) The Union producers requested that their names be kept confidential due to the risk of retaliation. There were indeed real threats against Union producers to harm their business both in the Union and outside. The Commission considered that these requests were sufficiently substantiated to be granted. The disclosure of the location or share in production and sales of individual Union producers selected in the sample could easily reveal the identity of the producer concerned and the requests in this regard had to be rejected.

(ii) The Commission did not 'confuse' the determination of the support for the initiation of the investigation, the determination of the Union industry and the selection of provisional sample as these steps remained independent from each other and were decided upon separately. It was not demonstrated to what extent the use of production and sales data provided by the Union producers in the context of the examination of the support for the initiation of the investigation had affected the representativity of the sample. At initiation the Union industry had indeed been provisionally defined. All available information concerning the Union producers, including information provided in the complaint and data collected from Union producers and other parties before the initiation of the investigation, was used in order to provisionally establish the total Union production for the investigation period, as defined in recital 19 below.

(iii) All Union producers that replied to questions related to the support for the initiation of the investigation were considered for the sample, regardless of whether they supported, opposed or expressed no opinion on the investigation; this claim was therefore rejected.

(iv) The question of double/triple counting has been considered when the provisional sample was selected. It appeared that excluding production and sales of wafers and cells of the vertically integrated Union producers would not take into consideration the part of the production of wafers and cells sold on the free market. It was therefore considered that excluding sales of wafers and cells from the total production volume would not necessarily lead to a more representative sample. Furthermore, the representativity of the sample was established not only on the basis of the production volume but also on the basis of the geographical spread and a balanced representation of vertically integrated and non-integrated producers. The relative representativeness of the production volume was calculated at the level of each type of the like product. On this basis, it was considered that the methodology to select the provisional sample was reasonable and the sample is therefore considered representative for the Union industry of the product under investigation as a whole. Therefore, this claim was rejected.

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(v) As far as the reliability of data is concerned, the sample was selected on the basis of the information available at the time of the selection of the sample as provided for in Article 17(1) of the basic Regulation. Concerning the reliability of data used in the support of the initiation of the investigation, the investigation found no evidence that the data collected prior to the initiation was significantly deficient. Therefore, it can be reasonably assumed that the basis on which the provisional sample was selected was sufficiently reliable. Therefore, this claim was rejected.

(vi) Concerning the list of around 150 additional Union producers, it should be noted that this information was submitted far outside the deadline set for interested parties to comment on the selection of the provisional sample and for Union producers to come forward and to request to be selected in the sample. Moreover, about 30 of the Union producers contained in this list were in fact known to the Commission at the time of the selection of the sample. Furthermore, all Union producers that made themselves known after the publication of the Notice of Initiation were considered when selecting the sample. On this basis, the representativity of the sample has not been affected. Therefore, this claim was rejected.

(10) Following receipt of comments, the composition of the sample was revised on the ground that there were indications that one of the selected companies would not have been in the position to fully cooperate. In order to maintain the level of representativity of the sample an additional Union producer was selected. This revised sample consisted thus of 10 companies, selected on the basis of the largest representative volume for each level of production, taking into account sales volume on the EU market and geographical location that could reasonably be investigated within the time available. As a result, the revised sample of Union producers accounted, expressed as a percentage of out of the total Union production, between 18 and 21 % for modules, between 17 and 24 % for cells and between 28 and 35 % for wafers and covered vertically integrated and non-integrated producers. Given that a precise percentage would allow calculating the production volume of the above mentioned additional Union producer and thus its identity could be determined, no such precise percentages could be disclosed.

(b) *Sampling of unrelated importers*

(11) In view of the potentially high number of unrelated importers, sampling was envisaged in the Notice of Initiation in accordance with Article 17 of the basic Regulation. In order to enable the Commission to decide whether sampling would be necessary and, if so, to select a sample, all importers were asked to make themselves known to the Commission and to provide, as specified in the Notice of Initiation, basic information on their activities related to the product under investigation during the investigation period, as defined in recital 19 below.

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(12) Of the around 250 unrelated importers put forward by the complainant, that the Commission contacted, 36 parties replied to the sampling form attached to the Notice of Initiation, 35 for modules, only 1 reply for cells and no reply for wafers. The sample was selected in accordance with Article 17 of the basic Regulation to cover the largest representative volume of imports which can reasonably be investigated within the time available. On this basis, the Commission selected a sample of three unrelated importers for modules and one for cells. Further to the comments received, the Commission decided to include one more unrelated importer for modules in the sample. This company came forward and argued that its level of activity would justify the inclusion in the sample. Their initial submission was therefore re-examined and it became apparent that a clerical error occurred in relation to the volume of imports reported by the importer concerned. On these grounds, the company in question was included in the sample of unrelated importers. Moreover, two companies that were initially selected in the sample did not reply to the questionnaires and were therefore considered as non-cooperating with the investigation and excluded from the sample of unrelated importers. Therefore, the sample of the unrelated importers consisted of two importers for modules and one importer for cells, representing around 2-5 % of the total imports from the country concerned. After the receipt of the questionnaire reply, it became, however, apparent that the core activity of two out of three importers was in fact solar installations and not trading of the product concerned. The investigation revealed that a majority of imports of the product concerned enter the Union market through companies related to the exporting producers in the PRC or through installers or project developers. In the circumstances, the sample was provisionally considered to be representative. The Commission will, however, in the course of the further investigation contact additional cooperating unrelated importers in order to verify whether they qualify as importers and to see whether the size of the sample can be increased.

(c) *Sampling of exporting producers*

(13) In view of the apparently high number of exporting producers, sampling was envisaged in the Notice of Initiation for the determination of dumping, in accordance with Article 17 of the basic Regulation. In order to enable the Commission to decide whether sampling would be necessary and, if so, to select a sample, all exporting producers were asked to make themselves known to the Commission and to provide, as specified in the Notice of Initiation, basic information on their activities related to the product under investigation during the investigation period, as defined in recital 19 below. The authorities of the country concerned were also consulted.

(14) As many as 135 exporting Chinese producers (often groups of several companies) made themselves known in the sampling exercise. The cooperating companies represent 80 % of the total Chinese export value. The selected sample of seven groups of companies consists of the three cooperating exporters with the largest volume of exports of modules, the two

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cooperating exporters with the largest volume of exports of cells and the two cooperating exporters with the largest volume of exports of wafers.

(d) *Questionnaire replies and verifications*

(15) The Commission sent questionnaires to all sampled Chinese exporting producers as well as to the sampled Union producers, the sampled unrelated importers and upstream and downstream operators and their associations that made themselves known within the time limits set out in the Notice of Initiation. The Commission also contacted a representative consumer association.

(16) Questionnaire replies were received from all sampled Chinese exporting producers, from all sampled Union producers, 3 sampled unrelated Union importers and 21 upstream and downstream operators and 3 of their associations.

(17) The Commission sought and verified all the information deemed necessary for the purpose of a provisional determination of dumping, resulting injury and Union interest. Verification visits were carried out at the premises of the following (groups of) companies.

(a) Union producers

— Verifications visits were carried out at the premises of the 10 sampled Union producers

(b) Exporting producers in the PRC

— Changzhou Trina Solar Energy Co. Ltd, PRC

— Delsolar (Wujiang) Co. Ltd, PRC

— Jiangxi LDK Solar Hi-Tech Co. Ltd, PRC

— JingAo Group, PRC

— Jinzhou Yangguang Energy, PRC

— Wuxi Suntech Power Co. Ltd, PRC

— Yingli Green Energy Holding Company, PRC

(c) Related importers in the Union

— Yingli Green Energy Greece Sales GmbH, Munich, Germany

— LDK Solar Italia S.r.l., San Zenone degli Ezzelini (TV), Italy

— Delta Energy Systems S.r.l., Rome, Italy

— Sunways AG, Konstanz, Germany

— JA Solar GmbH, Munich, Germany

(d) Related traders/importers outside the Union

— Delsolar Co. Ltd, Zhunan City, Taiwan

— JA Solar Hong Kong Ltd, Hong Kong SAR

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— Wealthy Rise International Ltd, Hong Kong SAR

— Suntech Power International Ltd, Schaffhausen, Switzerland

— Trina Solar (Schweiz) AG, Wallisellen, Switzerland

(e) Unrelated importer in the Union

— IBC AG, Bad Staffelstein, Germany

(f) Upstream Operators

— Roth & Rau AG, Hohenstein-Ernsthal, Germany

— WACKER Chemie AG, Burghausen, Germany

(g) Downstream Operators

— Juwi Solar GmbH, Worrstadt, Germany

— ValSolar SL, Badajoz, Spain

(h) Associations

— EPIA, Brussels, Belgium

(18) In view of the need to establish a normal value for the exporting producers in the PRC in case MET is not granted to them, a verification to establish normal value on the basis of data from India as analogue country took place at the premises of the following companies:

— EMMVEE Photovoltaic Power Private Limited, Bengaluru, India

— Tata Power Solar Systems Limited, Bengaluru, India

4. **Investigation period and period considered**

(19) The investigation of dumping and injury covered the period from 1 July 2011 to 30 June 2012 (‘the investigation period’ or ‘IP’). The examination of trends relevant for the assessment of injury covered the period from 2009 to the end of the investigation period (‘the period considered’).

B. PRODUCT CONCERNED AND LIKE PRODUCT

1. **Product concerned**

(20) The product concerned is crystalline silicon PV modules or panels and cells and wafers of the type used in crystalline silicon PV modules or panels, originating in or consigned from the PRC. The cells and wafers have a thickness not exceeding 400 micrometres. This product is currently falling within CN codes ex 3818 00 10, ex 8501 31 00, ex 8501 32 00, ex 8501 33 00, ex 8501 34 00, ex 8501 61 20, ex 8501 61 80, ex 8501 62 00, ex 8501 63 00, ex 8501 64 00 and ex 8541 40 90 (‘the product concerned’).

(21) The following product types are excluded from the definition of the product concerned:

— solar chargers that consist of less than six cells, are portable and supply electricity to devices or charge batteries,

— thin film PV products,

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— crystalline silicon PV products that are permanently integrated into electrical goods, where the function of the electrical goods is other than power generation, and where these electrical goods consume the electricity generated by the integrated crystalline silicon PV cell(s).

(22) The PV modules, cells and wafers convert sunlight into electricity. The conversion is operated by cells which absorb light and convert it into electricity through crystalline silicon.

(23) Wafers are the first step of the production process. They are made of crystalline silicon and they are the key component for cells production.

(24) First the crystalline silicon has to be molten to obtain the crystalline silicon ingots which are sawed into wafers. Wafers are treated through a high technology semiconductor processing sequence to create working solar cells. Cells are the second step of the production process. They have a positive-negative junction to collect and forward the electricity that is generated by the cell.

(25) The modules are the third step of the production process. To assemble the modules, cells are soldered together with flat wires or metal ribbons to produce a string of cells. Those are laminated between sheets. Mostly glass is used on top and a polymeric backing sheet to the bottom. Frames are usually created to allow the mounting in the field (e.g. on rooftops). The module may or may not have an inverter.

2. **Like product**

(26) The investigation has shown that the product concerned and the product produced and sold in the domestic market of India, which served as an analogue country for the purpose of establishing the normal value, as well as the product produced and sold in the Union by the Union industry have the same basic physical, chemical and technical characteristics as well as the same basic end uses. They are therefore provisionally considered as alike within the meaning of Article 1(4) of the basic Regulation.

3. **Claims regarding product scope**

(i) Physical, chemical and technical characteristics and end uses

(27) Several interested parties claimed that the investigation cannot cover three products with different physical, chemical and technical characteristics, and therefore modules, cells and wafers should be subject to three separate investigations. Moreover, they claimed that it is unclear whether the investigation covers one single product or three separate products and therefore they have no full opportunity to defend their interests. It was also claimed to exclude wafers from the investigation as an alternative if monowafers would not be excluded (see recitals 42 to 44 below).

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(28) The wafer-cell-module production is one single production process with different production steps. Modules, cells and wafers determine together the characteristics of the finished product (i.e. modules). The investigation showed that the wafers and cells production is directly and exclusively dedicated to produce modules; modules, cells and wafers share the same physical, chemical and technical characteristics (determined by the raw material used) and have the same basic end uses, i.e. are sold for integration into PV solar systems. The modules performance is directly linked to the performance of the wafers and cells.

(29) The Notice of Initiation of the investigation clearly expressed that modules, cells and wafers constitute the product under investigation. Interested parties had therefore full opportunity to defend their interests on the basis of the product concerned as defined. On these grounds, the arguments were rejected.

(ii) Different nomenclature

(30) It was further claimed that modules, cells and wafers could not be considered as a single product as they have several different eight-digit CN codes, six-digit subheading, four-digit HS heading and two-digit chapter levels, and they are also found in different sections of the HS Nomenclature. This argument is, as such, irrelevant in order to determine the product scope of an anti-dumping investigation which is based on the physical characteristics of the product concerned.

(iii) Value added of cells

(31) Several parties claimed that the value added in the cell conversion process accounts for the largest part of the value of a module and therefore cells must be considered as a separate product.

(32) The investigation revealed that the cells production is the most technologically sophisticated part in the production process. However, it also showed that the three processing steps are linked to each other and the value added is not concentrated in a particular stage of the production process but is spread over the whole production process. On these grounds, the claim was rejected.

(iv) Separate merchant markets

(33) Some interested parties claimed that modules, cells and wafers have separate merchant markets and therefore they should be treated as different products which would also be demonstrated by the fact that a large number of producers are not vertically integrated.

(34) Modules, cells and wafers cannot be considered as separate products whose prices fluctuate only depending on market factors. As a matter of fact their prices are strictly interconnected and affected by the polysilicon price. Likewise, as it has been explained above in recitals 23 to 25 above, the product concerned is produced in one single production process with different steps. The fact that some producers are not vertically integrated is due only to business decision and economies of scale and does not reverse this conclusion. On these grounds, this argument had to be rejected.

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(v) End use and interchangeability

(35) Several interested parties claimed that modules, cells and wafers must be treated as different products given that they have different end uses and they were not interchangeable.

(36) As mentioned above the investigation showed that the wafer-cell-module production process is one single production process and therefore the question of interchangeability between different steps of a single production process is not applicable. Moreover, modules, cells and wafers have the same end use, converting sunlight into electricity and therefore cannot be used in other applications.

(vi) Distribution channels

(37) One interested party claimed that modules, cells and wafers do not share the same distribution channels and should therefore not be considered as one single product. The investigation showed that modules, cells and wafers can be distributed within different or similar distribution channels. However, the main criteria to define a single product are the same physical, chemical and technical characteristics and end uses. Considering recitals 27 to 29 above, it is concluded that therefore different distribution channels are not considered as a determining element. The argument should therefore be rejected.

(vii) Consumer perception

(38) It was claimed that modules, cells and wafers differ substantially in terms of consumer perception and therefore they should not be considered as one single product.

(39) Likewise as above the main criteria to define a single product are the same physical, chemical and technical characteristics and end uses. Considering recitals 27 to 29 above it is concluded that therefore different consumer perception is not considered as a determining element. The argument should therefore be rejected.

(viii) Thin film products

(40) One interested party claimed that thin film PV products should be included in the definition of product concerned, arguing that they share the same basic physical, chemical and technical characteristics and the same basic end uses.

(41) Thin film PV products are clearly excluded from the product definition (see recital 21 above). Indeed, thin film PV products have different physical, chemical and technical characteristics compared to the product concerned. They are produced via a different production process and not from crystalline silicon which is the main raw material to produce modules, cells and wafers. They have lower conversion efficiency and a lower wattage output and therefore they are not suitable for the same types of applications than those of the product concerned. On these grounds, the arguments had to be rejected.

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(ix) Exclusion of monowafers

(42) One interested party claimed that monowafers should be excluded from the definition of the product concerned, as they have different physical, chemical and technical characteristics than multiwafers. It was claimed that they have differences in the crystal structure, in the shape and in the aspect. Moreover, it was claimed that there was no Union production of monowafers.

(43) The investigation found that monowafers are of a higher quality than multiwafers, albeit issued from similar production processes using the same main raw material (polysilicon). Therefore it is concluded that monowafers and multiwafers have the same basic physical, chemical and technical characteristics.

(44) The investigation showed that the basic end uses are the same, as both monowafers and multiwafers are exclusively dedicated to the production of solar cells (mono and multi accordingly) and resulting in the production of solar modules (mono and multi accordingly). There are no substantial differences between the two types of wafers and they are interchangeable, they both can be used to produce cells. In addition, as to the claim that there was no production of monowafers in the Union, the investigation showed that both monowafers and multiwafers are produced in the Union. On these grounds, this argument has to be rejected.

(x) Semi-finished products

(45) Furthermore it was claimed that wafers and cells should be considered as two semi-finished feeder products while modules are end products, therefore they should not be considered as one single product.

(46) As mentioned above, the main criteria to define a single product are the same physical, chemical and technical characteristics and end uses. Considering recitals 27 to 29 above it is concluded that therefore the difference between semi-finished or finished products is not considered as a determining element. The argument should therefore be rejected.

(xi) Solar chargers

(47) One interested party requested the exclusion of solar panels dedicated solely to 12V battery charging on the basis that they have a different end use than the modules for grid connection due to the fact that they generate much lower voltage and therefore are not suitable for grid connection.

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(48) According to the Notice of Initiation solar chargers that consist of less than six cells, are portable and supply electricity to devices or charge batteries are excluded from the product under investigation. Modules of more than six cells dedicated only to battery charging have the same basic characteristics and performance as the modules for grid connection. They use an open voltage circuit which has a lower voltage than the circuit used in modules for grid connection. Despite this difference the investigation has revealed that this type of modules can be connected to the grid. The lower voltage can be easily compensated by an increase in dimension and/or number of cells. Therefore modules dedicated to battery charging, and consisting of more than six cells, fall within the definition of the product concerned.

(xii) Conclusion

(49) On the basis of the above, it is provisionally concluded that crystalline silicon PV modules or panels and cells and wafers, of the type used in crystalline silicon PV modules or panels, as described above, constitute a single product. However, the Commission will further investigate the question as to whether modules, cells and wafers constitute one single or two or three separate products. It therefore invites all interested parties to make their views known on this question, taking into account the provisional conclusion reached by the Commission at this stage. In any event, even if they were ultimately found to constitute two or three different products, the current investigation would cover all of these different products, and definitive measures could be imposed on modules, cells and wafers independently of the question whether they constitute one or several products.

C. **DUMPING**

1. **The PRC**

1.1. *Market economy treatment*

(50) Pursuant to Article 2(7)(b) of the basic Regulation, in anti-dumping investigations concerning imports originating in the PRC, normal value shall be determined in accordance with Article 2(1) to (6) for those producers which were found to meet the criteria laid down in Article 2(7)(c) of the basic Regulation.

(51) Briefly, and for ease of reference only, these criteria are set out below:

(i) business decisions are made in response to market conditions and without significant State interference, and costs reflect market values;

(ii) firms have one clear set of basic accounting records, which are independently audited, in line with international accounting standards and applied for all purposes;

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(iii) there are no significant distortions carried over from the former non-market economy system;

(iv) legal certainty and stability is provided by bankruptcy and property laws; and

(v) currency exchanges are carried out at the market rate.

(52) In the present investigation all sampled exporting producers requested MET pursuant to Article 2(7)(b) of the basic Regulation and replied to the MET claim form within the given deadlines.

(53) The Commission sought all the information deemed necessary and verified all the information submitted in the MET claims at the premises of the companies in question.

(54) The verification established that all seven exporting producers (groups of companies) claiming MET did not meet the requirements of the criteria laid down in Article 2(7)(c) of the basic Regulation.

(55) All seven groups of companies benefited from preferential tax regime(s) and grants and consequently have failed to demonstrate not to be subject to significant distortions carried over from the non-market economy system and therefore did not fulfil the requirements of criterion 3 of the MET assessment.

(56) Six groups of companies failed to demonstrate that their accounts would be independently audited in line with international accounting standards and therefore did not fulfil the requirements of criterion 2 of the MET assessment.

(57) One group of companies failed to demonstrate that all its companies would be subject to bankruptcy laws and did not fulfil the requirements of criterion 4 of the MET assessment.

(58) In addition, three groups of companies have not been in a position to demonstrate that they are free from significant State interference and did not fulfil the requirements of criterion 1 of the MET assessment.

(59) Following the disclosure of MET findings, comments were received from all sampled companies.

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(60) Two groups of companies made a procedural comment and claimed that the MET determination was made out of time, i.e. after the three-month period laid down in Article 2(7)(c) of the basic Regulation and that the investigation therefore should be terminated without delay. In support of the claim they relied on the Court of Justice's judgments in the Brosmann ([1]) and Aokang ([2]) shoes cases.

(61) First, it is recalled that the Brosmann and Aokang cases are not pertinent for the assessment of the legality of the MET analysis in the investigation at hand since those cases, contrary to this investigation, relate to situations where the MET assessments were not conducted at all.

(62) Furthermore, the Brosmann and Aokang cases are not relevant for the assessment of the legality of the investigation at hand, as the basic Regulation has meanwhile been amended. Article 2(7) of the basic Regulation, as amended, provides that the Commission shall only make MET determinations in respect of companies included in a sample pursuant to Article 17 of the basic Regulation and that it shall make such a determination within seven, and in any event within eight, months of the initiation of the investigation. This amended Article is applicable to all new and pending investigations as from 15 December 2012, including therefore the present one.

(63) In any event, the interpretation of the standing case-law that there was no infringement per se of the right to a MET determination, notwithstanding the fact that the three month time limit was not respected, must be upheld.

(64) The main substantial comments received concerned the preferential tax regime and grants. Exporters did not contest the facts established, but questioned their importance for the fulfilment of the MET criterion 3. In particular, they argued that State benefits do not represent a significant proportion of their respective turnovers.

(65) It is noted in this regard that an income tax system that treats favourably certain companies deemed strategic by the Government is clearly not one of a market economy. Such a system is still heavily influenced by State planning. It is also noted that distortions introduced by income tax reductions are significant, as they completely change the amount of pre-tax profits the company has to achieve in order to be attractive to investors. The distortions are also permanent, and the absolute benefit received during the investigation period is, because of the nature of the advantage, irrelevant for assessing whether the distortion is 'significant'. Rather, the assessment of the significance has to be based on the overall impact of the measure on financial and economic situation of the company.

([1]) Court of Justice judgment of 2 February 2012 in Case C-249/10 P, *Brosmann Footwear HK and others v Council*.

([2]) Court of Justice judgment of 15 November 2012 in Case C-247/10 P, *Zhejiang Aokang Shoes Co. Ltd v Council*.

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(66) With regard to criterion 2, three groups of companies claimed that they complied with the respective rules of the international accounting standards since their US consolidated accounts were fully in line with those standards. Some companies also claimed that, in general, their accounts were in compliance with Chinese accounting standards, which they consider to be equivalent to the international ones. This issue at hand, however, is not whether Chinese accounting standards are in line with international accounting standards. The issue at hand is whether the accounts comply with the applicable accounting standards or not. In particular, those comments failed to address the fact that, with regard to the individual financial statements of the Chinese companies in question, a number of international accounting standards (and the corresponding Chinese equivalent), including in particular inventory depreciation and disclosure of related parties' transactions, were found to be violated.

(67) With regard to criterion 1, taking into account comments received from the parties and in the light of the judgment Case C-337/09 P ([1]), it is concluded that this criterion is met by all companies. However, overall MET determination for all sampled exporters remains unchanged since they still fail to meet the requirements of criteria 2 and 3.

(68) With regard to criterion 4, the company group referred to in recital 57 above could demonstrate that a bankruptcy proceeding was initiated against the main Chinese group company in the meantime. It is therefore concluded that this criterion is met by this company group. However, overall MET determination for this company group remains unchanged since they fail to meet the requirements of criteria 2 and 3.

(69) In conclusion, it has not been shown that MET criteria 2 and/or 3 were fulfilled by either of the sampled exporting producers. Therefore, MET cannot be granted to any of these companies.

1.2. *Individual examination*

(70) Claims for individual examination pursuant to Article 17(3) of the basic Regulation were submitted by 18 cooperating exporting producers or groups of exporting producers not selected in in the sample.

(71) Given the high number of the claims received, the Commission has provisionally concluded that individual examinations would be unduly burdensome and would prevent completion of the investigation in good time. Consequently, it was provisionally decided not to accept any of the claims for individual examination.

1.3. *Analogue country*

(72) According to Article 2(7)(a) of the basic Regulation, normal value for the exporting producers not granted MET shall be established on the basis of the price or constructed value in a market economy third country ('analogue country').

([1]) Judgment in Case C-337/09 P, *Council v Zhejiang Xinan Chemical Industrial Group Co. Ltd*.

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(73) In the Notice of Initiation the Commission indicated its intention to use the USA as an appropriate analogue country for the purpose of establishing normal value for the PRC and invited all interested parties to comment thereon.

(74) A number of exporters and importers have submitted comments on the choice of the analogue country arguing that the USA would not be a suitable analogue country, mainly due to the fact that the US market was protected from Chinese imports during part of the IP by anti-dumping and anti-subsidy measures.

(75) Interested parties proposed Taiwan, India and South Korea as more suitable analogue countries. Following those comments, it was decided to broaden the analysis regarding the identification of a suitable analogue country. As a result, all major producers of solar panels were approached. In total 34 companies in India, 9 companies in Japan, 15 companies in Malaysia, 2 companies in Mexico, 34 companies in Korea, 9 companies in Singapore, 43 companies in Taiwan and 21 companies in the USA were contacted.

(76) Replies were received from two companies in India, two in Taiwan and two in the USA. As the companies in Taiwan almost exclusively produced PV cells while the Chinese exports are mainly in the form of modules, and the USA was considered unsuitable in light of the comments received, it was provisionally decided to use India as analogue country. It should be noted that the Commission may revisit this issue if the further investigation reveals that modules, cells and wafers constitute two or three different products. In particular, as India does not produce wafers, a different analogue country may have to be chosen for wafers.

(77) One Indian producer provided an incomplete reply. Therefore, the information submitted by this company could not be used to establish normal value. However, the information submitted by that company and verified could be used to confirm that the information submitted by the fully cooperating analogue country producer was indeed representative of the Indian market.

1.4. *Normal Value*

(78) Since no sampled Chinese exporter was granted MET, normal value was established pursuant to the provisions of Article 2(7)(a) of the basic Regulation, using India as analogue market economy third country.

(79) First, the product types sold domestically by the analogue country producer that were identical or directly comparable with the types sold for export to the Union were identified.

(80) The Commission subsequently examined for the analogue country producer whether each type of the like product sold domestically could be considered as being sold in the ordinary course of trade. This was done by establishing for each product type the proportion of profitable sales to independent customers on the domestic market during the IP.

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(81) Where the sales volume of a product type, sold at a net sales price equal to or above the calculated cost of production, represented more than 80 % of the total sales volume of that type, and where the weighted average sales price of that type was equal to or higher than the cost of production, normal value was based on the actual domestic price. This price was calculated as a weighted average of the prices of all domestic sales of that type made during the IP.

(82) Where the volume of profitable sales of a product type represented 80 % or less of the total sales volume of that type, or where the weighted average price of that type was below the cost of production, normal value was based on the actual domestic price, calculated as a weighted average of profitable sales of that type only.

(83) Where the product types were all sold at a loss, it was considered that they were not sold in the ordinary course of trade.

(84) For sales of product types not made in the ordinary course of trade, as well as for product types which were not sold on the domestic market, a constructed normal value was used.

(85) To construct normal value, the weighted average selling, general and administrative ('SG&A') expenses incurred and the weighted average profit realised by the sole fully cooperating analogue country producer on domestic sales of the like product, in the ordinary course of trade during the investigation period, was added to its own average cost of production during the investigation period. Where necessary, the costs of production and SG&A expenses were adjusted, before being used in the ordinary course of trade test and in constructing normal values.

(86) For solar wafers, normal value could not be established using the methodology described in recitals 79 to 85 above since none of the cooperating Indian producers produced solar wafers. It was verified whether the normal value could be established on the basis of a closely resembling product, applying necessary adjustments for differences in physical properties, if necessary. In the case of solar wafers, the closest resembling product would be a solar cell. However, wafers need to undergo significant processing to become cells. Moreover, following this method would require significant adjustments which cannot be reliably quantified. Therefore, the normal value of a cell cannot be used as a basis for calculating a normal value for a wafer. As an alternative, it was considered to use prices of wafers sold by producers from market economy countries on the Indian market, as these prices are representative for the market conditions prevailing on the market for wafers in India. As South Korea is the largest market economy supplier of wafers

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to the analogue country producers, normal value is established on the basis of the prices of South Korean wafers on the Indian market.

1.5. *Export price*

(87) The exporting producers made export sales to the Union either directly to independent customers or through related companies located in the Union.

(88) Where export sales to the Union were made directly to independent customers in the Union, export prices were established on the basis of the prices actually paid or payable for the product concerned in accordance with Article 2(8) of the basic Regulation.

(89) Where export sales to the Union were made through related companies located in the Union, export prices were established on the basis of the first resale prices of these related companies to independent customers in the Union, pursuant to Article 2(9) of the basic Regulation. Adjustments were made for all costs incurred between importation and resale including sales, general and administrative expenses and profit. With respect to profit margin, the profit realised by the cooperating unrelated importer of the product concerned was used since the actual profit of the related importer was not considered reliable because of the relationship between the exporting producer and the related importer.

1.6. *Comparison*

(90) The comparison between normal value and export price was made on an ex-works basis.

(91) For the purpose of ensuring a fair comparison between the normal value and the export price, due allowance in the form of adjustments was made for differences affecting prices and price comparability in accordance with Article 2(10) of the basic Regulation.

(92) Appropriate adjustments for physical characteristics, indirect taxes, transport, insurance, handling loading and ancillary costs, packing, credit, commissions and bank charges were made in all cases where they were found to be reasonable, accurate and supported by verified evidence.

1.7. *Dumping margins*

(93) For the sampled companies, the weighted average normal value of each type of the like product established for the analogue country was compared with the weighted average export price of the corresponding type of the product concerned, as provided for in Article 2(11) and (12) of the basic Regulation.

(94) The weighted average dumping margin of the cooperating exporting producers not included in the sample was calculated in accordance with the provisions of Article 9(6) of the basic Regulation. This margin was established as a weighted average of the margins established for the sampled exporting producers.

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(95) With regard to all other exporting producers in the PRC, the dumping margins were established on the basis of the facts available in accordance with Article 18 of the basic Regulation. To this end the level of cooperation was first established by comparing the volume of exports to the Union reported by the cooperating exporting producers with the total volume of Chinese imports into the Union.

(96) As the cooperation accounted for more than 80 % of total Chinese exports to the Union, the level of cooperation can be considered high. Since there was no reason to believe that any exporting producer deliberately abstained from cooperating, the residual dumping margin was set at the level of the sampled company with the highest dumping margin. This was considered appropriate since there were no indications that the non-cooperating companies were dumping at a lower level, and in order to ensure the effectiveness of any measures.

(97) On this basis the provisional weighted average dumping margins expressed as a percentage of the CIF Union frontier price, duty unpaid, are as follows:

Company	Dumping Margin
Changzhou Trina Solar Energy Co. Ltd; Trina Solar (Changzhou) Science and Technology Co. Ltd,	93,3 %
Delsolar (Wujiang) Co. Ltd,	112,6 %
Jiangxi LDK Solar Hi-Tech Co. Ltd; LDK Solar Hi-Tech (Hefei) Co. Ltd; LDK Solar Hi-Tech (Nanchang) Co. Ltd; LDK Solar Hi-Tech (Suzhou) Co. Ltd,	88,4 %
JingAo Solar Co. Ltd; Shanghai JA Solar Technology Co. Ltd, JA Solar Technology Yangzhou Co. Ltd; Shanghai Jinglong Solar Energy Technology Co. Ltd; Hefei JA Solar Technology Co. Ltd,	99,0 %
Jinzhou Yangguang Energy Co. Ltd; Jinzhou Rixin Silicon Materials Co. Ltd; Jinzhou Youhua Silicon Materials Co. Ltd; Jinzhou Huachang Photovoltaic Technology Co. Ltd; Jinzhou Jinmao Photovoltaic Technology Co. Ltd,	48,1 %
Wuxi Suntech Power Co. Ltd; Luoyang Suntech Power Co. Ltd; Suntech Power Co. Ltd; Wuxi Sun-Shine Power Co. Ltd; Zhenjiang Ren De New Energy Science Technology Co. Ltd; Zhenjiang Rietech New Energy Science Technology Co. Ltd,	71,5 %
Yingli Energy (China) Co. Ltd; Hainan Yingli New Energy Resources Co. Ltd; Baoding Tianwei Yingli New Energy Resources Co. Ltd,	96,2 %
Other cooperating companies (Annex)	88,5 %
All other companies	112,6 %

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D. **INJURY**

1. **Definition of the Union industry and Union production**

(98) The like product was manufactured by around 220 producers in the Union. They constitute the Union industry within the meaning of Article 4(1) of the basic Regulation and will hereafter be referred to as 'the Union industry'.

(99) All available information concerning the Union industry, including information provided in the complaint, macroeconomic data provided by Europressedienst, an independent consultancy firm ('the consultant') and the verified questionnaire responses of the sampled Union producers were used to establish the total Union production for the IP since complete public information on production was not available. As modules, cells and wafers are imported into the Union under customs headings covering other products not subject to the present investigation, Eurostat could not be used to determine import volumes and values. Import volumes and values were based on the data provided by the consultant. When possible, the data received from the consultant was cross-checked with public sources and with the verified questionnaire replies.

(100) On this basis, the total Union production was estimated to be around 4 GW for modules, 2 GW for cells and 2 GW for wafers during the IP.

(101) As indicated in recital 10 above, 10 Union producers were selected in the sample representing 18-21 % of the total Union production of modules, 17-24 % of total Union production of cells and 28-35 % of total Union production of wafers.

2. **Determination of the relevant Union market**

(102) Part of the Union industry is vertically integrated and a substantial part of the Union industry's production was destined for captive use, in particular the production of cells and wafers.

(103) In order to establish whether or not the Union industry suffered material injury and to determine consumption and other economic indicators, it was examined whether and to what extent the subsequent use of the Union industry's production of the like product ('captive' use) had to be taken into account.

(104) In order to provide a picture as complete as possible of the situation of the Union industry, data have been analysed for the entire activity of the like product and it was subsequently determined whether the production was destined for captive use or free market.

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(105) It was found that the following economic indicators related to the Union industry should be examined by referring to the total activity (including the captive use of the industry): consumption, sales volume, production, production capacity, capacity utilisation, growth, investments, stocks, employment, productivity, cash flow, return on investment, ability to raise capital and magnitude of the dumping margin. This is because the investigation showed that those indicators could reasonably be examined by referring to the whole activity as the production destined for captive use was equally affected by the competition of imports from the country concerned. Hereinafter the captive and the free market together are referred to as 'total market'.

(106) As regards profitability, the analysis focused on the free market since prices in the captive market were found not to always reflect market prices and had an impact on this indicator.

3. **Union consumption**

(107) The Union consumption comprised the total volume of imports of the product concerned and the volume of total sales of the like product in the Union, including those destined for captive use. No complete data for the total sales of the Union industry on the Union market were available. Furthermore, imports into the Union were registered under customs headings covering other products not subject to the present investigation. Consequently, Eurostat could not be used to determine import volumes and values. Therefore, the Union consumption was based on data provided by the consultant mentioned in recital 99 above and cross-checked with public sources such as market researches and publicly available studies and with the verified questionnaire replies.

(108) Union consumption developed as follows:

Table 1-a

Union consumption for modules (in MW)

	2009	2010	2011	IP
Total market	5 465	12 198	19 878	17 538
Index (2009 = 100)	*100*	*223*	*364*	*321*

Source: Europressedienst

Table 1-b

Union consumption for cells (in MW)

	2009	2010	2011	IP
Total market	2 155	3 327	4 315	4 021
Index (2009 = 100)	*100*	*154*	*200*	*187*

Source: Europressedienst

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Table 1-c

Union Consumption for wafers (in MW)

	2009	2010	2011	IP
Total market	1 683	2 376	2 723	2 163
Index (2009 = 100)	*100*	*141*	*162*	*129*

Source: Europressedienst

(109) In the period considered, the total Union consumption increased by 221 % for modules, 87 % for cells and 29 % for wafers between 2009 and the IP, but decreased in the IP compared to 2011. In overall terms the Union consumption of the product under investigation grew significantly when compared to its 2009 level.

4. **Imports from the country concerned**

4.1. *Volume and market share of the imports from the country concerned*

(110) Imports into the Union from the country concerned developed as follows:

Table 2-a

Imports of modules from the PRC (in MW)

	2009	2010	2011	IP
Import volumes from the PRC	3 425	8 606	15 810	13 986
Index (2009 = 100)	*100*	*251*	*462*	*408*
Market share in *total* market	63 %	71 %	80 %	80 %

Source: Europressedienst

Table 2-b

Imports of cells from the PRC (in MW)

	2009	2010	2011	IP
Import volumes from the PRC	175	530	970	1 019
Index (2009 = 100)	*100*	*303*	*554*	*582*
Market share in *total* market	8 %	16 %	22 %	25 %

Source: Europressedienst

Table 2-c

Imports of wafers from the PRC (MW)

	2009	2010	2011	IP
Import volumes from the PRC	95	523	880	711
Index (2009 = 100)	*100*	*551*	*926*	*748*
Market share in *total* market	6 %	22 %	32 %	33 %

Source: Europressedienst

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(111) Over the period considered, import volumes to the Union from the country concerned increased considerably by 308 % for modules, 482 % for cells and 648 % for wafers. This led to significant market share increases of the imports from the country concerned into the Union. More specifically, the market shares of imports from the country concerned increased from 63 to 80 % for modules, from 8 to 25 % for cells and from 6 to 33 % for wafers. In overall terms the imports of the product concerned from the PRC increased significantly in volume and market share between 2009 and the IP.

(112) It should be noted that the increase in imports from the country concerned was much higher than the increase in the Union consumption for the product concerned. Consequently, the exporting producers were able to benefit from Union's growing consumption and their position on the market became stronger due to larger market shares.

4.2. *Prices of imports and price undercutting*

(113) The average price of imports into the Union from the country concerned developed as follows:

Table 3-a

Import price of modules from the PRC (in EUR/kW)

	2009	2010	2011	IP
Import prices	2 100	1 660	1 350	764
Index (2009 = 100)	*100*	*79*	*64*	*36*

Source: Europressedienst and verified sample questionnaire replies

Table 3-b

Import price of cells from the PRC (in EUR/kW)

	2009	2010	2011	IP
Import prices	890	650	620	516
Index (2009 = 100)	*100*	*73*	*70*	*58*

Source: Europressedienst and verified questionnaire replies

Table 3-c

Import price of wafers from the PRC (in EUR/kW)

	2009	2010	2011	IP
Import prices	550	400	400	333
Index (2009 = 100)	*100*	*73*	*73*	*60*

Source: Europressedienst and verified questionnaire replies

(114) The average import price from the PRC dropped significantly over the period considered for modules, cells and wafers. For modules, the average import price decreased by 64 %, from 2 100 EUR/kW in 2009 to 764 EUR/kW in the IP. Likewise, the average import price of cells from the PRC dropped by 42 %, from 890 EUR/kW to 516 EUR/kW. Over the period considered, the average import price of wafers decreased by 40 %, from 550 EUR/kW to 333 EUR/kW.

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(115) In overall terms, the price of the product concerned decreased significantly between 2009 and IP.

(116) In order to determine price undercutting during the IP, the weighted average sales prices per product type of the sampled Union producers charged to unrelated customers on the Union market, adjusted to an ex-works level, were compared to the corresponding weighted average prices per product type of the imports from the cooperating Chinese exporting producers to the first independent customer on the Union market, established on a CIF basis, with appropriate adjustments for post-importation costs, i.e. custom clearance, handling and loading costs. The average post-importation costs of two sampled importers of modules were used. The fact that their main activity was not imports, but installation of modules did not have as a consequence to render the data unrepresentative.

(117) The price comparison was made on a type-by-type basis for transactions at the same level of trade, duly adjusted where necessary, and after deduction of rebates and discounts. The result of the comparison, when expressed as a percentage of the sampled Union producers' turnover during the IP, showed weighted average undercutting margins within the ranges of 17,5-30,7 % for modules, 4-24,2 % for cells, 16,6-21,6 % for wafers and 11,2-27,5 % in overall terms for the product concerned.

5. **Economic situation of the Union industry**

5.1. *General*

(118) Pursuant to Article 3(5) of the basic Regulation, the Commission examined all relevant economic factors and indices having a bearing on the state of the Union industry.

(119) As mentioned in recitals 7 to 10 above, sampling was used for the examination of injury suffered by the Union industry.

(120) For the purpose of the injury analysis, the Commission distinguished between macroeconomic and microeconomic injury indicators. The Commission analysed the macroeconomic indicators for the period considered on the basis of the data obtained from the independent consultant mentioned in the recital 99 above relating to all Union producers. The Commission analysed the microeconomic indicators on the basis of the sampled Union producers' verified questionnaire responses.

(121) For the purpose of this investigation, the following macroeconomic indicators were assessed on the basis of information relating to all producers of the like product in the Union: production, production capacity, capacity utilisation, sales volume, market share, growth, employment, productivity, magnitude of the dumping margin and recovery from past dumping.

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(122) The following microeconomic indicators were assessed on the basis of information relating to the sampled producers of the like product in the Union: average unit prices, unit cost, labour costs, inventories, profitability, cash flow, investments, return on investments and ability to raise capital.

(123) One interested party claimed that market conditions of the product concerned differ per Member State and that therefore the injury analysis should be made at the level of each Member State separately. This allegation was not substantiated. In addition, the investigation did not reveal any particular circumstances justifying an injury analysis per Member State. This claim was therefore rejected.

5.2. *Macroeconomic indicators*

5.2.1. Production, production capacity and capacity utilisation

(124) The total Union production, production capacity and capacity utilisation developed as follows over the period considered:

Table 4-a

Modules — production, production capacity and capacity utilisation (MW)

	2009	2010	2011	IP
Production volume	2 155	3 327	4 315	4 021
Index (2009 = 100)	*100*	*154*	*200*	*187*
Production capacity	4 739	6 983	9 500	9 740
Index (2009 = 100)	*100*	*147*	*200*	*206*
Capacity utilisation	45 %	48 %	45 %	41 %

Source: Europressedienst

Table 4-b

Cells — production, production capacity and capacity utilisation (MW)

	2009	2010	2011	IP
Production volume	1 683	2 376	2 723	2 024
Index (2009 = 100)	*100*	*141*	*162*	*120*
Production capacity	2 324	3 264	3 498	3 231
Index (2009 = 100)	*100*	*140*	*151*	*139*
Capacity utilisation	72 %	73 %	78 %	63 %

Source: Europressedienst

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Table 4-c

Wafers — production, production capacity and capacity utilisation (MW)

	2009	2010	2011	IP
Production volume	1 600	2 677	2 553	2 017
Index (2009 = 100)	*100*	*167*	*160*	*126*
Production capacity	2 600	3 410	3 945	3 636
Index (2009 = 100)	*100*	*131*	*152*	*140*
Capacity utilisation	62 %	79 %	65 %	55 %

Source: Europressedienst

(125) The overall Union production of modules increased by 87 % during the period considered. Production reached a peak in 2011 and then dropped in the IP. The Union production of modules increased at a much slower pace than the growth in consumption, which more than tripled during the same period. Against the background of a significant increase in consumption, the Union producers doubled their production capacity for modules during the period considered. However, in spite of higher production levels, the Union industry's capacity utilisation rate decreased by 4 percentage points, reaching only 41 % during the IP.

(126) The Union production of cells increased by 20 % in overall terms during the period considered. It reached a peak in 2011 and decreased after that in the IP. The Union production of cells followed the trend of Union consumption with a slower increase until 2011 and then a more pronounced fall in the IP. In line with the evolution of Union consumption, the Union industry first increased their capacity by 51 % until 2011 and then this decreased during the IP. In overall terms, the capacity increased by 39 % during the period considered. The capacity utilisation rate increased until 2011 reaching a peak of 78 % and then decreased by 15 percentage points during the IP. Overall, the capacity utilisation of the Union industry of cells decreased over the period considered reaching 63 % during the IP.

(127) Over the period considered, the Union production of wafers increased by 26 % in overall terms. The Union production reached a peak in 2010 and then continuously decreased in 2011 and to even lower levels in the IP. In response to an increased Union consumption, the Union producers of wafers expanded their production capacity by 52 % until 2011 and then their capacity decreased in the IP. Nevertheless, the capacity production for wafers of the Union industry increased by 40 % in overall terms over the period considered. In spite of the increase in production, the rate of capacity utilisation of the Union industry of wafers increased until 2010 and then

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continuously decreased after that period, translating into an overall decrease of 7 percentage points over the period considered, reaching 55 % during the IP.

(128) Therefore, the Union industry expanded their capacity in response to an increased consumption. However, the Union industry's production levels increased at a much slower pace than the consumption, which led to a decrease of the capacity utilisation rates for the product concerned during the period considered.

5.2.2. Sales volumes and market share

(129) The Union industry's sales volume and market share developed as follows over the period considered:

Table 5-a

Modules — sales volume and market share (in MW)

	2009	2010	2011	IP
Sales volume on the Union market	1 037	1 890	2 683	2 357
Index (2009 = 100)	*100*	*182*	*259*	*227*
Market share	19 %	15 %	13 %	13 %

Source: Europressedienst

Table 5-b

Cells — sales volume and market share (in MW)

	2009	2010	2011	IP
Sales volume total market	1 470	1 913	2 245	1 545
Index (2009 = 100)	*100*	*130*	*153*	*105*
Market share	68 %	57 %	52 %	38 %

Source: Europressedienst

Table 5-c

Wafers — sales volume and market share (in MW)

	2009	2010	2011	IP
Sales volume total market	1 363	1 520	1 608	1 269
Index (2009 = 100)	*100*	*112*	*118*	*93*
Market share	81 %	64 %	59 %	59 %

Source: Europressedienst

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(130) During the period considered, the sales volume of modules increased by 127 %. However, in the context of an increase in consumption of 221 %, this was translated into a decrease of the Union industry's market share from 19 % in 2009 to 13 % during the IP. As regards cells, the Union industry's sales increased only marginally by 5 % while consumption increased by 87 % resulting in a market share reduction from 68 % in 2009 to 38 % in the IP. As regards wafers total volume of sales decreased by 7 % against an increased consumption, which translated into a decrease in market share for wafers from 81 % in 2009 to 59 % in the IP.

(131) In response to a growing consumption, the Union industry's sales of modules and cells grew much less than the imports from the country concerned while the sales of wafers decreased. Thus, the Union industry could not benefit from the growing consumption. As a consequence, the market shares for all three segments decreased over the period considered.

5.2.3. Employment and productivity

(132) Employment and productivity developed as follows during the period considered:

Table 6-a

Modules — employment and productivity

	2009	2010	2011	IP
Number of employees	11 779	15 792	17 505	16 419
(Index 2009 = 100)	*100*	*134*	*149*	*139*
Productivity (kW/ employee)	183	211	247	245
(Index 2009 = 100)	*100*	*115*	*135*	*134*

Source: Europressedienst

Table 6-b

Cells — employment and productivity

	2009	2010	2011	IP
Number of employees	5 281	5 937	5 641	4 782
(Index 2009 = 100)	*100*	*112*	*107*	*91*
Productivity (kW/ employee)	319	400	483	423
(Index 2009 = 100)	*100*	*126*	*151*	*133*

Source: Europressedienst

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Table 6-c

Wafers — employment and productivity

	2009	2010	2011	IP
Number of employees	1 944	3 853	4 291	3 920
(Index 2009 = 100)	*100*	*198*	*221*	*202*
Productivity (kW/ employee)	823	695	595	515
(Index 2009 = 100)	*100*	*84*	*72*	*63*

Source: Europressedienst

(133) Employment increased between 2009 and the IP for modules and wafers by 39 % and 102 %, respectively, while it decreased by 9 % for cells. However, it is noted that employment increased until 2011 and then decreased during the IP for modules and wafers. For cells, employment increased until 2010 and then decreased during 2011 and IP. The total productivity showed positive trends for modules and cells increasing by 34 % and 33 %. This is partly due to the efforts of the Union industry to respond to the pressure of the dumped imports from the PRC. However, the total productivity for wafers decreased by 37 % over the period considered.

(134) Therefore, in line with the decrease in Union production of modules and wafers between 2011 and the IP, employment for modules and wafers also decreased during the same period. For cells, the employment increased until 2010 and then decreased in 2011 and in the IP while the Union production of cells grew steadily until 2011 and then started to fall.

5.2.3.1. Magnitude of the dumping margin and recovery from past dumping

(135) All dumping margins are significantly above the *de minimis* level. As regards the impact of the magnitude of the actual margins of dumping on the Union industry, given the volume and prices of imports from the country concerned, the impact can be considered substantial.

(136) Since this is the first anti-dumping investigation regarding the product concerned, recovery from past dumping is not relevant.

5.3. *Microeconomic indicators*

5.3.1. Prices and factors affecting prices

(137) The average sales prices of the sampled Union producers to unrelated customers in the Union developed as follows over the period considered:

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Table 7-a

Modules — average sales prices in the Union

	2009	2010	2011	IP
Average sales price in the Union on free market (EUR/kW)	2 198,75	1 777,15	1 359,35	1 030,83
(Index 2009 = 100)	*100*	*81*	*62*	*47*
Cost of production (EUR/kW)	2 155,02	1 599,44	1 400,13	1 123,60
(Index 2009 = 100)	*100*	*74*	*65*	*52*

Source: verified questionnaire replies

Table 7-b

Cells — average sales prices in the Union

	2009	2010	2011	IP
Average sales price in the Union on free market (EUR/kW)	1 525,09	1 160,99	777,62	474,91
(Index 2009 = 100)	*100*	*76*	*51*	*31*
Cost of production (EUR/kW)	1 647,10	1 021,67	1 057,56	745,61
(Index 2009 = 100)	*100*	*62*	*64*	*45*

Source: verified questionnaire replies

Table 7-c

Wafers — average sales prices in the Union

	2009	2010	2011	IP
Average sales price in the Union on free market (EUR/kW)	709	564	515	426
(Index 2009 = 100)	*100*	*80*	*73*	*60*
Cost of production (EUR/kW)	631	496	520	648
(Index 2009 = 100)	*100*	*78*	*82*	*103*

Source: verified questionnaire replies

(138) Sales prices fell sharply i.e. by 53 % for modules, by 69 % for cells and by 40 % for wafers during the period considered. Sales prices fell continuously throughout the period considered, but the decrease in prices was particularly pronounced during the IP where they collapsed to unsustainable levels. Over the period considered the cost of production fell by 48 % for modules

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and by 55 % for cells. For wafers, cost of production fell in 2010 as compared to 2009, but increased in 2011 while still remaining below the level of 2009. In the IP costs increased further and reached slightly higher levels than in 2009 which can be mainly explained by a production stop during the IP. The Union industry could neither benefit from its continuous efforts to increase its cost efficiency nor from the impact of the decrease in cost of the main raw material, polysilicon. This was mainly due to the increasing price pressure of the dumped imports which had a negative effect on the sales prices of the Union industry which decreased even more than efficiency gains. This can be seen in the negative trend of the Union industry's profitability as described in recital 144 below. Overall there was a significant decrease of the average sales price and the cost of production of the like product (except for wafers) with devastating effect on Union industry's profitability.

5.3.2. Labour costs

(139) The average labour costs of the sampled Union producers developed as follows over the period considered:

Table 8-a

Modules — average labour costs per employee

	2009	2010	2011	IP
Average labour cost per employee (EUR)	38 194	40 793	41 781	42 977
(Index 2009 = 100)	*100*	*107*	*110*	*113*

Source: verified questionnaire replies

Table 8-b

Cells — average labour cost per employee

	2009	2010	2011	IP
Average labour cost per employee (EUR)	49 677	49 357	49 140	49 350
(Index 2009 = 100)	*100*	*99*	*99*	*99*

Source: verified questionnaire replies

Table 8-c

Wafers — average labour cost per employee

	2009	2010	2011	IP
Average labour cost per employee (EUR)	39 409	40 933	39 323	46 060
(Index 2009 = 100)	*100*	*104*	*100*	*117*

Source: verified questionnaire replies

(140) Between 2009 and the IP, the average labour cost per employee for modules continuously increased overall by 13 %. Regarding cells, the average labour cost remained stable throughout the

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period considered and slightly decreased by 1 % between 2009 and 2010 but then remained stable until the IP. Regarding wafers, the average labour cost per employee varied, increased between 2009 and 2010, decreased in 2011, but increased during the period considered overall by 17 % for the period considered. The overall increase of labour cost can be partly explained by the simultaneous increase in productivity (modules), the evolution of inflation and the social costs of some Union producers (wafers) linked to the downsizing of the industry between 2011 and the IP.

5.3.3. Inventories

(141) Stock levels of the sampled Union producers developed as follows over the period considered:

Table 9-a

Modules — inventories

	2009	2010	2011	IP
Closing Stocks (in kW)	28 612	40 479	74 502	65 415
(Index 2009 = 100)	*100*	*141*	*260*	*229*

Source: verified questionnaire replies

Table 9-b

Cells — inventories

	2009	2010	2011	IP
Closing Stocks (in kW)	16 995	23 829	76 889	68 236
(Index 2009 = 100)	*100*	*140*	*452*	*402*

Source: verified questionnaire replies

Table 9-c

Wafers — inventories

	2009	2010	2011	IP
Closing Stocks (in kW)	34 891	5 601	36 697	59 340
(Index 2009 = 100)	*100*	*16*	*105*	*170*

Source: verified questionnaire replies

(142) Stocks increased significantly, i.e. by 129 % for modules, by 302 % for cells and by 70 % for wafers over the period considered. Concerning modules, stocks increased continuously

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reaching very high levels in 2011 (by 160 %), while it decreased in the IP but still remaining at very high levels in comparison with the beginning of the period considered. Concerning cells, the development was even more pronounced, with an increase in stocks between 2009 and 2011 more than 350 %. Likewise, the stocks decreased during the IP but remained at very high levels in comparison with the beginning of the period considered. Concerning wafers, while the Union industry decreased its stocks between 2009 and 2010 by more than 80 % caused by the increase of their sales, closing stocks increased rapidly and reached levels beyond the level of 2009 and further increased by 65 percentage points in the IP.

(143) The investigation showed that given the adverse current situation, Union producers would tend to hold limited stocks for the like product, basing their production on orders. Therefore, the increase in stocks for the like product over the period considered is a relevant factor in establishing if the Union industry suffered material injury.

5.3.4. Profitability, cash flow, investments and return on investments, ability to raise capital

(144) Profitability and cash flow developed as follows over the period considered:

Table 10-a

Modules — profitability and cash flow

	2009	2010	2011	IP
Profitability of sales in the Union to unrelated customers (% of sales turnover)	2 %	10 %	– 3 %	– 9 %
Cash flow	13 %	10 %	12 %	3 %

Source: verified questionnaire replies

Table 10-b

Cells — profitability and cash flow

	2009	2010	2011	IP
Profitability of sales in the Union to unrelated customers (% of sales turnover)	– 8 %	12 %	– 36 %	– 57 %
Cash flow	75 %	52 %	– 0,3 %	– 46 %

Source: verified questionnaire replies

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Table 10-c

Wafers — profitability and cash flow

	2009	2010	2011	IP
Profitability of sales in the Union to unrelated customers (% of sales turnover)	11 %	12 %	– 1 %	– 52 %
Cash flow	39 %	47 %	32 %	– 19 %

Source: verified questionnaire replies

(145) Profitability of the sampled Union producers was established by expressing the pre-tax net profit of the sales of the like product to unrelated customers in the Union, as the percentage of the turnover of such sales.

(146) The profitability decreased sharply and turned to losses over the period considered for the like product. The profitability dropped by 11 percentage points for modules, by 49 percentage points for cells and by 63 percentage points for wafers.

(147) Profitability for the like product increased between 2009 and 2010 but then decreased significantly in 2011 where Union industry realised losses and further decreased significantly in the IP. Losses were particularly high for cells and wafers.

(148) The trend of net cash flow, which is the ability of the sampled Union producers to self-finance their activities, likewise followed a progressively negative trend between 2009 and the IP. Thus, decreasing by 10 percentage points for modules with a slight increase in 2011, the highest decrease of the cash flow occurred between 2011 and the IP. The decline of cash flow for cells and wafers was more pronounced than modules and reached significantly negative levels during the IP. Therefore, the cash flow for the like product decreased over the period considered.

(149) The figures below represent the evolution of investments and return on investments of the sampled Union producers in relation to the total market during the period considered:

Table 11-a

Modules — investments and return on investments

	2009	2010	2011	IP
Investments (EUR)	12 081 999	50 105 017	64 643 322	32 730 559
(Index 2009 = 100)	*100*	*415*	*535*	*271*
Return on investments	– 15 %	19 %	– 15 %	– 17 %

Source: verified questionnaire replies

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Table 11-b

Cells — investments and return on investment

	2009	2010	2011	IP
Investments (EUR)	31 448 407	34 451 675	10 234 050	6 986 347
(Index 2009 = 100)	*100*	*110*	*33*	*22*
Return on investments	– 4 %	10 %	– 20 %	– 19 %

Source: verified questionnaire replies

Table 11-c

Wafers — investments and return on investment

	2009	2010	2011	IP
Investments (EUR)	201 911 346	83 802 212	74 166 331	39 938 349
(Index 2009 = 100)	*100*	*42*	*37*	*20*
Return on investments	10 %	8 %	0 %	– 7 %

Source: verified questionnaire replies

(150) The table above shows that the Union industry increased its investments by 171 % for modules between 2009 and the IP. This was mainly linked to the significant additions of capacity. However, during the same period, the Union industry decreased its investments by 78 % for cells and 80 % for wafers; the investments made were mainly linked to R & D as well as improving and maintaining production technology and process in order to improve efficiency. Since the Union industry could not afford making additional investments for cells and wafers during the period considered, the level of investments during the IP was rather low. As investments were financed basically by cash flow and intercompany loans, the decrease in the cash flow had immediate effect on the level of investments made.

(151) The return on investments ('ROI') was expressed as the profit in per cent of the net book value of investments. ROI of the like product followed the similar negative trends as the other financial performance indicators between 2009 and the IP for all the three types of product. For cells and wafers, while there was an increase in 2009 and 2010, ROI decreased significantly in 2011 reaching negative levels. For modules, ROI was at negative levels throughout the period considered, except in 2010 where it reached 19 %. Overall, it decreased during the period considered reaching – 17 % in the IP for cells, i.e. by 1 %, however still remaining at significant negative levels, i.e. – 19 %. As for wafers ROI followed a continuously negative trend reaching – 7 % during the IP. Overall ROI for the like product showed negative trends during the period considered.

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(152) The ability to raise capital was analysed in relation to the total market and it has been found that there was a constant deterioration of the ability of the Union industry to generate cash for the like product and, consequently, a weakening of the financial situation of the Union industry.

5.3.5. Conclusion on injury

(153) The analysis of the situation of the Union industry showed a clear downward trend of all the main injury indicators. Against a generally increasing consumption, overall production increased for modules and cells in the period considered. Although the volume of sales increased, the market share of the Union industry shrank in the IP due to the higher increase of the consumption during the period considered. Average sales price fell sharply throughout the period considered, negatively impacting on all the financial performance indicators such as profitability, cash flow, return on investments and ability to raise capital.

(154) Over the period considered, the overall Union industry's sales volume increased. However, the increase in sales volumes of the Union industry was accompanied by a tremendous decrease in average sales price.

(155) During the period considered, imports of the interested parties from the PRC increased in terms of volumes and market share. At the same time, import prices continuously decreased, undercutting significantly the Union industry's average price on the Union market.

(156) Several interested parties claimed that the Union industry and in specific the sampled Union producers were performing well. It was claimed that the evolution of certain injury indicators, namely production volume, production capacity, sales and employment but even in some sampled producers' profitability, were increasing and would not show material injury. These allegations were not confirmed by the results of the investigation, which has shown clear downward trends of many injury indicators, relevant for the conclusion that the Union industry suffered material injury.

(157) In view of the above, the investigation confirmed in particular the fact that the sales prices are below the production costs, thus having a negative effect on the Union industry's profitability, reaching negative levels during the IP. It is concluded that should dumped imports continue to enter the Union market, the losses of the Union industry would be likely to lead to the permanent discontinuation of any sizeable Union production of the like product. This seems to be confirmed by the developments during and after the IP, i.e. some companies has declared insolvency and/or stopped temporarily or permanently production.

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(158) In the light of the foregoing, it is provisionally concluded that the Union industry suffered material injury within the meaning of Article 3(5) of the basic Regulation.

E. CAUSATION

1. Introduction

(159) In accordance with Article 3(6) and (7) of the basic Regulation it was examined whether the material injury suffered by the Union industry was caused by the dumped imports from the country concerned. Furthermore, known factors other than dumped imports, which might have injured the Union industry, were examined to ensure that any injury caused by those factors was not attributed to dumped imports.

(160) One interested party claimed that market conditions of the product concerned differ per Member State and that therefore the causality analysis should be made at the level of each Member State separately. National support schemes determine to a certain extent the size of the Member States' markets. The investigation has however also revealed that demand does not exclusively depend on support schemes. Depending on geographical location (sun exposure) and the electricity price at a given location, solar panels appear to have reached, or were at least close to, grid parity, which means that certain investments take place independently of support schemes. Therefore, it could not be established that market conditions depend exclusively on support schemes and this claim was therefore rejected.

2. Effect of dumped imports

(161) The investigation showed that dumped imports from the PRC increased dramatically over the period considered, increasing their volumes significantly by more than 300 % for modules and of 482 % for cells and 648 % for wafers and their market share by 17 percentage points for modules, by 17 percentage points for cells and by 27 percentage points for wafers. Therefore, it is confirmed that volume of imports and market share for the product concerned increased dramatically during the period considered. There was a clear coincidence in time between the increase in dumped imports and the loss of market share of the Union industry. The investigation also established that as mentioned in recital 117 above, the dumped imports undercut the prices of the Union industry during the IP.

(162) The investigation showed that the prices of the dumped imports decreased by 64 % for modules, by 42 % for cells and by 40 % for wafers during the period considered and led to an increase of undercutting. Against this price pressure, the Union industry underwent considerable effort to decrease its production costs. Despite these efforts the exceptionally low level of Chinese import prices forced the Union industry to further decrease its

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sales price to unprofitable levels. Thus, the profitability of the Union industry decreased dramatically during the period considered and showed losses during the IP.

(163) Based on the above, it is concluded that the presence of Chinese imports and the increase of the market share of dumped imports from the PRC at prices constantly undercutting those of the Union industry have had a determining role in the material injury suffered by the Union industry, which is reflected in particular in its poor financial situation and in the deterioration of most of the injury indicators.

3. **Effect of other factors**

3.1. *Imports from other third countries*

(164) The volume of imports from other third countries during the period considered for modules increased by 19 % while the market share decreased over the period considered from 18,4 to 6,8 %. Taiwan is the second largest exporter after the PRC.

(165) The volume of imports from other third countries for cells increased by 186 % during the period considered which translated in an increase of market share from around 24 % in 2009 to around 36 % during the IP. As for cells, Taiwan is second largest exporter after the PRC, by far exceeding import quantities and market shares from the other third countries, but still below those from the PRC.

(166) The volume of imports from other third countries for wafers decreased by 19 % during the period considered and market share from 13,4 % in 2009 to 8,5 % in the IP. As above, Taiwan is second largest exporter of wafers after the PRC. However, import levels and market share of Taiwan did not show significant increases and remained at low levels during the period considered.

(167) The import prices of third countries of modules, cells and wafers were on average higher than the average unit price of the Chinese imports. The information available as regards imports from Taiwan shows that the average import price for modules and wafers was higher than the average Chinese import price for modules and wafers, while the average import price for cells was in the same range as the average Chinese import price for cells. However, since no detailed price information per product type was available, the price comparison on an average basis can only be used as an indication but no firm conclusions can be drawn on this basis. Throughout the period considered, volume of imports of cells from Taiwan increased continuously, resulting in a gain of market share of around 14 percentage points. However, overall for the product under investigation, despite their increase in market share, the volumes were lower than PRC and their price levels were generally higher with the exception of cells

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during the IP. On these grounds, in particular in view of the import volumes and market shares from other third countries as well as their price levels, which are on average similar or higher than those from the Union industry it can be provisionally concluded that third country imports did not break the causal link between the dumped imports and the injury suffered by the Union industry.

Table 12

Imports and market shares from other third countries

Modules	2009	2010	2011	IP
Volume of imports from all other third countries (MW)	1 003	1 702	1 385	1 195
(Index 2009 = 100)	*100*	*169*	*138*	*119*
Market share of imports from all other third countries	18,4 %	14,0 %	7,0 %	6,8 %
Average import price EUR/kW	2 385,34	1 852,23	1 430,90	1 218,41
(Index 2009 = 100)	*100*	*78*	*60*	*51*
Volume of imports from Taiwan (MW)	49	144	140	135
(Index 2009 = 100)	*100*	*294*	*286*	*276*
Market share of imports from Taiwan	0,9 %	1,2 %	0,7 %	0,8 %
Average import price EUR/kW	2 102,04	1 659,72	1 350,00	1 125,93
(Index 2009 = 100)	*100*	*79*	*64*	*54*
Volume of imports from USA (MW)	140	180	51	60
(Index 2009 = 100)	*100*	*129*	*36*	*43*
Market share of imports from USA	2,6 %	1,5 %	0,3 %	0,3 %
Average import price EUR/kW	2 400,00	1 872,22	1 431,37	1 233,33
(Index 2009 = 100)	*100*	*78*	*60*	*51*
Volume of imports from rest of Asia (MW)	720	1 140	1 029	879
(Index 2009 = 100)	*100*	*158*	*143*	*122*
Market share of imports from rest of Asia	13,2 %	9,3 %	5,2 %	5,0 %
Average import price EUR/kW	2 400,00	1 870,18	1 440,23	1 229,81
(Index 2009 = 100)	*100*	*78*	*60*	*51*

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Modules	2009	2010	2011	IP
Volume of imports from rest of the World (MW)	94	238	165	121
(Index 2009 = 100)	*100*	*253*	*176*	*129*
Market share of imports from rest of the World	1,7 %	2,0 %	0,8 %	0,7 %
Average import price EUR/kW	2 404,26	1 869,75	1 442,42	1 231,40
(Index 2009 = 100)	*100*	*78*	*60*	*51*

Source: Europressedienst

Cells	2009	2010	2011	IP
Volume of imports from all other third countries (MW)	510	884	1 100	1 457
(Index 2009 = 100)	*100*	*173*	*216*	*286*
Market share of imports from all other third countries	23,7 %	26,6 %	25,5 %	36,2 %
Average import price EUR/kW	1 166,67	1 072,40	751,82	553,88
(Index 2009 = 100)	*100*	*92*	*64*	*47*
Volume of imports from Taiwan (MW)	235	400	540	997
(Index 2009 = 100)	*100*	*170*	*230*	*424*
Market share of imports from Taiwan	10,9 %	12,0 %	12,5 %	24,8 %
Average import price EUR/kW	948,94	1 100,00	670,37	514,54
(Index 2009 = 100)	*100*	*116*	*71*	*54*
Volume of imports from USA (MW)	40	40	40	33
(Index 2009 = 100)	*100*	*100*	*100*	*83*
Market share of imports from USA	1,9 %	1,2 %	0,9 %	0,8 %
Average import price EUR/kW	1 350,00	1 050,00	825,00	636,36
(Index 2009 = 100)	*100*	*78*	*61*	*47*
Volume of imports from Japan (MW)	60	154	170	145
(Index 2009 = 100)	*100*	*257*	*283*	*242*
Market share of imports from Japan	2,8 %	4,6 %	3,9 %	3,6 %
Average import price EUR/kW	1 350,00	1 051,95	829,41	641,38

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Cells	2009	2010	2011	IP
(Index 2009 = 100)	*100*	*78*	*61*	*48*
Volume of imports from rest of the world (MW)	175	290	350	282
(Index 2009 = 100)	*100*	*166*	*200*	*161*
Market share of imports from rest of the world	8,1 %	8,7 %	8,1 %	7,0 %
Average import price EUR/kW	1 348,57	1 051,72	831,43	638,30
(Index 2009 = 100)	*100*	*78*	*62*	*47*

Source: Europressedienst

Wafers	2009	2010	2011	IP
Volume of imports from all other third countries (MW)	225	333	235	183
(Index 2009 = 100)	*100*	*148*	*104*	*81*
Market share of imports from all other third countries	13,4 %	14,0 %	8,6 %	8,5 %
Average import price EUR/kW	800,00	588,59	43,30	420,77
(Index 2009 = 100)	*100*	*74*	*55*	*52*
Volume of imports from Taiwan (MW)	20	50	50	36
(Index 2009 = 100)	*100*	*250*	*250*	*180*
Market share of imports from Taiwan	1,2 %	2,1 %	1,8 %	1,7 %
Average import price EUR/kW	800,00	580,00	440,00	416,67
(Index 2009 = 100)	*100*	*73*	*55*	*52*
Volume of imports from USA (MW)	50	55	40	28
(Index 2009 = 100)	*100*	*110*	*80*	*56*
Market share of imports from USA	3,0 %	2,3 %	1,5 %	1,3 %
Average import price EUR/kW	800,00	581,82	450,00	428,57
(Index 2009 = 100)	*100*	*73*	*56*	*54*
Volume of imports from Japan (MW)	55	50	30	26
(Index 2009 = 100)	*100*	*91*	*55*	*47*
Market share of imports from Japan	3,3 %	2,1 %	1,1 %	1,2 %
Average import price EUR/kW	800,00	580,00	433,33	423,08

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Wafers	2009	2010	2011	IP
(Index 2009 = 100)	*100*	*73*	*54*	*53*
Volume of imports from rest of the World (MW)	100	178	115	93
(Index 2009 = 100)	*100*	*178*	*115*	*93*
Market share of imports from rest of the World	5,9 %	7,5 %	4,2 %	4,3 %
Average import price EUR/kW	800,00	589,89	434,78	419,35
(Index 2009 = 100)	*100*	*74*	*54*	*52*

Source: Europressedienst

Development of the Union consumption

(168) As mentioned in recital 108 above, Union consumption increased by 221 % for modules, 87 % for cells and 29 % for wafers during the period considered. Consumption reached a peak in 2011 and dropped during the IP while still remaining far above the level at the beginning of the period considered in 2009. The Union industry could not benefit from this increase in consumption as its market share fell from 19 to 13 % for modules, from 68 to 38 % for cells and from 81 to 59 % for wafers during the same period. At the same time, the market share of the PRC was increasing sharply, until 2011 and then remained stable at significant high level during the IP, when consumption fell. Therefore, in view of the fact that, despite a decrease in Union consumption in the IP, the dumped imports from the PRC either maintained their market share (modules) or increased it (cells and wafers) to the detriment of the Union industry over the period considered, it cannot be concluded that the decrease in consumption was such as to break the causal link between the dumped imports and the injury suffered by the Union industry.

(169) Based on the information available it is difficult to establish to what extend the demand is driven by the Member States support schemes. Indeed, as mentioned below in recital 171 a variety of support schemes exists and interaction between those and demand is highly complex and therefore their precise impact is difficult to quantify. However, the evidence available also indicates that even in the absence of support schemes the demand for solar energy will continue to exist and will even grow over time, albeit at lower levels than in the context of support schemes. In this context, several parties argued that ‘grid parity’ (i.e. when the cost to produce solar energy equals the cost to produce conventional energy) had already been reached or nearly reached in some regions of the Union. These claims could not be confirmed by the investigation so far and will be further investigated.

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3.2. *Feed-in-tariffs ('FITs') as the main example of support schemes*

(170) It has been claimed by several interested parties that the cause of the injury suffered by the Union industry was linked to the reductions in the feed-in-tariffs implemented by the Member States. Those cuts had allegedly led to a decrease of the solar installations and reduced demand for the product under investigation in the Union market, thus causing material injury to the Union industry.

(171) Member States introduced FITs, quota obligations with tradable green certificates, investment grants and tax incentives to support renewable energy generation. Support is also granted in certain Member States from EU structural funds. The most frequently implemented support instrument for solar energy were FITs. At this stage, the analysis of the Commission focused on this type of support scheme.

(172) FITs are a financial support instrument aiming to achieve mandatory national targets for the use of renewable energy, as prescribed by the Directive 2009/28/EC of the European Parliament and of the Council [1] on the promotion of the use of energy from renewable sources. The level of support and the way FITs operate vary by Member State. By means of FITs grid operators are bound to buy solar energy at prices which ensure that solar energy producers (usually the owners of the solar installations) recover their costs and earn reasonable rates of return. FITs, as other support schemes, are in most cases also subject to State aid control pursuant to Articles 107 and 108 TFEU, which ensures the absence of overcompensation for electricity producers.

(173) In spite of the national differences, three phenomena could be observed as regards the evolution of FITs in the Union: (i) the reduction of the FIT rates, (ii) the suspension of the FIT scheme as a whole (Spain) and (iii) the introduction of capacity thresholds ('caps') for the installations eligible for financing as well as overall caps on the yearly installed new supported capacity at the Member State level. As regards the caps, they appear to have been introduced mainly during 2012 and, most likely, do therefore not have any effect on the consumption during the IP. Consequently, the analysis focused on the recent FIT suspensions in Spain and reductions of FIT rates in most Member States. It was analysed whether they had an impact on the demand in the Union market and whether this could have caused the material injury suffered by the Union industry. In this regard, it was considered that the impact of the evolution of FITs with regard to the demand of modules was also representative for

[1] OJ L 140, 5.6.2009, p. 16.

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the situation with regards to cells and wafers. Indeed, as cells and wafers are indispensable for the production of modules and as they are not used in other production processes, a decrease in demand for modules triggers automatically a decrease in demand for cells and wafers.

(174) While the investigation confirmed the link between the evolution of FIT and consumption, the investigation established that the decrease in consumption between 2011 and the IP did not contribute to break the causal link between the dumped imports from the PRC and the material injury suffered by the Union industry as described in detail in recital 163 above. Indeed, the investigation showed that while the situation of the Union industry was deteriorating, the exporting producers were able to maintain their high market shares for modules (80 %) and even increased their market shares slightly for cells (from 22 % in 2011 to 25 % during the IP) and wafers (from 32 % in 2011 to 33 % during the IP). In addition it should be noted that the average price of modules charged by the Union industry dropped by 53 % over the period considered, mainly due to the significant increase of dumped imports and the substantial price pressure they exerted on the Union market. Therefore, the loss in profitability suffered by the Union industry cannot be mainly attributed to the FIT cutbacks.

(175) Consequently, it is acknowledged that FITs generated demand for solar energy and that recent FIT suspensions (as in Spain) and reductions in other Member States lowered the consumption for the product under investigation during the IP, thus possibly having contributed to the injury suffered by the Union industry. However, the decrease in consumption during the IP was not such as to break the causal link between the dumped imports and the injury suffered by the Union industry.

(176) Several parties argued that FITs cutbacks rendered the solar investment opportunities unattractive for investors and thus lowered the demand for the product concerned in the Union.

(177) While the investigation confirmed a link between the FIT rates and the level of investments in the solar industry, it also showed that investments in the solar energy are less dependent in regions with high sun exposure where production of solar energy is more efficient and in regions with high electricity prices. Indeed, the investigation showed that investments are still being made (e.g. in Spain) in spite of the suspension of the FIT scheme. Moreover, the investigation showed that solar energy investment opportunities still remained attractive even with lower FIT rates.

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(178) On the basis of the above it could not be clearly concluded that the FIT cutbacks rendered the solar investments unattractive for investors and thus contributing to the injury suffered by the Union industry.

(179) One interested party argued that the decrease in FITs forced Union producers to decrease their prices to keep the interests of the investors in PV energy and to keep developing demand and growth.

(180) The investigation showed that the Union industry was forced to decrease its prices mainly due to the pressure of the dumped imports and not to the FIT cutbacks. This is indicated by the fact that the most significant decrease in the prices of the Union industry occurred in 2010 and 2011, before the major FIT cutbacks took place. Indeed, the increase in dumped imports from the PRC significantly undercutting the Union industry's prices forced the Union industry to cut down their prices to increasingly low levels.

(181) On these grounds, the claim was therefore rejected.

(182) In summary, FITs have been an important factor for the development of the PV market in the Union and the evolution of consumption of the product under investigation was influenced by the existence of the FITs. However, the investigation showed that the consumption did not decrease significantly despite important FIT cutbacks. Therefore, it is provisionally concluded that the developments of FITs were not such as to break the causal link between the dumped imports and the material injury suffered by the Union industry.

3.3. *Other financial support granted to the Union industry*

(183) Some interested parties claimed that the material injury suffered by the Union industry was due to a decrease of financial support granted to the Union industry. In support of this claim, information was provided based on subsidies granted to one of the Union producers prior to the period considered (between 2003 and 2006).

(184) The evidence provided did not reveal any link between the material injury suffered by the Union industry and any alleged subsidy received by one of the Union producers during the period preceding the period considered. Moreover, as this information predates the period considered, it seems to be irrelevant. Therefore, no link could be established between any alleged subsidy received by the Union industry and the material injury suffered. On this ground, the argument was rejected.

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3.4. *Overcapacity*

(185) It has been claimed that the material injury suffered by the Union industry was due to an overcapacity in the Union market and in the global market in general. It was also argued that the overcapacity in the global market led to the consolidation of the Union industry that is currently taking place and that any injury suffered was a consequence of too many production facilities. Moreover, several interested parties claimed that the material injury suffered by the Union industry was linked to the self-inflicted overexpansion of capacity of the EU industry. On the contrary, some interested parties claimed that the injury suffered by the Union industry is due to the Union industry's failure to make the necessary investments in capacity additions.

(186) While the Union industry indeed increased its production capacity, its total production volume did not cover the increasing consumption levels in the Union market during the period considered. Thus, the increase of the Union industry production capacity was reasonable and followed market developments, i.e. the increase in consumption. It cannot therefore be considered as a cause of the injury suffered.

(187) Likewise, on this basis, the argument that the Union industry did not invest in capacity expansion was not confirmed during the investigation. To the contrary however, as mentioned above, throughout the period considered the Union industry progressively increased capacity and had available excess capacity throughout the period considered, indicating that it was capable of supplying additional demand. Therefore, this argument had to be rejected.

(188) Some interested parties claimed that all operators in the market, including the ones in the downstream and upstream sectors were in a difficult situation which was due to the overcapacity in the global market and the resulted change of the market. In this regard it was argued that the product under investigation has become a commodity where individual producers are not able anymore to set prices but where prices are subject to worldwide demand and supply. It was alleged that this situation has caused the material injury of the Union industry rather than the dumped imports.

(189) The investigation confirmed the existence of overcapacity in the global market, mainly originating in the PRC. Concerning the market change that would allegedly bring the product under investigation to be a commodity, this would not justify an unfair price behaviour and unfair trade practices. In this respect, it should be noted that the Union industry has been producing and selling the product under investigation for more than 20 years, while the PRC industry of the product concerned developed only recently (around mid of last decade), mainly attracted by the feed-in-tariffs and other policy incentives in Union and the subsequent increase in demand.

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(190) On these grounds, the arguments were rejected.

3.5. *Impact of raw material prices*

(191) Several interested parties claimed that the material injury suffered by the Union industry was linked to the evolution of prices of polysilicon, the main raw material for the production of wafers. It was argued that the Union industry concluded long term fixed priced supply contracts and could therefore not benefit from the decrease in polysilicon prices during the period considered.

(192) The investigation revealed that polysilicon prices increased in 2008, but decreased again in 2009 with only a slight upwards trend in 2010 and early 2011. Prices dropped significantly during the IP.

(193) The investigation showed that although the Union industry had long term supply contracts for polysilicon, the terms of these contracts were mostly renegotiated based on the price developments of polysilicon and contract prices reached levels close to or sometimes even lower than prices on the spot market.

(194) On these grounds, it is concluded that even if some specific Union producers may have been affected by long term contracts for the supply of polysilicon, the Union industry, overall, did not suffer from these long term contracts and were able to fully benefit from the price decrease in polysilicon prices. The long term contracts were therefore not found to contribute to the material injury suffered by the Union industry.

3.6. *Self-inflicted injury: impact of automation, size, economies of scale, consolidation, innovation, cost efficiency*

(195) Several interested parties claimed that the injury suffered by the Union industry was due to the high degree of automation of the production process. It was claimed that the small-scale producers had a disadvantage compared to the larger vertically integrated producers and therefore any injury suffered by these producers cannot be attributed to the dumped imports. In this context it was also claimed that in any event, overall, the Union industry was of a small size and therefore was not able to benefit from economies of scale.

(196) The investigation showed that also the small-scale producers in Union market had a high level of automation in their production process with a positive effect to their production costs. Most Union producers have specialised in one part of the production process (wafers, cells or modules), which, through specialisation, increased their competitiveness with regard to the specific product type they were producing. The argument that impact of the high degree automation caused the injury suffered by the Union industry, had therefore to be rejected.

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(197) Some interested parties claimed that the price pressure resulted in the consolidation of the Union industry, the latter being the cause of the material injury suffered by the Union industry. However, the investigation showed that the consolidation was rather a consequence of the dumped imports. Furthermore, this party did not support with any evidence to what extend the consolidation process could have been the cause of the injury suffered.

(198) Moreover, it was claimed that the lack of vertical integration of the Union industry is the cause of the injury suffered. In general the vertically integrated producers in normal market conditions should have more security over their supply chain. However, the investigation showed that the advantage of vertical integration by part of the Union industry that was vertically integrated could not be fully exploited as the price pressure from dumped imports was extremely high. Moreover, the Union industry, even the vertically integrated Union producers, due to the dumped imports could not fully benefit from high capacity utilisation rates to achieve economies of scale. Furthermore, the investigation did not reveal any correlation between vertical integration and better profitability rates, as the high price pressure has altered this correlation.

(199) Some interested parties claimed that the Union industry lacked technical innovation as well as investments in new technology. However, the investigation did not bring to light any factual evidence confirming these allegations. To the contrary, the investigation showed that the majority of the investments made by the Union industry were dedicated to new machinery and R & D and that there are no meaningful differences in technology between the products worldwide.

(200) Moreover, one interested party claimed that the material injury suffered is due to the poor project execution (failed projects). In this respect, it should be noted that the argument was not substantiated. In addition, any failed project could rather be considered as a consequence of the dumped imports. The argument had therefore to be rejected.

(201) Several interested parties claimed that the Union industry was not able to rationalise its costs in time to respond to the developments in the world market. Other parties claimed that labour and overhead costs are higher in the Union than in the PRC.

(202) The investigation showed that the cost of production of the Union industry was steadily decreasing during the period considered, except for wafers where costs were decreasing in 2010 but increased in 2011 and further in the IP to levels slightly higher than at the beginning of the period considered (see recital 138 above). Productivity increased for modules and cells, but decreased for wafers. As mentioned above, due to the surge of

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dumped imports from the PRC and the consequent significant price pressure on the Union market, the Union industry was not able to benefit from the reductions in cost.

(203) It is noted that the exporting producers in the PRC do not enjoy any comparative advantage with regard to raw materials (polysilicon) and the machinery used as both were mostly imported from the Union. As far as labour and overhead costs are concerned, they represented on average less than 10 % of the total cost of a module in the IP and are not considered to have played any significant role.

(204) Moreover, it was claimed that some Union producers sourced wafers, cells and/or modules from the country concerned, and resold those products on the Union market as their own. The investigation revealed that imports from the Union industry of the product concerned were complementary in nature as well as limited in terms of volume when compared to the Union production and would therefore not be considered as to break the causal link between the dumped imports and the injury suffered by the Union industry.

(205) Therefore, in order to match the decreasing price trend of the imports from the PRC, the Union industry had to make considerable efforts to rationalise its cost of production. Despite the efforts of the Union industry, this cost rationalisation could not be reflected in the sales price due to the significant undercutting exerted by the dumped imports.

(206) On these grounds, all the above mentioned arguments had to be rejected.

3.7. *Competition from thin film PV products and other PV technologies*

(207) Several interested parties claimed that the injury suffered by the Union industry was caused by the competition from thin film PV products and other PV technologies, as these technologies were interchangeable and with same end use.

(208) The investigation showed that thin film PV products are produced from different raw materials and do not use crystalline silicon wafers. In general, they have much lower conversion efficiencies and a lower wattage output than crystalline silicon modules. As a result, they cannot be used on restricted areas such as roof-tops, i.e. they are not fully interchangeable with the product concerned. Therefore, although there may be some competition between the thin film products and the product concerned, this competition is considered to be marginal.

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(209) Therefore the investigation found no link between the injury suffered by the Union industry and the competition of thin film PV and other PV technologies.

(210) On these grounds, this argument had to be rejected.

3.8. *Financial crisis and its effects*

(211) It was claimed that the financial crisis and the economic recession had a negative effect on the access to finance for the Union industry and thus caused the injury suffered by the Union industry.

(212) The ability of the Union industry to raise capital decreased significantly during the period considered. As the solar industry is capital intensive, the ability to raise capital is crucial. The economic recession had a certain impact on the situation of the Union industry. The investigation showed, however, that despite the growth of the Union market between 2009 and 2011, the situation of the Union industry deteriorated as a result of the dumped imports from the PRC heavily undercutting the Union industry's sales prices. It was therefore concluded that the potential effects of the financial crisis was aggravated by the increase of dumped imports from the PRC and that the limited access to finance was largely a consequence of the negative market climate, the situation and prospects of the Union industry a consequence of the dumped imports. Therefore, while the financial crises had a certain impact on the situation of the Union industry, it could not break the causal link between the dumped imports and the injury suffered by the Union industry. The argument was therefore rejected.

3.9. *Export performance of the Union industry*

(213) Some interested parties claimed that the Union industry's export sales dropped significantly during the period considered and especially between 2009 and 2011 for modules and between 2009 and first quarter of 2012 for cells and that this has caused the material injury suffered by the Union industry.

(214) However, as shown in the table below, the export volumes for modules remain significant despite a slight decrease in the IP and average price levels during the IP were above the average costs of modules throughout the period considered. Therefore, this could not have caused the injury suffered by the Union industry. As for cells, the export volumes represented only around 12 % of the total production volume of cells. Therefore, despite the low prices during the IP, this could only have had limited impact on the situation of the Union industry. Finally, as regards wafers, exports represented around 24 % of the total production volume and likewise, despite the low export prices

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during the IP, this could only have had limited impact on the situation of the Union industry. The arguments in this respect had therefore to be rejected.

Table 13-a

Modules

	2009	2010	2011	IP
Volume of exports modules in MW	989	1 279	1 157	1 148
(Index 2009 = 100)	*100*	*129*	*117*	*116*
Average export price (EUR/kW)	2 500	1 900	1 470	1 230
(Index 2009 = 100)	*100*	*76*	*59*	*49*

Source: Europressedienst

Table 13-b

Cells

	2009	2010	2011	IP
Volume of exports cells in MW	62	320	315	238
(Index 2009 = 100)	*100*	*516*	*508*	*384*
Average export price (EUR/kW)	1 350	1 050	830	640
(Index 2009 = 100)	*100*	*78*	*61*	*47*

Source: Europressedienst

Table 13-c

Wafers

	2009	2010	2011	IP
Volume of exports wafers in MW	93	916	750	486
(Index 2009 = 100)	*100*	*985*	*806*	*523*
Average export price (EUR/kW)	850	590	530	480
(Index 2009 = 100)	*100*	*70*	*63*	*57*

Source: Europressedienst

(215) On these grounds, it was found that the impact of the Union's industry's export performance was not such as to contribute to the material injury suffered by the Union industry. Therefore, the parties' arguments in this respect had to be rejected.

3.10. *The discovery of shale gas deposits in the Union*

(216) One interested party claimed that the injury suffered by the Union industry was caused by the discovery of shale gas deposits in the Union and the prospect of increasing production of cheap shale gas in the Union has reduced public and private investments in renewable energy projects.

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(217) The investigation found that the consumption for the product under investigation increased substantially throughout the period considered, as already mentioned in recital 108 above. Moreover, the investigation did not bring into light any factual evidence that the injury suffered by the Union industry was due to the discovery of shale gas deposits in the Union. The claim was therefore rejected.

3.11. *The European Union's Emissions Trading Scheme (ETS)*

(218) The same party claimed that the injury suffered by the Union industry was caused by the low investments in solar energy production due to the low market prices for the European Union's Emissions Trading Scheme CO_2 emission credits.

(219) No evidence was however provided and the investigation did not bring into light any factual circumstances confirming these allegations. To the contrary, the investigation showed that the consumption of the product under investigation was increasing substantially during the period considered. On these grounds, the claim was rejected.

3.12. *Management decisions*

(220) Some interested parties claimed that the material injury suffered by at least one of the Union producers was caused by a wrong management decisions. These allegations were based on the annuals accounts and some information contained in a letter sent by a shareholder of the company to the other shareholders.

(221) None of the information in the file showed that any of the management decisions of the company concerned were unusual or imprudent or had an impact on the entire Union industry. Therefore, the arguments in this respect were rejected.

3.13. *Other government policies*

(222) One interested party claimed that the material injury suffered by the Union industry was caused by other government policies such as renewable energy policies, policies aimed at encouraging innovation, policies of cutting red tape, trade facilitation policies and grid access regulations, as these policies benefit the exporting producers. However, even if it is true that certain of the claimed policies might facilitate imports from other third countries and overall growth of solar industry, these policies would also benefit the Union industry. Moreover, these policies should not be meant that such imports in the Union should be made at injurious dumped prices. Therefore, the arguments in this respect were rejected.

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3.14. *Conclusion on causation*

(223) The investigation has established a causal link between the material injury suffered by the Union industry and the dumped imports from the PRC. Other possible causes of injury, such as imports from other third countries, consumption, feed-in-tariffs, other financial support granted to the Union industry, over-capacity, impact of raw material prices, self-inflicted injury, competition from thin-film, financial crisis and its effects, export performance of the Union industry, the discovery of shale gas deposits in the Union, managements decisions, the European Union's Emissions Trading Schemes, other government policies were analysed and none of them was found to be such as to break the causal link established between the dumped imports from the PRC and the material injury suffered by the Union industry.

(224) Based on the above analysis, which has properly distinguished and separated the effects of all known factors on the situation of the Union industry from the injurious effects of the dumped imports, it was therefore provisionally concluded that there was a causal link between the dumped imports from the PRC and the material injury suffered by the Union industry during the IP.

F. **UNION INTEREST**

1. **Preliminary remarks**

(225) In accordance with Article 21 of the basic Regulation, the Commission examined whether, despite the provisional conclusion on injurious dumping, compelling reasons existed for concluding that it is not in the Union interest to adopt provisional measures in this particular case. The analysis of the Union interest was based on an appreciation of all the various interests involved, including those of the Union industry, companies in the upstream and downstream markets of the PV sector, importers, users and consumers of the product concerned.

(226) Around 150 operators made themselves known after the initiation of the investigation. Specific questionnaires were sent to unrelated importers, upstream operators (including a raw material producer and suppliers of production equipment for the product under investigation), downstream operators (including project developers and installers) and BEUC — a consumer organisation. Three associations representing various operators (Union industry, upstream and downstream operators) in the PV sector submitted information.

2. **Interest of the Union industry**

(227) The Union industry directly employed about 25 000 people in the IP in the production and sale of the like product.

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(228) The investigation established that the Union industry has suffered material injury caused by the dumped imports from the country concerned during the investigation period. It is recalled that a number of injury indicators showed a negative trend during the period considered. In particular, injury indicators related to the financial performance of the cooperating Union producers, such as profitability, cash flow and return on investments were seriously affected. In fact, the Union producers of modules, cells and wafers were loss making in 2011 and in the IP. Consequently, some Union producers were already forced to close down their production facilities while some others have faced insolvency. In the absence of measures, a further deterioration in the Union industry's economic situation appears very likely.

(229) It is expected that the imposition of provisional anti-dumping duties will restore fair trade conditions on the Union market, allowing the Union industry to align the prices of the like product to reflect the costs of production thus improving its profitability. It can also be expected that the imposition of provisional measures would enable the Union industry to regain at least part of the market share lost during the period considered, with a positive impact on its overall financial situation. Moreover the Union industry should be able to have better access to capital and to further invest in R & D and innovation in the PV market. Finally, the investigation also pointed to a possible restarting of the business activity of the Union producers who were forced to stop the production as a result of the pressure of the Chinese imports. Overall, under this scenario, not only the existing 25 000 jobs of the Union industry (in the IP) would be secured but there would also be a reasonable prospect for further production expansion and increase in employment.

(230) Should measures not be imposed, further losses in the market share are expected with a further deterioration of the Union industry's profitability. This would be unsustainable in the short to medium-term. As a consequence, in addition to the large number of the Union producers that were already forced out of the market as described in recital 157 above, other producers could be facing insolvency which would in the short to medium term lead to a likely disappearance of the Union industry with the consequent significant impact of the existing jobs.

(231) It was therefore provisionally concluded that the imposition of the anti-dumping duties would be in the interest of the Union industry.

3. **Interest of unrelated importers**

(232) As mentioned in recital 12 above, for only one out of three sampled importers the major business activity consisted in trading the product concerned.

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(233) An argument was put forward that the imposition of measures on the product concerned will negatively affect the importers' business activity. Firstly, the imposition of duties should not result in the elimination of all imports from the PRC. Secondly, although it can be expected that the imposition of measures may have a negative effect on the financial situation of the importers importing only from the PRC, in view of the likely increase of imports from other third countries, the importers sourcing from different countries should be in the position to shift their sources of supply

(234) It is therefore provisionally concluded that the imposition of measures at the proposed level may have a certain negative impact on the situation of unrelated importers of the product concerned.

4. **Interest of the upstream operators**

(235) The upstream operators are mainly active in the production of the raw materials and in the production and engineering of the manufacturing equipment for the product under investigation. Eight replies were received to the questionnaires from the upstream operators. Two verification visits were carried out covering a raw material producer and a producer of manufacturing equipment.

(236) Overall, during the IP, the activity of the eight cooperating upstream operators related to the product under investigation varied in proportion to their total activity and only for one cooperating company represented 100 % of its business, while for the others it varied between 6 and 80 %. On average, in the IP, the activity related to the product concerned represented around 41 % of the total activity of the cooperating upstream operators. In terms of jobs, the eight cooperating upstream operators employed in the IP about 4 200 people. Profitability varied according to segment and individual company from high rates to slightly negative profitability. The investigation showed that those operators with a negative profitability suffered from the deteriorated situation of the Union industry, as some of the clients they lost were Union producers of the product under investigation, and from the decline in consumption.

(237) The sales of the Union upstream operators covered the Union, the PRC and other third countries. In the IP the repartition of the sales corresponded on average to around 20 % of sales in the Union, almost 50 % to the PRC and around 30 % to other third countries.

(238) Some parties in the upstream sector claimed that the imposition of anti-dumping measures would affect their business activities negatively as the PRC is their main exporting market. It was argued that the duties would seriously limit the imports of the

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product concerned from the PRC to the Union as a result of which the PRC would limit the imports of polysilicon and production equipment from the Union. As a consequence, the Union upstream operators in the Union would allegedly need to scale down their business activities and reduce employment.

(239) It is first noted that the aim of the duty is not to eliminate the Chinese imports of the product concerned but to restore a level playing field. Thus the Chinese imports should continue to supply the Union market to a certain degree, but at fair prices. Furthermore, the investigation showed that the Union upstream operators are present globally on different national markets and therefore do not depend exclusively on their export to the PRC. It is thus reasonable to assume that in the global PV market, Union upstream operators would likely be able to compensate the eventual decrease in the export to the PRC by the export to the other markets which according to publicly available market studies are expected to grow. In any case, the Chinese PV market is already facing a significant production overcapacity and therefore it is doubtful whether the Union machinery producers would be able to sell much more of manufacturing equipment in the short to medium term.

(240) In view of the above, it is provisionally concluded that the impact of the anti-dumping duties on the machinery producers would not be significant, while the impact on the raw material supplier may be negative in the short term in view of the possible reduction of its sales to the PRC.

5. **Interest of downstream operators**

(241) The downstream operators are mainly active in project development, marketing and communications and PV installations. While 13 replies to the downstream questionnaires were received from the downstream operators only seven were sufficiently complete and allowed for meaningful assessment. Two verification visits were carried out covering the PV project development and installations. When analysing the questionnaire replies received from the 36 cooperating unrelated importers, it turned out that a certain number of them may actually have to be qualified as downstream operators, as their main activity is installation. This issue will be further investigated in the further course of the investigation.

(242) Overall, the activity of the downstream operators in relation to the product under investigation varies as compared to their total activity. On average, in the IP, it represented 41 %. The profitability of the cooperating operators related to the product under investigation was on average around 11 %, in the IP. In terms of jobs, the seven cooperating downstream operators employed in the IP about 550 people.

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(243) An argument was raised that the anti-dumping measures are not in the interest of the Union as they will increase the price of modules, thus discouraging the end-users/consumers from making installations. Consequently, the downstream operators would have far fewer orders and would have to scale down their businesses. This assessment was based on a study by Prognos on the possible loss of jobs submitted in the course of investigation. The study foresees that the great majority of jobs in the PV market of the Union are in danger, if duties are imposed. The study uses an estimation by the European Photovoltaic Industry Association (EPIA) according to which the total number of direct jobs existing in 2011 at all stages of the Union PV market including Union producers, importers, the upstream and downstream operators is 265 000. Taking as a starting point the 2011 estimation on the total direct PV jobs, the study by Prognos concluded that out of 265 000 jobs up to 242 000 jobs will be lost in three years, depending on the level of duties. Most of the job losses will allegedly occur in the downstream market, which in 2011 was said by Prognos to employ about 220 000 people.

(244) The investigation did not confirm the above scenario and pointed to a much lower number of direct jobs existing in the Union PV market in 2011, during the IP and in 2012.

(245) To start with, the investigation raised doubt as to the accuracy of the total number of direct PV jobs as estimated by the European PV association. In particular, during the verification visit at the EPIA, it turned out that the underlying data leading to a conclusion of 265 000 was imprecise and did not allow for such conclusion. In fact, the information obtained during the verification visit indicates that the number of direct PV jobs calculated for 2011 would have a margin of error of up to 20 %. In addition, the estimation includes employment in other European countries outside the Union as well the employment related to thin film product, which falls outside the scope of this investigation.

(246) Despite these doubts, even if the original estimation of jobs was used to analyse the impact on the measures the following remarks must be made. The estimation covers the European PV jobs in 2011, which was correlated with a very high number of PV installations in the EU that year (about 20 GW). It is reasonable to assume that in view of the decline in installations reaching about 17,5 GW in the IP and 15 GW in 2012 the number of downstream jobs in particular, as directly correlated to the level of installations decreased accordingly. To this end, publicly available specialised press indicated that in Germany, the largest national market, between 2011 and 2012 the employment in the PV sector decreased from 128 000 to 100 000, including the jobs on the side of the producers. Furthermore, the investigation raised serious doubts on whether the figure included only

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full time jobs dedicated solely to the PV industry. To this end, the investigation revealed that, especially in the downstream market (installations) the PV activity is in general only a part of a much broader business activity, primary business activity being heating or electricity installations, plumbing etc.

(247) In view of the above, it is likely that the imposition of measures may lead to an increase of prices in the Union of the product under the investigation thus possibly generating less PV installations in the short term. Nevertheless the jobs in this part of the market may be negatively affected only to a limited extent in view of the following. Firstly, the PV related activity for at least some of the installers constitutes only part of their business activities and is also seasonal. Therefore, the installers should be able to carry out other activities in the situation of reduced demand for PV installations. As the renewable and energy efficiency objectives agreed at the level of the EU are legally binding on Member States, it is to be expected that reduced demand for solar installations will translate into increased demand for other forms of renewable electricity and energy efficiency. Many of the employees in the downstream sector are likely to have the skills necessary to benefit from the increased demand in these neighbouring sectors. Secondly, in view of the existing profits in the downstream market (see recital 242 above) installers should be able to absorb part of the price increase thus limiting the impact on the final prices and on the demand for PV installations.

(248) Independently of the imposition of duties, the publicly available forecasts on the demand for the PV installations indicate a likely contraction in demand in 2013, with annual installations of between 9,8 GW and 16,5 GW in 2013, which would likely have in any event a negative impact on the number of jobs in the downstream market.

(249) Finally, it is remarked that this increase of PV prices would be likely to happen in any event as the production of the PRC supplying the Union market appears to be largely loss-making, which is an unsustainable situation.

(250) In view of the above, it is provisionally concluded that the impact of the anti-dumping duties on the downstream operators would be to a limited extent negative in the short term, in view of the higher contraction in installations than in a counterfactual scenario without duties forecasted by major research centres and to the extent the duty cannot be absorbed by the downstream

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operators. Despite the possible reduction in demand for PV installations, installers should be able to carry out other activities, whether related to other green energy sources or the installers' primary business activity, as referred to above.

6. **Interest of end-users (consumers)**

(251) No parties directly representing the interests of end-users such as associations of consumers made any representations. In this case reference is made to two types of end-users: consumers (households) and other end-users (e.g. institutions, companies). The investigation revealed that only about a quarter of existing PV installations in the Union (so called roof-top, smaller installations) were ordered by consumers. The other installations (ground mounted, industrial and commercial of a much bigger scale) were ordered by other end-users.

(252) Several parties claimed that if anti-dumping duties are imposed, consumers would suffer from a price increase of PV modules. While as a result of duties the prices of PV modules in the EU market could be expected to rise somewhat, it is likely that the consumers and other end-users would be affected only to a limited extent because the investigation revealed that the price of a module represents up to 50 % of the total costs of a PV installation. In view of the profit margins earned by the project developers and installers, it is reasonable to assume that the eventual price increase of modules for the consumer may be at least partly absorbed and therefore mitigated. On the basis of the available evidence it is provisionally concluded that measures at the proposed duty level will be at least partly taken in by the supply chain and, therefore, not necessarily result in higher prices for consumers at the retail level.

(253) It is further noted that should duties not be imposed, the likely disappearance of the Union Industry could leave the consumers with only one source of supply of modules in the future. In this scenario the Chinese exporting producers would be in a position to further increase their very strong position on the market and this could also result in increased prices in the short to medium term to the detriment of the consumers/end-users. In any case, as mentioned above, the increase in prices would be likely to happen in any event in view of the fact that the PRC production is loss-making.

(254) On the basis of the above, it is provisionally concluded that the imposition of measures would have overall a limited impact on consumers and other end-users. This is irrespective of the role of the national support schemes in stimulating the demand for PV

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installations as referred to in recital 182 above. If national support schemes are adapted to higher prices for solar panels (by means of higher FITs), the impact on consumers may be inexistent.

7. **Other arguments**

(255) Some parties argued that the Union industry is not capable of supplying the EU market in the quantities required and thus if anti-dumping duties are imposed there is a serious risk of shortage in the EU, which may lead to a further increase of prices of the product concerned.

(256) The investigation has found this argument to be unjustified. The Union industry has been underutilising their production capacities since 2009. In the IP, the utilisation rate of the Union production capacity of modules was 41 % with additional spare capacity of about 5,7 GW; the utilisation rate of the Union production capacity of cells was 63 %, with additional spare capacity of about 1,2 GW and the utilisation rate of the Union production capacity of wafers was 55 % with additional spare capacity of about 1,6 GW. Therefore, thanks to the spare capacity, the Union industry would be able to compete for an additional part of the market in short term. Also in the medium-term, it is reasonable to assume that the Union industry will expand its production capacity to be able to achieve better economies of scale and allow for further price reductions. Furthermore, there are also other sources of supply in the world, which are present on the Union market and which will be able to compete on the Union market in case of decrease of imports of the Chinese products. The investigation revealed that the existing spare capacity of the non-Chinese production outside the EU was in the IP, 5,6 GW for modules, 6 GW for cells and 6 GW for wafers. It is therefore concluded that the total spare capacity of the EU and third producers outside the EU is sufficient to complement in the short term the potential decrease in Chinese imports in light of the demand for PV installations in the EU as forecasted for 2013 (between 9,8 GW and 16,5 GW) and 2014 (9 GW and 17,1 GW) by major research centres such as EPIA.

(257) Some parties also argued that that the imposition of anti-dumping duties on the product concerned will harm the development of the PV market in Europe and thus the goals of the EU Agenda 2020 concerning the renewable sources of energy and a reduction in EU greenhouse gas emissions will not be achieved.

(258) To start with, the 2020 goals do not depend on the solar energy exclusively. Equally important are other green energies such as: wind, biomass, hydro etc. Since no particular percentage is attributed to the solar energy for the 2020 goals, a slightly

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lower number of PV installations is not expected to raise the overall cost of the 2020 Agenda. Furthermore, the price of solar panels is only one of many factors, which are vital for the development of the PV industry in Europe. Equally important are: a favourable legal and financial framework at European and national levels, improved access to financing of renewable energies projects and the investment in R & D. As regards the financing of solar investments, the imposition of duties will enhance the situation of the Union industry and of the PV sector in total. As a result, it will also likely enhance access to capital for both the Union industry and investors in the PV sector. Finally, it is recalled that the aim of the duty is not to eliminate the Chinese imports but restore fair competition. Should the price of the product concerned rise the evidence on the profits achieved in the downstream market allows the assumption that the price increase will be partly absorbed by the operators in the downstream market. Therefore the price of modules should not rise significantly for the end-users/consumers and the demand for solar installations could be maintained in the forecasted range.

(259) On the basis of the above, it is provisionally concluded that the imposition of measures would not, overall, have a significant adverse impact on other EU polices.

8. **Conclusion on the Union interest**

(260) The overall positive effects for the Union industry outweigh the likely negative impact on other operators on the PV market including consumers/other end-users.

(261) In view of the above, it is provisionally concluded that based on the information available concerning the Union interest, there are no compelling reasons against the imposition of provisional measures on imports of the product concerned originating in the PRC.

G. **PROVISIONAL ANTI-DUMPING MEASURES**

(262) In view of the conclusions reached with regard to dumping, injury, causation and Union interest, provisional anti-dumping measures should be imposed in order to prevent further injury being caused to the Union industry by the dumped imports.

1. **Injury elimination level**

(263) For the purpose of determining the level of these measures, account was taken of the dumping margins found and the amount of duty necessary to eliminate the injury sustained by the Union producers, without exceeding the dumping margins found.

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(264) When calculating the amount of duty necessary to remove the effects of the injurious dumping, it was considered that any measures should allow the Union industry to cover its costs of production and to obtain a profit before tax that could be reasonably achieved by this industry under normal conditions of competition, i.e. in the absence of dumped imports, on sales of the like product in the Union. It is thus considered that a profit margin of 10 % of turnover based on the information provided in the complaint could be regarded as an appropriate minimum which the Union industry could have expected to obtain in the absence of injurious dumping.

(265) On this basis, a non-injurious price was calculated for the Union industry for the like product. The non-injurious price was obtained by adding the abovementioned profit margin of 10 % to the cost of production during the IP of the sampled Union producers.

(266) The necessary price increase was then determined on the basis of a comparison of the weighted average import price of the sampled cooperating exporting producers in the PRC, as established for the price undercutting calculations, duly adjusted for importation costs and customs duties with the weighted average non-injurious price of the like product sold by the sampled Union producers on the Union market during the IP. Any difference resulting from this comparison was then expressed as a percentage of the weighted average CIF import value.

2. **Provisional measures**

(267) In the light of the foregoing, and in accordance with Article 7(2) of the basic Regulation, it is considered that provisional anti-dumping measures should be imposed on imports of crystalline silicon PV modules and key components (i.e. cells and wafers) originating in or consigned from the PRC at the level of the lower of the dumping and the injury margins found, in accordance with the lesser duty rule.

(268) Given the high rate of cooperation of Chinese exporting producers, the ‘all other companies’ duty was set at the level of the highest duty to be imposed on the companies, respectively, sampled or cooperating in the investigation. The ‘all other companies’ duty will be applied to those companies which had not cooperated in the investigation.

(269) For the cooperating non-sampled Chinese companies listed in the Annex, the provisional duty rate is set at the weighted average of the rates of the sampled companies.

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(270) The proposed rates of the provisional anti-dumping duties are as follows:

Company	Dumping margin	Injury margin	Duty Rate
Changzhou Trina Solar Energy Co. Ltd; Trina Solar (Changzhou) Science and Technology Co. Ltd,	93,3 %	51,5 %	51,5 %
Delsolar (Wujiang) Co. Ltd,	112,6 %	67,9 %	67,9 %
Jiangxi LDK Solar Hi-Tech Co. Ltd; LDK Solar Hi-Tech (Hefei) Co. Ltd; LDK Solar Hi-Tech (Nanchang) Co. Ltd; LDK Solar Hi-Tech (Suzhou) Co. Ltd,	88,4 %	55,9 %	55,9 %
JingAo Solar Co. Ltd; Shanghai JA Solar Technology Co. Ltd; JA Solar Technology Yangzhou Co. Ltd; Shanghai Jinglong Solar Energy Technology Co. Ltd; Hefei JA Solar Technology Co. Ltd,	99,0 %	58,7 %	58,7 %
Jinzhou Yangguang Energy Co. Ltd; Jinzhou Rixin Silicon Materials Co. Ltd; Jinzhou Youhua Silicon Materials Co. Ltd; Jinzhou Huachang Photovoltaic Technology Co. Ltd; Jinzhou Jinmao Photovoltaic Technology Co. Ltd,	48,1 %	38,3 %	38,3 %
Wuxi Suntech Power Co. Ltd; Luoyang Suntech Power Co. Ltd; Suntech Power Co. Ltd; Wuxi Sun-Shine Power Co. Ltd; Zhenjiang Ren De New Energy Science Technology Co. Ltd; Zhenjiang Rietech New Energy Science Technology Co. Ltd,	71,5 %	48,6 %	48,6 %
Yingli Energy (China) Co. Ltd; Hainan Yingli New Energy Resources Co. Ltd; Baoding Tianwei Yingli New Energy Resources Co. Ltd,	96,2 %	37,3 %	37,3 %
Other cooperating companies (Annex)	88,5 %	47,6 %	47,6 %
All other companies	112,6 %	67,9 %	67,9 %

(271) The above anti-dumping measures are provisionally established in the form of ad valorem duties.

(272) The individual company anti-dumping duty rates specified in this Regulation were established on the basis of the findings of the present investigation. Therefore, they reflect the situation found during that investigation with respect to these companies. These duty rates (as opposed to the countrywide duty applicable to 'all other companies') are thus exclusively applicable to imports of products originating in the People's Republic of China and produced by the companies and thus by the specific legal entities mentioned. Imported products produced by any other company not specifically mentioned in the operative part of this Regulation with its name, including entities related to those specifically mentioned, cannot benefit from these rates and shall be subject to the duty rate applicable to 'all other companies'.

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(273) Any claim requesting the application of these individual company anti-dumping duty rates (e.g. following a change in the name of the entity or following the setting-up of new production or sales entities) should be addressed to the Commission [1] forthwith with all relevant information, in particular any modification in the company's activities linked to production, domestic and export sales associated with, for example, that name change or that change in the production and sales entities. If appropriate, the Regulation will accordingly be amended by updating the list of companies benefiting from individual duty rates.

(274) In order to ensure a proper enforcement of the anti-dumping duty, the all other companies duty level should not only apply to the non-cooperating exporting producers, but also to those producers which did not have any exports to the Union during the IP.

(275) As mentioned under Section 5 of the Notice of Initiation, the Commission is in the process of determining whether all imports of the product concerned from the PRC can be considered as originating in the PRC. This is in particular important in case of modules that can incorporate components and parts from different countries. Pursuant to Article 1(3) of the basic anti-dumping Regulation, the exporting country of a dumped product may be an intermediate country. It should also be noted that the complaint relate to imports from the PRC without specifying the origin thereof. Lastly, the anti-dumping and countervailing investigations conducted by the USA involving the same product imported from the PRC highlighted the complexity of the production and assembly operations which might or might not confer origin [2]. In the light of these considerations and without prejudice to the conclusion that will be reached on these matters at the definitive stage, it is considered appropriate that provisional measures should cover the product under investigation originating in or consigned from the PRC, unless the product is a product in transit in the sense of Article V GATT.

(276) As mentioned above in recital 3 the Commission made imports of the product concerned originating in and consigned from the PRC subject to registration by Regulation (EU) No 182/2013. This was in view of the possible retroactive application of the anti-dumping and countervailing measures, under Article 10(4) of the basic Regulation and Article 16(4) of Council Regulation (EC) No 597/2009 of 11 June 2009 on protection against subsidies imports from countries not members of the European Community ('basic Anti-subsidy Regulation) [3].

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[1] European Commission, Directorate-General for Trade, Directorate H, 1049 Brussels, Belgium.

[2] See Issues and Decision Memorandum for the Final Determination in the Antidumping Duty Investigation of Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled into Modules, from the People's Republic of China, 9 October 2012, at http://ia.ita.doc.gov/frn/summary/prc/2012-25580-1.pdf

[3] OJ L 188, 18.7.2009, p. 93.

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(277) As far as the current anti-dumping investigation is concerned and in view of the above findings, the registration of imports for the purpose of the anti-dumping investigation in accordance with Article 14(5) of the basic Regulation should be discontinued.

(278) As far as the parallel anti-subsidy investigation is concerned, initiated by the Commission pursuant to Article 10 of the basic Anti-subsidy Regulation, by a notice published in the *Official Journal of the European Union* on 8 November 2012 ([1]), registration of imports pursuant to Article 24(5) of the basic Anti-subsidy Regulation should continue.

(279) No decision on a possible retro-active application of anti-dumping measures can be taken at this stage of the proceeding.

(280) In view of the exceptional circumstances of the present proceeding, notably that it concerns a product addressing a market that requires a stability of supplies in the short term, it is considered appropriate to phase-in the provisional anti-dumping measures. As the Union industry in particular sustained injury as a result of unfair trade practices from the country concerned in the IP, Union producers cannot immediately supply the necessary quantities if import levels fall as a result of measures. Phasing-in the anti-dumping duty will allow the Union industry in the short term to increase supply. In addition, by allowing the Union industry sufficient time to increase its production levels, availability of the product concerned will remain at reasonable levels to meet demand. Therefore, it is considered appropriate to introduce the duty in two steps.

I. FINAL PROVISION

(281) In the interests of sound administration, a period should be fixed within which the interested parties which made themselves known within the time limit specified in the Regulation may make their views known in writing and request a hearing. Furthermore, it should be stated that the findings concerning the imposition of a duty made for the purposes of this Regulation are provisional and may have to be reconsidered for the purpose of any definitive duty,

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J. CUSTOMS DECLARATION

(282) Statistics of solar panels and their key components are frequently expressed either in number of pieces or Watt. However, there is no such supplementary unit for solar panels and their key components specified in the Combined Nomenclature laid down in Annex I to Council Regulation (EEC) No 2658/87 of 23 July 1987 on the tariff and statistical nomenclature and on the Common Customs Tariff ([2]). It is therefore necessary to provide that not only the weight in kg or tonnes but also the number of pieces or Watt for the imports of the product concerned must be entered in the declaration for release for free circulation. Pieces should be indicated for TARIC codes 3818 00 10 11 and 3818 00 10 19 and Watt shall be indicated for TARIC codes 8541 40 90 21, 8541 40 90 29, 8541 40 90 31 and 8541 40 90 39.

([1]) OJ C 340, 8.11.2012, p. 13.
([2]) OJ L 256, 7.9.1987, p. 1.

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HAS ADOPTED THIS REGULATION:

Article 1

1. A provisional anti-dumping duty is hereby imposed on imports of crystalline silicon photovoltaic modules or panels and cells and wafers of the type used in crystalline silicon photovoltaic modules or panels (the cells and wafers have a thickness not exceeding 400 micrometres), currently falling within CN codes ex 3818 00 10, ex 8501 31 00, ex 8501 32 00, ex 8501 33 00, ex 8501 34 00, ex 8501 61 20, ex 8501 61 80, ex 8501 62 00, ex 8501 63 00, ex 8501 64 00 and ex 8541 40 90 (TARIC codes 3818 00 10 11, 3818 00 10 19, 8501 31 00 81, 8501 31 00 89, 8501 32 00 41, 8501 32 00 49, 8501 33 00 61, 8501 33 00 69, 8501 34 00 41, 8501 34 00 49, 8501 61 20 41, 8501 61 20 49, 8501 61 80 41, 8501 61 80 49, 8501 62 00 61, 8501 62 00 69, 8501 63 00 41, 8501 63 00 49, 8501 64 00 41, 8501 64 00 49, 8541 40 90 21, 8541 40 90 29, 8541 40 90 31 and 8541 40 90 39) and originating in or consigned from the People's Republic of China, unless they are in transit in the sense of Article V GATT.

The following product types are excluded from the definition of the product concerned:

— solar chargers that consist of less than six cells, are portable and supply electricity to devices or charge batteries,

— thin film photovoltaic products,

— crystalline silicon photovoltaic products that are permanently integrated into electrical goods, where the function of the electrical goods is other than power generation, and where these electrical goods consume the electricity generated by the integrated crystalline silicon photovoltaic cell(s).

2. The rate of the provisional anti-dumping duty applicable to the net free-at-Union-frontier price, before duty, of the product described in paragraph 1 and produced by the companies listed below shall be as follows:

(i) from entry into force of this regulation until 5 August 2013:

Company	Duty Rate
All companies	11,8 %

(ii) from 6 August 2013:

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Company	Duty Rate	TARIC additional code
Changzhou Trina Solar Energy Co. Ltd Trina Solar (Changzhou) Science & Technology Co. Ltd Changzhou Youze Technology Co. Ltd	51,5 %	B791
Delsolar (Wujiang) Ltd	67,9 %	B792
Jiangxi LDK Solar Hi-Tech Co. Ltd LDK Solar Hi-Tech (Nanchang) Co. Ltd LDK Solar Hi-Tech (Suzhou) Co. Ltd	55,9 %	B793

▼M1

Company	Duty Rate	TARIC additional code
LDK Solar Hi-Tech (Hefei) Co. Ltd	55,9 %	B927
JingAo Solar Co. Ltd Shanghai JA Solar Technology Co. Ltd JA Solar Technology Yangzhou Co. Ltd Hefei JA Solar Technology Co. Ltd Shanghai JA Solar PV Technology Co. Ltd	58,7 %	B794
Jinzhou Yangguang Energy Co. Ltd Jinzhou Huachang Photovoltaic Technology Co. Ltd Jinzhou Jinmao Photovoltaic Technology Co. Ltd Jinzhou Rixin Silicon Materials Co. Ltd Jinzhou Youhua Silicon Materials Co. Ltd	38,3 %	B795
Wuxi Suntech Power Co. Ltd Suntech Power Co. Ltd Wuxi Sunshine Power Co. Ltd Luoyang Suntech Power Co. Ltd Zhenjiang Rietech New Energy Science Technology Co. Ltd Zhenjiang Ren De New Energy Science Technology Co. Ltd	48,6 %	B796
Yingli Energy (China) Co. Ltd Baoding Tianwei Yingli New Energy Resources Co. Ltd Hainan Yingli New Energy Resources Co. Ltd Hengshui Yingli New Energy Resources Co. Ltd Tianjin Yingli New Energy Resources Co. Ltd Lixian Yingli New Energy Resources Co. Ltd Baoding Jiasheng Photovoltaic Technology Co. Ltd Beijing Tianneng Yingli New Energy Resources Co. Ltd Yingli Energy (Beijing) Co. Ltd	37,3 %	B797
Companies listed in Annex I	47,6 %	
All other companies	67,9 %	B999

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3. The release for free circulation in the Union of the product referred to in paragraph 1 shall be subject to the provision of a security equivalent to the amount of the provisional duty.

4. Unless otherwise specified, the provisions in force concerning customs duties shall apply.

Article 2

Without prejudice to Article 20 of Regulation (EC) No 1225/2009, interested parties may request disclosure of the details underlying the essential facts and considerations on the basis of which this Regulation was adopted, make their views known in writing and apply to be heard orally by the Commission within one month of the date of entry into force of this Regulation.

Pursuant to Article 21(4) of Regulation (EC) No 1225/2009, the parties concerned may comment on the application of this Regulation within one month of the date of its entry into force.

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Article 3

Regulation (EU) No 182/2013 is amended as follows:

(1) a new heading G and a new recital 22 are inserted:

'G. **CESSATION OF REGISTRATION FOR THE PURPOSES OF PROTECTION AGAINST DUMPED IMPORTS**

(22) As of 6 June 2013, a provisional anti-dumping duty provides for the protection against dumped imports. It is therefore no longer necessary to register imports for the purpose of protection against dumped imports.';

(2) in Article 1(1) the words 'to Article 14(5) of Regulation (EC) No 1225/2009 and' are deleted.

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Article 4

Where a declaration for release for free circulation is presented in respect of imports of those solar panels and key components which are currently falling within TARIC codes 3818 00 10 11, 3818 00 10 19, 8541 40 90 21, 8541 40 90 29, 8541 40 90 31 and 8541 40 90 39, those TARIC codes shall be entered in the relevant field of that declaration.

Member States shall, on a monthly basis, inform the Commission of the number of pieces imported under TARIC codes 3818 00 10 11 and 3818 00 10 19 and the number of Watt for TARIC codes 8541 40 90 21, 8541 40 90 29, 8541 40 90 31 and 8541 40 90 39, and of their origin.

Article 5

Where a declaration for release for free circulation is presented in respect of the products mentioned under Articles 1 and 4, the number of pieces under TARIC codes 3818 00 10 11 and 3818 00 10 19 and the number of Watt under TARIC codes 8541 40 90 21, 8541 40 90 29, 8541 40 90 31 and 8541 40 90 39 of the products imported shall be entered in the relevant field of that declaration.

Article 6

1. Imports declared for release into free circulation for products currently falling within CN code ex 3818 00 10 (TARIC codes 3818 00 10 11 and 3818 00 10 19), CN code ex 8541 40 90 (TARIC codes 8541 40 90 21, 8541 40 90 29, 8541 40 90 31 and 8541 40 90 39) which are invoiced by companies from which undertakings are accepted by the Commission and whose names are listed in the Annex of Decision 2013/423/EU, shall be exempt from the anti-dumping duty imposed by Article 1, on condition that:

(a) a company listed in the Annex of Decision 2013/423/EU manufactured, shipped and invoiced directly the products referred to above or via its related company also listed in the Annex of Decision 2013/423/EU either to their related companies in the Union acting as an importer and clearing the goods for free circulation in the Union or to the first independent customer acting as an importer and clearing the goods for free circulation in the Union; and

▼**M1**

(b) such imports are accompanied by an undertaking invoice which is a commercial invoice containing at least the elements and the declaration stipulated in Annex II of this Regulation; and

(c) such imports are accompanied by an Export Undertaking Certificate according to Annex III of this Regulation; and

(d) the goods declared and presented to customs correspond precisely to the description on the undertaking invoice.

2. A customs debt shall be incurred at the time of acceptance of the declaration for release into free circulation:

(a) whenever it is established, in respect of imports described in paragraph 1, that one or more of the conditions listed in that paragraph are not fulfilled; or

(b) when the Commission withdraws its acceptance of the undertaking pursuant to Article 8(9) of Regulation (EC) No 1225/2009 in a Regulation or Decision which refers to particular transactions and declares the relevant undertaking invoices as invalid.

Article 7

The companies from which undertakings are accepted by the Commission and whose names are listed in the Annex of Decision 2013/423/EU and subject to certain conditions specified therein, will also issue an invoice for transactions which are not exempted from the anti-dumping duties. This invoice is a commercial invoice containing at least the elements stipulated in Annex IV of this Regulation.

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Article ►**M1** *8* ◄

This Regulation shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.

Article 1 shall apply for a period of six months.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

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ANNEX I

Cooperating Chinese exporting producers not sampled:

Name of the Company	TARIC additional code
Jiangsu Aide Solar Energy Technology Co. Ltd	B798
Alternative Energy (AE) Solar Co. Ltd	B799
Anhui Chaoqun Power Co. Ltd	B800
Anhui Schutten Solar Energy Co. Ltd Quanjiao Jingkun Trade Co. Ltd	B801
Anji DaSol Solar Energy Science & Technology Co. Ltd	B802
Arhui Titan PV Co. Ltd	B803
Xi'an SunOasis (Prime) Company Limited TBEA SOLAR CO. LTD XINJIANG SANG'O SOLAR EQUIPMENT	B804
CSI Solar Power (China) Inc. Canadian Solar Manufacturing (Changshu) Inc. Canadian Solar Manufacturing (Luoyang) Inc. CSI Cells Co. Ltd	B805
Changzhou NESL Solartech Co. Ltd	B806
Changzhou Shangyou Lianyi Electronic Co. Ltd	B807
CHINALAND SOLAR ENERGY CO. LTD	B808
China Sunergy (Nanjing) Co. Ltd CEEG Nanjing Renewable Energy Co. Ltd CEEG (Shanghai) Solar Science Technology Co. Ltd China Sunergy (Yangzhou) Co. Ltd China Sunergy (Shanghai) Co. Ltd	B809
Chint Solar (Zhejiang) Co. Ltd	B810
ChangZhou EGing Photovoltaic Technology Co. Ltd	B811
CIXI CITY RIXING ELECTRONICS CO. LTD. ANHUI RINENG ZHONGTIAN SEMICONDUCTOR DEVELOPMENT CO. LTD. HUOSHAN KEBO ENERGY & TECHNOLOGY CO. LTD.	B812
CNPV Dongying Solar Power Co. Ltd	B813
CSG PVtech Co. Ltd	B814
DCWATT POWER Co. Ltd	B815
Dongfang Electric (Yixing) MAGI Solar Power Technology Co. Ltd	B816
EOPLLY New Energy Technology Co. Ltd	B817
Era Solar Co. Ltd	B818
ET Solar Industry Limited ET Energy Co. Ltd	B819

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Name of the Company	TARIC additional code
Dotec Electric Co. Ltd	B928
GD Solar Co. Ltd	B820
Greenway Solar-Tech (Shanghai) Co. Ltd	B821
Guodian Jintech Solar Energy Co. Ltd	B822
GS PV Holdings Group	B823
Hangzhou Bluesun Solar Energy Technology Co. Ltd	B824
Hangzhou Zhejiang University Sunny Energy Science and Technology Co. Ltd Zhejiang Jinbest Energy Science and Technology Co. Ltd	B825
Hanwha SolarOne (Qidong) Co. Ltd	B826
Hanwha SolarOne Co. Ltd	B829
Hengdian Group DMEGC Magnetics Co. Ltd	B827
HENGJI PV-TECH ENERGY CO. LTD.	B828
Himin Clean Energy Holdings Co. Ltd	B829
Jetion Solar (China) Co. Ltd	B830
Jiangsu Green Power PV Co. Ltd	B831
Jiangsu Hosun Solar Power Co. Ltd	B832
Jiangsu Jiasheng Photovoltaic Technology Co. Ltd	B833
Jiangsu Runda PV Co. Ltd	B834
Jiangsu Sainty Photovoltaic Systems Co. Ltd Jiangsu Sainty Machinery Imp. And Exp. Corp. Ltd	B835
Jiangsu Seraphim Solar System Co. Ltd	B836
Jiangsu Shunfeng Photovoltaic Technology Co. Ltd Changzhou Shunfeng Photovoltaic Materials Co. Ltd Jiangsu Shunfeng Photovoltaic Electronic Power Co. Ltd	B837
Jiangsu Sinski PV Co. Ltd	B838
Jiangsu Sunlink PV Technology Co. Ltd	B839
Jiangsu Zhongchao Solar Technology Co. Ltd	B840
Jiangxi Risun Solar Energy Co. Ltd	B841
Jiangyin Hareon Power Co. Ltd Hareon Solar Technology Co. Ltd Taicang Hareon Solar Energy Co. Ltd	B842
Jiangyin Shine Science and Technology Co. Ltd	B843
Jinggong P-D Shaoxing Solar Energy Tech Co. Ltd	B844
Jinko Solar Co. Ltd Jinko Solar Import and Export Co. Ltd ZHEJIANG JINKO SOLAR CO. LTD ZHEJIANG JINKO SOLAR TRADING CO. LTD	B845

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Name of the Company	TARIC additional code
Juli New Energy Co. Ltd	B846
Jumao Photonic (Xiamen) Co. Ltd	B847
King-PV Technology Co. Ltd	B848
Kinve Solar Power Co. Ltd (Maanshan)	B849
Konca Solar Cell Co. Ltd Suzhou GCL Photovoltaic Technology Co. Ltd Jiangsu GCL Silicon Material Technology Development Co. Ltd	B850
Jiangsu Zhongneng Polysilicon Technology Development Co. Ltd GCL-Poly (Suzhou) Energy Limited GCL-Poly Solar Power System Integration (Taicang) Co. Ltd GCL SOLAR POWER (SUZHOU) LIMITED GCL Solar System (Suzhou) Limited	
Lightway Green New Energy Co. Ltd Lightway Green New Energy (Zhuozhou) Co. Ltd	B851
Motech (Suzhou) Renewable Energy Co. Ltd	B852
Nanjing Daqo New Energy Co. Ltd	B853
NICE SUN PV CO. LTD LEVO SOLAR TECHNOLOGY CO. LTD	B854
Ningbo Best Solar Energy Technology Co. Ltd	B855
Ningbo Huashun Solar Energy Technology Co. Ltd	B856
Ningbo Jinshi Solar Electrical Science & Technology Co. Ltd	B857
Ningbo Komaes Solar Technology Co. Ltd	B858
Ningbo Osda Solar Co. Ltd	B859
Ningbo Qixin Solar Electrical Appliance Co. Ltd	B860
Ningbo South New Energy Technology Co. Ltd	B861
Ningbo Sunbe Electric Ind Co. Ltd	B862
Ningbo Ulica Solar Science & Technology Co. Ltd	B863
Perfectenergy (Shanghai) Co. Ltd	B864
Perlight Solar Co. Ltd	B865
Phono Solar Technology Co. Ltd Sumec Hardware & Tools Co. Ltd	B866
Qingdao Jiao Yang Lamping Co. Ltd	B867
RISEN ENERGY CO. LTD	B868
SHANDONG LINUO PHOTOVOLTAIC HI-TECH CO. LTD	B869

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Name of the Company	TARIC additional code
SHANGHAI ALEX SOLAR ENERGY SCIENCE & TECHNOLOGY CO. LTD SHANGHAI ALEX NEW ENERGY CO. LTD	B870
Shanghai BYD Co. Ltd BYD(Shangluo)Industrial Co.Ltd	B871
Shanghai Chaori Solar Energy Science & Technology Co. Ltd Shanghai Chaori International Trading Co. Ltd	B872
Shanghai Propsolar New Energy Co. Ltd Propsolar (Zhejiang) New Energy Technology Co. Ltd	B873
SHANGHAI SHANGHONG ENERGY TECHNOLOGY CO. LTD	B874
SHANGHAI SOLAR ENERGY S&T CO. LTD Shanghai Shenzhou New Energy Development Co. Ltd Lianyungang Shenzhou New Energy Co. Ltd	B875
Shanghai ST-Solar Co. Ltd Jiangsu ST-Solar Co. Ltd	B876
Shanghai Topsolar Green Energy Co. Ltd	B877
Shenzhen Sacred Industry Co. Ltd	B878
Shenzhen Sungold Solar Co. Ltd	B879
Shenzhen Topray Solar Co. Ltd Shanxi Topray Solar Co. Ltd Leshan Topray Cell Co. Ltd	B880
Sopray Energy Co. Ltd Shanghai Sopray New Energy Co. Ltd	B881
SUN EARTH SOLAR POWER CO. LTD. NINGBO SUN EARTH SOLAR POWER CO. LTD. Ningbo Sun Earth Solar Energy Co. Ltd	B882
SUZHOU SHENGLONG PV-TECH CO. LTD	B883
TDG Holding Co. Ltd	B884
Tianwei New Energy Holdings Co. Ltd Tianwei New Energy (Chengdu) PV Module Co. Ltd	B885
Wenzhou Jingri Electrical and Mechanical Co. Ltd	B886
Winsun New Energy Co. Ltd	B887
Worldwide Energy and Manufacturing USA Co. Ltd	B888
Wuhu Zhongfu PV Co. Ltd	B889
Wuxi Saijing Solar Co. Ltd	B890
Wuxi Shangpin Solar Energy Science and Technology Co. Ltd	B891
Wuxi Solar Innova PV Co. Ltd	B892
Wuxi Taichang Electronic Co. Ltd Wuxi Machinery & Equipment Import & Export Co. Ltd Wuxi Taichen Machinery & Equipment Co. Ltd	B893

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Name of the Company	TARIC additional code
Wuxi UT Solar Technology Co. Ltd	B894
Xiamen Sona Energy Co. Ltd	B895
Xi'an Huanghe Photovoltaic Technology Co. Ltd State-run Huanghe Machine-Building Factory Import and Export Corporation Shanghai Huanghe Fengjia Photovoltaic Technology Co. Ltd	B896
Xi'an LONGi Silicon Materials Corp. Wuxi LONGi Silicon Materials Co. Ltd	B897
Years Solar Co. Ltd	B898
Yuhuan BLD Solar Technology Co. Ltd Zhejiang BLD Solar Technology Co. Ltd	B899
Yuhuan Sinosola Science & Technology Co. Ltd	B900
Yunnan Tianda Photovoltaic Co. Ltd	B901
Zhangjiagang City SEG PV Co. Ltd	B902
Zhejiang Fengsheng Electrical Co. Ltd	B903
Zhejiang Global Photovoltaic Technology Co. Ltd	B904
Zhejiang Heda Solar Technology Co. Ltd	B905
Zhejiang Jiutai New Energy Co. Ltd Zhejiang Topoint Photovoltaic Co. Ltd	B906
Zhejiang Yutai Photovoltaic Material Co. Ltd	B930
Zhejiang Kingdom Solar Energy Technic Co. Ltd	B907
Zhejiang Koly Energy Co. Ltd	B908
Zhejiang Longbai Photovoltaic Tech Co. Ltd	B909
Zhejiang Mega Solar Energy Co. Ltd	B910
Zhejiang Shuqimeng Photovoltaic Technology Co. Ltd	B911
Zhejiang Shinew Photoeletronic Technology Co. Ltd	B912
Zhejiang SOCO Technology Co. Ltd	B913
Zhejiang Sunflower Light Energy Science & Technology Limited Liability Company Zhejiang Yauchong Light Energy Science & Technology Co. Ltd	B914
Zhejiang Sunrupu New Energy Co. Ltd	B915
Zhejiang Tianming Solar Technology Co. Ltd	B916
Zhejiang Trunsun Solar Co. Ltd Zhejiang Beyondsun PV Co. Ltd	B917
Zhejiang Wanxiang Solar Co. Ltd	B918
Zhejiang Xiongtai Photovoltaic Technology Co. Ltd	B919

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Name of the Company	TARIC additional code
ZHEJIANG YUANZHONG SOLAR CO. LTD	B920
RENESOLA ZHEJIANG LTD RENESOLA JIANGSU LTD	B921
Zhongli Talesun Solar Co. Ltd	B922
ZNSHINE PV-TECH CO. LTD	B923
Zytech Engineering Technology Co. Ltd	B924

▼**M1**

ANNEX II

The following elements shall be indicated in the Commercial Invoice accompanying the Company's sales to the European Union of goods which are subject to the Undertaking:

1. The heading 'COMMERCIAL INVOICE ACCOMPANYING GOODS SUBJECT TO AN UNDERTAKING'.

2. The name of the Company issuing the Commercial Invoice.

3. The Commercial Invoice number.

4. The date of issue of the Commercial Invoice.

5. The TARIC additional code under which the goods on the invoice are to be customs-cleared at the European Union frontier.

6. The exact plain language description of the goods and:

   — the product code number (PCN),

   — technical specifications of the PCN,

   — the company product code number (CPC),

   — CN code,

   — quantity (to be given in units expressed in Watt for modules and cells or pieces for wafers),

7. The description of the terms of the sale, including:

   — price per unit (Watt for modules and cells or pieces for wafers),

   — the applicable payment terms,

   — the applicable delivery terms,

   — total discounts and rebates.

8. Name of the Company acting as an importer to which the invoice is issued directly by the Company.

9. The name of the official of the Company that has issued the Commercial Invoice and the following signed declaration:

   'I, the undersigned, certify that the sale for direct export to the European Union of the goods covered by this invoice is being made within the scope and under the terms of the Undertaking offered by [COMPANY], and accepted by the European Commission through Decision 2013/423/EU. I declare that the information provided on this invoice is complete and correct.'

▼**M1**

ANNEX III

EXPORT UNDERTAKING CERTIFICATE

The following elements shall be indicated in the Export Undertaking Certificate to be issued by CCCME for each Commercial Invoice accompanying the Company's sales to the European Union of goods which are subject to the Undertaking:

1. The name, address, fax and telephone number of the China Chamber of Commerce for Import & Export of Machinery & Electronic Products (CCCME).

2. The name of the company mentioned in the Annex of Decision 2013/423/EU issuing the Commercial Invoice.

3. The Commercial Invoice number.

4. The date of issue of the Commercial Invoice.

5. The TARIC additional code under which the goods on the invoice are to be customs cleared at the European Union frontier.

6. The exact description of the goods, including:

   — the product code number (PCN),

   — the technical specification of the goods, the company product code number (CPC) (if applicable),

   — CN code,

7. The precise quantity in units exported expressed in Watt (for modules and cells or pieces (for wafers).

8. The number and expiry date (three months after issuance) of the certificate.

9. The name of the official of CCCME that has issued the certificate and the following signed declaration:

   'I, the undersigned, certify that this certificate is given for direct exports to the European Union of the goods covered by the Commercial Invoice accompanying sales made subject to the undertaking and that the certificate is issued within the scope and under the terms of the undertaking offered by [company] and accepted by the European Commission through Decision 2013/423/EU. I declare that the information provided in this certificate is correct and that the quantity covered by this certificate is not exceeding the threshold of the undertaking.'

10. Date.

11. The signature and seal of CCCME.

▼**M1**

ANNEX IV

The following elements shall be indicated in the Commercial Invoice accompanying the Company's sales to the European Union of goods which are subject to the anti-dumping duties:

1. The heading 'COMMERCIAL INVOICE ACCOMPANYING GOODS SUBJECT TO ANTI-DUMPING DUTIES'.

2. The name of the Company issuing the Commercial Invoice.

3. The Commercial Invoice number.

4. The date of issue of the Commercial Invoice.

5. The TARIC additional code under which the goods on the invoice are to be customs-cleared at the European Union frontier.

6. The exact plain language description of the goods and:

   — the product code number (PCN),

   — technical specifications of the PCN,

   — the company product code number (CPC),

   — CN code,

   — quantity (to be given in units expressed in Watt for modules and cells) or pieces for wafers).

7. The description of the terms of the sale, including:

   — price per unit (Watt for modules and cells or pieces for wafers),

   — the applicable payment terms,

   — the applicable delivery terms,

   — total discounts and rebates.

8. The name and signature of the official of the Company that has issued the Commercial Invoice.