COUNCIL OF THE EUROPEAN UNION

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PROPOSAL

from:	European Commission
dated:	5 November 2013
No Cion doc.:	COM(2013) 759 final
Subject:	Proposal for a Council Implementing Regulation imposing a definitive anti-dumping duty and collecting definitively the provisional duty imposed on imports of crystalline silicon photovoltaic modules and key components (i.e. cells) originating in or consigned from the People's Republic of China

Delegations will find attached a proposal from the Commission, submitted under a covering letter from Mr Jordi AYET PUIGARNAU, Director, to Mr Uwe CORSEPIUS, Secretary-General of the Council of the European Union.

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Proposal for a

COUNCIL IMPLEMENTING REGULATION

imposing a definitive anti-dumping duty and collecting definitively the provisional duty imposed on imports of crystalline silicon photovoltaic modules and key components (i.e. cells) originating in or consigned from the People's Republic of China

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

Grounds for and objectives of the proposal

This proposal concerns the application of Council Regulation (EC) No 1225/2009 of 30 November 2009 on protection against dumped imports from countries not members of the European Community ('the basic Regulation'), and in particular Article 9 and 14(1) thereof on imports of crystalline silicon photovoltaic modules and key components (i.e. cells) originating in or consigned from the People's Republic of China.

General context

This proposal is made in the context of the implementation of the basic Regulation and is the result of an investigation which was carried out in line with the substantive and procedural requirements laid out in the basic Regulation.

Existing provisions in the area of the proposal

On 6 September 2012, the European Commission ('the Commission') initiated an anti-dumping proceeding concerning imports of crystalline silicon photovoltaic modules and key components (i.e. cells and wafers) originating in the People's Republic of China.

On 1 March 2013, the Commission adopted Regulation No 182/2013 making 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 subject to registration.

On 4 June 2013, the Commission adopted Regulation No 513/2013 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. This Regulation was subsequently amended by Commission Regulation No 748/2013 of 2 August 2013.

By Decision 2013/423/EU of 2 August 2013, the Commission accepted an undertaking offered in connection with the anti-dumping proceeding concerning 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.

Consistency with other policies and objectives of the Union

Not applicable.

2. RESULTS OF CONSULTATIONS WITH THE INTERESTED PARTIES AND IMPACT ASSESSMENTS

Consultation of interested parties

Interested parties concerned by the proceeding have had the possibility to defend their interests during the investigation, in line with the provisions of the basic Regulation.

Collection and use of expertise

There was no need for external expertise.

Impact assessment

This proposal is the result of the implementation of the basic Regulation.

The basic Regulation does not provide for a general impact assessment but contains an exhaustive list of conditions that have to be assessed.

3. LEGAL ELEMENTS OF THE PROPOSAL

Summary of the proposed action

The Commission imposed provisional anti-dumping duties 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 subsequently accepted an undertaking offered in connection with these imports.

The attached proposal for a Council Regulation is based on the definitive findings which have confirmed the existence of dumping causing injury, and the fact that the imposition of measures is not against the overall Union interest. Although the product scope has been amended at the definitive stage (by excluding wafers from the product scope) and the final duty rates have been slightly revised, the provisional findings were overall confirmed. The undertaking is foreseen to apply during the period of validity of provisional and definitive measures.

It is therefore proposed that the Council adopts the attached proposal for a Regulation which should be published no later than 5 December 2013.

Legal basis

This proposal concerns the application of Council Regulation (EC) No 1225/2009 of 30 November 2009 on protection against dumped imports from countries not members of the European Community.

Subsidiarity principle

The proposal falls under the exclusive competence of the European Union. The subsidiarity principle therefore does not apply.

Proportionality principle

The proposal complies with the proportionality principle for the following reasons:

The form of action is described in the above-mentioned basic Regulation and leaves no scope for national decision.

Indication of how financial and administrative burden falling upon the Union, national governments, regional and local authorities, economic operators and citizens is minimized and proportionate to the objective of the proposal is not applicable.

Choice of instruments

Proposed instruments: regulation.

Other means would not be adequate for the following reason:

The basic Regulation does not provide for alternative options.

4. BUDGETARY IMPLICATION

The proposal has no implication for the Union budget.

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THE COUNCIL OF THE EUROPEAN UNION,

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 9(4) and 14(1) thereof,

Having regard to the proposal submitted by the European Commission, after consulting the Advisory Committee,

Whereas:

A. PROCEDURE

1. Provisional Measures

(1) The European Commission ('the Commission') by Regulation (EU) No 513/2013[2] ('the provisional Regulation') imposed 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 ('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.

2. Registration

(3) As mentioned in recital (3) to the provisional Regulation, following a request by the complainant supported by the required evidence the Commission adopted on 1 March 2013 Regulation (EU) No 182/2013[3] making imports of crystalline silicon PV modules and key components (i.e. cells and wafers) originating in or consigned from the People's Republic of China subject to registration as of 6 March 2013. The provisional Regulation ceased the registration of imports for the purpose of the anti-dumping investigation in accordance with Article 14(5) of the basic Regulation since a provisional anti-dumping duty provided protection against dumped imports.

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1 OJ L 343, 22.12.2009, p. 51.
2 OJ L 513, 5.6.2013, p. 5
3 OJ L 61, 5.3.2013, p.2

(4) Some interested parties claimed that the decision for registration of imports was unfounded, as the conditions were not met pursuant to Article 14(5) of the basic Regulation. However, these claims were not substantiated or based on factual evidence. At the time the decision was taken to register imports the Commission had sufficient *prima facie* evidence justifying the need to register imports, in particular a sharp increase both in terms of absolute imports and in terms of market share. The claims in this regard had therefore to be rejected.

3. Acceptance of an Undertaking with regards to provisional duties

(5) By Commission Decision 2013/423/EU of 2 August 2013[4], the Commission has accepted an undertaking offered by exporting producers together with the China Chamber of Commerce for Import and Export of Machinery and Electronic Products ('CCCME').

4. Subsequent Procedure

(6) Subsequent to the disclosure of the essential facts and considerations on the basis of which it was decided to impose provisional anti-dumping measures ('the provisional disclosure'), the Government of China ('GOC') and several interested parties made written submissions making known their views on the provisional findings. The parties who so requested were granted the opportunity to be heard. The Association for Affordable Solar Energy ('AFASE'), representing importers, downstream and upstream operators and one importer requested and were afforded hearings in the presence of the Hearing Officer of the Directorate-General for Trade.

(7) The Commission continued to seek and verify all information it deemed necessary for its definitive findings. The oral and written comments submitted by the interested parties were considered and, where appropriate, the provisional findings were modified accordingly.

(8) In addition, verification visits were carried out at the premises of the following companies:

(i) Downstream operators

– Jayme de la Costa, Pedroso, Portugal

– Sunedison Spain Construction, Madrid, Spain

(ii) Independent consultant

– Europressedienst, Bonn, Germany

(9) AFASE questioned the legal basis for the visit carried out at the premises of Europressedienst, as it is not an interested party in this investigation and does therefore not fall under Article 16 of the basic Regulation. Europressedienst, as mentioned in recitals (99) and (120) to the provisional Regulation has provided information on macroeconomic indicators. It is clarified that the Commission carried out an on-the-spot verification at the premises of Europressedienst for the sake of the principle of good administration to verify the reliability and correctness of data on which the Commission based its findings.

(10) The GOC reiterated the claim that its rights of defence in relation to access to the files open for inspection by interested parties were violated because (i) information was

[4] OJ L 209, 3.8.2013, p. 26.

missing from the non-confidential files without "good cause" being shown or providing sufficiently detailed summaries, or exceptionally, the reasons for the failure to provide the non-confidential summary, (ii) the non-confidential version of an entire questionnaire response of a Union producer was missing and (iii) the delays to make non-confidential versions of the Union producers' questionnaire responses available for interested parties were excessive.

(11) (i) Regarding the claim that information was missing from the open file, the interested party did not specify to which information it was referring to. (ii) Its claim that the non-confidential version of an entire questionnaire response has not been made available was incorrect. (iii) As to the delays in making available the non-confidential replies of the questionnaires of the sampled Union producers, it had been explained to the party concerned that the questionnaires were only added to the non-confidential file after having been checked as to their completeness and reasonableness of the summaries. In order to ensure the Union producers' right to anonymity, it was also ascertained that the non-confidential versions of the questionnaires did indeed not reveal the identity of the Union producer concerned. In some cases, the non-confidential versions needed therefore to be corrected accordingly by the party submitting it before they could be made available for other interested parties.

(12) In any event, it is considered that this did in no way affect the interested parties' rights of defence. The Commission has given all the interested parties the opportunity to respond to the information included in the file open for inspection in time so that their comments could be taken into consideration, when substantiated and warranted before any conclusions were made in the investigation. The interested party had every opportunity to comment on the questionnaires from sampled Union producers also following the provisional and the final disclosure. Therefore, even if the disclosures and the access to the file open for inspection by interested parties are based on different legal provisions, it should be noted that there were ample opportunities for the interested parties to comment on all information made available by any party to the investigation. Therefore, this claim had to be rejected.

(13) All interested parties were informed of the essential facts and considerations on the basis of which it was intended to recommend the imposition of a definitive anti-dumping duty on imports of crystalline silicon photovoltaic modules and key components (i.e. cells) originating in or consigned from the People's Republic of China and the definitive collection of the amounts secured by way of provisional duty ('the final disclosure'). All parties were granted a period within which they could make comments on the final disclosure.

(14) The comments submitted by the interested parties were considered and taken into account where appropriate.

5. Acceptance of an undertaking in view of definitive duties

(15) Following final disclosure, the Commission received an amended offer for an undertaking by exporting producers together with the CCCME, which covers also the parallel anti-subsidy investigation. By Commission Decision 2013/XXX/EU of XX December 2013, the Commission has confirmed the acceptance of that undertaking.

6. Parties concerned by the proceeding

(a) Sampling of Union producers

(16) Following the imposition of provisional measures, some interested parties reiterated the argument that excessive use of confidentiality prevented them from commenting

on the selection of the sample of Union producers and thus from the proper exercise of their rights of defence. The Commission already addressed this issue in recital (9) to the provisional Regulation. As no new information was provided in this respect, the conclusions in recital (9) to the provisional Regulation are confirmed.

(17) The GOC reiterated its claim that the use of confidentiality of the names of the complainants and sampled Union producers is not warranted. As already stated in recital (9) to the provisional Regulation, the Union producers requested that their names be kept confidential due to the risk of retaliation. The Commission considered that these requests were sufficiently substantiated to be granted. The information that has been provided to the Commission in order to substantiate the risk of retaliation cannot be disclosed to third parties, as such disclosure would defeat the purpose of the request for confidentiality. Moreover, in a case, where, as reported by the GOC, a Union producer re-evaluated its position and revealed its identity by filing an application for a Court case against the provisional Regulation, there is no longer ground to disclose information on the basis of which anonymity was granted, as the identity has been revealed.

(18) Further to the provisional disclosure, one interested party reiterated that the information on which the selection of the sample was based was not reliable, without, however, providing any new evidence in this regard. This claim was therefore rejected.

(19) Following the final disclosure, the CCCME reiterated the arguments about the method used for the selection of the provisional sample of the Union producers. It claims in particular that the Institutions have not taken into account 120 producers. The Commission already addressed this issue in recital (9) to the provisional Regulation. Moreover, the Institutions have verified the activities of the companies provided on that list. It turned out that that list mostly includes installers, distributors, related importers and exporting producer in China, Taiwan, and India. It therefore was not apt to demonstrate that the Institutions had overlooked a significant number of Union producers. Moreover, the CCCME has not contested the total Union production by providing alternative figures, nor has it put forward any evidence that the representativity of the sample could have been affected, as none of the alleged additional Union producers would have been selected into the sample, had it been known to the Commission.

(20) Following the exclusion of wafers from the definition of the product concerned, and thus from the scope of this investigation as cited in recital (32) below, the final sample consisted of eight Union producers. In the absence of any further comments with regard to the sampling of Union producers, the findings in recitals (7) to (10) to the provisional Regulation are herewith confirmed, as amended above.

(b) Sampling of unrelated importers

(21) Following the imposition of provisional measures, as mentioned in recital (12) to the provisional Regulation, the Commission contacted additional importers that had already cooperated in the investigation at the initiation stage by providing basic information on their activities related to the product under investigation during the investigation period, as specified in the Notice of Initiation. The purpose was to determine whether the size of the sample of unrelated importers could be increased. Six companies, qualifying as unrelated importers trading the product concerned (i.e. purchasing and reselling it), came forward and were willing to cooperate further in the investigation. Out of these six, five replied within the deadline. Out of the five replies received, only three were sufficiently complete and allowed for a meaningful

assessment. On this basis, the sample of the unrelated importers was enlarged and consisted of four importers for modules, representing around 2 % - 5 % of the total imports from the country concerned. Given the structure of the unrelated importers, which were mostly small and medium-sized companies, it was not possible to have a sample representing a larger share, given the limited resources at the disposal of the Institutions.

(22) In the absence of any further comments with regard to the sampling of unrelated importers, recitals (11) and (12) to the provisional Regulation, as amended above are confirmed.

(c) Sampling of exporting producers

(23) Following the provisional disclosure, a number of non-sampled companies submitted comments arguing that their situation is different from the sampled companies. They argued that, as a consequence, they should benefit from an individual duty rate pursuant to Article 17(3) of the basic Regulation. However, due to the high number of co-operating companies (often groups of companies), it was not possible to individually investigate all companies. Therefore, pursuant to Article 9(6), these companies are subject to the weighted average duty of the sampled companies.

(24) In the absence of any further comments with regard to the sampling of exporting producers recitals (13) and (14) to the provisional Regulation are confirmed.

7. Investigation period and period considered

(25) As set out in recital (19) to the provisional Regulation, 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. Introduction

(26) As set out in recitals (20) to (49) to the provisional Regulation, the product concerned as provisionally defined 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 micrometers. 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’).

(27) 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
- 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).

2. Claims regarding the product scope

2.1. Exclusion of wafers

(28) Following the provisional disclosure, interested parties claimed that wafers should be removed from the product scope since wafers do not share the same basic physical, chemical and technical characteristics as cells and modules. In addition to the arguments brought forward at the provisional stage, two additional arguments were brought forward in this respect after the provisional disclosure.

(29) Firstly, interested parties claimed that wafers can be used for other purposes than for the production of cells, notably the production of integrated circuits and other micro devices. In this respect, it is noted that not all wafers are included in the product scope of this investigation, which is limited to "*wafers of the type used in crystalline silicon PV modules or panels*", and that those wafers have "*a thickness not exceeding 400 micrometres*". While wafers certainly do exist in other applications, the investigation never covered wafers which are used in the production of other products such as integrated circuits. In addition, no producers, importers or users involved in the market for these other types of wafers came forward alleging that their wafers would be subject to registration or provisional anti-dumping duties. It is therefore confirmed that these other types of wafers are not subject to the product scope of this investigation. At the same time, this shows that wafers do not necessarily have the same end use as cells and modules.

(30) Secondly, interested parties claimed that unprocessed wafers possess none of the essential electric properties which distinguish solar cells and modules from other products. In particular, wafers lack the ability to generate electricity from sunlight, which is the key function of crystalline photovoltaic cells and modules.

(31) This claim can be accepted. Indeed after further verification and contrary to what is stated in recital (36) to the provisional Regulation that "*modules, cells and wafers have the same end use, converting sunlight into electricity*", only once the wafer is transformed into a cell, does it obtain the functionality to generate electricity from sunlight.

(32) Due to the different basic physical and technical characteristics, defined during the investigation *inter alia* as the functionality to generate electricity from sunlight, it is concluded on balance that wafers should be excluded from the definition of the product concerned, and thus from the scope of this investigation.

2.2. Separate investigations for cells and modules

(33) Interested parties reiterated that cells and modules are not a single product, and should therefore be assessed separately, mainly repeating arguments already addressed in recitals (27) to (39) to the provisional Regulation. Unlike wafers, however, cells and modules do share the same basic property, i.e. the ability to generate electricity from sunlight. These arguments were therefore rejected.

(34) Following final disclosure, one exporter argued that cells by themselves cannot produce electricity. Allegedly, they need to be integrated into modules to do so. However, each cell by itself has a capacity to generate electricity from sunlight of typically around 4W. While this power may be insufficient for most applications which require an assembly of multiple cells into modules, this does not mean that a cell by itself does not already have the capacity to generate electricity.

(35) Following final disclosure, one exporter argued that the impossibility to establish a Normal Value for modules on the basis of the Normal Value for cells, as described in recital (100) below, demonstrates that modules and cells should not be considered a single product.

(36) In this respect, it is noted that in the majority of anti-dumping investigations, including the present investigation, a comparison between Normal Values and export prices is made on the basis of product types. This is done since often a very broad range of product types share the same basic physical, technical and/or chemical characteristics, which often leads to a situation where product types with substantially different costs and prices fall under the definition of the "product concerned". The mere fact that it is not possible to establish a Normal Value for a certain product type on the basis of the Normal Value of another product type does not in itself mean that these product types cannot be considered a single product. As described in recital (32) above, both cells and modules do share the same basic physical and technical characteristics, *inter alia* the functionality to generate electricity from sunlight.

(37) It is further argued that if cells and modules were one single product with minor differences, adjusting the prices of cells to establish a price of modules should not be difficult. In this respect it is noted that there is no requirement that there are only minor differences between the different types of the product concerned. To the contrary, it is sufficient that the different types of the product concerned share the same basic physical, technical and/or chemical characteristics. In the present case, this is the case for modules and cells, *inter alia* the functionality to generate electricity from sunlight.

(38) The same party further argued that cells are not just another type of module, but an entirely different product. In effect, a cell is the key component of a module. As a key component, a cell is clearly not "an entirely different product", as modules and cells share the same basic characteristics of generating electricity from sunlight, as indicated in recital (32) above.

(39) The same party argued in addition that when the samples for Union producers and Chinese exporters were selected, the difference between cells and modules was taken into account. Therefore, different duty rates for modules and cells should have been established. In this respect, it is confirmed that the difference between modules and cells was indeed taken into account when sampling Union producers and Chinese exporters, as indicated in recitals (10) and (14) to the provisional Regulation. This, however, was only done to ensure that the sample is representative and does as such not mean that cells and modules should not be considered a single product concerned, or that separate duty rates should be established for cells and modules. Indeed, in order to ensure that the sample was representative for all product types, it was important to distinguish between cells and modules when selecting the sample. Furthermore, as there was a certain degree of uncertainty with regards to the question as to whether cells and modules were to be regarded as one product or as two separate products, it was necessary to ensure representativity for both possible outcomes.

(40) In addition, it is argued that recital (100) below stating that the processing costs for modules are significant is in contradiction with recital (32) to the provisional Regulation, which states that the value added is not concentrated in a particular stage of the production process. In this respect, it is recalled that recital (100) also clarifies that the cost difference between cells and modules is 34%, which means that 66% of

the value of a modules stems from the cell. It is therefore concluded that the value added is not concentrated in a particular stage of the production process.

(41) Exporting producers claimed that the fact that the undertaking imposes different minimum import prices and volumes for cells and modules allegedly confirms that modules and cells are distinct products requiring two distinct investigations. The different minimum import prices, however, are merely an indication that cells and modules are different groups of product types which are sold at different prices. Therefore, it is necessary to define different prices to make the minimum import prices meaningful.

(42) Also, the fact that cells and modules are distinct groups of product types is not as such relevant for the definition of the product concerned. For the definition of the product concerned, it is sufficient that the products share the same basic characteristics and end uses, which is the case for modules and cells as described in recitals (32) and (48) respectively.

(43) The GOC argued that the assessment whether cells and modules are a single product concerned does not address a number of criteria defined by the Appelate Body in *EC – Asbestos*[5]. However, these criteria are used for the definition of the "like product", not the product concerned. In other words, these criteria have to be used to define the like product, for example the like product produced by Union Industry, which is then compared with the product concerned exported by the Chinese exporting producers. These criteria are not pertinent when defining the product concerned. In any event, the Institutions observe that the application of the criteria used in *EC – Asbestos* to the definition of the product concerned in the present case would not lead to a different outcome. The first and the second criteria (properties, nature and quality respectively end-uses) are identical to the criteria physical, chemical and technical properties and end-uses used in the preceeding recitals. The third criterion (consumers taste and habits) is not really useful for the present case, as cells are the key component of modules; as regards the fourth criterion, tariff classification, it is noted that both cells and modules can be declared under customs heading 8541 40 90, while the customs headings under heading 8501 are for electric generators in general and not in particular for solar products.

(44) Other interested parties argued that an objective application of the criteria developed by the Court of Justice in previous cases[6] allegedly leads to the conclusion that modules and cells are different products. In this respect, it is noted that the court only indicated a number of criteria which may be taken into account - there is no obligation to use all criteria in all cases, since not all of them may be relevant. These criteria were assessed in recitals (27) to (39) to the provisional Regulation, where it was found that a number of criteria are not relevant in the present case. In the *Brosmann* case the assessment whether different types of shoes belong to the "product concerned" was also made on the basis of only three criteria which were found to be relevant. As the interested parties did not provide any reasoning why an objective application of the criteria leads one to conclude that modules and cells are distinct products, the argument cannot be accepted.

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5 Appelate Body Report, *European Communities – Measures Affecting Asbestos and Asbestos-Containting Products*, WT/DS135/AB/R, adopted 5 April 2001

6 Case T-401/06 *Brosmann Footwear (HK) Ltd and others vs Council;* Case T-314/06 *Whirlpool Europe vs Council*

(45) In addition, it is recalled that cells and modules have the same basic end uses, i.e. they are sold for integration into PV solar systems. The modules performance is directly linked to the performance of the cells, as indicated in recital (28) to the provisional Regulation.

(46) One interested party argued that with the exclusion of wafers from the product scope, and due to the significant processing involved to make modules from cells, the argument that cells and modules have the same end uses also stands refuted. It is also argued that the assessment that modules and cells have the same end uses is based on the assumption that wafers, modules and cells have the same production process.

(47) Firstly, the conclusion that the assessment that modules and cells have the same end uses is based on the production process is wrong. While both statements are indeed in the same recital (36) to the provisional Regulation, this does not mean that one conclusion is based on the other assumption. The word "moreover" separating the two statements makes it clear that the second statement is not based on the first. In addition, the two statements are made to address separate issues under the heading "End use and interchangeability". The first statement concerning the production process addresses interchangeability, while the second statement addresses end use. The underlying assumption that the assessment that modules and cells have the same end uses is based on the assumption that wafers, modules and cells have the same production process is therefore incorrect.

(48) As to the actual end use of cells and modules, it is not disputed by interested parties that modules and cells are sold for integration into PV solar systems. The conclusion that modules and cells have the same end use is therefore confirmed.

2.3. Mono and multi-crystalline cells

(49) One interested party claimed that there was no production of mono crystalline cells in the Union, and that their exports of mono crystalline cells were not competing with the Union industry. The investigation showed however that there was indeed production of mono crystalline cells in the Union. This argument was therefore rejected. In any event, the General Court held in Brosmann that *the absence of Community production of a particular product type is not decisive.*

2.4. "Consigned from" clause

(50) Interested parties argued that the extension of the scope of the investigation was to products "consigned from" the PRC, while the investigation was initiated only against products originating in the PRC was unjustified.

(51) However, goods consigned from the PRC were already covered at the initiation stage. In point 5 of the Notice of Initiation[7] it is stated that "*companies which ship the product concerned from the People's Republic of China but consider that part or even all of those exports do not have their customs origin in the People's Republic of China are invited to come forward in the investigation and to furnish all relevant information".* It is therefore clear that all companies consigning goods from the PRC had the opportunity to co-operate in this investigation. Furthermore, since the product under investigation frequently incorporates components and parts from different countries, it was also announced in point 5 of the Notice of Initiation that "special provisions may be adopted" to address this issue.

[7] OJ C 269, 6.9.2012, p. 5.

(52) It is therefore considered that all economic operators affected were duly informed of the possibility that special provisions in respect of goods consigned from the PRC may be adopted, if appropriate, and were invited to co-operate in the investigation. Thus the scope of the investigation was not extended to products "consigned from the PRC", since these were covered from the outset.

(53) Following disclosure, interested parties argued that irrespective of the provisions in the Notice of Initiation referred to in recital (51) above, the investigation was limited to goods originating in the PRC and did not assess the impact of goods consigned from the PRC.

(54) In this respect, it is noted that the following steps were taken to ensure that all goods consigned from the PRC were assessed during the investigation, and not only goods originating in the PRC:

- All companies which ship the product concerned from the PRC were invited to come forward in the investigation irrespective of the origin of the goods.
- In Annex A of the Notice of initiation, exporters were asked to report information for all products manufactured by the company. This information was not limited to goods originating in the PRC.
- On the basis of this information, which contained all exports to the EU irrespective of the origin of the goods, a representative sample was selected.
- The sampled producers received a questionnaire for "producers exporting to the European Union", and the PRC was referred to as "country concerned", not country of origin. It was therefore clear that all goods irrespective of the origin of the goods were investigated.

(55) On this basis, it is concluded that the investigation covered all goods originating in or consigned from the PRC, and that the findings of the investigation, including dumping and injury, cover all goods originating in or consigned from the PRC.

(56) Following final disclosure, interested parites argued that the complaint contained only *prima facie* evidence concerning imports of solar panels originating in the PRC, not goods consigned from the PRC. In this respect, it needs to be clarified that the complaint indeed covered goods "from the PRC", which can be seen from the cover page submitted by the applicant bearing the stamp. Before this page, there is another page on the file which indeed uses the wording "originating in the People's Republic of China". But this case was not part of the document submitted by the complainant, but added as a cover page by the Commission Services, using the name of the investigation rather than repeating the title of the complaint. It is therefore considered that the complaint covered all goods from the PRC, whether originating in the PRC or not.

(57) Chinese exporting producers further argued that exporting producers in third countries cannot reasonably be expected to have known that their products could also be targeted by the investigation. In this respect it is noted that the measures do not apply to goods which are in transit in the sense of Article V GATT. Therefore, exporting producers which have no operations in the PRC are not affected by the measures. Furthermore, no exporting producers in third countries came forward raising the issue that the products they export are subject to the anti-dumping duty.

(58) The same exporting producers argued that exporting producers in third countries were not asked to come forward, and not given the opportunity to show that their products

are not dumped. The Institutions consider that those exporting producers without any operations in the PRC are not affected by the measures, as their goods, if consigned from the PRC, will have been in transit. All other exporting producers were informed by the Notice of Initiation that their operations are part of the investigation.

(59) The GOC argued that while Article 1(3) of the basic Regulation allows deviating from the principle that the exporting country is the country of origin, this Article cannot be used in the present case. In support of this claim they argue that no complete analysis whether the exporting country may be an intermediary country. The Institutions disagree with this interpretation of Article 1 (3) of the basic Regulation. No party contests that there is significant production in the PRC. Whether or not the PRC is the country of origin of the finished goods depends on several factors. The analysis of dumping, injury, causation and Union interest carried out by the Institutions refers to that production, irrespective of the question whether the finished exported good has its customs origin in the PRC. As there were strong indications that not all products which were at least partially produced in the PRC would be considered to have their customs origin in the PRC, the Institutions decided that it was necessary to cover also products for which the PRC is only an intermediary country.

(60) The GOC further argued that since no Chinese exporter has been granted MET, there is no comparable price for solar panels in ine PRC, and as a consequence the PRC cannot be used as an intermediate country. However, in this respect it is noted that the three conditions of Article 1(3) of the basic Regulation are given as examples only, and not all conditions may be relevant in all cases. In the present case, since no Chinese exporter has been granted MET, the comparable price had to be established in the analogue country – and this comparable price is the same irrespective of whether The PRC is considered the country of origin or the intermediate country. Therefore, the issue whether there is a comparable price "in that country" is irrelevant, as in the present case the comparable price is not established "in that country", but in the analogue country.

2.5. Solar chargers

(61) Following the provisional disclosure, interested parties claimed that the definition of "solar chargers that consist of less than six cells" is too narrow, and should be extended to products with a similar function which are not covered by this definition such as products with a similar size using a larger number of smaller cells.

(62) In addition, interested parties claimed that the definition of "silicon PV products that are permanently integrated into electrical goods" is too narrow, as only the complete electrical good is excluded, while solar components for integration into the electrical goods are not necessarily excluded.

(63) Indeed, an analysis of the above arguments showed that it is more appropriate to add to the exclusion of such products a criterion on the basis of a technical standard. In particular, it was established that the definitions of the following standard more appropriately define the products which should be excluded from the scope of the measures: international Standard IEC 61730-1, Application Classes, Class C: Limited Voltage, limited power applications (p. 13)[8].

(64) Following definitive disclosure, comments were received concerning the exclusion based on the international standard mentioned above. It was argued that rather than

[8] Reference number CEI/IEC 61730-1:2004

referring to the standard, it would be more appropriate to define the exclusion on the basis of the output voltage and the power output as "*modules or panels with a output voltage not exceeding 50 V DC and a power output not exceeding 50 W solely for direct use as battery chargers in systems with the same voltage and power characteristics*". This claim could be accepted, and the exclusion is finally determined according to this definition.

2.6. Roof-integrated solar modules

(65) Another interested party claimed that roof-integrated solar modules should be excluded from the product scope of the investigation, since they combine the functionality of a solar module with that of a roof tile or slate. Therefore, they would not be directly interchangeable with a standard solar module.

(66) The investigation, however, showed that both standard modules and the roof-integrated solar modules have to comply with the same electrical standards. In addition while the roof-integrated solar module cannot be simply replaced with a standard module, it can be replaced by a standard module plus roof tiles or slate. These products therefore have the same basic technical property of generating electricity from sunlight. The added functionality (which is otherwise provided by roofing material) was not considered substantial and does not warrant an exclusion of roof-integrated solar modules from the product scope.

(67) Following definitive disclosure, the same interested party argued that the absence of dual-interchangeability between roof-integrated solar modules and standard solar modules is an indication that roof-integrated solar modules should be excluded from the scope of the measures, referring to the *footware*[9] case in general and special technology athletics footwear 'STAF' in particular. However, the reasons for the exclusion of STAF were numerous, and the absence of dual interchangeability by itself was not considered a sufficient ground by the General Court in the *Brosmann*[10] case, which confirmed that very different product such as city trotters and hiking boots can indeed be considered product concerned in a single anti-dumping investigation despite their differences.

(68) In addition, the interested party argued that due to the absence of production in the Union and the fact that the interested party holds intellectual property rights is allegedly a confirmation that roof-integrated solar modules are innovative and different from any other product. However, referring again to the *footwear* case mentioned by the interested party, the General Court held in Brosmann that "*the absence of Community production of that type of footwear and the existence of a patent are not conclusive*."[11]. As a result, patented technology footwear was considered product concerned in that case.

(69) The interested party also argued that roof-integrated solar modules should be excluded from the definition of the product concerned, since they are sold at substantially higher prices than standard modules. Also, in the *footwear* case STAF above a certain price were excluded from the definition of the product concerned. In this respect, it is noted that a roof-integrated solar module does combine the functionality of a solar module

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9 *Footwear with uppers of leather originating in the People's Republic of China and Vietnam,* Commission Regulation (EC) No. 553/2006 of 23 March 2006 (prov.);
Council Regulation (EC) No. 1472/2006 of 5 October 2006 (def.).

10 Case T-401/06 , *Brosmann Footwear (HK) Ltd. vs Council of the European Union, para 133.*

11 Case T-401/06 , *Brosmann Footwear (HK) Ltd. vs Council of the European Union, para 135.*

and roof tile or slate, as indicated in recital (66) above. A direct comparison of prices is therefore not meaningful, as the added functionality naturally leads to higher prices.

(70) In response to this argument, the interested party argued that on the basis of this argumentation, it would be impossible to ever invoke price differences as an additional indicator warranting the exclusion from the product scope. However, this interpretation is too far-reaching. What is said in the previous recital is merely that in this particular case where the roof-integrated modules combine the functionality of the product concerned plus another product (in this case roof tile or slate), the price is naturally not meaningful. This in no way means that in other cases the price difference cannot be a useful indicator to establish whether a product should be excluded from the definition of the product concerned.

(71) Lastly, the interested party argued that its supplier of roof-integrated solar modules should be granted access to the minimum price undertaking. However, it appears that the Chinese exporter concerned did not co-operate in the investigation, and as a non-cooperating party is not eligible to participate in the undertaking. These request can therefore not be accepted.

3. Conclusion

(72) In view of the above, the product scope is definitively defined as crystalline silicon PV modules or panels and cells of the type used in crystalline silicon PV modules or panels, originating in or consigned from the PRC unless they are in transit in the sense of Article V GATT. The cells have a thickness not exceeding 400 micrometres. This product is currently falling within CN codes 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.

(73) 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).
- modules or panels with a output voltage not exceeding 50 V DC and a power output not exceeding 50 W solely for direct use as battery chargers in systems with the same voltage and power characteristics.

(74) Following the exclusion of wafers, the analysis has been revised by excluding the data and analysis related to wafers, unless otherwise indicated. Given that wafers represented only a small percentage of imports of the product concerned in the Union (around 2 % in value) during the IP, the exclusion of wafers is considered to have a negligible impact if any on the findings. All comments by interested parties have been addressed but any reference to wafers even if raised has been excluded. As a consequence all references and related data concerning wafers reported in the recitals to the provisional Regulation are no longer applicable, even when relevant recitals are confirmed by this Regulation.

(75) Consequently, the provisional conclusions, modified as set out under recitals (26) to (74) above, were definitively confirmed. For the purposes of this proceeding and in accordance with consistent practice, it was therefore considered that all types of the product concerned should be regarded as forming one single product.

C. DUMPING

1. The PRC

1.1. Market Economy Treatment (MET)

(76) Following the provisional disclosure, interested parties 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.

(77) In this respect, these parties argued that the amendment of the basic Regulation[12] purportedly extending the deadline to make the MET determination to eight months only entered into force after the expiry of previously applicable three months deadline. The amendment would apply only to future investigations and to pending investigations where the deadline for making the MET determination had not yet lapsed at that time.

(78) However, Article 2 of the amendment of the basic Regulation clearly states that "this Regulation shall apply to all new and to all pending investigations as from 15 December 2012". This Article, or indeed the whole Regulation, does not contain any reference to the restriction "where the deadline for making the MET determination had not yet lapsed" claimed by the interested parties. Therefore, this argument cannot be accepted.

(79) Following final disclosure, several interested parties re-iterated their argument that the MET determination was made out of time, without challenging the fact that the amendment of the basic Regulation referred to in recital (78) above applies to "all pending investigations", which includes the present investigation. It is therefore finally concluded that the MET determination was not made out of time.

(80) Following final disclosure, one exporter claimed that MET should not have been denied because three companies which ceased operations during 2011 did not have one clear set of basic accounting records. In particular, it was questioned pursuant to which accounting standard a company which ceased operations should nevertheless prepare such accounting records.

(81) In this respect it is noted that the accounting standards do not define which companies are required to prepare financial statements - accounting standards define how these statements have to be prepared. In the case of The PRC, it is the "Accounting Standard for Business Enterprises: Basic Standard" which defines in its Article 4 that "an enterprise shall prepare financial reports". This is a mandatory obligation, and there is no exemption for companies which ceased operation.

(82) Furthermore, even though these companies ceased operation, they still owned assets (including land, buildings, machinery and stocks) and liabilities and did exist as legal entities at least until early 2013. It is therefore considered that these companies were

[12] Regulation (EU) 1168/2012 of the European Parliament and of the Council of 12 December 2012, OJ L 344, 14.12.2012, p. 1.

obliged to publish accounting records for the year 2011, and the lack of these accounting records constitutes a violation of criterion 2.

(83) Following final disclosure, exporters also claimed that the benefits received from preferential tax regime(s) and grants do not represent a significant proportion of their turnover, which is allegedly confirmed by the parallel anti-subsidy investigation.

(84) In this respect, it is recalled that this argument was already addressed in recital (65) to the provisional Regulation. It was stressed that in particular due to the nature of this advantage, the absolute benefit received during the IP is irrelevant for assessing whether the distortion is 'significant'. This claim is therefore rejected.

(85) In the absence of other comments regarding the Market Economy Treatment, all determinations in recitals (50) to (69) to the provisional Regulation are confirmed.

1.2. Individual examination

(86) As indicated in recital (70) to the provisional Regulation, 18 cooperating exporting producers or groups of exporting producers not selected in the sample submitted claims for individual examination pursuant to Article 17(3) of the basic Regulation. In the present case, the sample already consisted of seven groups of companies, which typically consist of a number of exporting producers, related traders and related importers in the Union and third countries. An individual examination of 18 additional (groups of) exporting producers, in addition to the seven groups of exporting producers included in the sample, would be unduly burdensome and would prevent completion of the investigation in good time

(87) In the absence of other comments regarding individual examination, all determinations in recitals (70) to (71) to the provisional Regulation are confirmed.

1.3. Analogue Country

(88) Interested parties noted that India is not a suitable analogue country due to local content provisions for projects of the "Jawaharlal Nehru National Solar Mission" ('JNNSM'). One party alleged that a 75% local content is required, while another party alleged that Indian producers can charge higher prices for 100% domestically produced modules. They further alleged that such requirements significantly increase prices of local products. In support of this claim, an Indian press article was submitted[13]. However, this Article was published almost one year after the end of the IP, and no proof for its impact during the IP has been provided.

(89) However, the same press article reported that the Indian solar industry faces "stiff competition from western and Chinese manufacturers". This is supported by the steady increase of imports into India, as stated in recital (92) below. While the local content requirements may indeed have a certain impact on the Indian domestic market, a clear conclusion can nevertheless be drawn that the Indian market is a competitive one, where numerous Indian and foreign companies effectively compete with each other.

(90) In addition, according to information published by the JRC[14], the majority of the JNNSM projects will come on-line from 2015 onwards. Indeed, the target for grid-connected PV systems under the JNNSM for 2012 was only 50 MW compared to a total grid-connected capacity in India exceeding 1 GW already in June 2012. This shows that during the IP the importance of the JNNSM on total solar installations in

[13] Firstpost, 12 June 2013

[14] JRC Scientific and Policy Report, PV Status Report 2012, p. 14

India was below 5% and therefore the impact of the JNNSM and its local content requirements, if they already existed during the IP, a fact that has not been established by the interested parties, was at best very limited. The majority of the installations during the IP were in the state of Gujarat (about 65%), driven by state support policies.

(91) Interested parties claimed that the Indian market was *de facto* protected during the IP from imports from a variety of sources, including the PRC, because the initiation of an anti-dumping investigation was looming since the beginning of 2012. Indeed, India initiated an anti-dumping investigation against imports of solar cells and modules from the PRC, Malaysia, Taiwan and the USA on 23 November 2012, i.e. only almost five months after the end of the IP.

(92) However, this allegation is not supported by the development of imports of solar cells and modules reported by the Indian trade statistics[15]:

Values in million USD	April 2010 - March 2011	April 2011 - March 2012	April 2012 - March 2013
PRC	77,33	577,24	371,72
Index	100	746	481
Total	252,63	1 348,48	827,07
Index	100	534	327

(93) The table above shows that imports of solar cells and modules dramatically increased by more than 600 % for the PRC and more than 400 % overall between 2010/11 and 2011/12. Subsequently, the import values somewhat decreased, but so did prices for solar cells and modules. Indeed, the drop in import values between 2011/12 and 2012/13 is in line with the price decrease reported by specialized consultancies such as pvXchange for the same period, leading to the conclusion that the import volumes remained rather stable between 2011/12 and 2012/13. It is therefore concluded that the Indian market was not *de facto* protected during the IP from imports from a variety of sources, including the PRC.

(94) Following final disclosure, the Government of China argued that the USA have requested consultations with India under the WTO dispute settlement procedures concerning the local content requirements of the JNNSM on 6 February 2013. The effect of these local content rules, in combination with the anti-dumping investigation mentioned in (91) above, allegedly led to a decrease of 38% in value terms in April 2012 – March 2013 compared to the previous year, in contrast to the increase in previous years.

[15] Indian Import statistics, Commodity Code 8541 40 11 Solar Cells/Photovoltaic cells whether or not assembles in module/panel. The values are given for the Indian business year, i.e. April-March. Information on volumes is given in pieces, but cells and modules are reported together. Since the value of a module is typically around 100 times larger than the value of a cell, the information on volumes is not considered reliable.

(95) In this respect, it is noted that the decrease in value terms is due to a decrease in prices rather than import volumes. Following definitive disclosure, an interested party provided information on the development of imports of solar cells and modules on the Indian market in terms of volume between 2010 and March 2013. This data shows a steady increase if imports of solar modules and cells into the Indian market in terms of volume. It is therefore concluded that the Indian market was not *de facto* protected due to a looming anti-dumping investigation, and the claimed, but not proven, in any event at the very best minor effects of the local content requirements under the JNNSM mentioned in recital (90) above did not prevent a steady increase in imports in terms of volume.

(96) In addition, it is pointed out that the period of April 2012 – March 2013 showing the alleged effects of the JNNSM on imports into India is predominantly after the IP. Any possible impact of this alleged decrease on the IP can therefore only be minor.

(97) One interested party alleged that Tata Power Solar ('Tata') only recently entered the market, and is therefore not a suitable analogue country producer. In this respect, it is noted that the company, previously "Tata BP Solar", is producing solar modules since 1989 and can therefore not be considered having entered the market only recently. Indeed, according to information provided by another interested party, Tata entered the market significantly earlier than the five largest sampled Chinese exporters.

(98) One interested party claimed that Taiwan would be a more suitable analogue country than India, since the size of the Taiwanese companies is more comparable to the size of the Chinese exporters, and there is also co-operation from Taiwanese producers. Also, other interested parties questioned whether India would be a reasonable analogue country given the comparably small size of Tata without proposing a more suitable alternative.

(99) Indeed, Taiwanese companies co-operated. One company fully co-operated, while another company only co-operated partially. The sole fully co-operating Taiwanese company is however smaller than Tata, in particular in terms of sales and production of modules which account for around 90% of the sales of the product concerned, where Tata sells substantially more than the Taiwanese company who only has insignificant sales in this respect, as mentioned in recital (76) to the provisional Regulation. Following definitive disclosure, one exporter asked whether the partially co-operating Taiwanese company was contacted to furnish the missing information. In this respect it is referred to recital (76) to the provisional Regulation, which clarifies that Taiwan could not be used as analogue country since the co-operating Taiwanese companies almost exclusively produced cells, while the Chinese exports are mainly in the form of modules. This also applies to the partly co-operating Taiwanese producer. Since this producer was already considered unsuitable for this reason, it was not considered appropriate to request additional information from this company.

(100) The same interested party claimed that the almost complete lack of sales of modules does not disqualify Taiwan as analogue country *per se*, since the processing costs from making cells into modules can be established without much difficulty. This is, however, not supported by the facts of the investigation. Producing a module from cells requires multiple steps of production, during which a significant part of the value added of the module is created. As indicated in recital (137) to the provisional Regulation, during the IP the average price difference between cells and modules was EUR 555,92 or 54%, while the average cost difference amounted to EUR 377,99 or 34%. This would mean that a significant share of a possible Taiwanese Normal Value

for modules would have to be based on adjustments for processing costs, which cannot be considered more reasonable than a country where the Normal Value can be based on domestic sales prices for most of the product concerned. It is therefore considered that India has been selected as analogue country in a reasonable manner, taking account of the available reliable information.

(101) Another interested party argued that no reasons were given why the USA was not considered an appropriate analogue country. In this respect reference is made to recital (74) to the provisional Regulation, where it is clearly stated "*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*." Since no comments on the protection of the US market as such were received, the position in this respect remains unchanged.

(102) Interested parties argued that the result of the dumping calculation is distorted due to differences in economies of scale between the Chinese producers and the Indian producer. It was therefore checked whether a correlation between a company's production volume and its dumping margin indeed exists.

(103) Of the seven company groups included in the sample, there are two medium sized company groups (Jinzhou Yangguang and Delsolar) and five large company groups (JingAo, LDK, Suntech, Trina and Yingli). Of the medium sized companies, Jinzhou Yangguang has the lowest margin, while Delsolar has the highest margin. The five larger companies are in-between. This clearly demonstrates the absence of any correlation between economies of scale and dumping margins. Therefore, it is considered that the dumping calculation is not distorted due to differences in economies of scale between the Chinese producers and the Indian producer.

(104) Following definitive disclosure, interested parties claimed that the absence of any correlation between economies of scale and dumping margins does not show that there is no impact of economies of scale and the comparability of prices. In a situation where the dumping margin is based on an identical Normal Value for all exporters as in the present case, the dumping margin is mainly driven by the export prices. The absence of any correlation between economies of scale and dumping margin therefore equally demonstrates the absence of any correlation between economies of scale and sales prices. It is therefore concluded that differences in economies of scale do not affect the comparability of prices in the present case.

(105) One interested party claimed that the analogue country producer had extremely high domestic sales prices, which allegedly are significantly higher than the sales prices of the Union industry, since the dumping margin significantly exceeds the undercutting margin. This claim was made by comparing Indian Normal Values with the sales prices of the Union industry. This comparison is, however, flawed since the Indian Normal Value is based on the profitable sales only. Especially in a situation where the Union industry is loss-making, it is not surprising that profitable prices in India exceed the average Union industry price. Therefore, the fact that the Indian Normal Value exceeds average Union industry prices does not demonstrate that the choice of India as analogue country is unreasonable.

(106) One interested party argued that Tata's prices are distorted, since it is related to Tata Power, a utility company. This allegedly allows Tata to charge higher prices in the areas served by Tata Power. However, no supporting evidence was provided, and no quantification of this alleged effect was provided either. This claim could therefore not be accepted.

(107) Following definitive disclosure, one exporter argued that Tata is an uncompetitive company with high production costs and sales prices, which was allegedly the reason why BP Solar withdrew from the joint venture in December 2011. In support of this, a press article is quoted, stating that "*BP's exit from the solar industry after some four decades shows how competitive and crowded the solar market has become."* However, this article did not single out Tata as an uncompetitive company, it addressed the situation on the market for solar panels in general, speaking about "*cutthroat competition that marks an industry*", and that "*many companies worldwide have closed factories, laid off hundreds of workers and filed for bankruptcies"*. This press article can therefore not demonstrate that Tata is an uncompetitive company with high production costs and sales prices.

(108) Following disclosure, one exporter argued that Tata was not included as part of the Indian domestic industry in the on-going Indian anti-dumping investigation mentioned in recital (91) above, due to its significant imports of cells. While it is confirmed that Tata is indeed not part of the Indian domestic industry in the on-going Indian anti-dumping investigation, this does not automatically mean than Tata is not a suitable analogue country producer. The Normal Value was based exclusively on cells and modules produced by Tata in India, and not on imported goods. The fact that imported components were used in the production of some of the products does not mean that the resulting Normal Value is not representative for India, even more so since it is predominantly based on sales prices and not on costs.

(109) The Government of China argued that Tata's sales of modules allegedly only represent only 0,3% of the Chinese exports to the EU and cannot be considered representative, referring to the *Detlef Nölle*[16] judgment of the Court. In that case, the Court considered that when the total production in a country is only 1,25% of the export volume to the EU, this amounts to an indication that the market considered is not very representative. In the present case, the Government of China did not compare the total production in India with the total Chinese exports, but only the production of one Indian company with the total exports of all Chinese exporters. This comparison is however flawed, since in a competitive market with multiple players the quantities relating to only one producer are not indicative of the representativity of the market as a whole. In addition, it is not the comparison which was made in the *Detlef Nölle* case either, where the total production of the country was compared with total exports. According to information provided by the China Chamber of Commerce for Import and Export of Machinery ('CCCME'), production in India was forecasted to exceed 2 GW before the end of 2012, i.e. shortly after the end of the IP. Such a production would be equal to 14% of Chinese exports to the EU, well above the 5% indicative threshold mentioned in the *Detlef Nölle* judgment.

(110) Following disclosure, one interested party referred to the fact that Tata lacks upstream integration and has to source wafers from third parties. Allegedly, this lack of upstream vertical integration leads to an increase of costs compared to vertically integrated Chinese producers. This claim was however not substantiated. In particular, the total cost of Tata would only be higher if their purchase price for wafers would exceed the cost of production of a wafer, which is uncertain since many companies in the solar business have been loss-making during the IP. Furthermore, even large vertically integrated Chinese producers often purchased significant quantities of wafers from independent suppliers, which supports the conclusion that the lack of

[16] Case C-16/90, *Detlef Nölle vs Hauptzollamt Bremen-Freihafen,* ECR I-5163

vertical integration into wafers does not necessarily lead to higher costs for modules and cells.

(111) One interested party argued that the analogue country is uncompetitive. This claim is supported by the fact that the production of solar cells in India is at a 5-year low in 2013. The report quoted by that interested party however showed during the IP the Indian cell production was still at a high level close to the peak reported. The significant decrease in production occurred after the IP, and therefore had no impact on the results of the investigation.

(112) Another argument brought forward to support the claim that the analogue country is uncompetitive is the anti-dumping investigation mentioned in recital (91) above. The Institutions observe that that investigation is still on-going, and that therefore, no conclusions can be drawn from it. In general, anti-dumping investigations are not an indication for a lack of competitiveness, but an indication that the domestic industry considers that it is subject to unfair trade practices from competitors located in third countries.

(113) On balance, the Commission considers that the choice of India as an analogue country is not unreasonable.

(114) In the absence of other comments regarding the Analogue Country, all determinations in recitals (72) to (77) to the provisional Regulation are confirmed.

1.4. Normal Value

(115) Following the provisional disclosure, one interested party commented that the Indian companies mainly sold off-grid modules, which have higher prices and costs than the grid-connected modules sold by the Chinese exporters. It was further claimed that off-grid modules typically have a lower power output than grid-connected modules.

(116) In this respect, it is noted that different Normal Values were established for "standard-sized" modules with more than 36 cells which are typically grid connected and smaller modules with 36 cells or less which are typically used off-grid. It is therefore considered that an appropriate Normal Value is established for all product types, including off-grid modules and grid-connected modules.

(117) Another interested party stated that Tata is also active as a project developer, and the sales of this company are therefore not comparable with sales of modules only by Chinese exporting producers. In this respect it is noted that the comparison between domestic Indian prices and Chinese export prices were exclusively made for sales of modules, and sales of complete projects or integrated solutions were not used to establish Normal Value as they were not considered to be comparable.

(118) In the absence of other comments regarding Normal Value, all determinations in recitals (78) to (86) to the provisional Regulation are confirmed.

1.5. Export price

(119) Following the provisional disclosure, some of the sampled exporters commented on minor issues concerning the export price used to establish the dumping margin. Where warranted, the comments were taken into account and led to a slight revision of the dumping margin of the companies concerned.

(120) In the absence of any other comments regarding export price, all determinations in recitals (87) to (89) to the provisional Regulation are confirmed.

1.6. Comparison

(121) Following the provisional disclosure, some of the sampled exporters commented on minor issues concerning the allowances used to compare export prices. Where warranted, the comments were taken into account and led to a slight revision of the dumping margin of the companies concerned.

(122) Following the provisional disclosure, a clerical error resulting in an incorrect adjustment to Normal Value for domestic freight was discovered. This error was corrected and led to a slight decrease in dumping margins.

(123) Following disclosure, one interested party claimed that an adjustment for level of trade may be warranted, since the party does not sell directly to installers, but to resellers and distributors. The party requested detailed information on the sales channels of the analogue country producer, which could not be provided to protect confidential information. As an alternative, the customer base of the analogue country producer was categorized into different categories according to sales volume, which showed that a level of trade adjustment was not warranted.

(124) In response to this analysis, the interested party admitted that a difference in sales quantities would result in price differences, but maintained their argument that they would allegedly charge higher prices to installers than distributors/resellers even if the installer would buy a similar quantity than the distributor/reseller. However, this claim was not substantied and could therefore not be taken into account.

(125) In the absence of any other comment regarding export price, all determinations in recitals (90) to (92) to the provisional Regulation are confirmed.

1.7. Dumping margins

(126) One sampled exporting producer requested a full disclosure of its dumping calculations, claiming that it could otherwise not comment on the accuracy thereof. As this company was not granted MET, its normal value was based on data from India as analogue country. Given that only one producer in the analogue country fully co-operated in the investigation, information from the analogue country cannot be disclosed on a product type level in order to protect confidential information. Therefore, the claim needs to be rejected.

(127) 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.

(128) 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. Accordingly, that margin was established on the basis of the margins established for the sampled exporting producers.

(129) On that basis, the definitive dumping margin for the cooperating companies not included in the sample was established at 88,1 %.

(130) 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 that 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 volume of Chinese exports, as established in recital (167).

(131) 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 measure.

(132) On this basis the definitive 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 & Technology Co. Ltd Changzhou Youze Technology Co. Ltd Trina Solar Energy (Shanghai) Co. Ltd Yancheng Trina Solar Energy Technology Co. Ltd	90,3 %
Delsolar (Wujiang) Ltd,	111,5 %
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	91,9 %
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	97,5 %
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	53,8 %
Wuxi Suntech Power Co. Ltd Suntech Power Co. Ltd Wuxi Sun-Shine Power Co. Ltd Luoyang Suntech Power Co. Ltd Zhenjiang Ren De New Energy Science Technology Co. Ltd Zhenjiang Rietech New Energy Science Technology Co. Ltd	73,2 %
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	93,3 %

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	
Other cooperating companies (Annex I, Annex II)	88,1 %
All other companies	111,5 %

D. INJURY

1. Definition of the Union industry and Union production

(133) The like product was manufactured by around 215 producers in the Union. The Institutions have verified claims by interested parties that there was a higher number; this verification has revealed that the alleged additional producers were in reality mostly exporting producers, importers related to those, distributors and installers.

(134) Following the provisional disclosure, several parties contested the fact that data provided by Europressedienst, an independent consultancy firm ('the consultant'), were used to determine, *inter alia*, Union production, Union production capacity as well as other macroeconomic injury indicators concerning the Union industry and import data. These parties questioned the independence of the consultant alleging that it was linked to the complainant. They also requested clarifications on what basis the consultant was selected by the Commission and questioned its expertise in collecting economic data related to the PV sector. In this regard, it was claimed that the Commission should have based its findings on data from other available sources, in particular known research institutes. Lastly, a reference to Best Practices for the submission of economic evidence and data collection in cases concerning the application of Articles 101 and 102 TFEU and in merger cases was made by AFASE to contest the reliability of the data submitted by the consultant.

(135) As regards the alleged links between the consultant and the complainant, the relevant interested parties did not submit any evidence showing the existence of such links. Likewise, the investigation did not bring into light any evidence of a relationship going beyond purely commercial character. Following final disclosure one interested party claimed that there were indications that the prima facie evidence provided by the complainant Union industry in the complaint were based on data provided by the same consultant. Even though it is acknowledged that findings for some indicators were indeed similar to the evidence provided in the complaint that does not necessarily mean that they were established on the basis of one source only. In this regard, the complaint provides the various sources used.

(136) As explained in recital (99) to the provisional Regulation, the Commission considered it appropriate to make use of this consultancy in the current investigation, due to the unavailability from other public sources of the necessary macro-economic data covering the total Union market as well as import data. Prior to selecting Europressedienst the Commission assessed the methodology used by the consultant for the collection of the relevant data as well as the consultant’s ability to provide the necessary data separately for all product types and for the entire period considered.

(137) Furthermore, during the investigation, data provided by the consultant were counter checked when possible with other available sources and were confirmed. In this respect, it is noted that several research companies specialised in collecting PV statistics exist on the market and the figures reported are almost never identical. This is due to the fact that precise figures are difficult to derive for any research institute and therefore the reported PV market indicators will always be based on estimates, independently of the provider of such figure. In this context, the cross-checking exercise carried out by the Commission consisted of comparing the trends of the data received from the consultant with the trends of the same data published by other research companies, the Commission's Joint Research Center ('JRC') and the European Photovoltaic Industry Association ('EPIA') on the same topics, when available. No significant differences were noticed as a result of the cross-checking exercise as the trends of the indicators for which the cross-checking was done were similar. Provisional findings were therefore not solely based on data provided by the consultant but also on the Commission's own analysis and assessment of these data. In addition, as mentioned above in recital (9), after the imposition of provisional measures a verification visit took place at the premises of the consultant. The Commission carried out the on-the-spot check at the consultant's premises to verify the reliability of the methodology and data supplied. The on-the-spot check was carried out as a follow-up of the cross-checking of the data by the Commission and to obtain further assurance as regards the reliability and quality of the data and related methodology. The on-the-spot verification was considered appropriate in application of the principle of good administration, even if those data were not provided by an interested party but by a consultant. As a result, the Commission was further reassured of the reliability of the data provided by the consultant.

(138) One party claimed that the methodology of cross checking used by the Commission was not explained in sufficient detail and requested that the other sources used for the cross checking should be disclosed. This party argued further that the methodology used was in any event invalid insofar that only trends of various sources were compared and not absolut values.

(139) As far as the other sources used to cross check the data provided by the consultant are concerned, they were the reports published by the 'JRC and EPIA on the same topics. As for the comparison of data with other sources it is noted that they showed not only similar trends but also similar magnitudes. Therefore, it was concluded that the methodology used was appropriate and the claims in this regard were rejected.

(140) As to expertise of the consultant, it is noted that its main activity is collecting data linked to the PV sector and developing an up-to-date database of companies active in the PV market. These data are published in specialised photovoltaic magazines and also used by individual companies for which it carries out specialised research. The database developed by Europressedienst is regularly up-dated and re-published. In addition, the consultant has several years of experience in this sector. More precisely, the methodology of the consultant is to collect, cross-check and agglomerate information using various sources available in the market. To this end, it collects the data via standard questionnaires sent to the companies listed in the database or via phone, especially from the Union producers, or during the specialised fairs, notably from producers in third countries. When the information cannot be obtained through the channels just mentioned, Europressedienst checks the financial reports of companies in the photovoltaic sector or co-operates on a freely basis with other research institutes with a view to obtaining or cross-checking the data. It was verified

and indeed confirmed that these sources were used by the consultant in its daily activity. In the light of the above, it was considered appropriate to make use of Europressedienst's services in the present investigation and the parties' claims in this respect were therefore rejected.

(141) With regard to the Best Practices for the submission of economic evidence issued by the competent service of the Commission ('the Best Practices'), the following remarks should be made. First of all, it is a document that cannot engage the Commission, as it has not been adopted by the College, but published by the competent service with the purpose of providing recommendations to parties as to how to present economic evidence. Secondly, the Best Practices concern the submission of economic analysis and data used in some competition investigations, pursuant to Article 101 and 102 TFEU and in merger cases. The applicable rules, standards of proof and investigating powers of the Commission in those competition cases cannot be compared to trade defence investigations, to which an entirely different set of rules applies.

(142) After the provisional disclosure, several parties contested the methodology used by the consultant claiming that it would not reach recognised scientific standards. However, as mentioned above in recital (137), the methodology was assessed and the resulting data were cross-checked and verified and as a result were considered in line with other published data and therefore reasonably reliable. Specific points raised by the interested parties, mainly AFASE were clarified and made available in the open file of the investigation for inspection by interested parties.

(143) The CCCME argued that the methodology of data aggregation was not clarified. This claim was rejected as the relevant information was made available to all interested parties in the investigation file open for inspection by interested parties.

(144) After final disclosure, several parties reiterated their concerns on the selection of the consultant by the Commission and on the quality of the data supplied. In this respect it was claimed that the consultant's data can be ordered and purchased on an *ad hoc* basis to meet the specifically identified requests of potential clients and may therefore not be objective. In addition, CCCME contested that the data collected by the consultant can be considered as positive evidence within the meaning of Article 3(2) of the basic Regulation since the data was to a large extent based on assumptions and estimations. Furthermore, it was claimed that the data supplied were not sufficiently supported by evidence in the file and that they were not of an affirmative, objective and verifiable character.

(145) In respect of these claims, reference is made to the recitals (136) to (137) above where additional information was provided regarding the selection of the consultant. In addition, it is noted that the Commission hired the consultant on the basis of the best available information at that moment in time and in full compliance with the Commission Financial Regulation applicable to the procedure. Furthermore, it is recalled that the consultant's capacity to provide all the needed data in due time was of great importance since the Commission was bound to statutory deadlines for the publication of the provisional findings in the on-going investigation.

(146) As regards the quality of the data supplied and whether it can be considered as positive evidence in accordance with Article 3(2) of the basic Regulation, as mentioned above in recital (137), the consultant's methodology for collecting the data was examined and it was assessed that it was of satisfactory quality. In addition, as also mentioned above in the same recital, the data supplied by the consultant were cross-checked when possible with other sources and found to be reasonably accurate. Finally, it is noted

that the consultant has one database which is up-dated on a regular basis, independently of the clients' needs and requests. The same database is used to aggregate and deliver PV statistics to various clients, and therefore the allegation that data were not objective had to be rejected.

(147) After final disclosure, one interested party claimed that the Commission had not disclosed the sources, the methodology used and the companies with which the consultant co-operated to compile the macroeconomic data supplied. Another interested party reiterated that the methodology applied by the consultant suggests inaccurate results. Several interested parties requested further information concerning the methodology used by the consultant such as the average response rates to the questionnaires/interviews, the percentage of data collected through each channel, how these were verified, the approximations/assumptions used to generate the data, the number of companies for which approximations were made, and at least a range of the number of employees of the consultant.

(148) In respect of these claims, it is noted that subsequently to the imposition of the provisional findings, the Commission provided interested parties with the methodology and with the sources used by the consultant in aggregating the data and addressed specific questions of the interested parties in this regard following the provisional disclosure. The additional requests for information of the interested parties concerned following final disclosure are considered to be covered by the information made available after the imposition of provisional duties to the extent that the confidentiality limitations allowed it. In addition, it is underlined that the Commission verified on-the-spot the way the data had been collected and aggregated by the consultant and the relevant underlying assumptions for aggregating the data. The results of the verification were satisfactory and the Commission was reassured of the reasonableness of the underlying assumptions and of the quality of the data supplied by the consultant. Furthermore, the parties did not contest the data as such.

(149) After final disclosure, another party requested clarifications with regard to the number of Union producers considered by the consultant in its data collection and the overlap between these and the around 215 Union producers known to the Commission. In this respect, it is clarified that the Union producers considered by the consultant are largely the same than the ones known to represent the Union industry in this investigation mentioned in recital (133) above.

(150) After final disclosure, one party claimed that the Commission has conducted the injury analysis in an inconsistent manner since it was done separately for modules and cells while the injury and dumping margin calculations had been established as a weighted average for modules and cells together. In this respect, it is noted that while indicators were shown separately for each product type, the conclusions reached for each indicator refer to the product under investigation as a whole. It is also recalled that modules and cells are one single product and therefore the dumping margins and the injury elimination level were established on this basis. Therefore, the claim was rejected.

(151) Finally, another party claimed that the calculation of the values of macroeconomic indicators during the IP was wrongly based on a simple average of the years 2011 and 2012 as such methodology would not be objective and would not lead to results reflecting the reality during the IP. It is clarified that a simple average of the data was only used in case where there were similar trends in the periods concerned. In case trends were different, the methodology was adapted accordingly by taking into

consideration market reality. The party concerned did not develop to what extend the results of the methodology used would not reflect market reality. These claimes were therefore rejected.

(152) On the basis of the above, and in absence of any other comments in this respect, the findings in recitals (98) to (101) to the provisional Regulation are confirmed.

2. Determination of the relevant Union market

(153) Several parties argued that the injury should have been assessed separately for the captive market and for the free market. One party argued that data relating to cells destined for captive use should have been excluded from the injury assessment on the grounds that they were not affected by the dumped imports.

(154) As mentioned in recital (105) to the provisional Regulation 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 should be examined referring to the total activity of the Union industry, i.e. including captive use, as the production destined for the captive market was equally affected by the competition of imports from the country concerned.

(155) Thus, the investigation has shown that vertically integrated Union producers were forced to import dumped products (cells) and to cease production of these products at cost above the import price, as a consequence of the price pressure exerted by the dumped imports. Furthermore, the investigation also revealed that the free market and the captive market displayed similar trends in prices, which also showed that they were equally affected by the imports concerned.

(156) After final disclosure, several parties reiterated that the Commission failed to provide an adequate and reasoned analysis of the captive market or why a separate analysis had not been carried out. One party claimed that no information was provided about the significance of the Union production destined for captive use. In addition, it was claimed that recital (106) to the provisional Regulation concluding that prices in the captive market did not always reflect market prices, contradicted the conclusions set out in recital (155) above that the free market and captive market displayed similar trends in prices.

(157) It is firstly noted that recital (105) to the provisional Regulation sets out the reasons as to why it was considered appropriate to examine injury indicators (except for profitability) referring to the total activity of the Union industry including captive use. In this regard it is recalled, as set out in the same recital, that the investigation revealed that the production destined for captive use was equally affected by the competition of the imports from the PRC, which as such was not contested by the interested parties concerned. Therefore, the claim that no explanations were given as to why no separate analysis took place had to be rejected. Likewise, as it follows from this conclusion, it had also to be rejected that such separate analysis of the captive market should have taken place.

(158) Secondly, while on the basis of the above the significance of the Union production destined for captive use was not considered an essential element, it is noted that the Union production of cells destined for captive use represented about half of the total production in the IP. Finally, it is clarified that the fact that prices in the captive market do not reflect the prices in the free market is not necessarily contradicting the fact that both prices followed the same trends, as they may still be at different levels or

price movements may be at a higher or lower degree and thus depicting a different picture. On the basis of the above, the claims concerning the captive market were rejected.

(159) The parties concerned did not provide any information which could have devaluated the findings concerning the determination of the Union market. On these grounds, the claims in this respect were rejected and the findings as set out in recitals (102) to (106) to the provisional Regulation are confirmed.

3. Union consumption

(160) One interested party argued that data concerning the Union consumption of the product under investigation vary significantly, depending on the source used. This party argued that reliable data can only be established on the basis of the information gathered from specialised institutions or research centres. In view of the explanations and conclusions reached in the recitals (134) to (152) above, concerning the reliability of the data provided by the consultant used in the investigation, this argument was rejected.

(161) The same party argued that Union consumption should not be established by merely adding up available module production capacities in the Union and that the module consumption of the Union industry's own projects should be deducted therefrom. This argument was rejected, as consumption of modules was established on the basis of newly installed capacities in the Union. This is a common practice for determining the module consumption. For cells the consumption was determined on the basis of the Union production of modules.

(162) Another party argued that that the methodology described by the consultant admits the difficulty to establish reliable consumption figures. It was further argued that import data as well as export sales from the Union industry were either based on unverifiable estimations or incomplete data and that the cross checking of the Commission was not sufficient to allow the conclusion that those data were indeed reliable and accurate.

(163) As already mentioned above in rectials (136) and (137) above the quality of the data and the methodologies used to collect them were verified by the Commission during an on-spot visit on the basis of which it was considered that the methodologies used were appropriate and the results accurate and reasonably reliable. This claim was therefore rejected.

(164) On this basis, and in the absence of any other comments with respect to the Union consumption, recitals (107) to (109) to the provisional Regulation are confirmed.

4. Imports from the country concerned

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

(165) One interested party argued that data concerning import volumes of the product under investigation vary significantly, depending the source used. This party argued that reliable data can only be established on the basis of the information gathered from specialised institutions or research centres. In view of the explanations and conclusions reached in the recitals (134) to (152) above, concerning the reliability of the data provided by the consultant used in the investigation, this argument was rejected.

(166) After final disclosure, one interested party contested the methodology to determine the total import value from the PRC claiming that it had been based on transactions made at CIF level duty unpaid and it is therefore doubtful whether these transactions had

been destined for Union consumption. In respect of this claim, it is clarified that the total import value from PRC as provided by the consultant had not been used in the provisional and definitive findings and that only import volumes and import prices were determined during the investigation as shown in recitals (110) to (113) to the provisional Regulation. As the methodology to determine import prices was not contested as such by the interested party concerned reference is made to the relevant findings in recital (113) to (117) to the provisional Regulation and recitals (168) to (176) below. Therefore, the above claim was rejected.

(167) On this basis, and in the absence of any other comments with respect to imports of the product concerned from the PRC, recitals (110) to (112) to the provisional Regulation are confirmed.

4.2. Prices of imports and price undercutting

(168) One cooperating unrelated importer claimed that import prices should have been established on the basis of its imports of the product concerned in the Union. However, the data provided by this importer during the investigation only represented a fraction of the total imports in the Union and no meaningful conclusions could be drawn as to the average import price of all imports from the PRC during the whole period under consideration covering several years. Therefore, this claim was rejected.

(169) Another party claimed that the methodology to determine the prices was not explained, in particular as to how the data of various sources had been merged and reconciled. In addition it was argued that importation costs should have been based on the verified information collected during the investigation rather than on estimates.

(170) It is considered that the methodology made available to interested parties is sufficiently complete to understand as to how figures were established. As far as 'importation' cost is concerned, it is clarified that an adjustment was made to on-the-spot-prices to arrive to CIF prices. The estimation made was confirmed with the data collected during the investigation.

(171) Following the provisional disclosure, several interested parties requested more details on the price undercutting calculations than those already provided in recital (116) to the provisional Regulation. Insofar as the sensitive nature of this information and the fact that the Union producers had been granted anonymity would allow it, additional information was provided in bilateral disclosures.

(172) In line with the decision to exclude wafers from the product scope (see recitals (28) to (32) above), these products were also excluded from the calculation of the price undercutting. Moreover, there were some corrections on the CIF prices provided by the interested parties. As the sample of unrelated importers was revised for the reasons explained in recital (21) the average post-importation costs of the new sample of importers was used, when data was available and complete.

(173) The revised price comparison was made on a type-per-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 19,8% - 32,1% for modules, 4% - 28,5% for cells and 8% - 29% in overall terms for the product concerned.

(174) It should be noted that for one sampled exporting producer, a negative price undercutting for cells was established. However, the exported quantities were not significant and can thus not be considered representative.

(175) One sampled exporting producer contested the source for the adjustment for mono cells to multi cells, without however substantiating the argument. Indeed no new information or evidence was provided and this claim was therefore rejected.

(176) In the absence of any other comments with respect to the prices of imports from PRC and on the price undercutting calculations, recitals (113) to (117) to the provisional Regulation are confirmed as amended above.

5. Economic situation of the Union industry

5.1. General

(177) Some parties questioned the overall reliability of the macroeconomic injury indicators used by the Commission for the purpose of this investigation. They argued that the trends established for a number of these indicators diverged from the trends for the same indicators established for the sampled Union producers. Particular reference was made to Union production, productivity, sales, average labour costs and employment.

(178) As mentioned in recital (121) to the provisional Regulation the macroeconomic indicators were established in relation to all producers in the Union. In case the same data are compiled in relation to individual Union producers or a group of Union producers (i.e. the sampled Union producers), the trends are not necessarily identical, as e.g. the weight of each company considered is not taken into consideration in such comparison. Therefore, the results of the exercise of comparing the macroeconomic indicators for all Union producers and those for sampled Union producers are not necessarily meaningful and do not allow for the conclusion that the one or the other set of data is unreliable. In any event, when comparing the trends of the macroeconomic indicators of the Union industry with the consolidated same indicators of the sampled Union producers, differences in trends can be noted for several indicators, such as the production, production capacity, sales volumes, employment and productivity of the Union industry between 2011 and the IP. For all these indicators, the sampled Union producers performed better than the overall Union industry. The reason behind is that in the IP many Union producers, not included in the sample, stopped their production or became insolvent, thus having a negative impact on the macroeconomic indicator calculated at the Union level. These claims were therefore rejected.

(179) One interested party claimed that the conclusion as set out in recital (153) to the provisional Regulation that the analysis of the situation of the Union industry showed a clear downward trend of all main injury indicators was based on data provided by the consultant. In this respect, it is clarified that, on the one hand, the macroeconomic indicators, as listed in Tables 4-a to 6-c to the provisional Regulation, were based on data obtained from the consultant and cross-checked when possible with other available sources. On the other hand, the microeconomic indicators, as listed in the Tables 7-a to 11-c to the provisional Regulation, were based on data collected from the sampled Union producers and verified on-the-spot by the Commission. It should also be noted that determinant factors for the injurious situation of the Union industry such as the profitability levels of the Union industry, the average sales price in the Union as well as price undercutting calculations were based on data collected from the sampled Union producers and exporting producers as verified on-the-spot. The above claim was therefore rejected.

(180) In the absence of any other comments regarding the general methodology of the assessment of the economic situation of the Union industry, recitals (118) to (123) to the provisional Regulation are confirmed.

5.2. Macroeconomic indicators

5.2.1. Production, production capacity and capacity utilisation

(181) AFASE claimed that the production volume established for modules in recital (124) to the provisional Regulation and the production capacity of the Union industry established for modules and cells in the same recital were overestimated and provided data from other sources (i.e. EPIA, IMS and BNEF) showing lower volumes.

(182) The production volume established in recital (124) to the provisional Regulation is based on information covering both publicly listed companies and non-listed companies. The development of the Union production as established in recital (124) to the provisional Regulation is in line with the development of Union consumption established in recital (108) to the provisional Regulation. To the contrary the data provided by AFASE on production volumes showed different trends with the Union consumption as established in recital (108) to the provisional Regulation and with the statistics of Union consumption published by the EPIA.

(183) As far as production capacity is concerned, the investigation revealed that the findings as set out in recital (124) to the provisional Regulation included the production capacities of companies that filed for insolvency or stopped production during the IP, while they had not sold their production plants and machinery and thus were able to resume production very quickly. Likewise, as mentioned above in recital (182), the figures in recital (124) to the provisional Regulation included data from non-listed companies.

(184) Finally, as mentioned above in recital (137) above, the data provided by the independent consultant were verified and found to be reasonably accurate. On the basis of the above, the data provided by AFASE based on other available sources were not found to be necessarily in contradiction with the provisional findings.

(185) In any event, accepting the figures provided by AFASE would not have an impact on the overall finding that the Union industry suffered material injury as the negative trend of these indicators, i.e. Union production and Union production capacity would be even more pronounced.

(186) One cooperating unrelated importer argued that production volume, production capacity and capacity utilisation should have been established on the basis of the data of the sampled Union producers only. However as these are macroeconomic indicators they should be established at the level of all Union producers in order to establish a meaningful and complete picture of the situation of the Union industry. This claim was therefore rejected.

(187) After final disclosure, one party requested the Commission to clarify how the annual Union production had been calculated by the consultant. Another party requested the Commission to give further explanations concerning the reconciliation of the different data available related to the total Union production capacity. Another party suggested that the total Union production and production capacity should have been obtained from the Union producers selected in the sample as this would have given a more reliable result. In this regard, it was alleged that publicly available data were imprecise due to the confidential character of these data and that any research centre or consultant had to base its analysis on a number of estimations and assumptions.

(188) It is clarified that the annual Union production was calculated on the basis of the figures reported by the Union producers to the consultant. When the annual production of a certain Union producer could not be obtained for a specific year, this was

estimated by applying the capacity utilisation rate from the previous year to the new production capacity of that year. The Institutions have also compared the figure obtained by the consultant with the figures reported in the replies of the Union industry to the standing questionnaires prior to initiation. Both figures are similar.

(189) As regards the request to provide further explanations concerning the reconciliation of the different data available for Union production capacity, it is noted that this information had already been provided in the open file open for inspection to the interested parties. Therefore, this request was rejected.

(190) Finally, the Union production and production capacity are macroeconomic indicators and therefore have to be established at the level of the entire Union industry rather than on the level of the sampled Union producers.

(191) After final disclosure, one party argued that the methodology used to collect production data (mainly interviews and visits of production sites) did not allow for reliable results due to the confidential character of these data and as a consequence the reluctance of companies to disclose them. Such methodology cannot therefore be considered as adequate. This was allegedly confirmed by the fact that although a much higher number of Union producers was used by the consultant than the one taken into account by the Commission during the examination of standing at intiation stage, the total production volume established by the consultant is lower than the total production volume established by the Commission for the purpose of the examination of the standing. This party further claimed that consequently the information related to this injury idicator cannot be considered as positive evidence within the meaning of Article 3(2) of the basic Regulation.

(192) It is first clarified that the number of producers taken into consideration by the consultant on the one hand and the Commission on the other hand was largely the same and that the argument that results were inconsisntent had therefore to be rejected. It is further recalled that the data collected by the consultant were cross checked with other sources wherever possible and it was found that the estimations were sufficiently reliable. It is therefore confirmed that the information on production data provided by the consultant was considered as positive evidence within the meaning of Article 3(2) of the basic Regulation.

(193) In the absence of any other comments regarding production, production capacity and capacity utilisation, recitals (124) to (128) to the provisional Regulation are confirmed.

5.2.2. Sales volumes and market share

(194) One interested party claimed that the market share of the Union industry for modules was already only 19% in 2009 and that a decrease by 6 percentage points during the period considered cannot be considered as injury.

(195) The decrease in market share by 6 percentage points over the period considered has to be seen against the background of an increase of the Union consumption for modules by over 200% over the same period. The Union industry could not benefit from the increased consumption; to the contrary, even under the scenario of an increased consumption it could not increase its sales volume accordingly and suffered losses in market share. This argument had therefore to be rejected.

(196) One party argued that the methodology used to collect sales data (mainly interviews and visits of production sites) did not allow for reliable results due to the confidential character of these data and as a consequence the reluctance of companies to disclose them. Such methodology cannot therefore be considered as adequate. Likewise, they

cannot be considered as positive evidence within the meaning of Article 3(2) of the basic Regulation. As mentioned above in recital (137) above the data collected by the consultant were cross checked with other sources wherever possible and it was found that the estimations were sufficiently reliable. It is therefore confirmed that the information on sales data provided by the consultant was considered as positive evidence within the meaning of Article 3(2) of the basic Regulation.

(197) In the absence of other comments on the Union industry's sales volume and its market shares, recitals (129) to (131) to the provisional Regulation are confirmed.

5.2.3. Employment and productivity

(198) Following final disclosure, one party claimed that the methodology to establish total employment in the Union during the period considered was incorrect. This party alleged that wherever the employment rate of a specific Union producer was not available, the average employment of those Union producers for which this information was available was taken into consideration instead. This had to be rejected as the methodology to establish total employment was different, i.e. in case employment data for a certain Union producer was not available, this figure was estimated on the basis of data of that same company from the previous year(s). As mentioned above in recital (137) this methodology was verified and found reasonable. Therefore, the claim was rejected.

(199) In the absence of any comments concerning the level of Union industry's employment and productivity, recitals (132) to (134) to the provisional Regulation are confirmed.

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

(200) In the absence of any comments in this respect, recitals (135) to (136) to the provisional Regulation are confirmed.

5.3. Microeconomic indicators

5.3.1. Prices and factors affecting prices

(201) One interested party contested the findings that the decrease of the average sales prices had a devastating effect on the profitability of the Union industry. It claimed that the average cost of the Union industry decreased equally and that therefore a decrease in price is natural. However, as described in recital (138) to the provisional Regulation, the investigation established that the Union industry sales price decreased even more than its average cost of production and therefore such decrease in costs was not reflected in the Union industry' profitability. It is therefore confirmed that the decrease in sales price of the Union industry had a devastating effect on the profitability of the Union industry and the claims in this regard were rejected.

(202) Another party contested the conclusion in recital (138) to the provisional Regulation that prices were at unsustainable levels in the IP, claiming that this would be for market forces to decide. The same party also objected to the conclusion in the same recital that the Union industry was not able to benefit from cost decreases due to the price pressure of the dumped imports. In this regard, the Institutions observe the following: "unsustainable level" refers to the fact that the Union industry was selling at loss, and therefore could not survive in the long term. The question whether the price level is sustainable is therefore only a question of the relationship between production costs and prices. By "not being able to benefit from cost decreases", it is referred to the fact that costs fell less quickly than prices. Both those statements are backed up with

evidence in recital (138) to the provisional Regulation. Therefore, this argument had to be rejected.

(203) In absence of any further comments concerning the Union industry's average sales prices recitals (137) and (138) to the provisional Regulation are confirmed.

5.3.2. Labour costs

(204) The same interested party claimed that in contrast to what is stated in recital (140) to the provisional Regulation, there has not been any inflation during the period considered and that therefore the overall increase of labour costs could not have been caused by this factor.

(205) In contrast to what was claimed by the party concerned, the investigation revealed that there has been inflation during the period considered and that the increase in labour cost, limited to modules, can be explained by inflation and increase in productivity.

(206) One interested party claimed that the injurious situation of the Union industry was caused by the increase in labour costs and the parallel decrease in productivity. However, first it should be noted that labour cost remained stable in case of cells, while productivity increased both for cells and modules. Therefore, the increase of the latter can be explained by increased productivity. Moreover the investigation has shown that labour costs do not represent a significant part of the cost of production, as already cited in recital (203) to the provisional Regulation. Therefore, this argument had to be rejected.

(207) On this basis, the findings in recitals (139) and (140) to the provisional Regulation are confirmed.

5.3.3. Inventories

(208) One interested party claimed that, the increase in stock levels over the period considered, when expressed as a percentage of the total production, would be insignificant and cannot therefore be seen as evidence for injury. This party argued further that the presentation of the stock values in recital (141) to the provisional Regulation is misleading as stocks were expressed in kW rather than MW unlike the Union industry's production volume.

(209) In this respect, it is noted that recital (143) to the provisional Regulation shall be amended and should read '… the increase in stocks for the like product over the period considered is *not* a relevant factor in establishing if the Union industry suffered material injury'. The existence of a clerical error becomes clear from the preceding sentence which concludes that the Union producers tend to hold limited stocks as their production is based on orders.

(210) Finally, whether stocks are expressed in kW or in MW as such was considered irrelevant in the determination whether or not the Union industry suffered material injury.

(211) After final disclosure, several parties claimed that stocks should have been determined for the whole Union industry and that the figures of only ten Union producers were not representative. It is clarified that the stocks were considered as a microeconomic indicator and should therefore be established on the basis of the information collected on a per company basis, in this case from the sample of Union producers considered as representative for the whole Union industry. The above claim was therefore rejected.

(212) In absence of any other comments concerning inventories, recitals (141) to (143) to the provisional Regulation are confirmed.

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

(213) Following a comment by an interested party it is clarified that the statement that cash flows followed a "progressively negative trend" between 2009 and the IP in recital (148) to the provisional Regulation was wrong as cash flows for modules, while decreasing between 2009 and 2010, were in fact increasing in 2011 and decreasing again in the IP.

(214) The same party alleged that investment figures as shown in recital (149) to the provisional Regulation were too low when compared to the production capacity of the Union industry as shown in recital (124) to the provisional Regulation. In support of this claim the party submitted to be aware of the investment made by one Union producer in capacity increases which was at a much higher cost. The party concerned concluded that therefore the established production capacity of the Union industry must have been overestimated. It is noted that this claim was not supported by any evidence, in particular as regards the investment made by the Union producer in question. In contrast, the investment figures in the provisional Regulation were based on actual and verified information from the sampled Union producers. It should be noted that this claim was also based on the comparison between the total investments of the sampled Union producers and the total production capacity of the whole Union industry, which cannot be considered an appropriate basis for comparison as not the total investments of the whole Union industry were taken into consideration. Therefore, this argument had to be rejected.

(215) In absence of any other comments concerning profitability, cash flow, investments and return on investments, ability to raise capital recitals (144) to (152) to the provisional Regulation are confirmed.

5.4. Conclusions

(216) In the light of the foregoing the conclusions set out in recitals (153) to (158) to the provisional Regulation, i.e. that the Union industry suffered material injury within the meaning of Article 3(5) of the basic Regulation, are confirmed.

E. CAUSATION

1. Introduction

(217) After the provisional disclosure, several interested parties claimed that the causation analysis conducted did not separate, distinguish and quantify the injurious effects of the dumped imports from the effects of other known factors which at the same time are injuring the Union industry. Moreover, it was claimed that the Commission failed to undertake a collective analysis of these other known factors.

(218) In reply to this claim it should be noted that the Commission, as per established practice, first examined whether there is a causal link between the dumped imports and the injury suffered by the Union industry and secondly examined whether any of the other known factors had broken the causal link established between the material injury suffered by the Union industry and the dumped imports. In this analysis, the effects of the other known factors on the situation of the Union industry were assessed, distinguished and separated from the injurious effects of the dumped imports to ensure that injuries caused by these factors were not attributed to the dumped imports. It was found that none of them had a significant impact, if any, on the situation of the

industry that could reverse the fact that the material injury assessed must be attributed to the dumped imports. On these grounds the argument was dismissed.

(219) Following the final disclosure, several interested parties reiterated the above arguments. In this regard it was claimed that the Commission should establish explicitly, through a reasoned and adequate explanation, that the injury caused by factors other than the dumped imports is not attributed to these imports.

(220) In this investigation, it was concluded, after examining all the facts, that the dumped imports taken in isolation have caused material injury to the Union industry. In this respect, quantifying the effects of other known factors was not possible and therefore a qualitative assessment was carried out as set out in recitals (164) to (222) to the provisional Regulation. In conclusion, it was confirmed that the material injury of the Union industry was caused by the dumped imports. Indeed the effects of other factors on the Union's industry's negative development were considered to be limited. It should be noted that, under Article 3(6) and (7) of the basic Regulation, no obligation is imposed as to the form of the attribution and non attribution analyses which should be carried out. On the contrary, under Article 3(6) and (7) of the basic Regulation, those analyses must be carried out in such a way as to enable the injurious effects of the dumped imports to be separated and distinguished from the injurious effects caused by other factors. The investigation did not reveal any evidence that all other known factors which may have contributed to the injury suffered, together or in isolation, broke the causal link between the dumped imports and the material injury suffered by the Union industry. Given the above analysis, it was confirmed that other known factors were not such as to reverse the finding that the material injury suffered by the Union industry must be attributed to the dumped imports. On these grounds these arguments were dismissed.

(221) After the provisional disclosure some interested parties objected to the finding in recital (160) to the provisional Regulation. They reiterated that market conditions of the product under investigation differ per Member State and that therefore the causation analysis should be made at the level of each Member State separately. In addition, these parties argued that the national support schemes, the sun exposure and the electricity prices (including regulatory charges) differ per Member State and that furthermore there are different market segments in each market (the residential- installations of less than 40 kW, commercial and industrial- installations between 40 kW and 1MW and the utility market segment- installations between 1 MW and 10 MW). In view of this they claimed that the causation analysis should be conducted separately for each Member State on the one hand and for the large-scale and the residential segments on the other hand.

(222) After the final disclosure some interested parties reiterated their claim that the causation analysis should be conducted on a per Member State basis, without however providing further arguments or new evidence in this respect.

(223) The investigation has shown that sales and import prices are similar across the Union. It can therefore be considered that there is indeed one market for the product under investigation. The investigation did also not reveal that producers in each Member State or region concentrated their activities in this specific market or that the dumped imports concentrated in one Member State or region. Moreover, none of the interested parties argued that dumping and injury should be analysed on a per Member States basis which would however be a pre-condition for conducting a separate causation analysis per Member State. The investigation did not reveal any evidence that this

would have been an appropriate approach, in particular given that there were similar prices across the Union of the product under consideration at Union level. Moreover, it is noted that the sun exposure can be different in different regions of the same Member States, e.g. Southern France has more sun exposure than Northern France, or different regions within one Member State can have different support schemes (e.g. Belgium) and that therefore the impact of these factors on the demand may vary from one region to another within the same Member State. However, the differences in the regulatory framework of each Member State and/or region and the differences in conditions such as sun exposure do not warrant a separate causation analysis, and thus separate injury and dumping analysis. Therefore, these arguments had to be rejected.

(224) Another interested party argued that while other factors are relevant, the national support schemes remain the main factor in determining the demand. The same party also contested that grid parity was already reached in some locations arguing that prices of modules increased since the IP while electricity prices decreased. It further argued that, in any event, at least in certain Member States, the regulatory, economic and technical conditions do not allow for the connection to the grid and for those Member States it was therefore irrelevant whether or not grid parity was reached. This party however did not provide any supporting evidence for the above allegations. In any event the above arguments confirm that the situation with regard to national support schemes as well as grid parity may be different to a certain extent between Member States. However, none of the information submitted was of such a nature as to show that an analysis separately per Member State would be warranted.

(225) Following the final disclosure, the same interested party reiterated the claim and provided some information allegedly showing the different market conditions per Member State and per segment. However, the information submitted could not be considered as conclusive as it consisted of a power point presentation without any supporting evidence, and therefore, did not show that an analysis separately per Member State would be warranted. The claim of this party was therefore rejected.

(226) On this basis, it was concluded that an analysis of the causation per Member State and/or region and per segment would not correspond to market reality. In absence of any other comment in this regard the findings made in recitals (159) and (160) to the provisional Regulation are confirmed.

(227) The GOC claimed that the Commission has conducted the causation analysis in an inconsistent manner as the injury analysis was done separately for modules and cells, while the causation analysis did not separate between product types. In this respect, it is noted that while the injury indicators were indeed shown separately for each product type, the conclusions reached for each indicator refer to the product under investigation as a whole. It is also recalled that modules and cells are one single product and therefore the causation analysis was conducted on this basis. Therefore, the claim was rejected.

2. Effect of dumped imports

(228) One interested party contested that there was a sufficient correlation between the dumped imports of the product concerned from the PRC and the material injury suffered by the Union industry. It was argued that this would be supported, on the one hand, by the fact that from 2009 to 2010 the Union industry's profit margin for cells significantly increased (from loss making to 12% profit) while Chinese imports were 36% lower priced than Union industry's prices and doubled their market share during the same period. On the other hand, between 2010 and 2011 Chinese imports only

gained 6 percentage points of market share, even though consumption increased much more during the same period, while the Union industry realised nonetheless a loss of 36%. This party argued further that as regards the IP, imports of cells from other third countries were at the same price level as Chinese imports but gained more market share corresponding to the loss of market share of the Union industry.

(229) The investigation showed that there was a constant increase of Chinese market share for all product types over the period considered (17 percentage points for modules, 17 percentage points for cells). Dumped imports from the PRC increased by more than 300 % for modules and by 482 % for cells. At the same time there was a considerable and constant decrease of the Chinese import prices (64 % for modules and, 42 % for cells during the period considered) and in the IP they were significantly undercutting the Union industry's prices. In parallel, the Union industry lost market share over the period considered and as described in recitals (153) and (154) to the provisional Regulation all main injury indicators showed a negative trend. Therefore it is confirmed that there is a clear coincidence in time between the increase in dumped imports and the loss of market share of the Union industry.

(230) As shown in recitals (161) and (162) to the provisional Regulation, this correlation in time was established for all product types separately. In addition, the analysis of the impact of the imports on the Union industry's profit margin separately for each year of the period considered does not lead to meaningful results as the existence of dumping and material injury as well as a causal link between them does not need to be established for each year separately. The correlation between the dumped imports and the material injury is sufficiently demonstrated when analysing the developments over the whole period considered.

(231) It is also noted that the profitability of the Union industry is one of the factors mentioned in Article 3(5) of the basic Regulation which should be investigated when examining the impact of the dumped imports on the Union industry's situation. The fact alone that the Union industry was profitable during a specific year does not necessarily mean that it did not suffer any material injury. Moreover, the loss of the market share of the Union industry does not need to correspond exactly to the increase of the market share of the dumped imports in order to establish a causal link between the injury and the dumped imports. Finally, other factors (e.g. imports of other third countries or development of the consumption) which could have had an impact on the injurious situation of the Union industry were examined and addressed separately in recitals (164) to (224) to the provisional Regulation.

(232) The coincidence in time of increasing dumped imports in significant quantities, which undercut prices of the Union industry and the increasingly precarious situation of the Union industry is a clear indicator of causation in the present case, as established in recitals (161) to (163) to the provisional Regulation. The claims with regard to the lack of any correlation between the dumped imports and the material injury suffered by the Union industry were therefore rejected.

(233) Following the final disclosure, the same interested party continued to contest the causation analysis as the profitability of the Union industry was not analysed specifically in relation to certain years (in particular 2010), but for the whole period considered.

(234) In this regard, it should be noted that no valid conclusions can be drawn concerning causality by isolating one specific year of the period considered while ignoring the development of the Union industry during the entire period considered and its

correlations with the development of the dumped imports. Such analysis can only lead to a partial picture and no sound conclusions can be drawn therefrom. Thus, the profitability rates that drove also other financial indicators that the Union industry achieved during 2010, was high because of the particularly strong jump in Union consumption, driven by very generous support schemes, that allowed Union industry to have their strongest sales improvement that same year, but only of a temporary nature and in any event not sustainable for this type of industry. Therefore, this argument had to be rejected.

(235) In the absence of further comments concerning the effect of dumped imports, the findings in recitals (159) to (163) to the provisional Regulation are confirmed.

3. Effect of other factors

3.1. Imports from other third countries

(236) Several interested parties made comments following the provisional disclosure with regard to the findings concerning imports from other third countries and reiterated them following the final disclosure. However, these parties did not bring into light new information and supporting evidence which could have altered the relevant provisional findings.

(237) Those parties underlined in particular the volume of imports of cells from Taiwan. However, the absolute volume of imports of the product concerned from Taiwan (1132 MW) represents only a very small share (less than 5%) of the overall Union consumption (21559 MW) and compared to imports from the PRC (15005 MW). Therefore, imports from Taiwan have, if at all, only marginally contributed to injury of the Union industry, and not broken the causal link.

(238) In the absence of any other comments with regard to imports from other third countries, the findings in recital (164) to (167) to the provisional Regulation are confirmed.

3.2. Development of the Union consumption

(239) One interested party claimed that the Commission failed to analyse the impact of the development in consumption. In this regard, it was argued that the imports from the PRC did not capture the entire increase in consumption and that, while in the case of modules the Union industry lost market share between 2009 and 2010, it still increased its profitability during the same period. Furthermore, it was argued that in 2009 when imports of cells from PRC had only 8% market share, the Union industry still suffered 8% loss.

(240) As mentioned in recital (168) to the provisional Regulation, despite the decrease in Union consumption in the IP, the dumped imports from the PRC either maintained their market share (modules) or increased it (cells) to the detriment of the Union industry over the period considered. Therefore, 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. Moreover, the investigation showed that as the capacity of the Union industry was in any event much lower than the levels of consumption, the shrinking consumption in the IP could not have had an impact on the injurious situation of the Union industry. Therefore, this claim was rejected.

(241) Another interested party contested that the demand in the Union will continue to exist even in the absence of the national support schemes. This party argued that there is a

correlation between demand and support schemes and that in the absence of such schemes projects in the PV sector would not be profitable anymore and therefore the demand for solar panels will disappear as well.

(242) As mentioned in recital (169) to the provisional Regulation, during the investigation some indications were collected that even in the absence of support schemes demand still existed and will continue to exist in the Union. The party did not provide any evidence which could have devaluated these findings. In the absence of any new information in this regard, the findings set out in recital (169) to the provisional Regulation are confirmed and the claim made in this regard was rejected.

(243) Following final disclosure, the GOC argued that the fact that the Union industry's capacity did in any event not meet the Union demand is irrelevant since the sales volume of modules of the Union industry decreased in line with the decrease in consumption and reiterated that the decrease in consumption between 2011 and the IP caused the material injury suffered by the Union industry. While indeed between 2011 and the IP the Union consumption decrease and the sales volume of modules decreased with a similar trend, this has to be seen in relation to the development of the Chinese dumped prices, significantly undercutting the Union industry prices, thus forcing the Union industry selling at losses. In this regard it is recalled, as mentioned in recital (111) to the provisional Regulation, that the dumped imports from the PRC either maintained their market share (modules) or increased it (cells) when the consumption was decreasing. At the same time Chinese import prices decreased significantly and substantially undercut the Union industry's sales prices. Therefore, this claim was rejected.

(244) In the absence of any other comments with regard to the development of Union consumption, the findings in recitals (168) and (169) to the provisional Regulation are confirmed.

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

(245) Following the provisional disclosure several parties reiterated that the injury suffered by the Union industry was caused by the development of the feed-in-tariffs ('FITs'). They claimed that the FIT developments exercised a strong downward pressure on prices and therefore on the profitability of the Union industry. One interested party claimed that only the impact of the development of FITs on the demand was examined, while the impact on prices should also have been analysed. In the same context, several interested parties argued that most of the Member States implemented major cutbacks already in 2010 thus putting a downward pressure on the module prices.

(246) In respect of this claim it should be noted that the Member States implemented FIT cutbacks at different moments in time and at different speeds and that drawing a general picture for the entire Union is rather difficult. Irrespective of the moment when the FIT rates reached very low levels, the significant decrease in the Union prices and profitability during the period considered cannot be solely or mainly explained by the reduction of FITs. First, on the basis of the information collected for Germany and Italy that represented together around 75% of the Union market in 2011, the drop in the average sales price was more pronounced than the decrease in the FIT rates during the IP. Second, the evidence collected shows that, for some countries such as Italy, even in the context of very generous FIT rates, the Union industry had to decrease significantly their prices. Finally, during the IP, the Union producers had to sell at prices below their cost of production, which was mainly a consequence of the fact that

the Chinese exporting producers had 80% of the Union market and therefore the power to influence the price-setting mechanism.

(247) The investigation further established that up to 2011 the higher FIT rates together with the decrease in the prices of modules in the Union rendered the investments in solar energy extremely attractive as investors were earning very high rates on return. Therefore, this resulted in a high number of investments and consequently high demand of solar panels. As a consequence of the increased demand, the total amount of FITs paid increased significantly and most Member States revised the existing FIT schemes downwards to avoid *inter alia* an increase of electricity costs. This shows that FIT cutbacks may also have been the result of the decreasing prices and not vice versa.

(248) After final disclosure one party claimed that there was a contradiction between the recital (246) above, that an assessment of the demand for the Union as a whole is difficult, and the recital (223) above stating that a causation analysis per Member State would not lead to meaningful results. In this respect, it is clarified that in the assessment made in recital (246) above, reference is made to the difficulty to draw a general picture of the FIT developments for the entire Union and not to the Union demand as claimed by the interested party. As a consequence, it follows that no contradiction exists between the two recitals and therefore the claim was rejected.

(249) After final disclosure, one party claimed that even in the context of high FIT rates, the module price may decrease significantly due to technological development, economies of scale, cost reductions and growing global production capacity. In respect of this claim, it is noted that the evidence collected shows that the Italian producers had to reduce their prices below the cost of production even when FIT rates were high. While the factors mentioned above may indeed have had an impact on the average costs they cannot explain why Union producers had to reduce their prices below their cost of production. Therefore, it is concluded that it was mainly the dumped imports from the PRC that pushed the prices to unsustainable levels and this claim was rejected.

(250) After final disclosure, one party claimed that the conclusion drawn in recital (247) above, that FIT cutbacks may have also been the result of the decreasing prices and not vice versa, is not supported by any evidence.

(251) It is noted that the conclusions drawn in recital (247) above were based on the information available during the investigation and the scenario described was indeed considered as reasonable given the circumstances in this specific market. Therefore, this argument was rejected.

(252) After final disclosure, one party reiterated that it disagreed with the conclusion that the downward price pressure on Union producers was mainly exerted by the dumped imports and claimed that, to the contrary, it was the FIT cutbacks that forced the Union producers to reduce their prices. The same party reiterated that when FITs were reduced, the PV system prices decreased in line with the decrease in FITs so that costs for project developers do not increase, which ultimately caused the price pressure on the Union producers.

(253) Since no conclusive evidence was brought in support of these claims, the Commission maintained its analysis and conclusions as stated in recitals (246) to (247) above.

(254) The same party claimed that markets are driven by the development of FITs and provided information showing the number of PV installations for the years 2012 and 2013 in the UK. The information provided by this party was a publication of the UK government based on the weekly registrations in the UK Central FiT Register (CFR).

It is noted that this information related mostly to a period outside the IP and referred only to one Member State, while the current investigation focused on the situation of the Union market as a whole. In any event, it is not contested that FIT levels influence demand, as the profitability of investments in locations with less solar radiation depends on the FIT level. However, in order to show that the level at which FIT were set during the IP has caused the injury, interested parties would have had to show that a price increase of the Union producers to the non-injurious level would have meant that the Union producers would not have been able to sell the product concerned because investments into PV systems would not have been viable at those price levels. No such evidence has been provided. This argument was therefore rejected.

(255) Therefore, the argument that the reductions in FITs broke the causal link between the dumped imports and the material injury suffered by the Union industry was rejected.

(256) Following the provisional disclosure one party reiterated that FIT developments rendered the solar investment opportunities unattractive for investors and thus lowered the demand for the product. Another party claimed that the findings set out in recital (173) to the provisional Regulation that investments are still being made in Spain despite the suspension of the FIT schemes was incorrect.

(257) The impact of FITs on demand was addressed in recital (173) to the provisional Regulation. As no new arguments were brought forward in this respect, the above claim that demand decreased due to the FIT developments was rejected. Regarding the investments in Spain, it is clarified that the findings in recital (177) to the provisional Regulation are based on information obtained during the investigation and verified during an on-spot investigation. As the party concerned did not provide any new information or evidence in this respect, this claim had to be rejected.

(258) Following the provisional disclosure several parties claimed that in the context of the low FIT rates, investments in PV projects were economically viable only when supplied with the lower priced solar panels imported from the PRC. Therefore, it was argued that the FIT cutbacks caused the material injury to the Union industry. Another party argued that the level of the FIT rate influences the price setting mechanism for modules.

(259) It should be noted that the cost of a module at which a project would still be economically viable varies by Member State or by region in function of numerous factors such as FITs, other regulatory incentives, solar exposure, conventional electricity prices, etc.

(260) In addition, the investigation showed that current installations depend less and less on the FITs as PV grid parity is likely to have been reached for certain types of installations in several regions in Europe, such as a large portion of Italy, Spain, Portugal, southern France and Greece.

(261) On the above grounds, the claims made in this regard were rejected.

(262) One interested party claimed that the Commission did not investigate whether the Union industry failed to anticipate that government support schemes would be abruptly withdrawn or decreased. No arguments were brought in support of this claim. However, it should be noted that, based on the evidence collected, there is no information indicating that the Union industry responded to the market signals (i.e. development in consumption) and other available information (i.e. reduction in support schemes) in an unreasonable way. Therefore, this claim was rejected.

(263) One interested party argued that the FIT cutbacks caused the Union industry's sales decline because investments had been viable only at the affordable Chinese prices. The evidence collected in fact shows only a slight decrease in the sales of the Union industry during the IP, in contrast to what it would be expected had the PV projects been feasible only with Chinese modules. On the contrary, the sales of modules of the Union industry increased until 2011 and then slightly decreased in the IP, following the same trend as of the consumption. Therefore, this claim was rejected.

(264) Another interested party argued that the findings as set out in recitals (174) and (175) to the provisional Regulation that the FIT changes did not break the causal link has no factual or legal basis and is inconsistent with Article 3(7) of the basic Regulation because the Commission failed to assess the level of injury caused by the FIT reductions and because it considered that the significant drop in the Union industry's price had been a consequence only of the dumped Chinese imports. The same party argued that the decrease in the price of modules, cells and wafers was a global phenomenon and not due to the pressure of the Chinese imports.

(265) In respect of the claim that the Commission failed to assess the level of injury caused by the FIT cutbacks, reference is made to recitals (174), (175) and (182) to the provisional Regulation and recitals (245) to (263) above, where the Commission concluded that neither the decrease in demand nor the impact of FITs on Union prices were as such as to break the causal link between the injury suffered by the Union industry and the dumped imports from the PRC, irrespective of whether and to which extent they were possibly caused by the FIT cutbacks. Therefore, the claim that the Commission's findings have no factual basis was rejected. As regards the claim that the decrease in the price of modules and cells was a global phenomenon, reference is made to the recitals (164) to (167) to the provisional Regulation where import volumes and prices from other countries than the PRC into the Union are assessed. While indeed there was a global downward trend in the prices of modules and cells, the dumped import prices from the PRC have exacerbated the downward trend to loss making levels. On the basis of the above, this claim was rejected.

3.4. Other financial support granted to the Union industry

(266) In the absence of any comments concerning other financial support schemes granted to the Union industry, the findings in recitals (184) and (185) to the provisional Regulation are confirmed.

3.5. Overcapacity

(267) One interested party reiterated the claim that the overcapacity in the global as well as in the Union market caused the material injury rather than the imports from the PRC. In this regard it was argued that the Union industry over-expanded its capacities as evidenced by the low capacity utilisation rate and that therefore any injury was self-inflicted. The alleged impact of the overcapacity in the Union and world-wide was already addressed in recitals (185) to (190) to the provisional Regulation and therefore in the absence of any new element the claim had to be rejected.

(268) Another interested party claimed that the overcapacity led to price rationalization. In this regard, it should be noted, on the one hand, that the overcapacity led in fact to a 'race to the bottom' and the suppression of the prices of Union industry, which on average exceeded the reduction of the costs of production. On the other hand, as outlined in recital (186) to the provisional Regulation, the capacity increases by the Union industry followed the market developments and were considered reasonable.

Moreover, the increase in production capacity of cells was at a lower level than modules. The party concerned did not submit any new information or evidence in this respect and the claims in this regard had therefore to be rejected.

(269) Another interested party claimed that the injury suffered by the Union industry is due to the Union industry's focus only on specialized investments and its failure to make the necessary investments in capacity additions and cost reductions. Likewise, this claim could not be confirmed by the findings of the investigation which showed that the Union industry increased its production capacity and efficiency during the period considered (recitals (124) and (187) to the provisional Regulation. This claim was therefore rejected.

(270) Moreover, an interested party claimed that the Union industry increased its production capacity in spite of already low capacity utilisation rates, thus resulting in self-inflicted injury. This claim was based on the comparison between the trend of investments of the sampled Union producers and the trend of the capacity utilisation of the whole Union industry, which is not an appropriate basis for comparison. Furthermore, the investigation showed that the Union industry had not expanded its production capacities on a scale which exceeded the development of Union consumption, therefore this argument was rejected.

(271) Moreover, the evidence collected indicates that through investments in new machinery, the Union industry could reduce its cost of production and become more cost competitive. Therefore, this argument had to be rejected.

(272) One interested party alleged that the conclusions in recital (189) to the provisional Regulation contradicted the findings made in recitals (124) and (186) to the provisional Regulation without however giving any further explanations specifying the nature or extend of the alleged contradictions. This claim had therefore to be rejected.

(273) Following the final disclosure, some interested parties contested that the capacity additions of the Union industry were reasonable and followed market developments and in particular the development of the Union consumption. However, as far as modules are concerned the production capacity increased by 106%, while the Union consumption increased by 221% over the period considered, i.e. more than double. Likewise, as far as cells are concerned, the production capacity increased by 39%, while the Union consumption increased by 87% during the period considered. This shows that the increase in capacity was substantially below the increase in consumption and can therefore not be considered as unreasonable given that there never was overcapacity in the Union. Moreover, the analysis whether the capacity additions were reasonable should not be based on a year to year analysis, but should take into consideration the trend during the whole period considered. Thus, capacity additions will typically only become fully operational after a certain period of time after the investment made and the isolated analysis of one year may lead to a distorted picture. This argument was therefore rejected.

(274) In absence of any other comments regarding the Union's industry overcapacity, the findings in recitals (185) to (190) to the provisional Regulation are confirmed.

3.6. Impact of raw material prices

(275) Some interested parties reiterated that the Union industry or at least part of it could not benefit from the decrease in prices of polysilicon, during the IP, because of long term contracts for raw material. With reference to the findings in recital (193) to the provisional Regulation stating that the Union industry was able to renegotiate its long

term contracts with its suppliers (including wafers producers) and therefore could benefit from lower prices, these parties claimed that the renegotiations or termination of long term contracts of polysilicon and/or wafers resulted in penalties. To support this argument, these parties provided press articles reporting that some Union producers were facing litigation or that they terminated their contracts. Some parties provided information allegedly confirming that the long term contracts could not be re-negotiated.

(276) Polysilicon is the main raw material for the wafers producers. The investigation revealed that polysilicon prices increased in 2008 when they reached their peak at around 500$/kg, but decreased again in 2009 reaching about 50-55 $/kg at the end of 2009 with only a slight upwards trend in 2010 and early 2011. Prices dropped significantly during the IP resulting in the 30$/kg (JRC Scientific and Policy Reports, PV Status Report 2012). It should be noted that the impact of polysilicon prices on the Union industry could only be rather marginal as any effect on the cost of production of cells and modules was diluted through the value chain. Moreover, the above mentioned press articles referred to post-IP developments, which did not affect the situation of the Union producers concerned during the IP, and cannot therefore be taken into account. This matter was further investigated after the imposition of provisional measures and, as a result, it can be confirmed that the Union industry was indeed able to renegotiate not only the prices of the long-term contracts but also any contractual penalties relating to these long-term contracts.

(277) One of the above interested parties argued further that it is sufficient that only some Union producers have been affected by the long term contracts and that the situation of the overall Union industry is irrelevant. It claimed that higher costs do not necessarily have to affect all operators in the same way. This argument ignores the finding that overall, for the Union industry, the average polysilicon prices were in many cases not found to be higher than the market prices or than the spot prices and that therefore the issue whether higher costs affect all or only few operators was not considered pertinent. This argument was therefore rejected.

(278) Another interested party requested that the Commission separate, distinguish and quantify the effects of each factor having an impact on the situation of the Union industry; in particular the effect of the significant drop in polysilicon prices should be considered separately. In this regard, it was argued that it was the decrease in the polysilicon prices rather than the price pressure from the Chinese imports that caused the decrease in sales prices. As far as the Union industry is concerned it should be noted that the average selling prices decreased much further than the decrease of the average cost of production, on which the decline of raw material prices could have an impact. This argument was therefore rejected.

(279) Following the final disclosure, some interested parties reiterated that the impact of the decrease of polysilicon prices on the Union industry's cost was not limited or diluted through the value chain as concluded in the investigation. However, as already mentioned in recital (276) above, polysilicon is the main raw material for wafers producers, thus any impact on the production cost of cells or modules was found to be diluted in the value chain. The interested parties did not provide any evidence which could have devaluated this finding. Moreover, the investigation showed that the decrease of polysilicon prices over the period considered was reflected in the average cost of production of cells and modules of the sampled Union industry which decreased to a similar degree than the polysilicon prices. One interested party questioned the impact of alleged penalties that the Union industry had to pay due to

the re-negotiation of the supplier contracts. In this regard, it cannot be excluded that a limited number of producers may have had to pay penalties for the cancellation of wafers supply contracts during the period considered. However, the Commission did not find any evidence that these penalties could have had an effect on the situation of the Union industry as a whole or would be representative. Such evidence was also not provided by the interested party in question. While it can therefore not be completely excluded that penalties could have had a certain negative impact on a limited number of Union producers, the overall impact on the Union industry is at best marginal and hence could not break the causal link between the dumped imports and the material injury suffered by the whole Union industry. Therefore, these arguments had to be rejected.

(280) Another interested party claimed that the decrease of sales prices of the product under investigation in the Union is partly due to the reduction in the price of polysilicon. However, in this regard, it should be noted that the investigation showed that the imports from the PRC were dumped and substantially undercutting the prices of the Union industry. The price decrease therefore goes beyond the reduction in production costs that can be explained by the decrease in the raw material prices. If the price decrease was merely the effect of the decrease of the raw material prices, the Union industry would not have been forced to decrease their sales prices below their cost of production. Therefore, this claim has to be rejected.

(281) Another interested party reiterated that the litigation of one Union producer after the IP may has affected the situation of at least this Union producer already during the IP. This party did not explain however how and to what extend such event that occurred after the IP could indeed have had an effect on this producer's situation during the IP. Likewise, the investigation did not reveal any evidence showing such effects. Therefore this claim had to be rejected.

(282) Moreover, the same interested party questioned the above mentioned findings, as allegedly no evidence was shown. However, the findings of the investigation were based on facts and positive evidence, non-confidential versions of which were available to all interested parties.

(283) In absence of any other comments with regard to the impact of the raw material prices, the findings in recitals (191) to (194) to the provisional Regulation are confirmed.

3.7. Self-inflicted injury: impact of automation, size, economies of scale, consolidation, innovation, cost efficiency, imports of the Union industry

(284) Following the provisional disclosure, certain interested parties reiterated the claim that the injury suffered by the Union industry was due to the Union industry's lack of sufficient economies of scale. It was reiterated that small-scale producers had a disadvantage compared to larger vertically integrated producers and therefore any injury suffered by small scale producers cannot be attributed to the dumped imports. Another interested party argued that the automation of the production process is costly and that therefore economies of scale are even more important to reduce the cost of production.

(285) The investigation showed that the Union industry, even the larger and vertically integrated ones, due to the dumped imports, could not fully benefit from high capacity utilization rates to achieve economies of scale. In any event, the investigation did not reveal any correlation between size, vertical integration and better profitability rates, as the high price pressure from dumped imports has altered this correlation. The

investigation has showed that the benefit of economies of scale no longer existed in a market where the utilization rates were low, which was also true for the Chinese producers. Therefore, these arguments were rejected.

(286) Furthermore, one interested party claimed that investors and banks would not finance projects if the module manufacturer is too small, as larger producers provide better guarantees and are more 'bankable'. In other terms, investors and banks are reluctant to finance PV related projects using modules produced in the Union. However, the investigation showed that any possible preference of investors and banks to finance Chinese producers which have larger production capacities is the result of the distortion that dumped imports have created on the Union market. As mentioned above in recital (285), the size of the production lines does not play a role if utilisation rates remain low. Therefore, this argument was dismissed.

(287) One interested party reiterated that the Union industry had an unfavourable cost structure compared to its Chinese competitors, as the latter enjoyed lower labour, electricity and depreciation cost, and in addition had the newest equipment. However, the party concerned was unable to provide new information or supporting evidence that could reverse the findings of this investigation in this regard. In particular, the claim that the Chinese producers were using the newest equipment was addressed in recital (203) to the provisional Regulation, stating that the exporting producers in the PRC did not enjoy any comparative advantage, in particular because machinery and equipment was imported from the European Union. The above claims were therefore rejected.

(288) Another party claimed that the Chinese enjoyed a comparative advantage with regard to polysilicon prices and to economies of scales which resulted in lower cost of the machinery. This party did not provide any new information or supporting evidence in this regard that could reverse the findings as set out in recitals (195) and (196) as well as (203) to the provisional Regulation. The claim of this party had therefore to be rejected.

(289) It is recalled that as set out in recital (203) to the provisional Regulation and mentioned also in recital (287) above the exporting producers in the PRC do not enjoy any comparative advantage with regard to raw materials and the machinery used as both were mostly imported from the Union. One interested party contested the above, without however providing any evidence. As far as labour and overhead costs, including depreciation 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. As far as electricity costs are concerned, they represented on average less than 1 % of the total cost of a module in the IP and are not considered to have played any significant role. Moreover, the claim that the Chinese were using the newest equipment was not substantiated.

(290) Moreover, one interested party reiterated that some Union producers sourced cells and/or modules from the country concerned, and re-sold those products on the Union market as their own. It requested that injury resulting from these transactions is not attributed to the dumped imports. However, 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 total Union production and therefore their effect, if any, would only be marginal and could not be considered as breaking the causal link between the dumped imports and the injury suffered by the Union industry.

(291) One unrelated importer argued that the fact that the number of employees increased over the period considered was not sufficiently addressed in the provisional Regulation. In respect of this claim, it is noted that employment increased between 2009 and 2011 for modules and then decreased during the IP. For cells, the employment increased until 2010 and then decreased in 2011 and further decreased in the IP. It is noted that for modules, employment followed the trend of the Union production. For cells, as the Chinese imports increased their market share during the entire period the Union industry could not benefit from the growing consumption as expected. Therefore, the employment decrease in 2011 and in the IP corresponds to companies that either had become insolvent or stopped their cell production.

(292) Following the final disclosure one interested party reiterated that the injury suffered by the Union industry was due to the small scale and the lack of economies of scale. As already explained in the recital (285) above and in recitals (195) and (196) to the provisional Regulation, even in the global market, the size and therefore the benefit of economies of scale cannot longer exist where the utilization rates were generally low, and where enormous overcapacities existed world-wide. Therefore this claim had to be rejected.

(293) Moreover, the same party reiterated that the injury suffered by the Union industry was due to the inability of the Union industry to realize any cost advantage. This party claimed that this was in particular due the fact that most of the Union producers were vertically integrated. However, this party did not provide any further information to what extend the fact that producers are vertically integrated could have had a negative impact on their cost structure. Therefore this claim had to be rejected.

(294) In absence of any other comments in this regard recitals (195) to (206) to the provisional Regulation are confirmed.

3.8. Competition from thin film PV products and other PV technologies

(295) Following the provisional disclosure, one interested party reiterated the claim 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 competing with the product under investigation especially for ground-mounted and commercial/industrial rooftop systems, which constitute a substantial part of the total Union PV market.

(296) The investigation showed that although thin film PV products are less expensive than the product under investigation, they only capture a limited market share of the total Union solar market as they have much lower conversion efficiencies and a lower wattage output than crystalline silicon modules. According to the information available, the market share of thin film products was not significant comparing to the total Union solar market during the IP. Therefore, the findings in recital (208) to the provisional Regulation, that although there may be some competition between the thin film products and the product under consideration, this competition is considered to be marginal, are confirmed. On these grounds, the arguments brought forward in this regard had to be rejected.

(297) Following the final disclosure, one interested party reiterated that the competition from thin film products likely caused the material injury suffered by the Union industry. In this regard, the party submitted that in Germany the market share of thin film products in the total solar market was substantial during most of the IP and only declined towards the beginning of 2012.

(298) The investigation showed indeed that the average prices of thin film products were at lower levels than the average price levels of the product under investigation.

(299) However, as set out in recital (296) above thin film products have much lower conversion efficiencies and a lower wattage output than crystalline silicon modules and therefore competition between these product, if any, could not contribute to the injury of the Union industry, as crystalline silicon modules are the dominant technology in the Union solar market. The JRC PV Status Report 2012 states that as a consequence of the drop in polysilicon prices, thin film has in the last years lost market share to crystalline silicon modules.

(300) In absence of any other comments in this regard, the findings of recitals (207) to (210) to the provisional Regulation are confirmed.

3.9. Financial crisis and its effects on access to finance

(301) Following the provisional disclosure it was claimed that the injurious effects of the financial crisis and of its effects on access to finance should be separated and distinguished and not attributed to the dumped imports.

(302) In this regard reference is made to recital (212) to the provisional Regulation where the effects of the financial crisis and the economic recession on the situation of the Union industry were specifically addressed. This recital sets out in detail the reasoning behind the finding that the financial crisis, although having had an impact on the situation of the Union industry, did not break the causal link between the dumped imports and the material injury suffered by the Union industry. This specific reasoning has not been contested by the interested parties nor did they provide any new information or evidence which could have devaluated the findings set out in this recital. The claims made in this regard were therefore rejected.

(303) Moreover it was claimed that the injury suffered by the Union industry was due to the Union's industry failure to seek appropriate financing and that the Commission should investigate whether the Union industry requested financing while they were profitable. The investigation in fact showed that in 2010, when Union industry was still profitable, the level of investment increased for modules and for cells respectively by 315% and 10% as compared to 2009. As the PV industry is capital intensive, it is expected that the Union industry is continuously seeking appropriate financing in order to improve its cost efficiency and compete with the unfair dumped imports. Therefore, it is concluded that the lack of access to finance was a result of the distorted situation caused by dumped imports and not its cause. The above claim was therefore rejected.

(304) Following the final disclosure, one interested party reiterated that the injurious effects of the financial crisis should be separated and distinguished and not be attributed to the dumped imports. This party referred to publicly available information indicating that at least one Union producer perceived the financial crisis as the main cause for its injurious situation. The current investigation based its findings on specific company data which go significantly beyond publicly available statements of specific companies. Therefore, the publicly available statement to which reference was made cannot devaluate the findings made in recital (212) to the provisional Regulation, where it was concluded that while the financial crisis had a certain impact on the situation of the Union industry, it could not break the causal link between the dumped imports and the material injury suffered by the Union industry. Therefore, this claim had to be rejected.

(305) Another interested party claimed that the different access to financing between the Union industry as compared to the Chinese exporting producers should be taken into consideration. This party claimed that this was one of the main factors which caused the material injury to the Union industry and not the dumped imports. However, the preferential access to financing of a number of Chinese exporting producers has been found to distort the market and may well be one of the main reasons allowing Chinese exporting producers to export the product concerned at dumped prices. This factor can therefore not break the causal link between the dumped imports and the material injury suffered by the Union industry. This claim was therefore rejected.

(306) In absence of any other comments regarding the effects of the financial crisis, the findings of recitals (211) and (212) to the provisional Regulation are confirmed.

3.10. Export performance of the Union industry

(307) In absence of any comments brought forward to reconsider the findings set out in recitals (213) and (215) to the provisional Regulation, they are confirmed.

3.11. The discovery of shale gas deposits in the Union

(308) In absence of any comments brought forward to reconsider the findings set out in recitals (215) to (217) to the provisional Regulation, they are confirmed.

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

(309) In absence of any comments brought forward to reconsider the findings set out in recitals (218) and (219) to the provisional Regulation, they are confirmed.

3.13. Management decisions

(310) Some interested parties reiterated the claim raised in the recital (220) to the provisional Regulation that the material injury suffered by at least one of the Union producers was caused by wrong management decisions. These parties provided further information in the form of a press article. However, the information provided could not be verified and could not reverse the findings of this investigation that the management decisions of the company concerned were normal and prudent or had no impact on the entire Union industry. Therefore, the above claims were rejected.

(311) In the absence of any other arguments in this respect, the findings as set out in recitals (220) and (221) to the provisional Regulation are confirmed.

3.14. Other government policies

(312) In absence of any comments to reconsider the findings set out in recital (222) to the provisional Regulation, they are confirmed.

3.15. Other arguments

(313) One interested party claimed that the injury suffered by the Union industry was due to the forerunner disadvantage and the lack of political support from the European Commission in previous years. This party also claimed that apart from the national support schemes, also population, GDP, electricity consumption, financing opportunities and connectability to the grid are important factors in each market. However, the above party was not able to substantiate its claims which were therefore rejected.

(314) Following the final disclosure, the same interested party reiterated that the injury suffered by the Union industry was due to the forerunner disadvantage. However, the claim was neither analysed nor substantiated; therefore it had to be rejected.

4. Cumulative assessment of those other factors that have been found to contribute to injury

(315) The investigation has shown that the following other factors may have contributed to injury: Imports of the product concerned from Taiwan; Reduction in the level of FIT; Long-term polysilicon contracts of limited number of Union producers; the financial and economic crisis.

(316) As has been shown above in sections 3.1 respectively 3.6, the possible contribution of imports from Taiwan and of long-term polysilicon contracts of a limited number of Union producers are, at best, marginal, because any impact was further diluted through the value chain.

(317) With regards to the economic and financial crisis, the investigation has shown that the main reason for difficulties of the Union industry in accessing the capital needed for investments were the dumped imports, which prevented the Union industry from selling its products at profitable prices when the Union market showed strong growth rates (2009-2011).

(318) With regards to FIT, third parties have not been able to demonstrate that FIT levels during the IP would have been so low that they would have prevented Union producers from selling the product concerned at non-injurious prices. The Institutions take the view that reductions in FIT levels may explain reduced demand, as investments in certain locations were no longer viable. They cannot, however, break the causal link, even taken together with the other factors that have been found to contribute to injury, because they were still at a level at which, absent the dumped imports, the Union producers could have sold their products at non-injurious prices.

(319) Therefore, even if the cumulative effect of the four other factors possibly contributing to injury is assessed, the causal link between dumping and injury is not broken.

5. Conclusion on causation

(320) All the effects of the injury factors other than the dumped imports have been individually and collectively analysed. Therefore, it is concluded that the collective assessment of all the factors that may have had an impact on the injurious situation of the Union industry (i.e. imports of third countries, FITs, impact of raw material prices, financial crisis) collectively fail to explain the injury suffered by the Union industry in particular in terms of low prices and financial losses due to the penetration of low priced imports in significant quantities of the product concerned from the PRC. Based on the above, the provisional findings as set out in recitals (223) to (224) to the provisional Regulation that the dumped imports from the PRC caused material injury to the Union industry within the meaning of Article 3 (6) of the basic Regulation is confirmed.

F. UNION INTEREST

1. Preliminary remarks

(321) Following the provisional disclosure, one interested party claimed that the assessment of the Union interest was not based on a representative number of operators.

(322) The Commission has contacted the different operators in the following manner.

(323) Unrelated importers: as mentioned in recital (12) to the provisional Regulation, the Commission contacted all the 250 unrelated importers made known by the complainant and selected a provisional sample 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. However, as set out in recital (12) and (232) to the provisional Regulation, only one of the companies provisionally selected was indeed, after verification, confirmed to be an unrelated importer. After publication of the provisional Regulation, fifteen further unrelated importers, which had initially submitted a sampling form at the initiation stage but were not sampled, were invited to cooperate further with the investigation. Six of them agreed and received a questionnaire, and five submitted a reply out of which three were considered to be sufficiently complete. The definitive sample of unrelated importers therefore comprises four unrelated importers, representing a range of 2 % to 5 % of the imports of the product concerned. With regards to that low percentage, it has to be kept in mind that the majority of imports of the product concerned into the Union does not take place via unrelated importers, as explained in recital (12) to the provisional Regulation.

(324) Operators other than unrelated importers (upstream and downstream operators): as mentioned in recital (226) to the provisional Regulation, the Commission also sent specific questionnaires to about 150 operators including those unrelated importers that had come forward after the initiation of the investigation, which had therefore the opportunity to provide the relevant data to the Commission. Moreover, not only the replies to the questionnaires but also verifiable and duly substantiated comments and submissions provided by interested parties within the deadlines were taken into consideration in the investigation, irrespective of whether or not these parties had replied to the questionnaire. In particular, AFASE has transmitted to the Commission comments on behalf of its members - PV operators that were also analysed.

(325) In the light of the above, sufficient elements were gathered allowing a meaningful assessment of the Union interest. On these grounds, the argument was rejected.

(326) One interested party requested the Commission to clarify how the Commission handled the importers questionnaires which it considered to have been submitted by downstream operators.

(327) In reply to this request, it is clarified that the 36 replies indicated in recital (241) to the provisional Regulation concerned replies to the Annex B of the Notice of initiation, the purpose of which was to sample unrelated importers if appropriate.

(328) Concerning the replies to the questionnaires of the two operators indicated in recital (12) to the provisional Regulation one was taken into account in the relevant analysis of the downstream operators. The second operator submitted additional information which revealed that, contrary to what was stated in recital (12) to the provisional Regulation, it was indeed an importer of modules but not an importer of cells. Nevertheless, the information provided in its reply to the questionnaire was not sufficient to include it in the analysis of unrelated importers due to the fact that the replies provided were incomplete.

(329) After the imposition of provisional measures, further verification visits were carried out at the premises of to two project developers (see above recital (8). In addition, the six replies to the specific questionnaires (see recital (324) by service providers also active in the PV sector (logistics, transport, public relations, etc.), which were deemed initially to be insufficiently complete (see recital (241) to the provisional Regulation) were analysed and taken into account for the purpose of this investigation (see recitals (369) to (371) below).

(330) To sum up, for the analysis of Union interest, the following information has been relied on:

- the questionnaire replies received from eight sampled Union producers and four sampled unrelated importers as well as the replies to the specific questionnaire received from eight upstream and thirteen downstream operators (seven project developers/installers; six service providers also active in the PV sector) out of 150 operators that had come forward after the initiation and received the specific questionnaires;
- the data verified during the on-site verifications at the premises of eight Union producers, one unrelated importer, two upstream operators, four downstream operators (project developers/installers) and one association (see recital (17) to the provisional Regulation and recital (8) above)
- the data on Union interest submitted by other interested parties, including associations, as well as publicly available data on the evolution of the PV market in Europe, in particular: EPIA's Global Market Outlook for Photovoltaics 2013-2017

2. Interest of the Union industry

(331) Some interested parties contested that the Union industry would be able to benefit from any measures arguing that (i) the measures will lower the demand for PV products in the Union and therefore the Union industry will not be able to increase their sales, (ii) the Union industry has small production facilities and is therefore not able to meet the demand of certain types of installations such as commercial rooftop and large ground-mounted installations, (iii) the Union producers are not 'bankable'' (iv) the imposition of duties on cells will *de facto* increase the cost of production of the Union producers of modules and make them less attractive for consumers, (v) in case of significant drop of Chinese imports, the producers from other third countries will most likely take advantage of the fewer imports from the PRC.

(332) Concerning the claim that measures will lower the demand for PV products in the Union and therefore the Union industry will not be able to increase their sales, it is noted that the parties were unable to provide any verifiable evidence of the existence of a direct link between the imposition of measures and the decrease in demand for PV products which proved to be influenced over the years by several factors.

(333) In reply to the claim that the Union industry has small production facilities and is therefore not able to meet the demand of certain types of installations such as commercial rooftop and large ground-mounted installations, it should be noted that the investigation has showed that the Union industry has the capacity to supply both the commercial and industrial installations (between 40 KW and 1MW) and the utility market segment installations (1 MW and 10 MW). Moreover, the investigation did not reveal any evidence that products supplied by different manufacturers could not be used in the same project. This claim was therefore rejected.

(334) The argument that the Union industry would not benefit from the measures because Union producers are not 'bankable' and that investments funds would not accept to finance projects using EU-made modules was not substantiated. In any event, it is expected that the imposition of measures will restore fair market conditions which should reassure investors, including from the banking sector, as to the ability of Union producers to develop viable projects. On these grounds, this argument was rejected.

(335) With reference to the claim that the imposition of duties on cells will *de facto* increase the cost of production of the Union producers of modules and make them less attractive for consumers, while it is not excluded that a certain increase in prices could occur further to the imposition of duties, it should also be considered that public available sources indicate that the price trend of modules and cells is downward. Thus, even if the cost of cells might increase as a result of measures, the overall decreasing trend of prices should result in decreasing costs of modules. The producers in question may also decide to source their cells in the Union, and no longer from the PRC. Finally, it is expected that the imposition of measures will increase the capacity utilization of cells producers in the Union thus increasing their economy of scale and as a consequence reduce costs. This claim was therefore rejected.

(336) The argument that in case of a significant drop of Chinese imports further to the imposition of measures, the other third countries will most likely take advantage of this rather than the Union industry was not confirmed by the investigation. The investigation did not reveal any clear indications that the other third countries would direct their exports massively to the Union market, in particular taking into account the likely expansion of other third country markets, notably in Asia, as forecasted by publicly available sources. Finally, there is no indication that even if imports from other third countries would increase as a result of a drop of Chinese imports, the Union industry will not be able to compete with imports from these countries.

(337) In reply to the final disclosure some parties argued that it is unrealistic to expect the emergence of a sustainable Union industry manufacturing modules and cells because there is no rational investor that would invest in the Union producers that allegedly suffer from an unfavourable cost structure and can therefore not produce at competitive prices. The investigation did not confirm that the Union industry is suffering from an unfavourable costs structure, as explained in recitals (202) and (203) to the provisional Regulation. Therefore, absent dumped imports and utilising the production capacities to a larger extent should bring economies of scale and allow for the emergence of a sustainable Union industry. In view of the above the argument was rejected.

(338) One party argued that the demand in the Union is driven by the development of FITs and the expected return on investment by the investors is linked to this development. In particular, it claimed that, if prices increase in the Union, as a consequence of the duties, and FITs do not follow this increase accordingly, demand will decrease and the Union industry will not benefit from the duties imposed.

(339) In reply to the above claim, it is noted that despite the correlation between the level of FITs and the demand for PV installations, the evidence collected during the investigation indicates that future demand will be less and less dependent on FITs and other support schemes as PV grid parity is likely to have been reached by certain types of installations in several places in the Union (see recital (260)above). Furthermore, the expected return on investment should be based on fair market prices. Finally as mentioned in recital (335) above, while it is not excluded that a certain increase in prices may occur further to the imposition of measures, it should be noted that public available sources indicate that the overall price trend is downward. The argument was therefore rejected.

(340) Interested parties have pointed out that because demand for solar panels is driven by support schemes, in particular FIT, and by the level of electricity prices for the final consumer (which determine grid parity), price elasticity of demand can be very high.

Whereas it is correct that an important increase in prices may lead to an important reduction of demand because of the particular nature of the market pointed out by those interested parties, the argument has to be rejected because it is very unlikely that price increases caused by the measures will be important, for the following reasons. First of all, all available sources confirm that the important decrease in prices for the product concerned throughout the IP and since the IP until today will continue. Secondly, the economic effect of the undertaking that has been accepted by the Commission is that Chinese exporting producers will supply the product concerned at a minimum import price of less than 60 c/W, which is far below the price that has been observed during the IP, at a volume that corresponds roughly to their current market share. At this price level, demand is very unlikely to drop in a significant manner, as that price level ensures sufficient demand both under the current level of support provided by support schemes and under the current levels of grid parity. Furthermore, the price of electricity for final consumers is expected to increase, whereas the price of the product concerned is expected to decrease. Through an indexation formula, the undertaking ensures that further price decreases of the product concerned are taken into account for the minimum import price. Therefore, those arguments have to be rejected.

(341) Several interested parties reiterated the allegation that the interest of the Union industry is not significant since the value added created by the upstream and downstream industries is far more significant than the value added created by the Union industry in the PV value chain. The argument that the various segments in the PV sector have a different added value is not disputed. As mentioned in recital (228) to the provisional Regulation, the investigation established that the Union industry has suffered material injury caused by unfair trade practices. Indeed some Union producers have already been forced to close down and in the absence of measures, a further deterioration appears certain. As all segments in the PV sector are closely interrelated, the disappearance of the Union production would be detrimental to the whole PV sector making it fully dependent on outsourced supply. Therefore, also for reasons of security of supply, the argument was therefore rejected.

(342) In reply to the final disclosure, one interested party reiterated the claim that the higher value-added created by the upstream and downstream industry, as compared to the Union industry of the product concerned, is relevant to whether anti-dumping duties should be imposed. In this respect, it is confirmed that in assessing the Union interest the Institutions did balance the positive and negative consequences the duties may have on the various economic operators. Whereas the impact on the upstream and downstream industry is limited, the measures will afford the Union industry the possibility to recover from injurious dumping.

(343) One party contested the number of jobs that would be secured by the imposition of measures. It claimed that the Union industry employs about 6 000 people, and not 25 000 as reported in recital (229) to the provisional Regulation.

(344) No evidence was however provided to support the above claim and therefore it was dismissed. It is clarified that in view of the exclusion of wafers from the product scope, the employment in the Union industry amounted to around 21 000 employees during the IP. Interested parties did not provide any proof that the number of employees in the Union industry has changed significantly post-IP.

(345) In conclusion, the investigation proved that the Union industry suffered material injury from the dumped imports from the PRC, being unable to recoup the investment

through profitable sales. It is expected that the imposition of measures will restore fair trade conditions on the Union market, allowing the Union industry to compete on equal footing. The likely decrease in imports from the PRC should enable the Union industry to increase their sales in the Union and thus better utilise the available production capacities in the short term. This in turn may bring economies of scale. While it is possible that the prices of the like product will raise in a short period of time due to the measures, the overall descending price trend is likely to be maintained also thanks, on the one hand, to the further decrease of cost of production of the product under investigation, and, on the other hand, the competitive pressure from the third countries' producers, which would also compete in the Union market.

(346) In the absence of any further comments, recitals (227) and (231) to the provisional Regulation, with the exception of the employment figure referred to in recital (344) above,are confirmed.

3. Interest of unrelated importers

(347) Following the provisional disclosure, the unrelated importer which provided a questionnaire reply prior to the imposition of provisional measures and had been considered to constitute the provisional sample claimed that the conclusions with regard to the impact of the measures on unrelated importers was only based on its own questionnaire reply which could therefore not be considered as representative.

(348) The provisional Regulation based its findings with regard to unrelated importers on one company given that as explained in recital (232) to the provisional Regulation the major activity of only one out of the three provisionally sampled importers consisted in trading of the product concerned. As stated above in recital (21) subsequent to the imposition of provisional measures, the sample was enlarged, more unrelated importers were contacted and out of the five additional questionnaire replies received only three were sufficiently complete and allowed for meaningful assessment. At definitive stage, the sample for unrelated imports was therefore expanded to include four importers. Overall, during the IP, the activity of the four sampled cooperating unrelated importers related to the product concerned varied between 60% and 100% of their total business. In addition, the four cooperating unrelated importers sourced from the PRC between 16% to 100% of their total imports of modules, only one sourcing exclusively from the country concerned. The profitability of the four sampled cooperating unrelated importers related to the product concerned was on average 2.3% in the IP.

(349) One interested party argued that the impact of the duties on the unrelated importers was underestimated as there are no immediate alternative sources of supply that could replace the Chinese imports of the product concerned if the duties were imposed and that changing a source of supply is difficult in view of the fact that the major production is based in the PRC and this would entail additional significant costs.

(350) In this respect, it is recalled that the imposition of measures should not result in the disappearance of the imports of the product concerned from the PRC. The investigation indicated that the possible decrease of imports from the PRC will impact in particular those importers that source the product concerned exclusively from the PRC, which is the case only for one out of the four cooperating unrelated importers. Concerning the impact of measures on the unrelated importers' financial situation, it was not excluded that it can be negative, but it has been concluded that this will largely depend on their capacity to switch sources of supply or to pass at least part of the possible price increase on to their customers. For operators importing the product

also from other sources than the PRC or importing also other products than the product concerned the negative impact will be further limited. The Commission therefore considers that although there is likely to be a negative impact on the importers of the product concerned, this impact will, on average, remain limited.

(351) One unrelated importer argued that it needs significant working time and financial investment before accepting the products of a new supplier. In this respect a claim was made in reply to the final disclosure that relevant evidence was provided to the verification team at the time of the on-the-spot visit on the long testing requirement that an importer must do before taking the decision to supply from a particular exporter.

(352) It is acknowledged that the setting of a new relationship between an importer and a supplier may entail additional costs and time investment (e.g. in testing the product). At the same time, changing suppliers seems to be a normal risk calculated in an importers' professional activity and is related to the fact that the PV market is maturing and thus undergoes constant changes (e.g. bankruptcies, consolidations) requiring switching to new suppliers. Moreover, it can be assumed that new types of modules that reach the market on a constant basis (containing e.g. new efficiency characteristics) also require testing. In this respect, testing of a new product (even from the same supplier) appears to be a standard rather than an unusual activity. The argument is therefore rejected.

(353) In reply to the final disclosure two parties reiterated the claim that the interest of the unrelated importers was not properly considered. One party claimed that the lack of the non-confidential version of the replies to the questionnaires by the additional cooperating importers did not allow a proper assessment by the parties. It questioned the Commission's assessment regarding the possibility that other third country imports in the Union would increase thus allowing the importers to switch their supplies, on the basis of the allegation that other third markets are booming. To this end, the party claimed that such assumption is in contradiction with the conclusions in recital (336), which argued that imports from other third countries would not be massive. Another party questioned whether the Commission respected the principle of non-discrimination as the Union producers were given more prominence in the Commission's assessment than the other operators.

(354) First, it is confirmed that the non-confidential version of the replies to the questionnaires received after publication of the provisional Regulation by the additional cooperating importers was included in the file for consultation by interested parties. Secondly, there is no contradiction between the assumption that the imports from other third countries can increase in response to lower imports from the PRC and that such increase should not be massive in view of the growing demand for PV installations world-wide. At the same time, as the Union industry is expected to retake a certain part of the market share that was previously held by products from the PRC, a certain loss in business for unrelated importers cannot be excluded. However, it is observed that the overall size of the PV market is expected to continue to grow in the long term, as grid parity is reached in more and more locations. Finally, it is clarified that, as in all trade defence investigations, while the situation of the Union industry was assessed in order to establish if it suffered material injury due to the dumped imports, in the context of the Union interest analysis the interest of the Union industry was assessed on an equal basis to the other economic operators, including the unrelated importers. It is also clarified that the investigation whether or not the Union industry suffered material injury is governed in particular by Article 3(5) to the basic

Regulation which set the minimum standards of such investigation. The Union interest is only analysed once a positive determination of injurious dumping was made in accordance with the standards set out in Article 21 to the basic Regulation. As a result it was considered that the likely negative impact of the measures on certain importers, in particular those sourcing exclusively from the PRC, did not outweigh the benefits of the measures for the Union industry and the mid- and long term benefits to the Union PV market resulting from fair competition

(355) In the absence of any further comments, on the basis of the information covering the four sampled importers, recitals (233) and (234) to the provisional Regulation were confirmed.

4. Interest of upstream operators

(356) Following the provisional disclosure, several parties reiterated the claim that a majority of inputs in the PV value chain comes from the Union and that such advantageous situation may cease should the duties be imposed as production in the PRC of the product concerned will decrease as a consequence of the duty. In reply to the final disclosure one party pointed out that the measures in this case may trigger other measures, which the PRC may impose on the Union products.

(357) In this respect, as mentioned in recital (239) to the provisional Regulation, Chinese imports are expected to continue to supply the Union market even with duties in place. In addition, various publicly available sources in the PV sector, such as EPIA's Global Market Outlook for Photovoltaics 2013-2017, forecast that the possible contraction in demand in the Union should be only in the short-term (in 2013 and 2014) since consumption in the Union will increase further in the following years. Furthermore, as concluded in recital (239) to the provisional Regulation, addressing unfair trade practises is likely to allow building a sustainable growth in the PV market in the Union in the mid and long-term, from which all operators in the Union should benefit. Finally, as regards the argument on the possible retaliation of the PRC in reply to the measures in this case, it is recalled that the PRC as any other WTO member, may have a recourse to trade defence investigations only in justified circumstances and any such investigation has to comply with strict WTO rules. The Commission monitors any such investigation to ensure that the WTO rules are respected. The argument was therefore rejected.

(358) Some parties contested the conclusion in recital (239) to the provisional Regulation that the decreased exports of the Union PV upstream operators to the PRC might be compensated by exports to other markets arguing that the duties will decrease the world-wide demand for the product.

(359) In this respect, it is firstly noted that Chinese imports are not expected to cease completely as a result of the duties. In addition, the information collected in the course of the investigation did not establish any direct correlation between the development of the imports from the PRC in the Union market and the exports from the PRC to other markets. Moreover, publicly available sources, such as EPIA's Global Market Outlook for Photovoltaics 2013-2017, forecast that the PV market world-wide will grow in the next years. As far as the Chinese market is concerned, there are indications that the domestic consumption in the PRC will increase substantially (e.g. as indicated by EPIA). In view of the above, the exports of the Union upstream operators to the PRC are not expected to drop significantly as a consequence of the imposition of measures.

(360) It should also be noted that the contraction of demand in the Union in 2013 and 2014 mentioned in recital (357) above may have a negative impact on the upstream operators. This however cannot be linked, at least not for its major part, to the duties as it was foreseen well before the imposition of provisional measures. Moreover, concerning the Union producers of machinery for the PV industry, as also mentioned in in recital (239) to the provisional Regulation, due to the existing substantial spare capacity in the PRC, it is unlikely that their exports to the PRC can significantly increase even under the scenario that the Chinese producers increase their production volume. Finally, the information gathered during the investigation indicated that the machinery producers may also be impacted by the Chinese 12th five-year plan for Solar Photovoltaic Industry which foresees that by 2015 80% of the manufacturing equipment for cells should come from the PRC. As long as this change is achieved in compliance with WTO rules, this may also further limit the possibility of manufacturers of machinery in the Union to compete in the Chinese market. The above argument was therefore rejected.

(361) In reply to the final disclosure the GOC argued that the 12th five-year plan for the Solar Photovoltaic Industry offers only some general guiding principles that are not binding as there are no enforcement powers foreseen, and that therefore it should not be considered as an indication that the possibility of manufacturers of machinery in the Union to compete in the Chinese market will be limited. In this respect it is noted that the GOC included the PV industry amongst strategic industries in the 12th five-year plan and also issued a specific plan for the solar photovoltaic industry. In this plan the GOC expressed its support for *"superior enterprises"* and *"key enterprises"*, committed itself to *"promote the implementation of various photovoltaic support policies"*, and *"formulate overall preparation of supporting policies on industry, finance, taxation …"*. Furthermore, as the plan contains essential directives to be achieved by the Chinese industry during the period of five years it has a deep impact on the business landscape, both within the PRC and in countries that do business with the PRC. Considering the above, there are clear indications that the freedom of choice of the Chinese manufacturers of cells and the competitive pressure of the Union producers of the manufacturing equipment exporting to the Chinese market is restricted by the plan. Therefore this argument was rejected.

(362) One cooperating raw material producer contested the prospect of other markets compensation for the decreased production on the Chinese market, in view of the substantial installed production capacity in the PRC, which could not be easily built elsewhere.

(363) In view of the conclusions in recital (359) above this argument is dismissed since there are no indications of the alleged decreased production on the Chinese market.

(364) One interested party contested the number of employees in the upstream sector quoted in recital (236) to the provisional Regulation.

(365) It is clarified that the number of 4 200 employees reported in the provisional Regulation only referred to the cooperating upstream operators, such as equipment manufacturers and polysilicon supplier, based on their questionnaire replies, and not to the whole sector.

(366) Following the exclusion of wafers from the product scope, the producers in the Union of this product should nevertheless benefit from the imposition of duties, since the Union industry is expected to increase its production of cells and modules.

(367) In the absence of any further comments, recitals (235) and (240) to the provisional Regulation are confirmed.

5. Interest of downstream operators

(368) As mentioned in recital (329) above, after the imposition of provisional measures further verification visits were carried out to two project developers.

(369) In addition to seven questionnaire replies of the downstream operators whose activity is directly related to the like product (namely the project developers and installers), the analysis of which constituted the basis for the assessment of the downstream operators in the provisional Regulation, six additional replies to questionnaires submitted at provisional stage and considered not to be sufficiently complete (see recital (241) to the provisional Regulation) were further analysed as they provided indications on the relative importance of their PV related activity as compared to their total activity.

(370) The six additional operators concerned were service providers in the PV sector (logistics, transport, public relations, etc.) thus operators whose activity is not directly related to the product under investigation. Despite certain deficiencies in the replies, the data in the questionnaires showed that the PV related activity of these operators was marginal as compared to their total activity. Indeed, during the IP the PV related activity represented on average only around 5 % of their total turnover and 8 % of their total employment. Profitability was on average around 7 %. However, it is noted that data concerning profitability were not complete, as not all operators reported on this item.

(371) On the basis of the further analysis, it was concluded that in the light of the data provided, any possible impact of the measures on the economic situation of the service providers in the PV sector is unlikely to be significant.

(372) Following the provisional and final disclosure, several parties contested the representativity of the data concerning the downstream operators on turnover, profitability and employment derived by the Commission from the replies to the questionnaires by seven downstream operators. AFASE submitted a 'survey' conducted amongst its members (installers) to illustrate that for the majority of the installers the PV business constitutes a primary source of income. AFASE further alleged that the downstream operators, in particular installers, in contrast to the findings set out in recital (242) to the provisional Regulation would only realise one-digit profit margins which do not allow for absorption of any duties.

(373) As regards the representativity of the data used in the provisional Regulation the Commission has used all the data provided by those downstream operators that have filled in the specific questionnaire, as well as the submissions provided by AFASE, as explained in recital (330) above.

(374) As regards the claim that the PV business constitutes a primary source of income for installers, further analysis of the questionnaire replies submitted by the seven downstream operators (installers and project developers) confirmed that the activity directly related to the like product under investigation represented on average around 42 % of the total activity of these operators and the profitability equalled on average 11 %. However, when taking into account also their activities (not directly related to the product under investigation), their overall importance increases substantially for three out of the seven operators. As a result, the corresponding ratio would range from around 45 % to 100 % during the IP. In addition, for the seven operators (installers and project developers) the profitability of the PV activity including the activities not

directly linked to the product under investigation would amount to 9% on average. Employment-wise, the PV activity including the activities not directly linked to the product under investigation would amount to around 660 full-time jobs in the IP for the seven operators. Apart from PV projects and installations these operators were also active in wind energy installations and production of electrical equipment.

(375) It is considered that any impact of measures on the downstream operators has to be primarily assessed on their activity directly related to the product under investigation which in the IP reached a profitability of 11 % on average. However, even if it is assessed on the basis of the overall PV activity not directly related to the product under investigation the conclusions would be similar to the one made at provisional stage since, overall, the various factors taken into account, namely profitability and possibility to absorb part of the duty, do not vary significantly (the profitability decreases from 11 % on average to 9 % on average). In reply to the final disclosure one party on which premises the Commission had carried out a verification visit contested the representativity of the conclusion on profitability of the installers and developers, which, as far as it is concerned, would allegedly be based only on a single transaction. This argument is dismissed as the Commission calculated the profitability of the downstream operators, on the basis of all data submitted by the downstream operators in their questionnaire replies.

(376) Regarding the survey conducted by AFASE amongst its members, it is firstly noted that all operators had the opportunity to come forward at the initiation of the investigation and to reply to the specific questionnaire designed for downstream operators requesting the necessary information for the assessment of the impact of duties on these operators. Secondly, the identity of the installers was not provided in the survey which did not allow for a verification of e.g. the relevance and reliability of the data provided. Thirdly, while a number of questions asked in this survey concerned the installers' capacity to absorb the possible duties, the survey lacked any reference to the profit achieved by these installers in the IP, thus missing an important element for the evaluation of the impact of measures. As a consequence no meaningful conclusions could be drawn from the survey provided.

(377) A number of parties contested the conclusions in recitals (247) and (250) to the provisional Regulation that the jobs in the downstream segment will be negatively impacted in the short term and that the overall impact will be negative but only to a limited extent in view of the fact that the PV market in the Union is forecasted to grow in the mid- and long-term. Some parties further claimed that in particular installers, who are dependent on the PV installations, will suffer from the decline in demand.

(378) The possible job losses resulting from the imposition of the duties was further analysed. In general terms, the information gathered during the investigation confirmed that the downstream sector has been experiencing job losses as a result of the contraction of the demand for PV installations in the Union of about 5 GW between 2011 and 2012, as already stated in recital (246) to the provisional Regulation. These job losses cannot be linked to the measures as they reflected a market evolution. Moreover, a further contraction of demand is foreseen in 2013 and 2014 and will most likely result in further job losses in the PV sector. Similarly, such evolution of the demand was forecasted by major research centres such as EPIA before the initiation of the investigation and therefore such job losses cannot be attributed to the imposition of measures.

(379) The Union industry submitted a study by a consultant PriceWaterHouseCoopers ('PWC') on the possible impact of measure on PV related jobs. The PWC study refers to an earlier study by another consultant Prognos, which envisaged high job losses in the PV market resulting from the imposition of measures, which was submitted by AFASE prior to the imposition of provisional duties and which was addressed in recitals (243) to (246) to the provisional Regulation. The PWC study criticised the study by Prognos pointing to the fact that the total job losses estimated by Prognos exceeded in fact the total number of existing PV jobs in the Union. Regarding the impact of duties in the Union market, PWC reached opposite conclusions than Prognos, forecasting a net positive impact on jobs in the Union and that the benefits outweigh the possible negative effects of the duties (e.g. on demand). In view of the absence of new substantiated arguments on the impact of measures on the employment in the downstream sector, the conclusions in recitals (247) to (250) to the provisional Regulation are confirmed.

(380) AFASE argued that the Commission did not disclose the source of the margin of error of 20 % for the direct PV jobs calculated for 2011 mentioned in recital (245) to the provisional Regulation.

(381) This margin of error of 20%, which may apply upward or downward, became apparent during the verification visit at EPIA. It shows the difficulty to assess precise figures on employment in the downstream sector as there are few sources, often contradictory, of data collection.

(382) In reply to the final disclosure some parties claimed that the Commission's analysis was silent about the fact that the duties will only add to the loss of jobs resulting from the smaller number of PV installations after 2011. It was argued that such job losses, in particular in the downstream sector, are closely linked to the fact that the PV installers are dependent on the solar installations. In addition, AFASE criticised the Commission for not having properly considered the survey it conducted amongst its members and a similar survey conducted by a UK Solar Trade Association, which allegedly illustrated such dependence.

(383) As regards the alleged silence of the Commission concerning the impact of the duties on jobs, reference is made to recitals (377) and (379) above, where the claims concerning the impact of the measures on jobs in the PV sector are addressed and where it is acknowledged that indeed the jobs in the downstream sector might be affected in the short term due to the measures.

(384) With regard to the survey conducted by AFASE and the UK Solar Trade Association, in response to the final disclosure the identity of the companies participating in the interview was provided. The surveys remained however deficient, since for example certain replies were incomplete. The analysis of the surveys showed the following. Concerning the survey by AFASE, it is firstly noted that the majority of the 50 installers who replied to the interview declared to be exclusively active in the PV market. 15 out of 50 installers declared to be also active in other non-PV activities such heating, electrical installations, and wind to a certain extent. In case of the UK survey, 21 out of 31 UK companies who replied to the interview had also other than PV activities. This result shows that with regards to a nearly a half of the project developers and installers, the finding set out in recital (247) to the provisional Regulation on the ability to perform other activities such as electrical and heating installations, plumbing and other green energies installations, is correct. It is, however, recognized that this ability may exist to a lesser extent than assumed in the provisional

Regulation. Its mitigating impact on job losses may therefore be less important than initially assumed. Secondly, some of the operators surveyed by AFASE and the UK Solar Trade Association have been using products produced in the Union and some foresee buying non-Chinese products following the measures to avoid a price increase. Thus, their dependence on the Chinese imports and the impact of the measures is expected to be reduced as they can access products produced in the Union. Thirdly, the estimation of the impact of the measures on the businesses of all surveyed operators' did not allow for firm conclusions as their assessment was very diverse. Some companies were even unable to assess such impact. Fourthly, also the answers to the question about the number of the PV projects that risk cancelling in case of duties ranged from 'not many' to 'all projects' in the UK survey. Some operators were unable to make an estimation. Finally, both surveys lacked the question about the profitability of the economic operators interviewed, which is important for the assessment of the possible absorption of the price increase, if any, resulting from the duty.

(385) Other parties claimed that installers cannot easily change their activities or switch to other green energy installations because of the very different technologies and know-how involved. Therefore, should the duties be imposed, they would go out of business. After final disclosure, this claim was reiterated by one interested party, arguing that installers have invested substantial resources in PV specialisation, such a specific training, which would show that their main focus is on the PV sector and that they would not be able to switch easily to other activities.

(386) This argument was insufficiently substantiated as it was not demonstrated what precise knowledge an installer would need to acquire and how difficult and expensive it is to obtain it. Irrespectively, the institutions acknowledge that installers have developed know-how specific to the installation of PV modules. However, the development of this know-how is relatively recent and adds to the primary expertise of the installers being electrical and heating installations, plumbing etc. It also developed in response to an unfair practice namely the massive inflow of dumped imports from the PRC. Independently from the specialised skills of the employees of the installers, the argument has to be considered in parallel with the analysis made in recitals (378) and (382) above on the employment situation in the downstream sector which in the short term might be negatively impacted but which, thanks to sustainable trade, would lead to an increase in the employment of installers in the mid- to long term. Therefore, the argument was rejected.

(387) Several parties contested the argument regarding the ability of the downstream operators to absorb partly the possible price increase mentioned in recital (247) to the provisional Regulation. Also this argument was insufficiently substantiated thus preventing from assessing to which extent this allegation was accurate. As mentioned in recital (374) above, profitability of the downstream cooperating operators related directly to the product concerned was assessed at around 11 % on average which leaves to the operators in question the possibility to absorb at least partially some price increase if any. In this context, it is recalled as mentioned in recital (335) above that the overall trend of prices is downward. The argument is therefore rejected.

(388) In reply to the final disclosure some parties reiterated the claim of the serious risk of contraction of demand for solar products in the Union as a result of the measures, which according to these parties speaks against the measures. One party argued that the solar energy currently has a high price elasticity of demand and even a limited increase in the price of solar products would result in a severe contraction of demand. This party estimated that an anti-dumping duty in the range of 30 % may further

contract demand by 8 GW whereas a duty of 50 % would contract demand by 10 GW. In the same tone, AFASE referred to a study made by a market analyst, which also foresees a contraction of demand of up to 2GW in 2013 as a result of a duty of 50 %, thus a contraction of a much smaller magnitude.

(389) Although different contraction scenarios were submitted by parties during the investigation in addition to the ones referred to above, they did not contain comparable results. While it cannot be excluded that the duties might result in a contraction of demand for PV installations, the quantification of such effect is difficult to establish in view of the various elements that influence the attractiveness of the PV installations in the Union (see for instance recital (258) to the provisional Regulation). In addition, even if such contraction were to take place in the short-term, the mid- and long-term benefits resulting from fair trade are expected to outweigh the short term negative impact. Finally, AFASE itself recognised that the assessment of the direct link between the demand and the duties would only be available once duties are in place. Therefore, this argument was rejected.

(390) In the absence of any further comments, recitals (243) and (250) to the provisional Regulation are confirmed. The findings on the six service providers for which the PV related activity constitutes only a small fraction of their broader activities (see recital (370) above) do not change the conclusion contained in recital (250) to the provisional Regulation nor does the distinction of the PV activity not directly related to the product concerned of the seven project developers/installers referred to in recital (374).

6. Interest of the end-users/consumers

(391) Following the provisional disclosure, some parties reiterated the argument that the duties would increase the price of the product concerned. Consequently, there would be a decline in demand for PV installations as they would be too expensive for consumers and not attractive enough for the other investors.

(392) As already mentioned in recital (335) above, even if a temporary increase of prices may happen as a result of the imposition of measures, the overall trend of prices is downward as confirmed by several public sources. While it is difficult to quantify the exact possible price increase resulting from the measures and a consequent possible contraction of the demand, several elements are recalled. Firstly, the product under investigation constitutes up to 50% of the total cost of a PV installation and therefore the duty may be at least partly absorbed. Secondly, the competition of the Union industry with the third countries' producers, already present on the Union market, is likely to keep the prices down. At the same time the Union industry should be able to achieve better financial results thanks to the economies of scales resulting from a better utilisation of the production plants and reduced cost of production. Thirdly, the demand for PV installations is correlated not only with the price levels of the product under investigation but also with the level of FITs. At present low levels of demand, as compared to those achieved in 2011 and the IP, it is expected that the FITs should not decrease as quickly as in the period considered, allowing for continuous investment in PV projects. The argument was therefore dismissed.

(393) In reply to the final disclosure one party contested the above reasoning. It claimed that the downward price trend cannot be maintained after the imposition of the measures. The party recalled that the measures represent a very significant cost increase that cannot be fully offset by cost decreases and or imports from the third countries. In addition, it was reiterated that the Union industry will not be able to undertake new

investments in plants and machinery and the downstream operators can absorb a little if their profit is 11 %. Finally there is no evidence that suggests that FITs might compensate the price increase.

(394) It is recalled that contrary to this claim it is not expected that the price increase resulting from the measures may be fully offset but rather that a temporary increase in prices following the measures is possible (see recital (247) to the provisional Regulation). Indeed, such price increase may result from the difference in price levels between the Chinese dumped prices and the non-Chinese products. Yet, the information gathered during the investigation allows claiming that the eventual price increase may be partly absorbed by a number of factors in view of the profits in the downstream sector at the level of 11 %. Finally, regarding the claim that there is no evidence that suggests that FITs might compensate the price increase, it is reasonable to assume that FITs will be adjusted over time in line with the development of prices for projects.

(395) One party claimed that in fact since March 2013 modules prices increased by 20% in Europe and that there is a severe lack of stock since 2013. The argument was not substantiated and to the contrary, the public information sources confirm a relative stability of prices in the second quarter of 2013. Even if that information was correct, it would only reflect the fact that following registration of imports, the risk of a possible anti-dumping duty has been priced in. The argument was therefore rejected.

(396) Another party claimed that the PV projects would not generate a return for an investor if the fall in FITs is not correlated with falling project costs, including the price of modules, as they represent a significant part of the costs in a given project. To this end, it was claimed that the duties would put in question the viability of many PV projects as they increase the price.

(397) As mentioned in recital (335) above, the overall trend of prices of the cells and modules is downward. Furthermore, the importance of FIT with regard to the market is decreasing as grid parity is likely to be achieved in several regions. On these grounds the argument that the price of PV modules could have a negative impact on PV projects including the question of their viability was rejected.

(398) One interested party provided an internal modelling to prove that the viability of many PV projects was endangered if duties were applied.

(399) This modelling did not allow for a proper quantification as to what extent the attractiveness of the investment in the PV installations (e.g. return on investment) could decline in the event of increased prices of the cells and modules. Nevertheless, the assumption that any duty would be entirely passed on to end-users or consumers, used in the said modelling, is unlikely in view of the existing profit margins of the downstream operators. Moreover, an investment decision is not only based on the price of modules but also depends on many other factors including *inter alia* the existence of a general favourable framework for PV installations in a given country, the level of support respectively the electricity price (for grid parity). Therefore, this argument has to be rejected.

(400) In the absence of any further comments, recitals (252) and (254) to the provisional Regulation are confirmed.

7. Other arguments

(401) Following the provisional disclosure, the argument that the Union industry is not capable of supplying the Union market and that only the PRC possesses the capacity to supply the Union market was reiterated.

(402) The claim was addressed in recital (256) to the provisional Regulation. Even if a more conservative assumption on the Union production capacity was made (see recital (183) above), the joint Union and third countries spare capacity would be sufficient to complement in the short-term the potential decrease of Chinese imports. Also in the medium-term it is reasonable to assume that the Union industry will expand its production capacity to cover demand which will allow it to achieve economies of scale, which in turn would allow for further price reduction. Therefore, this argument was rejected.

(403) Some parties reiterated the argument regarding the difficulty in achieving the Commission's green energy 2020 goals if duties are imposed. This argument has already been addressed in the provisional Regulation recitals (257) to (259), therefore, in the absence of any further elements, recitals (257) and (259) to the provisional Regulation are confirmed.

8. Conclusion on Union interest

(404) In view of the above, the assessment in recitals (260) to (261) to the provisional Regulation is confirmed.

(405) Therefore, there are no compelling reasons against the imposition of definitive measures on imports of the product concerned originating in the PRC.

G. DEFINITIVE ANTI-DUMPING MEASURES

(406) In view of the conclusions reached with regard to dumping, injury, causation and Union interest, definitive 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

(407) 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.

(408) Following the provisional disclosure one interested party contested the 10% profit margin used to calculate the injury elimination level claiming that this level was too high for this industry in the current market circumstances and it was used both for modules and cells. It is noted that the legal benchmark to determine the profit before tax for the purpose of calculating the injury elimination level is whether such profit could be reasonably achieved by the industry under normal conditions of competition, i.e. in the absence of dumping. In line with the jurisprudence of the General Court, such profit is the one realised at the beginning of the period considered, i.e. before the increase in dumped imports. Therefore the target profit was adjusted at 8% on the basis of the weighted average profit realised by the Union industry in 2009 and 2010 for modules and cells when profitable.

(409) Following the final disclosure, the Union industry claimed that the profitability of the year 2010 should be used as the level of profitability that Union industry could reasonably achieve in the absence of dumped imports rather than the average profit margin of the years 2009 and 2010. In this respect, it was argued that, the profitability in 2009 was insufficient and the circumstances in the two years were clearly distinct given in particular the development in consumption in 2010 which alleviated the

effects of dumping in that year. In this regard, it should be noted that it is not relevant whether the average profit margin realised by the Union industry was 'sufficient' when determining the injury elimination level. As already stated in recital (264) to the provisional Regulation the injury elimination level should be based on the profit which can be reasonably achieved in the absence of dumped imports. It is the Investigating Authorities' practice to consider that this level had been reached at the beginning of the period considered. As in this case the Union industry realised losses with regard to the sales of cells at the beginning of the period considered in 2009, this methodology was unsuitable and it was deemed more reliable to base the determination of the injury elimination level on the average profit margin of the first and the second year of the period considered. In this regard it was also considered that it is irrelevant that circumstances were different in these two years.

(410) Another party reiterated that the different target profits should be established for modules and cells, as the profitability of these product types showed different trends during the period considered. While indicators were shown separately for each product type, the conclusions reached for each indicator refer to the product under investigation as a whole. It is also recalled that modules and cells are one single product and therefore the dumping margins and the injury elimination level were established on this basis.

(411) Moreover, the revised sample of unrelated importers post-importation costs (modified for the reasons explained in recital (21)) had an impact on the injury margins calculated. Finally, all underselling margins were affected by the correction of CIF prices, the exclusion of wafers and the new target profit.

(412) One party argued that sales of the sampled Union producers focused on the high-end market, such as the residential/small commercial sector, which attracted higher FITs and suggested that the Union industry's sales price should therefore be adjusted accordingly. It should be noted that this claim should not be decisive for the calculation of the injury margin, since the investigation showed that Union producers were not profitable.

(413) In the absence of other comments concerning the injury elimination level, the methodology described in recitals (263) to (266) to the provisional Regulation is confirmed.

2. Definitive measures

(414) In view of the conclusions reached with regard to dumping, injury, causation and Union interest and in accordance with Article 9(4) of the basic Regulation, it is considered that definitive anti-dumping measures should be imposed on imports of crystalline silicon PV modules or panels and cells of the type used in crystalline silicon PV modules or panels, 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. In this case, the duty rate should accordingly be set at the level of the injury margins found.

(415) It is noted that an anti-subsidy investigation was carried out in parallel with the anti-dumping investigation. In view of the use of the lesser duty rule and the fact that the definitive subsidy margins are lower than the injury elimination level, it is considered appropriate to impose a definitive countervailing duty at the level of the established definitive subsidy margins and then impose a definitive anti-dumping duty up to the

relevant injury elimination level. On the basis of the above, the rate at which such duties will be imposed are set as follows:

Company	Subsidy margin	Dumping margin	Injury elimination level	Countervailing duty	Anti-dumping duty
Changzhou Trina Solar Energy Co. Ltd; Trina Solar (Changzhou) Science & Technology Co. Ltd; Changzhou Youze Technology Co. Ltd; Trina Solar Energy (Shanghai) Co. Ltd; Yancheng Trina Solar Energy Technology Co. Ltd	3,5 %	90,3 %	48,2 %	3,5 %	44,7 %
Delsolar (Wujiang) Ltd	*de minimis*	111,5 %	64,9 %	0,0 %	64,9 %
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	11,5 %	91,9 %	58,2 %	11,5 %	46,7 %
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	5,0 %	97,5 %	56,5 %	5,0 %	51,5 %
Jinko Solar Co. Ltd Jinko Solar Import and Export Co. Ltd ZHEJIANG JINKO SOLAR CO. LTD ZHEJIANG JINKO SOLAR TRADING CO. LTD	6,5 %	88,1 %	47,7 %	6,5 %	41,2 %
Jinzhou Yangguang Energy Co. Ltd	6,4 %	53,8 %	33,7 %	6,4 %	27,3 %

Jinzhou Huachang Photovoltaic Technology Co. Ltd Jinzhou Jinmao Photovoltaic Technology Co. Ltd Jinzhou Rixin Silicon Materials Co. Ltd Jinzhou Youhua Silicon Materials Co. Ltd					
RENESOLA ZHEJIANG LTD RENESOLA JIANGSU LTD	4,6 %	88,1 %	47,7 %	4,6 %	43,1 %
Wuxi Suntech Power Co. Ltd Suntech Power Co. Ltd Wuxi Sun-Shine Power Co. Ltd Luoyang Suntech Power Co. Ltd Zhenjiang Ren De New Energy Science Technology Co. Ltd Zhenjiang Rietech New Energy Science Technology Co. Ltd	4,9 %	73,2 %	46,3 %	4,9 %	41,4 %
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	6,3 %	93,3 %	41,8 %	6,3 %	35,5 %

Resources Co. Ltd Yingli Energy (Beijing) Co. Ltd					
Other co-operating companies in the anti-dumping investigation (with the exception of the companies subject to the residual duty in the parallel anti-subsidy Implementing Regulation (EU) No **XXX**/2013) [17] (Annex I)	6,4 %	88,1 %	47,7 %	6,4 %	41,3 %
Other co-operating companies in the anti-dumping investigation, subject to the residual duty in the parallel anti-subsidy Implementing Regulation (EU) No **XXX**/2013) (Annex II)	11,5 %	88,1 %	47,7 %	11,5 %	36,2 %
All other companies	11,5 %	111,5 %	64,9 %	11,5 %	53,4 %

(416) 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 in 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 the products originating in the PRC and produced by the companies and thus by the specific legal entities mentioned. Imports of the product concerned manufactured by any other company not specifically mentioned in the operative part of this Regulation with its name and address, 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'.

(417) Following disclosure, the GOC argued that the weighted average duty rate for the companies listed in Annex I and Annex II is in violation of the WTO Anti-Dumping Agreement, since it is allegedly based on the weighted average of the duties calculated separately for the sampled exporting producers of cells and modules. This assessment is, however, incorrect. For the sampled exporting producers, a uniform duty rate has been calculated for all their exports of the product concerned – and the majority of exporting producers did export cells and modules. The assessment that duties were separately calculated for exporting producers of cells and modules is therefore incorrect, and the argument can therefore not be accepted.

[17] See page **XX** of this Official Journal

(418) Should the exports by one of the companies benefiting from lower individual duty rates increase significantly in volume after the imposition of the measures concerned, such an increase in volume could be considered as constituting in itself a change in the pattern of trade due to the imposition of measures within the meaning of Article 13(1) of the basic Regulation. In such circumstances and provided the conditions are met an anti-circumvention investigation may be initiated. This investigation may, inter alia, examine the need for the removal of individual duty rates and the consequent imposition of a country-wide duty.

(419) Any claim requesting the application of an individual anti-dumping duty rate (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 forthwith with all relevant information, in particular any modification in the company's activities linked to production, domestic and export sales associated with, for instance, that name change or that change in the production and sales entities. If appropriate, this Regulation will then be amended accordingly by updating the list of companies benefiting from individual anti-dumping duty rates.

(420) In order to ensure equal treatment between any new exporters and the cooperating companies not included in the sample, mentioned in Annex I and Annex II to this Regulation, provision should be made for the weighted average duty imposed on the latter companies to be applied to any new exporters which would otherwise be entitled to a review pursuant to Article 11(4) of the basic Regulation.

(421) Measures are imposed to allow the producers in the Union to recover from the injurious effect of dumping. To the extent that there would be any initial imbalance between the potential benefit for producers in the Union and the cost for other economic operators in the Union, this imbalance could be offset by an increase and/or restart of the production in the Union.

(422) However, the envisaged scenario of increased production in the Union may not be in line with the market development in this volatile market. As indicated in recital (108) to the provisional Regulation, Union consumption of modules increased by 264 % between 2009 and 2011, only to decrease by 43 percentage points during the 6 month period between 2011 and the IP. The volatility is even more impressive when looking at the period of 2006-2011, where the Union consumption of modules increased from less than 1 GW to almost 20 GW or an increase of around 2000% in just five years. This volatility is expected to continue, and forecasts published by business associations show differences of 100% and more between the different scenarios even for the medium term period of 2014-2015.

(423) For these reasons, it is considered appropriate, in such exceptional circumstances, to limit the duration of measures to a period of two years only.

(424) This period should be enough for the producers in the Union to increase and/or restart their production, while at the same time not significantly endanger the situation of other economic operators in the Union. It is considered that the period of two years will be the most appropriate to analyse whether the imposition of measures had indeed the effect of increasing European production and thereby balancing the negative effects on other economic operators in the Union.

(425) Following final disclosure, one Union producer raised the argument that the limited duration of 2 years is too short to recover from the injury suffered. In addition it was argued that a duration of 2 years would not allow Union producers to file business

plans for the current and the coming business year. In this respect, it is noted that the duration of the measures until December 2015, which should be sufficient for Union producers to file business plans until 2015.

(426) Furthermore, the Union producer did not contest the reasons for which the duration was limited to two years, notably the volatility of the market. The producer even explicitly appreciated a review in case the measures need to be changed due to changed market situation. Since the likelihood of a change in market circumstances within two years is indeed high in this volatile market, it is considered appropriate to limit the measures to two years from the outset.

(427) Following final disclosure, the complainant argued that two years are insufficient to invest in production, referring to recital (424) above. However, due to the substantial spare capacity of the Union industry, an increase in production can be done through a better utilisation of the existing production capacities, which should be feasible without significant additional investments.

(428) The complainant further argued that an imposition of definitive anti-dumping duties for a period of two years is insufficient for the Union Industry to recover from the injurious effects of past dumping. However, the imposition of anti-dumping duties cannot only look at the interests of the Union Industry alone, but needs to balance the potential benefit for producers in the Union and the cost for other economic operators in the Union. On this basis, the decision to limit measures to two years is maintained.

(429) All parties were informed of the essential facts and considerations on the basis of which it was intended to recommend the imposition of a definitive anti-dumping duty on imports of crystalline silicon PV modules or panels and cells of the type used in crystalline silicon PV modules or panels, originating in or consigned from the PRC and the definitive collection of the amounts secured by way to the provisional duty (final disclosure). All parties were granted a period within which they could make comments on the final disclosure.

(430) The oral and written comments submitted by the interested parties were considered and taken into account where appropriate.

3. Retroactivity

(431) As concerns a possible retroactive application of anti-dumping measures, the criteria set out in Article 10(4) of the basic Regulation have to be evaluated. Pursuant to Article 10(4)(b), one key criterion which needs to be fulfilled is that there is "*a further substantial rise in imports*" "*in addition to the level of imports which caused injury during the investigation period*".

(432) A comparison of monthly average imports[18] of modules and cells with monthly average imports for the period under registration (March 2013 - June 2013) shows a sharp decrease of import volumes after the IP. Indeed, as stated in recital (110) to the provisional Regulation, the monthly average import quantity of Chinese modules and cells amounted to 1 250 MW[19] during the IP. For comparison, during the period of registration the monthly average import volume of Chinese modules and cells was only around half as high.

[18] Since the period under registration is significantly shorter than the IP, a comparison of monthly average values is more useful than a comparison of total volumes of the two respective periods.

[19] 13 986 MW of modules + 1 019 MW of cells allocated to 12 months

(433) Alternatively, given the volatile nature of the market, the further substantial rise in imports could be assessed in relative rather than absolute terms. To assess whether there is a further substantial rise in imports in relative terms, it is necessary to compare the import volumes with the consumption on the Union market, i.e. the consumption would have to decrease at a substantially higher rate than the decrease in Chinese imports. Since the import volume of Chinese modules and cells during the period of registration was only half as high as during the IP, this decrease in consumption would need to be substantially higher than 50%. While no precise information concerning the consumption during the period under registration is available, there are no indications that the consumption decreased by more than 50%.

(434) For the reasons stated above, the criterion concerning a further substantial rise in imports is therefore not met. As a consequence, it is concluded that the definitive anti-dumping duty shall not be levied retroactively prior to the date of application of provisional measures.

H. FORM OF THE MEASURES

(435) Subsequent to the adoption of the provisional anti-dumping measures, a group of cooperating exporting producers, including their related companies in the PRC and in the European Union, and together with the CCCME offered a joint price undertaking in accordance with Article 8(1) of the basic Regulation. The undertaking offer was also supported by the Chinese authorities.

(436) The Commission examined the offer, and by Decision 2013/423/EU[20] accepted this undertaking offer. As already indicated in recitals (3), (4) and (7) of this Decision, in order to assess whether the price undertaking removes the injurious effect of dumping, the Commission has analysed any changed market circumstances of a lasting nature concerning, inter alia, the current export prices and the injury elimination level which was found lower than the level of dumping.

(437) Subsequent to Decision 2013/423/EU, the exporting producers together with CCCME submitted a notification to amend their initial undertaking offer. They requested to revise the undertaking to take account of the exclusion of wafers from the product scope as described in recitals (31) and (72). In addition, a number of additional exporters, within the deadline stipulated in Article 8(2) of the basic Regulation, requested to be included in the undertaking.

(438) By Decision 2013/**XXX**/EU,[21] the Commission confirmed the acceptance of the undertaking offered by exporters listed in the Annex to that Decision with regards to the definitive duties.

HAS ADOPTED THIS REGULATION:

Article 1

1. A definitive anti-dumping duty is hereby imposed on imports of crystalline silicon photovoltaic modules or panels and cells of the type used in crystalline silicon photovoltaic modules or panels (the cells have a thickness not exceeding 400 micrometres), currently falling within CN codes 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 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,

[20] OJ L 209, 3.8.2013, p. 26.

[21] See page **XXX** of this Official Journal.

– 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),

– modules or panels with a output voltage not exceeding 50 V DC and a power output not exceeding 50 W solely for direct use as battery chargers in systems with the same voltage and power characteristics.

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

Company	Duty rate	TARIC additional code
Changzhou Trina Solar Energy Co. Ltd; Trina Solar (Changzhou) Science & Technology Co. Ltd; Changzhou Youze Technology Co. Ltd; Trina Solar Energy (Shanghai) Co. Ltd; Yancheng Trina Solar Energy Technology Co. Ltd	44,7 %	B791
Delsolar (Wujiang) Ltd	64,9 %	B792
Jiangxi LDK Solar Hi-Tech Co. Ltd LDK Solar Hi-Tech (Nanchang) Co. Ltd LDK Solar Hi-Tech (Suzhou) Co. Ltd	46,7 %	B793
LDK Solar Hi-Tech (Hefei) Co. Ltd	46,7 %	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	51,5 %	B794
Jinko Solar Co.Ltd Jinko Solar Import and Export Co. Ltd ZHEJIANG JINKO SOLAR CO. LTD ZHEJIANG JINKO SOLAR TRADING CO. LTD	41,2 %	B845
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	27,3 %	B795

RENESOLA ZHEJIANG LTD RENESOLA JIANGSU LTD	43,1 %	B921
Wuxi Suntech Power Co. Ltd Suntech Power Co. Ltd Wuxi Sunshine Power Co. Ltd Luoyang Suntech Power Co. Ltd Zhenjiang Ren De New Energy Science Technology Co. Ltd Zhenjiang Rietech New Energy Science Technology Co. Ltd	41,4 %	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	35,5 %	B797
Other co-operating companies in the anti-dumping investigation (with the exception of the companies subject to the residual duty in the parallel anti- subsidy Implementing Regulation (EU) No **XXX**/2013)[22] (Annex I)	41,3 %	
Other co-operating companies in the anti-dumping investigation, subject to the residual duty in the parallel anti- subsidy Implementing Regulation (EU) No **XXX**/2013) (Annex II)	36,2 %	
All other companies	53,4 %	B999

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

4. Where any new exporting producer in the People's Republic of China provides sufficient evidence to the Commission that:

[22] See page **XX** of this Official Journal

– it did not export to the Union the product described in paragraph 1 in the period between 1 July 2011 and 30 June 2012 (investigation period),

– it is not related to any exporter or producer in the People's Republic of China which is subject to the anti-dumping measures imposed by this Regulation,

– it has actually exported to the Union the product concerned after the investigation period on which the measures are based, or it has entered into an irrevocable contractual obligation to export a significant quantity to the Union,

the Council, acting by simple majority on a proposal submitted by the Commission after consulting the Advisory Committee, may amend paragraph 2 by adding the new exporting producer to the cooperating companies not included in the sample and thus subject to the weighted average duty of 41,3 %.

Article 2

1. The amounts secured by way of the provisional anti- dumping duty pursuant to Regulation (EU) No 513/2013 on imports of wafers (the wafers have a thickness not exceeding 400 micrometers) and modules or panels with a output voltage not exceeding 50 V DC and a power output not exceeding 50 W solely for direct use as battery chargers in systems with the same voltage and power characteristics originating in or consigned from the PRC shall be released.

2. The amounts secured by way of the provisional anti-dumping duty pursuant to Regulation (EU) No 513/2013 on imports of crystalline silicon photovoltaic modules or panels and cells of the type used in crystalline silicon photovoltaic modules or panels (the cells have a thickness not exceeding 400 micrometres), currently falling within CN codes 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 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, shall be definitively collected. The amounts secured in excess of the definitive rate of anti-dumping duties shall be released.

Article 3

1. Imports declared for release into free circulation for products currently falling within 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/**XXX**/EU[23], 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/**XXX**/EU manufactured, shipped and invoiced directly the products referred to above or via its related company also listed in the Annex of Decision 2013/**XXX**/EU either to their

[23] See page **XXX** of this Official Journal.

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

(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 III of this Regulation

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

(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 4

The companies from which undertakings are accepted by the Commission and whose names are listed in the Annex of Decision 2013/**XXX**/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 V of this Regulation.

Article5

This Regulation shall enter into force on the day following that of its publication in the *Official Journal of the European Union*. It shall be in force for a period of 2 years.

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

Done at Brussels,

For the Council
The President

ANNEX I

Name of the Company	TARIC additional code
Anhui Schutten Solar Energy Co. Ltd Quanjiao Jingkun Trade Co. Ltd	B801
Anji DaSol Solar Energy Science & Technology Co. Ltd	B802
Canadian Solar Manufacturing (Changshu) Inc. Canadian Solar Manufacturing (Luoyang) Inc. CSI Cells Co. Ltd CSI Solar Power (China) Inc.	B805
Changzhou Shangyou Lianyi Electronic Co. Ltd	B807
CHINALAND SOLAR ENERGY CO. LTD	B808
CEEG Nanjing Renewable Energy Co. Ltd CEEG (Shanghai) Solar Science Technology Co. Ltd China Sunergy (Nanjing) Co. Ltd China Sunergy (Shanghai) Co. Ltd China Sunergy (Yangzhou) Co. Ltd	B809
Chint Solar (Zhejiang) Co. Ltd	B810
ChangZhou EGing Photovoltaic Technology Co. Ltd	B811
ANHUI RINENG ZHONGTIAN SEMICONDUCTOR DEVELOPMENT CO. LTD. CIXI CITY RIXING ELECTRONICS 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 SHANGHAI EBEST SOLAR ENERGY TECHNOLOGY CO. LTD	B817

JIANGSU EOPLLY IMPORT & EXPORT CO. LTD	
Era Solar Co. Ltd	B818
ET Energy Co. Ltd ET Solar Industry Limited	B819
GD Solar Co. Ltd	B820
Guodian Jintech Solar Energy Co. Ltd	B822
Hangzhou Bluesun New Material Co. Ltd	B824
Hangzhou Zhejiang University Sunny Energy Science and Technology Co. Ltd Zhejiang Jinbest Energy Science and Technology Co. Ltd	B825
Hanwha SolarOne Co. Ltd	B929
Hanwha SolarOne (Qidong) Co. Ltd	B826
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 Junfeng Solar (Jiangsu) Co. Ltd Jetion Solar (Jiangyin) 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 Machinery Imp. And Exp. Corp. Ltd Jiangsu Sainty Photovoltaic Systems Co. Ltd	B835
Jiangsu Seraphim Solar System Co. Ltd	B836
Changzhou Shunfeng Photovoltaic Materials Co. Ltd Jiangsu Shunfeng Photovoltaic Electronic Power Co. Ltd Jiangsu Shunfeng Photovoltaic Technology 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 Taicang Hareon Solar Co. Ltd Hareon Solar Technology Co. Ltd Hefei Hareon Solar Technology Co. Ltd Jiangyin Xinhui Solar Energy Co. Ltd Altusvia Energy (Taicang) Co, Ltd	B842
Jinggong P-D Shaoxing Solar Energy Tech Co. Ltd	B844
Juli New Energy Co. Ltd	B846
Jumao Photonic (Xiamen) Co. Ltd	B847
Kinve Solar Power Co. Ltd (Maanshan)	B849
GCL SOLAR POWER (SUZHOU) LIMITED GCL-Poly Solar Power System Integration (Taicang) Co. Ltd GCL Solar System (Suzhou) Limited GCL-Poly (Suzhou) Energy Limited Jiangsu GCL Silicon Material Technology Development Co. Ltd Jiangsu Zhongneng Polysilicon Technology Development Co. Ltd Konca Solar Cell Co. Ltd Suzhou GCL Photovoltaic Technology Co. Ltd	B850
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

LEVO SOLAR TECHNOLOGY CO. LTD NICE SUN PV CO. LTD	B854
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
RISEN ENERGY CO. LTD	B868
SHANDONG LINUO PHOTOVOLTAIC HI-TECH CO. LTD	B869
SHANGHAI ALEX NEW ENERGY CO. LTD SHANGHAI ALEX SOLAR ENERGY SCIENCE & TECHNOLOGY CO. LTD	B870
BYD(Shangluo)Industrial Co.Ltd Shanghai BYD Co. Ltd	B871
Shanghai Chaori International Trading Co. Ltd Shanghai Chaori Solar Energy Science & Technology Co. Ltd	B872
Propsolar (Zhejiang) New Energy Technology Co. Ltd Shanghai Propsolar New Energy Co. Ltd	B873
Lianyungang Shenzhou New Energy Co. Ltd Shanghai Shenzhou New Energy Development Co. Ltd SHANGHAI SOLAR ENERGY S&T CO. LTD	B875

Jiangsu ST-Solar Co. Ltd Shanghai ST-Solar Co. Ltd	B876
Shanghai Topsolar Green Energy Co. Ltd	B877
Shenzhen Sacred Industry Co. Ltd	B878
Leshan Topray Cell Co. Ltd Shanxi Topray Solar Co. Ltd Shenzhen Topray Solar Co. Ltd	B880
Shanghai Sopray New Energy Co. Ltd Sopray Energy Co. Ltd	B881
Ningbo Sun Earth Solar Energy Co. Ltd NINGBO SUN EARTH SOLAR POWER CO. LTD SUN EARTH SOLAR POWER CO. LTD	B882
TDG Holding Co. Ltd	B884
Tianwei New Energy (Chengdu) PV Module Co. Ltd Tianwei New Energy Holdings Co. Ltd Tianwei New Energy (Yangzhou) Co. Ltd	B885
Wenzhou Jingri Electrical and Mechanical Co. Ltd	B886
Winsun New Energy Co. Ltd	B887
Wuhu Zhongfu PV Co. Ltd	B889
Wuxi Saijing Solar Co. Ltd	B890
Wuxi Solar Innova PV Co. Ltd	B892
Wuxi Machinery & Equipment Import & Export Co. Ltd Wuxi Taichang Electronic Co. Ltd Wuxi Taichen Machinery & Equipment Co. Ltd	B893
Shanghai Huanghe Fengjia Photovoltaic Technology Co. Ltd State-run Huanghe Machine-Building Factory Import and Export Corporation Xi’an Huanghe Photovoltaic Technology Co. Ltd	B896

Wuxi LONGi Silicon Materials Co. Ltd Xi'an LONGi Silicon Materials Corp.	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 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 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 Zhejiang Fortune Photovoltaic Co. Ltd	B910
Zhejiang Shuqimeng Photovoltaic Technology Co. Ltd	B911
Zhejiang Shinew Photoelectronic 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 Tianming Solar Technology Co. Ltd	B916
Zhejiang Trunsun Solar Co. Ltd Zhejiang Beyondsun PV Co. Ltd	B917
Zhejiang Wanxiang Solar Co. Ltd	B918

WANXIANG IMPORT & EXPORT CO LTD	
Zhejiang Xiongtai Photovoltaic Technology Co. Ltd	B919
ZHEJIANG YUANZHONG SOLAR CO. LTD	B920
Zhongli Talesun Solar Co. Ltd	B922
ZNSHINE PV-TECH CO. LTD	B923
Zytech Engineering Technology Co. Ltd	B924

ANNEX II

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 Titan PV Co. Ltd	B803
TBEA SOLAR CO. LTD Xi'an SunOasis (Prime) Company Limited XINJIANG SANG'O SOLAR EQUIPMENT	B804
Changzhou NESL Solartech Co. Ltd	B806
Dotec Electric Co. Ltd	B928
Greenway Solar-Tech (Shanghai) Co. Ltd Greenway Solar-Tech (Huaian) Co. Ltd.	B821
GS PV Holdings Group	B823
Jiangyin Shine Science and Technology Co. Ltd	B843
King-PV Technology Co. Ltd	B848
Ningbo Best Solar Energy Technology Co. Ltd	B855
Ningbo Huashun Solar Energy Technology Co. Ltd	B856
Qingdao Jiao Yang Lamping Co. Ltd	B867
SHANGHAI SHANGHONG ENERGY TECHNOLOGY CO. LTD	B874
Shenzhen Sungold Solar Co. Ltd	B879
SUZHOU SHENGLONG PV-TECH CO. LTD	B883
Worldwide Energy and Manufacturing USA Co. Ltd	B888
Wuxi Shangpin Solar Energy Science and Technology Co. Ltd	B891
Wuxi UT Solar Technology Co. Ltd	B894
Xiamen Sona Energy Co. Ltd	B895

Zhejiang Fengsheng Electrical Co. Ltd	B903
Zhejiang Yutai Photovoltaic Material Co. Ltd	B930
Zhejiang Sunrupu New Energy Co. Ltd	B915

ANNEX III

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).

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

- price per unit (Watt),
- 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 Commission Decision 2013/XX/EU. I declare that the information provided on this invoice is complete and correct."

ANNEX IV

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 Commission Decision 2013/XX/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.

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 Commission Decision 2013/XX/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.

ANNEX V

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 AND COUNTERVAILING 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).

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

- price per unit (Watt),
- 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.’