



EUROPEAN COMMISSION

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In the published version of this decision, some information has been omitted, pursuant to articles 24 and 25 of Council Regulation (EC) No 659/1999 of 22 March 1999 laying down detailed rules for the application of Article 93 of the EC Treaty, concerning non-disclosure of information covered by professional secrecy. The omissions are shown thus [...].

PUBLIC VERSION

WORKING LANGUAGE

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Subject: State aid SA.30899 (N 405/10) – Italy – LIP – 3Sun

Sir,

1. PROCEDURE

- (1) By e-mail of 11 May 2010, registered at the Commission on the same day, Italy pre-notified the Commission of the abovementioned measure. A meeting between the Italian authorities and the Commission's services took place on 1 June 2010.
- (2) By electronic notification of 20 September 2010, Italy notified the Commission of the abovementioned measure.
- (3) By letter dated 17 November 2010, the Commission requested additional information which was provided by the Italian authorities by letter dated 21 December 2010. By letter dated 28 January 2011, the Commission requested additional information which was provided by the Italian authorities by letters dated 31 January and 11 February 2011.

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2. DESCRIPTION OF THE MEASURE

2.1. Objective of the measure

- (4) The objective of the measure is to promote the economic development of the region of Sicilia, as an area designated as eligible for regional aid pursuant to Article 107(3)(a) of the Treaty on the Functioning of the European Union (TFEU), by providing regional investment aid to 3Sun Srl (hereinafter referred to as ‘3Sun’) for the setting-up, in Catania, of a new plant for the production of photovoltaic (PV) modules.

2.2. Beneficiary of the measure

2.2.1. Beneficiary

- (5) The beneficiary of the aid, 3Sun, is a joint venture between STMicroelectronics NV (hereinafter referred to as ‘ST’), Sharp Corporation (hereinafter referred to as ‘Sharp’) and Enel Green Power SpA (hereinafter referred to as ‘EGP’), in which each of the parent companies holds one third of the share capital of the company, and over which they exercise joint control. 3Sun was incorporated by ST in July 2009, whereinafter Sharp and EGP entered as shareholders. The main business activities of 3Sun are the manufacture and assembly of thin-film PV modules produced on the basis of multiple-junction technology.

2.2.2. Parent companies

- (6) ST is a public listed company incorporated in the Netherlands. 69.3 % of the share capital of the company is public and 27.5 % is held by ST Holding II BV¹, which, through ST Holding BV, is jointly held by the Italian Ministry of Economy and Finance (50 %) and by FT1CI SA (50 %) which is in turn jointly held by Areva SA and CEA Industries SA. The main business activities of the ST group are the manufacture of electronic components and boards, in particular the manufacture of semiconductor products and components.
- (7) Sharp is a public listed company incorporated in Japan. The main business activities of the Sharp group are the manufacture of computer, electronic and optical products and the manufacture of electrical equipment, including PV cells and modules, for which it is one of the market leaders.
- (8) EGP is a wholly owned subsidiary of Enel SpA (hereinafter referred to, collectively with its subsidiaries, as the ‘Enel group’), a public listed company incorporated in Italy. 68.9 % of the share capital of the company is public and 31.3 % is held by the Italian Ministry of Economy and Finance. The main business activities of EGP and of the Enel group, principally in Italy, are the generation, distribution, supply and trade of electricity, and, in particular, as regards EGP, the generation and distribution of electricity produced from renewable energy sources.

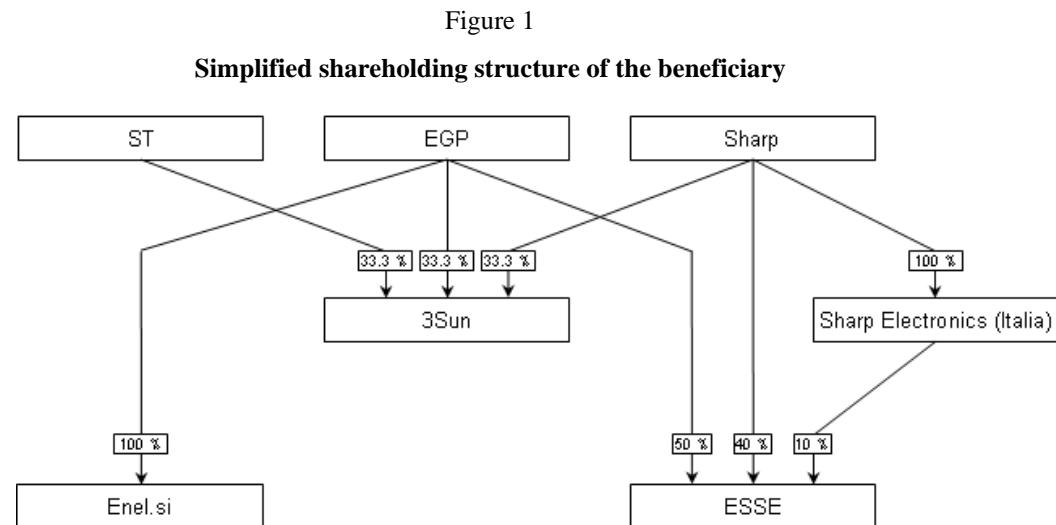
¹ In addition, 3.2 % are held by ST as treasury shares.

2.2.3. Other undertakings concerned

- (9) Enel.si Srl (hereinafter referred to as ‘Enel.si’) is a wholly owned subsidiary of EGP. The main business activities of Enel.si are the sale of renewable energy products and services, including PV products, to its network of franchisees in Italy and the design, development, and coordination for the assembly and installation of systems for the generation of energy from renewable energy sources, including PV systems, for use primarily in installations on residential buildings and in small to medium-scale industrial or commercial installations in Italy.
- (10) Enel Green Power & Sharp Solar Energy Srl (hereinafter referred to as ‘ESSE’) is a joint venture between Sharp and EGP, in which EGP, Sharp and Sharp Electronics (Italia) SpA, Sharp’s sales subsidiary in Italy, each hold respectively 50 %, 40 % and 10 % of the share capital of the company, and over which they exercise joint control². The main business activities of ESSE are the development, design, construction, ownership and management of PV electric power generation plants in certain countries of the Europe, Middle East and Africa (EMEA) region.

2.2.4. Shareholding structure

- (11) The simplified shareholding structure of 3Sun is represented in Figure 1³:



- (12) The Italian authorities have indicated that the aid does not benefit a firm in difficulty, and will not be used for the financial restructuring of a firm in difficulty⁴. This is confirmed on the basis of the audited financial statements and the annual reports of the beneficiary and of its parent companies, as provided by the Italian authorities.

² Case COMP/M.5788 *Sharp/Enel Green Power/JV* (OJ C 61, 13.3.2010, p. 14).

³ The ownership structure of ST, EGP and Sharp is not represented.

⁴ As defined by the Community guidelines on State aid for rescuing and restructuring of firms in difficulty (OJ C 244, 1.10.2004, p. 2).

2.3. Characteristics of the investment project

- (13) The investment project concerns the setting-up of a plant for the manufacture, assembly and packaging of thin-film PV modules produced on the basis of multiple-junction technology. It is foreseen that the investment project will lead to the creation of a nominal production capacity of 240 megawatt peak (MWp⁵) per year with an energy conversion efficiency rate⁶ of [...] %* until 2010, of [...] %* in 2011 and of [...] %* as from 2012. As from 2013, an increase of [...] %* in terms of nominal throughput (number of products manufactured) is foreseen. The modules manufactured and assembled at the plant are intended exclusively either for wholesale or for integration into PV systems⁷ and will not undergo further processing at the plant.
- (14) Works have started on 1 July 2010; it is foreseen that the investment project will be completed by 31 December 2012 and that the plant will enter into operation on that date. It is foreseen that full nominal capacity will be achieved in 2013. It is foreseen that the investment project will create some three hundred jobs in this new activity.
- (15) The total expenditures of the investment project are EUR 376 100 000 in nominal value. The eligible expenditures of the investment project are EUR 358 680 000 in nominal value (EUR 351 982 607 in present value)⁸. Eligible expenditures are calculated exclusively on the basis of investment costs, which, as regards tangible assets, only concern new assets.
- (16) Eligible expenditures include the following:
- (a) planning⁹ and implementation of construction works;
 - (b) purchase and installation of machinery for the module production line and for the module assembly and packaging line;
 - (c) extension of existing electrical, mechanical and chemical systems to be connected to the production line, including planning¹⁰ and implementation of certain such systems;
 - (d) acquisition from Sharp of licences for exclusive rights in the EMEA region to use multiple-junction technology to manufacture and assemble

⁵ 1 MWp equals 1 000 000 watt peak (Wp). Wp is a measurement unit used in the PV industry to express the technical capacity (nominal output) of PV modules under standard test conditions.

⁶ Energy conversion efficiency is measured by dividing the electrical power produced by the cell/module by the light power falling on the cell/module.

* Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk.

⁷ See recitals (50) and (51).

⁸ Calculated on the basis of the applicable discount rate of 2.24 % for Italy at the date of notification.

⁹ The eligible expenditures do not include feasibility studies, works management or testing.

¹⁰ See footnote 9.

PV modules at the plant. The licensing costs do not include expenditure relating to tangible assets.

- (17) The investment project is undertaken at the site of a discontinued investment project of ST, which concerned the setting-up of a plant for the manufacture of 300-mm silicon wafers for use in the production of flash memories (hereinafter referred to as the ‘M6 facility’), for which ST was awarded regional investment aid¹¹. The abovementioned eligible expenditures explicitly exclude existing assets relating to the buildings, equipment or machinery located at the M6 facility before the investment project.
- (18) As regards the licensing of technological know-how from Sharp, these intangible assets will be used exclusively in the plant; they will be included in the assets of the beneficiary as amortisable assets and will remain associated to the plant for at least five years. According to information provided by the Italian authorities, which includes comparisons with other suppliers in terms of licensing costs of the technological know-how and of the cost-efficiency of related equipment and machinery as regards output and required floor space, it is apparent that the technological know-how is licensed by Sharp to 3Sun in exchange for royalties which are in line with market conditions in terms of the level of price of the royalties, and under conditions which are not affected by the fact that Sharp is a shareholder of the beneficiary.
- (19) The breakdown per year of eligible expenditures is presented in Table 1:

Table 1
Eligible expenditures per year (in nominal values)

Expenditure category	<i>(in million EUR)</i>			
	2010	2011	2012	Total
Buildings	[...] % *	–	–	[...] % *
Machinery/equipment	[...] % *	[...] % *	[...] % *	[...] % *
Intangible assets	[...] % *	[...] % *	–	[...] % *
Total	[...] % *	[...] % *	[...] % *	358.68

¹¹ Cases SA.13318 (N 844/01) *STMicroelectronics* (OJ C 107, 7.4.1998, p. 7) and SA.21049 (N 305/06) *STMicroelectronics* (OJ C 28, 8.2.2007, p. 1). Given that the M6 facility has not been completed, the aid granted under these measures is the subject of an ongoing ex officio investigation by the Commission (CP 165/10).

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2.4. Characteristics of the aid

- (20) The aid is granted by the Italian Ministry of Economic Development in the form of a direct grant on the basis of the Ministerial Decree No 1723 of 24 January 2008, as individual aid under aid scheme XR 43/08 *Normativa di attuazione dei contratti di programma*¹².
- (21) The beneficiary submitted an application for the aid on 3 November 2009. The aid was approved in principle by a letter of 16 December 2009 of the bank in charge of assessing the investment project on behalf of the Italian Ministry of Economic Development. The financing of the aid was approved by a decision of the Italian Inter-ministerial Committee for Economic Planning (*Comitato Interministeriale per la Programmazione Economica – CIPE*) of 22 July 2010.
- (22) The total amount of aid is EUR 49 056 000 in nominal value (EUR 46 937 666.13 in present value¹³), which corresponds to an aid intensity in present value of 13.34 % gross grant equivalent (GGE). The aid is scheduled to be paid to the beneficiary in equal instalments of EUR 16 352 000 per year in nominal value over the period 2011-2013.
- (23) In addition to the grant, it is foreseen that the investment project will be financed using reserves and operating cashflow (EUR 205.28 million) and through project finance, including bank loans and debt that do not include any State aid element (EUR 121.76 million).
- (24) The aid is granted under the condition that the beneficiary will maintain the aided assets for a minimum period of five years after the completion of the investment.
- (25) The aid cannot be cumulated with any other aid granted in respect of the same eligible expenditures, including aid granted on the basis of Commission Regulation (EC) No 1998/2006 of 15 December 2006 on the application of Articles 87 and 88 of the Treaty [now Articles 107 and 108 of the TFEU] to *de minimis* aid¹⁴.
- (26) The Italian authorities have committed not to exceed the notified aid amount (EUR 49 056 000) and the notified aid intensity (13.34 % GGE), in case the eligible expenditures are different from those indicated in the notification.
- (27) The Italian authorities have committed to submit to the Commission:
 - (a) within two months of granting the aid, a copy of the aid contract between the granting authority and the beneficiary;
 - (b) within six months after payment of the last tranche of the aid, based on the notified payment schedule, a detailed final report.

¹² OJ C 122, 20.5.2008, p. 14.

¹³ See footnote 8.

¹⁴ OJ L 379, 28.12.2006, p. 5.

3. ASSESSMENT OF THE MEASURE

3.1. State aid character of the measure

- (28) In accordance with Article 107(1) of the TFEU, save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever, which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall be incompatible with the internal market, insofar as it affects trade between Member States.
- (29) The measure involves the use of State resources in the meaning of Article 107(1) of the TFEU as the aid is granted by the Italian Ministry of Economic Development from the public budget. The measure is selective as the aid is granted to 3Sun to which it confers an advantage by relieving it of charges it would normally have to bear; the measure may therefore distort or threaten to distort competition. The measure is likely to affect trade between Member States as it applies to the sector of the manufacture of PV modules, which is a sector where such trade exists. It can therefore be considered that the notified measure constitutes State aid within the meaning of Article 107(1) of the TFEU.
- (30) Having established that the notified measure constitutes State aid within the meaning of Article 107(1) of the TFEU, it is necessary to consider whether the measure can be found to be compatible with the internal market.

3.2. Legality of the aid measure

- (31) By notifying the measure before putting it into effect, Italy has fulfilled its obligations under Article 108(3) of the TFEU and has respected the individual notification requirement laid down in paragraph 64 of the Guidelines on national regional aid for 2007-2013¹⁵ (hereinafter referred to as the ‘RAG’).
- (32) The measure will enter into force only after its approval by the Commission.

3.3. Compatibility of the aid measure

- (33) As the objective of the measure is to promote regional development in an area designated in accordance with Article 107(3)(a) of the TFEU (see recital (4)), the compatibility of the aid measure with the internal market is assessed on the basis of the RAG.
- (34) In accordance with the Italian regional aid map for 2007-2013¹⁶, the region of Sicilia is eligible for regional aid under the derogation foreseen by Article 107(3)(a) of the TFEU with a ceiling for regional investment aid to large enterprises of 30 % GGE.
- (35) In accordance with paragraphs 33 and 34 of the RAG, the aid is granted in respect of a project which constitutes an initial investment within the meaning of paragraph 34 of the RAG insofar as it relates to the setting-up of a new establishment (see recitals (4) and (13)).

¹⁵ OJ C 54, 4.3.2006, p. 13.

¹⁶ OJ C 286, 23.11.2006, p. 5.

- (36) In accordance with paragraph 60 of the RAG, the investment project constitutes a large investment project, as its eligible expenditures exceed EUR 50 million, calculated at prices at the date of the notification (see recital (15)).
- (37) The aid measure is therefore assessed in accordance with the applicable provisions of the RAG on regional investment aid for large investment projects.

3.3.1. Compatibility with the general provisions of the RAG

- (38) In respect of the relevant general provisions of the RAG, it is found that:
 - (a) in accordance with paragraph 9 of the RAG, the beneficiary is not a firm in difficulty as defined in the Community guidelines on State aid for rescuing and restructuring of firms in difficulty (see recital (12));
 - (b) the aid refers to an initial investment in the form of the setting-up of a new establishment; given that the acquisition of assets linked to the existing establishment located at the site of the investment project (the M6 facility) is not included in the eligible expenditures of the investment project, the aid does not include, in the meaning of paragraph 35 of the RAG, aid for the acquisition of assets directly linked to an establishment that has closed or would have closed (see recital (17));
 - (c) in accordance with paragraph 36 of the RAG, the aid is calculated in reference to expenditures relating to tangible and intangible assets resulting from the investment project (see recitals (15), (16), (18) and (19));
 - (d) in accordance with paragraph 50 of the RAG, the eligible expenditures relate to investment costs for buildings and equipment or machinery (see recitals (16) and (19));
 - (e) in accordance with paragraph 54 of the RAG, the assets acquired are new (see recitals (15) and (17));
 - (f) in accordance with paragraph 55 of the RAG, the eligible expenditures for intangible assets (licenses) do not exceed 50 % of total eligible expenditures (see recital (19));
 - (g) in accordance with paragraph 56 of the RAG, the eligible expenditures for intangible assets (licenses) are used exclusively in the establishment receiving the aid, are regarded as amortisable assets and are included in the assets of the firm and remain in the establishment receiving the aid for at least five years. As regards the condition that the assets must be purchased from third parties under market conditions, although Sharp is not a third party in relation to 3Sun, the level of price of the royalties for the licensing of technological know-how is in line with market conditions and thus does not have as effect to transfer the corresponding benefit of the aid to Sharp (see recital (18)). In addition, given that ST and EGP are shareholders in 3Sun but are independent in relation to Sharp, they have no interest to agree to the licensing at a level of price that would be significantly above market value and would thus confer an advantage to Sharp to the detriment of 3Sun.

- (h) in accordance with paragraph 38 of the RAG, the application for the aid was submitted before the start of the works on the investment project and the authority responsible for administering the scheme confirmed in writing that the project meets the conditions of eligibility laid down by the scheme before the start of the works (see recitals (14) and (21));
 - (i) in accordance with paragraph 39 of the RAG, the own contribution of the beneficiary to eligible expenditures exceeds 25 % thereof (see recital (23));
 - (j) in accordance with paragraph 40 of the RAG, the aid is granted under the condition that the beneficiary maintains the investment project in the region concerned for a minimum period of five years after its completion (see recital (24));
 - (k) in accordance with paragraph 41 of the RAG, the aid intensity in GGE is discounted to its value at the date of the notification and expressed as a percentage of the present value of eligible expenditures (see recitals (15) and (22)).
 - (l) in accordance with paragraphs 71 to 75 of the RAG, the rules on cumulation of aid are respected (see recital (25)).
- (39) It can therefore be concluded that the aid fulfils the general provisions of the RAG.

3.3.2. Compatibility with the provisions of the RAG on aid for large investment projects

3.3.2.1. Single investment project

- (40) In accordance with paragraph 60 of the RAG, in order to prevent a large investment project being artificially divided into sub-projects in order to escape the provisions of the RAG, a large investment project will be considered to be a single investment project when the initial investment is undertaken in a period of three years by one or more companies and consists of fixed assets combined in an economically indivisible way. To assess whether an initial investment is economically indivisible, it is necessary, according to footnote 55 of the RAG, to take into account the technical, functional and strategic links and the immediate geographical proximity.
- (41) The Italian authorities have indicated that no initial investment aid has been granted in relation to the M6 facility or to any other investment projects which could be considered to be a single investment project in relation to the investment project and for which works have started during the period of three years before the start of works at the production plant (July 2007 to July 2010)¹⁷. In addition, the Italian authorities have indicated that no other related investments in Sicilia or

¹⁷ The works on the M6 facility started in 2001. In addition, as indicated in recitals (17) and (38)(b), the acquisition of assets belonging to the M6 facility is not included in the eligible expenditures of the investment project.

in Italy are foreseen. It can therefore be concluded that the aid fulfils the provisions of paragraph 60 of the RAG.

3.3.2.2. Adjusted aid intensity

- (42) In accordance with paragraph 67 of the RAG, regional aid for large investment projects is subject to an adjusted regional aid ceiling as laid down therein.
- (43) On the basis of the scale laid down in paragraph 67 of the RAG, for a regional aid ceiling of 30 % and eligible expenditures of EUR 351 982 607 in present value, a maximum aid amount of EUR 50 602 225.91 in present value would be allowable for the investment project. The aid for the investment project is EUR 46 937 666.13 in present value, which is below the abovementioned maximum allowable aid amount. It can therefore be concluded that the aid fulfils the provisions of paragraph 67 of the RAG.
- (44) In addition, as indicated in recital (26), the Italian authorities have committed not to exceed the maximum aid amount and the maximum aid intensity as laid down in this Decision in case the eligible expenditures are different from those indicated in the notification.

3.3.2.3. Compatibility with the provisions of paragraph 68 of the RAG

- (45) To consider whether the thresholds laid down in paragraphs 68(a) and 68(b) of the RAG are exceeded, it is first necessary to establish the relevant product market or markets and the relevant geographical market for the product or products concerned by the investment project.
 - Product(s) concerned by the investment project
- (46) Paragraph 69 of the RAG lays down that the product concerned is normally the product covered by the investment project and that where an investment project involves the production of several different products, each of the products needs to be considered.
- (47) The product covered by the investment project is thin-film PV modules manufactured on the basis of multiple-junction technology (see recitals (4) and (13)). A thin-film PV module consists of a transducer unit which converts sunlight into electricity. Thin-film modules are manufactured by depositing thin layers of photosensitive semiconductor materials onto a substrate plate or sheet¹⁸. Multiple-junction technology refers to the structure of the semiconductor layers.
- (48) Based on information provided by the Italian authorities regarding the manufacturing process used at the module production line and the technology used for module assembly, it is apparent that no other products, including other types of PV products, such as crystalline cells or modules, can be manufactured at the plant without requiring significant additional costs, that no other products can be produced, and that intermediate products, semi-finished products or by-products manufactured at the plant cannot be sold separately on the market as there is no significant market for such products.

¹⁸ By contrast, crystalline modules are assembled from cells which are processed from silicon wafers.

- (49) In accordance with paragraph 69 of the RAG, when the investment project concerns an intermediate product and a significant part of the output is not sold on the market, the product concerned may be the downstream product.
- (50) The downstream product of PV modules is PV systems. A PV system consists of multiple components, including modules mounted into arrays, mechanical and electrical connections and mountings and equipment intended for regulating or modifying the electrical output, such as charge controllers and inverters. PV systems may also include metering devices, control panels, cabling, switches, and other electrical equipment. Therefore, as they are intended to be incorporated into PV systems and cannot be put to use through other means, thin-film PV modules are intermediate products.
- (51) The thin-film PV modules produced at the plant will be sold on the basis of an off-take agreement (OTA) between, on the one side, EGP and Sharp¹⁹, and, on the other, 3Sun. The OTA, which has a minimum duration of five years as from the entry into commercial operation of the plant, provides that the modules will be purchased by Sharp, ESSE and EGP as follows:
- (a) Sharp (including Sharp Electronics (Europe) GmbH and Sharp Electronics (Italia) SpA) will purchase [...] %* of nominal production capacity, in view of the wholesale of the modules on the market, primarily in Europe;
 - (b) ESSE will purchase [...] %* of nominal production capacity in view of the use of the modules for the development and construction of PV electric power generation plants owned and managed by ESSE;
 - (c) EGP will purchase [...] %* of nominal production capacity, in view of the further resale through Enel.si to its network of franchisees for use primarily in installations on residential buildings and in small to medium-scale industrial or commercial installations.
- (52) From the above it is apparent that a significant part of the output of the plant will not be sold on the market given that the output of the plant will be sold to two of the parent companies of the seller, Sharp and EGP, and to a joint venture of these two companies, ESSE, over which they exercise joint control (see recital (10)).
- (53) Under the OTA, the products are to be purchased at a price which is determined by 3Sun, on a quarterly basis, according to the average wholesale spot market price of silicon-based thin-film PV modules, using public market information provided by various independent sources, to which a flat rate discount of [5-10] %* is applied. Such a price reduction can be considered to be in line with the commercial conditions that purchasers could negotiate with a supplier owing to the volume of sales covered by the OTA and to the duration of the OTA. In addition, given that ST is not a party in the OTA but is one of the shareholders of 3Sun, it has no interest to the sale of the products at a level of price that would be significantly below market value. Therefore, it can be considered that the sales

¹⁹ At the moment of signature of the OTA, ESSE was not a party in the contract, but was to become a party after its incorporation.

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take place on the basis of normal commercial conditions under which the effects of the aid are not transferred to the purchasers through preferential conditions which would exceed those generally available to competitors in a comparable situation.

(54) In view of the above, given that the output of the plant is sold under conditions which are equivalent to being sold on the market, and that, as a result, the benefit of the aid is not transferred to Sharp, ESSE and EGP, it is therefore not necessary to consider downstream markets, such as the markets relating to the sectors of the assembly and installation of PV systems²⁰ or to the sector of the production and distribution of electricity²¹, in order to examine all possible effects of the aid.

(55) Therefore, it can be concluded that the product concerned by the investment project is thin-film PV modules manufactured on the basis of multiple-junction technology.

- Relevant product market(s)

(56) Paragraph 69 of the RAG lays down that the relevant product market includes the product concerned and its substitutes considered to be such either by the consumer (by reason of the product's characteristics, prices and intended use) or by the producer (through flexibility of the production installations).

(57) In terms of product characteristics, PV modules can be differentiated according to manufacturing process and materials used (crystalline or thin-film). In addition, crystalline modules can be differentiated, for instance, according to the type of wafers used (monocrystalline or polycrystalline) and thin-film modules can be differentiated, for instance, according to the semiconductor materials used (silicon, compounds, dye-sensitised cells, etc.), or, as indicated in recital (47), according to layer technology (single-junction or multiple-junction) or according to the type of substrate used.

(58) In terms of prices, thin-film modules have lower unit prices than crystalline modules which are however counterbalanced by lower energy conversion efficiency rates. However, if differences in energy conversion efficiency rates are taken into account, there is no indication that modules produced using different manufacturing processes, materials, technologies or substrates would present significant differences in prices or would not be substitutable for one another in PV installations.

(59) In view of the above, there is no indication that PV modules based on different manufacturing processes, materials, technologies or substrates belong to different product markets. Therefore, there is no indication that the relevant product market could be narrower than the market for PV modules.

(60) As indicated in recital (50), PV modules form the main component of PV systems and are not substitutable in PV systems by other products. Therefore, there is no

²⁰ See recital (9).

²¹ See recitals (8) and (10).

indication that the relevant product market could be broader than the market for PV modules.

- (61) This description of the relevant product market corresponds to the one applied in previous State aid decisions²² and merger decisions regarding the same sector²³.
 - (62) Therefore, for the purpose of this Decision, it can be concluded that the relevant product market for thin-film PV modules manufactured on the basis of multiple-junction technology (see recital (55)) is the market for PV modules.
- Relevant geographical market
- (63) As laid down in paragraph 70 of the RAG, for the purpose of applying paragraphs 68(a) and 68(b) of the RAG, sales and apparent consumption are normally defined at the level of the EEA.
 - (64) In the abovementioned decisions²⁴, it was considered that the relevant geographical market for PV modules is the worldwide market, in particular since:
 - (a) PV modules are marketed and distributed all over the world by EEA and non-EEA producers alike;
 - (b) there are no technical barriers to the international trade of PV modules;
 - (c) the transport costs of PV modules are not significant;
 - (d) the price levels of PV modules are homogeneous across different geographical markets.
 - (65) There is no indication that the above characteristics would no longer be generally applicable to the market for PV modules and are therefore, in the same way, for thin-film PV modules.
 - (66) Therefore, for the purpose of this Decision, it can be concluded that the relevant geographical market for PV modules is the worldwide market.

- Threshold laid down in paragraph 68(a) of the RAG

- (67) In accordance with paragraph 68(a) of the RAG, it is necessary to verify whether the beneficiary accounts for more than 25 % of the sales of the product(s) concerned on the relevant markets, before or after the investment.

²² Cases N 409/06 *HighSi* (OJ C 77, 5.4.2007, p. 4), N 863/06 *Avancis* (OJ C 227, 27.9.2007, p. 1), N 850/06 *Q-Cells* (OJ C 270, 13.11.2007, p. 5), N 199/08 *Intico Solar* (OJ C 195, 1.8.2008, p. 2), N 773/07 *Wacker Schott* (OJ C 243, 24.9.2008, p. 13), N 545/08 *Masdar* (OJ C 9, 14.1.2009, p. 8), N 538/08 *ersol Thin Film* (OJ C 63, 18.3.2009, p. 16), N 453/08 *Sunfilm* (OJ C 106, 8.5.2009, p. 7), C 21/08 *Sovello* (OJ L 237, 9.9.2009, p. 15).

²³ Cases COMP/M.2367 *Siemens/E.ON/Shell/SSG* (OJ C 172, 16.6.2001, p. 21), COMP/M.2712 *Electrabel/TotalFinaElf/Photovoltaech* (OJ C 133, 5.6.2002, p. 5).

²⁴ See footnotes 22 and 23.

- (68) Paragraph 70 of the RAG lays down that for the purpose of applying paragraphs 68(a) and 68(b) of the RAG, sales and apparent consumption will be defined at the appropriate level of the Prodcom classification, normally in the EEA or, if such information is not available or relevant, on the basis of any other generally accepted market segmentation for which statistical data are readily available.
- (69) Relevant data on sales and apparent consumption at the appropriate level of the Prodcom classification for thin-film PV modules is not available for a significant number of countries in the EEA. Therefore, for the purpose of this Decision, sales and apparent consumption on the market for PV modules are defined on the basis of the market for PV products, measured in installed capacity²⁵, which is considered an adequate proxy for the market for PV modules given that modules are intermediate products in the market for PV products and that the market of the intermediate product normally closely follows the growth pattern of the market of the end-product²⁶. Therefore, to verify the market share of the beneficiary on the market for PV products, and, by extension, on the market for PV modules, it is necessary to examine the nominal production capacity of PV modules of the beneficiary (as a proxy for sales of PV modules) in comparison to total installed capacity on the market for PV products.
- (70) Given that the investment project has started in 2010 and that full production capacity is foreseen to be achieved in 2013, it is necessary to examine the beneficiary's share on the relevant markets in 2009 and 2014.
- (71) In order to examine all possible effects of the aid on the relevant market with respect to paragraph 68(a) of the RAG it is only relevant to consider the market shares of the beneficiary and of its parent companies insofar as these are present on the relevant market at the manufacturing level, through having production facilities, given that any presence at the wholesale or retail levels is not affected by the aid whose effect is solely to support production capacity at manufacturing level given that the output of the plant is sold under conditions which are equivalent to being sold on the market (see recital (54)).
- (72) Given that, as noted in recital (5), ST, EGP and Sharp exercise joint control over 3Sun, it is, in principle, relevant to consider either the individual market shares of each of these companies or the market share of 3Sun to verify whether the threshold laid down in paragraph 68(a) of the RAG is exceeded. However, given that ST and EGP are currently not present on the market for PV modules at the manufacturing level other than through their participation in 3Sun, it is therefore not relevant to consider their individual shares on the market for PV modules. As indicated in recital (7), Sharp, as one of the leaders in the market for PV cells and modules, is present on the market for PV modules at the manufacturing level other than through 3Sun.
- (73) Therefore, in order to examine all possible effects of the aid on the relevant market with respect to paragraph 68(a) of the RAG, it is necessary to consider the individual market shares of 3Sun and of Sharp and the combined market shares of 3Sun and Sharp on the worldwide market for PV products in 2009 and 2014.

²⁵ Installed PV products or installed capacity refer to installed modules and PV systems and installations.

²⁶ See recitals (50) and (54).

- (74) Based on the information presented in Table 2, which is based on information provided by the Italian authorities regarding actual and forecasted sales of 3Sun and Sharp and on estimates of growth on the worldwide market for PV products published by the European Photovoltaic Industry Association (EPIA)²⁷ according to two plausible alternative scenarios²⁸, it is apparent that the individual market shares of 3Sun and of Sharp²⁹ and the combined market shares of 3Sun and Sharp do not exceed respectively [0-5] %*, 14.57 % and 16.88 % in volume terms, and 2.07 %, 12.09 % and 14.16 % in value, of the worldwide market for PV products in 2009 or 2014.

Table 2

Market shares of 3Sun and of Sharp on the worldwide market for PV products (2009-2014)

Market share	2009	2014
(in MWp)		
3Sun	[0-5] %*	[0-5] %*- [0-5] %* ^(a)
Sharp	[10-20] %*	[5-10] %*- [10-20] %*
3Sun + Sharp	[10-20] %*	[5-10] %*- [10-20] %*
(in million EUR) ^(b)		
3Sun	[0-5] %*	[0-5] %*- [0-5] %*
Sharp	[5-10] %*	[5-10] %*- [10-20] %*
3Sun + Sharp	[5-10] %*	[5-10] %*- [10-20] %*

Source: 3Sun/Sharp own data, EPIA, Photon Consulting

Notes:

- (a) Ranges correspond, where relevant, to market shares under each EPIA scenario.
- (b) Figures in value are calculated by applying the following average prices in EUR/W provided by Photon Consulting: 2009: 2.29; 2010: 2.21; 2011: 1.74; 2013: 1.06; 2014: 1.06 (as per 2013).

- (75) Given that all calculations indicate that the beneficiary's share on the worldwide market for installed PV products, including the share of the beneficiary's parent company that is present on this market, does not account for more than 25 % of the total market before or after the investment, it can be concluded that the threshold laid down in paragraph 68(a) of the RAG is not exceeded.

²⁷ *Global Market Outlook for Photovoltaics until 2014 – May 2010 Update*, EPIA, Brussels, 2010.

²⁸ The EPIA policy-driven scenario is based on the follow-up and/or introduction of support mechanisms, such as feed-in tariffs, accompanied by a strong political will to consider PV as a major energy source. The EPIA moderate scenario is based on the assumption of a 'business-as-usual' market behaviour which does not assume any major enforcement of existing support mechanisms but takes into account a reasonable follow-up of feed-in tariffs aligned on the prices of PV systems or installations.

²⁹ The individual market shares of Sharp in 2014 include its participation in 3Sun.

* Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk.

- Threshold laid down in paragraph 68(b) of the RAG
- (76) In accordance with paragraph 68(b) of the RAG, it is necessary to verify whether the capacity created by the investment project is more than 5 % of the market measured using apparent consumption data of the product concerned at EEA level, unless the average annual growth rate of its apparent consumption over the last five years is above the average annual growth rate of the EEA's GDP.
- (77) As noted in recital (68), if information on apparent consumption is not available at the appropriate level of the Prodcom classification in the EEA, the average annual growth rate of the product concerned can be defined on the basis of any other generally accepted market segmentation for which statistical data are readily available. As noted in recital (69), the market for PV products, measured in installed capacity, is considered an adequate proxy for the market for PV modules. Given that such data is not available for the EEA as a whole, data for the EU-27 is used instead.
- (78) Based on the information presented in Table 3, it is apparent that the compound annual growth rate (CAGR) of installed PV products in the EU-27 for the period 2004-2009 is 51.34 % in volume terms.

Table 3
Installed PV products in the EU (2004-2009)

(in MWp)		
2004	2009	CAGR 2004-2009
706	5 605	51.34 %

Source: EPIA

- (79) The CAGR of the EU-27 GDP for the period 2004-2009 is 0.86 % in volume terms³⁰.
- (80) Given that the average annual growth rate of the market for PV products and, by extension, of the market for PV modules, has exceeded the average annual growth rate of the EU-27 GDP during the five-year period of reference, it can be concluded that it is not necessary to verify whether the threshold laid down in paragraph 68(b) of the RAG is exceeded.

3.3.3. Conclusion regarding the compatibility with the provisions of the RAG on aid for large investment projects

- (81) In view of the findings of recitals (39), (75) and (80), it can be concluded that the aid fulfils the provisions of the RAG on aid for large investment projects.

³⁰ Source: Eurostat.

3.4. Conclusion

- (82) In view of the above, it can be concluded that the notified measure fulfils the conditions laid down in the RAG to be considered compatible with the internal market on the basis of Article 107(3)(a) of the TFEU.

4. DECISION

- (83) The Commission has accordingly decided not to raise any objections on the notified measure on the ground that it is compatible with the internal market on the basis of Article 107(3)(a) of the TFEU.
- (84) The Commission reminds Italy that, in accordance with Article 108(3) of the TFEU, all plans to modify this measure have to be notified to the Commission.

In case this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site:
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State Aid Registry
J-70 3/225
1049 Bruxelles/Brussel
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Yours faithfully,

For the Commission

Joaquín ALMUNIA
Vice-President