[2018] UKFTT 647 (TC)

TC06795

Appeal number: TC/2017/05614

ANTI-DUMPING DUTY – whether Commission exceeded its powers under Article 24 of the Community Customs Code - no

FIRST-TIER TRIBUNAL
TAX CHAMBER

RENESOLA UK LTD **Appellant**

- and -

THE COMMISSIONERS FOR HER MAJESTY'S REVENUE & CUSTOMS **Respondents**

TRIBUNAL: JUDGE ANNE FAIRPO

Sitting in public at London on 25 and 26 June 2018

George Peretz QC, counsel for the Appellant

Mark Fell, counsel for the Respondents

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DECISION

Introduction

1. This is an appeal against a decision (upheld on review) made by HMRC on 28 December 2016 to impose anti-dumping duty of £836,411.95 and countervailing duty of £180.132.59 on imports of solar panels into the UK on the basis that their origin, under the rule of origin set out in Annex 11 of Commission Regulation 2454/93, was China. Council Implementing Regulation (EU) No 1238/2013 and Council Implementing Regulation (EU) No 1239/2013 impose anti- dumping duty and countervailing duty on imported solar modules originating from China.

2. The sole issue in the appeal is the question whether that rule of origin is valid.

Relevant law

Rule of origin

3. The general rule of origin for goods whose origin involves more than one country was, at the relevant time, set out in Article 24 of Council Regulation 2913/1992 ("the Community Customs Code") which provided that:

> "goods whose production involves more than one country shall be deemed to originate in the country where they underwent their last, substantial, economically justified processing or working in an undertaking equipped for that purpose and resulting in the manufacture of a new product or representing an important stage of manufacture".

4. In interpreting this, the place where goods underwent their last substantial transformation should be in the first instance be the country where the production process underwent a change in tariff classification (Agreement on Rules of Origin (WTO-GATT 1994) approved by Council Decision 94/800/EC and referred to in Recital 8 of Commission Implementing Regulation 1357/2013 of 17 December 2013 ("the Contested Regulation"). Recital 8 of the Contested Regulation notes that only where that criterion is not determinative can other criteria be used, and that the same principles should be used in the EU customs legislation.

5. Both cells and modules have tariff classification 8541; the silicon wafers from which cells are manufactured have tariff classification 3818. On this basis, the country of last substantial transformation should be the country of origin of the cells and the Contested Regulation makes the point (in Recital 9) that this is supported by the "starting point", having determined in an earlier Recital that the manufacture of the cells should be regarded as the last substantial transformation in the production process of modules.

6. However, In C-260/08 *Heko* (§35) and C-373/08 *Hoesch Metals* (§43-44) it was noted that processing operations which do not result in a change in tariff may

nevertheless amount to a substantial transformation, so that this starting point may not be determinative and other criteria may need to be considered.

7. The key criterion in Article 24 to determine the place of origin is the place of the "*last substantial process or operation*" (Joined Cases C-447/05 and C-448/05 *Thomson* and *Vestel*, §22). In a number of cases, the CJEU has expanded upon various elements of this criterion.

(1) There must be a real and objective distinction between the raw materials or components and the processed product, depending on the material qualities of each (*Heko*, §29);

(2) To be "substantial", the product resulting from an operation must have its own properties and a composition of its own which it did not have before and which amounts to a "significant qualitative change" (*Hoesch*, §46). Operations which alter the presentation of a product for the purposes of its end use which which do not amount to a "significant qualitative change" in properties will not change the place of origin (*Hoesch*, §47).

(3) Further, that must be a "sufficiently pronounced qualitative change which could be regarded as having brought about the manufacture of a new product". Operations which enable a product to be marketed to end users in convenient portions but do not change the properties and composition of the product will not change the place of origin (C-93/83 *Zentrag*, §14).

(4) Where components are combined, the "last substantial transportation" occurs in the "decisive production stage during which the use to which the component parts are to be put becomes definite and the goods in question are given their specific qualities". If this test is not met, the country in which the various components are assembled is not the country of origin (C-26/88 *Brother International*, §19).

Implementation of rule of origin definitions

8. Article 247 of the Community Customs Code provides that "The measures necessary for the implementation of this Regulation … shall be adopted in accordance with the regulatory procedure referred to in Article 247a(2) …". Article 247a(2) provides that "Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof". Articles 5 and 7 of Decision 1999/468/EC set out the terms on which a regulatory committee is to be established and operated in order to . The Commission, therefore, has power to make regulations which define the concepts in Article 24 in relation to specific processes or operations.

9. The CJEU has decided that the Commission has a "margin of discretion" in exercising its powers under Article 247 (C-162/82 *Cousin*, §17 and C-372/06 *Asda*, §35).

Specific rule of origin for solar panels

10. Commission Regulation 2454/93 ("the Implementing Regulation") sets out provisions for the implementation of the Community Customs Code, in order to (inter alia) "formulate certain rules more precisely in order to achieve greater legal security in their application" (Recital to the Implementing Regulation). Although the Community Customs Code is in the process of being replaced by the Union Customs Code, the Implementing Regulation continues in force and Article 60 of the Union Customs Code contains the same general rule of origin as the Community Customs Code.

11. Annex 11 of the Implementing Regulations sets out a "list of working or processing operations conferring or non-conferring originating status to manufactured products when they are carried out on non-originating materials". The Contested Regulation amended Annex 11 of the Implementing Regulation to insert a specific rule of origin for solar panels so that Annex 11 provides (as relevant) that:

ex 85 01	Crystalline silicon photovoltaic modules or panels	Manufacture from materials of any heading, except that of the product and of heading 8541 . Where the product is manufactured from materials classified in heading 8501 or 8541 , the origin of those materials shall be the origin of the product. Where the product is manufactured from materials classified in heading 8501 or 8541 originating in more than one country, the origin of the major portion in value of those materials shall be the origin of the product
ex 85 41	Crystalline silicon photovoltaic cells, modules or panels	Manufacture from materials of any heading, except that of the product. Where the product is manufactured from materials classified in heading 8541 , the origin of those materials shall be

		the origin of the product. Where the product is manufactured from materials classified in heading 8541 originating in more than one country, the origin of the major portion in value of those materials shall be the origin of the product

12. Accordingly, Annex 11 of the Contested Regulation establishes (as relevant to this appeal) that the rule of origin for solar modules is the place of origin of the solar cells that are used in the modules.

Tribunal powers

13. The powers of this Tribunal in relation to questions of EU law, in summary, are as follows:

(1) A national court is entitled to consider the validity of EU legislation (Case 314/85 *Foto-Frost* [1987] ECR 4199, §14) but has no jurisdiction to declare an EU regulation invalid (*Foto-Frost*, §15). Only the Court of Justice of the European Union ("CJEU") may do so, on a reference under Article 267 of the Treaty of the Functioning of the European Union ("TFEU").

(2) Further, a national court which finds that there is a reasonably arguable case that EU legislation is invalid (*R (Telefonica O2 Europe Plc) v Secretary of State for Business, Enterprise and Regulatory Reform* [2007] EWHC 3018 (Admin) , §4) cannot decide that question for itself but must, as above, refer the question of validity to the CJEU (Case C-344/04 *IATA*, §30).

(3) A national court may, however, find that an EU regulation is valid (*Foto-Frost*, §14) and decline to refer the question of validity (*Targetti (UK) Limited* [2014] UKUT 0247 (TCC) , §94).

14. It should be noted that the parties did not particularly disagree as to the relevant case law in general, only as to the extent to which their case was supported by the cases. As such, I have summarised the case law here rather than repeat it in each of the parties' submissions.

Appellant's submissions

15. The appellant ("ReneSola") imports solar panels into the UK from affiliated companies based in India. The panels include solar cells and other parts manufactured in China; the panels are assembled in India.

16. Renesola's witness, Mr Zhongyu Xu, provided evidence. He is a senior quality manager for Renesola in China. Unfortunately, whilst Mr Xu had detailed knowledge

of the manufacturing of modules, he had limited knowledge of the properties and other characteristics of solar cells.

17. Mr Xu described the manufacturing process of cells as follows:

(1) The cells are cleaned and 'textured' – that is, he explained that a chemical is applied to the surface of a silicon wafer to create a textured structure on the wafer which increases the capture of sunlight.

(2) The cells undergo 'diffusion', which creates the P-N junction which generates an electrical field. Mr Zhongyu did not what the term 'P-N junction' stood for and was unaware of the purpose of the P-N junction although, after checking with colleagues in China, he explained that the process creates a negatively charged layer on the positively charged silicon wafer and so creates a P-N junction as the boundary between the two layers.

(3) The cells are 'etched', which isolates the edges of the solar cell so that the current does not leak. He later explained, after checking with colleagues, that the process insulates the edges of the cells.

(4) The cells undergo a process known as 'PECVD', which applies an anti-reflective surface treatment to increase sunlight absorption and so improve the power output of cells. Mr Zhongyu did not initially know what the acronym 'PECVD' stood for; after checking with colleagues in China, he was informed that it meant 'plasma enhanced chemical vapour deposition'.

(5) Electrodes are then screen-printed onto the cell; Mr Zhongyu explained that this was so that the cells can be linked.

(6) The cells are then 'sintered', which is a high-temperature treatment that removes any impurities and allows cells to be joined.

(7) The cells are then tested to confirm the electrical parameters of each cell.

(8) The cells are then 'encapsulated'. In oral evidence, Mr Zhongyu stated that this meant that each cell was put in a box with film and vacuum packed for transportation.

(9) The boxes are then packaged for transportation.

18. Mr Xu explained that, at the end of manufacturing, a solar cell is fragile; a solar cell was produced to the Tribunal as demonstration. The cell was capable of being shattered in a similar way to a thin pane of glass. Mr Xu was not aware of any certification process measuring the longevity of cells in use or any requirement for such certification of cells.

19. Mr Xu went to describe some of the process of manufacturing a **module**. The details of the process were also set out in a document attached to his witness statement:

(1) A 'ribbon' is soldered onto the cells. Mr Xu explained that the cells generate an electrical field and the ribbon transmits electrical current.

(2) The cells are laminated with glass and a substance called EVA to a back sheet in order to better protect the cells in use.

(3) A frame is added to the structure in order to protect the glass.

(4) A junction box and cable is added to the module to make it easier to install in a project.

(5) The module is tested to ensure that it meets the necessary parameters.

(6) The module is packaged for transportation.

20. He stated that he believes that all module manufacturers follow substantially the same manufacturing process.

21. Mr Xu's evidence was that a module produces approximately 3% more electricity than would be produced by simply linking the cells in series. He was not sure how the efficiency gain of 3% was achieved. A document entitled "International Technology Roadmap or Photovoltaic" dated March 2014 produced by ReneSola indicated that such efficiency gains were likely to have been achieved by designing the module to redirect light onto active cell areas and by reducing the size of the ribbon connector in order to maximise the area of sunlight capture in a module.

22. Mr Xu was asked a number of other questions and responded as follows:

(1) If a person touched a solar cell, would they get an electric shock? He did not know personally; after checking with colleagues in China he said that they thought a person may get an electric shock from a cell.

(2) Does the cell generate electricity which is transmitted through the ribbon? He did "not know how to answer that". After checking with colleagues in China he explained that a cell with a conductor, such as a ribbon, attached to it would create a useable electric current. Without any conductor, no current would be extracted from the cell.

(3) Would a module produce electricity without any cells? No, it would not. There was nothing else in the module which would produce electricity.

(4) What was the difference between a module and a photovoltaic (PV) system? A PV system requires an inverter box and cables, together with racks to hold the modules. The inverter box changes direct current output to the alternating current needed by domestic systems. He did not know whether the module could be used without an inverter box. An inverter box would be needed to connect the module to an electrical grid system. The inverter is not part of the module; different applications require different inverters.

23. Mr Xu stated that a person would need to purchase a module in order to use a cell, and that a company would need to install the modules on a rooftop. However, he also agreed that there were other uses for solar cells such as a light switch or an irradiance meter, but he had no experience with such applications, nor how the cells would be used in these.

24. ReneSola accepted that, as solar cells originating in China constitute the major portion in value of the materials that make up the solar models, the application of the provisions of Annex 11 inserted by the Contested Regulation would lead to the conclusion that the solar modules originate in China. ReneSola's case is that the Contested Regulation is invalid as exceeding the powers of the Commission under the Community Customs Code. Although it was acknowledged that the Commission has a margin of discretion (per *Cousin* and *Asda*) to define the concepts in Article 24 with reference to specific processes or operations, it was submitted that this gave power to draw a line within a grey area to create legal certainty but did not extend to being able to "say black is white, just to explain the grey".

25. It was submitted for ReneSola that in establishing implementing measures for the Community Customs Code, the Commission may not adopt measures which are contrary to the Community Customs Code (as set out in *Söhl & Söhlke (*C-48/98), §36). The key criterion in establishing the place of origin of goods within Article 24 is the "last substantial process or operation" (*Thomson and Vestel*).

Last substantial process

26. It is ReneSola's case that the manufacturing of the solar modules creates a real objective distinction in material qualities and represents a significant qualitative change, in line with Article 24, such that it is the "last substantial process or operation". In particular:

(1) The manufacture of the modules is ether the manufacture of a "new product" (the solar module) or represents "an important stage of manufacture" (producing solar modules which are of commercial use in the generation of electricity, unlike solar cells);

(2) The manufacture of the modules is "processing or working in an undertaking equipped for that purpose", as the modules are produced with high precision machines, as set out in the descriptions of the manufacturing process included in Mr Xu's witness statement;

(3) The manufacture of the modules is "economically justified" as it produces solar modules which are of practical use in the generation of electricity from sunlight, as opposed to solar cells which have no such practical use, and which are sold at a substantial premium over solar cells;

(4) The manufacture of the modules is "substantial" as demonstrated by witness evidence.

27. Further, ReneSola submitted that a number of factors meant that the modules represented a real objective distinction in material qualities and represents a significant qualitative change:

(1) Solar cells are unable to produce a usable power output, whereas the module produces a useable power output that is higher voltage and higher output that the aggregate voltage and output of the individual cells used in the module.

(2) Solar cells are fragile and would be damaged quickly if used outside. Modules can be used outside. Companies investing in solar generating capacity require long-term durability in order to justify their investment;

(3) Solar cells have other uses than being incorporated into solar modules and so it is only in the manufacturing of the modules that the use of the cells becomes definite. ReneSola suggested that solar cells can be used to manufacture irradiance meters, light sensitive switches and auto-control devices;

(4) The cost attributable to the manufacturing of the modules amounts to approximately 49% of the final modules price and so must be regarded as an important stage in manufacturing;

(5) Modules are manufactured to international standards, but no equivalent standards exist for cells as these are not purchased by installers.

28. ReneSola submitted that Commission Regulation 513/2013, imposing a provisional anti-dumping duty, also supports its view that the manufacturing of modules is the last substantial process as recitals (23) to (25) set out the production process: recital (24) states that "cells are the second step of the production process" and paragraph (25) states that "the modules are the third step of the production process". Recital (32) also notes that value is added across the whole production process. Further, recital (5) of the Contested Regulation refers to the manufacturing of modules as being one of the "major steps" of the production process.

29. In summary, ReneSola submitted that the module manufacturing process represents a significant transformation in that there are substantial differences between the cells and the modules:

(1) A cell cannot be used to generate electricity in a way that is useable, whereas a module can be so used. The difference represents a substantial transformation.

(2) A module is substantially more durable outside than a cell, particularly with regard to weather, and this is a qualitative distinction rather than merely quantitive.

30. As the manufacturing of the modules is the last step in the process, ReneSola submitted that it therefore followed that it was the last substantial transformation and therefore determinative of the place of origin of the products.

Scope of the Commission's powers

31. ReneSola submitted, therefore, that defining the rule of origin of solar modules to be the place of origin of the solar cells in those modules is contrary to the Community Customs Code because it ignores the manufacturing of the solar modules, which is the "last substantial process or operation".

32. ReneSola submits that, as the Commission may not adopt measures which are contrary to that Code (as established in case law), the definition of the rule of origin

of solar modules as the place where the cells in the module are manufactured exceeds the Commission's powers beyond its margin of discretion and so is invalid.

HMRC's submissions

33. HMRC submitted that The General Court of the European Union (GCEU) has expressly stated in a series of decisions that the "last substantial production" stage in relation to solar modules is the manufacture of the solar cells used in the modules.

34. It was also submitted that this is supported by decisions of the courts in the United States, which have taken a similar approach when considering the origin of solar modules for the purposes of anti-dumping duty.

Margin of discretion

35. HMRC submits that it is within the Commission's margin of discretion (established in *Cousin* and *Asda*) to define the abstract concepts in Article 24 of the Community Customs Code in relation to the specific process of cell manufacturing as being the decisive production phase where the use of the product becomes definite and the product is given its specific qualities. In particular, it was submitted that the exercise of that discretion cannot be called into question by the specific situation of one particular undertaking in a sector (*Asda,* §43), and that in the context of assessing whether regulations exceed that margin of discretion, the CJEU and the UK courts have adopted a cautious approach of considering whether there is a "manifest error" in the regulation (*Telefonica,* §14) or a factor "capable of affecting validity" (Asda, §51).

Electricity production

36. HMRC submitted that ReneSola's argument that modules generate electricity but cells do not, such that there is a qualitative difference between cells and modules, is not sustained by their own evidence which confirmed that a cell can generate an electrical field, and can generate an electric shock. Further, the process of "etching" the cells was done to prevent electrical leakage. Mr Xu had also noted that the accurate figure for the voltage produced by a cell was 0.62v, rather than the 0.5v figure given in a ReneSola document annexed to his witness statement. Mr Xu had also been unable to point to any component in a module which would generate electricity.

37. Accordingly, HMRC submitted that, at best, all that could be concluded was that cells cannot transmit electricity without a conductor and that this was not sufficient to amount to a real distinction between cells and modules, particularly as it was not show than anything significant was required as a conductor.

38. Further, the 3% increase in electricity production resulting from incorporation into a module compared to cells being connected in series should not be regarded as significant; minor variations should not be regarded as affecting a determination intended to last for some time.

Durability

39. HMRC submitted that ReneSola had produced no specific technical information to support their general statement that cells were vulnerable in the open environment. Further, any difference in durability between cells and modules could not be regarded as relevant, as the defining characteristic is the conversion of solar energy into electricity.

Module manufacturing

40. HMRC submitted that the manufacturing of the modules was an assembly operation. Although case law has established that an assembly operation may result in a new product for the purposes of establishing the origin of a product, HMRC submitted that this assembly operation did not result in a new product and neither had ReneSola shown that it was. For example, no evidence had been provided to demonstrate that the use of the cells became definitive in the module manufacturing, rather than the cell manufacturing stage. No evidence had been put forward to show that the "other uses" of cells varied the purpose to which the cells were put, as Mr Xu had confirmed that he had no experience of such other uses of cells.

41. In addition, HMRC noted that the cells are not in fact directly processed in the module manufacturing process: items are added to them, rather than the cells being changed. As noted in *Hoesch*, §50-51) origin cannot be conferred by a process which does not "bring about a significant qualitative change in the raw material".

42. HMRC submitted that case law has established that "value added" should be considered by reference to the increase in the market price of the finished product rather than the cost of parts and no evidence had been put forward to support this. Further and in any case, "value added" should only be considered as an ancillary point where the technical and other criteria are met. In this case, HMRC submitted that there is no substantial transformation in the manufacturing of the module and so the value added criteria would have no relevance in any case.

Supporting case law

43. HMRC submitted that its position is supported by the GCEU in a case looking at the same anti-dumping duty which underlies this appeal (Case T-158/14 *JingAo*, §114).

44. HMRC submitted that, in *JingAo*, the appellants in that case made similar arguments to those made in this appeal. For example, at §79 it was noted that the appellants had contended that "modules can convert solar energy into electricity and transmit electricity while cells can convert solar energy into electricity but cannot transmit electricity" Other arguments similar to those set out by ReneSola were also made by JingAo. However, the GCEU concluded that (§114) "it is the processing of wafers into cells and not cells to modules that constitutes the last substantial processing or working resulting in a new product or representing an important stage of manufacture, within the meaning of Article 24 …"

45. HMRC submitted that similar observations had been made in another *JingAo case* (Case T-157/14, §140), *Yingli Energy* (Case T-160/14, §140) and *Canadian Solar* (Case T-162/14, §139). In addition, the United States Court of International Trade had reached a similar conclusion in *SunEdison* (Slip Op. 16-59, 14 June 2016) in which the court concluded that the parties had not presented a basis to disturb the conclusion that "the cell is not substantially transformed in the process of panel assembly so as to change the cell's country-of-origin". It was also submitted that in *Kyocera* (Slip Op. 17-90, 21 July 2017), the same US court had agreed with the decision in *SunEdison*. It was noted that although decisions of the US courts are not binding, opinions of the Attorney General in CJEU cases have shown that they can be informative.

Regulations

46. HMRC submitted that the reference to "major step" in the Contested Regulation could not be regarded as determinative, and that it was necessary to look at the substance of the analysis in that Regulation and not just the single word.

47. In summary, HMRC submitted that the key question is whether there has been a substantial transformation in the module manufacturing process, affecting the use of the product and its essential characteristics. The relevant use to be considered is the incorporation into photovoltaic systems. The specific qualities in question are the capacity to convert solar energy into electricity.

48. It was submitted that that end-use, and these qualities, are present in the cells before the modules are manufactured. HMRC submitted that this establishes that the Contested Regulation is within the margin of discretion of the Commission and is valid.

Discussion

49. In order to determine, in the first instance, whether the Commission has exceeded its margin of discretion it is necessary to consider whether the manufacturing of the module represents the "last substantial transformation" in producing the goods.

50. ReneSola submits that it does because, firstly (and in summary), the cells do not generate electricity but the modules do and, secondly, the modules are weather-proofed and so more durable than the cells in use. The manufacturing of the modules therefore represents the point at which the use of the cells becomes definite and the particular qualities of the end product are established.

Electricity production

51. Mr Zhongyu stated in his witness statement that a material difference between cells and modules was that a cell could not generate electricity on its own, as it had no input-output interface. However, Mr Zhongyu also confirmed in oral evidence that he was not familiar with cells and, for example, explained that he was unaware of the

purpose of the P-N junction in a cell. He asked colleagues in China for assistance, who advised him that the P-N junction in a cell is the boundary between the positively charged and negatively charged layers of the cell. He thought that the junction generated an electrical field but did not know what the process was or how it operated. Mr Xu could also not indicate any element of a module which generated electricity other than the cells.

52. It appears from the evidence that a (very) simplified explanation of the P-N junction is as follows: the positive layer contains an excess of 'holes' (ie: is deficient in electrons) whilst the negative lawyer contains an excess of electrons. The p-n junction allows the excess electrons to flow through from the negative layer to the positive layer, but not the reverse. This creates an electrical field at the junction; if the positive and negative layers of the cell are connected in the presence of sunlight, a current will flow through the connection. The 'ribbon' attached to cells, as mentioned by Mr Zhongyu in describing the module manufacturing process, connects the relevant layers so that electrical current flows.

53. This was confirmed by Mr Zhongyu's colleagues, who told him that if a ribbon (or, indeed, any other connecting mechanism) were to be attached to a single cell, the cell would produce an electrical current. The ribbon or other connector is attached to the contacts screenprinted onto the cell in the cell production process; the addition of the necessary contacts is not part of the module manufacturing process. I note also that the ReneSola document attached to Mr Xu's witness statement describes a solar cell as a "battery", and earlier correspondence between ReneSola and HMRC referred to "the electricity generated by cells from sunlight" (page 9 of a letter dated 26 January 2017).

54. I find that, therefore, a cell does produce electricity and has the necessary interface in the form of the connectors screenprinted onto it in manufacturing. The fact that a connector is required to enable that electricity to be used is not material. It should also be noted that Mr Zhongyu's evidence was that modules themselves need some form of connection in order to transmit the electricity produced by the cells to enable that electricity to be used. At a minimum, this is the junction box although many applications require an inverter box to installed as well.

55. I find, therefore, that it is the cell which produces electricity – the module itself does not produce electricity. Although a connector may have to be applied to a cell in order for the electrical current to flow, that connector can be applied to a single cell and does not require that the cell be incorporated into a module in order for an electrical current to be generated. I note that Mr Zhongyu's evidence was that, without the 'etching' at step 3 of the cell production process, a cell could leak electricity from the edges which suggests that a cell could in fact produce an electrical current without a separate conductor being attached.

56. I note also that the International Technology Roadmap for Photovoltaic (ITRPV) paper produced in evidence refers to the importance of cells throughout: it describes the size of modules in terms of the number of cells in the module ("60-cell

modules"), the need to increase "cell efficiency" to improve the performance of modules, the "cell-to-module power ratio".

57. I find that the characteristic of electricity production is, therefore, established when the cell is produced and not when a module is produced. The specific qualities of the product, being the generation of electricity from sunlight, are therefore established in the manufacture of the cells and not the manufacture of the modules.

Lamination/encapsulation of cells - weatherproofing

58. As described by Mr Xu, the "encapsulation" process does not change the cells: it adds a layer of weather-proofing material onto the cell array. Any durability comes from the cells being sheltered behind the encapsulating material.

59. Although it was clear that cells can be readily broken when knocked against something else, no evidence was provided to show how quickly cells degrade in the environment in which they are normally used.

60. There was no evidence provided to show that an installer could not create their own protective installation for cells where necessary; in particular, no evidence was supplied to show that the specific form of encapsulation used by ReneSola was required rather than (for example) placing the cells within a glass surround.

61. I consider, therefore that the encapsulation, or weather-proofing, element of the module manufacturing provides convenience for users and so is a presentational change which does not result in a "real objective distinction in material qualities" of the cells.

Manufacturing process

62. It was submitted that the manufacturing process for modules required high precision treatment, and a very strict environment or conditions. Mr Zhongyu provided documents which set out the manufacturing process in his witness statement and stated that the manufacturing process was not simple. For example, the ribbons soldering had to be done by high accuracy machines and under a high uniformity soldering temperature. Lamination of the cells had to be conducted in a vacuum and under carefully controlled temperatures.

63. The evidence put forward indicates that there is minimal improvement in the essential function of electricity production as a result of the manufacturing process: Mr Xu indicated that modules may produce approximately 3% more electricity than the same number of cells linked in series. Taking into account case law, this is not a significant qualitative difference in performance.

64. Having considered the case law put to me, it is clear that whilst assembly activities may create a new product (as set out in *Brother*), it is because that assembly process is the production stage at which the use of the raw materials becomes definite and the goods in question are given their specific qualities. The complexity, or

otherwise, of the assembly process does not define whether or not the goods are given their specific qualities at that stage. As I have already found that the use and specific qualities are determined at the cell manufacturing stage, it follows that the complexity or otherwise of the module manufacturing process does not make it the "last substantial transformation" for the purposes of Article 24.

65. The cost attributable to the manufacturing process is not, therefore, a relevant measure of whether the process is an important one for the purposes of Article 24.

Other factors

66. I consider that the lack of an international standard for a solar cells (as stated by ReneSola) does not particularly assist in determine whether there is a real objective distinction between cells and modules.

67. Mr Zu's evidence that modules would have to be purchased (rather than cells) was limited to the scenario of a rooftop PV system installation, and so I do not consider that this necessarily supports the view that a PV system can only be created from modules.

68. Mr Xu also stated after checking with colleagues in China that that cells could be used to generate a useable electrical current and did not offer any further evidence or reason why a person setting up a PV system would not be able to use cells to do so, other than the durability point which is considered elsewhere.

69. I find therefore that it is not the case that cells cannot be used to create a photovoltaic system. It may that modules are easier to utilise in a PV system than the cells which are incorporated into the modules does not mean that modules are a new product or represent an important stage of manufacture for the purposes of the legislation. This is, in effect, similar to the position in *Hoesch* which found that, where there was no significant qualitative change in the raw material, there could not have been a substantial process or operation.

70. ReneSola also submitted that, as solar cells can be used for other purposes, it is only during the module manufacturing process that their use becomes definite. However, no description of the function of the cells in those uses was provided in evidence; indeed, Mr Xu stated that he was unfamiliar with any of those uses.

71. I consider that the other uses of solar cells described – irradiance meters, light sensitive switches and auto-control devices – are all uses which appear to rely upon the generation of electricity from sunlight by the solar cell, even if their end function is not that of electricity generation.

72. Accordingly, I consider that the function and use of the *cell* is fixed at the manufacturing stage of the cell. I consider that the essential characteristic of the module (the generation of electricity from sunlight) is the same as that of the cell and so I find that the use to which the cell is put in the context of modules becomes

definite during the manufacturing of the cell and not during the manufacturing of the module.

73. ReneSola's submissions with regard to the wording of Commission Regulation 513/2013 describing the module manufacture as a "major stage" are noted but, whilst it is obvious that the manufacturing of modules is *a* stage in the production process, there is nothing in the recitals that indicates that it is the "last substantial process". Similarly, the reference to module manufacturing in the recitals of the Contested Regulation as a "major step" does not mean that it must be the "last substantial process or operation"; indeed, it is clear from the rest of that Regulation that the phrase cannot be taken to mean that in the context of the Regulation.

Other points noted in submissions

74. It should be noted that some of the case law quoted in argument was not specifically helpful and so I have not given it particular weight in reaching my decision.

75. In particular, the US case of *SunEdison* that the US Department of Commerce had determined that "solar module assembly does not substantially transform solar cells such that it changes the country of origin" but does not give any substantive details as to how that determination was reached, as the appellant apparently did not challenge the factors used by Commerce in reaching that determination but argued that a different test of origin should have been applied. The case of *Kyocera* involved the same point. The lack of challenge to the factors in the "substantial transformation" test used is, of course, not substantial evidence that it is correct but nevertheless neither party challenged whether the result of the test used was correct but, instead, apparently only challenged the type of test used.

76. The GCEU in *JingAo* did consider the point in a little more detail and concluded that (§98) "cells are fundamental components of modules and that the characteristics of modules are broadly determined by the characteristics of the cells of which they are composed". The GCEU was considering the extent to which cells and modules may be considered to be similar, and so within the scope of the relevant anti-dumping duty regulations, rather than when the last substantial transformation takes place. The GCEU did not accept that there was any significant difference between cells and modules which may indicate that the GCEU does not consider that there is a "substantial transformation" between the cell manufacturing and the module manufacturing, but that is largely speculative rather than being a clearly sustainable conclusion. The other GCEU cases referred to primarily repeated the provisions in Annex 11 rather than examining them in any detail.

77. I should also note that a number of submissions were also made regarding the specific regulations relating to anti-dumping duty and countervailing duty, but (as with the *JingAo* and similar cases*)* these regulations were not particularly helpful as they were considering different matters. The regulations are necessarily particularly concerned with the question of elements of commonality between modules and cells, rather than the question of when the last substantial transformation took place. Again,

the conclusion that cells and modules are sufficiently similar for the purposes of those regulations may indicate that there is no "substantial transformation" between cells and modules but I have not considered that to be a conclusion that is clearly sustainable. Accordingly, I consider that although the conclusions of these regulations (and the cases referred to immediately above) could be said to support my decision, they were of little definitive assistance in this matter and so I have not set out the particular submissions made by the parties.

Decision

78. On the evidence put to me, the principal result of module manufacturing is that a number of cells are linked together in an array and to that array a weather-proofed enclosure has been added. Whilst this clearly involves complex processes, I find that the end result does not change the cells themselves nor does it represent the "last substantial process or operation", as follows.

79. The linking together of the cells is, I find, a presentational change: the process collects the output of the cells but does not alter the characteristics of the cells. The weather-proofing of the cells is, I also find, a presentational change: it does not change the essential characteristic of the cells, being the production of electricity from sunlight. Both processes clearly make it easier for purchasers to use the cells but the essential characteristic of the product – the production of electricity from sunlight – is achieved at the cell production stage.

80. I find, therefore, that the manufacturing of the modules is not the "last substantial process or operation" for the purposes of Article 24. Instead, I find that the manufacture of the solar cells is the "last substantial process or operation" as it is the process in which the use of the cells is fixed and the specific qualities of the final goods are established.

81. I note that this also accords with the place where the tariff classification changed, which is the first instance country of origin under the Agreement on Rules of Origin adopted in Council Decision 94/800/EC.

82. I find, therefore, that the Appellant has not put forward a reasonably arguable case that the Commission exceeded its powers in the Contested Regulation so as to require me to refer the question of validity of the contested Regulation to the CJEU.

83. The appeal is therefore dismissed.

84. This document contains full findings of fact and reasons for the decision. Any party dissatisfied with this decision has a right to apply for permission to appeal against it pursuant to Rule 39 of the Tribunal Procedure (First-tier Tribunal) (Tax Chamber) Rules 2009. The application must be received by this Tribunal not later than 56 days after this decision is sent to that party. The parties are referred to

"Guidance to accompany a Decision from the First-tier Tribunal (Tax Chamber)" which accompanies and forms part of this decision notice.

ANNE FAIRPO
TRIBUNAL JUDGE

RELEASE DATE: 5 NOVEMBER 2018