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Rydalmere NSW 211627th June 2014The Director
Operations 3
Level 5 Customs House
Anti-Dumping Commission
5 Constitution Ave
Canberra City, ACT 2601**Submission from Electus Distribution Pty Ltd****Re: Investigation ADC 239 – alleged dumping of PV Modules and Panels being exported from China**

To The Director of The Anti-Dumping Commission,

Electus Distribution Pty Ltd (hereby Electus) is the import and wholesale distribution company of the Jaycar Electronics Group, which imports a wide range of over 7000 different electronic, electrical and similar products that are predominantly sold through the Jaycar Electronics retail chain stores in Australia, as well as distributed to multiple external retail chain store groups and independent retailers. Within this wide range of products is a core range of solar photovoltaic (PV) panels and modules that are sold at wholesale and retail level predominantly to the outdoor (camping, RV, caravan, marine, etc) recreational market, as well as to the general purpose solar market.

Electus (and Jaycar Electronics) has been involved in the sale of solar PV modules and panels into the Australian marketplace for over 15 years, and has positioned itself as one of the major retailers/wholesalers to the aforementioned outdoor recreational and general purpose solar market. The range of solar PV panels and modules that Electus sold during the investigation period, and up to the present day, reflects the particular applications and requirements typically found in the outdoor recreational and general purpose solar markets; which are almost exclusively intended for charging a 12V or 24V (typically lead acid) re-chargeable battery. To match with this range of solar PV panels and modules, Electus also supplies a range of solar charge controllers, 12V lead-acid batteries, connectors, leads and accessories that match with the solar PV panels and modules for the main applications of these outdoor recreational and general purpose markets.

Obviously, supplying solar PV products to the retail market means that the end user applications are varied in type, scale and configuration beyond the ability to count – however the overwhelming majority of end user applications of solar PV products that Electus supply are for the application of charging a lead-acid 12V or 24V battery, with an extra-low voltage (ELV) solar array, in a stand-alone system that is usually under 500W in total power (the vast majority would be under 150W).

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These systems are also not associated with the domestic or commercial supply of 240Vac power to premises, as is the case in the domestic/commercial rooftop solar PV market.

As such, the solar PV products that we supply are rather small in size and power compared to those found in the rooftop solar market – for example the two most popular solar products (by quantity) we supply are a 5W mono-crystalline solar module, and a 120W portable “fold-up” solar charging kit designed for portable camping/travelling use; comprised of two 60W mono-crystalline modules attached together a hinge and latches and fitted with a charge controller and long battery charging output lead. Neither of these products are intended for use in a rooftop solar system in any way.

Our understanding is that the applicant for this anti-dumping investigation, Tindo Manufacturing, only produces 250W (and similar size) solar PV modules intended for the domestic rooftop and utility scale solar PV systems, which are not “like goods” to the goods that are required for the outdoor recreational and general purpose solar markets that Electus supply to. This is outlined by the following points:

- **Different PV Cells:** Tindo Manufacturing’s production appears to be entirely based on use of 6” (156x156mm) crystalline solar cells. The overwhelming majority of the solar modules that are required in the outdoor recreational and general purpose solar markets utilise a 5” (125x125mm) crystalline solar cell, and in at least half of the solar modules required in this market use “cut-down” cells to produce the final module with electrical output characteristics required for charging a 12V or 24V battery.
- **Different Module Configuration:** Further to the difference in solar PV cells used in the production by Tindo Manufacturing, the solar PV modules that Tindo produces comprise 60 cells in the module, which produces an electrical output that is not ideal for the purposes of charging a 12V or 24V battery as required in the outdoor recreational and general purpose markets. The vast majority of solar modules required in the outdoor recreational and general purpose market comprise 36-cells, and in some cases 32-cells, 72-cells or 108-cells (either full cells, or cut-down cells).
- **Different construction:** The solar PV modules produced by Tindo Manufacturing are constructed with a thick, rigid aluminium frame, with a large surface area to collect solar irradiation (as they are a large 250W solar PV module). This type of construction is ideal for the domestic rooftop solar and utility scale solar markets, but is too large and cumbersome for the outdoor recreational and general purpose markets. In these markets that Electus supplies to, solar PV modules are typically much smaller (most are between 5W and 120W), with thinner aluminium frames and significantly smaller dimensions and weights. There are also requirements in the outdoor and general purpose markets for solar PV modules that are bendable (laminated to a semi-rigid backing plate with no rigid aluminium frame) and for “portable” modules that are two modules attached together with a hinge, handle and latch so they can be folded up and carried, and are fitted with charge controllers and battery charging output leads for directly charging a 12V battery. It would appear that Tindo Manufacturing does not have the ability to manufacture solar modules of this type, as their production is solely focussed on an entirely different market space.

On the following page is a table of the current range of solar PV products supplied by Electus to the Australian market, which shows the large variation in module power and size, cell configurations and types, and demonstrates the distinct difference to the goods produced by Tindo Manufacturing. To make the comparison of the goods that Electus supplies against the goods that Tindo Manufacturing produces, the main product from Tindo has also been included on the table below.

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Model	Description	Power (W)	Cell type	Cell Count
ZM9091	5W Mono C-Si, aluminium frame	5	Cut-down 5"	36-cell
ZM9093	10W Mono C-Si, aluminium frame	10	Cut-down 5"	36-cell
ZM9094	20W Mono C-Si, aluminium frame	20	Cut-down 5"	36-cell
ZM9095	40W Mono C-Si, aluminium frame	40	Cut-down 5"	36-cell
ZM9096	65W Mono C-Si, aluminium frame	65	Cut-down 6"	36-cell
ZM9097	80W Mono C-Si, aluminium frame	80	5"	36-cell
ZM9098	120W Mono C-Si, aluminium frame	120	Cut-down 5"	108-cell
ZM9099	175W Mono C-Si, aluminium frame	175	5"	72-cell
ZM9085	120W Mono C-Si, aluminium frame	120	6"	36-cell
ZM9086	90W Mono C-Si, aluminium frame	90	5"	36-cell
ZM9087	145W Mono C-Si, aluminium frame	145	Cut-down 5"	108-cell
ZM9088	200W Mono C-Si, aluminium frame	200	5"	72-cell
ZM9130	80W Mono C-Si, Portable fold up, with charge controller	80	Cut-down 5"	36-cell (x2)
ZM9132	40W Mono C-Si, Portable fold-up, with charge controller	40	Cut-down 5"	36-cell (x2)
ZM9134	120W Mono C-Si, Portable fold-up, with charge controller	120	Cut-down 5"	36-cell (x2)
ZM9136	180W Mono C-Si, Portable fold-up type	180	5"	36-cell
ZM9112	20W Mono C-Si, semi-flexible design	20	Cut-down 5"	36-cell
ZM9116	100W Mono C-Si, semi-flexible design	100	5"	32-cell
Tindo	250W Poly C-Si, Aluminium frame	250	6"	60-cell

Given these points above, it is the belief of Electus Distribution Pty Ltd that Tindo Manufacturing do not manufacture "like goods" to the solar PV modules and panels that are required by the end-users in the outdoor recreational and general purpose solar markets. Tindo Manufacturing appears to be solely focused on supplying the domestic rooftop and utility scale solar markets.

As such, we would expect that importers such as Electus Distribution would be exempt from any levy that is applied as a result of the investigation into alleged dumping of crystalline silicon solar PV modules and panels exported from China.

Sincerely,



Gary Johnston
M.D. Electus Distribution Pty Ltd