



اَبُو سَيِّدِي تَيْكُو لُو كِي مَارَا  
UNIVERSITI  
TEKNOLOGI  
MARA

**Trina**solar

## **COMPANY ANALYSIS**

### **TRINA SOLAR**

**TECHNOLOGY ENTREPRENEURSHIP (ENT600) : CASE STUDY**

<b>FACULTY</b>	<b>: FACULTY OF APPLIED SCIENCES</b>
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<b>NAME</b>	<b>: RAJA NUR FARHANA BT RAJA NOOR KAMAL ASIKEN</b>
<b>STUDENT ID</b>	<b>: 2019602562</b>
<b>LECTURER</b>	<b>: DR. FARAH LINA AZIZAN</b>

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## EXECUTIVE SUMMARY

Trina Solar is one of the world largest company that produce solar panels. As a vertically integrated company, Trina Solar controls, minimize risk and enhance return on investment (ROI) for their PV systems throughout the entire supply chain. In this company analysis, Trina Solar which is in the category of solar product supplier, the company will be the main focus. The analysis includes the identification of strength, product problems and the solutions for the problems.

Some difficulties with the solar panels production can be identified throughout the analysis. Firstly, the solar inefficiency caused by insulation resistance, environmental conditions and solar panel types. Although the installed solar panels are thought to be in good condition, they can sometimes be overlooked and damage can happen. Isolation resistance occurs when the leak occurs on the edges of solar panels. If damage occurred to solar panels, a higher voltages system will be bothered. The other problem is that the solar panel can produce toxic waste. Solar panels often contain leads, cadmium and other toxic chemicals which needed to be removed by breaking the entire solar panel apart.

However, there are solutions that can be implemented in order to resolves all those problems. In order to increase the efficiency of the solar panel, high concentrated photovoltaic (CPV) can be used in the manufacturing of the solar panels. The efficiency of this CPV panels can reach up to 46% efficiency compared to the traditional solar panel with only 22% efficiency. The next problem can be resolved by properly manage the waste through recycled process. Recycled solar panels are surely reusable. Through the year of research into waste recycling of solar panels, many technologies are developed to aid the recycling process and increased the efficiency of waste handling by approximately 96%.

## 2.3 Products/Services

Trina Solar provides PV products, applications and services to encourage global sustainable development as the world's leading supplier of PV module and smart energy solution. As of December 2020, Trina Solar has supplied the world's "Top 500 private enterprise in China" with over 66GW of solar modules. Moreover, Trina Solar's downstream comprises the development, financing, design, building, operation and management of solar photovoltaics projects and single-stop customer system integration solution. Over 5GW of solar power plants has been connected to the grid globally by Trina Solar.

### Some of the products of Trina Solar:

#### I. Vertex 600W+ Module



Figure 2.2(I): Vertex 600W

#### Specifications:

- Monocrystalline : 120 Cell
- Maximum Efficiency : 21.2%
- Power Output Range : 580 – 600W
- Positive Power Tolerance : 0~+5W