



Automation & Green Technology

- Company Name : CE Technology Berhad
- Location : Taiping, Perak
- Project : 502 kWp NEM Solar PV Systems
- Objective : To meet the company's objective of moving towards green manufacturing
- Source of Financing : RM1,101,380 internal funds & RM472,020 grant from MRC






Company Profile


 **2002**
Year Founded



 **Taiping, Perak**
Headquarters

2nd
Largest Exporter Of
Cleanroom Gloves For
Eight Consecutive Years
Since 2013

 **~230**
No. of Employees

 **Original Equipment Manufacturer**
Nitrile (Synthetic Rubber) and Latex (Natural Rubber) Cleanroom Gloves

 **LEAP Market of Bursa Securities**
Listed on 21 June 2019

High-End Electronics

Life Sciences

 **90%**
Export market in FY2021

- Media Storage
- Semiconductor
- Mobile Devices
- Aerospace

- Medical Devices
- Pharmaceutical
- Biotech
- Labtech



CE Tech's Award-Winning Approach to Innovation and Sustainability

Due to its switch from the use of fossil fuel to green renewable waste woodchips resulting in the massive reduction of GHG emissions, CE Tech has been awarded:

The EU - Malaysia Sustainable Biomass Production Initiative TOP SME AWARD in 2013

A 10-year carbon credit from the Voluntary Carbon Standard (VCS) Registry from the USA

To further reduce our carbon footprint, we decided to embark on Solar energy:

**Total Reduction of CO2 Emissions from
CE Tech's Solar PV Systems:**

676,119 kWh = 282,144 kgs of CO2 emissions

= 13,435 trees



Type of Solar Module Comparison Table

	POLY CRYSTALLINE	Q CELL MONOCRYSTALLINE PERC MODULE	Conventional MONOCRYSTALLINE PERC MODULE
POWER	MEDIUM	HIGH	HIGHEST
PERFORMANCE	MEDIUM	HIGH	HIGH
RISK OF DEGRADATION	MEDIUM	LOW	HIGH
CELL EFFICIENCY	LOW	MEDIUM	HIGHEST

Conclusion:

We opt to go for **Q CELL Monocrystalline PERC Module**. The main reason is immediate availability of rooftop space and the proven performance of Q Cell Monocrystalline PERC Module which is higher besides having much lower degradation.

*PERC: Passivated Emitter Rear Cell



How unique is this Solar PV systems, in what ways?

A. System Design

The solar panels used in this design consists of MONO crystalline cell modules which is a new technology that gives a much better overall performance.

B. Benefits

- Boost power output
- Reduce resistive losses
- Lower operating temperature
- Higher light conversion
- Better performance in reducing irradiance conditions



CE Tech's Solar PV Systems Installation

Total installed capacity of 502 kWp, comprising an array of solar panels with installed nominal power of 6.16 kWp for each string respectively

Uses the latest technology of mono-crystalline half-cut design solar panels

Provides much better performance during cloudy days by 19.9% and reducing the shading effect by 50%

Benefits of Installing Solar PV Systems

Approximately RM20,000 savings on monthly electricity bills

Feasible return on investment (ROI) with quick return

“Solar PV systems last for 25 years”



On-site Solar PV Systems



SUCCESS STORIES

SYSTEM CONFIGURATION

System Size
502.0 kWp

PV Module
Capacity: 370 Watt/Module
Manufacturer: Q CELLS
Model: Q.PEAK L-G4.2 360-370
Dimension: 1994 x 1000 x 35 mm
Quantity: 1,356 units



Return on Investment & Payback Period

A. Total Investment	RM1,573,400.00
B. Total Net Annual Benefit	RM240,022.00
i. Electricity Consumption	
ii. Other savings	
Return on Investment (Total Net Annual Benefits / Total Investment)	15.25%
Payback Period (Total Investment / Total Net Annual Benefits)	6.5 years

Remarks:

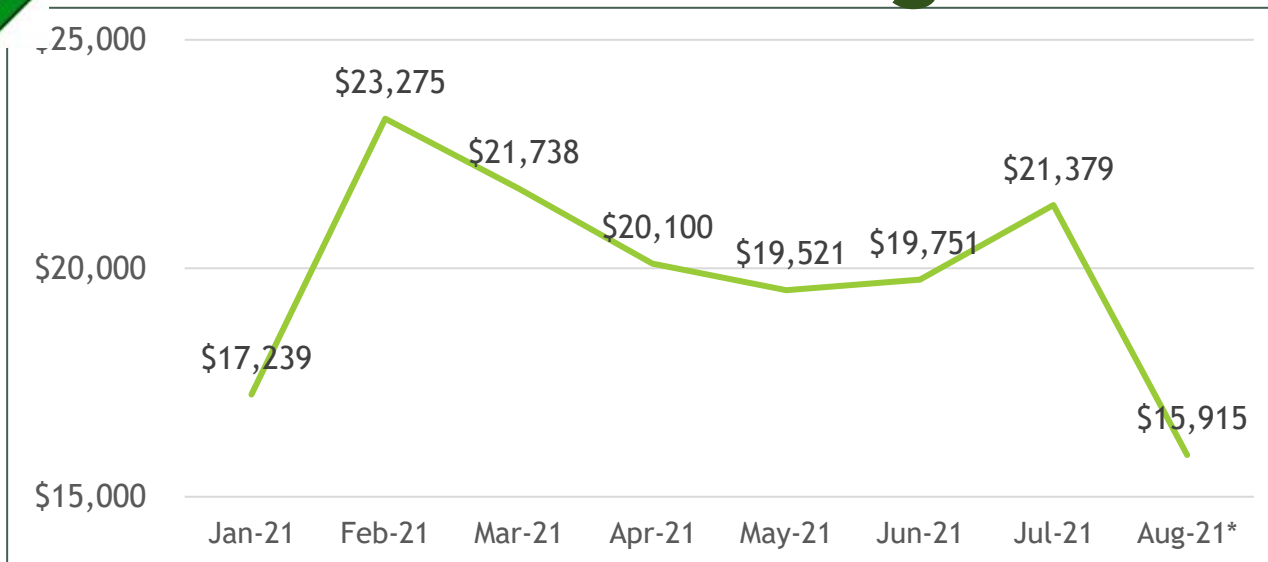
502kWp (installed capacity) x 4.5h (average peak sun hour) x 365 days x 82% (efficiency factor)
= 676,119kWh / year

Calculation:

RM240,022.00 = 676,119 kWh x RM 0.355 (E2 Peak Tariff)



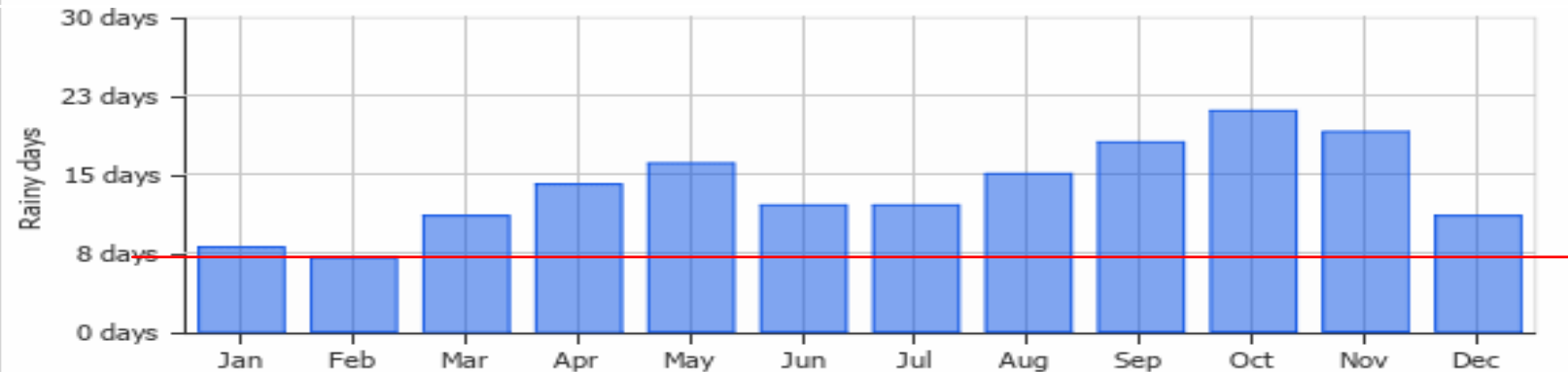
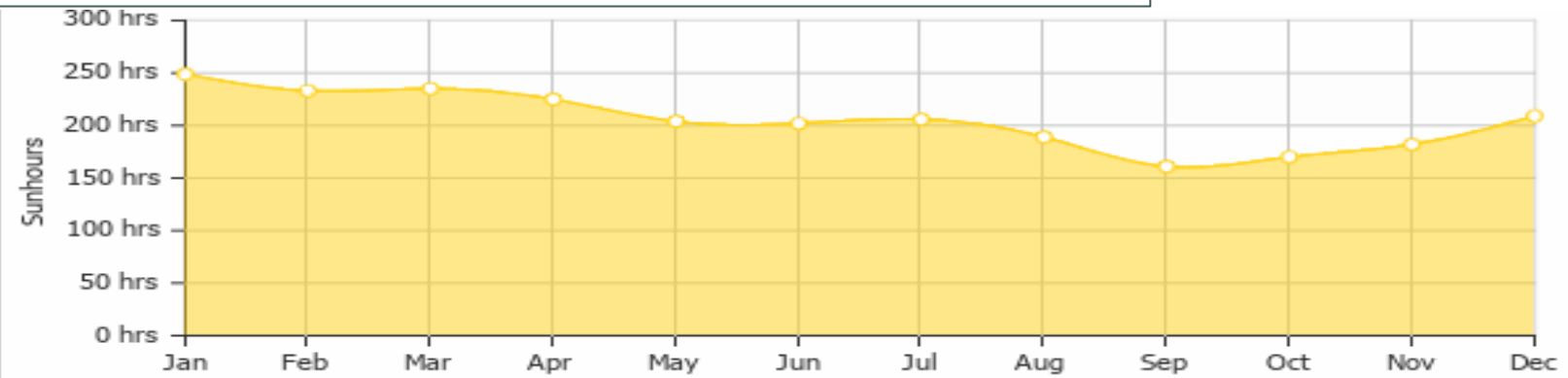
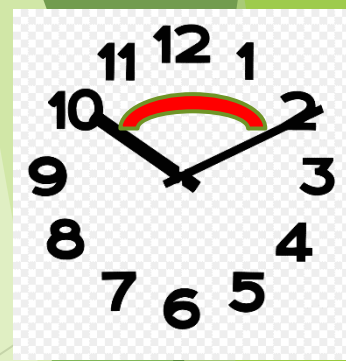
Actual Cost Savings from Solar PV Systems



Total Cost Saved
from Jan 2021 - Aug 2021 =
RM158,918
or RM19,864 per month

Aug-21* - Mostly cloudy & rainy days

10am - 2pm
Peak Hours



Thank You

in collaboration with MRC on
the successful installation of
the Solar PV Systems

