

# Centralized Solar Photovoltaic System for Highway Eco-lighting



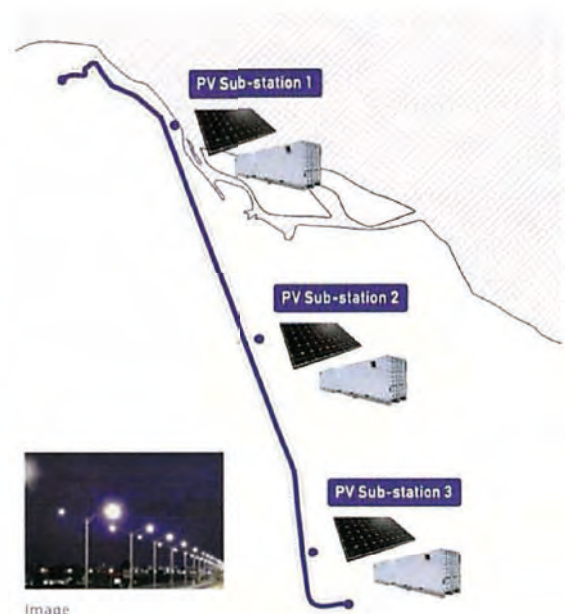
PV Sub-station Mitsubishi Electric PV

PV Sub-station

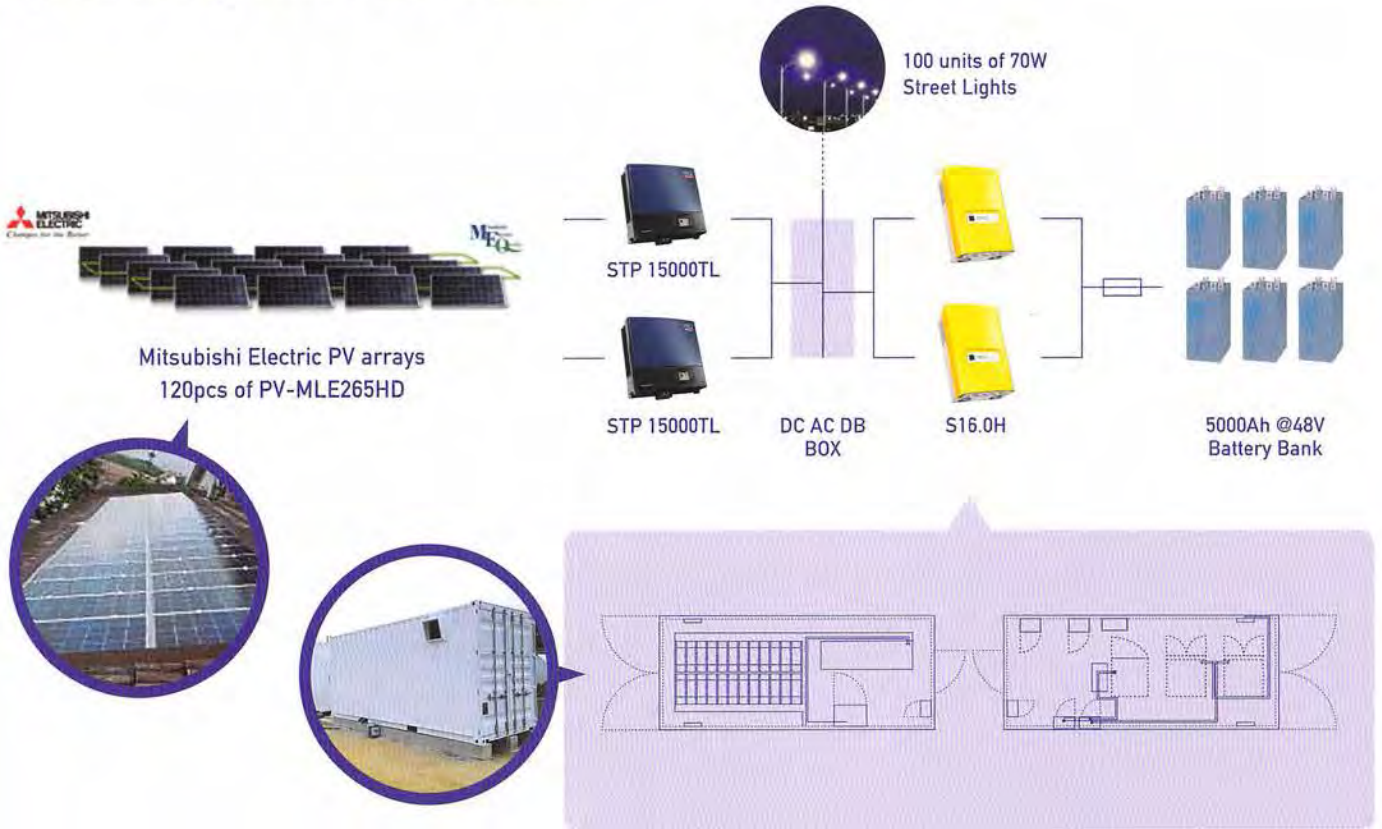
We proposed Centralized Solar Photovoltaic Systems to replace conventional street lights powered by utility grid. During the day, solar system will convert directly energy from the sun to electricity, this energy will be stored in battery bank in our containerized PV Sub-station. At night, electricity will be drawn from the battery bank to light up the LED street lights and the whole stretch of highway. This will ensure safe driving at night on the highway.

## By using Mitsubishi Electric's PV solutions....

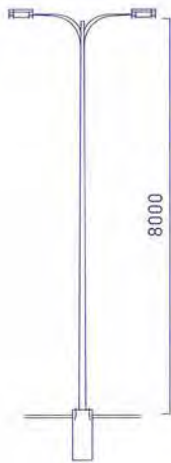
1. Long life and cost effective LED street lights
2. Easy to install "large and portable power supply system"
3. Control, Switchgears and battery bank are in weather proofed containerized sub-stations
4. Anti-theft (Centralised systems are equipped with CCTV; No visible, expensive systems are installed in open area without security checks)
5. Able to maintain longer battery life span (Batteries are stored in cool ventilated containers)



# System Diagram for sub-station



## LED Specification



Make:	Nichia
Power Consumption:	35W
No of Lamp:	2 units
Color Temperature:	5000K
Lumen Output:	1,897 lm
Pole Height:	8m

## Street light installation reference



Location: Throughout Singapore  
Solar module: Mitsubishi Electric  
Client: Urban Redevelopment Authority  
Application: Car park signage



Location: Singapore  
Solar module: Mitsubishi Electric  
Client: Mitsubishi Electric Building  
Application: Street Lighting



Location: Throughout Singapore  
Solar module: Mitsubishi Electric  
Client: National Parks Board  
Application: Park signage



Location: Singapore  
Solar module: Mitsubishi Electric  
Client: National Parks Board  
Application: Jetty Lighting



Location: Middle East  
Solar module: Mitsubishi Electric  
Client: McLaren  
Application: Street Lighting



Location: Middle East  
Solar module: Mitsubishi Electric  
Client: Petrofac  
Application: Street Lighting



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