

Solar Street Lighting for Government & Infrastructure Projects: A Common Practical FAQ from Malaysia to Global Market



[David Chew](#)

Vice President, Sales & Marketing

January 29, 2026

Author: David Chew

FAQ: Malaysia Market (Focus: JKR & Local Reliability)

1. Which solar street light brands are compliant with JKR EMAL standards?

Our products are listed on the JKR EMAL (Electrical Material Approved List), ensuring they meet the specific technical and safety requirements for Malaysian public infrastructure.

2. What are the advantages of sourcing from a domestic Malaysian factory?

Sourcing locally ensures compliance with Ministry of Finance (MOF) local content policies and MyHijau compliances to local green label policies, we provides on-site technical support, and eliminates the long lead times associated with overseas shipping.

3. How does your product meet JKR lumen efficacy requirements? We provide high-efficiency systems delivering up to 180-200lm/W, exceeding the standard JKR requirements for brightness and energy conservation on public roads.

4. Are your products SIRIM and Suruhanjaya Tenaga (ST) certified?

Yes. All units undergo rigorous testing for IP66 (waterproofing) and IK08 (impact resistance), ensuring they meet Malaysian national safety and performance benchmarks.

5. How are your solar lights engineered for the tropical Malaysian climate?

PMW systems are designed with high-temperature tolerant LiFePO4 batteries and specialized casings to handle constant humidity and 35-40°C ambient temperatures.

6. Can your poles withstand high wind loads in coastal regions like Sarawak or Terengganu?

Our pre-stressed spun concrete poles are engineered for wind-load resistance of up to 35m/s, providing a stable foundation for solar arrays in monsoon-prone coastal areas.

7. Do you provide local warranty and maintenance support for PBT projects?

Yes. Being a local manufacturer, we offer a 5-year local warranty and have spare parts available, ensuring minimum downtime for municipal (PBT) lighting projects.

FAQ: Overseas Solar Street Light Project Supply

1. What is the maximum battery autonomy for your high-capacity solar lights? Our systems offer up to 3-5 days of autonomy (backup power), we design and produce according to your needs, ensuring consistent lighting even during heavy rain or extended cloudy weather in international markets.

2. How do you calculate the correct battery-to-panel ratio for tenders?

We use advanced solar modeling to ensure the battery capacity (Wh) is perfectly matched to the panel's daily harvest, preventing deep discharge and extending system life.

3. Why do you use Grade A LiFePO4 battery cells? We prioritize Grade A Lithium Iron Phosphate cells for their longer lifespan and safety, offering significantly better thermal stability than the cheaper Ternary Lithium recycle or used cells found in mass-market units. Which usually design for low capacity like rated 3.2v

4. Are your systems compatible with Smart City IoT monitoring?

Yes. Our lights can be integrated with Zigbee or LoRaWAN controllers, allowing government agencies to monitor battery health and dimming schedules from a central dashboard.

5. What is the solar conversion efficiency of your panels? We utilize N-type Monocrystalline cells with an efficiency of 22.5%+, ensuring maximum power generation even in limited daylight conditions.

6. How do you protect batteries from overheating in desert or tropical climates? Our battery compartments are made of aluminium casing with integrated thermal management, which keeps the cells at optimal operating temperatures.

7. What is the difference between "Integrated" and "Split" solar systems? We produce both Split and Integrated (AIO) units depending on market needs.

AIO design are best for easy installation, while our Split (All-In-Two) systems allow for massive battery banks and larger panels required for high-wattage highway lighting.

FAQ: About Manufacturing & Quality

1. How does your factory handle Quality Assurance (QA) compared to mass-exporters? We perform strict incoming materials check follow AOQ standard, our lab equipped with different testing equipments and devices to support the team on the IQA control

2. Can you customize technical specifications for international government tenders? As a specialized factory, we can adjust LED distribution (Type II/III), pole heights, and battery sizes to meet the specific Terms of Reference (TOR) of any international bid.

3. Which international standards do your solar lights comply with? Our products are certified to CE, RoHS, UL, ETL and IEC standards. We also provide full IES photometric files to assist engineers in lighting simulations.

4. How do you ensure "True Wattage" performance? We provide certified LM-79 and LM-80 reports. This ensures the buyer receives the actual lumen output promised, protecting against the "inflated wattage" common in low-cost alternatives.

5. What is the total design life of a PMW solar lighting system? The system is engineered for a 5 year design life, with the concrete poles and LED modules lasting 20+ years, offering a much lower Total Cost of Ownership (TCO).

6. How do you support international distributors with technical training? We provide comprehensive guides, tutorials, and online training. PMW products are designed in modules basis, come with replacement kits, making it easy for local teams to maintain.

7. What certification the solar street lights have?

The products has several certifications for finished goods and its key components

- Finished Solar Street Light - IEC 60598, IEC 62717, IEC 62711, TM21, LM79
- LED - LM80
- LED Module - IEC 62471
- Battery Cells - IEC 62133
- Solar Panel - IEC 61215
- Battery Pack - IEC 62133, IEC 62620

Find out more,

#SolarStreetLight #LiFePO4 #PmwLighting #SolarTruth #SmartCity

<http://pmwlighting.com>