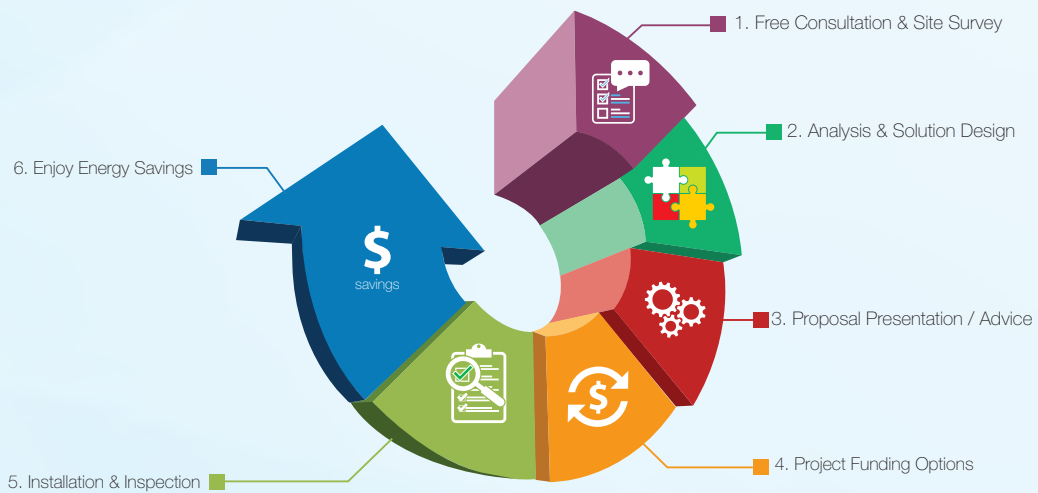


We Can Make Your Business Energy Efficient



Energy Efficiency & Sustainability through innovative technologies



CRYSTAL SOLAR ENERGY™
POWER SOLUTIONS

Commercial, Domestic & Batteries

www.crystalsolarenergy.com.au



HOW CAN WE HELP YOU, AND WHAT MAKES US DIFFERENT?

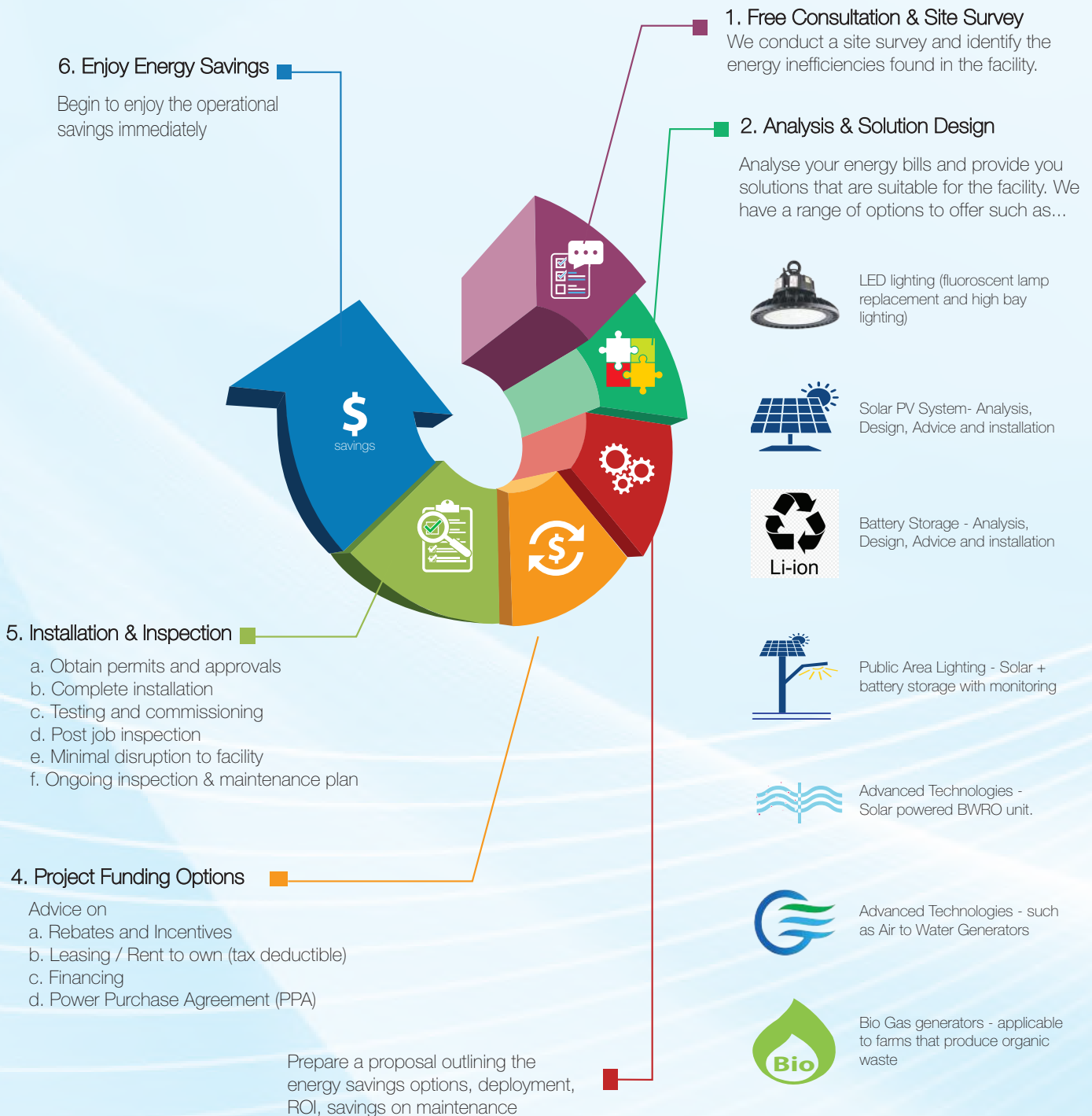
Crystal Solar Energy is founded and based on the philosophy of providing Energy Efficiency and Sustainability through innovative technologies and processes. Energy efficiency simply means using less energy to perform the same task – that is, eliminating energy waste. Energy efficiency brings a variety of benefits: reducing greenhouse gas emissions, reducing demand for energy imports, and lowering our costs on a household and economy-wide level. While renewable energy technologies also help accomplish these objectives, improving energy efficiency is the cheapest – and often the most immediate – way to save money. There are enormous opportunities for efficiency improvements in every sector of the economy, whether it is buildings, transportation, industry, or energy generation.

Unlocking the potential of energy efficiency, cogeneration and demand management requires specialists that know how to deliver projects while supporting their clients' core goals.

Identifying energy efficiency opportunities at specific buildings and sites and working with clients to improve facilities, equipment, processes and behaviour. Developing and manufacturing advanced energy efficient products using proven methodologies to identify areas of energy savings and provide solutions.

Crystal Solar Energy is actively exploring new technologies and products to improve energy efficiency and sustainability.

We welcome the opportunity to explore how Crystal Solar Energy can work for you.



LIGHTING BROCHURE

CSE Sustainable Solutions - a division of Crystal Solar Energy is actively involved in energy efficient lighting. Lighting solutions range from Anti bacterial LED lights, Anti Mosquito Lights, 3 Wattages in One - High Bay lights, Flat Panel Lights for offices, schools, Solar LED Lighting solutions are listed in this catalogue. These products are developed and tested thoroughly and comes with a robust warranty. This product literature will be updated as more products are developed and made available.

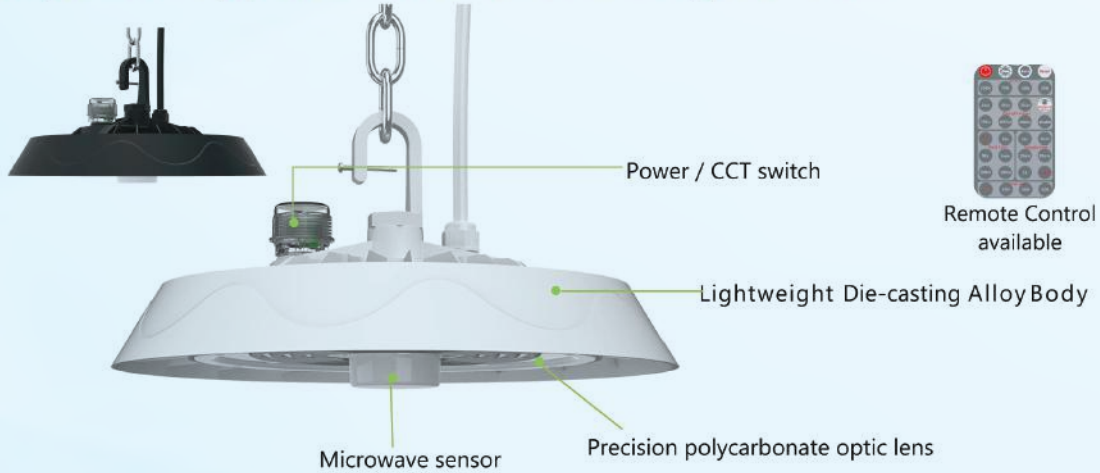
3 in 1 HIGH BAY LIGHTING

MaxBay SERIES

3 Power 3 CCT tunable



LED High Efficiency Sensor Highbay High Efficacy, Smart MW Sensor & Energy Efficient



PRODUCT FEATURES

- White / Black color
- 1 CCT&3 power / 3 CCT&3 power tunable
- Wide choice of power- 80W, 100W, 120W, 150W, 180W, 200W, 240W
- Philips High efficacy LED
- 5.8GHz Remote controlled motion & daylight microwave sensor (plug-in type) - 12m range
- Low mass die-cast aluminium alloy body
- Rapid dissipation heat-sink
- Polycarbonate optic lens with 60° 90° 120° beam angle
- IP65 Ingress / weather protection
- 1.5m Flex and Plug pre-wired

CUSTOMER BENEFITS

- Convenient to prepare the inventory, then save cost and warehouse space.
- Sharp focused light yet low glare lighting over a long life span of >54,000 Hours
- Maximum reduction in energy consumption
- No replacement lamp or maintenance costs
- Sensor adjustment with remote from ground level

CONTRACTOR BENEFITS

- Quick and easy installation
- Light Weight for easy handling and installation
- No heights to scale or scissor-lifts to adjust the dimming levels or sensor setting (remote controlled from ground level)
- Enhanced Energy Savings incentive benefits with smart controls

| Power Factor | Colour Temperature | Power | Light Efficacy | Beam Angle | Temperature Range | Operating Humidity | Ingress Protection | Colour Rendering | Operating Life |
|--------------|--------------------|----------------|----------------|--------------------|-------------------|--------------------|--------------------|------------------|----------------|
| 0.95 | 3 CCT Tunable | 3 Watt Tunable | ~130LM/W | 60° 90° 120° | -20°C 50°C | <95% | IP65 | 80 | >54,000 |

| Part Number | HL-HB23SX | HL-HB23MX | HL-HB23LX |
|-------------------|--|----------------|----------------|
| Wattage | 80W-100W-120W | 100W-120W-150W | 180W-200W-240W |
| Luminous Efficacy | 130lm/w | | |
| CCT | 3000K/4000K/5000K/5700K or 3 CCT Tunable | | |

3 in 1 HIGH BAY LIGHTING



CCT/Power Switch Setting

| Switch | Small heatsink | Middle heatsink | Large heatsink |
|--------|------------------------------|-------------------------------|-------------------------------|
| | 4000K 5000K 5700K | 4000K 5000K 5700K | 4000K 5000K 5700K |
| | ON ON ON | ON ON ON | ON ON ON |
| | | | |
| | 1 2 1 2 1 2 120W 80W 100W | 1 2 1 2 1 2 150W 100W 120W | 1 2 1 2 1 2 240W 180W 200W |

Sensor Specifications



Open the PC lens, you can install the Sensor by yourself

Detection Pattern

Typical installation height 12m

This figure indicates the maximum distance at the highest mounting height with 100% sensitivity.

Technical Data

| | |
|---------------------|-----------------------------|
| Microwave Frequency | 5.8Hz |
| Mounting Height | 12m |
| Sensitivity | 25%/50%/75%/100% |
| Daylight sensor | 50lux/100lux/300lux/Disable |
| Hold time | 30s/90s/5min/10min/30min |
| Twilight time | 10s/5min/10min/30min/1h/+∞ |
| Twilight level | 0%/10%/30%/50% |

Factory default Setting:

- Sensitivity=100%
- Daylight sensor=disable
- Hold time=90s
- Twilight time=5min
- Twilight level=10%



Automatically ON/OFF function:

When "twilight level" set at 0%, it becomes ON/OFF control. Light on when detect movement and off after people leave.

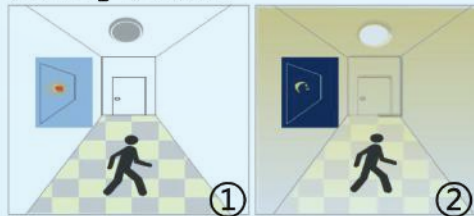


With sufficient daylight, even when motion detected, light remains OFF.

With insufficient daylight, when motion detected, light ON.

After the last detection and the present hold time elapsed, light OFF.

Dimming function:



With sufficient daylight, even when motion detected, light remains OFF.

With insufficient daylight, when motion detected, light ON.



After the last detection, the light will be dimmed down to the stand-by dimming level (10%,30%,50%) after hold time

After the stand-by period, light OFF.
(If set "twilight Time="+∞", light will work on Twilight level ③, Don't OFF

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