

# POLE POWER™



## distributed solar generation system

OPTIMISING NETWORK PERFORMANCE



**POLEPOWER™** is an innovative new distributed photovoltaic generation system designed to enhance the operation of distribution networks and assist in meeting peak load demands.

**POLEPOWER™** systems attach directly to electricity distribution poles and feed energy generated into the low voltage distribution system.

**POLEPOWER™** maximises unused space on electricity distribution and streetlight poles to generate clean, green energy close to the point of use. This offsets line losses within the network and contributes towards meeting customer load requirements. Systems can be readily mounted on wooden, concrete, or steel poles.

The product features a unique curved photovoltaic module which is non conductive and has low reflectivity. This non-glass module is highly durable, shade tolerant, and is designed to perform well in high ambient temperature conditions. **POLEPOWER™** is low maintenance and can readily be incorporated into existing network asset management policies and procedures.

**POLEPOWER™** offers utilities a highly visible way of demonstrating commitment to reducing the greenhouse gas emissions associated with the operation of electricity distribution networks.

### DISTRIBUTED GENERATION

**POLEPOWER™** is a distributed photovoltaic (PV) generation system for use within electricity distribution networks

### UTILITY GRADE

**POLEPOWER™** uses high reliability, low risk, proven technology suitable for application with utility networks

### EASILY SCALABLE

Solar power generation is limited only by the number of poles carrying LV conductors

### OFFSET LOSSES

Power generated within the network offsets line and transformer losses

### ASSET MANAGEMENT

**POLEPOWER™** asset management requirements can be readily integrated into existing asset management policies and procedures

### SAFETY

**POLEPOWER™** has a low risk profile and is the best way to integrate photovoltaics into electricity distribution networks

### GREEN ENERGY

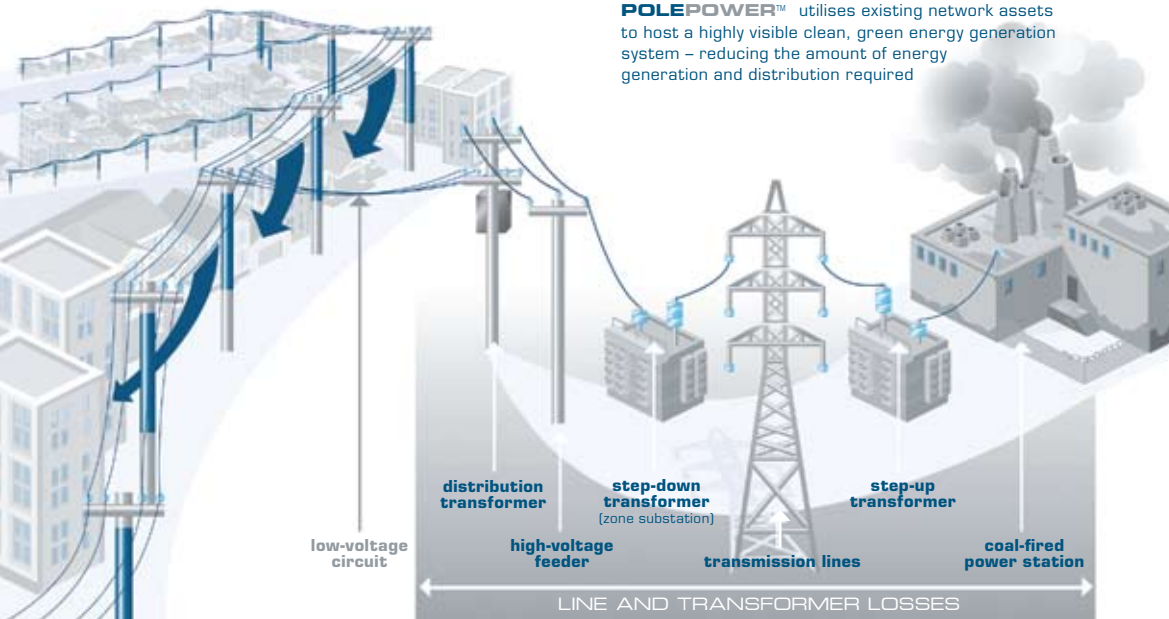
Highly visible source of zero emission renewable energy



## FEATURES AND BENEFITS

- Safe, simple and reliable technology
- Low maintenance and operating costs
- Easy to install on existing or new poles
- Can be installed in areas where distributed generation is most beneficial to the electricity distribution utility
- Located close to customers – meets loads directly and offsets line losses
- Can be used to reduce morning or afternoon load peaks by orientating towards the east or west
- Cloud cover has a reduced impact on system output when units are distributed over a large geographical area
- Supports original distribution design by reducing load flows proportionally
- No additional land tenure required
- No additional mounting frames required
- No requirement to negotiate access to customer roofs
- No increased wind loading on poles
- Smart grid compatibility

## THE CLEAN ADVANTAGE



## SPECIFICATIONS



### AC voltage

- 240 Volts

### Frequency

- 50Hz

### Typical energy generated per kWp\*

- Melbourne: 1260 kWh or kVARh per annum
- Brisbane: 1050 kWh or kVARh per annum
- Cairns: 840 kWh or kVARh per annum

### Typical number of poles used per kWp\*

- 7

### Dimensions

- Module: 5550mm x 396mm (circ)
- Control Box: 370mm x 275mm x 140mm

### Weight

- Module: 41kg
- Control Box: 4kg

### Certifications and standards

- Safety IEC 60950, UL 1741, AS 3260
- EMC EN55022 Class B, FCC Part 15 Class Grid Connection UL 1741, AS 4777

### Design life

- 25 years

### Inverter reliability

- MTTF (design) 10<sup>6</sup> hours

### Warranty

- Solar Module – 20 years
- Balance of System – 2 years

\* Energy output is dependant on location and site specific conditions. Figures provided are indications of typical sites only. Smart grid enabled models are capable of supplying kW's or kVAR's.

### NO WIND LOADING

The curved profile of **POLEPOWER™** solar modules minimises the additional wind loading on poles

### PATENTS PENDING

**POLEPOWER™** is designed in Australia for Australian conditions

### TURNKEY SOLUTIONS

Complete solutions can be provided including scoping, installation, operation and maintenance

### VAR CONTROL

Smart Grid enabled **POLEPOWER™** systems are capable of being dynamically controlled to feed active or reactive power into the network as required

### PROFESSIONAL

**POLEPOWER™** has been developed by distribution utility engineers for distribution utility applications

### THE CLEAN ADVANTAGE

**POLEPOWER™** has a low risk profile and is the best way to integrate photovoltaics into electricity distribution networks

## FOR MORE INFORMATION



For more information about **POLEPOWER™** please visit our website or contact us on:

P: +61 (0)7 4041 6266

F: +61 (0)7 4041 6296

E: info@polepower.biz

