

# LIGHTING MONITORING AND CONTROLS

VALUES SMART POWER

LEADERSHIP

CUSTOMER RESILIENCE
SOLAR PROOFING
APPLICATIONS
COMMITMENT
PANELS



### LIGHTING MONITORING & CONTROLS

## Standard Bluetooth Monitoring / Control Option (Included in Retroflex System)

ClearWorld's smart lighting monitoring and control can monitor and control multiple luminaire types. Our primary network control uses 2.4 GHz Bluetooth networking. You can monitor and control the extensive features of your lighting with built-in Bluetooth in the pole by going near the pole and pairing it with your smartphone or tablet via the VictronConnect app. These lighting controls have been used with different types of luminaries in the past.

ClearWorld's smart lighting controls are fully programmable and are capable of PWM and 0-10V dimming as well as ON/OFF functionality. This is done by connecting to the pole using the VictronConnect app. For remote installations - even when there is no internet connection or phone signal nearby - you may be able to monitor and control your lighting by a Bluetooth connection. The user can then schedule the lights to turn ON/OFF and dim according to their needs and the application. This system works without an Internet connection which is a plus.

ClearWorld's smart lighting monitoring and controls are fully wireless and are based on a 2.4 GHz Bluetooth networking.

ClearWorld's smart lighting monitoring and control system is a plug and play design and is a set it and forget it solution. The user does not have to worry about changing anything after installation. And it is also easy to use.

ClearWorld's smart lighting solution has the ability of real time system monitoring. Real time statistics of battery voltage and current, solar panel voltage and current, load voltage and current, power produced by the solar panel as well as power consumed by the load can be displayed in a smartphone or a tablet via the app. The status of each light as well as other information can be viewed in the app.

ClearWorld's smart lighting solution allows the user to monitor system data such as energy production, energy consumption, voltage, current and light status wirelessly. This data can be monitored by the user in real time.



# LIGHTING MONITORING & CONTROLS (CONT.)

Our system runs off solar power completely and is totally off-grid, so there are no power supply requirements.











# OPTIONAL CLEARWORLD PLATFORM-AS-A-SERVICE (PaaS)

# REMOTE MONITORING / CONTROL OPTION (ADDITIONAL)

ClearWorld's secondary network control uses either Ethernet or Cellular networking. You can remotely monitor and control the extensive features of your lighting via the Internet with your smartphone, tablet, or PC via the ClearWorld PaaS.

The user can remotely monitor and control their lighting from a centralized location from anywhere in the world via the ClearWorld PaaS from their smartphone, tablet, or PC. You will need an Internet connection and an Ethernet or Cellular network to the poles to realize remote monitoring and control of all the poles from anywhere in the world.

The customer has two options for network connectivity for remote monitoring and control: Ethernet and Cellular.

**Ethernet connectivity:** the Ethernet network and the Internet connection must be provided by the customer.

**Cellular connectivity**: the Cellular network is provided by ClearWorld. The Cellular data charges must be paid by the customer.

ClearWorld PaaS remote monitoring and lighting controls has a dashboard to view near real time statistics of battery voltage and current, solar panel voltage and current, load voltage and current, power produced by the solar panel as well as power consumed by the load. The dashboard also allows to view the status of each light as well as other information.

ClearWorld PaaS remote monitoring and lighting controls are fully programmable and are capable of PWM and 0-10 dimming as well as ON/OFF functionality. The user can schedule the lights to turn ON/OFF and dim according to their needs and application remotely from anywhere in the world via the ClearWorld PaaS dashboard.



# **CLEARWORLD PAAS DASHBOARD**





