



# Clear Blue Technologies

## Smart Off-Grid OEM System Components



Clear Blue combines solar and wind energy with the proven advantages of communications and cloud software technology to power reliable, intelligent, and high performance off-grid lighting, security, and mobile solutions. Our controller and Illumience cloud service propel off-grid systems to an entirely new level of performance and reliability.

All Clear Blue systems include Illumience, which provides real time monitoring, control and proactive maintenance of the off-grid system over the Internet from any PC or smartphone, delivering unmatched reliability and performance.

### System Components (see options on page 2)

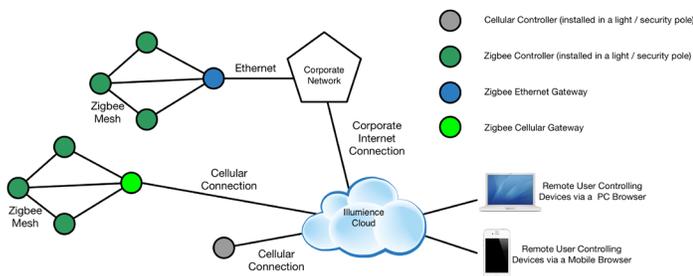
Smart Off-Grid Controller



Access to Illumience Cloud Software



Built-in Communications



Antenna



Temperature Probe



Cable Harness



## Smart Off-Grid OEM System Components Options

### *Controller Options*

- C1 - Solar Controller - Single Load (Mesh)
- C2 - Solar Controller - Multi-Load (Mesh)
- C3 - Solar Controller - Multi-Load (Cellular)
- C4 - Hybrid Wind / Solar Controller (Mesh)
- C5 - Hybrid Wind / Solar Controller (Cellular)

### *Smart Off-Grid with Illumience Cloud Software*

Used to monitor site performance, manage and proactively maintain systems over the Internet. Clear Blue manages Illumience as Software as a Service and provides access to OEMs or end users, who will be trained on how to utilize Illumience to manage their installed systems. The OEM does not provide any IT infrastructure or have to install any software locally.

Clear Blue's Smart-Off Grid controller together with the Illumience software eliminate all the variables which shorten battery life, with its optimized charge profiles, life cycle management, short circuit and overload protection and low voltage disconnect capabilities. It also can support higher wattage lights with smaller batteries and less power draw due to its sophisticated power management and flexible lighting profiles, delivering the brightest light in the industry.

### *Systems Support*

The Clear Blue OEM client or end customer performs First & Second Level Support for monitoring and management, and Clear Blue engineers provide Third Level support at all times.

Clear Blue can provide First & Second Level Support at an additional fee.

### *Communications Options*

- Cell Per Pole (C3/C5) - each controller has a SIM chip to communicate to the local wireless network
- Mesh Controller / Cellular Gateway (C1/C2/C4) - each controller has a MESH chip which allows the controllers to communicate together in a cluster to a single Cellular Gateway. The Cellular Gateway communicates all of the performance data for the poles in the cluster.
- Mesh Controller / Ethernet Gateway (C1/C2/C4) - each controller has a MESH chip which allows the controllers to communicate together in a cluster to a single Ethernet Gateway. The Ethernet Gateway, housed in a building that has Ethernet capability, communicates all of the performance data for the poles in the cluster, eliminating cellular charges

### *Antenna*

The antenna needed to support the selected communications option is also provided. A variety of antennas are offered with different cable lengths and mounting options.