

Smart Off-Grid Solar and Wind Lighting: The Brightest Lights in the Industry



Clear Blue's Illumient advanced off-grid lighting solutions deliver the lowest cost of ownership and highest performance in the market. Smart Off-Grid software enables the lights to be *managed, controlled and pro-actively maintained* over the Internet, delivering unmatched reliability, and long lasting system performance.

- Proven in the field, in extreme environments from cold to hot, in the city and in rural environments
- Clear Blue ensures all systems are sized properly for their specific location and load
- Lower upfront battery cost, and guaranteed longer battery life
- Smart Off-Grid is the most comprehensive, advanced off-grid management system in the market

The Choice is Yours!

- Beautiful metal or spun concrete poles
- Pathway, parking lot, roadway or street light heights
- Use any luminaire - supports both A/C and D/C lights
- Variety of battery technologies
- Single, dual solar or solar/wind hybrid configurations
- Motion detection option
- Smart City / Internet of Things device support - WiFi, security cameras, pedestrian counters, sensors and more

Smart Off-Grid



Smart City and Internet of Things Devices



Illumient lights can support two load ports that can be configured independently. Each load is individually managed and can be set with multiple light dimming functions (for lighting) or set for security camera and other non-lighting loads such as traffic signs, emergency power, agriculture, weather and industrial or commercial monitoring loads. An option for grid connect is also available, which allows for grid power to top up batteries in case solar panels are not able to generate enough energy.



Optional Motion Detection

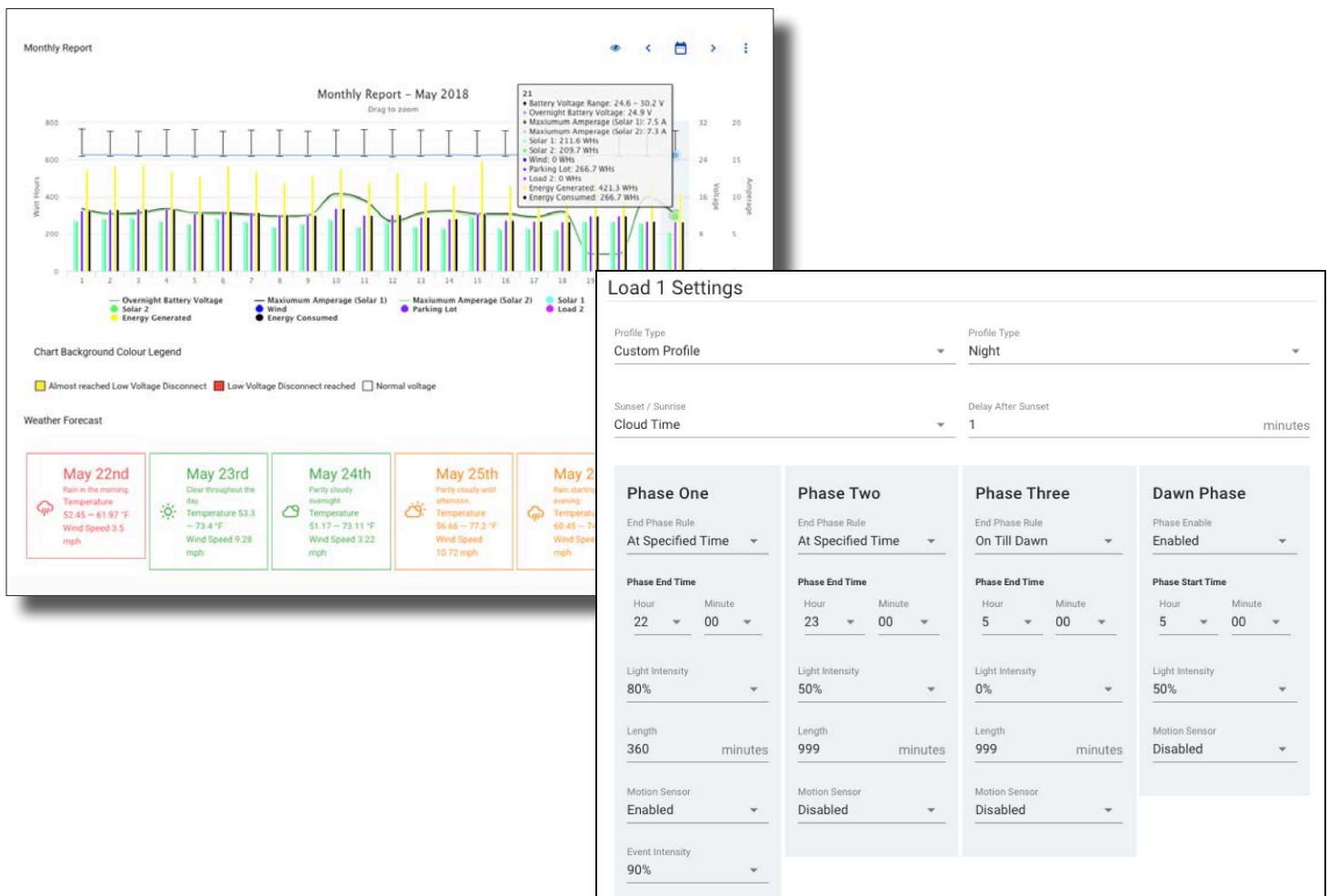
- Lights turn off when no one is around, turn on when someone approaches
- Reduces battery draw when lights are not needed
- Motion sensors help with liability issues and safety
- Data captured provides valuable information on light usage, traffic patterns and more

Luminaires - Use any light you prefer!

The Illumient Smart Off-Grid system works with any light a customer wants (either D/C or A/C power). We also offer a variety of luminaire choices. They range from 20 - 150 watts, yet provide the same amount of light on the street as HID lights that have much higher wattage. The long lasting LED effectively eliminates normal maintenance required for HID lighting. Options include pendant lights, pole tops and more.

Illumience Real Time Monitoring, Management, and Control

Illumience brings smart grid technology to off-grid lighting, providing unmatched reliability and performance. Unique in the market, our real time remote management and control system tracks and optimizes performance, enables lighting profile changes at any time, includes our patented weather forecasting, and much more – all accessible via the Internet from a computer or smartphone. Our experts provide ongoing managed services to ensure your lights work properly from the initial, validated installation through the life of the systems.



- All systems connect to the Internet via built-in, low-cost cellular or mesh communications, no setup required!
- Controls all power and load functions to optimize performance, set and change lighting profiles and dimming
- Automatically identifies and diagnoses issues for fast and convenient troubleshooting, sending real time alerts and alarms when needed
- Extensive reporting features, both detailed and summary, daily and monthly. Stored data history enables ongoing optimization and easy troubleshooting.
- Software runs in the cloud, requiring no installation or specialized training to use. Highly secure network setup.

Clear Blue Smart Off-Grid Makes the Difference

Issue	Without Smart Off-Grid	With Smart Off-Grid
Smaller Batteries	30-50% larger batteries are required, the lack of real time alerts and dynamic load shedding forces inefficient asset utilization.	Smaller, less costly battery configurations can be used as seasonal and extreme weather events are handled by Smart Off-Grid. Load shedding enables energy optimization.
Longer Battery Life	Lack of sophisticated power management and proactive maintenance reduces battery life. More frequent replacement means higher costs	Power and lifecycle optimization and proactive maintenance ensure longer life. Includes ability to detect and perform equalize charge remotely.
Higher Uptime & Reliability	No way to know if the system is working, no ability to do proactive maintenance.	24x7 automated monitoring. Automatic alerts and alarms sent via text and email. Proactive maintenance ensures high performance and reliability.
Lower Installation Cost	Complex wiring. Experienced personnel needed. Primitive testing tools, if any.	Plug & play pre-packaged cable harnesses. Smartphone app validates proper installation with 14 simultaneous meter measurements. No training needed.
Lower Ongoing Maintenance Costs	Because no data is available to diagnose a root cause, multiple trips to the pole occur, with associated truck & personnel cost. Expensive components are often swapped unnecessarily with this iterative approach.	Real time data on all components plus data history. Troubleshooting occurs remotely, in advance, from an office. If a part is required, that part accompanies the first service call. More than 70% of issues are managed remotely.
Ongoing Service & Support with Every System	You're on your own.	Superior service with every system, and a partner before, during and after the sale.

Clear Blue systems are in 35 countries around the world.

