

INTEGRATED SOLAR LIGHTING AND SATELLITE CONNECTIVITY FOR AUTOMATED DATA COLLECTION AND CRITICAL MONITORING

Innovative new Internet of Things (IoT) devices and applications are emerging almost daily across global industries, enabling unprecedented actionable data insights for the forward-thinking organizations that are deploying these solutions. Within the industrial IoT marketplace, innovation in automated lighting is transforming the way organizations operate and deliver services, including secure remote monitoring of installations and software applications that run across multiple communications networks (satellite, terrestrial, cellular or GSM networks).

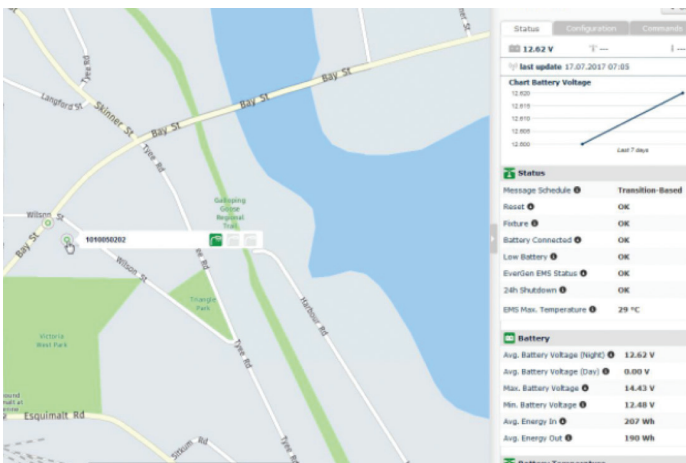
Savvy asset managers within government and industrial-based organizations are continually looking for ways to affordably monitor and manage critical data from their remote assets. Innovative solution providers working on the



The Sol EverGen offers reliable lighting solutions for perimeter, security, street, pathways, parks, parking lots, and general area lighting for outdoor applications.

leading edge of the new IoT ecosystem are stepping up to help these organizations compete in today's global data-driven marketplace with connected devices that enable them to work better, faster and smarter. Carmanah, a leading solar outdoor lighting company in North America, has developed the EverGen™ M Series, an innovative new solar lighting system integrated with satellite technology. Sold under the Sol brand name, the EverGen system can communicate automated status updates at predefined intervals as well as report critical monitoring situations from locations well beyond traditional wireless coverage.

The new EverGen lighting system provides reliable light output and maintenance-free operation. Using renewable energy from the sun, the EverGen provides a lighting alternative that minimizes operating costs and environmental impacts. Using the EverGen's satellite capability, organizations have access to their solar lighting system data, enabling better business decision making and reduced equipment downtime. Users receive an automated maintenance notification over the Globalstar satellite



The LightGuard remote monitoring package provides an email notification whenever an EverGen light isn't working as expected. For those requiring ongoing monitoring needs, the data can be viewed through the LightGuard cloud-based dashboard, featuring a map view of each project and the systems within it.

network via email when an EverGen system isn't working as expected. For ongoing monitoring needs, the data can be viewed through a cloud-based dashboard called LightGuard. With visibility into the status of the EverGen systems, managers can more efficiently deploy workers to remote locations, eliminating unnecessary physical checks on lighting equipment and lowering staffing and associated travel costs.

Each EverGen system is integrated with a simplex SmartOne satellite data modem from Globalstar that enables connectivity for data monitoring. The satellite modem operates over Globalstar's modernized, low earth orbit (LEO) satellite network, providing the device with reliable, power-efficient data transmission capability from virtually anywhere.

As the number of connected devices in industrial applications continues to grow exponentially, the potential for innovation is endless. Integrated solutions like the Sol EverGen, which allow organizations to proactively manage remote lighting assets through automated data collection and critical monitoring, are leading the way forward, driving value through cost savings and more efficient, streamlined operations and service delivery.

Carmanah designs, develops, and distributes a portfolio of products focused on energy optimized LED solutions for infrastructure and solar-powered engines for remote asset tracking devices and data transmissions. Since 1996, the company has earned a global reputation for delivering durable, dependable, efficient, and cost-effective solutions for industrial applications that perform in some of the world's harshest environments. In 2014, Carmanah purchased Sol Inc, another solar outdoor LED lighting company formerly based in Florida, which is now a wholly owned subsidiary of Carmanah. For more information, visit www.carmanah.com/telematics and www.solarlighting.com.



For the cut-line use Globalstar SmartOne Data Modem

SATELLITE IOT/M2M DATA SOLUTIONS

GLOBALSTAR ENABLES M2M CONNECTIVITY

For resource companies needing M2M (machine to machine) solutions for fixed and mobile assets in remote locations, proven satellite global transmitting devices such as the STX3 are being used in innovation solutions such as the EverGen.

Small, affordable and with low-power requirements, the chip technology used in Globalstar's satellite transmitters are designed to be easily integrated into a broad range of M2M devices and applications for remote sensing, tracking and monitoring of assets such as oil and gas wells, meters, weather stations, etc.

The STX3 enables up to the minute status and data reporting to control centres for streamlined productivity, cost-savings and resource efficiencies, without having to send an employee to the site.

For more information on **Globalstar** devices, visit: **Globalstar.ca**

Globalstar products are distributed in Canada by Globalstar Canada Satellite Co., a company that offers satellite voice and data services to commercial and recreational users in more than 120 countries around the world. For more information, visit www.globalstar.ca.