

# Remote EMS

The Remote Energy Management and Control System provides comprehensive solutions for on-line monitoring, control and analysis of large-scale ComEC and LEC installations over mobile networks and the Internet.



All access to real-time and historical data on PowerSines server is easily available to authorized users through a secure Web interface. Users can monitor remote ComEC and LEC A devices, analyse historical data, generate charts and Excel reports, as well as change program parameters and device configurations.

## Smart Data Analysis

The ComEC system provides high precision samples and measurements of all electric parameters, diagnostics and saving performance. Through the Remote EMS the user can monitor electricity consumptions and view savings data by days, weeks, months and years. Since the system continuously aggregates data from remote sites, the user is able to analyse electricity consumption patterns, compare electricity allocation between sites to detect anomalies and maximise energy savings.

## Alarms & Events

In the case of any abnormal behavior the Remote EMS will automatically send alarms directly to pre-designated mobile devices or email accounts to assure immediate attention and service.

## Scalable Solution

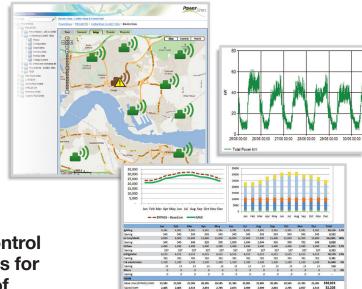
With PowerSines scalable solution there is no need to invest in the installation of a complex communications network, database or server platform at the onset. The Remote EMS system is offered under Software as a Service (SaaS) model enabling customers to start deployment with a few ComEC or LEC systems and grow with time into a large-scale, distributed network with minimal investment.

## Plug & Control

Communication with the PowerSines server is enabled via SIM card, provided by local mobile operators. To activate, simply insert the SIM card and start controlling the ComEC or LEC devices on-line.

# Data Security

The remote EMS data communication system is protected by the highest level of security enabled by GSM networks. Each authorized user can see and control only the devices assigned to them and only through a secure login into the system.



#### **Secure Web Access**

to on-line and historical data

## **Remote Configuration**

for all system parameters

#### Plug & Control

with a local SIM card

## Send Alarms and Events

by SMS and Email

#### **Scalable Solution**

based on the central server

## **Benefits**

Maximised electricity savings through on-line control

Fully protected by GSM and VPN network security

#### Software as a Service

enables deployment with the minimum initial investment

#### **Export data to Excel**

to build customized reports

# **Applications**

#### **ComEC & Remote EMS**

best suited for deployment at hotels, petrol stations, fast food and restaurant chains, coffee shops and stores.

#### **LEC A & Remote EMS**

provides control and monitoring solution for street & road lighting.

## GSM Gateway

The GSM Gateway is an Intelligent controller that connects to ComEC or LEC A though the RS232 to a mobile network.

The gateway reads and writes data over the Modbus protocol, continuously monitoring the ComEC/LEC data and status, and dynamically optimises data streaming over mobile networks. The GSM Gateway has digital and analog IO terminals for connecting and integrating additional devices such as meters and sensors into a global remote control solution.

The communication between the GSM Gateway and the central server take advantages of GSM/GPRS networks, IP protocols and VPN infrastructure over mobile networks ensuring a high level of reliability, security and quality of service.

#### PowerSines Web Server

The PowerSines Web Server is a central management platform that enables simultaneous communications with thousands of remote ComEC & LEC units.

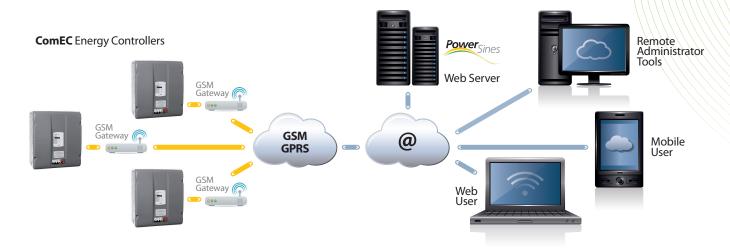
It provides a central repository for all on-line and historical data and offers advanced system administration tools. The Web server system is built around standard Internet platforms, Google GIS and Microsoft SQL database. The system is scalable, interoperable and can be installed at the customer's premises or at an ISP server farm.

PowerSines offers a SaaS (Software as a Service) model whereby customers can connect their controllers via GSM Gateways to the PowerSines central server without the initial investment of establishing a networking and server infrastructure.

#### Web-enabled GUI

The access to on-line and historical data is provided via a secure Internet connection to the PowerSines Web Server.

Simply browse through your Web browser and start monitoring ComEC and LEC units, carry out set up configurations, generate reports, manage alarms and more. The system is fully protected and enables each authorized user access to their devices only.



#### **Product Models**

Product	Catalog No	Description
GSM Gateway	1COM-GSM001-BCS	GSM gateway connected to each ComEC or LEC A device. Includes GSM antenna and RS232 cable. SIM card should be obtained from a local mobile operator.
License for SW & Connectivity	1COM-SRVLNK-BCS	Annual software and communication license to enable connectivity between GSM Gateway and the PowerSines server.