CETS



PecStar® iEMS

A *Unifying* Application for Energy Management



www.CETSingapore.com.sg



Power Quality
Energy Management
Substation Automation
Fault Monitoring



PecStar® iEMS is an unifying application for Energy Management that helps extend the life of your existing energy assets regardless of your application: Power Monitoring and Control, Utility Billing Verification, Substation Automation and Protection as well as Building and Process Automation.

Scalable System

PecStar® iEMS is an integrated Energy Management System for your facility or plant operations. It offers a distributed, modular, hierarchical & scalable architecture to support different installation sizes from a few to more than a thousand IEDs.

Multi-Protocol Large Device Library



PecStar® iEMS supports multiple communications standards and protocols for various 3rd-party IEDs such as Power & Energy Meters, Power Quality Monitors, Protection Relays, Water & Gas Meters with protocols ranging from the simple Modbus RTU to the highly sophisticated IEC61850.

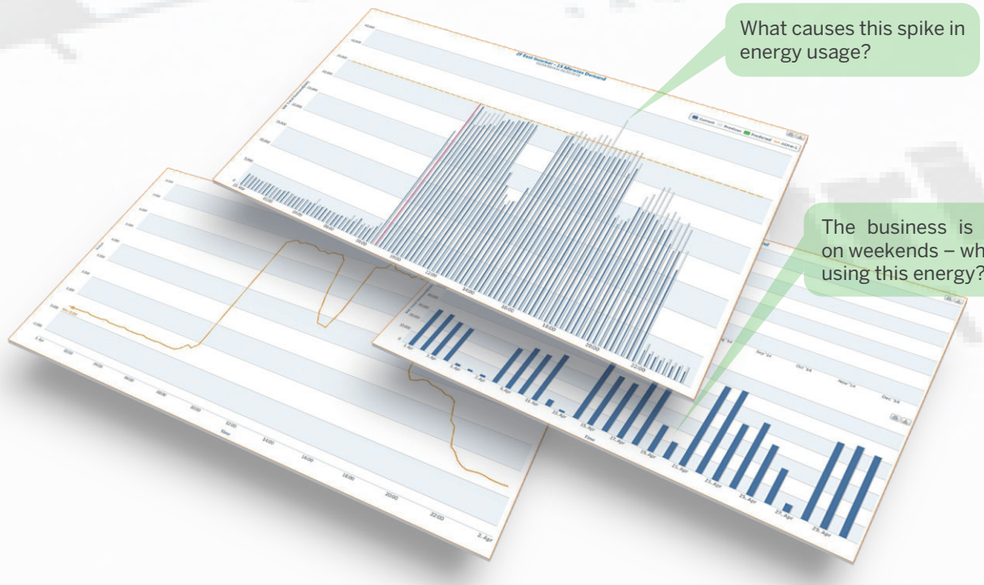
Energy Management



Energy is critical to business operations and can be a major expense if not managed efficiently. An Effective EMS can help identify and implement improvements to raise energy performance and hence save cost. Integrating energy performance monitoring into management practice as recommended by ISO 50001 has become an international trend that provides a distinct advantage over those that do not in terms of competitiveness.

How does PecStar® iEMS help manage your energy use?

To start, a powerful tool with detailed energy analytics is needed to provide the necessary insights of how energy is consumed in your facility.

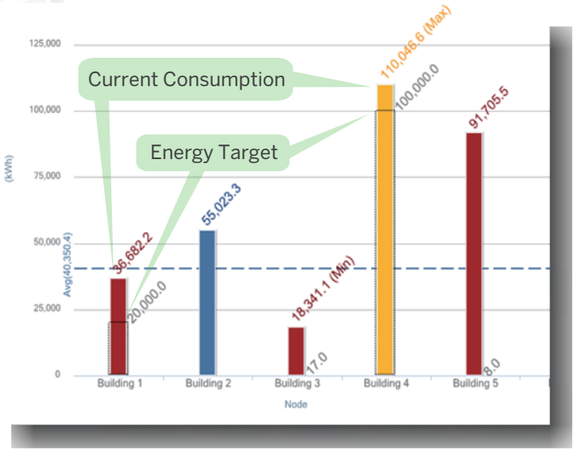


Customizable Daily, Weekly, Monthly or Yearly Energy Analysis and Trending reports deliver comprehensive and flexible assessment.

Detailed Demand Consumption reports help customers identify energy saving opportunities and develop a more efficient utilization plan in order to minimize energy usage and cost.

Powerful Reporting Tools

- User-friendly GUI makes it easy for users to create customized reports for their specific needs.
- Support various reporting intervals such as Daily, Weekly, Monthly, Quarterly, Yearly, or at User Defined Period.
- Support data export to MS Excel or graphical file formats for downstream processing.
- Create TOU schedules with multiple tariff rates for billing verification.



Energy **Target Compliance** Report

Helps monitor the current energy consumptions against preset targets. This report provides insight for areas of non-compliance and allows customers to conduct investigation to determine the cause for excess energy consumption.

Time-Of-Use **(TOU)** Reports

Allow organizations to perform Bill Comparison and Verification to ensure its energy consumption is correctly charged by the Utility. In order to achieve this, a highly accurate digital energy meter with comparable accuracy as the Utility Billing Meter is needed as a "Check Meter" at the same measurement location.



Energy Consumption Report

Money saving --- up to 30%!

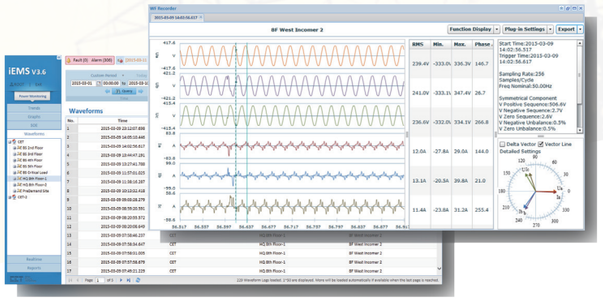
By understanding the energy usage via trending analysis and performing load shifting based on the TOU tariffs, customers will be able to develop a more efficient and economical energy usage scheme.

Power Quality

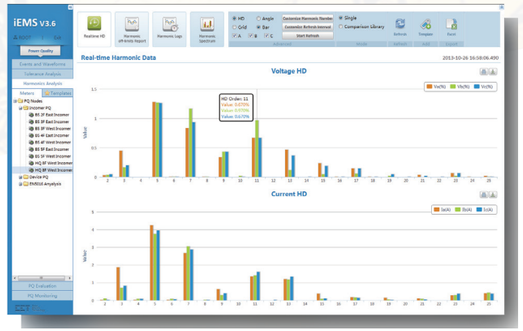
Power Quality Monitoring has drawn increasing attention from different industries such as 7x24 Manufacturing, Heavy Industries and the Financial Sector. Specifically, High-Technology Semiconductor Manufacturing, Automotive, Oil & Gas, Petrochemical, Banking, Data Center, Credit Card Transaction Center and Telecommunication are all vulnerable to significant financial impact in the order of hundreds of thousands of dollars per PQ event as a result of poor power quality such as Transients, Voltage Dips as well as Harmonics. PecStar® iEMS provides powerful PQ Analytics to help customers visualize, diagnose and understand the causes of these PQ events so that effective mitigation techniques can be implemented to prevent similar problems from recurring, therefore keeping their facilities running continuously and minimizing the probability of potential financial damages.

Raise the Awareness of **PQ** and **Reliability** Problems

The PQ Analytics graphically displays the Harmonic Spectrum, PQ Event information such as Timestamp, Category, Location, Magnitude and Duration as well as the captured Waveforms in high resolution.



PQ Event Log and Waveform Display



Harmonic Analysis



Power Quality **Compliance** Check

Statistical Analysis and Visualization of Power Quality events using industry standard plots such as ITIC, SEMI F47, SARFI and EN50160.



ITIC and SEMI F47 Plots

System Integration

Powerful platform for the integration of CET's PMC and 3rd-party IEDs from major suppliers through a large protocol library with hundreds of drivers that supports industry standard protocols such as Modbus RTU with device-specific mapping, DNP, ION, IEC 60870-5-10x, IEC 61850, OPC, SNMP, PQDIF as well as manufacturer-specific protocols for protection relays from ABB, Beckwith, GE, LSIS, Schneider MiCOM, Siemens, SEL and others.



Building and Substation Automation

Powerful features facilitate the easy integration of real-time energy data from IEDs into BMS in creating a Building Energy Management System (BEMS) for the efficient control of HVAC and lighting for commercial buildings as well as provide such capabilities as fault monitoring and remote control of protection and power-system devices for Substation Automation applications.

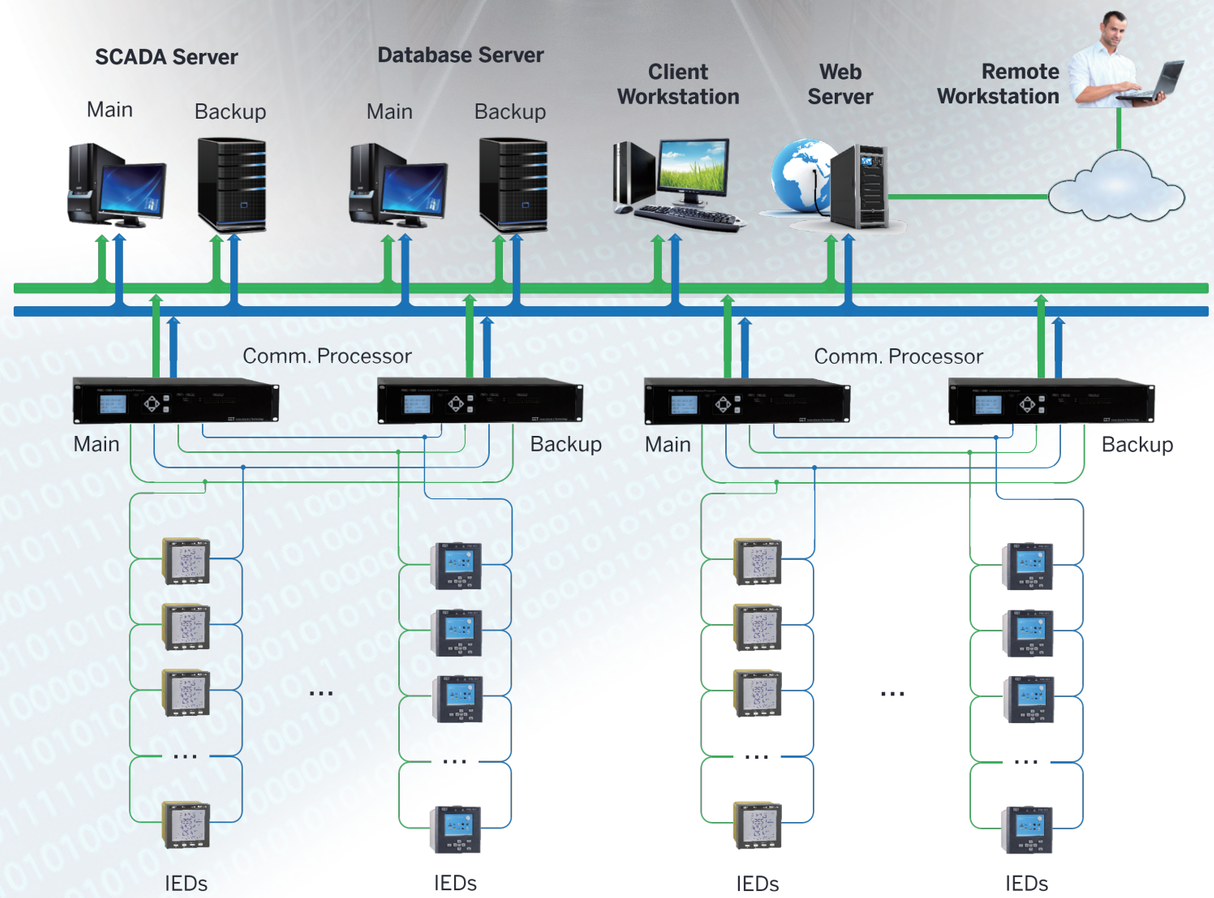
Alarm Monitoring

Comprehensive Control, Alarm and Event Monitoring facilitates rapid responses for maintenance personnel in critical situations by sending real-time alarm notification via SMS and/or Email to minimize potential damages.



Redundant Networking with Hot Standby

PecStar's fully distributed, hierarchical and modular architecture supports systems of different sizes and configurations including Single Workstation, Multi-Node Client-Server as well as the highly complex and sophisticated system with Redundant Networking and Hot Standby for large-scale deployment of mission-critical applications.



CET Singapore

Our Services



CET has a team of dedicated and proficient Engineering Services personnel who are ready to provide expert assistance for your system deployment needs. We are committed in helping our customers create a more secure and reliable, energy conserving and environmentally friendly electrical power system. Our team of experts is prepared to provide customized solutions for your different application needs with timely and efficient services. Please do not hesitate to contact our sales office or your local representative for more information.

CET SINGAPORE

No.7 Mandai Link #05-33

Mandai Connection Blk B Singapore 728653

Tel:(65)6677 7279

Email: contact@cetsingapore.com.sg

WWW.CETSINGAPORE.COM.SG