

# *i*EnergyIQ

Energy Intelligence for Smart Power

## Why Energy Management Systems are Important

Enterprise Energy Management System gives organizations auditable transparency and control of their "organizational metabolism" — the collective resources consumed and expended by an organization — including fuel, energy, water, gas, waste, carbon and other natural resources. EEMS enables organizations to comprehensively and securely manage their environmental record and leverage best practices in order to improve efficiency, manage risk and maximize shareholder value.

- Energy expenses in non-residential buildings is the <u>leading cause</u> of increase operational costs (*Dept of Commerce & Labor*)
- Businesses typically spend 30% or more than needed on energy (EPA)
- <u>Peak fee penalties</u> are 25% or more for many companies, with most not knowing why or when the penalties are occurring
- Flat rates are NOT a true benefit to the utility consumer or the utility provider
- Driving energy consumption down is <u>easier</u> for property intensive corporations and retailers than driving revenue up to compensate for increasing operation costs
- Profitable companies of the future are seeking <u>alternative sources</u> of energy AND looking for ways to sell excess capacity

# The Financial Benefits of iEnergyIQ:

**iEnergyIQ** is Master Decision Support system for your company's energy cost management. iEnergyIQ provides *significant*, *measurable financial returns* to the company's bottom line.

iEnergyIQ enables you to achieve up to 40% energy cost reduction with ROI less than 1.5 years.

iEnergyIQ Enterprise Energy Management System provides companies with:

- Financial Analysis and Management
- Benchmarking Energy Performance Rating
- Operational Policy for Energy Efficiency
- Carbon footprint & Sustainability Management
- Billable Demand Management & Reduction
- Continuous Energy Efficiency Improvement
- Energy Audit Operations Insight

- Regulatory Compliance Monitoring and Enforcement
- Measurement & Verification
- Meter Data Management (AMI)
- Integration with Enterprise Accounting/ERP systems
- Integration with Building Automation systems

### iEnergyIQ Energy Management Features

#### Financial Analysis & Management

- Comprehensive Energy Billing for TOU/RTP (Time of Use / Real Time Pricing) Tariffs based on advanced Billing Engine configurable to most tariffs
- Utility Bills Auditing/Forensics
- · Financial Reporting for Organization, Organization Units, Facilities, offices, and different periods
- · Daily cost tracking for usage, demand, power factor of each period, facility, space, equipment
- · Weekly, Monthly and Quarterly Cost calculation for each facility, Space, Equipment
- Utility Tariff Analysis and Optimization
- Charge Back for Organizational Units, Departments, Offices
- Key Performance Indicators for Financial Efficiency

#### **Energy Business Intelligence**

- Executive Dashboard with Geographical Information System (GIS) and KPI Scorecards
- Key Performance Indicators (KPI) for Energy Cost and Trends based on Business Goals, type of Business and Type of Facilities
- Online Analytical Processing (OLAP) Multi-dimensional Cube with Drill Down and Roll Up ad-hoc analytics
- Advanced Dynamic Reporting based on OLAP cube
- Data Warehouse & OLAP Cube Database
- Data Mining, What-If modeling and Predictive Analysis

#### **Benchmarking - Energy Performance Rating**

- KPI for Energy Operational Efficiency of Facilities, Spaces, Equipment
- Continuous Energy Efficiency improvement and Benchmarking
- Energy Performance Rating for Energy Star (integration with EPA Portfolio Manager)
- Equipment operation efficiency analysis and benchmarking
- · Facility and Spaces benchmarking to identify best and worst performance areas, buildings, etc

#### **Operational Policy for Energy Efficiency**

- Energy Efficiency Operational Policy Designer with an rich advanced Silverlight GUI
- Policy definition (when to turn equipment or areas on/off or up/down based on complex rules) using Policy Language and Business Rules engine
- Policy definition is based on Tariffs & Operational data and designed to minimize Energy cost
- Real-Time Policy monitoring (is the spaces/equipment running inside policies constraints and manufacturers specs)
- Real-Time Policy Compliance enforcement alerts/notifications
- Policies can be optimized by Business Intelligence Analytical engine
- Real time metering (AMI) from all facilities/spaces/equipments to feed decision rules engine
- Building automation systems integration (integrate with Honeywell, Johnson Controls, Siemens, Allerton, Delta, etc)

#### Carbon footprint & Sustainability Management

- Tracking and Reporting on all Green Houses gases defined in Kyoto Protocol
- Key Performance Indicators (KPI) for Carbon footprint and other green house gases per area, energy intensity, transaction, revenue, visitors, etc
- Green Gases KPI and Reports for Organization, Organization Units, Facilities, Spaces, Equipment and any period
- Green House Gases trends
- OLAP Ad-Hoc Analytical Queries, Drill Down & Roll Up for Green Gases
- Renewable certificates management

#### **Billable Demand Management & Reduction**

- Billing Engine & Billing / Tariff analytics to identify billable demand cost, power factor charges for TOU/RTP
- OLAP analytics to optimize Energy Sources usage: local generation versus utility
- Demand Control Policy design and optimization via iEnergyIQ Financial Analytics

#### **Measurement and Verification**

- Measure and Verify Contractors Performance & Energy Efficiency Projects ROI
- Key Performance Indicators show efficiency trends and impact of projects on energy efficiency
- Measurement & Verification Reports

#### Meter Data Management (AMI)

- Real-time sub-metering of facilities, spaces, equipment
- · Dynamic monitoring of demand, energy use, power factor, reactive power, voltage, currency
- · Real-time aggregation of Interval Meter Data in Data Warehouse and OLAP cube database
- Real-Time Dynamic Charting of any Metering Channel
- Rolling demand & Power Factor calculation
- Virtual Metering
- Support for all smart meters via Internet gateways

iEnergyIQ EEMS provides customers with robust monitoring, reporting, analytics, management, control, charts & graphs with an interactive & easy to use map based dashboard...all connected to the work tools used every day within organizations.

For More Information or to Schedule a Demonstration:

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http://youtube.com/ienergyiq