



Solution Guide

# Delta Energy Online Powers up Energy Management

Convenient Energy Monitoring

Enterprise-Grade Energy Management

Smart Energy Diagnostics

Cost-Effective Maintenance

[www.deltaww.com](http://www.deltaww.com)





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# Why Delta Electronics

Our distinct local touch in serving our worldwide customers with over 150 sales offices, plant sites and R&D

Core competence in comprehensive smart energy-saving solutions

True One Solution experience with end-to-end services and supports

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## Fast facts of Delta group

- Established: 1971
- Ranking: named as the "Sector Leader" in the DJSI electronic equipment sector from 2012
- Recognition: since 2010, 47 international design awards including iF, Reddot, CES Innovation, Computex Best
- Business: power electronics, energy management, smart green life

## Our mission

- To provide innovative, clean and energy-efficient solutions for a better tomorrow!

## Innovation highlights

- Over 4,900 registered patents
  - Our world's first titanium-grade server power supply has an efficiency rating reaching 96%
  - High efficiency of 97.2% for telecom rectifier
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# Cost-Effective Energy Supervisory



Smart energy management should be able to reduce unnecessary energy waste and make sure money spent wisely. However, how to measure and manage energy use encounters the following challenges:




### Current Challenges

#### For property owners

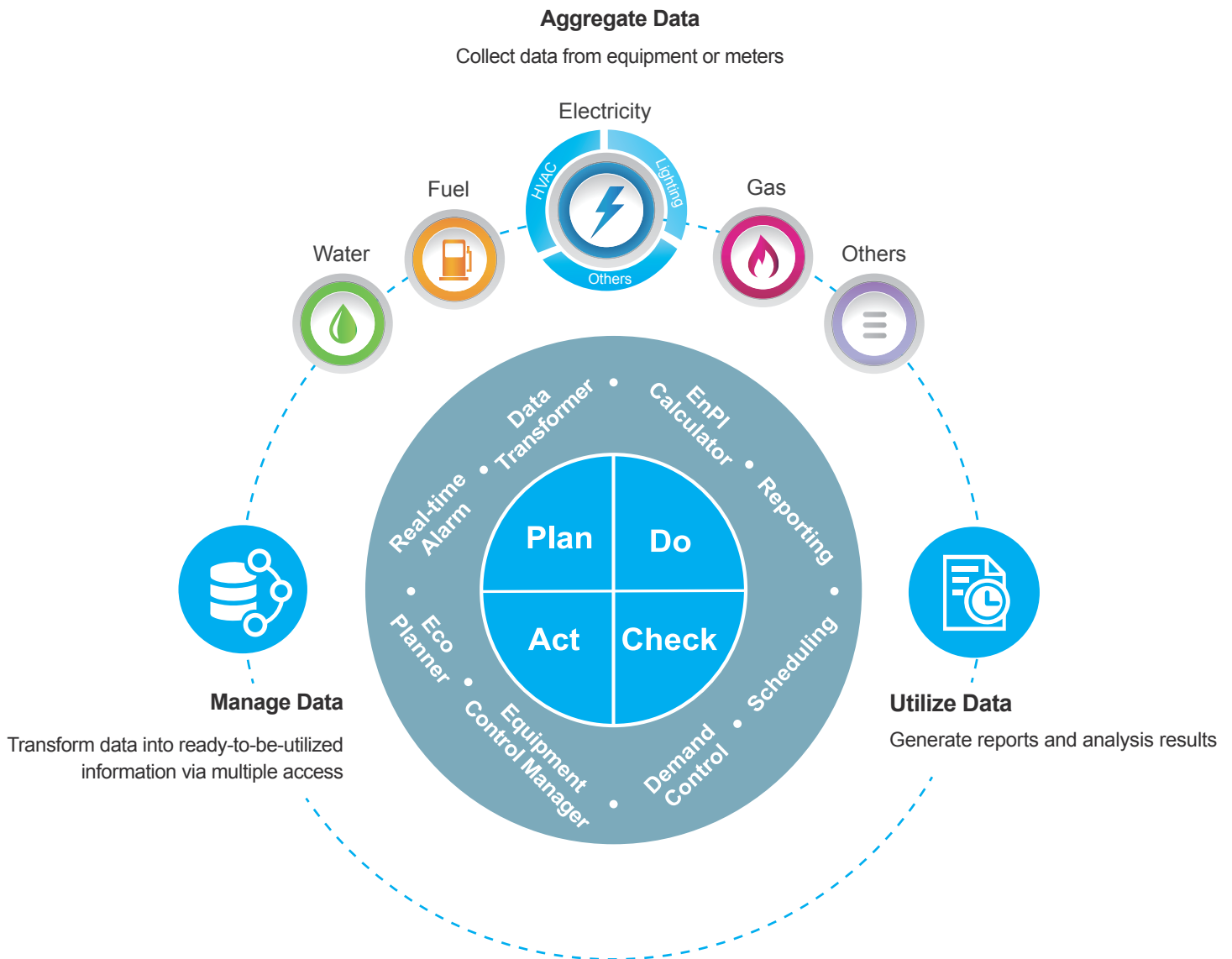
-  How to know where all the energy costs gone?
-  How to get all energy consumption under control?
-  What should I do to bring down energy expenses?

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#### For facility managers

-  Who is qualified for energy management?
-  How can the work be effectively done?
-  How to consume energy less without sacrificing occupants' comfort?

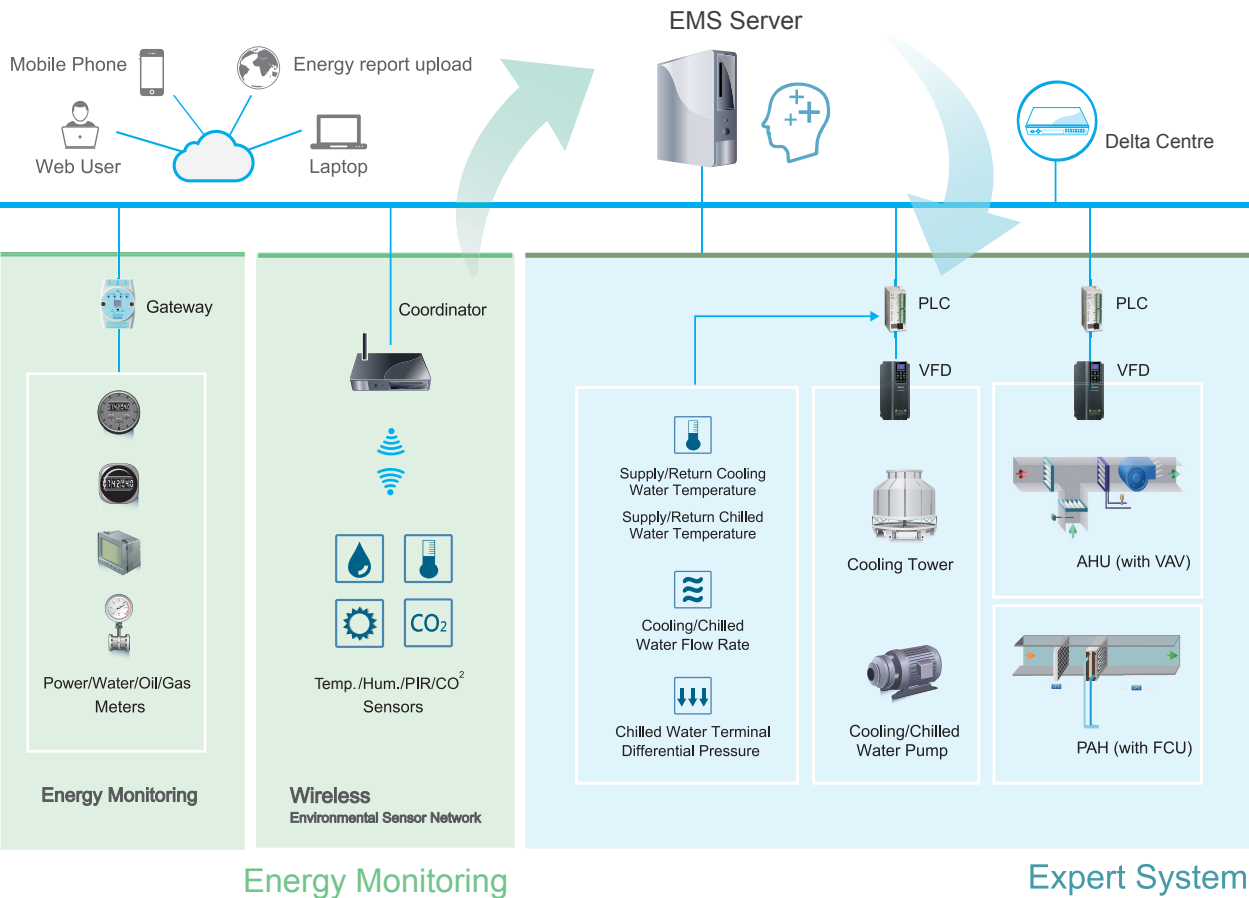
# How Delta Energy Online Can Help?





### Smart Integration Saves More

In order to realize the effective energy management, our Delta Energy Online can intergrate the different systems to reach the maximun synergy of energy saving.



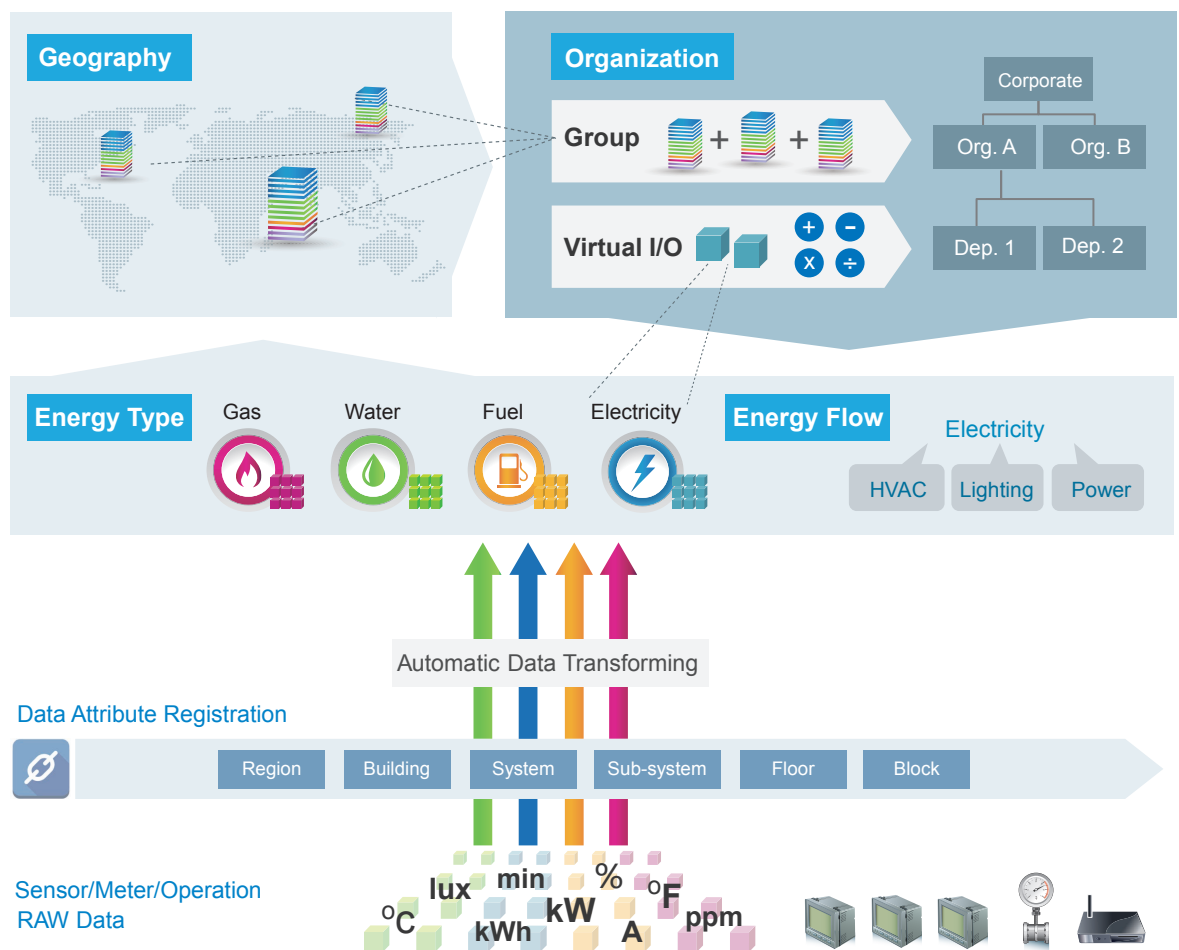


# Convenient Energy Monitoring

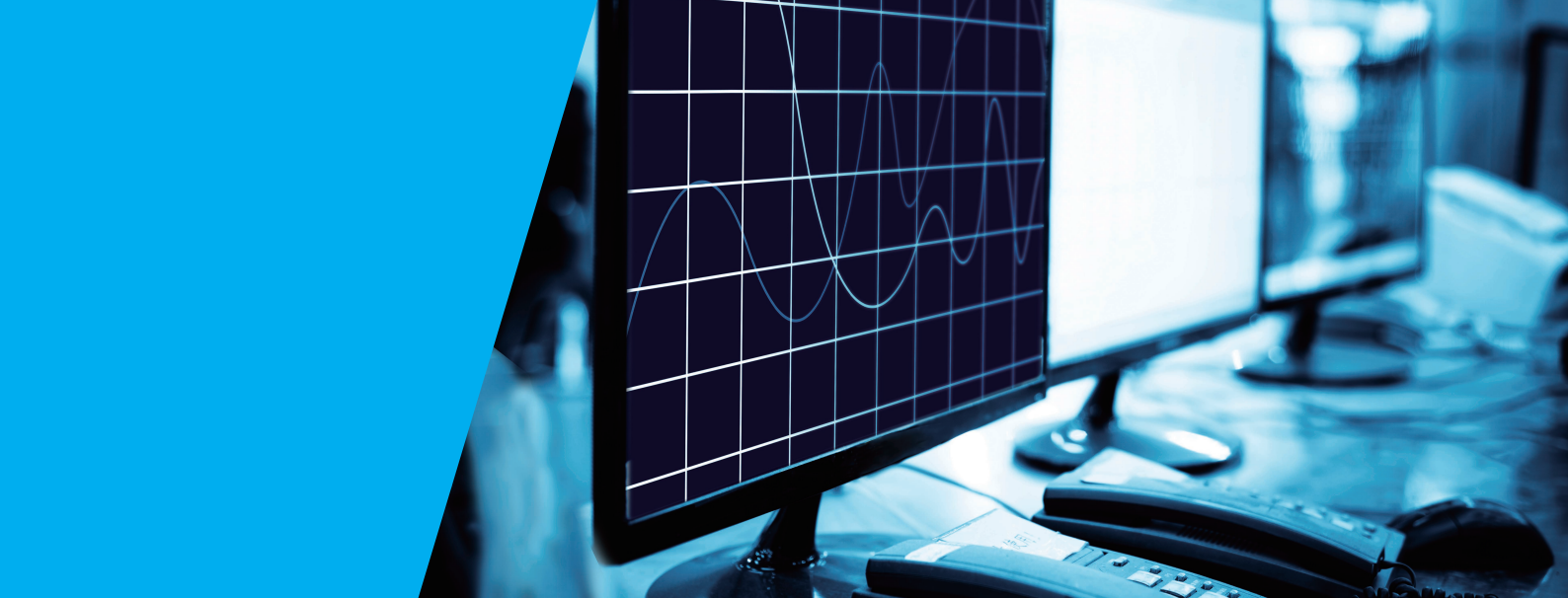
Delta Energy Online can provide comprehensive and real-time energy use data from all types of sensors and meters anytime anywhere.

## Auto Data Transformer

- Capable to connect to all types of sensors and meters to collect and store all data
- Automatically transform data into a well-organized data repository for energy visualization, diagnostics and analytics: Energy type / Energy flow / Geolocation
- Tailored organization view of energy use via group or virtual I/O setting







## Convenient management tool

### Real-time Alarm

Help trouble-shooting to reduce loss caused by abnormal events

- Alarm banner always on - an easy access to the abnormal event page by a simple click
- APP/SMS/e-Mail notifications



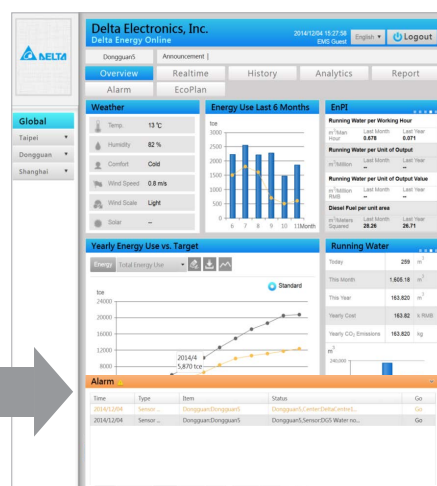
E-Mail



SMS



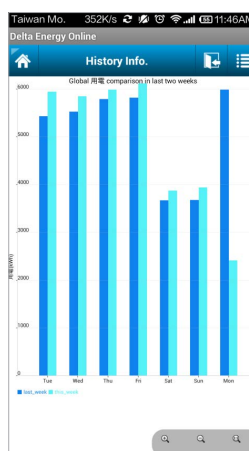
APP



### Mobile Monitoring

Great mobility to access the monitored information anywhere anytime

- iOS or Android version APP client support for mobile access on the go
- More flexibility to access the monitored information



Energy Usage

Alarm Notification



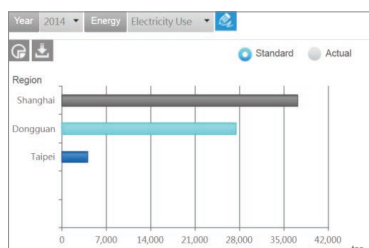
# Smart Energy Diagnostics

Significant or abnormal energy use diagnostics facilitates your energy-saving decision making.

## Visualized Analysis



Auto  
Ranking



Identify the significant energy use by equipment-/building-/region-wise



Trend  
Analysis



Identify how energy use pattern changes



Operation  
Statistics



Monitor the equipment operation trend

## EnPI Calculator

- Smart EnPI tool increases human resources efficiency and reduce labor cost.
- Freely assign energy-impacting key factors and customize EnPI for efficient energy monitoring





## Smart Diagnostics Tool

### Eco Planner

Eco Planner makes it easy to track energy performance and improvement continuously.

- Customize energy-saving plan per actual needs
- Compare energy consumption before/after Eco plan implementation



Energy Performance Tracking

+ New								
No.	Name	Region	Building	EcoPlan Content	Start Date	Finish Date	Attached File	Edit
1	Chilled-water pump replacement	Dongguan	Dongguan	To Replace e...	2014/11/28	2014/12/31		
2	1F Lobby Lighting System Retrofit	Dongguan	Dongguan	To replace e...	2014/11/17	2014/12/31		

Energy-saving Plan Management



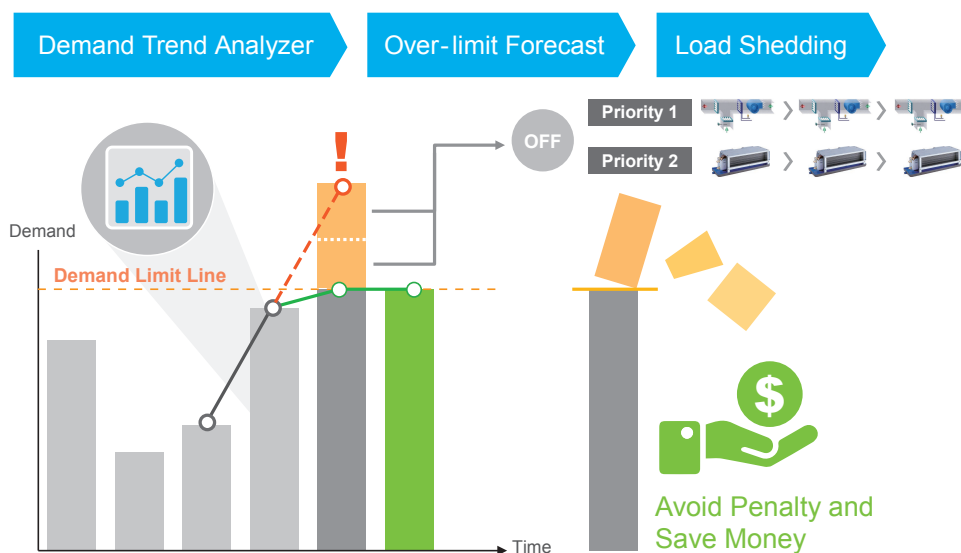


## Cost-Effective Maintenance

Delta Energy Online helps spend energy bucks wisely to reach a win-win energy strategy and strikes a perfect balance between money-saving and environment-friendly needs.

### Demand Management

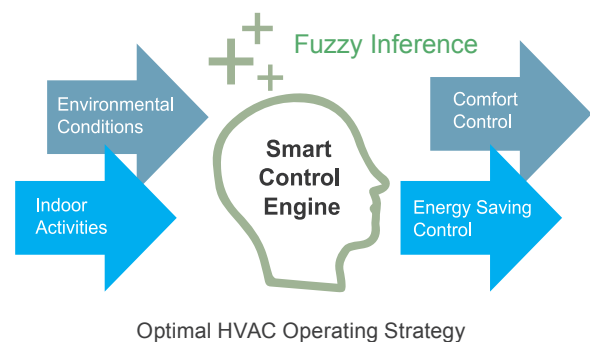
- Demand trend analyzer predicts the dynamic demand changes to save contract penalty
- Load shedding based on multi-level priority for target equipment when over-limit demand



### Smart EcoComfort Algorithm

Smart control engine provides more comfort and energy saving by considering both environmental conditions and indoor activities.

- Self-adaptive operating temperature setting
- Intelligent Fan Speed/Pump Frequency Control: automatically adjust fan speed/pump frequency based on environment demand
- Intelligent Ventilation Control: automatically adjust damper based on outdoor/indoor air quality to provide occupants more comfort

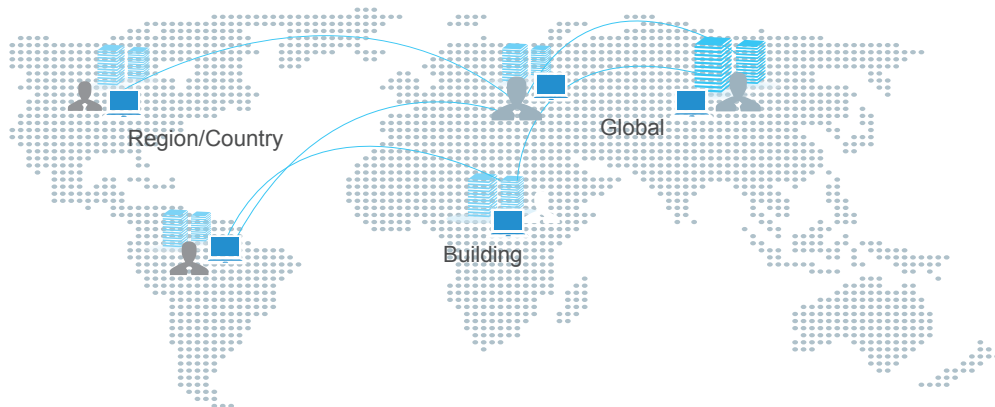






# Scalable Enterprise-Grade Energy Management

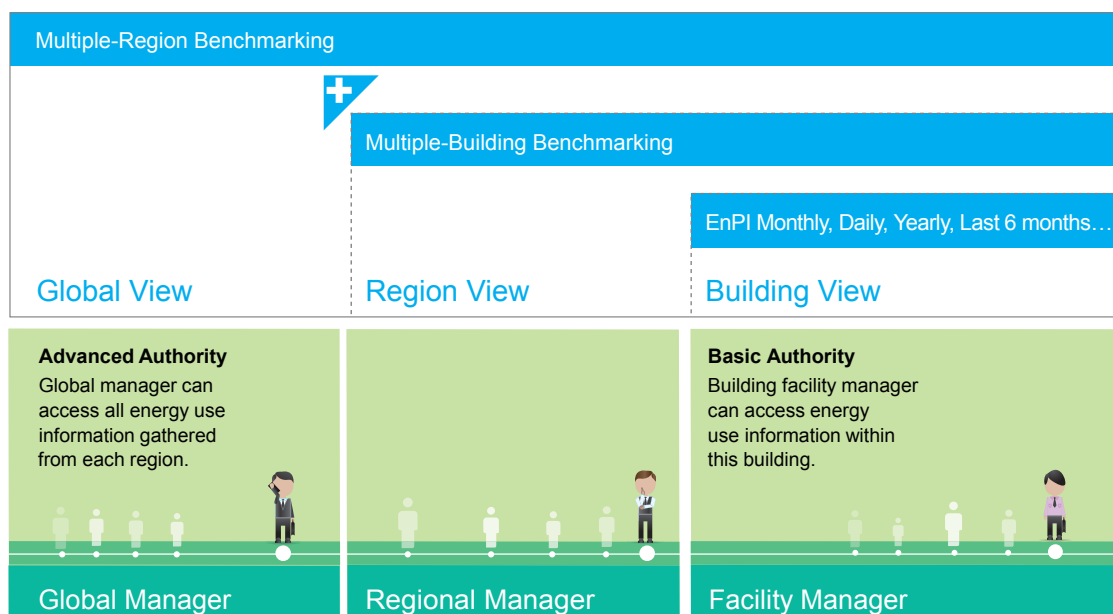
Tailor-made for the real enterprise organization and hierarchy, the Delta Energy Online, helps achieve an ultra-flexible energy management infrastructure on a global scale.



## Easily Extendable Architecture

- Extend one scalable system to worldwide organization with a systematic and efficient energy management information network
- Open platform well compatible to existing 3rd-party systems without hidden deployment costs

## Territory-Management of Energy Use







# Delta Energy Online Function List

Realtime	Analytics	Report	Alarm	Control	EcoPlan	Settings
Realtime Query to Various Energy Use Systems: <ul style="list-style-type: none"> <li>• Layout View</li> <li>• List View</li> </ul>	Query by Meter (Sensor)/Group/Circuit: <ul style="list-style-type: none"> <li>• Trend Comparison (for different time frames)</li> <li>• Energy Use vs. Target Line</li> <li>• EnPI Comparison</li> </ul>	Regular Report Generation: <ul style="list-style-type: none"> <li>• Sensor Report</li> <li>• Energy Use Report</li> <li>• Equipment Operation Report</li> <li>• Other specific reports</li> </ul>	Alarm Event Query: <ul style="list-style-type: none"> <li>• I/O Alarm Query</li> <li>• Group Alarm Query</li> <li>• System Alarm Query</li> <li>• Regular Report Notification/Subscription</li> <li>• Realtime Data Monitoring &amp; Query</li> </ul>	<ul style="list-style-type: none"> <li>• Schedule Control</li> <li>• Customized Rule-based Control</li> <li>• Remote/Rule-based/Smart Equipment Control: AHU/FCU/CHWP/CWP/CT Fan/Lighting</li> <li>• Equipment Management: Maintenance Notification &amp; Statistical Report</li> </ul>	EcoPlan Comparison Before & After: <ul style="list-style-type: none"> <li>• Energy Saving Efficiency Comparison</li> <li>• Building EcoPlan</li> </ul>	<ul style="list-style-type: none"> <li>• Region, Building settings</li> <li>• Group Settings</li> <li>• System, Subsystems, Coordinator, Sensors, I/O settings.</li> <li>• Layout graphic settings</li> <li>• Energy Circuit Settings</li> <li>• Message Board Settings</li> <li>• Alarm Settings</li> <li>• Systems</li> <li>• Scheduling Settings</li> <li>• User/Role privilege settings</li> </ul>
History						
Query & Export of History Data and Analytic Table: <ul style="list-style-type: none"> <li>• By Sensor</li> <li>• By Group</li> <li>• By Circuit</li> <li>• By EnPI</li> </ul>						



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