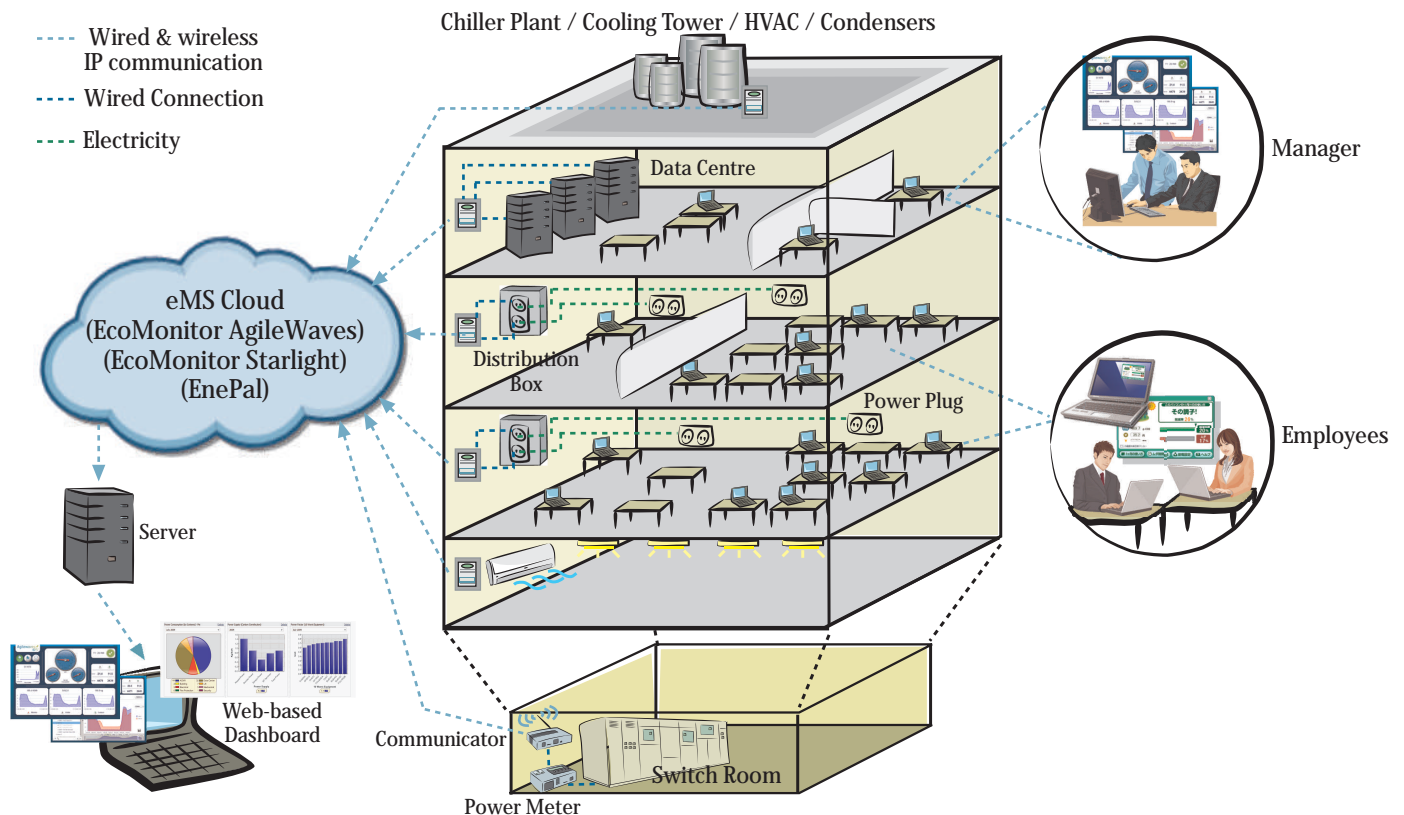# Energy Management System (eMS)
A Smarter Eco Society

What is eMS? NEC Energy Management Systems are intelligent systems designed to monitor and control the energy consumption of homes (Home Energy Management System - HEMS), buildings/offices (Building Energy Management System - BEMS), or estates/campuses.

By monitoring the energy usage NEC eMS will be able to control the energy profile, produce trend analyses and consumption forecasts, and optimize energy efficiency.

What will NEC eMS mean to you? By creating greater visibility and awareness of your energy consumption and empowering you with tools to control it, you can generate energy savings, reduce carbon footprint, and in so doing, contribute to a Smarter City, and a Greener Earth.

Energy Efficiency Solutions

- - - - Wired & wireless IP communication
- - - - Wired Connection
- - - - Electricity

Chiller Plant / Cooling Tower / HVAC / Condensers

Data Centre

Distribution Box

Power Plug

Power Meter

Communicator

Switch Room

eMS Cloud
(EcoMonitor AgileWaves)
(EcoMonitor Starlight)
(EnePal)

Server

Web-based Dashboard

Manager

Employees

Imagine an intelligent home, office, or building realized by the visualization of energy consumption, the optimization of energy supply and demand using an intelligent power conditioner, the intelligent control of devices through the deployment of smart plugs and other smart appliances, and last but not least, the collection of data for future trending and analysis. This is NEC's vision of the Smart Green Home, made possible by NEC's Green Technologies.
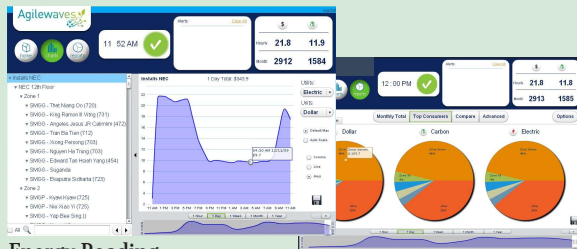
NEC Energy Efficiency Tools

EcoMonitor (Agilewaves)

Features:

- Monitoring by floor, room, appliance, or utility
- User-configurable alarms and alerts via email or SMS
- Analysis tools for trending and comparison
- Conveniently accessible web-based dashboard

Energy Reading

EcoMonitor (Starlight)

Features:

- Minimal cabling
- Compact solution for high level monitoring
- Monitor up to 1,000 points in a single network
- Provide large variety of energy profiling report.

Power Consumption Reading

EnePal

Features:

- Measureable savings
- Centralized management
- Autonomous control
- Automatic monitoring of CO2 emissions for individual PCs
- Analyzing behavioural patterns such as regular meetings and lunch schedules and performing automatic power control
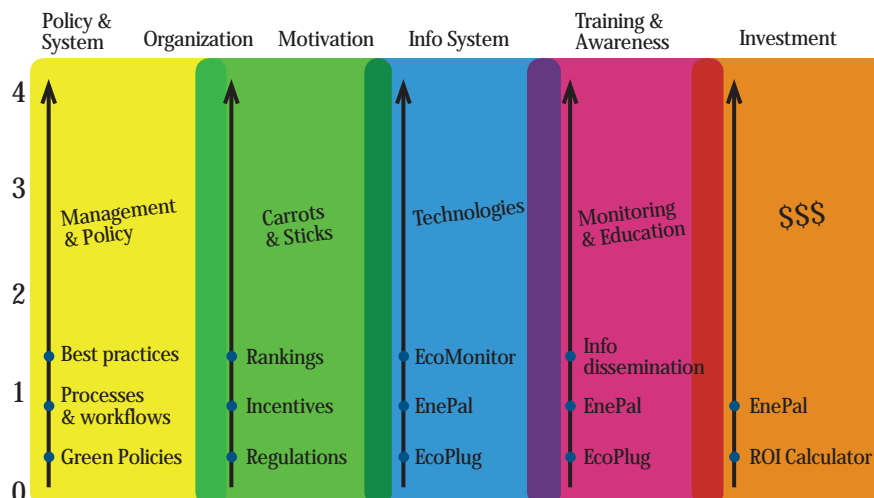

EnePal Dashboard

NEC Go! Program

Global Forecasting experts have consistently pointed to dwindling energy resources as one of the potential stormy areas in the future. As energy-hungry nations such as China and India clamour for more energy to support their burgeoning industrial capacities, the demand for traditional forms of limited energy sources such as coal, oil and natural gas will only push prices upwards.

On the other hand, pressure from international environmental bodies will influence countries to gradually impose regulations on carbon emissions. How does this affect your organization? Higher energy prices, more taxes and regulations on energy usage which translate to higher energy costs. The case for energy efficiency becomes more apparent as organizations move to generate the highest productivity and revenue yield per kilowatt-hour of energy usage or carbon emission.

Aligned with the United Nations Environment Programme (UNEP), NEC's Green Organization (GO!) Program provides an Energy Management Matrix model for your organization. Through a series of management surveys, site assessments and energy audits, NEC GO! will benchmark your organization in six areas, namely policy & system, organization, motivation, information system, training & awareness and investment. GO! will then plot a path from where your organization currently is on the Energy Management Matrix to where your organization aims to reach, and then propose a framework of processed-based workflows as well as complementing energy efficiency technologies to assist in your organization's journey towards energy sustainability.

For more information, visit www.nec.com.sg or contact us at energy@nec.com.sg