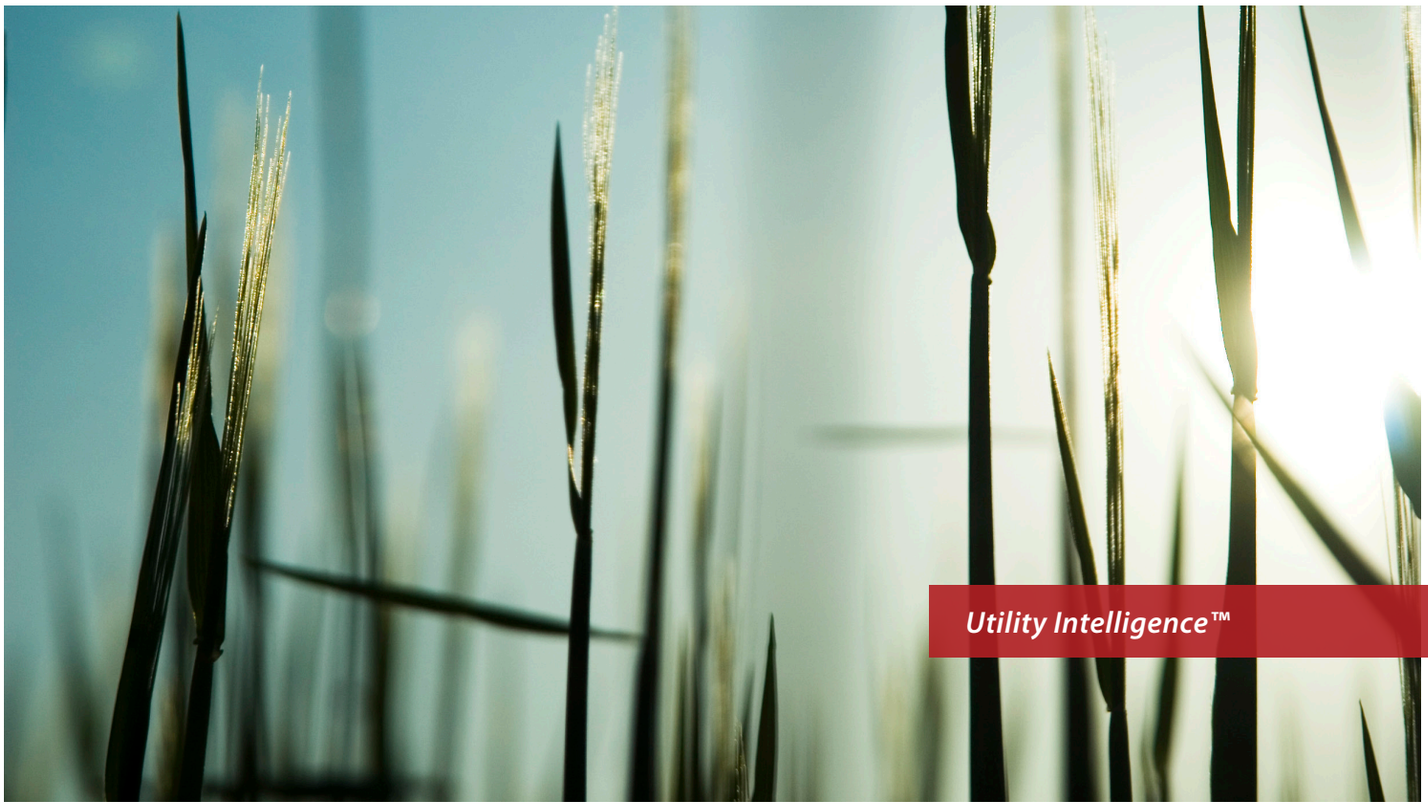
Amplex GreenWise™

Energy Consumption Intelligence in Action



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Facing energy challenges

Saving energy isn't just good for the planet – it's good for business.

Monitoring and controlling your energy use is directly visible on your bottom line and in your carbon footprint. When you show that you are taking action it improves your brand value.

Growing environmental concerns and rising energy demands and costs, have sparked many initiatives to increase energy efficiency and reduce wasteful energy use.

Using the right tools, we can become much more efficient by improving the way we consume energy. Increased efficiency is becoming one of most important measures for companies to reduce their operating margins.

With smart grid technologies and regulatory requirements for e.g. smart meters, we are now setting up the infrastructure for a much more efficient and intelligent power grid. Improving visibility into energy use across the enterprise is the right approach to reducing waste and increasing energy efficiency.

The industrial base now accounts for nearly half of all energy consumed.

U.S. Department of Energy

Energy Management Systems

An Energy Management System (EMS) is a tool for monitoring, controlling, and optimizing energy consumption. By collecting energy data and presenting it in a clear and user-friendly manner, it is possible to e.g.:

- Collect data automatically
- Monitor all consumption types (water, electricity, gas, heat) across the organization
- Create budgets e.g. to compare with previous consumption
- Set alarm thresholds to warn about overconsumption or system failures
- Ensure continual improvements
- Spread awareness of energy efficiency

Information-based energy efficiency can save as much as US$ 3 billion annually in the U.S. alone.

The Environmental Defense Fund

An EMS helps companies perform energy audits and is an excellent tool for documenting energy efficiency activities for stakeholders and legislators.

Smart meters that measure electricity, water, gas and heat are now abundant and create huge amounts of data. With an EMS, you can harness all that information to track and manage energy consumption across your entire distributed enterprise. Whether you are a utility company or an enterprise, you can use an EMS to provide advice, insight, and to help improve the bottom line.

That is what Amplex GreenWise™ is all about. It is an energy management platform that brings all your individual meters together to give you a detailed, trackable picture of your energy use over time.

– Because it makes good business sense.

Utility Intelligence™

Energy Consumption Intelligence - GreenWise™

Amplex GreenWise™ is an open, modular system for advanced energy management that tracks consumption data and facilitates dialogue with energy customers and end-users.

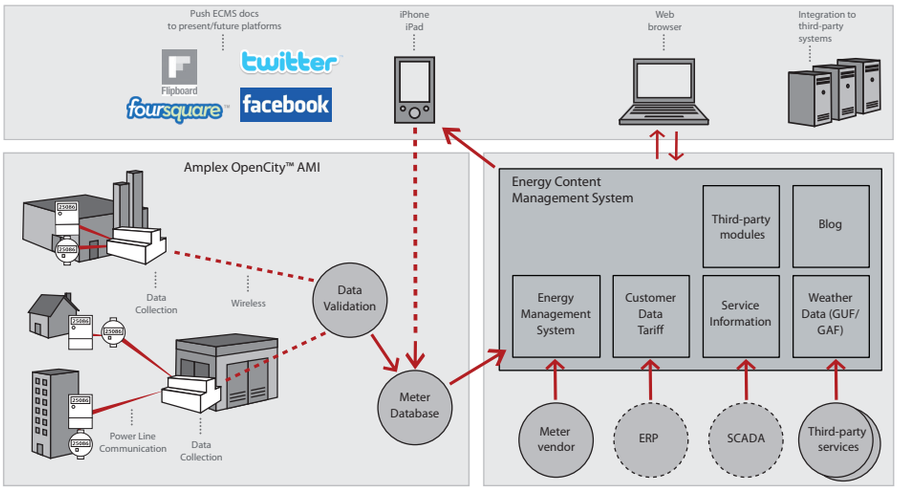
The solution goes beyond the traditional energy management systems by offering unique opportunities for interactive customer dialogue.

With a user-friendly web interface and super-intuitive iPhone and iPad apps, GreenWise™ is the perfect tool for easy energy consulting in the field.

It gives you:

- An affordable Energy Management System
- An advanced Energy Consumption Intelligence platform
- The Amplex OpenCity™ web dashboard
- An integrated portal for 'energy evangelism' to users and managers
- A rich, role-based reporting and alarms suite
- iPad and iPhone based field tools

In short, Amplex GreenWise™ turns your isolated metering systems and data points into an integrated platform for Energy Consumption Intelligence – the first step towards driving down your energy use and keeping it down.



GreenWise™ solution overview

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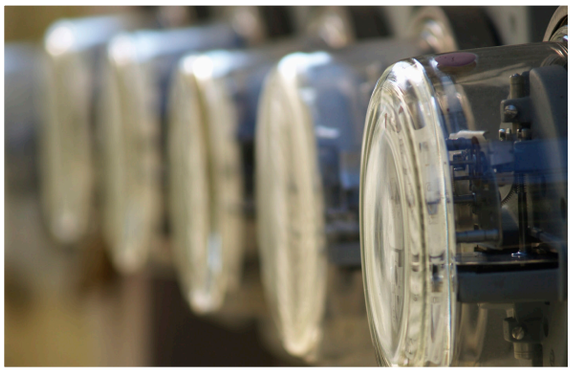

Start with intelligence

What are your energy management challenges?

Many companies still haven't developed a strategy for energy efficiency. The myriad of alternatives on the market, coupled with the lack of a well-defined road map to energy efficiency, have overwhelmed many companies before they even get started.

An EMS is considered one of the low-hanging fruits within energy efficiency. The capital investment is low, the return on investment is fast, and it requires only few facility measures. It can also help you identify where you get most value for your money in terms of efficiency investments, and it will instantly pinpoint where you are currently wasting energy. Some of your incentives might also include:

- Improving efficiency for financial reasons and branding purposes
- Controlling operational costs for competitive reasons
- Meeting company or regulatory reduction targets

An EMS is about providing the right information to the right person at the right time and in the right context. If you can answer 'yes' to any of the statements below, you should talk to Amplex about an EMS solution:

I want efficiency

- I still collect and enter meter data manually.
- I paste consumption data into a spreadsheet but need tools to get the bigger picture.
- I want to make sure that my meters are calibrated correctly.

I want insight

- I have smart meters, but lack the platform to do anything with the data.
- I have a large organization with many locations globally but want to benchmark, budget and consult locally, too.

I want to evangelize energy savings

- I need to provide soft information like best practice energy savings advice to my clients or branches – supported by budget and consumption information.
- I need to show the divisions within my company where to focus their energy saving efforts.

I want to actively manage energy consumption

- I need to find out where my organization can save more energy.
- As a utility company, we want to focus on customer retention.
- I am concerned about a new EMS solution matching my current systems.

The sooner your company begins to understand and actively manage your energy use, the faster you will get a better bottom line, a cost-edge over competitors, and a company-wide awareness of sustainability.

Developing an energy strategy should be considered an essential part of a broader sustainability focus, which ensures that bottom line financial objectives are aligned with environmental drivers.

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GreenWise™ features and benefits

The Amplex GreenWise™ solution provides an instant overview of your energy consumption at all sites and lets you analyze, budget and report on your consumption trends.

Automated data collection forms the foundation for precise and actionable insight. However, in order for the collected data to be useful, it must be sufficiently granular. The more fine-grained data a system can handle, the more insight is generated. GreenWise™ easily handles vast amounts of data and allows you to choose the level of granularity.

The Amplex GreenWise™ platform takes raw data from your consumption meters and transforms it into valuable information that allows you to take action and initiate your energy savings.

GreenWise™ combines distributed hardware components, communication infrastructure, central software and a web-based management and reporting centre into a comprehensive energy management solution. The system helps you contextualize real-time events and optimizes your decision making based on historical trends, budgets, etc.

Features

- An affordable, functional EMS
- A user-friendly web interface for an instant overview of consumption, targets, progress, benchmarks, etc.
- An advanced dialogue platform that adds value by targeting information to utility customers
- Alarms for fast reaction to fault states or excess consumption
- Front-line communication tools, including apps for iPad that enable energy advice in the field
- Detailed graphs and reports for each entity to highlight where savings matter most
- Historical comparisson and benchmarking
- Comparisson and normalization of data

Topline benefits

- Utility companies can give customer advice based on recent, accurate data.
- Consumption patterns and dynamics become visible and users can act accordingly.
- Customers get a proactive overview of energy consumption, status, savings, etc.
- Managers get a total overview of consumption, or a report for each entity.

The bottom line: Decreased energy consumption, total visibility for management and well-informed customers and users.

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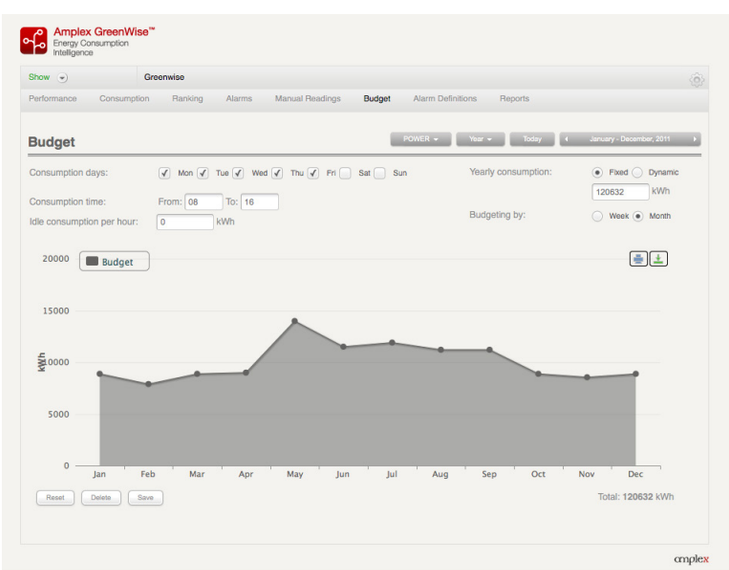
A strategic tool

User interface and system facilities

With GreenWise™, you can collect data from a huge number of distributed metering points using low-cost communications. Then, you turn the data into actionable intelligence for decision-makers and energy users.

Replaced meters and modules are automatically discovered, and system upgrades, data corrections, and control of the entered data are automatically handled.

The system is accessed through a web browser that displays data, reports, graphs, etc. in a clear and understandable manner. Once the solution is implemented, you can set up access permissions, users, etc. The system is user-friendly and flexible – prepared to be operated by users with different skill levels.



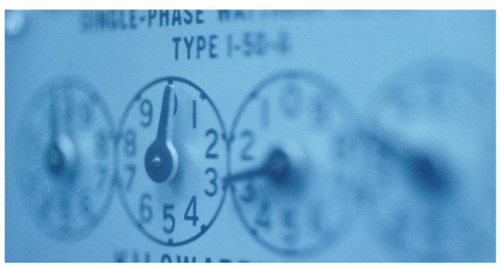
GreenWise™ user interface for web browsers and iPad

With a system that collects huge amounts of data, it is essential that the data is structured in an appropriate manner. Similarly, setting up and handling the system must be easy and intuitive in order to fully benefit from the functionalities – especially if you have users that do not use the system every day.

Budgets
GreenWise™ enables consumption to be compared with previous figures in order to reveal increases or decreases. Another option is comparing data to a set budget and generate alarms, if certain thresholds are exceeded.

Alarms
With the alarm function, users are warned about overconsumption or system failures through text messages or e-mails.

Planning
Once consumption has been analyzed, the energy saving initiatives are commenced (e.g. changing behavior, optimizing technical installations or replacing components.)



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Reaping the benefits

An EMS is an essential tool for dealing with the challenges faced by most organizations: rising energy prices, environmental concerns, equipment profitability, grid stability, and repair and maintenance expenses. GreenWise™ can address each of these issues while delivering immediate and measurable bottom line results.

GreenWise™ adds transparency to your energy consumption and lets you take action on inefficient processes and wasteful scenarios. And it ensures that your energy saving initiatives are sustained and not forgotten once the system has been implemented.

Tracking performance
GreenWise™ keeps focus on the Production Performance Indicator and tracks the number of produced items per spent energy unit. The system will assist you in minimizeing energy usage while maximizing the production output.

Through the user-friendly and flexible interface, you can handle the production data as with any other media - e.g. tracking produced kilograms or number of serviced guests, just like you track power and water consumption.

Fast deployment with long-term prospects
Combining hardware, software, business operations and continuous improvement strategies based on collected data, Amplex takes a comprehensive approach that maximizes your energy saving efforts.

The system helps you identify the top and bottom quartile performers among your sites in order to support those who need improvement, and encourage those who are already doing well. Diagnostic reports let you identify the reasons for sudden increases in energy use and locate sites that deviate from corporate standards.

Communicate your efforts
Hotel and restaurant chains, greenhouses, office buildings, campuses, and many more already use energy management systems – and they are happy to share their knowledge and experiences through both internal and external campaigns.

By actively publicizing their energy management efforts through marketing, press releases and online, the EMS has become a part of many organizations' branding efforts.

Summary

GreenWise™ is an innovative platform for establishing and maintaining energy savings through better insight and improved processes. The highlights include:

- A user-friendly interface that can analyze, measure and track energy use
- Recent, accurate data for better advice to utility customers and distributed locations
- Alarms, reports and graphs for transparancy
- A proactive overview of e.g. energy consumption, status and savings to date

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Utility Intelligence™

Saving on utilities is our DNA no matter if it is power, water, cooling, gas or district heating. This lets you cut loss, drive down operational costs, minimise your carbon footprint and prepare for a smart grid future. It's time to evolve.

Amplex originated from the area of remote control and management of streetlight systems. Later on, our focus expanded to include intelligent metering and most recently, we have added Energy Management, Smart Grid and Water Monitoring solutions to our portfolio.

Our mission is to be a world leader in Utility Intelligence. We want to help governments, cities, companies and utilities all over the world to intelligently manage their utility assets. The result: Greener cities, higher-quality services and dramatically lower costs.

Our solutions have unlimited scalability and are built on open platforms. With a modular, carrier-neutral platform, we provide real-time data from the field. Along with a constantly growing partner network, we have established a global presence and a solid experience in implementing energy efficient solutions in any environment.

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