

Reader's Response: What energy management technology will generate the most buzz over the next 12 months?

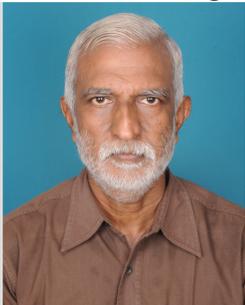
Kasey Panetta, Associate Editor

What energy management technology will generate the most buzz over the next 12 months?



Paul Carpenter, ECN Reader

LEDs –hands down. The 80 percent in energy savings should be enough to convince consumers that the short payback time is worth the expense... it had been slow, but it is picking up steam (No pun intended). I recently purchased a flood light for \$14 which will last around 22 years and pay for itself in savings in less than 3 months. The 130 year old technology of the 60W incandescent bulb can be replaced by a less than 10W LED bulb with the current technology. US Department of Energy predicts LEDs will create \$250 billion in saving over the next two decades. As the economy starts to turn around, new construction and remodeling are ramping back up. LED lighting is predicted to double as a green savings solution. This will greatly reduce the cost factor, bringing the price point to a psychologically acceptable point for the average consumer and the rest will be history.



V.Kadal Amutham, ECN Reader

Looking at the past few years, it's clear there were no major breakthroughs in any of the technical fields. By extrapolating this, one cannot expect any breakthrough in the coming months. But there were continuous improvements in all the fields and this will continue into the coming months. Home is a place where energy is used to heat and cool food as well as the general environment. While cooking consumes heat, refrigeration expels heat. Technology may evolve to recover the heat from the refrigerator and use it for preheating/cooking food. Many home based devices need to communicate among themselves for efficient energy management and they

need to interact with the occupants. Zigbee wireless protocol is becoming popular in this area, but they have their own problems. Zigbee protocol is not free, so Zigbee devices cost more. Already Microchip has developed its own wire protocol called Mi-Wi, which is free for Microchip users. Currently, a Zigbee device from Manufacturer A is compatible with a device from Manufacturer B. There are some technical issues in integrating from various sources. One can expect these difficulties will be removed in the coming months. The cost of PV panels are coming down progressively and you'll find them more in homes. Additionally, interactive inverters may start entering the home to reduce the utility bill. Another area where one can expect development is in the small wind mill in the range of 1-5KW becoming popular and affordable. These wind mills may start appearing in the roof top of buildings

David Mueller, ECN Reader

A "real time dashboard" that works on a "cloud", accessed with an IP address, and a fraction of the cost of a typical BAS system and will display:

- how much is being consumed
- what it is costing you
- carbon emissions
- power trend
- volume/force of utility supplied
- along with how well equipment and energy consuming items are working
- quality of power distribution
- customizable timed text message
- customizable video or slide presentation populated into the screen explaining focus
- an text message sent to a wireless device when you are running outside your parameters
- able to display 3 utility/renewable readings at one time.
- drop down menu for explanation of each area on the dashboard
- drop down menu displaying how well phases are balanced.

Back-end analytical reporting that displays graphs and spreadsheets:

- Dashboard with usage, carbon emissions, and cost for all areas being measured
- The amount of utility being consumed, (with renewable energy - how well it is supplying energy)
- Usage breakdown for all areas being measured
- Apparent Power
- Reactive Power
- Current
- Voltage

Reader's Response: What energy management technology will generate the

Published on Electronic Component News (<http://www.ecnmag.com>)

- Power Factor
- The amount of utility consumed (kWh - electric, Therms - gas, gallons - water, kWh - renewable energy)
- What it is costing you
- Carbon Footprint
- Data stored for 2-5 years and can be pulled up by minute, hour, day, week, month, year, year-over-year
- Data can be exported to a PC

This also will immediately show and document energy/utility reduction when an energy saving solution is installed.

Want to hear more industry opinions?

Check out what our industry experts thought in [Part 1](#) [1] and [Part two](#) [2] of Brainstorm.

Source URL (retrieved on 12/19/2014 - 2:36am):

<http://www.ecnmag.com/articles/2013/03/readers-response-what-energy-management-technology-will-generate-most-buzz-over-next-12-months>

Links:

[1] <http://www.ecnmag.com/articles/2013/03/what-home-energy-technology-will-breakthrough-next-12-months>

[2] <http://www.ecnmag.com/articles/2013/03/smart-grid-technology-future>