

## ■ Mahua Roy

**T**raditionally, energy and its associated risks on business, namely carbon emissions, premature asset degradation, etc have been environmental concerns managed at the facility or site level. But responsible companies today are starting to look at energy in a totally different light, focussing instead on how energy management can help their business positively. This is how the discussions on energy usage are being moved from the facility into the boardroom, with more and more members from the top management taking active interest in this area.

**Youth: A driver**

"In India, particularly, the population demographics are unique. With a majority of the population being young as well as educated, they are also aware and responsible citizens when it comes to fulfilling their duty towards the environment," opines Dr Manian Ramesh, Chief Technology Officer, Nalco Company, one of the global leaders in energy and water management. He agrees that a decade or two ago, the industry might not have been that forthcoming about incorporation of environment-friendly technologies. "But the technology-savvy population of today is open to acceptance of sophisticated technology. However, this intelligent population also needs proof about the relevance, practicality and value of technology," he adds.

India has an excellent infrastructure in IT, high quality of software

development, data mining and data prediction. Making use of these resources, programs can be tailored to create value by way of water/energy savings, productivity increase and enhancing asset longevity. "By effective use of sensors to measure any desired value, software

engineering experts can convert that data into easily presentable format, or a ready-reckoner for the company to see. A website can have a dashboard showing key performance indicators that would clearly articulate the savings made. So a company can actually say that it has saved say 65 million gallons of water or 100 MW of energy, just by looking at how the sensor data has been converted into water/energy figures," explains Dr Ramesh. Such real-time access to information is what the intelligent customer of today demands. Companies heeding to this change in customer dynamics are the ones that will see profits coming in.

## EMPOWERMENT through IT-enabled SOLUTIONS

Energy management is no longer being looked at as a cost centre, but is gradually being envisioned as a profit centre. Information technology (IT) is being employed enormously to reap benefits by using energy efficiently.

**Customisation is the key**

"The combination of process data and process models provides a deeper understanding of the behaviour of the whole process and helps to uncover hidden or otherwise neglected opportunities for process improvements. Utilising an effective energy management program can enable chemical manufacturers to have greater visibility into their operations and help them take better & faster decisions at every level in their organisation, be it at the individual operator unit level, supply chain level, or at the corporate level," says Sunil Chaudhari, Country Manager - South Asia, AspenTech India.

Ease of access and use is the mantra towards delivering a successful product in IT. The program manager of an energy management department will want guaranteed benefits coming in from the utilisation of the technology he has incorporated. An effective IT system can provide the



## Power optimisation

data analytics on program performance at a detailed energy-efficiency measure level. This enables program managers to evaluate program effectiveness, and make a decision whether or not to continue on the particular platform. At any point, he will also like to study the cost-efficiency, of the program. An IT system that supports the manager's key variables easily in a program design helps reduce costs significantly. Utility management of the energy-efficiency portfolio demands an IT system that provides for easy, timely access to information. Managers with access to timely data on the performance of assets can adjust the programs midcourse or use some other customisation to achieve savings. Thus, treating every customer independently, by delivering personalised programs, is the key to being a preferred vendor.

### Getting results faster

Sustainability comes at a cost, yes. But companies today are thinking

beyond the initial capital expenditure and operational expenses. The IT industry has a big role to play in this paradigm shift, as they have time and again introduced technologies, which help realise cost savings in a matter of months! That is another success mantra to be incorporated – timely realisation of benefits. As Chaudhari puts it, "Our technology *aspenONE* helps the chemical industry achieve sustainability and cost-efficiency by utilising solutions for each phase of the business in an integrated environment, providing visibility, sharing and enabling reuse of data & process models. In fact, companies deploying this solution are able to generate benefits of approximately \$ 28 million per year per plant, with payback in months instead of years."

IT systems today support seamless dataflow of energy savings directly from the plant to the boardroom. This streamlines the process, reduces costs, increases data accuracy and supports



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timely data analysis. "It is but natural that if sustainability is accompanied by huge investments, the value of the sustainability is ignored. The objective of energy management solution providers is to minimise capital and operational cost obviously, besides making the savings visible in a definite period of time. If and when sustainability is achieved with higher efficiency, its acceptability becomes higher, naturally," concludes Dr Ramesh. ■

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