The human factor in energy management

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Everyone, at some point or another, talks about savings energy and energy reduction. This suggests that the public is aware of all kinds of actions available to save energy ranging from things they can do on a routine basis to things that they can buy to become more efficient. For over 40 years, improvements in energy performance in buildings and industry were achieved through the installation of new and improved technologies.

A quick survey of the current capabilities for energy efficiency showed that existing energy saving techniques and technologies can reduce energy consumption by 73 per cent and that up to 25 per cent of the savings can be made without major capital costs or changes to business practices. However, the use and promotion of energy-efficient technologies is only achieving a fraction of its potential. Surveys by the International Energy Agency reported that less than 1 per cent savings has been achieved year on year.

There are many views as to why buildings and industry are slow on becoming energy efficient. Some fingers point to failure in energy market and policy to expedite the fusion of new technology. Others point to the low cost of energy and/or organisational short-sightedness requiring short return on investment (ROI).

Coupled with this, many people also think in a silo manner. When they are talking about energy saving or climate change, they care about and know how to save energy. However, when the topic of conversation changes, the action to save energy disappears from conscious thought.

A survey of top management of organisations by Harvard Business Review Analytical Services reported that seven out of the top ten reasons organisations did not invest in energy efficiency were within their own control and influence. As seen in Figure 1, the three biggest internal reasons are: 1) failure to assess the consequence of not reducing energy consumption; 2) uncertainty over the viability of opportunities to save, and; 3) leadership attitudes towards avoiding new costs.

Employee engagement

For the reasons above, employee engagement and behavioural change techniques are emerging. Many organisations, consultants, and even universities and governments are researching the silver bullet on creating employee buy in – the one way to create employee engagement.

Many turn to an array of activities such as staff engagement surveys, awareness training, energy behaviour campaigns, and embedding energy into appraisal processes to the more psychologically-based techniques such as “nudging”, neuro linguistic programming (NLPs) and other techniques.

Simply put, an organisation is made up of people working together in a defined structure or hierarchy using purposely designed ways of working and processes as informed by its measurements and information to make good quality products and/or services. Remove any of these four components, and an organisation would not function or exist. When all four are present, the synergistic effect creates an environment for all elements to function.

An organisation could have the best organisational structure, world-class facilities, and state-of-the-art tools...
and machinery, however, if it cannot not motivate and move its employees towards a common vision, its structure and its facilities and tools are of little use. Many CEOs attribute their people and organisational culture as more important than the business processes and products their organisation manufactures.

Similarly, to be successful in consuming energy efficiently and effectively, an organisation needs to address all five aspects of managing energy: people, structure, tools and techniques, information and insights and the synergistic effects.

An organisation may have an energy manager. However, he or she cannot foreseeably be saving energy in every location all the time. At its core, the organisation needs a large group of people to be interested in energy efficiency, consciously thinking about ways to save energy, and then sustaining the improvements made.

In fact, all organisations have the keys needed to unlock employee engagement. Behavioural change and staff engagement programmes like those popularised by John Kotter, Robert Cialdini, Patrick Lencioni, Daniel Goleman and Dan Ariely, focus inwards. This is because all employees are experts in the organisation’s ‘politics’ and ‘ways of working’. They know their jobs, what works and what they could ‘get away with’.

An organisation might need external support in some behavioural tools and techniques. But to be successful, it first needs to work out a coherent plan using knowledge and information about its employees, linking and integrating the right tools and techniques into the existing governance structure, and implementing and reviewing the effectiveness of its employee engagement.

The following common-sense-but-not-common-practice bullet points help to get energy efficient behaviours off the ground by creating a coherent plan.

**Have an energy management plan that is deliverable**

Many organisations declare an objective and target and then find opportunities to meet its targets. Some examples are: “We will reduce our carbon emissions by 100 per cent in 10 years or we close our existing facilities.” “The company will reduce our energy consumption by 15 per cent in one year”. These are badly written and very dangerous energy objectives.

The chosen organisational target needs to be backed up with real and defined objectives and to be backed up with real and defined objectives.

**...CEOs remain convinced that sustainability will transform their industries; that leadership can bring competitive advantage. But beneath this commitment, frustration is clearly evident**

UN Global Compact-Accenture CEO Study

> projects: Information such as “How much does it cost?”, “What is its projected reduction?”, “What is the delivery time?”, “What are the detailed steps to implementation?” “Have the project risks been identified?”, “And “Have they been agreed” needs to be available upfront.

Very frequently, it is also not possible to implement the all identified ‘projects’ in one go. Projects need to be spaced out with defined timeframes for implementation, identified key internal stakeholders and the resources needed to deliver the savings.

Pitzer in Ireland delivered its corporation’s energy targets from an Energy Master Plan with a portfolio of projects that could be implemented in phases over a five-year period. Objectives and targets that are unachievable set the team up for failure. It creates undue stress, is very demotivating and a waste of organisational time and resources.

**Make sure that the organisation has energy KPIs that relate to everyone.**

Performance measures are necessary to inform the organisation where they are in relation to where the strategy says they want to be. In many organisations, success of a project relies on one overall performance indicator. While using this indicator gives top management information about its relative successes in energy efficiency, it does little to show how the shop floor employees can contribute towards energy savings.

**...our technology contributes only to 30 per cent of the company’s success. Our people and organisational culture is responsible for the other 70 per cent. ...**

Ken Iverson, former CEO of Nucor Steel

organisation. It also doubles up as a tick sheet for communication, operational and maintenance requirements, and training requirements.

**Be authentic in the energy efficiency intentions and actions of top management**

A Lane survey of “hearts and minds” reported that acting with integrity, showing personal interest in people, delivering on promises, behaving in a consistent manner, etc. are activities that build trust in the organisation’s leadership. In the same survey, employees also said that their managers do the exact opposite.

This means top management must be exemplars for the behaviours they want to create. Top management must be seen, heard, and felt to be actively contributing towards energy savings. Being inauthentic is very easy to identify and significantly undoes the messages of energy efficiency. Telling employees to save energy but leaving office lights, fans, and other energy use on while out of office will detract from the message of authenticity.

**Communicate, communicate and communicate ten times more and in simple language**

Many of the languages and terminologies used in energy management are very scientific or engineering focused by nature. Words such as “high efficiency”, “premium”, “eco”, “low carbon”, “green”, and “smart” mean something to the technical folks. It makes them feel knowledgeable and important. It may also acts as a shield to protect them from the things with which he/she is less familiar. However, other employees, concerned with their own work, would be unfamiliar with the jargon used.

The use of technical jargon also does not help the boardroom assess its risk and rewards. It doesn’t facilitate the board to make informed decisions. In fact, it creates a perfect environment for confusion. When this sets in, energy efficiency is shelved.

Once the message is simplified, it needs to be communicated on a consistent and repeated basis. Successful organisations utilise a variety of methods to communicate ten times more often than other organisations.

**Create opportunities for employees to get involved**

There is nothing worse than engaging in and being motivated to do something only to find there is nothing that could be done. The organisation needs to
create a platform where employees can contribute towards energy reduction and constantly reinforce energy efficient behaviour by integrating it into normal practices.

GE, GSK, and Diageo reduce their energy consumption significantly by engaging their own employees to tease out opportunities for improvements. These are not limited only to energy but also in water, scheduling, waste, production rate losses, etc. GE’s, GSK’s and Diageo’s employees own the identified opportunities for implementation.

In a more “formal” organisation, it is prudent that energy saving behaviours can maximise and sustain their energy efficiency efforts. It does so by building a series of processes and steps that slows down and breaks down the people barriers by focusing on the joys of working together towards a common and larger goal.

References


"... Achieving a goal, accomplishing a task, or resolving a problem often evoked great pleasure and sometimes elation. Even making good progress towards such goals could elicit the same reactions." Teresa Amabile, 2011"
BEHAVIOUR CHANGE

Please mark your answers on the sheet below by placing a cross in the box next to the correct answer. Only mark one box for each question. You may find it helpful to mark the answers in pencil first before filling in the final answers in ink. Once you have completed the answer sheet in ink, return it to the address below. Photocopies are acceptable.

QUESTIONS

1. In energy management, the concept of behaviour change is about:
   - [ ] giving rewards in exchange for staff overtime
   - [ ] bringing energy savings into the conscious mind
   - [ ] punishing employees who arrive for work late
   - [ ] giving employees more responsibilities

2. An organisation is made up of:
   - [ ] everyone living near the organisation
   - [ ] shareholders of the organisation
   - [ ] people, tools and machinery, a structure to bind everything together
   - [ ] tools and machinery owned by the organisation

3. What is the top reason management does not invest in energy efficiency?
   - [ ] do not understand the complex language used to describe energy savings opportunities
   - [ ] have bigger pot of money as dividend
   - [ ] climate change is not real and does not affect the organisation
   - [ ] compliance with regulation is not mandatory

4. When implementing a behaviour change programme, the only way to achieve success is:
   - [ ] energy awareness training
   - [ ] staff engagement surveys
   - [ ] nudge employees to save energy
   - [ ] it depends on what is needed to create a coherent plan

5. To be effective in using energy effectively and efficiently, an organisation should:
   - [ ] specify high efficiency equipment only
   - [ ] appoint an energy manager who is wholly responsible
   - [ ] purchase renovably-sourced energy
   - [ ] engage a large group of employees working consciously to save energy

6. Behaviour change, employee engagement and organisational dynamics is:
   - [ ] a new “black box” subject
   - [ ] the domain and know-how of a select few
   - [ ] a coherent plan linking employees with the processes, structure and machinery
   - [ ] irrelevant in terms of saving energy

7. Having an energy management plan that is realistic, concrete and achievable:
   - [ ] helps achieve the organisation objectives and is highly motivating for its employees
   - [ ] doesn’t matter as the plan will change anyway
   - [ ] gives top management more time to go on holiday
   - [ ] gives the Environment Agency more work to do

8. It is important that everyone has an opportunity to contribute to energy efficiency because:
   - [ ] it gives employees time off work
   - [ ] it reinforces the concept of energy efficiency behaviours
   - [ ] it allows top management to plan for redundancy
   - [ ] it gives employees a change from repetitive work

9. Top management show their real intention to save energy by:
   - [ ] removing insulation on hot pipes so that employees can insulate them
   - [ ] investing in an employee transport bus but continuing to drive to work
   - [ ] telling employees to turn off light and doing so themselves
   - [ ] taking employees through disciplinary action for not saving energy

10. Organisation that are successful in employee engagement communicates:
    - [ ] 2 times more
    - [ ] 5 times more
    - [ ] 8 times more
    - [ ] 10 times more

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