

*Energy Management in Business*  
*The Manager's Guide to Maximizing and Sustaining Energy Reduction*

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The book deals with the popular topic of energy management. This is an interesting and important topic since we tend to take energy for granted, although there are certain limitations to the resources that energy is produced from: our environment. Being successful in reducing energy consumption is part of being sustainable. However energy reduction and energy saving are not simply savings in fuel bills.

Issues such as energy costs and energy efficiency and the need for energy reductions are thoroughly examined in the first part of the book with proposals on how to achieve energy reductions and how to overcome obstacles to increasing energy efficiency. Moving beyond a cost-cutting approach to maximize value and profitability requires changes in the traditional philosophy of any business. Although the benefits of lower energy consumption are very tempting (for example lower energy costs, tax avoidances, improved CO<sub>2</sub> footprints and overall better promotion and competitiveness) it seems that business practices are not there yet. The philosophy of energy management is not yet part of the everyday business activities on both the employee and the more operational and technical levels. A change in the mindset of both senior management and employees is required.

A detailed examination of the various tools and techniques used by consultants and contractors for assessing and recommending energy reductions is presented in the second part of the book. It is undisputed that technology has offered a great deal and indeed has assisted in the improvement of several methodologies. It is evident that there are now even more advanced devices and techniques that can help to control energy costs and increase energy efficiency but this is not enough. The emphasis must be placed on the people that will use the devices, will apply the techniques and monitor the results and will adopt the overall philosophy of energy savings. Otherwise all efforts will only reduce the problem but never optimize the solutions. It is, again, people that will detect the next limitation and will try to solve it with a new combination of detectors etc.

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The third part of the book examines how to gain quick results by understanding failures and presenting the maintenance cycle in order to avoid common mistakes. These improvements require small or no capital costs and can be implemented with no delays. How to choose the right consultant in order to help the business achieve its targets is also demonstrated, although it is emphasized that what could work for one business environment is not necessarily the best choice for another.

Towards the last part of the book the importance of the commitment of the senior management towards energy management is emphasized. Making the results of an energy reduction program last requires a management system that changes the mentality of the employees but also the everyday practices on the manufacturing/operational level. In this respect the management systems and how they should be implemented to ensure long-term energy reduction are examined. More specifically ISO 50001, the new energy management systems standard, is presented, which aims at long-term sustainable energy performance improvement. This ISO is based on the principle of continuous improvement also used in other standards such as ISO 9001 or ISO 14001. The book however notes that any energy management system should involve the whole company and be integrated into daily operations to ensure sustainable energy reductions.

This book is a very useful contribution providing an overview of the reality in the business environment today. Several surveys demonstrate that towards the end of 2010, the majority of respondents had not started to reduce the energy consumed in their business but expect some form of regulation to enforce energy reduction. Within this context the book is an important contribution to analyzing techniques and methodologies available, how to gain quick results by improving everyday practices, and provides useful information on how to select the right technique and the right consultant. It also offers great help by providing a number of case studies, sometimes a bit too technical, but useful to the manager and even more so to the engineer involved in this area. Anyone with an interest in the energy sector will be able to follow and understand the basic principles presented in the book.

In this respect the book certainly provides a framework for thought and implementation. It satisfies its initial purpose of introducing and analyzing the topics of energy management and present energy reduction opportunities in the business context. It is therefore an excellent source for practitioners, academics, students and anyone in general who wishes to gain a deeper understanding of energy management and the benefits/risks that businesses face.