

Energy Management in Buildings

The Earthscan Expert Guide

By David Thorpe

Series: Earthscan Expert

'Provides a complete introduction to the subject of energy management, and will, I'm sure, be useful to both trainees and novices and industry veterans seeking an updating of their knowledge with the latest developments. David is a clear writer, who manages to make the most technical subjects accessible. He has a clear overview of all sectors and technologies.' - Nick Bent, Editor of Energy Focus Magazine

The role of the energy manager has evolved significantly as the task of cutting greenhouse gas emissions from buildings has become increasingly important. Managers are now technical experts, negotiators, construction project managers, procurement specialists, efficiency advocates and often provide energy services to others.

The book covers how to:

- conduct an energy audit
- plan a monitoring and verification strategy
- make any energy-saving campaign successful
- make use of free energy for lighting and managing heat loss and gain.
- evaluate and make the financial case for energy-saving measures

It also contains a special chapters on:

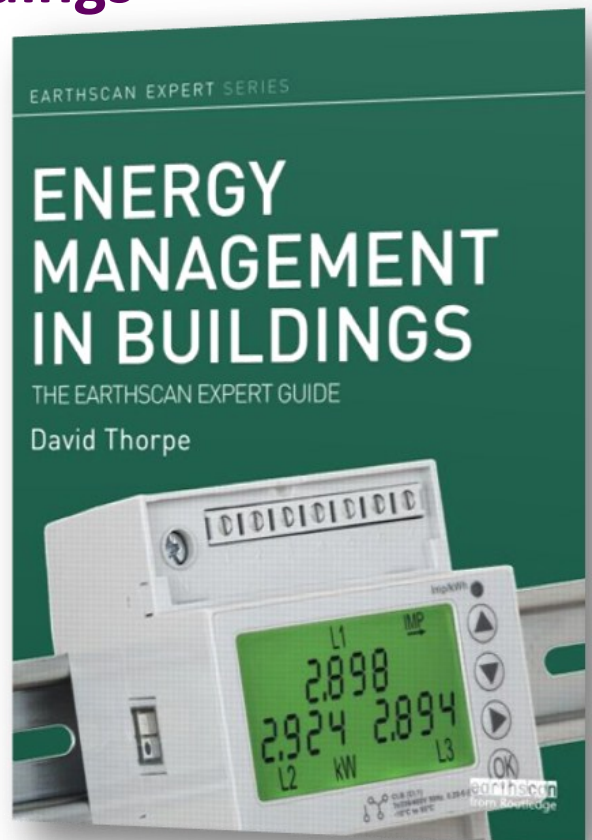
- demand management through automated systems
- how to achieve zero energy buildings
- regulatory requirements in Britain, Europe and the United States

For all professional energy, building and facilities managers, energy consultants, students, trainees and academics. It takes the reader from basic concepts to the latest advanced thinking, with principles applicable anywhere in the world and in any climate.

November 2013 | 248pp

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About the Author

David Thorpe is community manager of Sustainable Cities Collective, an online community for leaders of major metropolitan areas, urban planning and sustainability professionals. Until 2013 he was for 13 years News Editor of Energy and Environmental Management magazine, for which website he also wrote a weekly op-ed column. He is also the author of several books and hundreds of articles on related subjects. Formerly director of publications at the Centre for Alternative Technology, he has written two other books in the Earthscan Expert series, Sustainable Home Refurbishment and Solar Technology, and several B2B ebooks for the publisher DoSustainability. He runs his own sustainable media consultancy, Cyberium, manages the Green Deal Advice website, and blogs regularly as The Low Carbon Kid. Find him on Twitter @DavidKThorpe.

Energy Management in Industry

The Earthscan Expert Guide

By **David Thorpe**

Series: Earthscan Expert

'David Thorpe's book *Energy Management in Industry* is an easy to read book about how you can save energy in your company... He does this without [needing] to over complicate it with technical details and scientific formula. I enjoyed reading this book and would highly recommend it to energy managers and anyone who would want to reduce energy consumption.' - Kit Oung, Energy Consultant and author of *Energy Management in Business*, Committee Member, British Standards Institute BSI-KSA

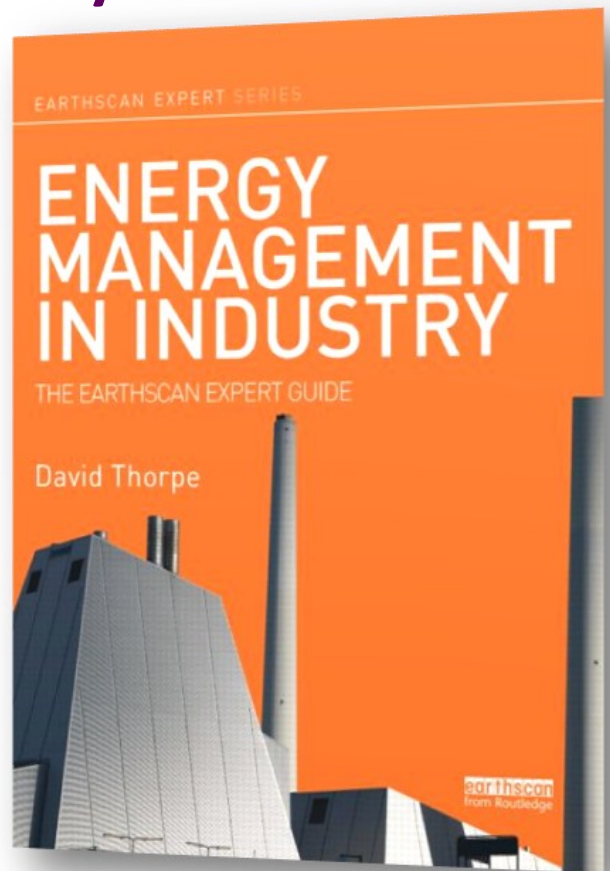
Energy demand reduction is fast becoming a business activity for all companies and organisations because it can increase profits regardless of the nature of their core activity. The International Energy Agency believes that industry could improve its energy efficiency and reduce carbon dioxide emissions by almost a third using the best available practices and technologies.

This guide looks at the many ways available to energy managers to achieve or even exceed this level of performance, including:

- base-lining consumption
- planning a monitoring and verification strategy
- metering (including smart, wireless metering)
- energy supply management
- motors and drives
- compressed air and process controls.

It also looks at topics covered in greater detail in its companion volume, *Energy Management in Buildings*: insulation, lighting, renewable heating, cooling and HVAC systems. Uniquely, it includes a whole chapter on greening data centres. Further chapters examine minimising water use and how to make the financial case, both to prioritise measures for cost effectiveness, and to get management on board.

This title is aimed at all professional energy, industry and facilities managers, energy consultants, students, trainees and academics and can be read alongside training for ISO 50001 - Energy Management Systems. It takes the reader from basic concepts to the latest advanced thinking, with principles applicable anywhere in the world and in any climate.



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Preface. Introduction. 1. Measuring Energy Consumption 2. Metering 3. Airtightness and Insulation 4. Lighting, Daylighting and Controls 5. Heating and Cooling 6. Heating, Ventilation and Air Conditioning Systems 7. Energy Reduction Technologies 8. Motors, Drives and Compressed Air 9. Refrigeration 10. Process Controls 11. Data Centres 12. Minimising Water Use 13. Making the Financial Case Conclusion. Appendix.

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David Thorpe is community manager of Sustainable Cities Collective, an online community for leaders of major metropolitan areas, urban planning and sustainability professionals.

Please find an extended biography on David Thorpe overleaf.

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