Opening a door to energy literacy

At the core of the global warming debate is the issue of energy. But how many of us know how to read our electricity meter? Or understand the differences between heat transfer by convection, conduction, radiation and infiltration?

At an individual level, such knowledge can help us make our own homes more energy efficient: we can make more informed decisions in selecting insulation or windows, and in choosing more effective design options to prevent unnecessary heat losses or gains.

At a broader level, there is a need for us effectively participate in the public debate about energy futures by increasing our 'energy literacy'. This means understanding some basics about the underlying physical laws, technologies and issues around fossil fuels, electricity and nuclear power; patterns of energy consumption; and alternative energy technologies.

Published earlier this year as a text for tertiary students in the US, *Energy for*

Sustainability also functions as an up-todate, comprehensive resource for those interested in becoming more energy-literate.

While it is US-centric, the book also offers detailed explanations of broader energy topics, supported by plenty of useful diagrams, graphs and tables.

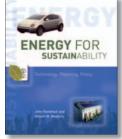
Most of the book is devoted to exploring three important energy applications: buildings, electricity and transportation. For those who want to understand the basics, there are sums to show how better windows, more insulation, tighter building envelopes and better ducting can reduce a building's energy demand for heating and cooling. And there are even more energy sums to demonstrate the relative efficiencies of different heating and cooling systems.

You can find out about geothermal heat pumps, cogeneration systems, microturbines, fuel cells, green buildings, distributed energy, photovoltaics, wind farms, hybrid and electric cars and biofuels,



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Energy for Sustainability Technology, Planning, and Policy John Randolph and Gilbert M Masters

Island Press, USA 2008, Hardback ISBN: 9781597261036 – AU \$150.00 Available in Australia and New Zealand from CSIRO Publishing: www.publish.csiro.au

as well as the critical role of public energy policy and consumer choice in transforming energy markets for greater sustainability.

At 800 pages and a hefty price tag, this hardback book is not aimed at the casual reader, but for those who are serious about energy, it's a comprehensive reference to have at your fingertips.

