



Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy)

By Graham Palmer

[Download now](#)

[Read Online](#) 

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer

With rapidly declining costs and seemingly unlimited sunshine, the choice of solar in Australia seems obvious. Yet despite its many advantages, homes with solar remain completely dependent on the electricity grid for reliable supply, which in Australia implies mostly coal-fired generation. Indeed, even countries that have invested heavily in solar, such as Spain and Germany, have been unable to deflect the trajectory of fossil fuel dependence.

The reasons for this apparent paradox are varied, and this book provides a deeper and more nuanced understanding of the practical applications of photovoltaics (PV) in modern electricity systems. While the conventional life-cycle assessment (LCA) boundaries as prescribed by the IEA-PVPS provide a consistent methodology for comparing evolving PV technologies, the narrow boundaries exclude many critical downstream energy costs. Similarly, simple cost comparisons of PV versus conventional power sources overlook the significant economic and energy costs of intermittency and grid integration. Yet distributed storage, which could provide potentially valuable network support, is frequently given a low priority by advocates of solar.

Treating PV as an extension of, rather than as a substitute for, the fossil fuel enterprise enables a more productive discussion of PV's potential role in electricity generation. The sunburnt country of Australia, which has a modern electricity system, is an ideal case study for exploring the potential of solar PV. With a focus on rooftop solar, energy storage, grid integration, and electricity system issues, *Energy in Australia* offers valuable insights into the practical challenges of solar power. Although many national economies are already confronting a downward trend in energy return on investment (EROI) of oil and gas from both conventional and unconventional sources, the large-scale deployment of low-emission energy sources that lie below a critical minimum EROI threshold may ultimately prove counter-productive.

 [Download Energy in Australia: Peak Oil, Solar Power, and As ...pdf](#)

 [Read Online Energy in Australia: Peak Oil, Solar Power, and ...pdf](#)

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy)

By Graham Palmer

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy)

By Graham Palmer

With rapidly declining costs and seemingly unlimited sunshine, the choice of solar in Australia seems obvious. Yet despite its many advantages, homes with solar remain completely dependent on the electricity grid for reliable supply, which in Australia implies mostly coal-fired generation. Indeed, even countries that have invested heavily in solar, such as Spain and Germany, have been unable to deflect the trajectory of fossil fuel dependence.

The reasons for this apparent paradox are varied, and this book provides a deeper and more nuanced understanding of the practical applications of photovoltaics (PV) in modern electricity systems. While the conventional life-cycle assessment (LCA) boundaries as prescribed by the IEA-PVPS provide a consistent methodology for comparing evolving PV technologies, the narrow boundaries exclude many critical downstream energy costs. Similarly, simple cost comparisons of PV versus conventional power sources overlook the significant economic and energy costs of intermittency and grid integration. Yet distributed storage, which could provide potentially valuable network support, is frequently given a low priority by advocates of solar.

Treating PV as an extension of, rather than as a substitute for, the fossil fuel enterprise enables a more productive discussion of PV's potential role in electricity generation. The sunburnt country of Australia, which has a modern electricity system, is an ideal case study for exploring the potential of solar PV. With a focus on rooftop solar, energy storage, grid integration, and electricity system issues, *Energy in Australia* offers valuable insights into the practical challenges of solar power. Although many national economies are already confronting a downward trend in energy return on investment (EROI) of oil and gas from both conventional and unconventional sources, the large-scale deployment of low-emission energy sources that lie below a critical minimum EROI threshold may ultimately prove counter-productive.

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy)

By Graham Palmer Bibliography

- Sales Rank: #4125334 in Books
- Published on: 2013-11-22
- Released on: 2013-11-22
- Original language: English
- Number of items: 1
- Dimensions: 9.25" h x .26" w x 6.10" l, .50 pounds
- Binding: Paperback
- 91 pages

 [**Download**](#) Energy in Australia: Peak Oil, Solar Power, and As ...pdf

 [**Read Online**](#) Energy in Australia: Peak Oil, Solar Power, and ...pdf

Download and Read Free Online Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer

Editorial Review

Review

“The reader will have an opportunity to study and understand Australia’s different energy sectors. … The book is helpful for readers interested to learn about energy development in Australia. Students eager to learn about the economics of energy production and the environmental impacts of energy production could also benefit from this book. … the book is equipped with suitable references, which are helpful for the reader to study further in each respective topic and enhance their understanding of the concepts.” (Tunde Bello-Ochende, Yun Seng Lim and Mohammad Reza Hajmohammadi, *Frontiers in Energy Research*, December, 2014)

About the Author

Graham Palmer is a professional engineer with qualifications in electronic, industrial and renewables engineering, working in the HVAC (heating ventilation and air conditioning) industry in Melbourne Australia. He is also an independent part-time researcher in the sustainable energy field, contributing reports, articles, and papers in the energy efficiency and sustainable energy fields. His research interests include understanding the broader societal consequences of energy, climate policy and technology.

Users Review

From reader reviews:

Michele Anderson:

Do you have favorite book? For those who have, what is your favorite's book? Reserve is very important thing for us to find out everything in the world. Each guide has different aim or maybe goal; it means that guide has different type. Some people experience enjoy to spend their time to read a book. They can be reading whatever they consider because their hobby is usually reading a book. Think about the person who don't like looking at a book? Sometime, person feel need book when they found difficult problem or exercise. Well, probably you'll have this Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy).

Richard Russell:

Within other case, little men and women like to read book Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy). You can choose the best book if you like reading a book. Providing we know about how is important any book Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy). You can add knowledge and of course you can around the world by way of a book. Absolutely right, mainly because from book you can learn everything! From your country until finally foreign or abroad you will end up known. About simple factor until wonderful thing you could know that. In this era, you can open a book or even searching by internet unit. It is called e-book. You can use it when you feel uninterested to go to the library. Let's learn.

Alan Sarno:

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) can be one of your nice books that are good idea. We all recommend that straight away because this guide has good vocabulary that could increase your knowledge in terminology, easy to understand, bit entertaining but still delivering the information. The copy writer giving his/her effort to set every word into joy arrangement in writing Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) nevertheless doesn't forget the main stage, giving the reader the hottest along with based confirm resource data that maybe you can be one of it. This great information can drawn you into fresh stage of crucial thinking.

Rosemary Robinson:

Many people spending their time period by playing outside having friends, fun activity having family or just watching TV all day every day. You can have new activity to invest your whole day by studying a book. Ugh, you think reading a book will surely hard because you have to take the book everywhere? It ok you can have the e-book, getting everywhere you want in your Touch screen phone. Like Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) which is obtaining the e-book version. So , try out this book? Let's notice.

Download and Read Online Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer #RHGFWMAV13C

Read Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer for online ebook

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer books to read online.

Online Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer ebook PDF download

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer Doc

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer MobiPocket

Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer EPub

RHGFWMAV13C: Energy in Australia: Peak Oil, Solar Power, and Asia's Economic Growth (SpringerBriefs in Energy) By Graham Palmer