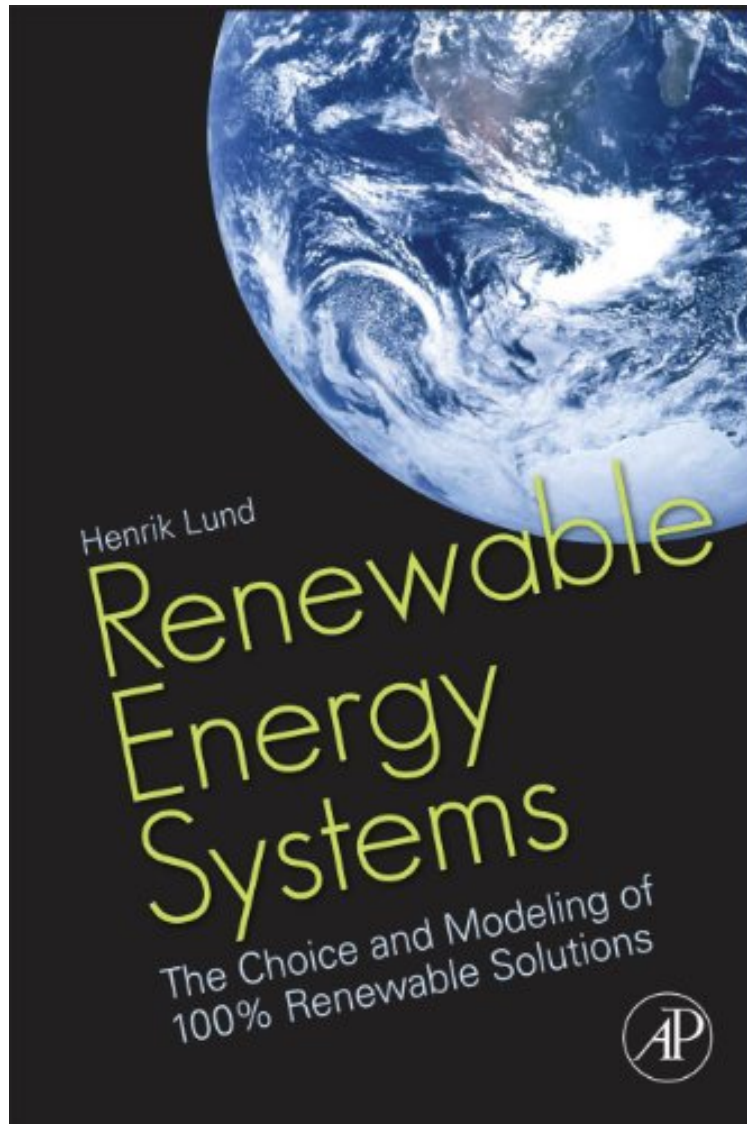


Renewable Energy Systems: The Choice and Modeling of 100% Renewable Solutions

Henrik Lund

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Henrik Lund : Renewable Energy Systems: The Choice and Modeling of 100% Renewable Solutions before purchasing it in order to gauge whether or not it would be worth my time, and all praised Renewable Energy Systems: The Choice and Modeling of 100% Renewable Solutions:

0 of 0 people found the following review helpful. Good Text Book; Could Have A More Appropriate Book Title By
ian Consumer This is a text book. It mainly deals with the socio-political difficulties when trying to decide whether to shift to renewable energy from traditional ways of energy production. By presenting cases from all over the world, the

book seeks to point out many factors that must be understood by the renewable energy implementer, most of them not controllable from a technical standpoint, because they are people and economically-oriented problems. The book stresses that change must be brought from "outside" of the existing energy production establishment, by a higher-up governing body such as state legislature or Congress, and by making the public more aware of the renewable energy alternatives. Change from the inside is often not possible, because of the existing establishment's entrenched tendency to maintain the status quo and resist change.

0 of 1 people found the following review helpful. Multiple-Use BookBy watziznameThis (1) could be (and probably is) the textbook for an introductory college course in renewable or sustainable energy production, or (2) a supplementary text for an intermediate-level economics course, or (3) a primer for the (at least potentially) environmentally or politically active lay reader. The interested reader should also read Ayers and Ayers' *Crossing the Energy Divide: Moving from Fossil Fuel Dependence to a Clean-Energy Future*, which provides a better discussion of what technological steps must be taken, but little about how to achieve the political basis for accomplishing those steps. That is where this book excels. Lund discusses the many steps the purveyors of the older technology take to prevent newer technology from even being considered by decision-makers, and what can be done to overcome them. A major tool therein is called Choice Awareness, making the public and the decision-makers aware that a real alternative choice exists when the suppliers of the old technology do everything they can to keep alternative proposals off the table and convince everyone that the ONLY choice is adopt their proposal or do nothing. (Hobson's Choice)The economics student especially should read Lund's critique of neoclassical economics, particularly cost-benefit analysis. For example, near the bottom of page 41: . . . All in all, the "real market" does not fulfill the institutional preconditions of the "free market" described in economic textbooks. . . . In the world of reality, the argument "let the free market decide" is synonymous with the sentence "let us decide." "Us" means the strongest actors on an oligopolistic market*

And near the bottom of page 173: . . . Traditional cost-benefit studies based on applied neoclassical economics simply do not take into consideration the real-life economic situation and do not refer to the politically decided overall economic goals of the government. [such as more jobs, balance of payments]And in the fourth paragraph on page 239: . . . Moreover, a present situation of equilibrium is assumed. "We are living in the best of all worlds." Thereby the models assume that the present market institutions provide the optimal use of resources in society.If this assumption were true, it would be silly to suggest any change, since no change could possibly be for the better. Of course, that is precisely what those with vested interest in the present technology want the decision-makers to think.Chapters 4-6 are devoted to the technical details of renewable energy systems and the computer models for analyzing them, primarily EnergyPLAN. The economics student and/or environmental activist may need to read only chapters 2 and 3, which are applicable not just to energy systems, but to almost any proposal that vested interests oppose; and chapters 7 and 8, and in chapter 7 maybe only section 13.One small oddity: I was surprised to read in chapter 3, near the top of page 38, "But, as we shall see in Chapter 2, . . ."Really, EVERYONE should read at least chapters 2, 3, 7, and 8. The book is well worth buying for those chapters alone.watzizname@gmail.com* An oligopolistic market is one with only a few suppliers, e.g. the soap market in United States, which is dominated by Colgate-Palmolive, Procter Gamble, and Unilever.

0 of 1 people found the following review helpful. Good Book for NewbiesBy L. MaupinRENEWAL ENERGY SYSTEMSWhen I saw this book was put out by the Academic Press I knew it would be a quality book. It is , however, more for the beginner. At the beginning, when they use the Oxford dictionary to define the word "choice" and "awareness" I felt llike I was being talked down to.However this is a good all around book, a basic book good for beginners. It covers "renewable energy"; the wind wave, tidal, hydropower, Solar power, which includes solar thermal, and geothermal power; Biomass and biofuel technologies; which includes biogasses, and renewable fraction of waste, which is household and industrial waste.The book then gets more technical and discusses different energy plans, including the Danish Society Engineers' Energy plan, which includes many graphs and diagrams and comparisons of the five alternative100 percent renewable energy systems. Empirical examples are given, which give the reader case examples which helps the reader make up their own minds.

How can society quickly convert to renewable energy? Can worldwide energy needs ever be met through 100% renewable sources? The answers to these questions rest largely on the perception of choice in the energy arena. It is of pivotal importance that engineers, researchers and policymakers understand what choices are available, and reasonable, when considering the design and deployment of new energy systems. The mission of this new book, written by one of the world's foremost experts in renewable power, is to arm these professionals with the tools and methodologies necessary to make smart choices when implementing renewable energy systems. Provides an introduction to the technical design of renewable energy systems Demonstrates effective methodologies for analyzing the feasibility and efficiency of large-scale renewable energy systems to help implementers avoid costly trial and error Contextualizes renewable energy design efforts by addressing the socio-political challenge of implementing the shift to renewables Free companion analysis software empowers energy professionals to crunch data for their own projects Features a dozen extensive case studies from around the globe that provide successful real-world templates for new installations

About the Author Dr. Techn. Henrik Lund is Professor in Energy Planning at Aalborg University in Denmark, Architect behind the EnergyPLAN Energy System Analysis software and Editor-in-Chief of Elsevier's international journal, Energy.