



Renewable Energy Systems, 2e

A Smart Energy Systems Approach to the Choice and Modeling of 100% Renewable Solutions

Henrik Lund Professor, Aalborg University, Department of Development and Planning and Editor-in-Chief of Elsevier International Journal ENERGY



Provides all the tools and methods needed to model, analyze, and choose the optimal renewable energy system to fit any project's needs.

KEY FEATURES

- Provides an introduction to the technical design of renewable energy systems
- Demonstrates how to analyze the feasibility and efficiency of large-scale systems to help implementers avoid costly trial and error
- Addresses 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 real-world templates for new installations

DESCRIPTION

In this new edition of *Renewable Energy Systems*, globally recognized renewable energy researcher and professor, Henrik Lund, sets forth a straightforward, comprehensive methodology for comparing different energy systems' abilities to integrate fluctuating and intermittent renewable energy sources. The book does this by presenting an energy system analysis methodology and offering a freely available accompanying software tool, EnergyPLAN, which automates and simplifies the calculations supporting such a detailed comparative analysis. The book provides the results of more than fifteen comprehensive energy system analysis studies, examines the large-scale integration of renewable energy into the present system, and presents concrete design examples derived from a dozen renewable energy systems around the globe.

Renewable Energy Systems, Second Edition also undertakes the socio-political realities governing the implementation of renewable energy systems by introducing a theoretical framework approach aimed at understanding how major technological changes, such as renewable energy, can be implemented at both the national and international levels.

TABLE OF CONTENTS

1. Introduction
2. Theory: Choice Awareness Theses
3. Methodology: Choice Awareness Strategies
4. Tool: The EnergyPLAN Energy System Analysis Model
5. Analysis: Large-Scale Integration of Renewable Energy
6. Analysis: Smart Energy Systems and Infrastructures
7. Analysis: 100 Percent Renewable Energy Systems
8. Empirical Examples: Choice Awareness Cases
9. Conclusions and Recommendations

New Chapter on - Smart Energy Systems!

ISBN: 978-0-12-410423-5

PREVIOUS EDITION ISBN:
978-0-12-375028-0

PUB DATE: April 2014 (U.S)

LIST PRICE: \$99.95, £60.99,
€71.95

FORMAT: Paperback

PAGES: c. 364

TRIM: 6w x 9h

**Save 30% off the list price
at the Elsevier Store!
Use Discount PRT314 at
Check-out!**

<http://store.elsevier.com/>

**Save 30% off the list price at the Elsevier Store! Use Discount PRT314 at
Check-out: <http://store.elsevier.com/>**

