Understanding Renewable Energy Systems

Second Edition

Volker Quaschning

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Understanding Renewable Energy Systems

By the middle of this century, renewable energy must provide all of our energy supply if we are to phase out nuclear power and successfully stop climate change.

Now updated and expanded, the second edition of this textbook covers the full range of renewable energy systems and also includes such current trends as solar power storage, power-to-gas technologies, and the technology paths needed for a successful and complete energy transition. The topics are treated in a holistic manner, bringing together maths, engineering, climate studies, and economics, and enabling readers to gain a broad understanding of renewable energy technologies and their potential. Numerous examples are provided for calculations, and graphics help visualize the various technologies and mathematical methodologies. *Understanding Renewable Energy Systems* is an ideal companion for students of renewable energy at universities or technical colleges – on courses such as renewable energy, electrical engineering, engineering technology, physics, process engineering, building engineering, environment, applied mechanics, and mechanical engineering – as well as scientists and engineers in research and industry.

Volker Quaschning currently teaches and conducts research in the Renewable Energy Systems Department at Berlin's University of Applied Sciences (HTW), Germany. He has many years of experience in various fields of renewable energy, both within Germany and abroad.

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