



NEW BOOK SERIES

Sustainable Energy Developments

Series editor: Jochen Bundschuh

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Renewable energy sources and sustainable policy options, including energy efficiency and energy conservation, can provide long-term solutions for key-problems of industrialized, developing and transition countries by providing clean and domestically available energy and, at the same time, decreasing dependence on fossil fuel imports and reducing greenhouse gas emissions. The book series will serve as a multi-disciplinary resource linking renewable energy and other sustainable materials with human society. The book series fulfils the rapidly growing worldwide interest in sustainable solutions. It covers all fields of renewable resources and their possible applications will be addressed not only from a technical point of view, but also from economic, financial, social, political, legislative and regulatory viewpoints.

The book series is considered to become a state-of-the-art source for a large group of readers comprising different stakeholders and professionals, including government and non-governmental organizations and institutions, international funding agencies, universities, public energy institutions, public health and other relevant institutions as well as to civil society.

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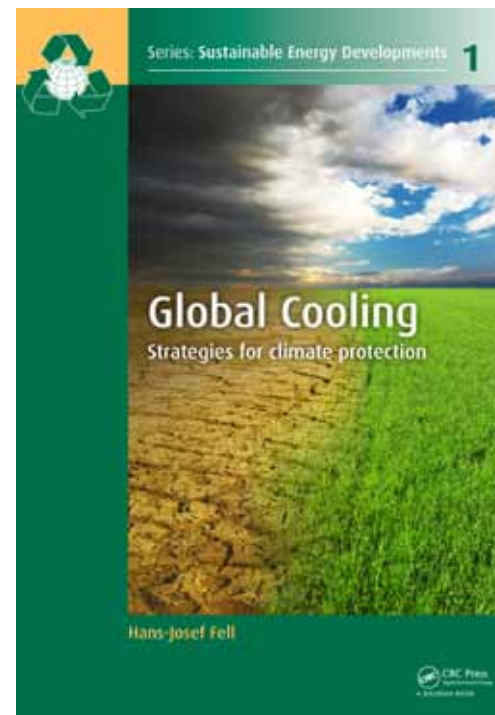
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SUSTAINABLE ENERGY BOOK SERIES

Series editor: Jochen Bundschuh

VOLUME I

Global Cooling: Strategies for Climate Protection

Hans-Josef Fell

Member of the German Parliament, Berlin, Germany

Global Cooling - Strategies for Climate Protection represents an attempt to redefine climate protection measures and to readjust climate protection targets in line with what is scientifically necessary and economically feasible. The reader is provided with an overview of recent developments and failings in and successful instruments for fighting climate change and global warming.

According to the author, effective climate protection measures rest on two pillars: stopping all greenhouse gas emissions and cleaning the atmosphere of spare carbon. Both are possible, if the use of fossil fuels in the energy, transport, construction and chemistry sector is terminated and the decision is made to consistently switch to a world economy with zero emissions instead. Global Feed-in-Tariffs can provide incentives for renewable energies as the German Feed-in-Tariff has proven – a measure which has been copied by almost 70 nations around the world. At the same time agricultural practices are necessary to support an increase in biodiversity: re-greening the desert, afforestation and organic agriculture and active storage of atmospheric carbon emissions within agricultural soils. >>>



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Continued: Hans-Josef Fell, *Global Cooling: Strategies for Climate Protection*

This book demonstrates that investment in renewable energies and a sustainable economy is not only a worthwhile cause but also has an economic value. In Germany, for example, jobs in the renewable energy sector increased tenfold in just a decade to more than 370,000 which made the sector an important economic pillar during the financial crisis. Most of the products, methods and measures required for effective climate protection already exist and are often cheaper than the, still predominant, use of climate warming methods. As the use of climate protection technologies increases these will become more and more competitive. At the same time the cost of fossil energies will rise due to a shortage of resources.

The book introduces new actors such as the financial industry as an investor and political actor. If the financial industry becomes a political actor and calls for a necessary regulatory framework, more nations will follow - accompanied with an economic benefit - which will create a class of pioneer nations instead of the ever failing project of a global climate agreement.

The transformation of the world economy can be accelerated through the right political measures. Active legislative support is necessary, for example the implementation of Feed-in-Tariffs for renewable energies, ending all subsidies for fossil fuels and the internalization of external damage costs such as nuclear waste management.

Global warming does not have to be our inescapable fate. If mankind pursues the right climate protection strategies, the earth can be cooled down in a few decades to an acceptable level.

Global Cooling: Strategies for Climate Protection

Hans-Josef Fell,

July 2012: 246 x 174 mm

Hardback: ISBN 978-0-415-62077-2, UK £ 44.99 / US \$ 79.95

For more information visit: www.crcpress.com/9780415620772

ABOUT THE AUTHOR

Hans-Josef Fell is a trained physicist and currently a member of the German Parliament for the Green Party. Fell is a globally recognized expert on energy policy with a visionary view on alternative energy sources. He serves as the Spokesperson on Energy Policy for the Green Party in the Parliament. Fell is the key architect of the German Feed-in-Tariff, which has been copied by almost 70 nations around the world. Hans-Josef Fell and his wife live in the south of Germany and have three children. The family house is built according to ecological criteria and runs completely on renewable energy.

For more information on *Sustainable Energy Developments*:
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FORTHCOMING IN SUSTAINABLE ENERGY DEVELOPMENTS

• **Jochen Bundschuh & Jan Hoinkis (eds.), *Renewable Energy Applications for Freshwater Production*** May 2012, ISBN 978-0-415-62089-5, HB, £ 76.99 / US \$ 119.95

Technologies and costs of novel treatment units using renewable energy sources are discussed and compared with those of other technologies for clean water production considering external costs. Energy efficiency is highlighted since it is of special importance in systems that are to be powered by renewable energy. Moreover applications of water supply systems providing water in emergency condition are discussed.

• **Jochen Bundschuh, Steven Erdahl, Will Gosnold, Maria Richards & Paul Morgan, *Geothermal Energy from Oil and Gas Wells***

Jun. 2013, ISBN 978-0-415-62090-1, HB, £ 108.00 / US \$ 169.95

Discusses the different scenarios how geothermal energy of hydrocarbon reservoirs can be used: (1) In wells with ongoing or abandoned oil and gas exploitation; (2) in offshore; (3) drilling new geothermal wells in promising hydrocarbon reservoirs.

• **Rainer Hinrichs-Rahlwes (ed.), *Sustainable Energy Policies for Europe: Towards 100% Renewable Energy*** Aug. 2012, ISBN 978-0-415-62099-4, HB, £ 63.99 / US \$ 99.95

Provides an overview and in-depth analysis of a vital debate. It will describe policy options and assess their impact on Renewable Energy development and deployment in Europe. Assessment will be tried how European policies can serve as best practise examples for developing and developed countries

• **Erik Dahlquist (ed.), *Biomass as Energy Source: Resources, Systems and Applications***

Sep. 2012, ISBN 978-0-415-62087-1, HB, £ 82.00 / US \$ 129.95

Provides a state-of-the-art in the field of available and future biomass resources, energy systems using biomass and optimization and control of systems and processes.

• **Erik Dahlquist (ed.), *Technologies for Converting Biomass to Useful Energy***

Sep. 2012, ISBN 978-0-415-62088-8, HB, £ 82.00 / US \$ 129.95

Provides the state-of-the-art in the field of efficient biomass conversion. Covering most technical issues such as combustion, gasification, torrefaction, pyrolysis, pelletizing and biogas production.

• **Emily S. Nelson, D.R. Reddy (eds.), *Green Aviation***

Dec. 2012, ISBN 978-0-415-62098-7

• **Jaco H. Appelman, Martijn Warnier (eds.), *Green ICT & Energy: From smart to wise strategies*** Dec. 2012, ISBN 978-0-415-62096-3

• **Carlo Minini, *Binary Geothermal Power Plants*** Jan. 2013, ISBN 978-0-415-62097-0

• **Ruggero Bertani, *The Geothermal World: Past, Present and Future: Power Plants and Geothermal Fields***

• **Jochen Bundschuh & Dina L. López (eds.), *Geothermal Energy from Underground Mines***

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