

Book Review

Renewable Energy in Europe: building markets and capacity by European Renewable Energy Council (EREC)

Reviewed by T orsten Wiedemann

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Published 2004 by James & James, London, UK.
ISBN: 1-84407-124-3

Keywords: book review.

Reference to this book review should be made as follows: Wiedemann, T. (2010) 'Renewable Energy in Europe: building markets and capacity by European Renewable Energy Council (EREC)', *Int. J. Environment and Pollution*, Vol. 40, Nos. 1/2/3, pp.290-292.

Biographical notes: Torsten Wiedemann has a Master's in Economics from Hamburg University (1992) and a Master's in Geography from Ghent University (1996). During the past 12 years he worked as a GIS expert in a wide range of fields at Ghent University and the Free University of Brussels/Belgium (Departments of Geography, Archaeology, Soil Science, Modern History and Human Ecology). Since 2003, he has been working at the Department of Human Ecology at the Free University of Brussels on projects related to environmental policy, spatial planning and environmental management systems, focusing on GIS models and databases for accessible urban green areas, urban forests and monitoring of environmental care at schools in Flanders region and South Africa.

The list of publications about renewable energy is very long and it will be hard to add complementary, valuable information to this massive amount of knowledge or even just to order and summarise the existing information. The book 'Renewable Energy in Europe' pretends to give

"clear, easy-reading, objective and reliable information on the achievements but also on the barriers still to be removed for a larger deployment of renewable energy in Europe. Its objective is to enlighten the difficult decisions to be taken to make the future energy-sustainable."

The book consists of six chapters, addressing the different sources and types of renewable energy (biomass, geothermal energy, small hydropower, solar photovoltaics, solar thermal and wind), preceded by an introductory chapter about the integration of renewable energy sources, discussing the advantages, benefits, challenges, political framework, EU targets and the development of energy production, based on the different types of renewable energy, during the period 1990-2002 in the world and in the European Union (EU 15).

Each chapter has been written by a different team of authors. The authors are members of the European Renewable Energy Council (EREC) and of different renewable energy industry associations, such as EUBIA (European Biomass Industry Association), EGEC (Geothermal Energy), ESHA (Small Hydro), EPIA (Photovoltaic Industry), ESTIF (Solar Thermal), EWEA (Wind).

Naturally, the different chapters were intended to be (?) or should have been constructed in the sections 'status of the technology', 'cost and prices', 'industry and employment', 'market development' (installed capacity and potentials in the EU-15 and in EU Accession and Candidate countries, market segments), 'market barriers' (tariff systems, subsidies, social and environmental costs, public acceptance, policies), 'future scenarios', 'targets' and 'action plans'.

Unfortunately, the data in the different chapters have not been collected in a comparable way, nor have the different chapters been structured in a uniform way. Especially the sub-sections 'capacity', 'future development (targets and scenarios)', 'environmental benefits and public acceptance' and 'action plans' have not been included in all chapters. Only for the chapters 'Geothermal Energy' and 'Solar Thermal' comprehensive action-plans to achieve a sustainable market development have been provided, leading to the overall impression that the aspect of active 'capacity building' has been more or less neglected.

In many cases, the data collection has been performed in a superficial way.

Many graphs present the total energy production per country only, making it impossible to compare data between different countries, with different areas, different numbers of inhabitants and different natural potentials.

Comparisons between current trends and EU objectives in sustainable energy production have been discussed in all chapters, but comparable graphics (as on p.69 (Geothermal Energy) and p.100 (Small Hydropower)) are missing. A figure like "Country breakdown of EU solar thermal area in operation, total and per capita" (p.146) is an example of the few exceptions where data have been processed into meaningful, comparable graphics, which are missing for most of the other chapters. In many graphics, data per country are sorted alphabetically, not ascending according to the data (or they are not sorted in any way, as in figure 4, p.5, "Total agricultural and forest area in the EU-15"), hindering the readability and value of this publication. Cross-data analyses between different renewable energy sources are missing.

The chapter on 'Biomass' misses any critical sound. Possible impacts on biodiversity and food production by planting fuel crops or fuel woods are not discussed.

An alphabetical index is missing, making the readability of the book difficult.

A summarising chapter is missing too, where the conclusions for the different renewable energy sources should be merged into guidelines to find the optimal mix of renewable energy technologies and markets to meet the different kinds of energy demand (heating, transport, electricity). For example, a discussion about electricity production, based on a mix of wind and solar power is missing. The chapters 'Biomass' and 'Wind' do not

provide practical advice and recommendations for policy-makers to help them in finding possible solutions for an optimal mix of policy instruments (taxes, tariffs, subsidies, emission trading schemes, ...).

The book contains many valuable raw data, which still have to be processed to get a readable, valuable and useful result for policy-makers. The lack of comparability of the different chapters is a barrier to make this publication a valuable contribution for capacity building in the field of renewable energy markets in Europe.

Renewable energy in Europe 2018 - recent growth and knock-on effects. Renewable energy in Europe 2017 - Recent growth and knock-on effects. Member States have set the strategic objective of building an Energy Union, which aims to provide affordable, secure and sustainable energy (European Council, 2014) and which has a forward-looking climate policy at its core (European Council, 2015). The most recent package of legislative measures, adopted by the European Commission in November 2016, aims to consolidate and match national climate and energy efforts, and facilitate the delivery of the 2030 targets for climate, energy efficiency and renewable energy sources (RES). Renewable Energy in Europe: Building Markets and Capacity, by European Renewable Energy Council (EREC). London, UK, James & James, 2004. ISBN: 1-84407-124-3. Discover the world's research. 19+ million members. 135+ million publications. 700k+ research projects. Despite impressive technological progress, renewable energy remains largely uncompetitive with conventional energy sources. The reason for the rapid development of renewable energy in the European Union has been primarily large-scale government support. Currently, the EU is modifying its strategy for renewable energy in order to reduce the share of support it offers. This will inevitably lead to a sharp reduction in the development of renewable energy, a failure to reach previously agreed-upon targets and the continuation of the current dependence on imported hydrocarbons. European Renewable Energy Council is the umbrella organization of the European renewable energy industry, trade and research associations active in the sectors of bioenergy, geothermal, ocean, small hydropower, solar electricity, solar thermal and wind energy. Product details. Publisher : Earthscan Publications Ltd.; 1st edition (August 1, 2004). No customer reviews. Pages with related products. See and discover other items: renewable energy in buildings books. There's a problem loading this menu right now. Learn more about Amazon Prime. Get free delivery with Amazon Prime. Prime members enjoy FREE Delivery and exclusive access to music, movies, TV shows, original audio series, and Kindle books. > Get started. Back to top.