1. Record Nr. UNINA9910253974503321

Titolo	Towards 100% Renewable Energy [[electronic resource]] : Techniques, Costs and Regional Case-Studies / / edited by Tanay Sidki Uyar
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	9783319456591
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (X, 453 p. 221 illus., 161 illus. in color.)
Collana	Springer Proceedings in Energy, , 2352-2534
Disciplina	333.794
Soggetti	Renewable energy sources Total energy systems (On-site electric power production) Sustainable development Environmental economics Renewable and Green Energy Energy Systems Sustainable Development Environmental Economics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	100% Renewable Energy -- Hydrogen and Fuel Cells -- Integration of Large Rooftop Photovoltaic Plants in Industrial or Commercial Areas -- New Technologies for Gearless Wind Turbines -- What are External Costs? How can we Estimate them? -- How do the External Costs of Renewable and Fossil Fuel Energy Compare? -- How can We Include External Costs in the Price of Energy? -- Methodological Approach for Analysis of Energy System Development in Order to Facilitate Creation of Zero Carbon Cities -- A New Evaluation Method Applying Sustainability and Climate Change Concepts: The Case of Planning New York City 2030 -- Investigating the Development of Solar Energy Systems Market in Turkey -- The Anemos Wind Atlas for Turkey -- Variability Analysis of Wind and Wind Power in Turkey -- Energy Report: 100% Renewable Energy in 2050 -- Balancing of Fluctuating Power to Obtain 100% Supply with Renewable Energy -- Non-linear Fatigue Analysis of a Wind Turbine Blade by a "Mixed FEM and Super Element

Approach -- Aerodynamic and Performance Analysis of Drag Driven Vertical-Axis Wind Turbines -- High-temperature Vacuum-tube Solar Heating System -- Optimal Control of Solar Heating System -- Curriculum Development into Renewable Energies through Coupled Research and Applied Projects -- Towards Zero Energy Buildings with Holistic Approach of Solving Problems -- Towards Zero Energy Buildings with Conventional or Renewable Energy Technology Systems? -- SOLTRIGEN -Solar Trigeneration -- Efficient; Use of Energy in the Industry -- A Simple Feedback Control Approach for Economic Measures to Deploy New Energy Technologies -- Analysis of Demand Side Management Option with Cogeneration Implementations in Turkish Energy System by MARKAL Model -- Analyzing Cost-Effective Renewable Energy Contribution Options for Turkey -- From Planning to Operation: Wind Power Forecasting Model for New Offshore Wind Farms -- Optimized Charging Management for Electric Vehicles -- State of the Art and New Technologies of Direct Drive Wind Turbines -- State of the Art in Thinfilm Compound Solar Cells -- Field Study for the Determination of the Ratio of Convective to Total Energy Transport in Geothermal Systems -- Enhanced Geothermal Systems: The Soultz-Sous-Forets Project -- Unitisation of Geothermal Resources: Economics and Policy -- Sustainable Energy Transition – Local Governments as Key Actors -- A Methodology for Adapting the Cities to Ecological and Economical Challenges -- Financing Renewable Energy Technologies in Turkey; Present State and Likely Developments -- The Potential of Concentrated Solar Power for the Namibian Transition toward a Renewable Energy Future -- Development of Solar Energy Industry and Utilization in Turkey -- Economic Impacts of Renewable Energy Increase in Germany -- An Alternative Carbon Dioxide Emission Estimation for Turkey -- Balancing Incumbent and Opposite Perspectives on Key Issues in the 100% Renewable Electricity Transition -- Simulations of 100% Renewable Electricity Supply in the Australian National Electricity Market -- Technical Efficiency Improvement Scenario Analysis for Conversion Technologies in Turkey -- Archetypes of 100% Renewable Energies Scenarios by 2050 -- Update of World Geothermal Development -- Wind Energy Statistics in Europe Onshore & Offshore -- Evaluation of WindSolar Hybrid System for a Household in Northern Cyprus -- Issues in Accessing Enormous Renewable Resource in Ireland -- Solar Atlas – One Quarter of 1% of Turkey’s Surface Area is Sufficient to Meet All the Power Demand with PV by 2050 -- History of Wind Energy and an Outlook for the Future -- A Country Update of Geothermal Development in New Zealand -- Models of Solar Deployment: Decentralized Versus Centralized Generation -- A Native Energy Decision Model for Turkey -- The Potentials and the Benefits of Intensified Res Cooperation in the European Union – A Pre Assessment -- The Role of Biomass in a 100% Renewable Energy World -- Offshore Wind Energy - Key to 100% Renewable Energy -- The Importance of Diversity for Renewables and Their Control in Future Electrical Infrastructure -- Managing Waste for Energy Use in Turkey -- Leaders and Laggards: Political Determinants of Renewable Energy Performance -- Energy Management Performance in Country Scale: A Data Envelopment Analysis -- Institutionalization of Solar Cities Development -- Photovoltaic Modules Performance Tests, Inspection and Product Certification for Domestic Production -- Reference Energy System Development for Turkish Residential Sector -- Cellular Power Grids for a 100% Renewable Energy Supply.

Sommario/riassunto

This volume collects papers presented at the International 100% Renewable Energy Conferences (IRENEC) from 2011 to 2015. Given the time span, the chapters have been updated to ensure they are timely,

and pertinent. These proceedings are the outcome of an international group of research scientists and experts contributing to energy solutions within their research, development, and implementation. This book is aimed at researchers and decision makers who are working on problems and issues within energy efficiency. Tables, graphs, and diagrams accompany the text promoting 100% renewable energy as the solution in solidarity with energy end-use efficiency and renewable energy storage. In this manner, Towards 100% Renewable Energy offers leaders considering the transition from fossil problems to alternative solutions new food for thought and incentives for action.