Record Nr. UNINA9910783117303321 Innovative energy systems for CO stabilization / / edited by Robert G. **Titolo** Watts [[electronic resource]] Pubbl/distr/stampa Cambridge:,: Cambridge University Press,, 2002 **ISBN** 1-107-13145-6 1-280-43363-9 9786610433636 1-139-14740-4 0-511-18082-9 0-511-06384-9 0-511-05751-2 0-511-30783-7 0-511-53603-8 0-511-07230-9 Descrizione fisica 1 online resource (xii, 455 pages) : digital, PDF file(s) Disciplina 333.79/14 Soggetti Renewable energy sources Power resources - Environmental aspects Atmospheric carbon dioxide - Environmental aspects Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Concerns about climate change and global warming / Donald J. Wuebbles, Atul K. Jain, Robert G. Watts -- Posing the Problem / Robert G. Watts -- Adaptive strategies for climate changes / Robert J. Lempert, Michael E. Schlesinger -- Energy efficiency: a little goes a long way / Susan J. Hassol, Neil D. Strachan, Hadi Dowlatabadi -- The potential of renewable energy to reduce carbon emissions / Walter Short, Patrick Keegan -- Carbonless transportation and energy storage in future energy systems / Gene D. Berry, Alan D. Lamont -- What can nuclear power accomplish to reduce CO emissions / Robert Krakowski, Richard Wilson -- Nuclear fusion energy / Arthur M. Molvik, John L. Perkins --

Energy prosperity within the twenty-first century and beyond: options

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The vast majority of the world's climate scientists believe that the build-up of heat-trapping CO2 in the atmosphere will lead to global warming unless we burn less fossil fuels. At the same time, energy must be supplied in increasing amounts for the developing world to continue its growth. This book discusses the feasibility of increasingly efficient energy use and the potential for supplying energy from sources that do not introduce CO2. The book analyses the prospects for Earth-based renewables: solar, wind, biomass, hydroelectricity, geothermal and ocean energy. It then discusses nuclear fission and fusion, and the relatively new idea of harvesting solar energy on satellites or lunar bases. It will be essential reading for all those interested in energy issues, including engineers and physicists (electrical, mechanical, chemical, industrial, environmental, nuclear), and industrial leaders and politicians. It will also be used as a supplementary textbook on advanced courses on energy.