Record Nr. UNINA9911006795803321 Autore Gevorkian Peter Titolo Large-scale solar power systems : construction and economics / / Peter Gevorkian Cambridge,: Cambridge University Press, 2012 Pubbl/distr/stampa **ISBN** 1-316-09021-3 1-139-57975-4 1-62870-285-0 1-139-57365-9 1-139-57293-8 1-139-22660-6 1-139-56937-6 1-139-57118-4 Descrizione fisica 1 online resource (xiii, 385 pages) : digital, PDF file(s) Collana Sustainability science and engineering series 621.31/244 Disciplina Soggetti Solar power plants Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Machine generated contents note: 1. Global warming and climate change; 2. Solar power and sustainable energy technologies and their impact on global economy; 3. Overview of solar power system technology; 4. Solar power system economics; 5. Long term project financing and power purchase agreements (PPA); 6. Solar power rebates, financing and feed-in tariffs programs; 7. Importance of solar power system peak power performance and solar power system hazard mitigation; 8. Solar power system econometric and analytical software solution; 9. Economics of carbon dioxide sequestration and carbon trading; 10. The smart grid systems deployment and economics; 11. Environmental design considerations; 12. Energy storage systems. "This book is a comprehensive discussion and economic analysis of Sommario/riassunto large scale solar power systems, specifically referencing critical issues related to design construction and financing. The book provides practical design, installation, and financing guidelines for large-scale commercial and industrial solar power projects. Engineering design and construction methodologies provide a step by step walk-through of all aspects of solar power systems. Design methodologies outline the specific requirements of solar and electrical design and construction documentation in meticulous detail, which can readily be applied to ground mount, roof mount, building integratedbuilding integrated photovoltaic (BIPV), and carport-type solar power projects. In view of the importance of solar power systems as a viable present and future energy resource, the book includes a dedicated chapter on smart grid transmission and large-scale energy storage systems"--