1. Record Nr. UNINA9910827077803321 The power of renewables: opportunities and challenges for China and Titolo the United States / / Committee on U.S.-China Cooperation on Electricity from Renewable Resources; Policy and Global Affairs Division Washington, D.C., : National Academies Press, 2010 Pubbl/distr/stampa **ISBN** 0-309-18664-1 1-282-97599-4 9786612975998 0-309-16001-4 Edizione [1st ed.] Descrizione fisica 1 online resource (257 p.) Disciplina 333.79 Soggetti Renewable natural resources - China Renewable natural resources - United States Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references (p. 191-202). ""Front Matter""; ""Preface""; ""Acknowledgments""; ""Contents""; Nota di contenuto ""Summary""; ""1 Introduction""; ""2 Resource Base""; ""3 Technology Readiness""; ""4 Environmental Impacts of Renewable Electricity Generation""; ""5 Renewable Energy Policies, Markets, and Deployment in China and the United States""; ""6 Transitioning to a Sustainable Energy Economy""; ""7 U.S.-Chinese Cooperation""; ""References""; ""Appendixes""; ""Appendix A: Timeline of U.S.-Chinese Cooperation on Clean Energy and Climate Change""; ""Appendix B: Life Cycle Assessment of Solar Thermal Power Technology in China"" ""Appendix C: Life Cycle Assessment of Biomass Power in China"""" Appendix D: Environmental Considerations for Photovoltaics" Sommario/riassunto "The United States and China are the world's top two energy consumers and, as of 2010, the two largest economies. Consequently, they have a decisive role to play in the world's clean energy future. Both countries are also motivated by related goals, namely diversified energy portfolios, job creation, energy security, and pollution reduction, making renewable energy development an important strategy with

wide-ranging implications. Given the size of their energy markets, any

substantial progress the two countries make in advancing use of renewable energy will provide global benefits, in terms of enhanced technological understanding, reduced costs through expanded deployment, and reduced greenhouse gas (GHG) emissions relative to conventional generation from fossil fuels. Within this context, the U.S. National Academies, in collaboration with the Chinese Academy of Sciences (CAS) and Chinese Academy of Engineering (CAE), reviewed renewable energy development and deployment in the two countries, to highlight prospects for collaboration across the research to deployment chain and to suggest strategies which would promote more rapid and economical attainment of renewable energy goals. Main findings and concerning renewable resource assessments, technology development, environmental impacts, market infrastructure, among others, are presented. Specific recommendations have been limited to those judged to be most likely to accelerate the pace of deployment, increase cost-competitiveness, or shape the future market for renewable energy. The recommendations presented here are also pragmatic and achievable."--Publisher's description.