Record Nr. UNINA9910786473003321 Autore Stapleton Geoff Titolo Grid-connected solar electric systems : the Earthscan expert handbook for planning, design and installation / / Geoff Stapleton and Susan Neill Abingdon, Oxon;; New York:,: Earthscan,, 2012 Pubbl/distr/stampa **ISBN** 1-135-06909-3 1-283-84651-9 1-135-06910-7 0-203-58862-2 Descrizione fisica 1 online resource (244 p.) Collana Earthscan expert series Altri autori (Persone) NeillSusan Disciplina 621.31/244 621.31244 Soggetti Building-integrated photovoltaic systems - Installation Electric power distribution 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 and index. Nota di contenuto Cover; Grid-connected Solar Electric Systems; Title Page; Copyright Page; Table of Contents; List of Illustrations; Preface and Acknowledgements; List of Acronyms and Abbreviations; 1 Introduction to Solar Power; 2 Solar Resource and Radiation; 3 PV Industry and Technology; 4 PV Cells, Modules and Arrays; 5 Inverters and Other System Components; 6 Mounting Systems; 7 Site Assessment; 8 Designing Grid-connected PV Systems; 9 Sizing a PV System; 10 Installing Grid-connected PV Systems; 11 System Commissioning; 12 System Operation and Maintenance 13 Marketing and Economics of Grid-connected PV Systems14 Case Studies: 15 Grid-connected PV and Solar Energy Resources: 16 Glossary; Index Sommario/riassunto Solar electricity - or photovoltaics (PV) - is the world's fastest growing energy technology. It can be used on a wide variety of scales, from single dwellings to utility-scale solar farms providing power for whole communities. It can be integrated into existing electricity grids with relative simplicity, meaning that in times of low solar energy users can

continue to draw power from the grid, while power can be fed or sold

back into the grid at a profit when their electricity generation exceeds the amount they are using. The falling price of the equipment combined with various incentive sc