

1. Record Nr.	UNINA9910460852103321
Titolo	Handbook for rooftop solar development in Asia // Asian Development Bank
Pubbl/distr/stampa	Metro Manila, Philippines : , : Asian Development Bank, , 2014 ©2014
ISBN	92-9254-848-4
Descrizione fisica	1 online resource (152 p.)
Disciplina	333.7923095
Soggetti	Solar energy - Asia Clean energy - Asia Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Contents; List of Boxes, Figures, and Tables; Preface; Acknowledgments; Abbreviations; Weights and Measures; Introduction; Purpose of Handbook; Rooftop Solar: A High-Benefit Power Source; Case Study: How ADB Transformed Its Rooftop; Handbook Contents; Chapter 1: Project Preparation; 1.1 Site Assessment; 1.2 Legal and Regulatory Frameworks; 1.3 Permits and Licensing; 1.4 Financing Options; Chapter 2: System Design; 2.1 The Components of a Rooftop Solar Photovoltaic System; 2.2 On- or Off-Grid Option; 2.3 Site Characterization and Assessment; 2.4 Solar Resource Assessment; 2.5 Shading Analysis 2.6 Array Configuration 2.7 Solar Photovoltaic Module Selection; 2.8 Mounting System Design; 2.9 Inverter Selection; 2.10 Wiring Design; 2.11 System Performance Assessment; 2.12 Due Diligence; Chapter 3: Procurement; 3.1 Preparation of Bidding Documents; 3.2 Pre-bid Activities; 3.3 Bid Evaluation; 3.4 Contracting; Chapter 4: Implementation; 4.1 Equipment Acquisition; 4.2 Obtaining Permits; 4.3 Ensuring Safety; 4.4 System Installation; 4.5 Testing and Commissioning; Chapter 5: Operation and Maintenance; 5.1 Performance Monitoring; 5.2 Cleaning 5.3 Diagnostic Testing and Preventative Maintenance Conclusion; Lighting the Way: ADB's Rooftop Solar Project; References; Annex 1 ADB

Rooftop Solar Project Process; Annex 2 ADB Rooftop Solar Project Permits and Clearances; Annex 3 Policy, Regulation, and Incentives for Solar Rooftops in the Philippines; A3.1 Renewable Energy Act 2008 (Republic Act No. 9513); A3.2 Incentives; Feed-in Tariff; Net Metering; A3.3 Eligibility; A3.4 Solar Energy Service Contract Process; Application Process for Commercial Projects; Conversion to Development/Commercial Stage; Feed-in Tariff
A3.5 Projects for Own Use of Power
A3.6 Microscale Projects for Noncommercial Use; Annex 4 ADB Rooftop Solar Project Shading Analysis; A4.1 Spherical Picture Method; A4.2 Simulation Software Sketch-Up Method; A4.3 Future Structures; Annex 5 ADB Rooftop Solar Project Technical Outline; A5.1 Physical Conditions of the Project Site; A5.1.1 Geographical Conditions; A5.1.2 Irradiation Readings and Meteorology; A5.1.3 Available Area; A5.1.4 Electrical Conditions; A5.1.5 Ways of Access to Project Site; A5.1.6 Shading Considerations; A5.1.7 Future Structures; A5.2 Rooftop Solar Design
A5.2.1 Physical Sizing
A5.2.2 Azimuth and Tilt Angles; A5.2.3 Structural Design of Support; A5.2.4 Key Plant Components; A5.2.5 Rooftop Solar Performance; A5.2.6 Technofinancial Model; Annex 6 Sample Solar Services and Site Lease Agreement; Boxes, Figures, and Tables; Figures; 1 Rooftop Solar Project Stages; 2 Diagram of a Solar Photovoltaic System; 3 Global Horizontal Irradiance as a Combination of Direct Normal Irradiance and Diffuse Horizontal Irradiance; 4 A Spherical Image from the ADB Rooftop Overlaid on a Solar Chart
5 Research Results on Cell Efficiencies over Four Decades, Showing Steady Improvement for Virtually All Photovoltaic Conversion Technologies
