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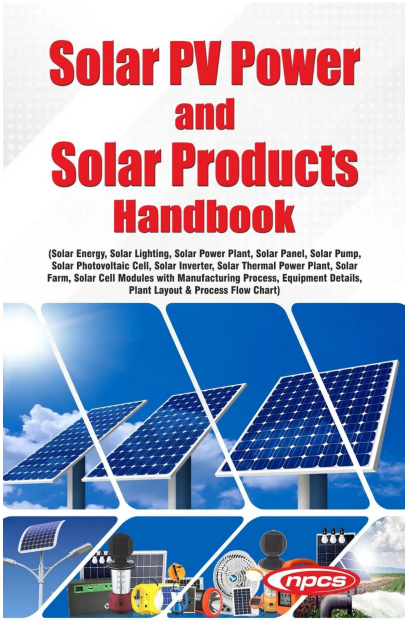

Solar PV Power and Solar Products Handbooks

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Description

Solar PV Power and Solar Products Handbook
(Solar Energy, Solar Lighting, Solar Power Plant, Solar Panel, Solar Pump, Solar Photovoltaic Cell, Solar Inverter, Solar Thermal Power Plant, Solar Farm, Solar Cell Modules with Manufacturing Process, Equipment Details, Plant Layout & Process Flow Chart)

Solar energy is expanding worldwide and becoming an increasingly important part of the energy mix in many countries. Solar energy is used all over the world, but in terms of total installed solar capacity, India, China, Japan, and the United States are now top of the world. Solar panels can create power almost anywhere on the planet. However, some regions receive more sunshine than others and hence have a greater solar energy potential. It is based on insolation, which is a measurement of how much solar radiation reaches a specific area on the earth's surface.
Solar energy can be captured in a variety of ways. Photovoltaic solar panels are the most frequent method. Photovoltaic (PV) devices use semiconductors to generate power directly from sunlight. Photons impact and ionize semiconductor material on the solar panel as the silicon photovoltaic solar cell absorbs solar energy, causing electrons to break free of their atomic bonds. A flow of electrical current is created when electrons are compelled to move in one direction. Only a portion of the light spectrum is absorbed, while the rest is reflected, too faint (infrared), or generates heat rather than electricity (ultraviolet). Concentrated solar power is the second type of solar energy technology (CSP). Solar thermal energy is used in CSP facilities to create steam, which is subsequently turned into electricity via a turbine.
The global solar energy installed capacity is estimated to reach 1,645 gigawatts (GW), registering a CAGR is 13.78%. The growth of the solar energy market is driven by an increase in environmental pollution and the provision of government incentives & tax rebates to install solar panels. In addition, a decrease in water footprint associated with solar energy systems has fueled their demand in power generation sectors. The demand for solar cells has gained major traction owing to a surge in rooftop installations, followed by an increase in applications in the architectural sector. Furthermore, the demand for parabolic troughs and solar power towers in electricity generation is expected to boost the demand for concentrated solar power systems.
Only the two commonly recognized kinds of technology for converting solar energy into electricity — photovoltaics (PV) and concentrated solar power (CSP, also known as solar thermal) — are considered in their current and possible future forms in The Future of Solar Energy.
• Expanding the solar sector considerably from its current small size may result in developments that no one can predict right now. Solar deployment in the future will be highly influenced by uncertain future market conditions and public policies, including

but not limited to measures aimed at mitigating global climate change.
The book covers a wide range of topics connected to Solar, as well as their manufacturing processes. It also includes contact information for machinery suppliers, as well as images of equipment.
A complete guide on Solar PV Power and Solar Products manufacture and entrepreneurship. This book serves as a one-stop-shop for everything you need to know about the Solar, which is ripe with opportunities for manufacturers, merchants, and entrepreneurs. This is the only book that covers Solar PV Power and Solar Products in depth. From concept through equipment procurement, it is a veritable feast of how-to information.

Content

1. INTRODUCTION
1.1 Photovoltaics Basics
1.1.1 Solar Photovoltaic Technology
1.1.2 PV Cells
1.1.3 Solar Photovoltaic System Design
1.1.4 Solar Performance and Efficiency
1.2 Concentrating Solar-Thermal Power Basics
1.3 The Future of Solar
2. PROCESS TO START A SOLAR ENERGY BUSINESS
2.1 Creating a Business Plan
2.2 Market Research
2.3 Legalising Business
2.4 Acquainted with Government’s Electricity Department
2.5 Finalizing Location
2.6 Financial Actions
2.7 Hiring Workers
3. SOLAR ENERGY
3.1 Potential
3.2 Thermal Energy
• Water Heating
• Heating, Cooling and Ventilation
• Cooking
• Process Heat
• Water Treatment
• Molten Salt Technology
3.3 Electricity Generation
• Photovoltaic

• Concentrated Solar Power
3.4 Other Applications
3.5 Architecture and Urban Planning
3.6 Agriculture and Horticulture
3.7 Transport
3.8 Fuel Production
3.9 Energy Storage Methods
3.10 Development, Deployment and Economics
4. PHOTOVOLTAIC SYSTEMS
4.1 Functioning of the Photovoltaic Cells
4.2 Types of Solar Photovoltaic Cells
4.2.1 Amorphous Silicon (a Si)
4.2.2 Cadmium Tellurium (CdTe)
4.2.3 Copper Indium Gallium Selenide (CIS, CIGS)
4.2.4 Thermo Sensitive Solar Cells and Other Organ Cells (DSC)
4.2.5 Energy Depreciation of Photovoltaic Cells
4.2.6 Photovoltaic System Types
4.3 Network Connected Solar Power Plants (Farms)
4.4 Standalone Systems (Off Grid) or Isolated Systems
4.5 Hybrid Systems
4.6 Independent Systems for Economic Purposes
4.7 Solar Radiation
4.8 Legislative and Institutional Framework for Producing
of Electric Energy from RES
4.9 New Solar Photovoltaic Panel Technologies and Development Possibilities
4.9.1 Concentrating Photovoltaic Systems
4.9.2 Carbon Nanotube (CNT)
5. SOLAR PHOTOVOLTAIC (PV) SYSTEM COMPONENTS
5.1 Introduction
5.2 Matching Module to Load
5.3 Solar Module
5.4 Solar Array
5.5 Combiner Box
5.6 PV Disconnect
5.7 Charge Controller
5.8 Battery
5.9 Battery Banks
5.10 Inverters
5.11 AC Disconnect Switch
5.12 AC Breaker Panel
5.13 System Metering

5.14 Conclusion
6. DESIGN AND SIZING OF SOLAR PHOTOVOTAIC SYSTEMS
6.1 Benefits
7. SOLAR LIGHTING SCENARIO
8. SOLAR POWER PLANT
8.1 Photo Voltaic (PV) Principle
8.2 Benefits
8.3 Components of Solar Power Plant
8.3.1 Photovoltaic (PV) Panel
8.3.2 Inverter
8.3.3 Energy Storage Devices
8.3.4 Charge Controller
8.3.5 System Balancing Component
8.3.6 Blocking Diode
8.3.7 Voltage Regulator
8.3.8 Performance of Solar Cell
8.4 Solar Cell Efficiency
8.5 Factors Affecting the Efficiency of Solar Cells
8.5.1 Temperature
8.5.2 Sun Intensity
8.5.3 Solar Shading
8.5.4 Reflection
8.6 Types of Solar Power Plant
8.7 Direct-Coupled Standalone System
8.8 Standalone System with Battery Storage
8.9 Standalone System with Battery and Charge Controller
8.10 Standalone System with AC and DC Loads
8.11 Hybrid Standalone System
8.12 Grid-Connected System
8.13 Classification of Solar Power Plants (PV Power Plants)
8.14 Advantages
8.15 Disadvantages
8.16 How Solar Power Plant Works?
8.17 Working of Photovoltaic Plant
8.17.1 Parabolic Troughs
8.17.2 Solar Power Tower
8.17.3 Solar Pond
8.17.4 Efficiency of Solar Power Plant
9. SOLAR PANEL

9.1 Theory and Construction
9.1.1 Arrays of PV Modules
9.1.2 Smart Solar Modules
9.1.3 Module Interconnection
9.1.4 Concentrator
9.1.5 Mounting and Tracking
9.1.6 Tracking
9.1.7 Inverters
9.1.8 Connectors
9.2 Efficiency
9.2.1 Radiation-Dependent Efficiency
9.2.2 Aluminum Nanocylinders
9.3 Technology
9.3.1 Thin Film
9.4 Performance and Degradation
9.5 Maintenance
9.6 Waste and Recycling
9.7 Production
9.8 Applications
9.9 Limitations
9.9.1 Impact on Electricity Network
9.9.2 Implication onto Electricity Bill Management and Energy Investment
9.10 How do Solar Panels Work
9.11 Benefits
9.12 Types
9.13 First Generation Solar Panels
9.13.1 Monocrystalline Solar Panels (Mono-SI)
9.13.2 Polycrystalline Solar Panels (Poly-SI)
9.14 Second Generation Solar Panels
9.14.1 Amorphous Silicon Solar Cell (A-Si)
9.14.2 Thin-Film Solar Cells (TFSC)
9.15 Third Generation Solar Cells
9.15.1 Biohybrid Solar Cell
9.15.2 Concentrated PV Cell (CVP and HCVP)
9.15.3 Cadmium Telluride Solar Cell (CdTe)
9.16 Advantages
9.17 Disadvantages
9.18 What are Solar Panels Made of?
9.19 Solar Panel Production
9.20 Equipments

9.20.1 Stringer Machine
9.20.2 Automatic Station with Conveyor Belts for Manual Bussing or Automatic Bussing Machine
9.20.3 Electroluminescence Test
9.20.4 Laminator with Buffers
9.20.5 Automatic Framing Machine
9.20.6 Automatic Silicone Dispenser
9.20.7 Eva and Back sheet Cutting Machine
9.20.8 Solar Simulator
9.21 Accessories
9.21.1 Ribbon Cutting Machine
9.21.2 String Reparation Table
9.21.3 Light and Inspection Mirror Tables
9.21.4 Support and Transport Tables
10. SOLAR PUMP
10.1 Introduction
10.2 Advantages of Solar Pump
10.3 System Types and Configurations
10.4 How the Electric Pump is Powered?
10.5 Type of Water Pump Systems
10.5.1 Borehole/Well Pump (Submersible Pump)
10.5.2 Surface Pump
10.5.3 Floating Pump
10.6 Types of Pumps
10.6.1 Roto-Dynamic
10.6.2 Positive Displacement
10.7 Designing and Selecting a Solar Water Pumping System-Summary
10.8 Determine Where the Solar Array will be Located
10.9 Determine Where the Pump will be Located
10.9.1 Location of Borehole or Well Pump
10.9.2 Location of Surface Pump
10.10 Determining Length of Cables Required
10.11 Determine Where and How the Water will be Stored
10.12 Measure the Static Head for the Site
10.12.1 Calculating Static Head- Borehole/Well Pump
10.12.2 Calculating Static Head-Surface Pump
10.13 Measure the Distance Between Water Source and the Location where Water is Pumped
10.13.1 Borehole/Well Pump
10.13.2 Surface Pump for the Surface Pump there will be
Two Water Pipes

10.14 Benefits of Solar Pump
10.15 Solar Pump Advantages
10.16 Solar Pump Disadvantages
10.17 Technologies in Solar Water Pump
10.17.1 On-Grid Solar Pump
10.17.2 Hybrid Solar Pump
10.17.3 Solar Pump VFD Drive
10.18 Components of a Solar PV Water Pumping System
10.18.1 Solar Array
10.18.2 Pump Controller
10.19 Locating and Mounting the Controller
10.19.1 Electric Motor
10.20 Installation of Solar PV Water Pumping System
10.20.1 Solar PV Array Installation
10.20.2 Controller Installation
10.20.3 Motor and Pump Installation
11. SOLAR CELL
11.1 Solar Cell Structure and Operation
11.2 Uses
11.2.1 Space
11.2.2 Solar Powered Vehicles
11.3 Applications
11.3.1 Cells, Modules, Panels and Systems
11.4 Subsidies and Grid Parity
11.5 Theory
11.6 Efficiency
11.7 Materials
11.7.1 Crystalline Silicon
11.7.2 Thin Film
11.7.3 Multijunction Cells
11.8 Research in Solar Cells
11.8.1 Perovskite Solar Cells
11.8.2 Bifacial Solar Cells
11.8.3 Intermediate Band
11.8.4 Liquid Inks
11.8.5 Upconversion and Downconversion
11.8.6 Light-Absorbing Dyes
11.8.7 Quantum Dots
11.8.8 Organic/Polymer Solar Cells
11.8.9 Adaptive Cells
11.8.10 Surface Texturing

11.8.11 Encapsulation
11.8.12 Autonomous Maintenance
11.9 Manufacture
11.10 Recycling
11.11 How a Solar Cell Works
12. SOLAR PV CELL CONSTRUCTION
12.1 How Are Silicon PV Cells Made?
12.2 Basic Steps to Produce Monocrystalline PV Cells
12.3 P-Type Vs N-Type Solar Cells
12.4 P-Type Solar Cells
12.5 N-Type Solar Cells
12.5.1 Advantages of N-Type
12.6 Cost Vs Efficiency
12.7 Heterojunction Solar Cells
12.8 N-Type TOPCon Solar Cells
13. SOLAR INVERTERS
13.1 Classification
13.2 Maximum Power Point Tracking
13.3 Solar Micro-Inverters
13.4 Grid Tied Solar Inverters
13.5 Solar Pumping Inverters
13.6 Types of Solar Inverter
13.7 Advantage
13.8 Working of Solar Inverter
13.9 Solar Inverter Design
13.10 Solar Inverter Circuit Diagram
13.11 Solar Inverter Advantages
13.12 Solar Inverter Disadvantages
13.13 How is it Beneficial?
14. SOLAR THERMAL POWER PLANT
14.1 How to Work
14.2 Adavntages
14.3 Disadvantages
14.4 Types of Plants
14.4.1 Parabolic Troughs
14.4.2 Parabolic Dishes
14.4.3 Solar Towers
14.5 Benefits and Drawbacks
14.6 Details of Field Installations
14.6.1 Solar Fields
14.6.2 Heat Exchanger

14.6.3 Power Block
14.6.4 Weather Station
14.7 Civil Structures and Other Supporting Infrastructure
14.7.1 Piping and Other Supporting Installations
14.8 Testing Facility
15. SOLAR CHARGE CONTROLLER
15.1 Features
15.2 Characteristics
15.3 Naming Rules of Controller Models
15.4 Applications
15.4.1 PWM Solar Charge Controller
15.4.2 MPPT Solar Charge Controller
15.5 Types of Charge Controller
15.6 Proposed System
15.7 Maximum Power Point Tracking Technology
15.8 Development of Controller
15.9 Simulink Model and Results
15.10 Battery Charging Stage
15.10.1 Bulk Charging
15.10.2 Constant Charging
15.10.3 Float Charging
15.11 Maximum Power Tracking Solar Charge Controller
Using Microcontroller
15.12 Microcontroller based Maximum Power Tracking
Solar Charge Controller
15.12.1 Solar Panel
15.12.2 Sensors
15.12.3 DC-to-DC Converter
15.12.4 Microcontroller
15.12.5 Battery
15.12.6 Inverter
15.12.7 RS485 Interface
15.13 Working of a Maximum Power Tracking Solar Charge Controller
16. SOLAR LED STREET LIGHT
16.1 Basic Components
16.2 Operation Principle
16.3 Applications
16.4 The Main Concept of the New System
16.5 System Prototype
16.6 Battery Discharge Controller Design
16.6.1 Hardware Design

• Power Supply Circuit
• Voltage Scaling Circuit
• LDR Sensor Circuit
• Microcontroller Unit
• LED Driving Circuit by PWM
16.6.2 Controller Software
17. START A SOLAR FARM BUSINESS
17.1 STEP 1: Plan the Business
17.1.1 What are the Costs Involved in Opening a Solar Farm Business?
17.1.2 What are the Ongoing Expenses for a Solar Farm Business?
17.1.3 Who is the Target Market?
17.1.4 How does a Solar Farm Business Make Money?
17.1.5 How Much can Charge Customers?
17.1.6 How Much Profit can a Solar Farm Business Make?
17.1.7 How can Make the Business more Profitable?
17.1.8 What will Name the Business?
17.2 STEP 2: Form a Legal Entity
17.2.1 What is an LLC?
17.3 STEP 3: Open a Business Bank Account
17.3.1 Open a Business Bank Account
17.4 STEP 4: Obtain Necessary Permits and Licenses
17.5 STEP 5: Get Business Insurance
17.6 STEP 6: Define Brand
17.6.1 How to Promote & Market a Solar Farm Business
17.6.2 How to Keep Customers Coming Back
17.7 STEP 7: Create Business Website
17.7.1 Here are the Main Reasons Why Shouldn’t Delay Building r Website
17.8 Step 8: Set Up Business Phone System
18. SOLAR FARMS
18.1 Introduction
18.2 Types of Solar Farms: Community Solar and Utility-Scale Solar
18.2.1 Community Solar Farms
18.2.2 Utility-Scale Solar Farms
18.3 Benefits
18.4 How do Solar Panels and Solar Farms Work?
18.5 How Much Does a Solar Farm Cost?
18.6 What is the Largest Solar Farm in the World?
18.7 How Much Energy can a Solar Farm Produce?

18.8 Advantages
18.8.1 Environment-Friendly
18.8.2 Low-Maintenance
18.8.3 Quiet
18.8.4 Sustainable
18.9 Disadvantages of a Solar Farm
18.9.1 Costly Storage
18.9.2 Irregular Availability
18.9.3 Require Rare Materials
18.10 What Else Happens in a Solar Farm?
18.11 Building a Solar Farm: How does it Work?
8.11.1 How many Acres do I Need for this Size of a Power Plant?
18.11.2 How will Electrical Connection Work?
18.11.3 How will I Clean and Maintain the Plant?
18.11.4 How Many Solar Panels will I Need?
18.11.5 What's a Good Price for My Solar Installation?
19. MANUFACTURING PROCESS OF SOLAR CELL MODULES
20. BIS SPECIFICATIONS
21. PLANT LAYOUT AND PROCESS FLOW CHART & DIAGRAMS
22. SOLAR PRODUCTS
• Solar Flat Plate Water Heater
• Solar Water Heater
• Solar Geyser
• Solar PCU
• Solar Inverter
• Solar Inverter Set
• Electrower PCU
• Solar Inverter
• Solar Home PCU
• Solar Charge Controller
• Solar Inverter Battery
23. PHOTOGRAPHS OF PLANT & MACHINERY WITH SUPPLIER'S CONTACT DETAILS
• Solar PV Laminator Machine
• Solar Panel Production Machine
• Solar Tabber and Stringer Machine
• Solar Cell Laser Scribing Machine
• Solar Cell Film Production Line
• Solar Cell Test Machine
• Solar Block Ice Machine
• Solar Framing Machine
• Solar Frame Punching Machine

- Solar Structure Machine
- EVA/Backsheet Cutting Machine
- Solar Cells Fiber Laser Scribing Machine
- Solar Cells Laser Cutting Machine
- Soldering Ribbon Cutting Machine
- Solar Module El Tester
- Solar Lay Up Table

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