

Photovoltaic Market by Component (Modules, Inverters, BOS), Material (Silicon, Compounds), Installation Type (Ground Mounted, BIPV, Floating PV), Application (Residential, Commercial & Industrial, Utilities), Cell Type and Region - Global Forecast to 2028

<https://marketpublishers.com/r/P33CF5960DDEN.html>

Date: January 2023

Pages: 324

Price: US\$ 4,950.00 (Single User License)

ID: P33CF5960DDEN

Abstracts

The photovoltaic market is projected to grow from USD 96.5 billion in 2023 and is projected to reach USD 155.5 billion by 2028; it is expected to grow at a CAGR of 10.0 % from 2023 to 2028.

The rising number of solar installations attributed to government-led incentives and schemes, growth in the adoption of PV systems for residential applications, decreasing cost of PV systems and energy storage devices is expected to fuel the growth of the photovoltaic market. However, issues related to land acquisition for deployment of solar projects is a prominent factor limiting the growth of the photovoltaic market.

“Ground-mounted PV systems to hold largest share of photovoltaic market during the forecast period.”

The PV market for ground-mounted systems held the largest market share in 2022 and is expected to retain its dominant position throughout the forecast period. With an increasing number of utility-scale projects worldwide, the ground-mounted PV systems market is expected to witness significant growth during the forecast period. The ground-mounted segment dominates the solar photovoltaic market more than the rooftop segment due to higher capacity installations in the ground-mounted segment worldwide. The higher demand for utility-scale is expected to continue during the forecast period,

with strong demand from China and many emerging markets around the world installing notable amounts that are mostly ground-mounted.

“Market for half-cell PV module segment is expected to witness higher growth during the forecast period”

The half-cell PV module segment is expected to witness significant growth in the photovoltaic market during the forecast period. Half-cut solar cells have a higher power generating capacity than normal solar cells. As a result of the increased power output, the number of solar cells required for installation is reduced, conserving space. For residential, commercial, and industrial locations with limited space, half-cut solar cell technology has proven to be a viable option. The half-cell modules have outstanding durability and long-life performance. Hence, half-cell type panels are more durable and less prone to cracking over long periods. Additionally, the half-cut solar panels have high shade tolerance, unlike the conventional models. These factors are likely to result in higher adoption of half-cell PV modules during the forecast period.

“Market for residential application to hold a significant share during the forecast period ”

Residential application held the second-largest share of the said market in 2022 and is expected to retain its second dominant position throughout the forecast period. This can be attributed to the declining cost of PV systems in the past few years. Similarly, governments across various countries such as India, China, and the US offer incentives and tax rebate to residential users to install PV systems, which is expected to fuel the growth of the market for PV systems in residential applications during the forecast period.

“Europe to hold a significant share of the photovoltaic market during the forecast period”

Europe is expected to hold a significantly large share for photovoltaic market during the forecast period. The countries that constitute a major portion of the photovoltaic market in Europe include the Germany, France, Italy. The countries of the European Union have also started working toward compliance with the Clean Energy Package of the Commission that sets a 32% renewable energy target by 2030. As such, governments of a number of countries in Europe are increasingly making efforts to generate low-cost solar energy to meet their energy targets. This is expected to propel the growth of the PV market in Europe during the forecast period.

The report profiles key players in the photovoltaic market with their respective market ranking analysis. Prominent players profiled in this report are include are JinkoSolar (China), JA Solar (China), Trina Solar (China), LONGi (China), Canadian Solar (Canada), First Solar (US), Hanwha Q CELLS (South Korea), Wuxi Suntech Power (China), Sharp (Japan), Mitsubishi Electric (Japan), Array Technologies (US), Chint Solar (China), GCL System Integration Technology (China), Huawei (China), LG Electronics (South Korea), NEXTracker (US), Risen Energy (China), SMA Solar Technology (Germany), Sungrow Power Supply (China), Tongwei Solar (China), Eaton Corp. (Ireland), ABB (Switzerland), Power Electronics (Spain), Fimer (Italy), AllEarth Renewables (US), Emmvee Photovoltaic Power Private Limited (India), ShunFeng International Clean Energy (China), Waaree Energies Ltd. (India) and Yingli Solar (China).

Research Coverage:

This research report categorizes the photovoltaic market on the basis of component, material, cell type, installation type, application, and region. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the photovoltaic market and forecasts the same till 2028. Apart from these, the report also consists of leadership mapping and analysis of all the companies included in the photovoltaic cosystem.

Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the photovoltaic market comprehensively and provides the closest market size projection for all subsegments across different regions.
2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.
3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes competitor ecosystem, product developments and launches, partnerships, and mergers and acquisitions.
4. The analysis of the top 31 companies, based on the market rank as well as the product footprint will help stakeholders visualize the market positioning of these key players.
5. Patent analysis, trade data, and technological trends that will shape the market in the

coming years has also been covered in this report.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.3 INCLUSIONS AND EXCLUSIONS

1.4 STUDY SCOPE

1.4.1 MARKETS COVERED

FIGURE 1 PHOTOVOLTAIC MARKET: SEGMENT

1.4.2 REGIONAL SCOPE

1.4.3 YEARS CONSIDERED

1.5 CURRENCY CONSIDERED

1.6 STAKEHOLDERS

1.7 UNIT CONSIDERED

1.8 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 PHOTOVOLTAIC MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 List of key secondary sources

2.1.1.2 Key data from secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Primary interviews with experts

2.1.2.2 Breakdown of primaries

2.1.3 SECONDARY AND PRIMARY RESEARCH

2.1.3.1 Key industry insights

2.2 MARKET SIZE ESTIMATION

FIGURE 3 MARKET SIZE ESTIMATION METHODOLOGY: REVENUE OF MARKET PLAYERS FOR PHOTOVOLTAIC MODULE MARKET

2.2.1 BOTTOM-UP APPROACH

2.2.1.1 Approach to capture market size by bottom-up analysis (demand side)

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

2.2.1.2 Major upcoming solar projects in various regions worldwide

TABLE 1 MAJOR SOLAR PROJECTS ACROSS VARIOUS REGIONS

2.2.2 TOP-DOWN APPROACH

2.2.2.1 Approach to capture market size by top-down analysis (supply side)

FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

2.3 DATA TRIANGULATION

FIGURE 6 DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

FIGURE 7 ASSUMPTIONS FOR RESEARCH STUDY

2.4.1 LIMITATIONS

3 EXECUTIVE SUMMARY

3.1 GROWTH RATE ASSUMPTIONS/GROWTH FORECAST

FIGURE 8 MARKET FOR INVERTERS TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD

FIGURE 9 SILICON SEGMENT TO EXHIBIT HIGHER CAGR DURING FORECAST PERIOD

FIGURE 10 COMMERCIAL & INDUSTRIAL APPLICATIONS TO WITNESS HIGHEST CAGR IN PHOTOVOLTAIC MARKET DURING FORECAST PERIOD

FIGURE 11 PHOTOVOLTAIC MARKET IN ASIA PACIFIC TO EXHIBIT HIGHEST CAGR DURING FORECAST PERIOD

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN PHOTOVOLTAIC MARKET

FIGURE 12 DECREASING COST OF PV SYSTEMS TO BOOST MARKET GROWTH

4.2 PHOTOVOLTAIC MARKET, BY CELL TYPE

FIGURE 13 HALF-CELL TYPE TO WITNESS HIGHER CAGR DURING FORECAST PERIOD

4.3 PHOTOVOLTAIC MARKET, BY INSTALLATION TYPE

FIGURE 14 FLOATING PV SEGMENT TO WITNESS HIGHEST CAGR DURING FORECAST PERIOD

4.4 PHOTOVOLTAIC MARKET, BY APPLICATION

FIGURE 15 UTILITIES TO DOMINATE PV MARKET DURING FORECAST PERIOD

4.5 PHOTOVOLTAIC MARKET, BY REGION

FIGURE 16 ASIA PACIFIC TO WITNESS HIGHEST CAGR DURING FORECAST PERIOD

4.6 PHOTOVOLTAIC MARKET IN ASIA PACIFIC, BY COUNTRY AND APPLICATION

FIGURE 17 CHINA AND UTILITIES WERE LARGEST SHAREHOLDERS OF PHOTOVOLTAIC MARKET IN ASIA PACIFIC, BY COUNTRY AND APPLICATION, RESPECTIVELY, IN 2022

4.7 PHOTOVOLTAIC MARKET, BY COUNTRY

FIGURE 18 CHINA TO RECORD HIGHEST CAGR IN PHOTOVOLTAIC MARKET DURING FORECAST PERIOD

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 19 PHOTOVOLTAIC MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.2.1 DRIVERS

5.2.1.1 Rising number of solar installations attributed to government-led incentives and schemes

5.2.1.2 Growing adoption of PV systems in residential applications

FIGURE 20 RESIDENTIAL SOLAR PV SYSTEM PRICING

5.2.1.3 Decreasing cost of PV systems and energy storage devices

FIGURE 21 SOLAR PV PRICING TRENDS AND DEPLOYMENT GROWTH

FIGURE 22 DRIVERS

5.2.2 RESTRAINTS

5.2.2.1 Lack of skilled workforce for PV installation and maintenance

5.2.2.2 Safety risks associated with high DC voltages

FIGURE 23 RESTRAINTS

5.2.3 OPPORTUNITIES

5.2.3.1 Increasing investments in renewable energy

FIGURE 24 RENEWABLE POWER INVESTMENTS, 2019–2021 (USD BILLION)

5.2.3.2 Ongoing technological developments in solar cell manufacturing

FIGURE 25 OPPORTUNITIES

5.2.4 CHALLENGES

5.2.4.1 Issues related to land acquisition for deployment of solar projects

FIGURE 26 CHALLENGES

5.3 SUPPLY CHAIN ANALYSIS

FIGURE 27 SUPPLY CHAIN OF PHOTOVOLTAIC MARKET

5.4 ECOSYSTEM/MARKET MAP

TABLE 2 PLAYERS AND THEIR ROLE IN ECOSYSTEM

5.5 PORTER'S FIVE FORCES ANALYSIS

TABLE 3 PHOTOVOLTAIC MARKET: PORTER'S FIVE FORCES ANALYSIS

5.5.1 THREAT OF NEW ENTRANTS

5.5.2 THREAT OF SUBSTITUTES

5.5.3 BARGAINING POWER OF SUPPLIERS

5.5.4 BARGAINING POWER OF BUYERS

5.5.5 INTENSITY OF COMPETITIVE RIVALRY

5.6 KEY STAKEHOLDERS AND BUYING CRITERIA

5.6.1 KEY STAKEHOLDERS IN BUYING PROCESS

TABLE 4 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP 3 VERTICALS (%)

5.6.2 BUYING CRITERIA

FIGURE 28 KEY BUYING CRITERIA FOR TOP 3 APPLICATIONS

TABLE 5 KEY BUYING CRITERIA FOR TOP 3 INDUSTRIES

5.7 TRENDS/DISRUPTIONS IMPACTING BUSINESS OF MARKET PLAYERS AND RAW MATERIAL SUPPLIERS

5.7.1 REVENUE SHIFT AND NEW REVENUE POCKETS FOR PHOTOVOLTAIC MARKET PLAYERS

FIGURE 29 REVENUE SHIFT IN PHOTOVOLTAIC MARKET

5.8 TECHNOLOGY ANALYSIS

TABLE 6 TECHNOLOGICAL ANALYSIS FOR PV MARKET

5.9 CASE STUDY ANALYSIS

5.9.1 TATA POWER SOLAR (INDIA) COMMISSIONED 3 MW SOLAR PV POWER PLANT IN IRON ORE MINE AT NOAMUNDI (INDIA)

5.9.2 HANWHA Q CELLS (SOUTH KOREA) HELPED COPENHAGEN ZOO IMPLEMENT C&I ROOFTOP SYSTEM TO MEET ITS SUSTAINABILITY GOALS

5.9.3 SHARP HELPED BIG C SUPERMARKET (THAILAND) INSTALL ROOFTOP SOLAR PANELS

5.9.4 HEWLETT PACKARD (HP) INSTALLED ROOFTOP SOLAR PANELS WITH THE HELP OF SHARP (JAPAN)

5.9.5 LONGI (CHINA) COMPLETED EXECUTION OF LARGE-SCALE PV POWER STATION AT GUIZHOU COMPLEX

5.10 TRADE ANALYSIS

5.10.1 IMPORT SCENARIO

5.10.1.1 Import scenario for photovoltaic components

TABLE 7 IMPORT DATA, BY COUNTRY, 2017–2021 (USD MILLION)

5.10.2 EXPORT SCENARIO

5.10.2.1 Export scenario for photovoltaic components

TABLE 8 EXPORT DATA, BY COUNTRY, 2017–2021 (USD MILLION)

5.11 PATENT ANALYSIS

TABLE 9 PATENT REGISTRATIONS RELATED TO PHOTOVOLTAIC MARKET

FIGURE 30 PHOTOVOLTAIC PATENTS PUBLISHED BETWEEN 2012 AND 2022

TABLE 10 NUMBER OF PATENTS REGISTERED IN PHOTOVOLTAIC MARKET FROM 2012 TO 2022

FIGURE 31 TOP 10 COMPANIES WITH HIGHEST NUMBER OF PATENT

APPLICATIONS FROM 2012 TO 2022

5.12 TARIFF

5.13 REGULATORY STANDARDS

5.13.1 REGULATORY COMPLIANCE

5.13.1.1 Regulations

5.13.1.2 Standards

TABLE 11 NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 12 EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 13 ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 14 ROW: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

5.14 KEY CONFERENCES AND EVENTS, 2022–2023

TABLE 15 PHOTOVOLTAIC MARKET: DETAILED LIST OF CONFERENCES AND EVENTS

5.15 PRICING ANALYSIS

TABLE 16 AVERAGE SELLING PRICE OF PHOTOVOLTAIC MODULES AND INVERTERS

TABLE 17 AVERAGE SELLING PRICE OF BOV (BALANCE OF SYSTEM) COMPONENTS

TABLE 18 AVERAGE SELLING PRICE OF PV SYSTEMS, BY APPLICATION

5.15.1 AVERAGE SELLING PRICE OF PV MODULES , BY OFFERING (KEY PLAYERS)

FIGURE 32 AVERAGE SELLING PRICE OF PV MODULES OFFERED BY KEY PLAYERS, BY APPLICATION

TABLE 19 AVERAGE SELLING PRICE OF PV MODULES OFFERED BY KEY PLAYERS, BY APPLICATION (USD/WATT)

6 PHOTOVOLTAIC MARKET, BY COMPONENT

6.1 INTRODUCTION

FIGURE 33 PHOTOVOLTAIC MARKET FOR INVERTERS TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD

TABLE 20 PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 21 PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 22 PHOTOVOLTAIC MARKET, BY ANNUAL CAPACITY, 2019–2022 (GW)

TABLE 23 PHOTOVOLTAIC MARKET, BY ANNUAL CAPACITY, 2023–2028 (GW)

6.2 MODULES

6.2.1 PV MODULE TYPES

6.2.1.1 Organic photovoltaic modules

6.2.1.1.1 Organic PV modules produce energy at lower cost compared to traditional solar technologies

6.2.1.2 Inorganic photovoltaic modules

6.2.1.2.1 Inorganic PV modules have a longer lifespan and higher efficiency than OPVs

6.2.1.3 Hybrid photovoltaic modules

6.2.1.3.1 Hybrid photovoltaic modules contain both inorganic and organic materials

6.2.2 BY CELL TYPE

6.2.2.1 60 cells

TABLE 24 COMPANIES OFFERING 60-CELL PV MODULES

6.2.2.2 72 cells

TABLE 25 COMPANIES OFFERING 72-CELL PV MODULES

6.2.2.3 96 cells

TABLE 26 COMPANIES OFFERING 96-CELL PV MODULES

TABLE 27 MODULES: PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 28 MODULES: PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

TABLE 29 RESIDENTIAL: PHOTOVOLTAIC MARKET FOR MODULES, BY REGION, 2019–2022 (USD MILLION)

TABLE 30 RESIDENTIAL: PHOTOVOLTAIC MARKET FOR MODULES, BY REGION, 2023–2028 (USD MILLION)

TABLE 31 COMMERCIAL & INDUSTRIAL: PHOTOVOLTAIC MARKET FOR MODULES, BY REGION, 2019–2022 (USD MILLION)

TABLE 32 COMMERCIAL & INDUSTRIAL: PHOTOVOLTAIC MARKET FOR MODULES, BY REGION, 2023–2028 (USD MILLION)

TABLE 33 UTILITIES: PHOTOVOLTAIC MARKET FOR MODULES, BY REGION, 2019–2022 (USD BILLION)

TABLE 34 UTILITIES: PHOTOVOLTAIC MARKET FOR MODULES, BY REGION, 2023–2028 (USD BILLION)

TABLE 35 MODULES: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 36 MODULES: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

6.3 INVERTERS

6.3.1 PV INVERTERS CONVERT DIRECT CURRENT OF PV MODULES INTO GRID-

COMPLIANT ALTERNATING CURRENT

TABLE 37 INVERTERS: PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 38 INVERTERS: PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

TABLE 39 RESIDENTIAL: PHOTOVOLTAIC MARKET FOR INVERTERS, BY REGION, 2019–2022 (USD MILLION)

TABLE 40 RESIDENTIAL: PHOTOVOLTAIC MARKET FOR INVERTERS, BY REGION, 2023–2028 (USD MILLION)

TABLE 41 COMMERCIAL & INDUSTRIAL: PHOTOVOLTAIC MARKET FOR INVERTERS, BY REGION, 2019–2022 (USD MILLION)

TABLE 42 COMMERCIAL & INDUSTRIAL: PHOTOVOLTAIC MARKET FOR INVERTERS, BY REGION, 2023–2028 (USD MILLION)

TABLE 43 UTILITIES: PHOTOVOLTAIC MARKET FOR INVERTERS, BY REGION, 2019–2022 (USD MILLION)

TABLE 44 UTILITIES: PHOTOVOLTAIC MARKET FOR INVERTERS, BY REGION, 2023–2028 (USD MILLION)

TABLE 45 INVERTERS: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 46 INVERTERS: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

6.4 BALANCE OF SYSTEM

6.4.1 CONNECTIONS AND CABLES

6.4.1.1 BOS market for cables & connectors to hold largest share during forecast period

6.4.2 JUNCTION BOXES

6.4.2.1 Junction box is enclosure on module where PV strings are electrically connected

6.4.3 SAFETY EQUIPMENT

6.4.3.1 Safety equipment essential to ensure safety of PV systems from harsh weather conditions

6.4.4 TRACKERS

6.4.4.1 Movement of solar trackers increases solar energy output by up to 40% compared with standard panels

6.4.5 BATTERIES

6.4.5.1 BOS market for batteries to exhibit highest growth during forecast period

6.4.6 MONITORING SYSTEMS

6.4.6.1 Ensure reliable functioning and maximum yield of any solar electric system

6.4.7 OTHERS

TABLE 47 BOS: PHOTOVOLTAIC MARKET, BY TYPE, 2019–2022 (USD BILLION)

TABLE 48 BOS: PHOTOVOLTAIC MARKET, BY TYPE, 2023–2028 (USD BILLION)

TABLE 49 BOS: PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 50 BOS: PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

TABLE 51 RESIDENTIAL: PHOTOVOLTAIC MARKET FOR BOS, BY REGION, 2019–2022 (USD MILLION)

TABLE 52 RESIDENTIAL: PHOTOVOLTAIC MARKET FOR BOS, BY REGION, 2023–2028 (USD MILLION)

TABLE 53 COMMERCIAL & INDUSTRIAL: PHOTOVOLTAIC MARKET FOR BOS, BY REGION, 2019–2022 (USD MILLION)

TABLE 54 COMMERCIAL & INDUSTRIAL: PHOTOVOLTAIC MARKET FOR BOS, BY REGION, 2023–2028 (USD MILLION)

TABLE 55 UTILITIES: PHOTOVOLTAIC MARKET FOR BOS, BY REGION, 2019–2022 (USD BILLION)

TABLE 56 UTILITIES: PHOTOVOLTAIC MARKET FOR BOS, BY REGION, 2023–2028 (USD BILLION)

TABLE 57 BOS: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 58 BOS: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

7 PHOTOVOLTAIC MARKET, BY MATERIAL

7.1 INTRODUCTION

FIGURE 34 SILICON-BASED PHOTOVOLTAIC SYSTEMS TO DOMINATE MARKET THROUGHOUT FORECAST PERIOD

TABLE 59 PHOTOVOLTAIC MARKET, BY MATERIAL, 2019–2022 (USD BILLION)

TABLE 60 PHOTOVOLTAIC MARKET, BY MATERIAL, 2023–2028 (USD BILLION)

7.2 SILICON

TABLE 61 SILICON: PHOTOVOLTAIC MARKET, BY TYPE, 2019–2022 (USD MILLION)

TABLE 62 SILICON: PHOTOVOLTAIC MARKET, BY TYPE, 2023–2028 (USD MILLION)

TABLE 63 SILICON: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 64 SILICON: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

7.2.1 CRYSTALLINE SILICON

TABLE 65 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY TYPE,

2019–2022 (USD BILLION)

TABLE 66 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY TYPE,
2023–2028 (USD BILLION)

TABLE 67 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY REGION,
2019–2022 (USD BILLION)

TABLE 68 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY REGION,
2023–2028 (USD BILLION)

7.2.1.1 Crystalline silicon types

7.2.1.1.1 Monocrystalline

7.2.1.1.1.1 High efficiency and minimum space requirements to drive market
growth

TABLE 69 MONOCRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY REGION,
2019–2022 (USD BILLION)

TABLE 70 MONOCRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY REGION,
2023–2028 (USD BILLION)

7.2.1.1.2 Multicrystalline/polycrystalline

7.2.1.1.2.1 Low-cost production makes them preferred choice for residential
applications

TABLE 71 MULTICRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY REGION,
2019–2022 (USD BILLION)

TABLE 72 MULTICRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY REGION,
2023–2028 (USD BILLION)

7.2.1.2 Crystalline silicon technologies

TABLE 73 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY TECHNOLOGY,
2019–2022 (USD BILLION)

TABLE 74 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET, BY TECHNOLOGY,
2023–2028 (USD BILLION)

7.2.1.2.1 BSF

7.2.1.2.1.1 AI BSF most used technology for fabricating photovoltaic cells

7.2.1.2.2 PERC

7.2.1.2.2.1 Efficiency and high flexibility offered by PERC to boost demand

7.2.1.2.3 Others

7.2.2 THIN FILM

TABLE 75 THIN-FILM SILICON: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022
(USD MILLION)

TABLE 76 THIN-FILM SILICON: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028
(USD MILLION)

7.2.2.1 Amorphous

7.2.2.1.1 Amorphous solar modules perform better even in low-light conditions

7.2.2.2 Nanocrystalline

7.2.2.2.1 Use of nanocrystals in solar cells increase their efficiency by up to 60%

TABLE 77 COMPOUNDS: PHOTOVOLTAIC MARKET, BY TYPE, 2019–2022 (USD BILLION)

TABLE 78 COMPOUNDS: PHOTOVOLTAIC MARKET, BY TYPE, 2023–2028 (USD BILLION)

TABLE 79 COMPOUNDS: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 80 COMPOUNDS: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD MILLION)

7.2.3 COPPER INDIUM GALLIUM SELENIDE

7.2.3.1 CIGS solar cells among most efficient thin-film PV technologies

TABLE 81 CIGS: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 82 CIGS: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD MILLION)

7.2.4 CADMIUM TELLURIDE

7.2.4.1 CdTe materials most commonly used in thin-film modules

TABLE 83 CDTE: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 84 CDTE: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD MILLION)

7.2.5 GALLIUM ARSENIDE AND INDIUM PHOSPHIDE

7.2.5.1 GaAs and InP materials used to achieve high efficiency in solar cells

7.2.6 PEROVSKITE

7.2.6.1 Perovskite cells absorb sunlight across entire visible spectrum

7.2.7 OTHERS

8 PHOTOVOLTAIC MARKET, BY CELL TYPE

8.1 INTRODUCTION

FIGURE 35 HALF-CELL PV MODULES TO REGISTER HIGHER CAGR IN PHOTOVOLTAIC MARKET DURING FORECAST PERIOD

TABLE 85 PHOTOVOLTAIC MARKET, BY CELL TYPE, 2019–2022 (USD BILLION)

TABLE 86 PHOTOVOLTAIC MARKET, BY CELL TYPE, 2023–2028 (USD BILLION)

8.2 FULL-CELL PV MODULES

8.2.1 FULL-CELL PV MODULES TO HOLD LARGER MARKET SHARE DURING FORECAST PERIOD

TABLE 87 FULL-CELL PV MODULES: PHOTOVOLTAIC MARKET, BY REGION,

2019–2022 (USD BILLION)

TABLE 88 FULL-CELL PV MODULES: PHOTOVOLTAIC MARKET, BY REGION,
2023–2028 (USD BILLION)

8.3 HALF-CELL PV MODULES

8.3.1 MARKET FOR HALF-CELL PV MODULES TO GROW AT HIGHER CAGR
DURING FORECAST PERIOD

TABLE 89 HALF-CELL PV MODULES: PHOTOVOLTAIC MARKET, BY REGION,
2019–2022 (USD BILLION)

TABLE 90 HALF-CELL PV MODULES: PHOTOVOLTAIC MARKET, BY REGION,
2023–2028 (USD BILLION)

9 PHOTOVOLTAIC MARKET, BY INSTALLATION TYPE

9.1 INTRODUCTION

FIGURE 36 FLOATING PV SEGMENT OF PHOTOVOLTAIC MARKET TO WITNESS
HIGHEST CAGR FROM 2023 TO 2028

TABLE 91 PHOTOVOLTAIC MARKET, BY INSTALLATION TYPE, 2019–2022 (USD
BILLION)

TABLE 92 PHOTOVOLTAIC MARKET, BY INSTALLATION TYPE, 2023–2028 (USD
BILLION)

9.2 GROUND MOUNTED

9.2.1 GROUND-MOUNTED SEGMENT TO HOLD LARGEST SHARE OF
PHOTOVOLTAIC MARKET IN 2028

9.3 BUILDING-INTEGRATED PHOTOVOLTAICS

9.3.1 ROOFTOPS

9.3.1.1 Increasing rooftop installations of PV modules for residential and commercial
applications to drive market

9.3.2 WINDOWS

9.3.2.1 Surging adoption of PV windows by business complexes in major cities
worldwide to drive market

9.4 FLOATING PV

9.4.1 FLOATING PV SEGMENT TO WITNESS HIGHEST CAGR FROM 2022 TO
2027

10 PHOTOVOLTAIC MARKET, BY APPLICATION

10.1 INTRODUCTION

FIGURE 37 UTILITIES TO CONTINUE TO DOMINATE PV MARKET IN TERMS OF
SIZE DURING FORECAST PERIOD

TABLE 93 PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 94 PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

10.2 RESIDENTIAL

10.2.1 MARKET FOR RESIDENTIAL APPLICATION TO GROW AT SIGNIFICANT CAGR FROM 2023 TO 2028

FIGURE 38 INVERTERS TO REGISTER HIGHEST CAGR IN PHOTOVOLTAIC MARKET FOR RESIDENTIAL APPLICATION FROM 2023 TO 2028

TABLE 95 RESIDENTIAL: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 96 RESIDENTIAL: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 97 RESIDENTIAL: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 98 RESIDENTIAL: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

10.3 COMMERCIAL AND INDUSTRIAL

10.3.1 COMMERCIAL & INDUSTRIAL APPLICATION TO EXHIBIT HIGHEST GROWTH FROM 2023 TO 2028

TABLE 99 COMMERCIAL AND INDUSTRIAL: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 100 COMMERCIAL AND INDUSTRIAL: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 101 COMMERCIAL AND INDUSTRIAL: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 102 COMMERCIAL AND INDUSTRIAL: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

10.4 UTILITIES

10.4.1 UTILITIES TO ACCOUNT FOR LARGEST SHARE OF PHOTOVOLTAIC MARKET THROUGHOUT FORECAST PERIOD

TABLE 103 UTILITIES: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 104 UTILITIES: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 105 UTILITIES: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 106 UTILITIES: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

11 PHOTOVOLTAIC CONCENTRATION SYSTEMS

11.1 INTRODUCTION

11.2 HIGH-CONCENTRATION PV

11.3 MEDIUM- AND LOW-CONCENTRATION PV

TABLE 107 DIFFERENT CLASSES OF CPV SYSTEMS AND THEIR REQUIREMENTS

12 POWER CAPACITY RANGES OF PHOTOVOLTAIC SYSTEMS

12.1 INTRODUCTION

12.2 UP TO 100 WP

TABLE 108 COMPANIES OFFERING PV MODULES UP TO 100 WP

12.3 100.1 TO 300 WP

TABLE 109 COMPANIES OFFERING PV MODULES FROM 100.1 TO 300 WP

12.4 ABOVE 300 WP

TABLE 110 COMPANIES OFFERING PV MODULES ABOVE 300 WP

13 PHOTOVOLTAIC MARKET, BY REGION

13.1 INTRODUCTION

FIGURE 39 REGIONAL SPLIT OF PHOTOVOLTAIC MARKET

FIGURE 40 PHOTOVOLTAIC MARKET IN ASIA PACIFIC TO GROW AT HIGHEST CAGR FROM 2023 TO 2028

TABLE 111 PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 112 PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

13.2 NORTH AMERICA

FIGURE 41 SNAPSHOT: PHOTOVOLTAIC MARKET IN NORTH AMERICA

TABLE 113 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 114 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 115 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 116 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 117 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY MATERIAL, 2019–2022 (USD MILLION)

TABLE 118 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY MATERIAL, 2023–2028 (USD MILLION)

TABLE 119 SILICON: PHOTOVOLTAIC MARKET IN NORTH AMERICA, BY TYPE,

2019–2022 (USD MILLION)

TABLE 120 SILICON: PHOTOVOLTAIC MARKET IN NORTH AMERICA, BY TYPE, 2023–2028 (USD MILLION)

TABLE 121 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN NORTH AMERICA, BY TYPE, 2019–2022 (USD BILLION)

TABLE 122 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN NORTH AMERICA, BY TYPE, 2023–2028 (USD BILLION)

TABLE 123 COMPOUNDS: PHOTOVOLTAIC MARKET IN NORTH AMERICA, BY TYPE, 2019–2022 (USD MILLION)

TABLE 124 COMPOUNDS: PHOTOVOLTAIC MARKET IN NORTH AMERICA, BY TYPE, 2023–2028 (USD MILLION)

TABLE 125 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2019–2022 (USD BILLION)

TABLE 126 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2023–2028 (USD BILLION)

TABLE 127 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 128 NORTH AMERICA: PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

13.2.1 US

13.2.1.1 US to account for largest size of North American market from 2022 to 2028

13.2.2 CANADA

13.2.2.1 Canada to witness large-space solar installations during forecast period

13.2.3 MEXICO

13.2.3.1 Mexico projected to witness highest CAGR from 2023 to 2028

13.3 EUROPE

FIGURE 42 SNAPSHOT: PHOTOVOLTAIC MARKET IN EUROPE

TABLE 129 EUROPE: PHOTOVOLTAIC MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 130 EUROPE: PHOTOVOLTAIC MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 131 EUROPE: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 132 EUROPE: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 133 EUROPE: PHOTOVOLTAIC MARKET, BY MATERIAL, 2019–2022 (USD MILLION)

TABLE 134 EUROPE: PHOTOVOLTAIC MARKET, BY MATERIAL, 2023–2028 (USD MILLION)

TABLE 135 SILICON: PHOTOVOLTAIC MARKET IN EUROPE, BY TYPE, 2019–2022 (USD MILLION)

TABLE 136 SILICON: PHOTOVOLTAIC MARKET IN EUROPE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 137 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN EUROPE, BY TYPE, 2019–2022 (USD BILLION)

TABLE 138 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN EUROPE, BY TYPE, 2023–2028 (USD BILLION)

TABLE 139 COMPOUNDS: PHOTOVOLTAIC MARKET IN EUROPE, BY TYPE, 2019–2022 (USD MILLION)

TABLE 140 COMPOUNDS: PHOTOVOLTAIC MARKET IN EUROPE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 141 EUROPE: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2019–2022 (USD BILLION)

TABLE 142 EUROPE: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2023–2028 (USD BILLION)

TABLE 143 EUROPE: PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 144 EUROPE: PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

13.3.1 UK

13.3.1.1 Efforts to install large-scale PV systems to harness solar resources

13.3.2 GERMANY

13.3.2.1 Germany to account for largest size of European photovoltaic market from 2023 to 2028

13.3.3 FRANCE

13.3.3.1 France to witness highest CAGR from 2023 to 2028

13.3.4 ITALY

13.3.4.1 Rising establishment of large-scale PV plants

13.3.5 REST OF EUROPE

13.4 ASIA PACIFIC

FIGURE 43 SNAPSHOT: PHOTOVOLTAIC MARKET IN ASIA PACIFIC

TABLE 145 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY COUNTRY, 2019–2022 (USD BILLION)

TABLE 146 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY COUNTRY, 2023–2028 (USD BILLION)

TABLE 147 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 148 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028

(USD BILLION)

TABLE 149 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY MATERIAL, 2019–2022

(USD BILLION)

TABLE 150 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY MATERIAL, 2023–2028

(USD BILLION)

TABLE 151 SILICON: PHOTOVOLTAIC MARKET IN ASIA PACIFIC, BY TYPE,
2019–2022 (USD MILLION)

TABLE 152 SILICON: PHOTOVOLTAIC MARKET IN ASIA PACIFIC, BY TYPE,
2023–2028 (USD MILLION)

TABLE 153 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN ASIA PACIFIC,
BY TYPE, 2019–2022 (USD BILLION)

TABLE 154 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN ASIA PACIFIC,
BY TYPE, 2023–2028 (USD BILLION)

TABLE 155 COMPOUNDS: PHOTOVOLTAIC MARKET IN ASIA PACIFIC, BY TYPE,
2019–2022 (USD MILLION)

TABLE 156 COMPOUNDS: PHOTOVOLTAIC MARKET IN ASIA PACIFIC, BY TYPE,
2023–2028 (USD MILLION)

TABLE 157 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2019–2022
(USD BILLION)

TABLE 158 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2023–2028
(USD BILLION)

TABLE 159 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY APPLICATION,
2019–2022 (USD BILLION)

TABLE 160 ASIA PACIFIC: PHOTOVOLTAIC MARKET, BY APPLICATION,
2023–2028 (USD BILLION)

13.4.1 CHINA

13.4.1.1 China to account for largest size of market from 2023 to 2028

13.4.2 JAPAN

13.4.2.1 Increasing investments in residential and PV utility-scale sectors to drive
market growth

13.4.3 INDIA

13.4.3.1 Rising rooftop installations and increasing power shortage to boost PV
demand

13.4.4 SOUTH KOREA

13.4.4.1 Increasing government efforts for adoption of PV systems to enhance
market growth

13.4.5 REST OF ASIA PACIFIC

13.5 ROW

FIGURE 44 SNAPSHOT: PHOTOVOLTAIC MARKET IN ROW

TABLE 161 ROW: PHOTOVOLTAIC MARKET, BY REGION, 2019–2022 (USD BILLION)

TABLE 162 ROW: PHOTOVOLTAIC MARKET, BY REGION, 2023–2028 (USD BILLION)

TABLE 163 ROW: PHOTOVOLTAIC MARKET, BY COMPONENT, 2019–2022 (USD BILLION)

TABLE 164 ROW: PHOTOVOLTAIC MARKET, BY COMPONENT, 2023–2028 (USD BILLION)

TABLE 165 ROW: PHOTOVOLTAIC MARKET, BY MATERIAL, 2019–2022 (USD MILLION)

TABLE 166 ROW: PHOTOVOLTAIC MARKET, BY MATERIAL, 2023–2028 (USD MILLION)

TABLE 167 SILICON: PHOTOVOLTAIC MARKET IN ROW, BY TYPE, 2019–2022 (USD MILLION)

TABLE 168 SILICON: PHOTOVOLTAIC MARKET IN ROW, BY TYPE, 2023–2028 (USD MILLION)

TABLE 169 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN ROW, BY TYPE, 2019–2022 (USD MILLION)

TABLE 170 CRYSTALLINE SILICON: PHOTOVOLTAIC MARKET IN ROW, BY TYPE, 2023–2028 (USD MILLION)

TABLE 171 COMPOUNDS: PHOTOVOLTAIC MARKET IN ROW, BY TYPE, 2019–2022 (USD MILLION)

TABLE 172 COMPOUNDS: PHOTOVOLTAIC MARKET IN ROW, BY TYPE, 2023–2028 (USD MILLION)

TABLE 173 ROW: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2019–2022 (USD BILLION)

TABLE 174 ROW: PHOTOVOLTAIC MARKET, BY CELL TYPE, 2023–2028 (USD BILLION)

TABLE 175 ROW: PHOTOVOLTAIC MARKET, BY APPLICATION, 2019–2022 (USD BILLION)

TABLE 176 ROW: PHOTOVOLTAIC MARKET, BY APPLICATION, 2023–2028 (USD BILLION)

13.5.1 SOUTH AMERICA

13.5.1.1 Photovoltaic market in South America to grow at higher CAGR from 2023 to 2028

13.5.2 MIDDLE EAST AND AFRICA

13.5.2.1 Middle East and Africa to account for larger size of market in 2023

14 COMPETITIVE LANDSCAPE

14.1 OVERVIEW

TABLE 177 PHOTOVOLTAIC MARKET: KEY GROWTH STRATEGIES ADOPTED BY COMPANIES FROM 2019 TO 2022

14.2 3-YEAR COMPANY REVENUE ANALYSIS

FIGURE 45 3-YEAR REVENUE ANALYSIS OF TOP 5 PLAYERS IN PHOTOVOLTAIC MODULE MARKET

FIGURE 46 3-YEAR REVENUE ANALYSIS OF TOP 3 PLAYERS IN PHOTOVOLTAIC INVERTER MARKET

FIGURE 47 3-YEAR REVENUE ANALYSIS OF TOP 3 PLAYERS IN BOS MARKET

14.3 MARKET SHARE ANALYSIS, 2021

TABLE 178 MODULE MARKET: DEGREE OF COMPETITION

TABLE 179 PV INVERTER MARKET: DEGREE OF COMPETITION

TABLE 180 BOS MARKET: DEGREE OF COMPETITION

14.4 COMPANY EVALUATION QUADRANT

14.4.1 STARS

14.4.2 EMERGING LEADERS

14.4.3 PERVASIVE PLAYERS

14.4.4 PARTICIPANTS

FIGURE 48 PHOTOVOLTAIC MARKET: COMPANY EVALUATION QUADRANT, 2021

14.5 START-UP/SME EVALUATION MATRIX

TABLE 181 START-UP/SMES IN PHOTOVOLTAIC MARKET

14.5.1 PROGRESSIVE COMPANIES

14.5.2 RESPONSIVE COMPANIES

14.5.3 DYNAMIC COMPANIES

14.5.4 STARTING BLOCKS

FIGURE 49 PHOTOVOLTAIC MARKET, START-UP/SME EVALUATION MATRIX, 2021

TABLE 182 START-UP MATRIX: DETAILED LIST OF KEY START-UP/SME PLAYERS

14.5.5 COMPETITIVE BENCHMARKING

TABLE 183 PHOTOVOLTAIC MARKET: COMPETITIVE BENCHMARKING OF KEY START-UP/SME PLAYERS

14.6 COMPANY FOOTPRINT

TABLE 184 COMPANY FOOTPRINT

TABLE 185 COMPANY PHOTOVOLTAIC COMPONENT FOOTPRINT

TABLE 186 COMPANY APPLICATION FOOTPRINT

TABLE 187 COMPANY REGION FOOTPRINT

14.7 COMPETITIVE SITUATIONS AND TRENDS

14.8 KEY MARKET DEVELOPMENTS

14.8.1 PRODUCT LAUNCHES

TABLE 188 PRODUCT LAUNCHES, 2019–2022

14.8.2 DEALS

TABLE 189 DEALS, 2019–2022

14.8.3 OTHERS

TABLE 190 INVESTMENTS AND EXPANSIONS, 2019–2022

15 COMPANY PROFILES

15.1 INTRODUCTION

15.2 KEY PLAYERS

(Business Overview, Solutions, Products & Services, Recent Developments, MnM View)*

15.2.1 JINKOSOLAR

TABLE 191 JINKO SOLAR: BUSINESS OVERVIEW

FIGURE 50 JINKOSOLAR: COMPANY SNAPSHOT

15.2.2 JA SOLAR

TABLE 192 JA SOLAR: BUSINESS OVERVIEW

15.2.3 TRINA SOLAR

TABLE 193 TRINA SOLAR: BUSINESS OVERVIEW

15.2.4 LONGI

TABLE 194 LONGI: BUSINESS OVERVIEW

FIGURE 51 LONGI: COMPANY SNAPSHOT

15.2.5 CANADIAN SOLAR

TABLE 195 CANADIAN SOLAR: BUSINESS OVERVIEW

FIGURE 52 CANADIAN SOLAR: COMPANY SNAPSHOT

15.2.6 FIRST SOLAR

TABLE 196 FIRST SOLAR: BUSINESS OVERVIEW

FIGURE 53 FIRST SOLAR: COMPANY SNAPSHOT

15.2.7 HANWHA Q CELLS

TABLE 197 HANWHA Q CELLS: BUSINESS OVERVIEW

15.2.8 MITSUBISHI ELECTRIC

TABLE 198 MITSUBISHI ELECTRIC: BUSINESS OVERVIEW

FIGURE 54 MITSUBISHI ELECTRIC: COMPANY SNAPSHOT

15.2.9 SHARP

TABLE 199 SHARP: BUSINESS OVERVIEW

FIGURE 55 SHARP: COMPANY SNAPSHOT

15.2.10 WUXI SUNTECH POWER

TABLE 200 WUXI SUNTECH POWER: BUSINESS OVERVIEW

15.2.11 HUAWEI

TABLE 201 HUAWEI: BUSINESS OVERVIEW

FIGURE 56 HUAWEI: COMPANY SNAPSHOT

15.2.12 SUNGROW POWER SUPPLY

TABLE 202 SUNGROW POWER SUPPLY: BUSINESS OVERVIEW

FIGURE 57 SUNGROW POWER SUPPLY: COMPANY SNAPSHOT

15.2.13 SMA SOLAR TECHNOLOGY

TABLE 203 SMA SOLAR TECHNOLOGY: BUSINESS OVERVIEW

FIGURE 58 SMA SOLAR TECHNOLOGY: COMPANY SNAPSHOT

15.2.14 SOLAREDGE

TABLE 204 SOLAREDGE: BUSINESS OVERVIEW

FIGURE 59 SOLAREDGE: COMPANY SNAPSHOT

15.2.15 ABB

TABLE 205 ABB: BUSINESS OVERVIEW

FIGURE 60 ABB: COMPANY SNAPSHOT

15.3 OTHER KEY PLAYERS

15.3.1 ARRAY TECHNOLOGIES

15.3.2 CHINT SOLAR (ASTRONERGY)

15.3.3 GCL SYSTEM INTEGRATION TECHNOLOGY

15.3.4 LG ELECTRONICS

15.3.5 NEXTRACKER

15.3.6 RISEN ENERGY

15.3.7 TONGWEI SOLAR

15.3.8 YINGLI SOLAR

15.3.9 ACCIONA S.A

15.3.10 ABENGOA, S.A

15.3.11 TATA POWER SOLAR SYSTEMS

15.3.12 WAAREE ENERGIES LTD

15.3.13 SHUNFENG INTERNATIONAL CLEAN ENERGY LIMITED

15.3.14 EMMVEE PHOTOVOLTAIC POWER PRIVATE LIMITED

15.3.15 ALLEARTH RENEWABLES

15.3.16 EATON CORP.

15.3.17 POWER ELECTRONICS

15.3.18 FIMER

*Details on Business Overview, Products, Solutions & Services offered, Recent Developments, MnM View might not be captured in case of unlisted companies.

16 APPENDIX

16.1 DISCUSSION GUIDE

16.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

16.3 CUSTOMIZATION OPTIONS

16.4 RELATED REPORTS

16.5 AUTHOR DETAILS

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