

# **Building-integrated Photovoltaics Market Size, Share**& Trends Analysis Report By Technology (Crystalline Silicon, Thin Film), By Application, By End-use, By Region, And Segment Forecasts, 2022 - 2030

https://marketpublishers.com/r/B87F0248F24EN.html

Date: May 2022

Pages: 97

Price: US\$ 5,950.00 (Single User License)

ID: B87F0248F24EN

# **Abstracts**

This report can be delivered to the clients within 6 Business Days

Building-integrated Photovoltaics Market Growth & Trends

The global building-integrated photovoltaics market size is expected to reach USD 88.38 billion by 2030, according to a new report by Grand View Research, Inc. The market is expected to expand at a CAGR of 20.5% from 2022 to 2030. The rapid expansion of the solar photovoltaic (PV) installation capacities of different countries, coupled with increasing demand for renewable energy sources, is expected to drive the growth of the market across the world. The rising consumer awareness coupled with the product's superior performance over the last decade has primarily driven the market for building-integrated photovoltaics (BIPV).

The crystalline silicon segment led the market in 2021 and had a market share of 71.02%. The crystalline silicon segment was the dominant segment in 2021 which is attributed to the high strength of crystalline silicon BIPV coupled with superior resistance to adverse weather conditions. This segment is driven by declining prices of crystalline silicon cells, which is expected to lower the installation cost in the coming years.

Favorable government legislations, coupled with the unilateral obligation of countries such as Germany, Italy, France, the UK, the U.S., China, Japan, and India to the Kyoto Protocol, designated to reduce greenhouse gas (GHG) emissions, are also expected to



promote the growth of the market in the coming years.

In application, roof installations led the market with a market share of 61.46% in 2021. Photovoltaics integrated with building roofs are known to exhibit efficiency due to improved incidence of light on the roof surface. The development of interlocking roof systems that use interlocked tiles, which provide a high conversion efficiency and a significant reduction in the weight of building integrated roofs, is likely to drive the market over the forecast period.

Based on the end-user, the industrial segment led the BIPV market in 2021 and had a market share of 40.13%. The demand for BIPV in industrial establishments is likely to grow as the consumers in this segment are not price-sensitive and emphasize on reducing the overall cost for companies. In addition, several industries, in a bid to project an environment-friendly image to their consumers, adopt these solutions.

The demand for BIPV installations is anticipated to be fueled by the improvements observed in their operational efficiency. In addition, the growing affinity of multinationals toward the adoption of environment-friendly energy sources is likely to have a positive impact on the BIPV market.

Building-integrated Photovoltaics Market Report Highlights

Roof installations segment accounted for 61.46% revenue share in the overall market. The demand for building integrated roofs is expected to increase over the forecast period due to the development of superior products.

The Industrial segment accounted for about 40.13% of revenue share in 2021. companies in developed economies in Europe exhibit an increased tendency toward the use of integrated photovoltaics in a bid to improve the aesthetic appeal of buildings.

As of 2021, Europe accounted for about 37.68% revenue share in the overall market. Countries like Germany and Italy are increasingly emphasizing the use of solar energy, which is expected to translate into higher adoption of BIPV, thus promoting industry growth over the forecast period



## **Contents**

#### **CHAPTER 1. METHODOLOGY & SCOPE**

- 1.1. Market Segmentation & Scope
- 1.2. Market Scope
- 1.3. Information Procurement
  - 1.3.1. Purchased Database
  - 1.3.2. GVR's Internal Database
  - 1.3.3. Secondary Sources
  - 1.3.4. Third Party Perspective
  - 1.3.5. Primary Research
- 1.4. Information Analysis
- 1.4.1. Data Analysis Models
- 1.5. Market Formulation and Data Visualization
- 1.6. Data Validation and Publishing
- 1.7. List of Abbreviations

#### **CHAPTER 2 EXECUTIVE SUMMARY**

### **CHAPTER 3 MARKET VARIABLES, TRENDS & SCOPE**

- 3.1. Market Lineage Outlook
  - 3.1.1. Global Solar Panels Market Outlook
- 3.2. Penetration & Growth Prospect Mapping
- 3.3. Industry Value Chain Analysis
  - 3.3.1. Raw material trend
    - 3.3.1.1. Major Raw Materials Analysis
      - 3.3.1.1.1. Silicon
      - 3.3.1.1.2. Cadmium telluride
- 3.4. Technology Overview
- 3.5. Regulatory Framework
  - 3.5.1. Standard & Compliances
    - 3.5.1.1. Belgium
    - 3.5.1.2. France
    - 3.5.1.3. Germany
    - 3.5.1.4. Italy
    - 3.5.1.5. The Netherlands
    - 3.5.1.6. Spain



- 3.5.1.7. Switzerland
- 3.6. Market Dynamics
  - 3.6.1. Market Driver Analysis
    - 3.6.1.1. Favorable Regulations And Government Support
    - 3.6.1.2. Reduction In Renewable Power Genration Costs
  - 3.6.2. Market Restraint Analysis
    - 3.6.2.1. High InitiaLI Cost Of Investment
- 3.7. Business Environment Analysis BIPV Market
  - 3.7.1. Industry Analysis Porter's Five Forces
  - 3.7.2. Pesteal analysis
- 3.8. Impact of COVID 19 on the BIPV Market
  - 3.8.1. Challenges
    - 3.8.1.1. Delay in projects due to disruption in supply chain
  - 3.8.1.2. Lack of demand from residential and commercial sectors
  - 3.8.2. Steps Taken
  - 3.8.3. Impact Verdict Medium
- 3.9. Overview on Semi-transparent BIPV price analysis
  - 3.9.1. Price analysis of semi-transparent solar modules, 2020 (USD/sq ft)
  - 3.9.2. Sem transparent BIPV Price Analysis (USD/sq ft)
  - 3.9.3. Semi transparent BIPV Price Analysis (USD/sq M)
- 3.10. Global Semi-transparent BIPV Market Outlook and Growth Prospects
- 3.11. Overview on BIPV price analysis (USD/sq ft) and its breakdown by panel module (USD/sq ft)

#### CHAPTER 4 BIPV MARKET TECHNOLOGY ESTIMATES & TREND ANALYSIS

- 4.1. Technology Movement Analysis & Market Share, 2021 & 2030
- 4.2. Crystalline silicon (C-Si)
- 4.2.1. BIPV Market Estimates And Forecasts For Crystalline Silicon (C-Si), 2019 2030 (USD Million)
- 4.3. Thin film
- 4.3.1. BIPV Market Estimates And Forecasts For Thin Film, 2019 2030 (USD Million)
- 4.4. Others
- 4.4.1. BIPV Market Estimates And Forecasts, by Other Technologies, 2019 2030 (USD Million)

#### **CHAPTER 5 BIPV MARKET APPLICATION ESTIMATES & TREND ANALYSIS**

5.1. Application Movement Analysis & Market Share, 2021 & 2030



- 5.2. Roof
- 5.2.1. Global BIPV Market Estimates and Forecasts For Roof applicAtion, 2019 2030 (USD Million)
- 5.3. Facade
- 5.3.1. BIPV Market Estimates And Forecasts For Facade Application, 2019 2030 (USD Million)
- 5.4. Wall
- 5.4.1. BIPV Market Estimates And Forecasts For Wall Application, 2019 2030 (USD Million)
- 5.5. Glass
- 5.5.1. BIPV Market Estimates And Forecasts For Glass Application, 2019 2030 (USD Million)
- 5.6. Others
- 5.6.1. BIPV Market Estimates And Forecasts For Other Application, 2019 2030 (USD Million)

#### CHAPTER 6 BIPV MARKET END-USER ESTIMATES & TREND ANALYSIS

- 6.1. End-user Movement Analysis & Market Share, 2021 & 2030
- 6.2. Commercial
- 6.2.1. BIPV Market Estimates And Forecasts For Commercial End-user, 2019 2030 (USD Million)
- 6.3. Industrial
- 6.3.1. BIPV Market Estimates And Forecasts FOR Industrial End-user, 2019 2030 (USD Million)
- 6.4. Residential
- 6.4.1. BIPV Market Estimates And Forecasts For Residential End-user, 2019 2030 (USD Million)

#### **CHAPTER 7 BIPV MARKET REGIONAL ESTIMATES & TREND ANALYSIS**

- 7.1. BIPV Market Regional Movement Analysis, 2021 & 2030
- 7.2. North America
- 7.2.1. North America BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.2.2. North America BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.2.3. North America BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)



- 7.2.4. U.S.
- 7.2.4.1. U.S. BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.2.4.2. U.S. BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.2.4.3. U.S. BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.2.5. Canada
- 7.2.5.1. Canada BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.2.5.2. Canada BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.2.5.3. Canada BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.2.6. Mexico
- 7.2.6.1. Mexico BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.2.6.2. Mexico BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.2.6.3. Mexico BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
- 7.3. Europe
  - 7.3.1. BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
  - 7.3.2. BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
  - 7.3.3. BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million) 7.3.4. U.K.
- 7.3.4.1. U.K. BIPV market estimates and forecasts, by technology 2019 2030 (USD Million)
- 7.3.4.2. U.K. BIPV market estimates and forecasts, by application 2019 2030 (USD Million)
- 7.3.4.3. U.K. BIPV market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.3.5 Germany
- 7.3.5.1. Germany BIPV market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.3.5.2. Germany BIPV market estimates and forecasts, by application 2019 2030 (USD Million)
- 7.3.5.3. Germany BIPV market estimates and forecasts, by End-user 2019 2030 (USD Million)



- 7.3.6. France
- 7.3.6.1. France BIPV market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.3.6.2. France BIPV market estimates and forecasts, by application 2019 2030 (USD Million)
- 7.3.6.3. France BIPV market estimates and forecasts, by End-user 2019 2030 (USD Million)
- 7.4. Asia Pacific
- 7.4.1. Asia Pacific BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.4.3. Asia Pacific BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.4.4. Asia Pacific BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.4.5. China
- 7.4.5.1. China BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.4.5.2. China BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.4.5.3. China BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.4.6. India
- 7.4.6.1. India BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.4.6.2. India BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.4.6.3. India BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.4.7. Japan
- 7.4.7.1. Japan BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.4.7.2. Japan BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.4.7.3. Japan BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
- 7.5. Central & South America
- 7.5.1. Central & South America BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
  - 7.5.2. Central & South America BIPV Market estimates and forecasts, by Application



- 2019 2030 (USD Million)
- 7.5.3. Central & South America BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
  - 7.5.4. Brazil
- 7.5.4.1. Brazil BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.5.4.2. Brazil BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.5.4.3. Brazil BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)
- 7.6. Middle East & Africa
- 7.6.1. Middle East & Africa BIPV Market estimates and forecasts, by Technology 2019 2030 (USD Million)
- 7.6.2. Middle East & Africa BIPV Market estimates and forecasts, by Application 2019 2030 (USD Million)
- 7.6.3. Middle East & Africa BIPV Market estimates and forecasts, by End-user 2019 2030 (USD Million)

#### CHAPTER 8 COMPETITIVE LANDSCAPE

- 8.1. Key global players & recent developments & their impact on the industry
- 8.2. Vendor Landscape
- 8.2.1. List of key distributors and channel partners
- 8.3. Company Market Position Analysis
- 8.4. List of Semi-transparent BIPV suppliers\*

#### **CHAPTER 9 COMPANY PROFILES**

- 9.1. Solar Window Technologies, Inc.
  - 9.1.1. Company Overview
  - 9.1.2. Financial PerformANce
  - 9.1.3. Product benchmarking
  - 9.1.4. Strategic Initiatives
- 9.2. AGC Inc.
  - 9.2.1. Company Overview
  - 9.2.2. Financial PerformaNce
  - 9.2.3. Product benchmarking
  - 9.2.4. Strategic Initiatives
- 9.3. Hanergy Mobile Energy Holding Group Limited



- 9.3.1. Company Overview
- 9.3.2. Product benchmarking
- 9.3.3. Strategic Initiatives
- 9.4. The Solaria Corporation
  - 9.4.1. Company Overview
  - 9.4.2. Product benchmarking
  - 9.4.3. Strategic Initiatives
- 9.5. Heliatek GmbH
  - 9.5.1. Company Overview
  - 9.5.2. Product benchmarking
  - 9.5.3. Strategic initiatives
- 9.6. Carmanah Technologies Corp.
  - 9.6.1. Company Overview
  - 9.6.2. Product benchmarking
- 9.7. Greatcell
  - 9.7.1. Company Overview
  - 9.7.2. Product benchmarking
- 9.8. Tesla
  - 9.8.1. Company Overview
  - 9.8.2. Financial PerformANce
  - 9.8.3. Product benchmarking
  - 9.8.4. Strategic Initiatives
- 9.9. BELECTRIC
  - 9.9.1. Company Overview
  - 9.9.2. Product benchmarking
- 9.10. ertex solartechnik GmbH
  - 9.10.1. Company Overview
  - 9.10.2. Product benchmarking
  - 9.10.3. Strategic Initiatives
- 9.11. Canadian Solar
  - 9.11.1. Company Overview
  - 9.11.2. Financial PerformANce
  - 9.11.3. Product benchmarking
- 9.12. Onyx Solar Group LLC
  - 9.12.1. Company Overview
  - 9.12.2. Product benchmarking
  - 9.12.3. Strategic Initiatives
- 9.13. NanoPV Solar Inc.
- 9.13.1. Company Overview



- 9.13.2. Product benchmarking
- 9.14. BIPVco Limited
  - 9.14.1. Company Overview
  - 9.14.2. Product benchmarking
- 9.15. SOLAXESS
  - 9.15.1. Company Overview
  - 9.15.2. Product benchmarking
  - 9.15.3. Strategic Initiatives



# **List Of Tables**

#### LIST OF TABLES

Table 1 List of Abbreviations

Table 2 Semi - Transparent BIPV Market Price estimates and forecasts 2019 - 2030 (USD/sq ft)

Table 3 Semi - Transparent BIPV Market Price estimates and forecasts 2019 - 2030 (USD/sq m)

Table 4 BIPV Market estimates and forecasts in crystalline silicon (C- SI) 2019 - 2030 (USD Million)

Table 5 BIPV Market estimates and forecasts for thin film 2019 - 2030 (USD Million)

Table 6 BIPV Market estimates and forecasts for other technologies, 2019 - 2030 (USD Million)

Table 7 BIPV Market estimates and forecasts in roof application 2019 - 2030 (USD Million)

Table 8 BIPV Market estimates and forecasts for facade application 2019 - 2030 (USD Million)

Table 9 BIPV Market estimates and forecasts for wall application 2019 - 2030 (USD Million)

Table 10 BIPV Market estimates and forecasts for glass application 2019 - 2030 (USD Million)

Table 11 BIPV Market estimates and forecasts in other applications 2019 - 2030 (USD Million)

Table 12 BIPV Market estimates and forecasts for Commercial end-user 2019 - 2030 (USD Million)

Table 13 BIPV Market estimates and forecasts for industrial end-user 2019 - 2030 (USD Million)

Table 14 BIPV Market estimates and forecasts for residential end-user 2019 - 2030 (USD Million)

Table 15 North America BIPV Market volume, by technology, 2019 - 2030 (USD Million))

Table 16 North America BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 17 North America BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 18 U.S. BIPV Market volume, by technology, 2019 - 2030 (USD Million))

Table 19 U.S. BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 20 U.S. BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 21 Canada BIPV Market volume, by technology, 2019 - 2030 (USD Million)



```
Table 22 Canada BIPV Market revenue, by application, 2019 - 2030 (USD Million)
```

Table 23 Canada BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 24 Mexico BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 25 Mexico BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 26 Mexico BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 27 BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 28 BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 29 BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 30 U.K. BIPV market revenue, by technology, 2019 - 2030 (USD Million)

Table 31 U.K. BIPV market revenue, by application, 2019 - 2030 (USD Million)

Table 32 U.K. BIPV market revenue, by end-user, 2019 - 2030 (USD Million)

Table 33 Germany BIPV market revenue, by technology, 2019 - 2030 (USD Million)

Table 34 Germany BIPV market revenue, by application, 2019 - 2030 (USD Million)

Table 35 Germany BIPV market revenue, by end-user, 2019 - 2030 (USD Million)

Table 36 France BIPV market revenue, by technology, 2019 - 2030 (USD Million)

Table 37 France BIPV market revenue, by application, 2019 - 2030 (USD Million)

Table 38 France BIPV market revenue, by end-user, 2019 - 2030 (USD Million)

Table 39 Asia Pacific BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 40 Asia Pacific BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 41 Asia Pacific BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 42 China BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 43 China BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 44 China BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 45 India BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 46 India BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 47 India BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 48 Japan BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 49 Japan BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 50 Japan BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 51 Central & South America BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 52 Central & South America BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 53 Central & South America BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 54 Brazil BIPV Market volume, by technology, 2019 - 2030 (USD Million)

Table 55 Brazil BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 56 Brazil BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 57 Middle East & Africa BIPV Market volume, by technology, 2019 - 2030 (USD



Million)

Table 58 Middle East & Africa BIPV Market revenue, by application, 2019 - 2030 (USD Million)

Table 59 Middle East & Africa BIPV Market revenue, by end-user, 2019 - 2030 (USD Million)

Table 60 List of key distributors and channel partners

Table 61 List of Semi-transparent BIPV suppliers



# **List Of Figures**

#### LIST OF FIGURES

- Fig. 1 BIPV Market segmentation
- Fig. 2 Information procurement
- Fig. 3 Primary research pattern
- Fig. 4 Primary research process
- Fig. 5 Primary research approaches
- Fig. 6 BIPV Market Snapshot (USD Million)
- Fig. 7 BIPV Market Penetration & growth prospect mapping
- Fig. 8 BIPV Market Industry value chain analysis
- Fig. 9 Market driver impact analysis
- Fig. 10 Solar PV Module Cost (2019 US\$ per W) 2007 2019
- Fig. 11 Market restraint impact analysis
- Fig. 12 BIPV Market analysis Porter's
- Fig. 13 BIPV Market analysis PESTEL analysis
- Fig. 14 Semi-transparent BIPV Market Penetration & growth prospect mapping (USD Million)
- Fig. 15 Fully Integrated BIPV Price Analysis and Breakdown by Panel Modules (USD/sq ft)
- Fig. 16 Fully Integrated BIPV Price Analysis and Breakdown by Panel Modules (USD/m)
- Fig. 17 Fully Integrated BIPV Components Cost Breakdown (2020) (%)
- Fig. 18 BIPV Market share by technology, 2021 & 2030 (USD Million)
- Fig. 19 BIPV Market share by Application, 2021 & 2030 (USD Million)
- Fig. 20 BIPV Market share by End-user, 2021 & 2030 (USD Million)
- Fig. 21 BIPV Market Regional Movement Analysis, 2021 & 2030



#### I would like to order

Product name: Building-integrated Photovoltaics Market Size, Share & Trends Analysis Report By

Technology (Crystalline Silicon, Thin Film), By Application, By End-use, By Region, And

Segment Forecasts, 2022 - 2030

Product link: https://marketpublishers.com/r/B87F0248F24EN.html

Price: US\$ 5,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

# **Payment**

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <a href="https://marketpublishers.com/r/B87F0248F24EN.html">https://marketpublishers.com/r/B87F0248F24EN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below



and fax the completed form to +44 20 7900 3970