

# **Global Transparent Solar Cells Market Size study & Forecast, by Cell Type (Thin-Film Photovoltaics (TPV), Polymer Solar Cell, Others), by Transparency Type (Partial, Full), by Application (Building Integrated Photovoltaics (BIPV), Automobile, Consumer Electronics, Others) and Regional Analysis, 2023-2030**

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## **Abstracts**

Global Transparent Solar Cells Market is valued at approximately USD XX billion in 2022 and is anticipated to grow with a healthy growth rate of more than XX% over the forecast period 2023-2030. Transparent solar cells, also known as see-through solar cells or clear solar cells, are a type of photovoltaic (PV) technology that allows light to pass through them while simultaneously converting sunlight into electricity. Unlike traditional opaque solar panels, transparent solar cells have the potential to be integrated into various transparent surfaces, such as windows, facades, screens, and other see-through materials, enabling solar energy generation without compromising the aesthetics or functionality of the underlying structure. The key factors driving the market growth is rising demand for renewable energy, growing consumer awareness positively impacting the transparent solar cell and growing awareness and environmental concerns that are anticipated to support the market growth during the forecast period 2023-2030.

Moreover, the rising government investment in the development of renewable energy infrastructure is anticipated to support the market growth. For instance, In Sept. 2021, The United States Department of Agriculture announced plans to invest USD 464 million to create or expand renewable energy infrastructure to help rural communities, agricultural producers, and businesses cut energy costs in 48 states and Puerto Rico. The USDA supported USD 129 million of these projects under the Rural Electricity for

America Programme. This programme offers assistance to support the purchase and installation of renewable energy systems as well as improvements to energy efficiency for rural small enterprises and agricultural producers. Additionally, supportive government initiatives for the development of smart city projects and growing strategic partnership & collaboration with industries are anticipated to create a lucrative opportunity for the market during the forecast period. However, the high production cost stifles market growth throughout the forecast period of 2023-2030.

The key regions considered for the Global Transparent Solar Cells Market study includes Asia Pacific, North America, Europe, Latin America, and Middle East & Africa. North America dominated the market in 2022 owing to the increasing demand for renewable energy, supportive government incentives and policies, growing building integrated photovoltaics (BIPV), and growing consumer awareness and corporate sustainability goals. Whereas, the Asia Pacific is expected to grow with the highest CAGR during the forecast period, owing to factors such as the increasing energy demand, cohesive government incentives and policies, growing environmental awareness, and rising investment in renewable energy in the region.

Major market player included in this report are:

Ubiquitous Energy, Inc.

Onyx Solar Group LLC

EnergyGlass

Polysolar Ltd

Xiamen Solar First Energy Technology Co., Ltd.

Heliatek GmbH

Brite Solar

Sharp Corporation

SolarScape Enterprises LLP

Physee Technologies

Recent Developments in the Market:

In July 2021, Swiss research institution Agroscope and energy company Romande Energie are constructing an agrivoltaic project in Conthey, canton of Valais, Switzerland, with the supporting of the Swiss Federal Office of Energy (SFOE). The project was built using unique transparent concentrator PV panels supplied by Swiss firm Insolight. The Theia (Translucency and High Efficiency in Agrivoltaics) modules have a 30% efficiency rating and are estimated to allow up to 78% of sunlight through.

Global Transparent Solar Cells Market Report Scope:

Historical Data – 2020 - 2021

Base Year for Estimation – 2022

Forecast period - 2023-2030

Report Coverage - Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Segments Covered – Cell Type, Transparency Type, Application, Region

Regional Scope - North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope - Free report customization (equivalent up to 8 analyst's working hours) with purchase. Addition or alteration to country, regional & segment scope\*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values to the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within countries involved in the study.

The report also caters detailed information about the crucial aspects such as driving factors & challenges which will define the future growth of the market. Additionally, it also incorporates potential opportunities in micro markets for stakeholders to invest along with the detailed analysis of competitive landscape and product offerings of key players. The detailed segments and sub-segment of the market are explained below:

By Cell Type:

Thin-Film Photovoltaics (TPV)

Polymer Solar Cell

Others

By Transparency Type:

Partial

Full

By Application:

Building Integrated Photovoltaics (BIPV)

Automobile

Consumer Electronics

Others

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

Rest of Middle East & Africa

## Contents

### CHAPTER 1. EXECUTIVE SUMMARY

- 1.1. Market Snapshot
- 1.2. Global & Segmental Market Estimates & Forecasts, 2020-2030 (USD Billion)
  - 1.2.1. Transparent Solar Cells Market, by Region, 2020-2030 (USD Billion)
  - 1.2.2. Transparent Solar Cells Market, by Cell Type, 2020-2030 (USD Billion)
  - 1.2.3. Transparent Solar Cells Market, by Transparency Type, 2020-2030 (USD Billion)
  - 1.2.4. Transparent Solar Cells Market, by Application, 2020-2030 (USD Billion)
- 1.3. Key Trends
- 1.4. Estimation Methodology
- 1.5. Research Assumption

### CHAPTER 2. GLOBAL TRANSPARENT SOLAR CELLS MARKET DEFINITION AND SCOPE

- 2.1. Objective of the Study
- 2.2. Market Definition & Scope
  - 2.2.1. Industry Evolution
  - 2.2.2. Scope of the Study
- 2.3. Years Considered for the Study
- 2.4. Currency Conversion Rates

### CHAPTER 3. GLOBAL TRANSPARENT SOLAR CELLS MARKET DYNAMICS

- 3.1. Transparent Solar Cells Market Impact Analysis (2020-2030)
  - 3.1.1. Market Drivers
    - 3.1.1.1. Rising demand for renewable energy
    - 3.1.1.2. Growing awareness and environmental concerns
    - 3.1.1.3. Rising government investment for the development of renewable energy infrastructure
  - 3.1.2. Market Challenges
    - 3.1.2.1. High production cost
  - 3.1.3. Market Opportunities
    - 3.1.3.1. Supportive government initiatives for the development of smart cities projects

### CHAPTER 4. GLOBAL TRANSPARENT SOLAR CELLS MARKET INDUSTRY

## **ANALYSIS**

- 4.1. Porter's 5 Force Model
  - 4.1.1. Bargaining Power of Suppliers
  - 4.1.2. Bargaining Power of Buyers
  - 4.1.3. Threat of New Entrants
  - 4.1.4. Threat of Substitutes
  - 4.1.5. Competitive Rivalry
- 4.2. Porter's 5 Force Impact Analysis
- 4.3. PEST Analysis
  - 4.3.1. Political
  - 4.3.2. Economical
  - 4.3.3. Social
  - 4.3.4. Technological
  - 4.3.5. Environmental
  - 4.3.6. Legal
- 4.4. Top investment opportunity
- 4.5. Top winning strategies
- 4.6. COVID-19 Impact Analysis
- 4.7. Disruptive Trends
- 4.8. Industry Expert Perspective
- 4.9. Analyst Recommendation & Conclusion

## **CHAPTER 5. GLOBAL TRANSPARENT SOLAR CELLS MARKET, BY CELL TYPE**

- 5.1. Market Snapshot
- 5.2. Global Transparent Solar Cells Market by Cell Type, Performance - Potential Analysis
- 5.3. Global Transparent Solar Cells Market Estimates & Forecasts by Cell Type 2020-2030 (USD Billion)
- 5.4. Transparent Solar Cells Market, Sub Segment Analysis
  - 5.4.1. Thin-Film Photovoltaics (TPV)
  - 5.4.2. Polymer Solar Cell
  - 5.4.3. Others

## **CHAPTER 6. GLOBAL TRANSPARENT SOLAR CELLS MARKET, BY TRANSPARENCY TYPE**

- 6.1. Market Snapshot

6.2. Global Transparent Solar Cells Market by Transparency Type, Performance - Potential Analysis

6.3. Global Transparent Solar Cells Market Estimates & Forecasts by Transparency Type 2020-2030 (USD Billion)

6.4. Transparent Solar Cells Market, Sub Segment Analysis

6.4.1. Partial

6.4.2. Full

## **CHAPTER 7. GLOBAL TRANSPARENT SOLAR CELLS MARKET, BY APPLICATION**

7.1. Market Snapshot

7.2. Global Transparent Solar Cells Market by Application, Performance - Potential Analysis

7.3. Global Transparent Solar Cells Market Estimates & Forecasts by Application 2020-2030 (USD Billion)

7.4. Transparent Solar Cells Market, Sub Segment Analysis

7.4.1. Building Integrated Photovoltaics (BIPV)

7.4.2. Automobile

7.4.3. Consumer Electronics

7.4.4. Others

## **CHAPTER 8. GLOBAL TRANSPARENT SOLAR CELLS MARKET, REGIONAL ANALYSIS**

8.1. Top Leading Countries

8.2. Top Emerging Countries

8.3. Transparent Solar Cells Market, Regional Market Snapshot

8.4. North America Transparent Solar Cells Market

8.4.1. U.S. Transparent Solar Cells Market

8.4.1.1. Cell Type breakdown estimates & forecasts, 2020-2030

8.4.1.2. Transparency Type breakdown estimates & forecasts, 2020-2030

8.4.1.3. Application breakdown estimates & forecasts, 2020-2030

8.4.2. Canada Transparent Solar Cells Market

8.5. Europe Transparent Solar Cells Market Snapshot

8.5.1. U.K. Transparent Solar Cells Market

8.5.2. Germany Transparent Solar Cells Market

8.5.3. France Transparent Solar Cells Market

8.5.4. Spain Transparent Solar Cells Market

- 8.5.5. Italy Transparent Solar Cells Market
- 8.5.6. Rest of Europe Transparent Solar Cells Market
- 8.6. Asia-Pacific Transparent Solar Cells Market Snapshot
  - 8.6.1. China Transparent Solar Cells Market
  - 8.6.2. India Transparent Solar Cells Market
  - 8.6.3. Japan Transparent Solar Cells Market
  - 8.6.4. Australia Transparent Solar Cells Market
  - 8.6.5. South Korea Transparent Solar Cells Market
  - 8.6.6. Rest of Asia Pacific Transparent Solar Cells Market
- 8.7. Latin America Transparent Solar Cells Market Snapshot
  - 8.7.1. Brazil Transparent Solar Cells Market
  - 8.7.2. Mexico Transparent Solar Cells Market
- 8.8. Middle East & Africa Transparent Solar Cells Market
  - 8.8.1. Saudi Arabia Transparent Solar Cells Market
  - 8.8.2. South Africa Transparent Solar Cells Market
  - 8.8.3. Rest of Middle East & Africa Transparent Solar Cells Market

## **CHAPTER 9. COMPETITIVE INTELLIGENCE**

- 9.1. Key Company SWOT Analysis
  - 9.1.1. Company
  - 9.1.2. Company
  - 9.1.3. Company
- 9.2. Top Market Strategies
- 9.3. Company Profiles
  - 9.3.1. Ubiquitous Energy, Inc.
    - 9.3.1.1. Key Information
    - 9.3.1.2. Overview
    - 9.3.1.3. Financial (Subject to Data Availability)
    - 9.3.1.4. Product Summary
    - 9.3.1.5. Recent Developments
  - 9.3.2. Onyx Solar Group LLC
  - 9.3.3. EnergyGlass
  - 9.3.4. Polysolar Ltd
  - 9.3.5. Xiamen Solar First Energy Technology Co., Ltd.
  - 9.3.6. Heliatek GmbH
  - 9.3.7. Brite Solar
  - 9.3.8. Sharp Corporation
  - 9.3.9. SolarScape Enterprises LLP



## 9.3.10. Physee Technologies

**CHAPTER 10. RESEARCH PROCESS**

## 10.1. Research Process

## 10.1.1. Data Mining

## 10.1.2. Analysis

## 10.1.3. Market Estimation

## 10.1.4. Validation

## 10.1.5. Publishing

## 10.2. Research Attributes

## 10.3. Research Assumption

## 12. List of Tables

TABLE 1. Global Transparent Solar Cells Market, report scope

TABLE 2. Global Transparent Solar Cells Market estimates & forecasts by region  
2020-2030 (USD Billion)TABLE 3. Global Transparent Solar Cells Market estimates & forecasts by Cell Type  
2020-2030 (USD Billion)TABLE 4. Global Transparent Solar Cells Market estimates & forecasts by  
Transparency Type 2020-2030 (USD Billion)TABLE 5. Global Transparent Solar Cells Market estimates & forecasts by Application  
2020-2030 (USD Billion)TABLE 6. Global Transparent Solar Cells Market by segment, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 7. Global Transparent Solar Cells Market by region, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 8. Global Transparent Solar Cells Market by segment, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 9. Global Transparent Solar Cells Market by region, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 10. Global Transparent Solar Cells Market by segment, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 11. Global Transparent Solar Cells Market by region, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 12. Global Transparent Solar Cells Market by segment, estimates & forecasts,  
2020-2030 (USD Billion)TABLE 13. Global Transparent Solar Cells Market by region, estimates & forecasts,  
2020-2030 (USD Billion)

TABLE 14. Global Transparent Solar Cells Market by segment, estimates &amp; forecasts,

2020-2030 (USD Billion)

TABLE 15. Global Transparent Solar Cells Market by region, estimates & forecasts, 2020-2030 (USD Billion)

TABLE 16. U.S. Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 17. U.S. Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 18. U.S. Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 19. Canada Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 20. Canada Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 21. Canada Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 22. UK Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 23. UK Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 24. UK Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 25. Germany Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 26. Germany Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 27. Germany Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 28. France Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 29. France Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 30. France Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 31. Italy Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 32. Italy Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 33. Italy Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 34. Spain Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 35. Spain Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 36. Spain Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 37. RoE Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 38. RoE Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 39. RoE Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 40. China Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 41. China Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 42. China Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 43. India Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 44. India Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 45. India Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 46. Japan Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 47. Japan Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 48. Japan Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 49. South Korea Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 50. South Korea Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 51. South Korea Transparent Solar Cells Market estimates & forecasts by segment 2020-2030 (USD Billion)

TABLE 52. Australia Transparent Solar Cells Market estimates & forecasts, 2020-2030 (USD Billion)

TABLE 53. Australia Transparent Solar Cells Market estimates & forecasts by segment

2020-2030 (USD Billion)

TABLE 54. Australia Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 55. RoAPAC Transparent Solar Cells Market estimates & forecasts, 2020-2030  
(USD Billion)

TABLE 56. RoAPAC Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 57. RoAPAC Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 58. Brazil Transparent Solar Cells Market estimates & forecasts, 2020-2030  
(USD Billion)

TABLE 59. Brazil Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 60. Brazil Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 61. Mexico Transparent Solar Cells Market estimates & forecasts, 2020-2030  
(USD Billion)

TABLE 62. Mexico Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 63. Mexico Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 64. RoLA Transparent Solar Cells Market estimates & forecasts, 2020-2030  
(USD Billion)

TABLE 65. RoLA Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 66. RoLA Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 67. Saudi Arabia Transparent Solar Cells Market estimates & forecasts,  
2020-2030 (USD Billion)

TABLE 68. South Africa Transparent Solar Cells Market estimates & forecasts by  
segment 2020-2030 (USD Billion)

TABLE 69. RoMEA Transparent Solar Cells Market estimates & forecasts by segment  
2020-2030 (USD Billion)

TABLE 70. 12. List of secondary sources, used in the study of global Transparent Solar  
Cells Market

TABLE 71. 12. List of primary sources, used in the study of global Transparent Solar  
Cells Market

TABLE 72. Years considered for the study

TABLE 73. Exchange rates considered

12. List of tables and figures and dummy in nature, final lists may vary in the final deliverable

12. List of figures

FIG 1. Global Transparent Solar Cells Market, research methodology

FIG 2. Global Transparent Solar Cells Market, Market estimation techniques

FIG 3. Global Market size estimates & forecast methods

FIG 4. Global Transparent Solar Cells Market, key trends 2022

FIG 5. Global Transparent Solar Cells Market, growth prospects 2023-2030

FIG 6. Global Transparent Solar Cells Market, porters 5 force model

FIG 7. Global Transparent Solar Cells Market, pest analysis

FIG 8. Global Transparent Solar Cells Market, value chain analysis

FIG 9. Global Transparent Solar Cells Market by segment, 2020 & 2030 (USD Billion)

FIG 10. Global Transparent Solar Cells Market by segment, 2020 & 2030 (USD Billion)

FIG 11. Global Transparent Solar Cells Market by segment, 2020 & 2030 (USD Billion)

FIG 12. Global Transparent Solar Cells Market by segment, 2020 & 2030 (USD Billion)

FIG 13. Global Transparent Solar Cells Market by segment, 2020 & 2030 (USD Billion)

FIG 14. Global Transparent Solar Cells Market, regional snapshot 2020 & 2030

FIG 15. North America Transparent Solar Cells Market 2020 & 2030 (USD Billion)

FIG 16. Europe Transparent Solar Cells Market 2020 & 2030 (USD Billion)

FIG 17. Asia Pacific Transparent Solar Cells Market 2020 & 2030 (USD Billion)

FIG 18. Latin America Transparent Solar Cells Market 2020 & 2030 (USD Billion)

FIG 19. Middle East & Africa Transparent Solar Cells Market 2020 & 2030 (USD Billion)

12. List of tables and figures and dummy in nature, final lists may vary in the final deliverable

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