

Green Airport Market Forecasts to 2032 – Global Analysis By Energy Type (Bioenergy, Solar Energy and Wind Power), Airport Type (Civil Airport, Military & Government Airport and Commercial Airport), Airport Class, Green Technologies, Infrastructure Development, Sustainability Initiatives and By Geography

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Abstracts

According to Statistics MRC, the Global Green Airport Market is accounted for \$6.49 billion in 2025 and is expected to reach \$14.54 billion by 2032 growing at a CAGR of 12.2% during the forecast period. An airport that uses eco-friendly technologies and sustainable practices to reduce its environmental impact is known as a green airport. Reduced carbon emissions, water and energy conservation, effective waste management, and the promotion of renewable energy sources like wind and solar are the main goals of these airports. A more sustainable aviation ecosystem is the goal of green airports, which include everything from eco-friendly terminal designs and green building certifications to electric ground support equipment and effective air traffic management systems.

According to the Airports Council International (ACI), AAI has installed over 54 MWp of solar power across airports and procures approximately 53 million units of solar energy, bringing its renewable energy usage to 35% of total electricity consumption.

Market Dynamics:

Driver:

Demand for carbon neutrality worldwide

One of the main factors propelling the green airport market is the worldwide push for carbon neutrality. Ambitious sustainability frameworks for airports around the world have been established by international organizations like the Airports Council International (ACI) and the International Civil Aviation Organization (ICAO). The need to decarbonize airport operations is demonstrated by ACI's 'Net Zero by 2050' pledge, which has been supported by more than 200 airports. Additionally, airports are encouraged by these international regulations to lower their greenhouse gas emissions by using low-emission infrastructure, carbon management systems, renewable energy, and effective logistics.

Restraint:

High capital costs and initial investment

The high initial cost of implementing sustainable infrastructure and technologies is one of the biggest barriers to the green airport market. Large capital expenditures are necessary to make the switch to green energy systems, which include installing electric ground support equipment, LEED-certified terminals, rainwater harvesting systems, and massive solar power arrays. Budgetary restrictions and limited access to low-interest green financing and public-private partnerships (PPPs) plague many airport operators, particularly in developing countries. Furthermore, smaller airports are deterred from implementing sustainable practices by this high cost, which frequently delays project approvals.

Opportunity:

Adoption of intelligent airport technology

A number of intersections with sustainability goals are created by the emergence of smart airport systems, which are driven by AI, IoT, machine learning, and big data. Smart technologies can greatly lower resource consumption and enhance environmental performance, from automated waste sorting and real-time emissions tracking to intelligent HVAC and lighting systems. These developments improve operational effectiveness and passenger convenience. IoT-enabled systems, for example, can modify air conditioning or lighting according to occupancy levels, and predictive analytics can optimize ground support equipment's fuel consumption.

Threat:

Risks to cyber security in smart airport environments

Green airports are more susceptible to cyber attacks due to the growing use of smart technologies, IoT systems, and automated infrastructure. Any breach could result in data theft, energy blackouts, or operational disruptions because airports depend on networked systems to monitor energy consumption, control renewable power grids, and regulate vital functions like lighting, HVAC, and electric vehicle charging. Targeting airport control systems by hostile actors could jeopardize passenger safety, regulatory compliance, and efficiency. Furthermore, green systems like smart building automation platforms and microgrids need constant digital monitoring, which raises the risk of cyberattacks.

Covid-19 Impact:

The COVID-19 pandemic had a mixed effect on the green airport market, leading to both short-term setbacks and long-term sustainability opportunities. Due to financial strain brought on by the near-complete cessation of airport operations worldwide during the height of the crisis, many airports were forced to postpone or cancel planned green infrastructure projects because of financial limitations and the uncertain recovery of passenger traffic. But the pandemic also acted as a wake-up call, highlighting how crucial transport infrastructure is for environmental sustainability, health, and resilience. Moreover, many governments and airport officials included green initiatives in stimulus packages and recovery plans as air travel started to rebound.

The solar energy segment is expected to be the largest during the forecast period

The solar energy segment is expected to account for the largest market share during the forecast period. Solar energy is becoming more and more popular in airports worldwide because of its scalability, affordability, and minimal maintenance needs. It is simple to install solar panels on parking lots, rooftops, and undeveloped land on airport property, making effective use of available space without interfering with operations. Solar can power terminals, runway lighting, and auxiliary systems, as demonstrated by successful installations at Cochin International Airport in India and Denver International Airport in the United States. Additionally, solar technology is becoming more and more dominant in green airport energy solutions as it gets more affordable and efficient.

The Class C (smaller regional/local airports) segment is expected to have the highest

CAGR during the forecast period

Over the forecast period, the Class C (smaller regional/local airports) segment is predicted to witness the highest growth rate because of the availability of affordable sustainable technologies, growing community pressure, and stricter environmental regulations, these airports are putting more and more emphasis on green upgrades. Class C airports have less infrastructure and fewer bureaucratic restrictions than larger hubs, which allows them to adopt green solutions like solar panels, LED runway lighting, and electric ground support equipment more quickly. To further accelerate growth, government grants and rural development funds are frequently allocated to improving sustainability in underserved areas. They are leading innovators in green aviation due to their funding support and agility.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, driven by robust government initiatives supporting sustainable infrastructure, rising air traffic, and fast urbanization. To cut down on energy use and carbon emissions, major nations like China, India, Japan, and Australia are making significant investments in environmentally friendly airport projects. Market expansion is fueled by the region's emphasis on implementing renewable energy sources, like wind and solar power, in conjunction with stringent environmental laws. Furthermore, Asia-Pacific's leading position in the global green airport market is also largely due to growing environmental consciousness and the development of airport infrastructure in developing nations.

Region with highest CAGR:

Over the forecast period, the North American region is anticipated to exhibit the highest CAGR. Countries like the US and Canada are adopting green technologies in airports at a faster rate due to increased environmental consciousness, stricter carbon emission regulations, and significant investments in sustainable infrastructure. Among the initiatives are waste reduction plans, energy-efficient lighting, and the installation of solar power systems. Market expansion is also fueled by the drive to electrify ground support equipment and modernize airport infrastructure in order to achieve sustainability targets. Moreover, North America's consistent growth in the green airport industry is guaranteed by its emphasis on innovation and regulatory support.

Key players in the market

Some of the key players in Green Airport Market include Cisco Systems, Inc., Schneider Electric SE, General Electric Company, ABB Group, Dubai Airports Company, Siemens AG, Amadeus IT Groups SA, Honeywell International Inc. , IBM Corporation, Collins Aersospace, TKH Airport Solutions Inc, Sabre Corporation, Acciona, S.A., Sita Inc. and Thales Group.

Key Developments:

In March 2025, ABB and Charbone Hydrogen Corporation have signed a Memorandum of Understanding (MoU) agreement to collaborate on the development of up to 15 modular and scalable green hydrogen production facilities across North America over the next five years, providing a clean fuel source for existing hydrogen users and heavy industrial processes such as steelmaking, which currently use grey hydrogen as an energy source.

In January 2025, Schneider Electric announced that it has been awarded the contract to automate India's largest Water Treatment Plant in Bhandup, Mumbai. The plant, which processes 2000 MLD (Million Litres per Day) of water daily, will be instrumental in advancing the Government of Maharashtra's mission to provide potable water to 22 million inhabitants.

In November 2024, Cisco and MGM Resorts International announce that the companies have signed a Whole Portfolio Agreement (WPA), empowering MGM Resorts with the majority of Cisco's software portfolio. This includes cybersecurity, software defined networking, software defined-WAN, digital experience assurance, full-stack observability, data center and services. This agreement spans 5.5 years, benefiting guests and employees across all of MGM Resorts' properties.

Energy Types Covered:

Bioenergy

Solar Energy

Wind Power

Airport Types Covered:

Civil Airport

Military & Government Airport

Commercial Airport

Airport Classes Covered:

Class A (Large-Scale International Hubs)

Class B (Medium-Sized Airports)

Class C (Smaller Regional/Local Airports)

Green Technologies Covered:

Renewable Energy Systems

Electric Ground Support Equipment

Green Building Materials

Water Conservation Systems

Energy-efficient Lighting

Advanced Waste Management Systems

Infrastructure Developments Covered:

Terminal Construction

Runway Optimization

Parking Facilities

Sustainability Initiatives Covered:

Carbon Neutral Programs

Waste Management Solutions

Sustainable Transportation Initiatives

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Emerging Markets
- 3.7 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL GREEN AIRPORT MARKET, BY ENERGY TYPE

- 5.1 Introduction
- 5.2 Bioenergy
- 5.3 Solar Energy
- 5.4 Wind Power

6 GLOBAL GREEN AIRPORT MARKET, BY AIRPORT TYPE

- 6.1 Introduction
- 6.2 Civil Airport
- 6.3 Military & Government Airport
- 6.4 Commercial Airport

7 GLOBAL GREEN AIRPORT MARKET, BY AIRPORT CLASS

- 7.1 Introduction
- 7.2 Class A (Large-Scale International Hubs)
- 7.3 Class B (Medium-Sized Airports)
- 7.4 Class C (Smaller Regional/Local Airports)

8 GLOBAL GREEN AIRPORT MARKET, BY GREEN TECHNOLOGIES

- 8.1 Introduction
- 8.2 Renewable Energy Systems
- 8.3 Electric Ground Support Equipment
- 8.4 Green Building Materials
- 8.5 Water Conservation Systems
- 8.6 Energy-efficient Lighting
- 8.7 Advanced Waste Management Systems

9 GLOBAL GREEN AIRPORT MARKET, BY INFRASTRUCTURE DEVELOPMENT

- 9.1 Introduction
- 9.2 Terminal Construction
- 9.3 Runway Optimization
- 9.4 Parking Facilities

10 GLOBAL GREEN AIRPORT MARKET, BY SUSTAINABILITY INITIATIVES

- 10.1 Introduction

- 10.2 Carbon Neutral Programs
- 10.3 Waste Management Solutions
- 10.4 Sustainable Transportation Initiatives

11 GLOBAL GREEN AIRPORT MARKET, BY GEOGRAPHY

- 11.1 Introduction
- 11.2 North America
 - 11.2.1 US
 - 11.2.2 Canada
 - 11.2.3 Mexico
- 11.3 Europe
 - 11.3.1 Germany
 - 11.3.2 UK
 - 11.3.3 Italy
 - 11.3.4 France
 - 11.3.5 Spain
 - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
 - 11.4.1 Japan
 - 11.4.2 China
 - 11.4.3 India
 - 11.4.4 Australia
 - 11.4.5 New Zealand
 - 11.4.6 South Korea
 - 11.4.7 Rest of Asia Pacific
- 11.5 South America
 - 11.5.1 Argentina
 - 11.5.2 Brazil
 - 11.5.3 Chile
 - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
 - 11.6.1 Saudi Arabia
 - 11.6.2 UAE
 - 11.6.3 Qatar
 - 11.6.4 South Africa
 - 11.6.5 Rest of Middle East & Africa

12 KEY DEVELOPMENTS

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

13 COMPANY PROFILING

- 13.1 Cisco Systems, Inc.
- 13.2 Schneider Electric SE
- 13.3 General Electric Company
- 13.4 ABB Group
- 13.5 Dubai Airports Company
- 13.6 Siemens AG
- 13.7 Amadeus IT Groups SA
- 13.8 Honeywell International Inc.
- 13.9 IBM Corporation
- 13.10 Collins Aersospace
- 13.11 TKH Airport Solutions Inc
- 13.12 Sabre Corporation
- 13.13 Acciona, S.A.
- 13.14 Sita Inc.
- 13.15 Thales Group

List Of Tables

LIST OF TABLES

- Table 1 Global Green Airport Market Outlook, By Region (2024-2032) (\$MN)
- Table 2 Global Green Airport Market Outlook, By Energy Type (2024-2032) (\$MN)
- Table 3 Global Green Airport Market Outlook, By Bioenergy (2024-2032) (\$MN)
- Table 4 Global Green Airport Market Outlook, By Solar Energy (2024-2032) (\$MN)
- Table 5 Global Green Airport Market Outlook, By Wind Power (2024-2032) (\$MN)
- Table 6 Global Green Airport Market Outlook, By Airport Type (2024-2032) (\$MN)
- Table 7 Global Green Airport Market Outlook, By Civil Airport (2024-2032) (\$MN)
- Table 8 Global Green Airport Market Outlook, By Military & Government Airport (2024-2032) (\$MN)
- Table 9 Global Green Airport Market Outlook, By Commercial Airport (2024-2032) (\$MN)
- Table 10 Global Green Airport Market Outlook, By Airport Class (2024-2032) (\$MN)
- Table 11 Global Green Airport Market Outlook, By Class A (Large-Scale International Hubs) (2024-2032) (\$MN)
- Table 12 Global Green Airport Market Outlook, By Class B (Medium-Sized Airports) (2024-2032) (\$MN)
- Table 13 Global Green Airport Market Outlook, By Class C (Smaller Regional/Local Airports) (2024-2032) (\$MN)
- Table 14 Global Green Airport Market Outlook, By Green Technologies (2024-2032) (\$MN)
- Table 15 Global Green Airport Market Outlook, By Renewable Energy Systems (2024-2032) (\$MN)
- Table 16 Global Green Airport Market Outlook, By Electric Ground Support Equipment (2024-2032) (\$MN)
- Table 17 Global Green Airport Market Outlook, By Green Building Materials (2024-2032) (\$MN)
- Table 18 Global Green Airport Market Outlook, By Water Conservation Systems (2024-2032) (\$MN)
- Table 19 Global Green Airport Market Outlook, By Energy-efficient Lighting (2024-2032) (\$MN)
- Table 20 Global Green Airport Market Outlook, By Advanced Waste Management Systems (2024-2032) (\$MN)
- Table 21 Global Green Airport Market Outlook, By Infrastructure Development (2024-2032) (\$MN)
- Table 22 Global Green Airport Market Outlook, By Terminal Construction (2024-2032)

(\$MN)

Table 23 Global Green Airport Market Outlook, By Runway Optimization (2024-2032)

(\$MN)

Table 24 Global Green Airport Market Outlook, By Parking Facilities (2024-2032) (\$MN)

Table 25 Global Green Airport Market Outlook, By Sustainability Initiatives (2024-2032)

(\$MN)

Table 26 Global Green Airport Market Outlook, By Carbon Neutral Programs

(2024-2032) (\$MN)

Table 27 Global Green Airport Market Outlook, By Waste Management Solutions

(2024-2032) (\$MN)

Table 28 Global Green Airport Market Outlook, By Sustainable Transportation Initiatives

(2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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