

# **Global Next-Gen Aircraft Propulsion System Market Size study & Forecast, by Propulsion Type (All-Electric, Hybrid Electric, Turbo Electric, Hydrogen Propulsion, Solar Propulsion), Component (Power Generation, Power Distribution, Power Conversion System, Electric Motor, Energy Storage & Supply System, Others) and End-User (Military, Commercial and Civil, Government) and Regional Forecasts 2025-2035**

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## **Abstracts**

The Global Next-Gen Aircraft Propulsion System Market is valued at approximately USD 0.16 billion in 2024 and is projected to grow steadily at a CAGR of 4.80% over the forecast period 2025-2035. Next-generation aircraft propulsion systems represent a paradigm shift in aviation, integrating advanced electric, hybrid, hydrogen, and solar propulsion technologies to deliver higher energy efficiency, reduced emissions, and superior operational performance. These systems encompass sophisticated components including power generation units, power distribution networks, conversion systems, electric motors, and energy storage solutions, all engineered to enhance the reliability, safety, and environmental sustainability of modern aircraft. The market growth is propelled by escalating global initiatives toward decarbonization of aviation and the increasing adoption of innovative propulsion solutions by commercial, military, and government aviation stakeholders.

The surge in the adoption of eco-friendly propulsion technologies has created a fertile landscape for the expansion of next-gen aircraft propulsion systems. As governments and airlines intensify efforts to meet stringent emission reduction targets, there is a

heightened demand for hybrid and all-electric propulsion platforms. According to the Air Transport Action Group (ATAG), commercial aviation accounted for nearly 2.4% of global CO<sub>2</sub> emissions in 2022, highlighting the need for cleaner propulsion technologies. Concurrently, advances in energy storage systems, high-efficiency electric motors, and power management solutions are providing substantial opportunities for market participants. However, high R&D costs, technical complexity, and regulatory hurdles continue to challenge widespread deployment across all aircraft categories.

**The detailed segments and sub-segments included in the report are:**

By Propulsion Type:

All-Electric

Hybrid Electric

Turbo Electric

Hydrogen Propulsion

Solar Propulsion

By End-User:

Military

Commercial and Civil

Government

By Component:

Power Generation

Power Distribution

Power Conversion System

Electric Motor

Energy Storage and Supply System

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

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

## **Hybrid Electric Propulsion Expected to Dominate the Market**

Among the various propulsion technologies, hybrid electric propulsion systems are projected to command the largest market share, owing to their ability to blend traditional fuel-based power with electric propulsion for improved fuel efficiency, extended flight range, and reduced emissions. The rising emphasis on retrofitting existing aircraft with hybrid systems, coupled with advancements in high-capacity batteries and lightweight components, is driving adoption. While hybrid electric systems dominate today, all-electric and hydrogen propulsion technologies are emerging as high-growth segments, especially in short-haul and urban air mobility applications, reflecting the industry's commitment to sustainable aviation.

## **Military End-User Leads in Revenue Contribution**

When segmented by end-user, the military sector currently contributes the largest revenue share, fueled by defense modernization programs, unmanned aircraft developments, and the increasing integration of high-performance propulsion systems in tactical and transport aircraft. Commercial and civil aviation is witnessing steady growth as airlines adopt hybrid and all-electric propulsion for regional and short-haul operations. Government-backed research initiatives and pilot projects in solar and hydrogen propulsion further diversify revenue streams and create lucrative growth avenues across multiple aviation verticals.

The key regions considered for the Global Next-Gen Aircraft Propulsion System Market study include North America, Europe, Asia Pacific, Latin America, and the Middle East & Africa. North America dominates the market due to advanced aerospace manufacturing capabilities, substantial defense spending, and ongoing R&D initiatives in electric and hybrid propulsion technologies. Europe remains a key player, driven by stringent environmental regulations and the presence of leading propulsion system developers. Asia Pacific is expected to be the fastest-growing region over the forecast period, propelled by the rapid expansion of regional aircraft fleets, government incentives for clean energy aviation, and significant investments in next-generation propulsion technologies.

### **Major market players included in this report are:**

Rolls-Royce Holdings PLC

Honeywell International Inc.

Safran S.A.

GE Aviation

Pratt & Whitney

Siemens AG

Boeing Company

Airbus S.A.S.

Moog Inc.

UTC Aerospace Systems

GKN Aerospace

Spirit AeroSystems Holdings, Inc.

Liebherr-Aerospace

BAE Systems PLC

MagniX

#### Global Next-Gen Aircraft Propulsion System Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period - 2025-2035

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

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

Customization Scope - Free report customization (equivalent to up to 8 analysts' 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 for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial

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

**Key Takeaways:**

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional-level analysis for each market segment.

Detailed analysis of the geographical landscape with country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of the competitive structure of the market.

Demand side and supply side analysis of the market.

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