

# **More Electric Aircraft Market Report by Application (Air Pressurization and Conditioning, Configuration Management, Flight Control Operations Management, Power Generation Management, Power Distribution Management, and Others), Technology (Safety Systems and Advanced Materials, Power Electronics, Energy Storage Devices, Thermal Management Systems, and Others), Aircraft Type (Fixed Wing (Narrow Body/Wide Body/Very Large Body) Aircraft, Rotary Wing Aircraft, Unmanned Aerial Vehicles, and Others), and Region 2024-2032**

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## **Abstracts**

The global more electric aircraft market size reached US\$ 2.2 Billion in 2023. Looking forward, IMARC Group expects the market to reach US\$ 7.4 Billion by 2032, exhibiting a growth rate (CAGR) of 14.2% during 2024-2032. The market is experiencing steady growth driven by the rising awareness of sustainability driving demand for eco-friendly aircraft, the increasing environmental regulations pushing for greener aviation solutions, and the development and adoption of electric aviation technologies.

More Electric Aircraft Market Analysis:

Major Market Drivers: According to the more electric aircraft market research, the demand for electric planes is driven by high fuel prices and ecological concerns, which result in lower operating costs, and lower carbon dioxide emissions compared with conventional aviation. Besides this, more advanced technologies used in electric propulsion systems as well as power management systems based on batteries with

higher energy densities are also promoting the development of this market.

**Key Market Trends:** In an attempt to make aviation more sustainable and efficient, there has been a growing interest in hybrid-electric and all-electric propulsion systems. This requires significant investment in research aimed at solving battery problems such as weight, range and reliability among other things.

**Geographical Trends:** More electric aircraft have been widely adopted throughout North America and Europe mainly due to strong regulatory frameworks and government initiatives that support clean energy solutions. On the other hand, the Asia Pacific region which is characterized by fast urbanization rates coupled together with increased air traffic flow and growing environmental consciousness within those societies represents an attractive market.

**Competitive Landscape:** To be able to remain competitive or gain a larger more electric aircraft market share companies such as Boeing Airbus Embraer among others are investing huge amounts into electric plane production lines. Nonetheless, some new entrants as well as small-scale enterprises are also venturing into this sector.

**Challenges and Opportunities:** According to the more electric aircraft market research report, key hurdles are the limited power of batteries, affecting how far and how much electric planes can carry, and the need to build new support systems for electric flying. Opportunities include team-ups between plane makers, battery creators, and tech companies to push forward with electric flying and better energy storage, and in meeting the growing want for city sky travel and short-distance links.

#### More Electric Aircraft Market Trends:

##### Continuous technological advancements

Rapid technological developments across the globe are majorly driving the more electric aircraft market growth. Along with this, the development of aerospace engineering is associated with the continuous improvement of electrification to make aircraft more efficient and environmentally friendly. Recent developments in electric propulsion systems, battery, and power management systems have set the stage for the emergence of more electric aircraft. In addition, electric propulsion has multiple advantages for sustainability, such as lower emissions, reduced fuel consumption, and less noise. Moreover, these advancements allow the creation of more flexible and versatile aircraft platforms that can meet the diverse needs of consumers in various parts of the world. Therefore, this is further positively influencing the more electric aircraft market value.

#### Regulatory Pressures and Environmental Concerns

The market is growing due to regulations and environmental concerns. Aviation businesses are inclining toward sustainability trends for aerospace or airplanes after strict emissions laws were enacted by governments across the globe. With the sector being blamed for contributing heavily towards greenhouse gases, it has become necessary for airlines to adopt electric and hybrid-electric propulsion systems. The more electric aircraft market forecast suggests that commercial fleets will increasingly include “more-electric” airplanes as carriers race against time to cut down on carbon emissions. For instance, The Airbus A380 and A220, Boeing 787, ATR-600, and Embraer E2 aircraft use 3 liters or less of jet fuel per 100 passenger kilometers, matching the fuel consumption of most modern compact cars. Furthermore, there is a growing more electric aircraft demand which is prompting airlines to invest in them thereby driving up sales of MEEs (More Electric Aircraft).

### Economic benefits and operational efficiency

In the global aerospace sector, significant market drivers are economic benefits offered and operational efficiency by more electric aircraft. According to a market research report, the electric aircraft market size reached US\$ 9.9 Billion in 2023. IMARC Group expects the market to reach US\$ 41.0 Billion by 2032, exhibiting a growth rate (CAGR) of 16.5% during 2024-2032. Thus, this is also favoring the more electric aircraft market revenue. In comparison with traditional engines, maintenance needs and fuel consumption are reduced by electric propulsion systems which promise lower costs over a long time. In addition, electric power also allows for new business models such as urban air mobility services or electric air taxis among airlines. Furthermore, these systems have better on-time performance through operational flexibility as well as reliability that enhances passenger experience. Moreover, the increasing appeal of additional electrical airplanes to airlines is driven by their desire to streamline operations while cutting down on overheads which is leading to market expansion and innovation within the aerospace industry.

### More Electric Aircraft Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the market, along with forecasts at the global, regional, and country levels for 2024-2032. Our report has categorized the market based on application, technology and aircraft type.

### Breakup by Application:

Air Pressurization and Conditioning  
Configuration Management

Flight Control Operations Management  
Power Generation Management  
Power Distribution Management  
Others

Power distribution management accounts for the majority of the market share

The report has provided a detailed breakup and analysis of the more electric aircraft market based on the application. This includes air pressurization and conditioning, configuration management, flight control operations management, power generation management, power distribution management, and others. According to the report, power distribution management represented the largest segment.

Power distribution management is the leading application segment in the global more electric aircraft market. The application receives considerable focus and investment from aerospace manufacturers. As the aviation sector moves toward utilizing electrical propulsion systems, the management and distribution of power are crucial to preserve optimal performance and dependability. Along with this, power distribution management involves a variety of tasks, including power flow regulation, electrical system monitoring, and consistent connection with the different components situated on board. According to the more electric aircraft market overview, several aspects are influencing the rising need for cutting-edge technology and solutions for systems intended for increased voltage and power loading as more electric architectures are implemented. Aerospace businesses are formulating and implementing cutting-edge power distribution management systems. The design provides increased performance, safety, and versatility to meet the needs of the brand-new airplane's design. Moreover, the significance of improved power distribution management is related to the increasing popularity of more electric aircraft in the professions in the global aerospace sector.

Breakup by Technology:

Safety Systems and Advanced Materials  
Power Electronics  
Energy Storage Devices  
Thermal Management Systems  
Others

A detailed breakup and analysis of the more electric aircraft market based on the technology has also been provided in the report. This includes safety systems and

advanced materials, power electronics, energy storage devices, thermal management systems, and others.

Breakup by Aircraft Type:

Fixed Wing (Narrow Body/Wide Body/Very Large Body) Aircraft

Rotary Wing Aircraft

Unmanned Aerial Vehicles

Others

Fixed wing (narrow body/wide body/very large body) aircraft represents the leading market segment

The report has provided a detailed breakup and analysis of the market based on the aircraft type. This includes fixed wing (narrow body/wide body/very large body) aircraft, rotary wing aircraft, unmanned aerial vehicles, and others. According to the report, fixed wing (narrow body/wide body/very large body) aircraft represented the largest segment.

Fixed-wing aircraft represents the leading segment in the global more electric aircraft market, which draws a disproportionate level of attention and investment across the industry. Fixed-wing aircraft is an aircraft with a streamlined aerodynamic design and fixed wings, with many variants such as commercial airliners, business jets, and military airplanes. In addition, the predominance of fixed-wing aircraft in the more electric aircraft market segmentation can be attributed to their versatility in comparison to other platforms, longer range, and payload constraints, which limit their reach and functionality. Furthermore, the industry is turning towards electric propulsion, and many large manufacturers are working on the electrification of aircraft to achieve emission targets. As a result, the demand for fixed wing is increasing, creating a positive more electric aircraft market outlook.

Breakup By Region:

North America

United States

Canada

Asia Pacific

China

Japan

India

South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

North America leads the market, accounting for the largest more electric aircraft market share

The report has also provided a comprehensive analysis of all the major regional markets, which include North America (the United States and Canada); Asia Pacific (China, Japan, India, South Korea, Australia, Indonesia, and others); Europe (Germany, France, the United Kingdom, Italy, Spain, Russia, and others); Latin America (Brazil, Mexico, and others); and the Middle East and Africa. According to the report, North America represents the largest regional market for more electric aircraft.

North America represents the largest region segment that dominates the global more electric aircraft market. This can be attributed to the presence of large established aerospace companies in strong research infrastructures. Apart from this, North America maintains strong government-driven initiatives and policies that facilitate the rapid integration of electric more aircraft into commercial, military, and general aviation. According to the more electric aircraft market analysis, the region comprises a diversified network of key aircraft manufacturers, technology and material suppliers, and research bodies that create a favorable ecosystem for the rapid development and commercialization of more electric aircraft in the aerospace sector. Therefore, North America actively shapes the development of the global more electric aircraft market, becoming a fundamental driver of the electric aviation industry.

### Competitive Landscape:

The market research report has also provided a comprehensive analysis of the competitive landscape in the market. Detailed profiles of all major companies have also been provided. Some of the major market players in the more electric aircraft industry include:

Airbus SE  
Bombardier Inc.  
Honeywell International Inc.  
Lockheed Martin Corporation  
Raytheon Technologies Corporation  
Rolls-Royce Holdings Plc  
Safran S.A.  
Thales Group  
The Boeing Company  
TTTech Computertechnik AG  
United Technologies Corporation

Furthermore, key players in the more electric aircraft market are actively seeking to drive innovative R&D, form strategic partnerships, and develop their product portfolios to remain competitive. Key aerospace manufacturers including Boeing, Airbus, and Lockheed Martin are investing heavily in R&D to develop electric propulsion systems, advanced power distribution management systems, and material science composites to make the aircraft more efficient and function better. In addition, these manufacturers are collaborating with electrical power technology rock stars and academic partnerships to accelerate the design and development of electric propulsion concepts ahead of integrating them into upcoming and existing aircraft platforms. Apart from this, the major players are integrating their system integration experience and certification competencies to satisfy regulatory, and reliability demands on more electric aircraft. As a result, key players are striving toward appropriate supply chain and manufacturing optimization to increase electric plane development and respond to the fast-growing electric plane market across commercial, military, and general aviation segments. Thus, key players in the electric aircraft market are actively advancing innovation.

### More Electric Aircraft Market News:

February 15, 2024: Airbus SE announced it will deliver about 800 aircraft in 2024, increasing production of its best-selling A320 family of single-aisle jets as arch-rival Boeing Co. remains mired in turmoil after a near-catastrophic accident in January.

January 19, 2024: Lockheed Martin Corporation and Indra signed a new collaboration agreement, which will allow them to join forces in the air, land, sea, and cyber defense sectors, as well as in the areas of simulation and sustainment.

#### Key Questions Answered in This Report:

How has the global more electric aircraft market performed so far, and how will it perform in the coming years?

What are the drivers, restraints, and opportunities in the global more electric aircraft market?

What is the impact of each driver, restraint, and opportunity on the global more electric aircraft market?

What are the key regional markets?

Which countries represent the most attractive more electric aircraft market?

What is the breakup of the market based on the application?

Which is the most attractive application in the more electric aircraft market?

What is the breakup of the market based on the technology?

Which is the most attractive technology in the more electric aircraft market?

What is the breakup of the market based on the aircraft type?

Which is the most attractive aircraft type in the more electric aircraft market?

What is the competitive structure of the market?

Who are the key players/companies in the global more electric aircraft market?



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