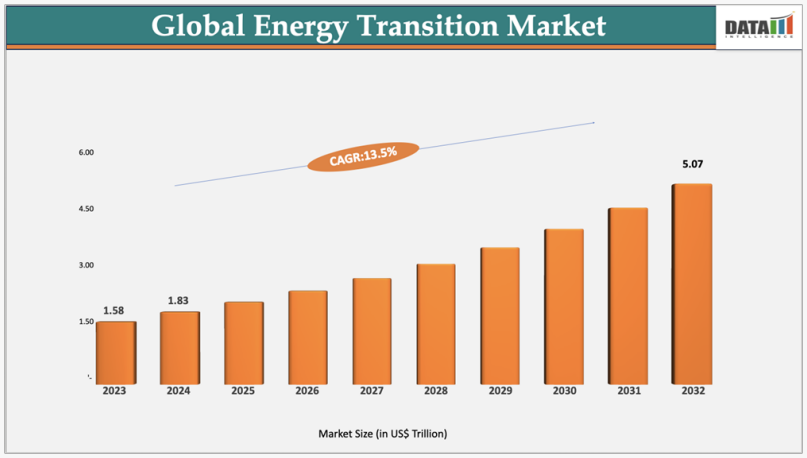
Energy Transition Industry Sector 2025-2033: Forecast to hit $5.07 Trillion with 13.59% CAGR

Energy Transition Market Outlook: $1.83 Trillion in 2024 Rising to $5.07T by 2033



Energy Transition Industry

AUSTIN, TX, UNITED STATES, October 6, 2025 /EINPresswire.com/ -- Market Size and Growth

The energy transition market was estimated at US$ 1.83 trillion in 2024 and is anticipated to nearly double to US$ 5.07 trillion by 2033, expanding at a CAGR of 13.59% 2025-2033

Market Size and Forecast

2024 Market Size: US 1.83 Trillion

> Energy Transition Market, valued at $1.83T in 2024, is set to reach $5.07T by 2033, driven by USA initiatives and 13.59% CAGR growth."
>
> *DataM Intelligence 4Market Research LLP*

2032 Projected Market Size: US$5.07 Trillion

CAGR (2025-2032): 13.59%

Largest Market: Asia-Pacific

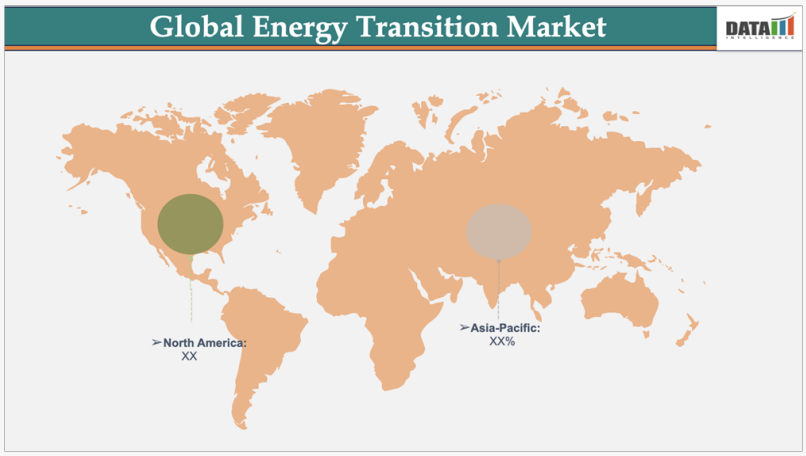
Fastest Market: North America

Get a Sample PDF Of This Report (Get Higher Priority for Corporate Email ID):– https://www.datamintelligence.com/download-sample/energy-transition-market

Trends and Strategic Insights

In 2024, the Asia-Pacific region held the largest revenue share in the global energy transition market at US$1.83 Trillion.

By application, the power generation segment leads the market, fueled by the rapid deployment of solar and wind energy, whereas the transportation
sector is expected to experience the fastest growth during the forecast period.



Energy Transition Industry, Regional Analysis

Key Industry Developments

In January 2025, Brightmark RNG Holdings LLC, a joint venture between Brightmark LLC and Chevron U.S.A. Inc., marked a milestone by delivering its first gas from 10 renewable natural gas (RNG) projects across the Midwest.

The company also announced plans for a nearly $1 billion investment in a new plastics recycling facility in Georgia to convert plastic waste into valuable materials.

In 2024, global investments in power grids and energy storage hit record levels, highlighting their role in stabilizing electricity markets and integrating large-scale renewable energy. By improving flexibility, resilience, and efficiency, grid modernization and storage are driving sustained market growth and supporting the transition to a low-carbon, electrified economy.

Technological Innovations and Market Drivers

Renewable Energy Deployment

In 2025, the U.S. experienced a significant surge in solar energy generation, with California leading the charge. The state's solar electricity generation increased by 15% from January to July compared to 2024, reaching a record 54,709 GWh. This growth was complemented by a 75% increase in battery storage capacity, enabling a 21% drop in fossil fuel-generated power

Energy Storage and Electrification

Battery storage systems now exceed 14,000 MW capacity in California, allowing for the storage of excess mid-day solar output for use during peak demand. This development has led to a 40% year-over-year drop in fossil fuel electricity generation, contributing to a significant reduction in CO emissions
Electric Vehicles (EVs)

The adoption of electric vehicles continues to rise globally. In 2025, EV sales climbed by 25%, reflecting growing consumer preference for sustainable transportation options

Market Dynamics

The renewable energy and clean technology sector is driving the energy transition market as governments and industries aim for net-zero targets. Global clean energy investments are expected to exceed USD 2 trillion in 2024, fueled by solar, wind, and battery adoption. Companies like Siemens Energy and NextEra Energy are expanding with advanced grid integration and energy storage solutions, boosting reliability and efficiency. These innovations are set to accelerate investments, especially in Asia-Pacific, North America, and Europe.

Key Players

1. Bright mark
2. Enel Green Power
3. Iberdrola
4. NextEra Energy
5. Ørsted A/S
6. Siemens Gamesa
7. Tesla
8. TotalEnergies
9. Vestas
10. General Electric (GE Vernova)

Get Customization in the report as per your requirements:-
https://www.datamintelligence.com/customize/energy-transition-market

Policy Landscape and Market Implications

United States

The U.S. energy policy landscape is experiencing shifts. The Trump administration has announced plans to open 13 million acres of federal land to coal mining and allocate $625 million for the modernization of coal-fired power plants. This move aims to revive the declining coal industry but faces criticism for potentially undermining cleaner alternatives like wind, solar, and battery storage.

Concurrently, the administration has expanded federal oversight of solar and wind energy projects, introducing a three-tiered approval process that applies to permits, environmental reviews, and transmission infrastructure. This policy has led to delays and uncertainties for solar developers, with projections indicating a potential 55 GW reduction in U.S. solar installations through 2030

Japan

Japan's energy policy is undergoing transformation. In February 2025, the Japanese government approved the 7th Strategic Energy Plan, aiming for 40-50% renewable energy and 20% nuclear power by 2040. However, experts have criticized the plan for being overly optimistic, warning that without significant policy reforms, Japan may continue relying on fossil fuels.

To support its renewable energy goals, Japan has designated two coastal sites off Akita city and Hibikinada in Fukuoka as "promising zones" for offshore wind farm development. These zones are expected to advance to auction stages, accelerating the country's renewable energy efforts

Regional Trends

Asia-Pacific Leads Energy Transition

The Asia-Pacific region dominates the global energy transition market, driven by rapid industrialization, urbanization, and rising demand from construction, automotive, and industrial sectors. Government infrastructure projects and innovations in renewable energy, energy storage, and smart grids are enhancing system efficiency, ensuring the region maintains its leading position.

India Energy Transition

India’s market is growing rapidly, fueled by urban and industrial energy demand and initiatives like the Smart Cities Mission, highways, and metro projects. Domestic advancements in renewable technologies, energy storage, and grid management support sustained growth.

China Energy Transition

China remains a global leader, investing heavily in renewable energy, storage, and smart grids. Strong industrial and urban demand, combined with government-led infrastructure projects, continues to drive market expansion.

North America Energy Transition

North America is among the fastest-growing regions, led by demand from automotive, aerospace, and construction sectors. Investments in renewable power, energy-efficient systems, and clean mobility are accelerating the transition toward decarbonized industries.

US Market Insights

The U.S. energy transition market grows steadily, supported by industrial demand and technological advances in renewable generation, storage, and modern grids, promoting emissions reduction and sustainable development.

Canada Industry Growth

Canada is advancing clean energy with nearly USD 35 billion in investments in 2025, including projects like the 250-MW Oneida Energy Storage Facility and small modular nuclear reactors. Federal support for renewables, carbon capture, and grid modernization underlines Canada's role in decarbonization.

Market Outlook and Investment Trends

Global energy investment in renewables, nuclear, grids, storage, low-emissions fuels, efficiency, and electrification is set to increase to $2.2 trillion in 2025. This investment is driven by the need to meet growing energy demands while reducing carbon emissions.

In the U.S., the 2025 Sustainable Energy in America Factbook highlights progress in energy efficiency, natural gas, and renewable energy sectors. The report underscores the importance of sustainable infrastructure, energy storage, hydrogen, renewable natural gas, electric vehicles, digitalization, industrial emissions, and carbon capture and storage in shaping the future energy landscape

Market Segmentation

By Technology: (Renewable Energy, Energy Storage, Hydrogen & Alternative Fuels, Carbon Management, Electrification & Digitalization, Others)

By Application: (Power Generation, Transportation, Industrial, Residential & Commercial, Oil & Gas Transition)

By End-User: (Utilities & Power Producers, Industrial & Manufacturing Companies, Commercial & Residential Consumers, Transportation & Mobility Providers, Oil & Gas Companies transitioning)

By Region: (North America, South America, Europe, Asia-Pacific, the Middle East, and Africa)

Report Insights Covered: (Competitive Landscape Analysis, Company Profile Analysis, Market Size, Share, Growth).

Buy Now & Unlock 360° Market Intelligence:- https://www.datamintelligence.com/buy-now-page?report=energy-transition-market

Role of DataM in Energy Transition Analysis

DataM, a leading provider of market intelligence, plays a crucial role in analyzing the energy

transition market. Their comprehensive reports offer insights into market trends, technological advancements, and policy developments, aiding stakeholders in making informed decisions.

Conclusion

The energy transition is a multifaceted process influenced by technological innovations, policy decisions, and market dynamics. While challenges remain, the global shift towards renewable energy, electrification, and energy efficiency presents opportunities for sustainable growth. Stakeholders must navigate the evolving landscape to capitalize on emerging trends and contribute to a low-carbon future.

Related Reports

Waste to Energy Market

Waves and Tidal Energy Market

Sai Kiran
DataM Intelligence 4Market Research LLP
+1 877-441-4866
sai.k@datamintelligence.com
Visit us on social media:
LinkedIn
X
