

# Renewable Power Market Size Projected to Reach \$1.6 Trillion by 2030 | Alstom SA, IHI Corporation, CPFL Energia S.A.

*Global Renewable Power Market Booming: Insights, Trends, and Opportunities By 2028*

UNITED STATES, January 31, 2024

/EINPresswire.com/ -- According to

Vantage Market Research, The Global

[Renewable Power Market](#) was valued

at USD 880 Billion in 2021 and is

projected to reach USD 1.6 Trillion by

2028, at a compound annual growth

rate (CAGR) of 8.40% from 2022 to

2028. The driving factors for the

Renewable Power Market include the

increasing demand for electricity, the

rising environmental awareness, the

supportive government policies and

incentives, the declining costs of renewable technologies, and the technological innovations and advancements.



Renewable power refers to the electricity generated from sources that are naturally replenished and do not deplete over time, such as solar, wind, hydro, biomass, and geothermal energy.

Renewable power is considered as a clean and sustainable alternative to fossil fuels, which are the main contributors to greenhouse gas emissions and climate change. Renewable power can also enhance energy security, reduce dependence on imported fuels, create jobs, and support economic development.

Get Access to Free Sample Research Report with Latest Industry Insights @

<https://www.vantagemarketresearch.com/renewable-power-market-0792/request-sample>

Market Dynamics

The Renewable Power Market is influenced by various factors, such as the availability and

accessibility of renewable resources, the cost and performance of renewable technologies, the grid integration and reliability issues, the market competition and regulation, the consumer preferences and behavior, and the social and environmental impacts. The Renewable Power Market pulsates with a complex interplay of internal and external forces. On the one hand, falling technology costs, particularly for solar and wind energy, are making clean energy increasingly cost-competitive with traditional fossil fuels. Supportive government policies, including tax incentives and feed-in tariffs, are further sweetening the deal for renewable energy investors. The growing awareness of climate change and its devastating consequences is also amplifying consumer demand for clean energy solutions, pushing businesses and households to embrace the renewable revolution. On the other hand, the intermittent nature of some renewable sources like solar and wind poses challenges to grid integration. Additionally, the lack of robust storage solutions can hinder the widespread adoption of these technologies. Concerns regarding land use and environmental impact associated with certain renewable projects, such as hydropower dams, add another layer of complexity to the equation.

□ The growing demand for electricity, especially in developing countries, due to the population growth, urbanization, industrialization, and electrification of transport and heating sectors.

□ The increasing environmental awareness and concern, as well as the global commitment to reduce greenhouse gas emissions and mitigate climate change, as evidenced by the Paris Agreement and the COP26 pledges.

□ The supportive government policies and incentives, such as feed-in tariffs, auctions, tax credits, subsidies, quotas, and mandates, that aim to promote the deployment and integration of renewable power.

□ The declining costs of renewable technologies, especially solar and wind, due to the economies of scale, learning effects, innovation, and competition.

□ The technological innovations and advancements, such as the development of high-efficiency solar PV modules, the emergence of [green hydrogen](#), the improvement of energy storage and smart grid solutions, and the digitalization and automation of renewable power systems .

Top Players in The Global Renewable Power Market Report Scope:

- Alstom SA
- IHI Corporation
- CPFL Energia S.A.
- Mitsubishi Heavy Industries
- General Electric
- ENEL GREEN POWER S.P.A.
- ABB LTD
- TERRA-GEN LLC

- Shenzhen energy Group Co Ltd
- Tata Power Company Ltd.

To Know an Additional List of Key Players, Request Here to Download a Free Report PDF Brochure: <https://www.vantagemarketresearch.com/renewable-power-market-0792/request-sample>

## Top Trends

Amidst this dynamic interplay, distinct trends are shaping the future of the Renewable Power Market. The decentralization of energy production, with microgrids and rooftop solar gaining traction, is democratizing access to clean energy. The integration of energy storage solutions, like [lithium-ion batteries](#), is smoothing out the intermittent nature of renewables, paving the way for their large-scale deployment. Technological advancements, such as smart grids and artificial intelligence, are optimizing energy management and enhancing grid resilience. The rise of hybrid systems, combining multiple renewable sources with traditional fuels, is offering flexibility and reliability to power grids.

- The increasing share of renewable power in the global electricity mix, which is expected to reach 45% by 2030 and 69% by 2050, according to the International Energy Agency (IEA).
- The rising dominance of solar and wind power, which are the fastest-growing and cheapest sources of renewable power, accounting for 90% of the total renewable capacity additions in 2022 and 2023, according to the IEA.
- The growing role of green hydrogen, which is produced from renewable power and water electrolysis, and can be used as a clean fuel for various sectors, such as industry, transport, and heating.
- The increasing adoption of energy storage and smart grid solutions, which can enhance the flexibility and resilience of the power system, as well as enable the integration of distributed and decentralized renewable power generation.
- The expanding opportunities for renewable power in emerging markets, especially in Asia, Africa, and Latin America, where the demand for electricity is high and the potential for renewable resources is abundant.

## Top Report Findings

- The Global Renewable Power Market size was estimated at USD 880 Billion in 2021 and is projected to grow at a CAGR of 8.40% from 2022 to 2028.
- The Renewable Power Market is driven by the increasing demand for electricity, the rising

environmental awareness, the supportive government policies and incentives, the declining costs of renewable technologies, and the technological innovations and advancements.

□ The Renewable Power Market is challenged by the variability and intermittency of renewable power, the high upfront capital costs and long payback periods of renewable power projects, the lack of adequate infrastructure and transmission capacity, the market barriers and distortions, and the social and environmental impacts.

□ The Renewable Power Market is witnessing several trends, such as the increasing share of renewable power in the global electricity mix, the rising dominance of solar and wind power, the growing role of green hydrogen, the increasing adoption of energy storage and smart grid solutions, and the expanding opportunities.

□ The Renewable Power Market is witnessing several trends, such as the increasing share of renewable power in the global electricity mix, the rising dominance of solar and wind power, the growing role of green hydrogen, the increasing adoption of energy storage and smart grid solutions, and the expanding opportunities for renewable power in emerging markets.

□ The Renewable Power Market is segmented by product, application, and region. By product, the market is divided into bioenergy, hydropower, wind power, solar energy, and others. By application, the market is categorized into industrial, residential, commercial, and others. By region, the market is analyzed across North America, Europe, Asia Pacific, Latin America, and Middle East and Africa.

## Recent Developments

□ Global capacity soaring: The year 2023 witnessed record-breaking renewable power capacity additions exceeding 440 GW, surpassing the combined output of China and the US. This trend is expected to continue in 2024, with forecasts reaching 4,500 GW.

□ Solar leading the charge: Solar photovoltaic (PV) is driving this growth, accounting for two-thirds of new capacity additions in 2023. Both large-scale solar farms and rooftop installations are experiencing significant expansion.

Buy Now this Premium Research Report at a Special Price Against the List Price @ <https://www.vantagemarketresearch.com/buy-now/renewable-power-market-0792/0>

## Challenges

Despite the sunny outlook, the Renewable Power Market faces its share of challenges. The high upfront costs of some renewable projects, particularly offshore wind and geothermal, can deter potential investors. The lack of adequate transmission and distribution infrastructure in many regions can hinder the integration of renewable energy into the grid. Public opposition to wind farm installations and concerns over land use for solar power projects can create roadblocks in

project development. The volatility of commodity prices and dependence on weather patterns can also introduce an element of uncertainty into the renewable energy equation.

□ The variability and intermittency of renewable power, which pose technical and operational challenges for the grid stability, reliability, and flexibility. Renewable power sources, such as solar and wind, depend on the availability and intensity of natural resources, which vary across time and space. This creates fluctuations and uncertainties in the power supply and demand, which require adequate balancing and backup mechanisms, such as energy storage, demand response, and flexible generation.

□ The high upfront capital costs and long payback periods of renewable power projects, which require adequate and affordable financing and risk-sharing mechanisms. Renewable power projects, especially large-scale ones, involve high initial investments and long construction times, which increase the financial risks and uncertainties. Moreover, renewable power projects face various market and policy risks, such as the changes in tariffs, regulations, and incentives, which affect their profitability and viability. Therefore, renewable power projects need access to low-cost and long-term financing, as well as risk mitigation and insurance instruments, to overcome these challenges.

□ The lack of adequate infrastructure and transmission capacity, especially in remote and rural areas, which limit the access and distribution of renewable power. Renewable power sources, such as solar and wind, are often located far from the demand centers, which require long-distance and high-voltage transmission lines to connect them to the grid. However, the existing grid infrastructure is often inadequate, congested, or outdated, which restricts the integration and utilization of renewable power. Moreover, many remote and rural areas lack access to the grid or have unreliable power supply, which hinders the deployment and diffusion of renewable power.

□ The lack of adequate infrastructure and transmission capacity, especially in remote and rural areas, which limit the access and distribution of renewable power. Renewable power sources, such as solar and wind, are often located far from the demand centers, which require long-distance and high-voltage transmission lines to connect them to the grid. However, the existing grid infrastructure is often inadequate, congested, or outdated, which restricts the integration and utilization of renewable power. Moreover, many remote and rural areas lack access to the grid or have unreliable power supply, which hinders the deployment and diffusion of renewable power.

Get a Access To Renewable Power Industry Real-Time Data @  
<https://www.vantagemarketresearch.com/vantage-point>

Opportunities

lie immense opportunities for the Renewable Power Market. The increasing focus on climate

change mitigation and energy security is creating a fertile ground for clean energy solutions. Technological advancements and economies of scale are constantly bringing down the costs of renewable energy technologies, making them increasingly competitive. Growing public awareness and corporate sustainability goals are driving demand for clean energy options, opening up new avenues for market growth. Additionally, the development of innovative financing models and partnerships can unlock the full potential of the renewable energy sector.

□ The increasing demand for electricity, especially in developing countries, due to the population growth, urbanization, industrialization, and electrification of transport and heating sectors. The global electricity demand is expected to grow by 80% by 2050, according to the IEA. This creates a huge potential for renewable power to meet the rising energy needs, as well as to reduce the reliance on fossil fuels and the associated emissions and costs. Renewable power can also provide access to affordable and reliable electricity for millions of people who currently lack it, especially in rural and remote areas.

□ The supportive government policies and incentives, such as feed-in tariffs, auctions, tax credits, subsidies, quotas, and mandates, that aim to promote the deployment and integration of renewable power. Many countries have adopted ambitious targets and plans to increase the share of renewable power in their energy mix, as well as to implement various measures and instruments to facilitate and incentivize the development and operation of renewable power projects. For instance, India has set an enhanced target at the COP26 of 500 GW of non-fossil fuel-based energy by 2030. These policies and incentives create a favorable and stable environment for renewable power investors and developers

□ The technological innovations and advancements, such as the development of high-efficiency solar PV modules, the emergence of green hydrogen, the improvement of energy storage and smart grid solutions, and the digitalization and automation of renewable power systems

□ The expanding opportunities for renewable power in emerging markets, especially in Asia, Africa, and Latin America, where the demand for electricity is high and the potential for renewable resources is abundant .

Key Questions Answered by Renewable Power Market Reports:

Q. What is the current size and projected growth of the Global Renewable Power Market?

Q. Which renewable energy technologies are expected to experience the fastest growth?

Q. What are the key factors driving the growth of the Renewable Power Market?

Q. What are the major challenges facing the Renewable Power Market?

Q. What are the investment opportunities in the Renewable Power Market?

Q. What are the latest technological advancements in the renewable power sector?

Q. How are government policies and regulations impacting the Renewable Power Market?

Q. What are the regional trends and key players in the Renewable Power Market?

Read Full Research Report with TOC @ <https://www.vantagemarketresearch.com/industry-report/renewable-power-market-0792>

### Regional Analysis:

North America, particularly the United States, is at the forefront of the renewable power revolution. Driven by ambitious climate goals, falling technology costs, and supportive government policies, the region is witnessing a surge in renewable energy deployments. Solar and wind energy are leading the charge, with the US poised to become the second-largest solar market globally by 2024. Hydropower remains a significant contributor, and geothermal and bioenergy are also gaining traction. The region is also investing heavily in energy storage solutions to address the intermittency challenge and enhance grid resilience. However, challenges remain, with concerns over transmission infrastructure and grid modernization needing to be addressed to fully unlock the potential of renewables in North America.

### Check Out More Research Reports:

☐ Solar Generator Market: <https://www.vantagemarketresearch.com/industry-report/solar-generator-market-0814>

☐ Battery Energy Storage Market: <https://www.vantagemarketresearch.com/industry-report/battery-energy-storage-market-0912>

☐ Fuel Cells Market: <https://www.vantagemarketresearch.com/industry-report/fuel-cells-market-1509>

☐ Floating Solar Panels Market: <https://www.vantagemarketresearch.com/industry-report/floating-solar-panels-market-0846>

Eric Kunz

Vantage Market Research

+ +1 202-380-9727

[email us here](#)

Visit us on social media:

[Facebook](#)

[Twitter](#)

[LinkedIn](#)

[Instagram](#)

[YouTube](#)

---

This press release can be viewed online at: <https://www.einpresswire.com/article/685163956>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

