

United States Renewable Energy Market Assessment, By Type [Solar Energy, Wind Energy, Hydroelectric Energy, Geothermal Energy, Others], By Application [Residential, Commercial, Industrial, Others], By Sales Channel [Direct Sales, Channel], By Region, Opportunities, and Forecast, 2016-2030F

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Abstracts

Growing demand for off-grid sources, rapid urbanization, and increasing demand for energy in the country have boosted the market for renewable energy. Growing investments, job creation, and economic benefits will spur market expansion. According to U.S. Energy Information Administration, “Annual Energy Outlook 2021”, 42% of the country’s electricity generation will be sourced from renewable energy by 2050.

Furthermore, the nation invests in unconventional power production technologies to decrease dependence on traditional sources such as crude oil, coal, and others to achieve energy self-sufficiency. Significant investments in renewable energy production have aided the market in recent years and are anticipated to expand further during the forecast period. It is a local energy source, allowing the state to produce its own energy without relying on foreign fuel sources. It provides flood control, pure drinkable water, irrigation assistance, and low-cost energy, and is considered durable. Rising public support and concerns about environmental problems are fueling the growth of the United States renewable energy market, influencing policies and efforts that promote the creation and acceptance of renewable energy technologies. For instance, New York aims to achieve 70% sustainable energy by 2030.

Growing Public Awareness and Support

The United States has a rising public awareness and support for renewable energy. People are becoming conscious of climate change and are demanding greener and more sustainable energy sources. Public backing has placed weight on policymakers and businesses prioritizing renewable energy, resulting in a favorable market climate. One example is California, a state at the forefront of the renewable energy movement that has set an ambitious target of achieving 100% sustainable energy by 2045. Its commitment to a sustainable energy future has been substantially bolstered by the rising demand for renewable energy among the state's residents. They are increasingly concerned about the environmental consequences of fossil fuel dependence and the associated public health risks. The groundswell of public support and the resulting commitment from states like California, indicate a broader shift towards prioritizing renewable energy solutions in the United States.

Foreign Investments Boost United States Renewable Energy Growth

The United States renewable energy market has been attracting foreign investors. Over the past decade, foreign investment in the United States renewable energy market has played a pivotal role in its expansion. Foreign investors have recognized the potential of renewable energy and have actively contributed to the country's growth. Between 2011 and 2021, the United States was ranked first globally for the number of announced renewable energy projects, attracting 428 new greenfield foreign direct investment (FDI) projects during this period. In terms of capital commitment, the United States ranked second during this period, with an estimated USD 83.1 billion in investments, after the United Kingdom received approximately USD 108.8 billion across 291 projects.

Government Policies and Initiatives

The United States government has adopted a few policies and incentives to encourage the development of the renewable energy sector. These include federal tax rebates, grants, and incentives for renewable energy initiatives. Recent federal actions are poised to expand the renewable energy market. The Infrastructure Investment and Jobs Act 2021 allocates USD 65 billion to modernize the United States energy grid, facilitating broader adoption of renewable electricity nationwide. Additionally, the Biden-Harris Administration has set ambitious objectives for federal agencies, requiring them to achieve 100% carbon pollution-free electricity consumption by 2030 and net-zero emissions from federal procurement by 2050. These goals are accompanied by Administration initiatives to streamline permitting and regulations for renewable energy projects and investments in the United States supply chains and manufacturing.

Solar and Wind Leading the Way to Sustainability

In 2022, the United States witnessed a significant transformation in its energy landscape. Concerns about climate change and the desire to reduce greenhouse gas emissions have led to a surge in renewable energy adoption. Solar and wind power generate electricity without producing harmful emissions, making them crucial in transitioning to cleaner energy sources. Solar and wind energy are at the forefront, expected to collectively contribute over 60% of the nation's new utility-scale generating capacity. Solar power is set to lead the way, accounting for an impressive 46%, closely followed by wind energy at 17%. This surge in renewable energy capacity reflects a growing commitment to sustainability and reduced reliance on fossil fuels. As the nation continues prioritizing clean and sustainable energy solutions, this shift marks a significant step toward a more environmentally friendly and resilient power grid.

Renewable Energy Uptake in Various Sectors

There has been a significant push towards renewable energy adoption across industrial, residential, and commercial sectors in recent years. This transition is facilitated by the availability of Renewable Energy Certificates (RECs) that customers can purchase alongside their electricity consumption. These RECs, priced at a few cents per kilowatt-hour, allow consumers to support renewable energy while reducing their environmental impact through electricity usage. In the United States, around 850 utilities offer consumers the option to buy renewable energy, often called 'green power.'

Notably, numerous major companies, including Microsoft, Google, T-Mobile, Intel, and The Procter & Gamble Company, have embraced renewable energy as a part of their environmental initiatives. As of April 2022, these corporations were at the forefront of the renewable energy movement, signaling a broader trend of sustainability-driven practices in the corporate world.

Impact of COVID-19

The United States renewable energy market has encountered challenges and opportunities due to economic disruptions, shifting policies, and changes in consumer behavior. The economic decline caused by the pandemic and decreased energy consumption affected the green energy market. As companies and industries reduced their activities and power usage decreased, it resulted in lesser demand for renewable energy. Despite challenges, the pandemic emphasized the significance of green energy as a resilient and long-term source of electricity. It hastened the acceptance of distant

work and digital technologies, increasing demand for data centers and cloud computing, which depended heavily upon renewable energy sources.

Key Players Landscape and Outlook

Companies operating in the United States renewable energy market actively embrace major developments to advance their presence and sustainability initiatives. A notable example is the recent partnership between Energix Renewables and First Solar, Inc., announced in July 2023. Under this agreement, Energix Renewables has committed to acquire 5 gigawatts (GWDC) of ultra-low carbon thin-film solar modules from First Solar. These modules will be the backbone of Energix's renewable energy projects spanning the United States, Israel, and Poland. The partnership reflects the industry's focus on adopting advanced technology and expanding its global footprint.

In addition, in May 2022, Greenlane Renewables Inc. secured a USD 6.8 million contract for a renewable natural gas (RNG) project in the United States. This project aims to convert dairy manure into RNG, a sustainable and clean energy source. The development signifies a significant stride towards innovative waste-to-energy solutions, demonstrating the industry's commitment to environmentally friendly practices and circular economy principles.

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*Companies mentioned above DO NOT hold any order as per market share and can be changed as per information available during research work

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