

Turkey Renewable Energy Market, By Type (Hydroelectric Power, Wind Power, Bioenergy, Solar Energy, and Geothermal Energy) and End Use (Residential, Commercial, Industrial, and Others), By Region, Competition, Forecast and Opportunities, 2028

<https://marketpublishers.com/r/T81D57ACA51EEN.html>

Date: November 2023

Pages: 82

Price: US\$ 3,500.00 (Single User License)

ID: T81D57ACA51EEN

Abstracts

The Turkey Renewable Energy Market achieved a value of USD 11.36 Billion in 2022 and is poised for robust growth in the foreseeable future, with an expected Compound Annual Growth Rate (CAGR) of 13.26% through 2028. Renewable energy encompasses energy sources that naturally replenish themselves and remain sustainable over time. Unlike finite fossil fuels, renewable energy derives from abundant resources such as sunlight, wind, water, and organic matter. These sources harness the Earth's natural processes, converting them into usable power without depleting finite reserves or causing lasting environmental harm.

Solar energy involves capturing sunlight through photovoltaic cells or solar thermal systems to generate electricity or heat. Wind energy harnesses the kinetic energy of moving air via wind turbines, converting it into electrical power. Hydropower utilizes the gravitational force of flowing water to turn turbines and produce electricity. Biomass energy derives from organic materials such as wood, crop residues, and waste, which can be burned or converted into biofuels for energy production. Geothermal energy taps into the Earth's internal heat, using steam or hot water from underground to generate power.

Renewable energy technologies offer a multitude of benefits, including reduced greenhouse gas emissions, improved air quality, and decreased reliance on fossil fuels.

As technology advances and economies of scale improve, renewable energy is becoming increasingly affordable and efficient, playing a pivotal role in the global transition toward a more sustainable and resilient energy future.

Key Market Drivers

Turkey's proactive efforts to develop its renewable energy market are influenced by a blend of factors that align with its economic, environmental, and energy security objectives. Here are some of the principal drivers shaping Turkey's renewable energy market:

- 1. Energy Security and Diversification:** Turkey's substantial dependence on imported fossil fuels has instigated a drive to diversify its energy sources and reduce reliance on external suppliers. The development of renewable energy enhances energy security and mitigates supply risks.
- 2. Abundant Renewable Resources:** Turkey boasts favorable natural conditions for various renewable energy sources, including solar, wind, hydroelectric, and geothermal. Its geographical location provides ample opportunities for harnessing clean energy.
- 3. Government Policies and Incentives:** The Turkish government has implemented supportive policies like feed-in tariffs, incentives, and investment guarantees to encourage private sector participation and attract both domestic and foreign investments in renewable energy projects.
- 4. Renewable Energy Targets:** Turkey has set ambitious renewable energy targets to increase the share of renewables in its energy mix, acting as a driving force for investment and project development in the renewable sector.
- 5. Environmental Concerns and Climate Commitments:** Addressing environmental challenges and aligning with global climate goals motivate Turkey's transition to renewable energy. Reducing greenhouse gas emissions and minimizing environmental impact are critical considerations.
- 6. Economic Growth and Job Creation:** The renewable energy sector contributes to economic growth by attracting investments, creating jobs, and stimulating local manufacturing of renewable energy components and equipment.
- 7. Rural Electrification and Energy Access:** Renewable energy projects, such as small-

scale solar installations and mini-grids, play a role in providing electricity to remote and rural areas, improving energy access and supporting socio-economic development.

8. **Foreign Investment and Partnerships:** Turkey has attracted foreign investment and established partnerships with international organizations to accelerate renewable energy development. These collaborations bring expertise, technology, and financing to the market.

9. **Energy Market Liberalization:** Market reforms and liberalization efforts in Turkey's energy sector have created opportunities for private sector participation and competition, facilitating the growth of renewable energy projects.

10. **Technology Advancements and Cost Reductions:** Advances in renewable energy technologies have led to cost reductions, making renewables more competitive with conventional energy sources. This encourages project development and increases overall efficiency.

11. **Infrastructure Development and Modernization:** Investments in renewable energy contribute to modernizing energy infrastructure and enhancing grid stability, aligning with Turkey's overall development objectives.

12. **Local Content Requirements:** To stimulate domestic industry growth, Turkey has introduced local content requirements for renewable energy projects, encouraging the manufacturing and deployment of renewable energy technologies within the country.

Collectively, these drivers shape Turkey's renewable energy landscape and provide a compelling business case for the expansion and diversification of its energy sources.

Supportive policies and Regulations are Likely to Propel the Market

Turkey has implemented several supportive policies and regulations to promote the growth of its renewable energy market. These measures aim to attract investments, encourage renewable energy deployment, and contribute to the country's sustainability and energy security goals. Here are some key supportive policies and regulations in Turkey's renewable energy market:

Feed-in Tariffs (FiTs) and Renewable Energy Support Mechanism (YEKDEM): Turkey has established FiTs for various renewable energy sources, guaranteeing fixed prices for electricity generated from renewables. YEKDEM provides additional incentives by

offering a premium on top of the FiTs for a specified period, enhancing the attractiveness of renewable energy projects.

Renewable Portfolio Standard (RPS) and Renewable Energy Quotas: The RPS requires electricity suppliers to include a certain percentage of renewable energy in their total energy supply. This policy stimulates demand for renewable energy and drives the development of new projects.

Licensing and Permitting Simplification: Efforts have been made to streamline the licensing and permitting process for renewable energy projects, reducing administrative burdens and facilitating project development.

Incentives for Local Manufacturing and Content: The government offers incentives and support for the local production of renewable energy components, encouraging the growth of domestic manufacturing and supply chains.

Grid Connection Priority and Guarantees: Renewables are given priority in grid connection, ensuring that generated electricity can be efficiently integrated into the power grid. Guarantees are provided to project developers to enhance project bankability.

Long-Term Power Purchase Agreements (PPAs): The government facilitates long-term PPAs with guaranteed electricity purchase prices, enhancing revenue predictability for renewable energy projects.

Tax Exemptions and Incentives: Tax incentives, exemptions, and reductions are offered to renewable energy projects to improve their financial viability and attractiveness to investors.

Capacity Increase Auctions: Turkey has conducted capacity increase auctions to allocate additional capacity for renewable energy projects, enabling further growth and investment in the sector.

Renewable Energy Resource Zones (YEKA): YEKA tenders designate specific areas for renewable energy projects, streamlining the development process and ensuring efficient land use.

Energy Efficiency and Conservation Measures: Policies promoting energy efficiency and conservation complement the growth of renewable energy by reducing overall energy

demand and enhancing the effectiveness of clean energy sources.

Investment Guarantees and Dispute Resolution: The government provides investment guarantees and mechanisms for dispute resolution to protect the interests of renewable energy investors.

Support for Research and Development: Initiatives to support research and development in renewable energy technologies encourage innovation and the adoption of advanced solutions.

Key Market Challenges

The renewable energy market in Turkey faces several challenges that can impact its growth and development. These challenges reflect a combination of technical, economic, regulatory, and market-related factors. Here are some of the key challenges faced by the renewable energy market in Turkey:

Grid Integration and Infrastructure: Integrating intermittent renewable energy sources, such as solar and wind, into the existing grid can be complex. Upgrading and expanding grid infrastructure to accommodate variable power generation and ensure grid stability is a challenge.

Permitting and Bureaucratic Processes: Lengthy and complex permitting and administrative procedures can delay project development and increase costs for renewable energy projects.

Licensing and Land Availability: Securing licenses and permits for renewable energy projects, including land use approvals, can be time-consuming and challenging, particularly for large-scale projects.

Financing and Investment: Attracting sufficient and affordable financing for renewable energy projects remains a challenge, especially for smaller developers or projects located in less-developed regions.

Bankability and Project Viability: Ensuring project bankability and financial viability is essential to attract investments. Investors may be cautious about political and regulatory risks.

Market and Price Uncertainty: Changes in energy policies, regulations, and market

conditions can introduce uncertainties for investors, affecting project planning and profitability.

Technological and Technical Expertise: Developing and maintaining the technical expertise required for renewable energy projects can be a challenge, particularly for emerging technologies or innovative solutions.

Access to Information and Data: Reliable and up-to-date data on renewable energy resources, such as solar and wind potential, is crucial for project planning and decision-making.

Dependency on Imported Equipment: Turkey's domestic manufacturing capacity for renewable energy components and equipment is still developing, leading to a reliance on imported technology.

Competitive Pricing with Fossil Fuels: Achieving cost competitiveness with conventional fossil fuel-based energy sources can be challenging, especially in regions with abundant and cheap fossil fuels.

Local Opposition and NIMBYism: Some renewable energy projects face opposition from local communities due to concerns about visual impacts, noise, and land use changes.

Environmental Considerations: Balancing renewable energy development with environmental conservation and wildlife protection is important to ensure responsible and sustainable growth.

Transparency and Corruption: Ensuring transparent and corruption-free processes in project development, permitting, and regulatory approvals is critical for investor confidence.

Market Design and Regulatory Framework: The design of energy markets and regulatory frameworks may need adjustments to fully accommodate renewable energy integration and provide fair market conditions.

Segmental Insights

Solar Energy Insights

The Solar Energy segment established its dominance in the renewables energy market

in 2022 and is projected to maintain the position throughout the forecast period. Turkey has experienced substantial growth in solar capacity over the years. Large-scale solar power plants, as well as smaller rooftop installations, have contributed to the expansion of solar energy generation. Turkey has implemented feed-in tariffs (FiTs) and premium incentives for solar energy projects, making them financially attractive to investors. These incentives provide stable revenue streams and encourage project development. The Turkish government has used competitive tender and auction mechanisms to allocate solar energy projects, ensuring transparent and cost-effective project development. Challenges related to grid integration and stability have been addressed through regulatory measures, ensuring that solar power can be efficiently integrated into the electricity grid. Efforts to raise public awareness and educate consumers about the benefits of solar energy have contributed to its increased adoption.

Residential Insights

The residential segment established its dominance in the renewable energy market in 2022 and is projected to maintain during the upcoming years. The residential sector in Turkey holds significant potential for rooftop solar installations. Homes and buildings can leverage their available rooftop space to generate electricity from solar panels. Net metering allows residential consumers to install solar panels and feed excess electricity back into the grid, receiving credits for the surplus energy. This arrangement helps offset electricity bills and incentivizes homeowners to adopt solar energy. The potential for energy cost savings is a primary driver for residential solar adoption. By generating their electricity, homeowners can reduce their reliance on grid power and lower their electricity bills over time. Increasing environmental awareness and concerns about climate change motivate homeowners to seek cleaner energy alternatives, such as solar power, to reduce their carbon footprint.

Regional Insights

Central Anatolia is the most promising region for renewable energy development in Turkey. The region has abundant solar and wind resources, and the government has identified it as a priority region for renewable energy development. Also, Aegean Region holds the second-largest market share in renewable energy. The Aegean Region is a promising region for renewable energy development. The region has good solar and wind resources, and it is also home to a number of geothermal power plants.

Key Market Players

IC Ictas Energy Investment Holding

Statkraft Enerji A.?

Poyry PLC

Sanko Energy Group

Axpo Turkey Enerji A.?.

STEAG Solar Energy Solutions

Kalyon Holding

Enerjisa Enerji A.?

GAMA Enerji

Report Scope:

In this report, Turkey Renewable Energy Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Turkey Renewable Energy Market, By Type:

Hydroelectric Power

Wind Power

Bioenergy

Solar Energy

Geothermal Energy

Turkey Renewable Energy Market, By End Use:

Residential

Commercial

Industrial

Others

Turkey Renewable Energy Market, By Region:

Marmara Region

Central Anatolia

Aegean Region

Mediterranean Region

Black Sea Region

South-Eastern Anatolia Region

Eastern Anatolia Region

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Turkey Renewable Energy Market.

Available Customizations:

Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Turkey Renewable Energy Market, By Type (Hydroelectric Power, Wind Power, Bioenergy, Solar Energy, and Geother...

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

4. VOICE OF CUSTOMER

5. TURKEY RENEWABLE ENERGY MARKET OVERVIEW

6. TURKEY RENEWABLE ENERGY MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value
- 6.2. Market Share & Forecast
 - 6.2.1. By Type (Hydroelectric Power, Wind Power, Bioenergy, Solar Energy, and Geothermal Energy)
 - 6.2.2. End Use (Residential, Commercial, Industrial, and Others)
 - 6.2.3. By Region (Marmara Region, Central Anatolia, Aegean Region, Mediterranean Region, Black Sea Region, South-Eastern Anatolia Region, Eastern Anatolia Region)
- 6.3. By Company (2022)
- 6.4. Market Map

7. MARMARA REGION RENEWABLE ENERGY MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Type

7.2.2. End Use

8. CENTRAL ANATOLIA RENEWABLE ENERGY MARKET OUTLOOK

8.1. Market Size & Forecast

8.1.1. By Value

8.2. Market Share & Forecast

8.2.1. By Type

8.2.2. End Use

9. AEGEAN REGION RENEWABLE ENERGY MARKET OUTLOOK

9.1. Market Size & Forecast

9.1.1. By Value

9.2. Market Share & Forecast

9.2.1. By Type

9.2.2. End Use

10. MEDITERRANEAN REGION RENEWABLE ENERGY MARKET OUTLOOK

10.1. Market Size & Forecast

10.1.1. By Value

10.2. Market Share & Forecast

10.2.1. By Type

10.2.2. End Use

11. BLACK SEA REGION RENEWABLE ENERGY MARKET OUTLOOK

11.1. Market Size & Forecast

11.1.1. By Value

11.2. Market Share & Forecast

11.2.1. By Type

11.2.2. End Use

12. SOUTH-EASTERN ANATOLIA REGION RENEWABLE ENERGY MARKET OUTLOOK

12.1. Market Size & Forecast

12.1.1. By Value

12.2. Market Share & Forecast

12.2.1. By Type

12.2.2. End Use

13. EASTERN ANATOLIA REGION RENEWABLE ENERGY MARKET OUTLOOK

13.1. Market Size & Forecast

13.1.1. By Value

13.2. Market Share & Forecast

13.2.1. By Type

13.2.2. End Use

14. MARKET DYNAMICS

14.1. Drivers

14.2. Challenges

15. MARKET TRENDS AND DEVELOPMENTS

16. TURKEY ECONOMIC PROFILE

17. COMPANY PROFILES

17.1. IC Ictas Energy Investment Holding

17.1.1. Business Overview

17.1.2. Key Financials & Revenue (If Available)

17.1.3. Key Contact Person

17.1.4. Headquarters Address

17.1.5. Key Product/Service Offered

17.2. Statkraft Enerji A.?

17.2.1. Business Overview

17.2.2. Key Financials & Revenue (If Available)

17.2.3. Key Contact Person

- 17.2.4. Headquarters Address
- 17.2.5. Key Product/Service Offered
- 17.3. Poyry PLC
 - 17.3.1. Business Overview
 - 17.3.2. Key Financials & Revenue (If Available)
 - 17.3.3. Key Contact Person
 - 17.3.4. Headquarters Address
 - 17.3.5. Key Product/Service Offered
- 17.4. Sanko Energy Group
 - 17.4.1. Business Overview
 - 17.4.2. Key Financials & Revenue (If Available)
 - 17.4.3. Key Contact Person
 - 17.4.4. Headquarters Address
 - 17.4.5. Key Product/Service Offered
- 17.5. Axpo Turkey Enerji A.?
 - 17.5.1. Business Overview
 - 17.5.2. Key Financials & Revenue (If Available)
 - 17.5.3. Key Contact Person
 - 17.5.4. Headquarters Address
 - 17.5.5. Key Product/Service Offered
- 17.6. STEAG Solar Energy Solutions
 - 17.6.1. Business Overview
 - 17.6.2. Key Financials & Revenue (If Available)
 - 17.6.3. Key Contact Person
 - 17.6.4. Headquarters Address
 - 17.6.5. Key Product/Service Offered
- 17.7. Kalyon Holding
 - 17.7.1. Business Overview
 - 17.7.2. Key Financials & Revenue (If Available)
 - 17.7.3. Key Contact Person
 - 17.7.4. Headquarters Address
 - 17.7.5. Key Product/Service Offered
- 17.8. Enerjisa Enerji A.?
 - 17.8.1. Business Overview
 - 17.8.2. Key Financials & Revenue (If Available)
 - 17.8.3. Key Contact Person
 - 17.8.4. Headquarters Address
 - 17.8.5. Key Product/Service Offered
- 17.9. GAMA Enerji

- 17.9.1. Business Overview
- 17.9.2. Key Financials & Revenue (If Available)
- 17.9.3. Key Contact Person
- 17.9.4. Headquarters Address
- 17.9.5. Key Product/Service Offered

18. STRATEGIC RECOMMENDATIONS

19. ABOUT US & DISCLAIMER

I would like to order

Product name: Turkey Renewable Energy Market, By Type (Hydroelectric Power, Wind Power, Bioenergy, Solar Energy, and Geothermal Energy) and End Use (Residential, Commercial, Industrial, and Others), By Region, Competition, Forecast and Opportunities, 2028

Product link: <https://marketpublishers.com/r/T81D57ACA51EEN.html>

Price: US\$ 3,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/T81D57ACA51EEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970