

Renewable Energy Usage

INSIGHTS FROM DATA ON
RENEWABLE ENERGY GENERATIONS
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Introduction

- Renewable energy plays a key role in India's energy future.
- The analysis covers state-wise energy generation, yearly trends, and contributions from various renewable energy sources (solar, wind, hydro).
- The data used is focused on **Renewable Energy** across India, examining electricity generation in **TWh**.

State-wise Renewable Energy Generation

- A **Bar Chart** illustrates renewable energy generation by state.
- States like **Tamil Nadu**, **Gujarat**, and **Rajasthan** are major contributors to renewable energy in India.
- The chart visualizes the total renewable electricity generation across states in terms of **TWh** and by type (Solar, Wind, Hydropower).

Yearly Trends in Renewable Energy Generation

- **Line Chart** shows the **yearly growth** or **fall** in renewable energy usage in India.
- Significant increase in renewable energy generation over the years, particularly in **Solar** energy.
- The data highlights the rising adoption and investments in renewable energy sources.

State Contribution to Renewable Energy Generation

- The **stacked bar chart** reveals the **contribution of each state** to renewable energy generation, broken down by energy type (solar, wind, hydropower).
- **Tamil Nadu, Gujarat, and Rajasthan** contribute significantly to solar and wind energy generation.
- States with lower contributions need to focus on strengthening renewable energy infrastructure and policies.

Insights and Key Takeaways

- **Solar Energy** is the fastest-growing renewable energy sector, driven by **policy support** and **technological advancements**.
- **Wind Energy** is growing but at a slower pace compared to solar, with high potential in coastal regions like Tamil Nadu and Gujarat.
- **Top States:** Tamil Nadu, Gujarat, and Rajasthan are leading the way in renewable energy adoption.
- **Growth Potential:** States like **Maharashtra** and **Uttar Pradesh** can further boost their renewable energy contributions with focused investments and supportive policies.

Conclusion

- Renewable energy usage in India is rising steadily, with solar energy being the key driver.
- **Solar** and **Wind** energies are expected to play a crucial role in India's energy transition towards a more sustainable future.
- **State-Level Focus:** States with strong renewable energy infrastructure are seeing higher energy generation, while others have room for improvement.
- India is on the path to achieving its renewable energy targets with further growth in solar and wind power.