

Growth of Renewable Energy in India: A Trend Analysis (2014–2025)

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Abstract:

The rising energy demands and rising environmental issues have triggered the world to shift towards renewable sources of energy faster. India has achieved a lot in terms of developing renewable energy capacity through the sustainable development strategy. This paper is secondary research on the development of renewable energy in India from 2014–2015 to 2024–2025 based on the report of the Renewable Energy Statistics 2024–2025 published by the Ministry of New and Renewable Energy (MNRE) [1]. The trends in the installed capacity and the fluctuating percentage of renewable energy in the electricity sector of the country are analyzed. The findings shown reveal that the total installed power capacity in India grew by 275.99 GW in 2014–15 to 475.21 GW in 2024–25. At the same time, the capacity of renewable energy has grown by 81.31 GW to 220.10 GW, which indicates significant development in clean energy implementation. Solar power became the most rapidly developing renewable energy source, but wind power remained an important part of the renewable energy. The growing proportion of energy sources that are renewable in the national electricity system indicates the development of the shift in the energy transition aimed at sustainability in India. The results offer valuable information to policymakers and researchers regarding the development of renewable energy in India in the future.

Keywords:

Renewable Energy, Energy Transition, Solar Power, Installed Capacity, Sustainable Development, India.