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# India Emerges as 3rd Largest Renewable Energy Market (IRENA Report)

Published On: 07-04-2026



According to the latest report by the International Renewable Energy Agency (IRENA), India has emerged as the third-largest renewable energy market globally in 2025, after China and the United States.

## Key Highlights

India recorded a major milestone by adding around 45 GW of renewable energy capacity in 2025, driven primarily by rapid expansion in solar and wind energy.

The country's total installed renewable energy capacity reached approximately 250.5 GW in 2025, rising significantly from about 175.9 GW in 2023, indicating strong growth momentum.

Solar energy played a dominant role, contributing nearly 37 GW of new capacity, making India one of the top contributors globally after China.

Wind energy also witnessed growth, with about 6.3 GW addition, while hydropower capacity increased steadily along with pumped storage projects.

## Global Context

Globally, renewable energy capacity witnessed record expansion, with solar energy leading the transition. Countries with higher renewable capacity are better insulated from fossil fuel price shocks and geopolitical uncertainties, highlighting the importance of clean energy.

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## **Significance for India**

India's rise to the third position reflects:

Progress towards energy security and reduced import dependence

Commitment to climate change mitigation

Advancement towards sustainable development goals (SDGs)

Strengthening of India's position in global clean energy leadership

It also aligns with India's long-term goal of achieving 500 GW non-fossil fuel capacity by 2030.

## **Key Drivers of Growth**

Government initiatives like National Solar Mission

Increased FDI in renewable sector

Competitive tariffs making renewables cheaper

Expansion of solar parks and wind corridors

Focus on green hydrogen mission

## **Challenges**

Land acquisition issues

Grid integration and storage limitations

Dependence on imports for solar modules

Financing constraints for large-scale projects

## **Way Forward**

Strengthen battery storage and grid infrastructure

Promote domestic manufacturing under Atmanirbhar Bharat

Enhance policy support for hybrid (solar + wind) projects

Increase investment in green hydrogen and offshore wind

## **Key Facts**

IRENA HQ ? AbDhabi, UAE

India ? 3rd largest renewable energy market (2025)

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Top countries ? China (1st), USA (2nd), India (3rd)

Largest contributor ? Solar energy

India target ? 500 GW non-fossil capacity by 2030

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