

India's New Green Energy Projects 2026

India is rapidly expanding its renewable-energy infrastructure to meet rising electricity demand, improve energy security and achieve its climate commitments.

As of **31 July 2026**, India had crossed **300 GW of installed non-fossil electricity capacity**, with solar, wind, hydro, bio-power and nuclear energy together accounting for more than 54% of total installed generation capacity.

Several major green-energy initiatives launched or expanded in 2026 are particularly important for UPSC preparation.

Major New Green Energy Initiatives

1. Green Energy Corridor - Phase III

The Union Cabinet approved **Green Energy Corridor Phase III (GEC-III)** in 2026.

Key features include:

- Renewable-energy evacuation capacity of up to **135 GW**
- **50 GWh Battery Energy Storage Systems (BESS)**
- Total outlay of about **₹1.86 lakh crore**
- Central Financial Support of **₹54,082 crore**
- Target completion by **FY 2032-33**

The project aims to strengthen intra-state transmission networks and address renewable-energy intermittency, congestion and peak-hour demand.

2. Pradhan Mantri Surya Sarovar Yojana

The government approved the **Pradhan Mantri Surya Sarovar Yojana (PM-SSY)** for large-scale **floating solar photovoltaic projects**.

The scheme provides for:

- **5,000 MW** of floating solar projects
- Co-located energy storage systems

- At least **10,000 MWh** of storage capacity
- Total outlay of **₹5,070 crore**
- Implementation during FY 2026-27 to FY 2030-31

Floating solar can reduce land requirements while making use of reservoirs and other suitable water bodies.

3. Expansion of Green Hydrogen

India is also developing green hydrogen as an important component of industrial decarbonisation.

Under the **National Green Hydrogen Mission**:

- **3,000 MW/year** of electrolyser manufacturing capacity has been awarded.
- About **8.62 lakh tonnes per annum** of green hydrogen production capacity has been awarded.
- Green ammonia production is being developed for use in the fertiliser sector.

In 2026, the government also approved **12 pilot projects involving 70 hydrogen-powered vehicles and 16 hydrogen refuelling stations across 21 routes**.

India's Renewable Energy Progress

India's renewable-energy capacity has expanded substantially. As of **31 August 2026**, total renewable capacity stood at about **295.55 GW**, including approximately **168 GW of solar** and **58.5 GW of wind**. Total non-fossil capacity, including nuclear, exceeded **304 GW**.

Solar remains the major driver of India's renewable-energy expansion, while wind power continues to grow, particularly in states such as Gujarat and Tamil Nadu.

Why Are These Projects Important? Energy Security

Greater use of domestic renewable resources can reduce dependence on imported fossil fuels.

Climate Action

Renewable energy helps reduce the carbon intensity of electricity generation and supports India's climate commitments.

Grid Stability

Large-scale renewable deployment requires **transmission networks, battery storage and flexible power systems**. GEC-III directly addresses this challenge.

Green Industrialisation

Green hydrogen, electrolyser manufacturing, batteries and solar manufacturing can create new industrial supply chains and employment.

Challenges

India's green-energy transition faces several challenges:

- Intermittency of solar and wind power
- Land and environmental concerns
- High storage requirements
- Transmission bottlenecks
- Financing requirements
- Critical-mineral dependence
- Need for domestic manufacturing and recycling

Therefore, India's transition requires an integrated approach involving **renewable generation + storage + transmission + energy efficiency + green manufacturing**.

UPSC Relevance Prelims

Important facts:

- **Green Energy Corridor Phase III:** 135 GW renewable evacuation capacity

- **GEC-III storage:** 50 GWh BESS
- **PM Surya Sarovar Yojana:** 5,000 MW floating solar
- **National Green Hydrogen Mission:** launched in 2023
- Solar and wind are major components of India's renewable-energy expansion.

Mains

GS Paper III:

- Renewable energy
- Energy security
- Climate change
- Green hydrogen
- Infrastructure and technology

Essay: Energy transition, sustainable development and India's pathway to a low-carbon economy.

Possible UPSC Mains Question

"India's transition towards green energy requires more than renewable generation. Discuss the importance of energy storage, transmission infrastructure and green hydrogen in India's energy transition."

Conclusion

India's new green-energy projects demonstrate a shift from simply increasing renewable-generation capacity towards building an **integrated clean-energy ecosystem**. Solar, wind, floating solar, green hydrogen, battery storage and transmission infrastructure will collectively shape India's energy transition.

For UPSC aspirants, the topic should be studied through the interconnected themes of **energy security, climate change, technology, infrastructure and sustainable development**.

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