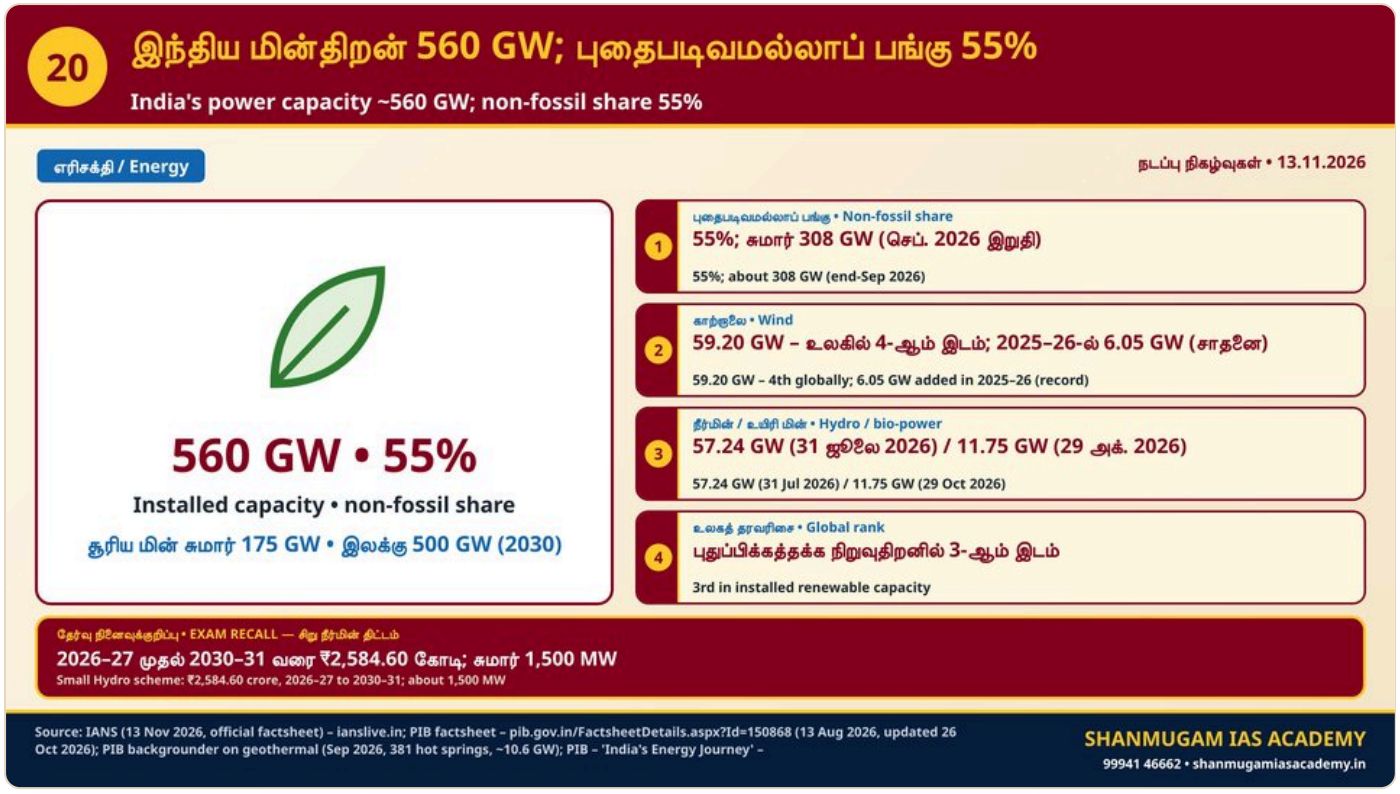
India's power capacity ~560 GW; non-fossil share 55%

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News

According to an official factsheet on India's renewable energy progress (IANS, 13 Nov 2026), the country's total installed power capacity rose from 249 GW in 2014 to about 560 GW in October 2026, with 55% from non-fossil sources. Non-fossil capacity crossed 300 GW (300.50 GW on 31 July 2026, PIB) and stood at about 308 GW by end-September 2026, and India ranks third in the world in installed renewable energy capacity. Solar capacity grew from 2.8 GW in 2014 to about 175 GW on 31 October 2026; wind capacity is 59.20 GW as of 30 September 2026 (fourth in the world), with a record 6.05 GW added in 2025–26. Hydropower (large and small) stood at 57.24 GW on 31 July 2026 (PIB) and bio-power at 11.75 GW (29 Oct 2026), including about 9,821 MW of bagasse cogeneration. Rooftop solar systems have been installed in 65.26 lakh homes under PM Surya Ghar, and 839 compressed biogas (CBG) plants are registered (as of 2 November 2026). The National Policy on Geothermal Energy was notified on 15 September 2025; the Geological Survey of India (GSI) estimates about 10,600 MW of geothermal potential. The target is 500 GW of non-fossil capacity by 2030.

Key facts for the exam

Point	Details
Total installed capacity	About 560 GW (Oct 2026); 249 GW in 2014
Non-fossil share	55%; about 308 GW (end-Sep 2026)

Point	Details
Solar	About 175 GW (31 Oct 2026); 2.8 GW in 2014
Wind	59.20 GW – 4th globally; 6.05 GW added in 2025–26 (record)
Hydro / bio-power	57.24 GW (31 Jul 2026) / 11.75 GW (29 Oct 2026)
Global rank	3rd in installed renewable capacity
Small Hydro scheme	₹2,584.60 crore, 2026–27 to 2030–31; about 1,500 MW
Geothermal	National policy 15 Sep 2025; potential ~10,600 MW (381 hot springs)
Target	500 GW non-fossil capacity by 2030

Background

- The Ministry of New and Renewable Energy (MNRE) handles solar, wind, bio-energy, small hydro (up to 25 MW), geothermal and green hydrogen; large hydro projects above 25 MW come under the Ministry of Power. Since March 2019, large hydro is also classed as renewable energy in India.
- India met its updated Paris Agreement NDC goal of '50% of installed capacity from non-fossil sources by 2030' already in 2025. The 'Panchamrit' goals announced at COP26 in Glasgow (2021) include net-zero emissions by 2070.
- Compressed biogas (CBG) is biogas from anaerobic digestion of dung, farm residue and urban waste, purified and compressed; it is over 90% methane. On 6 August 2026 the 'GOBARdhan National Circular Bioenergy Scheme' (2026–27 to 2035–36) worth ₹23,731 crore was approved.
- Geothermal energy comes from the Earth's internal heat. Ladakh's Puga valley is India's most promising geothermal field, where ONGC has taken up a pilot project.

Tamil Nadu link: Tamil Nadu is among the leading wind-power States along with Gujarat. Muppandal, near the Aralvaimozhi pass in Kanniyakumari district, is one of India's largest onshore wind-farm clusters; the south-west monsoon wind funnels through the pass at high speed. The National Institute of Wind Energy (NIWE) is at Pallikaranai, Chennai (Velachery–Tambaram Road); Kamuthi in Ramanathapuram district has a 648 MW solar plant. The Gulf of Mannar region suits offshore wind.

Frequently asked questions

What is this news about?

According to an official factsheet on India's renewable energy progress (IANS, 13 Nov 2026), the country's total installed power capacity rose from 249 GW in 2014 to about 560 GW in October 2026, with 55% from non-fossil sources.

What are the key facts to remember for the exam?

Total installed capacity: About 560 GW (Oct 2026); 249 GW in 2014; Non-fossil share: 55%; about 308 GW (end-Sep 2026); Solar: About 175 GW (31 Oct 2026); 2.8 GW in 2014; Wind: 59.20 GW – 4th globally; 6.05 GW added in 2025–26 (record).

What is the background to this news?

The Ministry of New and Renewable Energy (MNRE) handles solar, wind, bio-energy, small hydro (up to 25 MW), geothermal and green hydrogen; large hydro projects above 25 MW come under the

Ministry of Power.

Practice questions (with answers)

1. Muppandal, one of India's largest onshore wind-farm clusters, is in which district?

A) Tirunelveli

B) Kanniyakumari

C) Theni

D) Coimbatore

Answer: B – Explanation: Kanniyakumari – the south-west monsoon wind funnels through the Aralvaimozhi pass. India's wind capacity is 59.20 GW.

2. Bagasse cogeneration, a major source of bio-power, uses the residue of which crop?

A) Sugarcane

B) Paddy

C) Cotton

D) Coconut

Answer: A – Explanation: Sugarcane – the fibre left after juice extraction; sugar mills make both power and steam (about 9,821 MW).

3. Where is the Puga valley, regarded as India's most promising geothermal energy field?

A) Himachal Pradesh

B) Uttarakhand

C) Ladakh

D) Sikkim

Answer: C – Explanation: Ladakh – an ONGC pilot project. National Geothermal Policy: 15 Sep 2025; GSI estimates about 10,600 MW of potential.

4. What is the main constituent of compressed biogas (CBG), promoted under the GOBARdhan scheme?

A) Hydrogen

B) Carbon monoxide

C) Ethane

D) Methane

Answer: D – Explanation: Methane (over 90%) – purified biogas from anaerobic digestion of dung and farm waste.

5. In India, hydro projects up to what capacity are classed as 'small hydro' under the MNRE?

A) 10 MW

B) 25 MW

C) 50 MW

D) 100 MW

Answer: B – Explanation: Up to 25 MW – MNRE; larger ones fall under the Ministry of Power. The new Small Hydro scheme: ₹2,584.60 crore, ~1,500 MW.

Sources: IANS (13 Nov 2026, official factsheet) – ianslive.in; PIB factsheet – pib.gov.in/FactsheetDetails.aspx?Id=150868 (13 Aug 2026, updated 26 Oct 2026); PIB backgrounder on geothermal (Sep 2026, 381 hot springs, ~10.6 GW); PIB – 'India's Energy Journey' – pib.gov.in/PressReleasePage.aspx?PRID=2298869 (13 Aug 2026); Business Standard – business-standard.com (7 Mar 2019, large hydro declared renewable); The Tribune/ANI – tribuneindia.com (5 Nov 2026); MNRE – mnre.gov.in. © Shanmugam IAS Academy.