

INDIA'S EXPANDING ROLE IN THE GLOBAL ENERGY TRANSITION

Professional Report based on Press Information Bureau Backgrounder

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Executive Overview

India's energy transition is being pursued through a combination of **policy reform, infrastructure expansion, cleaner fuels** and international energy engagement. The PIB backgrounder highlights the simultaneous strengthening of hydrocarbon governance, gas and fuel infrastructure, electric mobility, biofuels, clean cooking access and low-carbon pathways, while responding to rapidly rising energy demand.

Indicator	PIB Reported Position
Natural gas pipeline network	More than 25,400 km; additional 10,459 km under construction
CGD geographical coverage	100% geographical coverage supported by the integrated gas grid
Ethanol blending	19.05% average as on 31 July 2025; 19.93% in July 2025
PMUY beneficiaries	About 10.41 crore as of January 2026
Fuel retail network	Over one lakh outlets by 2025
CNG stations	More than 8,477
PNG household connections	More than 1.59 crore

Key Takeaways

- Natural gas pipelines exceed 25,400 km, enabling near-100% CGD geographical coverage nationwide.
- Ethanol blending reached 19.05% in ESY 2024-25, approaching the 20% national target.
- PMUY coverage expanded to 10.41 crore households, with rising LPG refill rates indicating sustained usage.
- India Energy Week 2026 convenes global stakeholders to examine energy security and transition issues.

India's Energy Imperative in a Changing World

Energy underpins industrial production, transportation, agriculture, healthcare, digital connectivity and household needs. The source describes India as the third-largest consumer of crude oil and states that its energy demand is projected to grow faster than almost any other major economy through 2035. It also states that India is expected to account for over 23% of global incremental energy demand by 2050.

The report notes that India achieved 50% of cumulative installed electricity capacity from non-fossil fuel sources in June 2025, five years ahead of its 2030 Nationally Determined Contribution target.

Hydrocarbon Energy Governance and Sectoral Reforms

The PIB backgrounder frames governance and regulatory reform as essential to attracting investment, reducing project timelines and maintaining reliable energy supply across upstream, midstream and downstream segments.

Upstream Sector Reforms

- **Oilfield (Regulation and Development) Amendment Act, 2025:** modernises the upstream regulatory framework by simplifying procedures, enabling integrated energy development and strengthening investor confidence.
- **Petroleum and Natural Gas Rules, 2025:** provide a modern and transparent regulatory framework for exploration and production, strengthening ease of doing business and regulatory certainty.
- **Hydrocarbon Exploration Licensing Policy:** 172 blocks covering more than 3.78 lakh sq km were awarded, attracting committed investments of about USD 4.36 billion.

Midstream and Downstream Reforms

- **Unified Pipeline Tariff (UPT):** introduced in 2023 under "One Nation, One Grid, One Tariff"; approximately 90% of operational pipelines were covered as of December 2025.

Strengthening Energy Security through Infrastructure Expansion

- Fuel retail outlets expanded from around 52,000 in 2014 to over one lakh by 2025.
 - CNG stations increased from about 968 to over 8,477, while PNG household connections rose from 25 lakh to over 1.59 crore.
 - The natural gas pipeline network expanded beyond 25,400 km, with another 10,459 km under construction.
 - More than 90,000 retail outlets were enabled with digital payment facilities, supported by over 2.71 lakh POS terminals.
 - 8,932 EV charging stations were installed at retail outlets under FAME Phase-II, with over 18,500 additional charging stations established by Oil Marketing Companies.
 - More than 500 APNA GHAR truckers' wayside amenities were established, and 1,064 integrated Energy Stations were commissioned as of 1 November 2025.
- Clean Energy Transition and Low-Carbon Pathways

The ethanol blending programme is reported to have delivered foreign exchange savings of about ₹1.59 lakh crore, reduced CO₂ emissions by 813 lakh metric tonnes and substituted 270 lakh metric tonnes of crude oil since 2014.

- **National Policy on Biofuels, 2018 (amended 2022):** advanced the 20% ethanol blending target from 2030 to Ethanol Supply Year 2025-26.
- **Ethanol Blended Petrol Programme:** average blending reached 19.05% as on 31 July 2025, with 19.93% achieved in July 2025.
- **Pradhan Mantri Ujjwala Yojana (PMUY):** about 10.41 crore beneficiaries as of January 2026; 25 lakh additional LPG connections approved during FY 2025-26.
- **PMUY affordability support:** targeted subsidy of ₹300 per 14.2 kg cylinder for up to nine refills per year; average per-capita consumption rose to 4.85 refills per annum during FY 2025-26.
- **Sustainable Aviation Fuel (SAF):** indicative blending targets for international flights are 1% from 2027, 2% from 2028 and 5% from 2030.
- **Indian Oil Corporation Limited** received ISCC CORSIA certification for SAF production at Panipat Refinery and subsequently signed an MoU with Air India for SAF supply.

Global Energy Leadership and International Engagement

The source highlights India's participation in the Global Biofuel Alliance and the G20 Energy Transitions Working Group, alongside India Energy Week as a platform for dialogue among governments, industry, financial institutions, technology providers and academia.

India Energy Week 2026 was scheduled in Goa from 27-30 January 2026, hosted by the Ministry of Petroleum and Natural Gas. The PIB note states that participants from over 120 countries and more than 6,500 conference delegates were expected.

India Energy Week 2026: Discussion Themes

- Energy security and affordability
- Investment mobilisation
- Clean energy transition
- Digital technologies and energy equity
- Oil and gas, renewable energy and hydrogen
- Biofuels and carbon capture
- Power systems and future mobility

Conclusion

The PIB backgrounder presents India's energy transition as a scale-driven programme combining conventional energy security with cleaner fuels, infrastructure expansion, regulatory reform and international cooperation. Progress in gas connectivity, biofuels, clean cooking, electric mobility and low-carbon technologies is positioned as part of a broader effort to meet rising demand while reducing emissions intensity and supporting economic growth.