

Government of India Notifies National Policy on Geothermal Energy (2025) to Accelerate Clean Energy Transition, Supporting India's Net Zero 2070 Commitment

Policy Aims to Harness Untapped Potential Through Research, Innovation, Technology, Ecosystem Development, Capacity Development and Partnerships

Policy to Drive Real-World Impact Through Clean Power, District Heating, Agricultural Use, Aquaculture and Ground Source Heat Pumps (GSHPs)

Five Pilot Projects Sanctioned to Assess Viability and Potential Across India

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The Government of India has notified the **National Policy on Geothermal Energy (2025)**, reinforcing its commitment towards achieving the ambitious **2070 Net Zero Goal** and strengthening the country's energy security through diversified renewable energy sources.

India, with its untapped geothermal resources, is poised to leverage this clean and reliable energy source for **power generation** and **direct-use applications** such as district heating, agriculture, aquaculture, and space cooling and heating via Ground Source Heat Pumps (GSHPs). The newly unveiled policy provides a comprehensive framework to promote exploration, development, and utilization of geothermal energy in India.

Key Highlights of the Policy

- **Research and Best Practices:** Encourages research, inter-ministerial collaboration, and adoption of global best practices for geothermal energy development. Regulatory and stewardship

responsibilities for geothermal energy will rest with the Ministry.

- **Integration with National Goals:** Targets integration of geothermal energy with India's **Net Zero (2070)** and renewable energy objectives.
- **Diverse Applications:** Focus on electricity generation, space heating/cooling, agriculture (greenhouses, cold storage), tourism, and desalination.
- **Technological Innovation:** Promotes R&D of advanced systems such as hybrid geothermal-solar plants, retrofitting abandoned oil wells, and Enhanced/Advanced Geothermal Systems (EGS/AGS).
- **Local Innovation and Partnerships:** Emphasis on local innovation, joint ventures, and repurposing existing oil/gas infrastructure.
- **Collaboration:** Partnerships with international geothermal bodies and pioneering nations, as well as collaboration with state governments, oil and gas companies, and research institutions.
- **Ecosystem Development:** Building a robust public-private ecosystem for the long-term development of the geothermal sector.
- **Capacity Building:** Promotes knowledge sharing and human resource development in the sector.

As a first step towards exploration of geothermal energy, the Ministry has **sanctioned five projects** in the sector. These include both pilot initiatives and resource assessment projects aimed at exploring the viability and potential of geothermal energy in India.

The **Ministry of New and Renewable Energy (MNRE)** will continue to monitor the progress while providing a conducive environment for developers, industries, and research institutions to actively participate in India's clean energy transition.

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