

MNRE, US firm in talks to tap geothermal energy

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Top officials from the Ministry of New & Renewable Energy (MNRE) including Secretary Santosh Sarangi met Graham Gillies, Vice President for Asia-Pacific at Baker Hughes, on Tuesday to strengthen cooperation in the renewable energy sector.

The discussions covered renewable energy integration, grid stability, green hydrogen and ammonia, and emerging technologies such as geothermal energy, the Ministry said.

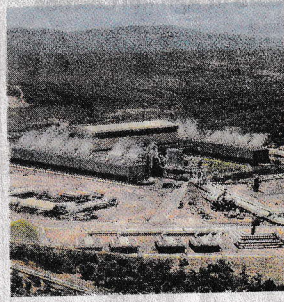
During the meeting, Sarangi highlighted India's remarkable renewable energy journey, driven by enabling policies, and underscored the importance of collaboration to accelerate innovation and advance the clean energy transition.

The US is the leading country in geothermal energy. The Houston-headquartered Baker Hughes has around 40 years of experience in geothermal energy.

POLICY SUPPORT

The development assumes importance as India is pushing for expanding the geothermal energy segment. To enhance participation from private sector, the Ministry is exploring incentives such as tax breaks, viability gap funding (VGF) and long term concessional loans to expand potential and viability of the site-specific renewable energy source.

To this effect, the MNRE in September last year unveiled the National Policy on Geothermal Energy to harness geothermal resources for power generation and direct-use applications such as district heating, agriculture, aquaculture, and space cooling as well as heating via Ground Source Heat Pumps.



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In this direction, the policy aims to integrate geothermal energy with India's Net Zero (2070) target and renewable energy objectives. The government may explore the possibility of long-term concessional loans from and viability gap funding, among other avenues and fiscal support such as tax breaks.

COSTLY SOURCE

Currently, geothermal energy is cost intensive with around ₹36 crore required to create 1 MW of capacity (global estimate) with electricity costing around ₹10 per unit in India.

India's geothermal energy capacity is projected to be around 10 GW, with studies and pilot projects underway to ascertain its real potential.

Globally, geothermal capacity is around 15.43 GW, as per IRENA's RE capacity statistics 2024. Geothermal energy increased by roughly 0.4 GW in 2024 from around 15.05 GW in 2023, led by New Zealand, Indonesia, Türkiye and the US.