

L-G VK Saxena commissions India's first two geothermal wells at Puga Valley in Ladakh

Development marks a historic milestone towards PM's vision of Carbon-Neutral Ladakh and towards setting up India's first geothermal power project

Leh, July 17: In a landmark milestone in India's clean energy mission, Lieutenant Governor, Shri VK Saxena, today commissioned India's first and deepest two geothermal wells at Puga Valley in Ladakh, executed by ONGC Energy Centre. The development is a big stride towards the establishment of India's first-ever Geothermal Power Plant in Ladakh.



The commissioning of the two 1000-meter-deep wells, at a high altitude of over 14,000 feet, would significantly advance Ladakh's journey towards becoming a clean energy hub, powered by renewable sources, as envisaged by Hon'ble Prime Minister, Shri Narendra Modi. The project also fulfils the Hon'ble PM's vision of Carbon-neutral Ladakh and the call to harness alternative, renewable energy sources for our future security.



The two geothermal wells are critical for the successful implementation of the 1 MW pilot geothermal power project at Puga, which will be India's first demonstration-scale geothermal power project.

Notably, the geothermal power project had suffered a major setback following the expiry of the earlier tripartite MoU between the Ladakh Administration, LAHDC Leh and ONGC Energy Centre, resulting in critical delays of several months in project execution. Recognising the strategic

importance of geothermal energy for India's energy security and clean energy transition, L-G Shri Saxena personally intervened to facilitate the renewal of the MoU for another five years, in June this year, following which works resumed for the completion of the two geothermal wells.

Successful completion of the two wells would facilitate critical reservoir evaluation, power plant planning and the eventual commercial development of geothermal resources in Ladakh. Project Engineers informed that the maximum temperature of 135 degrees Celsius was recorded at a depth of 400 meters. Further testing is on and the engineers are hopeful to achieve even higher temperatures for operation of the 1MW pilot geothermal power project and eventual commercial exploration of geothermal energy.

The project has been undertaken in one of the world's most challenging operating environments, characterised by extreme weather conditions, rugged terrain and a limited annual working season.

Despite encountering geothermal activities, complex sub-surface conditions and operational challenges, the first of the two wells was successfully drilled to its target depth of 1000 metres on 22 May 2026. Subsequently, the other geothermal well was spudded on 03 June 2026, and in a record time of just over a month, it was successfully drilled and completed to 1000 metres depth on 08 July 2026.

Speaking on the occasion, the LG termed the commissioning of the geothermal wells as a historic milestone in India's clean energy journey and a defining moment in Ladakh's transition towards a carbon-neutral future.

"This Geothermal Power project would act as a catalyst for Ladakh's holistic development. Beyond its scientific significance, this initiative will strengthen Ladakh's energy security, promote environmental sustainability and contribute to regional socio-economic development. What has been achieved in Puga Valley would serve as a blueprint for India's net-zero journey and significantly contribute towards making Ladakh a carbon-neutral and environmentally sustainable region," L-G Shri Saxena said.

Shri Saxena lauded the ONGC engineers, saying the Indian engineers and technicians were among the best in the world, capable of achieving the most difficult engineering feats, and they truly symbolise India's growing stature in the field of global engineering. He also appreciated every worker associated with the project, saying it was a true testament to their grit, determination and perseverance.