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Project InnerSpace Launches GeoMap[™] India, Revealing Substantial Prospects for Geothermal Power, Heating, and Cooling Development Across the Country

The tool is a first-of-its-kind for India, mapping geothermal development potential by combining 175 subsurface and surface datasets, and identifying the most promising regions for geothermal development.

NEW DELHI, Nov. 12, 2024: Project InnerSpace has launched GeoMap[™] India, highlighting the enormous potential for untapped geothermal energy to become a crucial part of India's clean energy mix as it seeks to spur economic growth and development by increasing energy supply.

GeoMap[™] is a pioneering geothermal exploration tool focused on expanding the adoption of clean, always-on geothermal energy worldwide by bringing together millions of data points from the Earth's surface and subsurface in a freely accessible and interactive map. GeoMap[™] India includes more than 175 subsurface and surface layers, including a prospecting tool to identify the most promising regions for development of geothermal powered data centers. GeoMap[™] India also identifies coal power plants with the potential for conversion to geothermal power, and industrial zones that could benefit from geothermal heat networks.

GeoMap[™] India highlights several regions in India that are particularly promising for geothermal development requiring higher temperatures, like for power and industrial heat production. These regions include:

- Gujarat State on India's west coast, including the area of the Southern Cambay Basin and the major industrial zone of Jhagadia;
- Large areas of east and northeast India, particularly in the Bihar and Meghalaya States, and into the southern eastern portion of Assam;
- The Himalayan region of northwestern India;
- Through the central Son Narmada Fault Zone, one of India's most significant tectonic areas, and the location of the Tatapani Geothermal Field;
- Along the eastern coast in the Andhra Pradesh State, along the Godavari rift, including the outskirts of Vijayawada, Andhra's commercial hub.

To illustrate the real world impact of geothermal development in one of these promising areas, Project InnerSpace partnered with <u>Aarti Industries</u>, a chemical and pharmaceutical manufacturer with facilities in Jhagadia, Gujarat, on a feasibility study to examine how a geothermal conversion pilot might provide power and industrial heat to one of its facilities.

"Industrial heat is challenging to decarbonize using intermittent renewable electricity. Hence, the chemical industry, which uses a lot of industrial heat, is a hard-to-abate sector," said Mirik Gogri, Head of Corporate Strategy at Aarti Industries. "Geothermal is an excellent source of clean baseload power and heat, with the potential to enable our plants to operate without disruption while also minimizing our carbon footprint. We are thrilled that GeoMap India identified the industrial zone in Jhagadia as a place where geothermal development is possible, and we look forward to exploring ways to integrate this enormous resource into our operations."

Aside from the regions identified as top candidates for high temperature industrial heat and power development, importantly also, the entirety of India is ripe for residential and small-scale commercial geothermal heating and cooling development. This near term prospect for massively scalable and energy efficient cooling solutions could prove to be one of the most impactful geothermal opportunities to emerge in a rapidly warming world.

"The elephant in the room in a warming and changing climate is our current inability to keep people cool during heat waves, which are growing in intensity and becoming increasingly unsurvivable in some regions of the world," says Jamie Beard, Executive Director of Project Innerspace, the entity developing GeoMap[™]. "India is soon to become the world's most populous nation, is at increased risk of deadly heat events, and faces soaring energy demand in the coming decades. The convergence of these factors makes rapid development of geothermal for cooling in particular, a very high impact opportunity," said Beard.

Over the coming months, Project InnerSpace, along with its partners, will work to unlock the geothermal potential illustrated by GeoMap[™] India. In partnership with the <u>Council on Energy, Environment and Water (CEEW)</u>, a leading think tank in Delhi, and in collaboration with academics from IIT-Guwahati, Pandit Deendayal Energy University (PDEU), and Columbia University's Center on Global Energy Policy, Project InnerSpace will publish the 'Future of Geothermal In India,' a deep dive analysis of opportunities, incentives, and supportive policies that would aid the growth and development of geothermal in India.

"As India builds a resilient energy ecosystem, geothermal technologies, which can offer firm and flexible power, are worth exploring to provide much needed diversity to the energy mix. Newer ways of tapping into geothermal can make it an important source of clean firm energy in India and help reduce the challenges of intermittency that solar and wind pose. We are actively collaborating with scientific agencies to understand the potential resources in India, and inform policy making that will help realize this potential", said Dr. Arunabha Ghosh, Chief Executive Officer of the Council on Energy, Environment and Water (CEEW).

Project InnerSpace will host a free <u>webinar</u> on Nov. 19 to explore the features of the GeoMap[™] India tool. The webinar is open to all.

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About Project InnerSpace: Project InnerSpace is the leading independent non-profit organization dedicated to the global development of geothermal energy. Our mission is to remove the barriers to the exponential growth and development of geothermal energy worldwide by 2030. To learn more about Project InnerSpace please visit www.projectinnerspace.org.

About GeoMapTM: GeoMapTM, built in collaboration with more than 85 scientists around the globe, debuted at the 28th Conference of the Parties in November 2023 with the release of <u>GeoMapTM Africa</u>. The launch of <u>GeoMapTM North America</u> followed in June 2024. Following the release of GeoMapTM India, Project InnerSpace will release GeoMapTM Southeast Asia in January, followed by GeoMapTM South America in early 2025. GeoMapTM is freely available to the public, and can be accessed at <u>www.projectinnerspace.org.</u>