



Himalayan Thermal Energy will generate Electricity in Uttarakhand

Why in News?

On July 17, 2023, according to information received from the media, Uttarakhand will soon generate electricity from the heat of the Himalayas. For this, for the first time work will be started on power generation from geothermal energy.

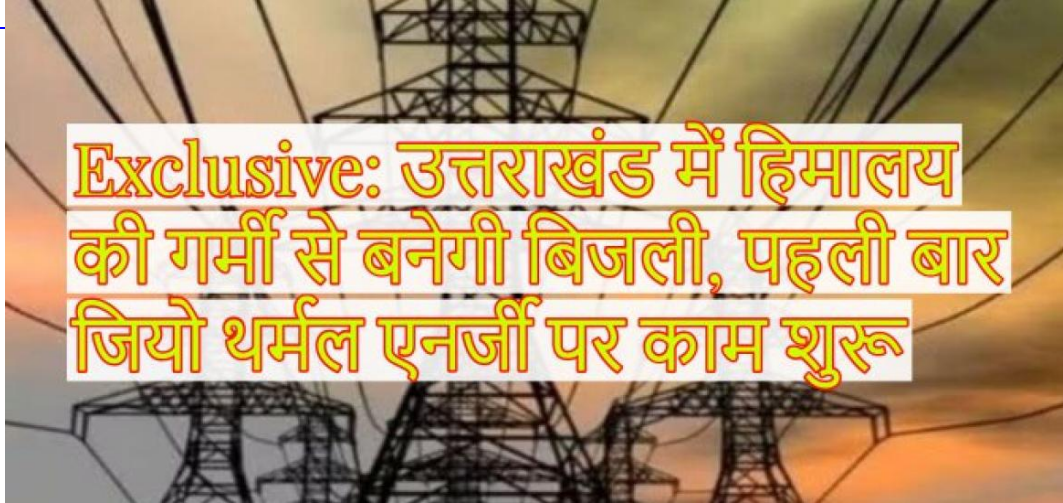
Key Points:

- The state government and Oil and Natural Gas Corporation Limited (ONGC) will soon sign an MoU to generate electricity from the heat of the Himalayas. Soon a team of experts from ONGC, Geological Survey of India and Iceland Geo Survey will come to explore the possibilities of geothermal energy at different places in the state.
- It is known that there is a possibility of large-scale geothermal energy in the Himalayan regions of Uttarakhand. This has also come to the fore in earlier studies.
- It is noteworthy that last month, ONGC has signed an MoU with a scientific and research organization called Iceland GeoSurvey to set up a geothermal energy project in Ladakh.
- Meanwhile, ONGC Director (Expansion) Sushma Rawat, considering it a good way to meet energy needs, said that its possibilities would be seen in other states of the country. In this sequence, the Government of Uttarakhand is now going to start work on GeoThermal Energy in the state in association with ONGC.
- It is known that in the year 2008, a research paper of Prof. Kailash Bhardwaj and Prof. SC Tiwari of Garhwal University was published. In this, immense possibilities of Geothermal energy were expressed in the mountainous regions of Uttarakhand.
- He said in his research that in the womb of the Himalayas, energy is hidden from 121 to 371 degree Celsius, which can be used in electricity generation.
- In his research, he has mentioned three drills in the 3 kilometres upstream area of Dhauliganga near Tapovan Geothermal Spring, from where springs of hot water of temperature 65-90 degree Celsius were coming out. A geothermal spring near Yamunotri was also found to have 88-90 Degree Celsius hot water.
- Scientists said that geothermal areas of Badrinath, Gaurikund and Tapovan can be developed.
- The Wadia Institute of Himalayan Geology did a major study on Geothermal Springs in Himachal and Uttarakhand in the year 2020. Wadia director Kalachand Sai told how 40 hot water springs have been identified in Uttarakhand and 35 in Himachal Pradesh, which In the future, it can prove to be very effective in terms of energy production.
- It is worth mentioning that hydropower projects in the state have been pending for a long time. Now the state government is working on its options so that in the future electricity can be produced according to the needs of the state.
- The state government will generate electricity from coal in Odisha. For this, a joint venture of UJVNL-THDC is being formed. On the other hand, a pumped storage policy is being formulated in the state for generating electricity from rainwater. Jindal Group has completed surveys for this in four districts of Dehradun, Nainital, Almora and Champawat in the state.
- The possibilities of generating 10,600 MW of electricity in the country from geothermal energy were estimated 15 years ago. 129 MW in Kenya, 7 MW in Ethiopia, and 56 MW in Papua New Guinea can be seen as examples. Today 20 countries of the world including America (3676 MW)

are producing electricity from geothermal energy.

- This is how electricity is generated from geothermal energy: Drilling is done in the geothermal area. Here electricity is generated by running a turbine with the steam of hot springs. The water produced from this steam is again sent by drilling inside the ground.
- Presently 1396.1 MW of hydro-power projects are running under Uttarakhand Jal Vidyut Nigam (UJVN). Construction work is underway on 440.5 MW hydropower projects. Apart from this, about 60 projects of solar energy are going on. Relative to this the demand for electricity is many times higher.

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