

GUJARAT

Guj eyes geothermal energy for power

Pilot Project To Be Taken Up In Cambay

Himansshu Bhatt | TNN

Surat: After wind and solar power, Gujarat is all set to tap another unconventional source of energy.

The state government is planning to explore the feasibility of geothermal energy. "We are meeting a delegation from Norwegian government to make a beginning of this untapped resource of energy next wee," said T Harinarayana, director, Gujarat Energy Research and Management (GERMI).

Officials said that there is a potential to generate electricity through geothermal resources, which are available in plenty in the geothermal zone located in Cambay between Narmada and Tapi river. If the pilot project is successful, the state may plan generation of 10,000MW in a decade.

At present, 24 countries in the world generate geothermal electricity up to 10,715 megawatts (MW). The largest producer of this environment friendly electricity is USA that generates 3,086MW of electricity.

However, the production cost of electricity through geothermal process is high. "Yes, initial costs are high. It may take at least Rs 10 crore to produce one MW of electricity but the long term benefits are huge," said Harinarayana.

Anywhere on the earth, below one km of the surface there is tremendous amount of heat. This earthen heat can form the source of electricity. It is proved that if the temperature on the surface is 35 degrees, the temperature 10



metres below will be 26-27 degrees Centigrade but as one goes more deep, it goes up and is above 65 degrees centigrade.

In geothermal zones located across the country, the temperatures could be as high as 150-160 degree centigrade.

In Cambay, there are several bore holes, which were dug for oil exploration and have served their purpose. In the short term, they can be used for generating geothermal energy in the short term, he added.

Gujarat proposes to use binary cycle power plants and the geothermal power is considered safer and sustainable worldwide because the heat extraction is smaller compared to earth's heat content.

Moreover, the emission intensity of existing geothermal electric plants is roughly 122kg of carbon dioxide per megawatt-hour (MWh) of electricity, which is about one eighth of conventional coal-fired plant.

Gujarat generates just 2,219MU of its electricity through unconventional means out of the total 57,728 MU.