GOVERNMENT OF INDIA
MINISTRY OF NEW AND RENEWABLE ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 453
ANSWERED ON 24/07/2024

GEOTHERMAL ENERGY (RDD&D) PROJECTS

453. SHRI PUTTA MAHESH KUMAR

Will the Minister of New & Renewable Energy be pleased to state:

(a) the details and the current status of geothermal energy Research, Design, Development and Demonstration (RDD&D) projects in India including funds allocated and utilised for the same;
(b) the details regarding the budget allocation and utilisation for geothermal energy RDD&D projects over the last five years;
(c) the details of the collaborations or partnerships with eminent international organisations/countries to advance geothermal energy RDD & D efforts in India;
(d) the details regarding the technological advancements or innovations achieved through geothermal energy RDD&D projects funded by the Government over the last five years; and
(e) the details of incentives and subsidies provided by the Government for geothermal RDD & D activities in the country?

ANSWER

THE MINISTER OF NEW & RENEWABLE ENERGY AND CONSUMER AFFAIRS, & FOOD AND PUBLIC DISTRIBUTION

(SHRI PRALHAD JOSHI)

(a) & (b) The details and the current status of development of geothermal energy in India, inter-alia, include:-

Geological Survey of India (GSI) has carried out exploration of geothermal energy in various recognized geothermal fields which includes collection of data on temperature, discharge, and quality/chemistry of water in different geothermal fields. GSI has studied 381 thermally anomalous areas across India and has published a report titled ‘Geothermal Atlas of India, 2022’. A potential of about 10,600 MW of geothermal power has been estimated in the country.

Singareni Collieries Company Limited (SCCL) has commissioned a 20 kW pilot geothermal power plant in Manuguru area of Bhadradri Kothagudem district in Telangana.

The Ministry of New and Renewable Energy (MNRE) is implementing a “Renewable Energy Research and Technology Development Programme (RE-RTD)” through various research institutions and industry to develop indigenous technologies and manufacturing for widespread applications of new and renewable energy in efficient and cost-effective manner, including harnessing the geothermal energy.

No specific allocation in the R&D budget has been made for geothermal energy over the last five years by MNRE. An allocation of Rs 2.42 Crore has been made by Ministry of Coal, which has been utilised for establishing 20 kW pilot geothermal power plant in Manuguru area of Bhadradri Kothagudem district in Telangana.

(c) Collaborations/partnerships with eminent international organisations/countries to advance geothermal energy efforts in India, inter-alia, include: -

- Under the aegis of the MoU signed on 9th October, 2007 between India and Iceland, which is continuing, both the sides have identified Geothermal as an area of cooperation.
- India has signed an MoU with Kingdom of Saudi Arabia on 29th October, 2019, wherein, Geothermal has been identified as an area of cooperation.
- Under the Renewable Energy Technology Action Platform (RETAP) launched on August 29, 2023 between India and USA, Geothermal has, inter-alia, been identified as a focus area.

(d) The aforesaid 20 kW pilot geothermal power plant in Manuguru is based on closed loop Binary Organic Rankine Cycle Process technology, which has been successfully demonstrated.

(e) MNRE provides up to 100% financial support to Government/non-profit research organizations and upto 70% to Industry, start-ups, private Institutes, entrepreneur, and manufacturing units under Renewable Energy Research and Technology Development Programme, including for geothermal energy R&D projects.

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