

**GOVERNMENT OF INDIA
MINISTRY OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF SCIENCE AND TECHNOLOGY
LOK SABHA
UNSTARRED QUESTION No. 4034
ANSWERED ON 19/03/2021**

RESEARCH ON STORAGE OF ENERGY

**4034. SHRIMATI POONAM MAHAJAN:
SHRI G. M. SIDDESHWAR:**

Will the Minister of SCIENCE AND TECHNOLOGY विज्ञान और प्रौद्योगिकी मंत्री be pleased to state:

- (a) whether it is a fact that the Government is carrying out research work on developing the technology for storage of energy;**
- (b) if so, the details thereof along with the achievements thereof during the last three years;**
- (c) the steps being taken to inspire and engage the students in the said research; and**
- (d) the outcome thereof?**

ANSWER

**MINISTER OF HEALTH AND FAMILY WELFARE; MINISTER OF SCIENCE AND TECHNOLOGY; AND MINISTER OF EARTH SCIENCES
(DR. HARSH VARDHAN)**

स्वास्थ्य और परिवार कल्याण मंत्री, विज्ञान और प्रौद्योगिकी मंत्री और पृथ्वी विज्ञान मंत्री
डॉ. हर्ष वर्धन

(a) Yes, the government is supporting research projects for enhancing technology for storage of energy. Several academic institutions and R&D laboratories viz. Indian Institute of Technology Kanpur (IIT Kanpur), Indian Institute of Technology Bombay (IIT Bombay), Indian Institute of Technology Madras (IIT Madras), Indian Institute of Technology Delhi(IIT Delhi), Indian Institute of Technology Guwahati (IIT Guwahati), Indian Institute of Technology Hyderabad (IIT Hyderabad), Indian Institute of Technology Ropar (IIT Ropar), Indian Institutes of Science Education and Research (IISER), Pune, International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), Hyderabad, Indian Space Research Organisation (ISRO), Bengaluru etc. are pursuing research work on storage of energy.

(b) During the last 3 years, around 100 research projects have been supported in the domain of energy storage which have resulted in 150 scientific publications. Two Materials for Energy Conservation and Storage Platform (MECSP) have been setup for development of energy storage materials and system at Indian Institute of Science Bengaluru and Nonferrous Materials Technology Development Centre (NFTDC), Hyderabad. Notable advances have been made in the development of Li-ion batteries, energy storage devices for wearable applications, thermal energy storage using phase change materials, graphene-based supercapacitors, flow batteries etc.

(c) & (d) Students and young researchers are getting engaged in the energy storage research through enhanced opportunities for training and capacity building. Students are also inspired to take up research in this domain through open house forums conducted by various laboratories to show case the outcomes of the projects. As a result of these efforts, 150 students are pursuing higher research in storage of energy which is contributing to the development of critical mass of researchers for development of energy storage technology.