

GOVERNMENT OF INDIA  
MINISTRY OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**RAJYA SABHA**  
**UNSTARRED QUESTION No.1743**  
TO BE ANSWERED ON 09/03/2021

**CLEAN ENERGY RESEARCH INITIATIVE**

1743 SHRI K.J. ALPHONS:

Will the Minister of Science and Technology be pleased to state:

- (a) the objectives of Clean Energy Research Initiative;
- (b) the action taken to build a lithium battery capable of being used in motor vehicles;
- (c) the reasons for slow progress in this area; and
- (d) action taken to ensure that the raw materials required for the battery are mined or contracted in sufficient quantity?

**ANSWER**

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

(a) Sir, the larger objective of Clean Energy Research Initiative is providing affordable and accessible solutions for societal benefit. The aim is to progressively advance technology readiness level of research and innovation endeavours with the following broad objectives:

**Promoting Cutting Edge Research, Development and Demonstration (RD&D):**

Support research to generate advanced knowledge of potential application, catalyse technology development and pilot demonstration at credible scale enrolling community and stakeholders

**Forge and Sustain Partnerships:**

Promote national, bilateral and multilateral collaboration between industry, academics, utilities and other stakeholders to gain value for such connections

**Develop Capacities:**

Create research competence in Clean Energy and water through human and institutional capacity development

**Accelerate Innovation:**

Accelerate India centric innovations developed around user needs

(b) A Rs. 1.97 lakh crore Production-Linked Incentive (PLI) scheme covering 13 Key Sectors including Advance Chemistry Cells (ACC) manufacturing has been conceived to promote domestic manufacturing of Advance Chemistry Lithium ion battery. The cumulative outlay for 5 years is INR 18100 crore.

(c) Adoption of electric vehicles in a big way drives the demand for Li-ion batteries. The economic viability of producing Li-ion batteries indigenously is expected when very large-scale production units are established. Even though India is going to be a major consumer of Li-ion batteries to meet the requirement for EV and consumer electronics, presently no Indian industry is manufacturing due to lack of raw materials, local supply chain for key minerals, components, machinery etc.

(d) Atomic Minerals Directorate for Exploration and Research (AMD), a constituent unit of Department of Atomic Energy is carrying out exploration for lithium in potential geological domains in parts of Karnataka and Rajasthan. Preliminary surveys on surface and limited subsurface exploration by AMD have shown presence of Lithium resources of 1,600 tonnes (infrared category) in the pegmatites of Marlagalla — Allapatna area, Mandya district, Karnataka. Lithium minerals had to be sourced from countries like Argentina, Bolivia, and Chili and cobalt from Congo. NITI Ayog and Ministry of Mines are making efforts to have engagement with these countries. Kanij programme of GOI is one such effort to encourage Indian Industries to mine in these countries.

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