

**GOVERNMENT OF INDIA**  
**MINISTRY OF SCIENCE AND TECHNOLOGY**  
**DEPARTMENT OF SCIENCE AND TECHNOLOGY**  
(Technology Mission Division)

**CALL FOR PROPOSALS**

for

**CLEAN COAL RESEARCH & DEVELOPMENT (CCORD-2017)**  
**(Clean Energy Research Initiative)**

India is the world's third largest coal producing country and the fourth largest coal importer. The country continues to significantly rely on coal for electricity generation, and this abundant and affordable fossil fuel accounts for major chunk of the country's electricity output. However, major challenge to harness coal are environmental emissions and efficiency enhancement, which underlines need for cost effective, efficient and environmentally compliant technologies.

The power generation capacity is projected to increase to about 778 GWe by 2031-32, and a significant portion of the capacity addition is expected to come from coal. There is need for technologies that involve both pre-processing of Coal as well as technologies which reduce emission through improve combustion and environmental control.

Clean coal technology encompass a new generation of energy processes that sharply reduce air emissions and other pollutants from coal-burning power plants. DST's Call on coal is focused on research, development and demonstration of power generation by using clean coal technologies. The scientific out-come of the proposal should have direct relevance to Indian scenario and should consider harnessing locally available coal efficiently and effectively. The need for project and demand for intervention should be clearly brought out in the proposal.

**Key Dates:**

<b>Activity</b>	<b>Date</b>
<b>Call Opening Date</b>	7 <sup>th</sup> February, 2017
<b>Call Closing Date</b>	7 <sup>th</sup> April, 2017

<b>Duration</b>	36 Months
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**WHO CAN APPLY:** Faculties of recognized universities and academic institutions, scientists working in National Laboratories, R&D institutions and Research organizations recognized by DSIR individually or in consortium. Interface with select foreign University/ Institutions could be considered on a very selective basis under the overall umbrella of Science & Technology agreement with concerned country provided it does not envisage any funding to foreign partners. The roles and responsibilities of each partner should be clearly delineated in the proposal. Industry participation is not mandatory but the proposals having industrial contribution would be encouraged. The industrial partner should have proven standing and R&D capability in the proposed R&D area.

**INDUSTRIAL CONTRIBUTION:** Participating Industry would be required to invest within its own system i.e. production/ test lines and/or develop required infrastructure to adopt research leads and is expected to bring design, engineering and development capability for the benefit of the project.

**POSSIBLE R&D THEMES:** The call would support demand driven projects aimed at following:

- Boosting the efficiency by which coal plants convert coal to electricity or other energy forms.
- New coal technologies that can help utilities cut sulfur, nitrogen and mercury pollutants from power plants and reduce water consumption

## **SCOPE OF SUPPORT:**

The spectrum of activities include translational research to generate and convert know how to useful product / process etc as well as applied research aimed at performance enhancement of existing processes and systems. This would also include but not limited to Research, Design, Development and Engineering (RDD&E), Prototype Development of Product/System, Process Development, etc.

## **ASSESSMENT CRITERIA:**

The proposal will be evaluated based on following criteria:

- ❖ Potential impact of the project and the national importance of the proposed research
- ❖ Need assessment and demand for proposed work
- ❖ Scientific and technical merit
- ❖ Expertise, facilities and track record and ability of the Project Investigation Team to achieve the research goals
- ❖ Proposal formulation (Precision in objective, adequacy and completeness of literature review, preliminary work done, methodology and work plan, resources requested for this purpose in effectiveness of planning and resource management, etc.)

## **COMPONENT OF GRANT**

1. Research Manpower (Nomenclature and salary as per DST guidelines)
2. Equipment cost
3. Outsourcing / Fabrication cost
4. Domestic travel
5. Consumables
6. Contingencies
7. Other cost
8. Overheads as per DST norms.

## **PROPOSAL SUBMISSION:**

Please submit following documents in an envelope marked **“Call for Proposals for Clean Coal Research and Development (CCORD-2017): Name of Principal Investigator”**:

- A. 3 copies of complete project proposal in prescribed format with all enclosures (1 marked original + 2 hard copies)
- B. Soft copy in CD:
  - i. Complete proposal (MS word and PDF)
  - ii. Executive Summary of the proposal as given in Project Proposal format (in MS word document only)

The complete set of documents are to be addresses to: Dr. J.B.V.Reddy, Scientist 'D', Room no 12, Hall-C, Technology Mission Cell, Department of Science &Technology (DST), Technology Bhavan, New Mehrauli Road, New Delhi- 110016 before the closing date of the call.

Soft copy of Project Proposal and the Executive Summary is also to be e-mailed (*Subject Captioned: Call for Proposals for Clean Coal Research and Development (CCORD-2017): Name of Principal Investigator/ Name of the Principal Investigator*) to [jbvreddy@nic.in](mailto:jbvreddy@nic.in) .