

Subject: Request for submission of R&D proposals under the National Green Hydrogen Mission for setting up pilot plants for production & utilisation of green hydrogen in the iron & steel making processes.

It may be noted that ₹455 crore has been allocated for the steel sector under the National Green Hydrogen Mission. The funds could be employed for Research, Development and Demonstration (RD&D) and setting up of pilot plants for production & utilisation of hydrogen in the iron & steel making processes.

Use of hydrogen in DRI making and Blast Furnace have significant technical and economic challenges.


Funding for the above initiatives can be provided through the aforementioned budget allocated for the steel sector under the National Green Hydrogen Mission, to promote utilisation of Hydrogen in the following processes:

- Hydrogen based DRI.
- Redesigning of EAF where H₂ based DRI is to be used, including transfer of hot DRI to EAF.
- Adaptation of existing DRI plants (for partial or full replacement of existing energy/reduction source by H₂).
- Design, technology and machinery modification if H₂ is to be used in Blast Furnace.

The above initiatives require work on the following:

- Simulation models on use of H₂ in Iron production.
- Designing, specing, detailing, testing & validation of design of machineries, for new plants or for modifying, retrofitting of existing design for DRI, EAF, BF or components thereof.
- Hydrogen logistics in the steel making environment for hazard mitigation.
- Pilot plans for the above.

It is therefore requested that proposals covering the above be submitted to Ministry of Steel for consideration before the formal process of floating a scheme is undertaken. An indicative budget/ financial support required may be given to help design an appropriate Scheme for the sector under the Green Hydrogen Mission.


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Additional Secretary

To

1. Steel Companies
2. Academic Institutions
3. Research Laboratories
4. Equipment manufacturers
5. Design & Engineering Companies

CC: Web Manager, Ministry of Steel: for its publication in the website of Ministry of Steel