



**Ministry of New and Renewable Energy
(Wind Power Division)**

Call for R&D Proposals in thrust areas of Small Wind Energy Hybrid Systems

The Ministry of New and Renewable Energy (MNRE) invites R&D project proposals from Researchers engaged in Universities / academic institutions/ Research Institutes / research organizations in industries, both in private and Government sectors, preferably in consortiums of industrial partner, Wind turbine manufacturers in identified areas in the field of Small Wind Energy Hybrid Systems (SWES). MNRE support for such projects may be as per the MNRE RDD&D (Research, Design, Development, Demonstration) Policy Guidelines mentioned in O.M 1/1/2005-R&D dated 18th October 2010.

2. The project proposals need to mention clearly (i) specific objectives with identifiable deliverables, (ii) roles of each and every participating institution, (iii) work modules and timelines and (iv) financial contribution of the participating institutions wherever applicable. The projects are expected to lead to the technologies/ applications ready for commercialization by the participating industry.

3. Following are the identified thrust areas for this call:

- i. Design and development of Aero-generators/ small wind energy hybrid systems, efficient electronics and other control components of small wind solar hybrid systems, suitable for low wind regime areas, Hilly Himalayan region/ NE region.
- ii. Design and development of efficient grid connected Aero-generators/ small wind energy hybrid systems, efficient electronics and other control components of small wind solar hybrid systems including protection of wind turbines (Survival in strong wind & gusty winds, Generation in turbulent wind- as in building roof tops) suitable for coastal regions or high wind regime & cyclone prone areas.
- iii. Design and Development of protection/ safety mechanism for smooth operation for small wind energy systems specifically for snowed areas.
- iv. Design and development of aerodynamically efficient small wind turbine with extremely quiet/ low acoustic noise that contribute to the energy demand of office buildings and households.
- v. Design and Development of Remote compact Condition Monitoring system for Wind-Solar hybrid system
- vi. Design optimization and specifications for the existing towers exclusive for small wind turbines.
- vii. Study of compatibility of small wind turbines on telecom towers.
- viii. Development of low cost reliable & effective energy storage technologies for SWES

4. The applicant(s) from academic institutions/ universities/ research institutes from private sector or private sector undertaking excluding the applicants from industries must have at least two publications in peer reviewed journals or one patent application related to the subject of the proposal.

5. Format for submission of proposals is given on MNRE's web site www.mnre.gov.in The research proposal (in Ten copies along with a soft copy (in both PDF & DOC. formats) should be submitted within 45 days of the publication of this advertisement to: Shri. G. Upadhyay, Director (SWES)/ Shri. A. Hari Bhaskaran, Scientist 'B'(WE), Ministry of New and Renewable Energy, Block 14, CGO Complex, New Delhi 110003. E-mail: upadhyay@nic.in /hari.a@nic.in.

Downloadable: R&D Format : <http://www.mnre.gov.in/schemes/r-d/rd-formats/>