

**NATIONAL INSTITUTE OF WIND ENERGY**  
**Research & Development**

**“ REQUEST FOR PROPOSAL – RFP ”**

National Institute of Wind Energy an Autonomous Research Institution under the Ministry of New and Renewable Energy, Govt. of India, serves as a technical focal point for wind power development in India, for promoting and accelerating the pace of utilization of wind energy and support the growing wind power sector in the country. The objective is to develop and strengthen the facilities and capabilities; evolve strategies; and promote, conduct, coordinate, and support research and development programmes to achieve and maintain reliable and cost-effective technology in wind power systems.

To meet the above objective, research proposals are solicited under the following areas from various research / academic institutions, universities, industry, research scholars and consultancy organizations. The proposals may be submitted in the requisite/prescribed format placed at Annexure-A.

**WIND TURBINE COMPONENTS / NEW AND ALTERNATE MATERIALS FOR CONSTRUCTION**

**1. Blade**

- (1) Study of wind flow pattern over the blades

**2. Generators and grid integration of wind turbines**

1. Power quality issues in wind farms
2. Planning for evacuation of wind power
3. New technology for generators

**3. HYBRID SYSTEMS**

1. Development of a remote monitoring system for assessment of wind potential for small wind turbines
2. Design and development of Intelligent controller for Wind-Solar- Diesel generator (DG) hybrid system
3. Design and development of grid connected aero generators.
4. Effective Small Wind Harnessing

#### **4. RESEARCH IN WIND RESOURCE ASSESSMENT**

1. Reassessment of Wind Potential of India with reference to the Wind Atlas of the country and Thematic Maps generated GIS tools.
2. Wind / Solar forecasting and Grid Management
3. Siting of wind turbines on complex terrain and forest areas
4. Wakes in and between wind farms
5. Offshore wind meteorology and turbine technology

#### **5. CONDITION MONITORING OF WIND TURBINE**

- (1) Improving reliability of data and diagnosing.
- (2) Development of new sensors for better usage with cheaper costs

#### **6. Energy Storage.**

7. Any other relevant new ideas and innovative frontier areas that would help develop and sustain Wind Energy utilization in India are also welcome.

The proposals in the prescribed format may be submitted to the following address. The proposals received will be reviewed by an expert sub-group committee.

**Convener**  
R&D and RDAF Division  
National Institute of Wind Energy  
657A/1A2, Velachery – Tambaram Main Road,  
Pallikaranai, Chennai – 600 100, INDIA  
Tel. No. 044-2246 3982/83/84  
Fax No. 044-2246 3980/85  
Email: [boopathi.niwe@nic.in](mailto:boopathi.niwe@nic.in)

**APPLICATION FOR INVITING PROPOSALS FOR RESEARCH & DEVELOPMENT  
PROJECTS / FACILITIES RELATED TO WIND TURBINE SYSTEMS**

(NB - Three hard copies and e-copy in CD of the application are required)

**SECTION A**

(To be completed by the Principal Investigator)

1. Title of research / development proposal :  
(make the title concise & specific)
2. (a) Name of the Principal Investigator :
- Designation :
- Name of institution :
- Address :
- Contact details:  
    Tel.No / Mobile :  
    Fax No.  
    Email :
2. (b) Other Investigators :
3. (i) Proposed duration of the research / development proposal :
- i) Phase – I  
    ii) Phase – II  
    iii) Phase – III
- (ii) Proposed date of commencement of project / facilities :

4. Amount of grant proposed for

Grants (In rupees)	1 <sup>st</sup> Year		2 <sup>nd</sup> Year		3 <sup>rd</sup> year	
	IC	FE	IC	FE	IC	FE
(a) Research Staff						
(b) Special equipment (Details of the Special Equipment can be provided in annexure)						
(c) Consumable stores, chemicals etc.						
(d) Contingencies						
(e) TA/DA						
(f) Others (please specify)						
<b>Total Rs.</b>						
<b>Grand total</b>						
<b>Rs.....</b>						

5. (i) Department of the institution where R&D project :  
will be carried out
- (ii) Other departments if any, which will cooperate in :  
this study
- (iii) Details of financial support sought / obtained from :  
other agencies
6. (a) Specific aim of the project :
- (b) Technology Area under which proposal is submitted
  - i. Blade
  - ii. Generators and grid integration of wind turbines
  - iii. Hybrid Systems
  - iv. Research in Wind Resource Assessment
  - v. Condition Monitoring of Wind Turbine
  - vi. Energy Storage
- (c) Summary of proposed research / facilities & objectives (brief statement about the proposed investigation, its conduct, and the anticipated results in terms of material development/ large scale model development/ prototype development/ pre industry model development / technology demonstration / field evaluation/ standards development not more than 200 words)
- (d) Key words :
- (e) Classification of the project :  
(Please state whether Basic research, Applied research, Facility set up, Dissemination of information Process development, Hardware development, Study of exploratory or review of investigation, Miscellaneous)
7. Background & justification  
(Basis for the proposal with a brief review of the : state of the art in the subject, followed by an outline of the relevance and importance of the project in particular towards research / development / design related to wind turbine technology.)
8. (a) Approach (details of the actual approach intended to be adopted in the execution of the project / facilities indicating how each of the objectives listed in item 6(a) will be achieved.)
- 8.(b) Bar chart / PERT chart indicating major milestones may please be attached.

9. Facilities available for carrying out the proposed R&D work in the applicant's institution (to be attached as appendix). Describe the general facilities at your disposal. List major items of permanent equipment, which are essential for this project / facilities and are available in your institution.
10. Previous work done in this or related fields (To be attached as Appendix). Describe briefly any work done that is particularly pertinent to the proposal and list (i) your personal publications in this and related areas and (ii) personal publications in other areas.
11. Details in respect of Research project facilities currently being undertaken / likely to be undertaken by the PI and the Co-Project Investigator from various sources (List all current research support of the investigator from other agencies).

Name of PI /Co-PI	Name of Sponsoring Agency	Title of Projects / Facilities	Total Amount	Total Period of support with dates from to
PI				
Co-PI				

12. Biographical sketch of investigator(s):

- a. Name :
- b. Designation :
- c. Age :
- d. Education & Experience :

(i) Degrees conferred:

Degree	Institution conferring	Field(s)	Year

(Begin with bachelor degree)

(ii) Other research training and experience especially establishing research qualifications in area covered by this application including previous & present position.

Institution	Name of the work done	Year

e. Fields of major scientific interest in order of choice

f. Any other additional information

**SECTION – B**

1. Name of institution submitting application :
  
2. Address :
  
  
  
  
  
  
  
  
  
  
3. Name, designation and full address of the official to :  
whom cheques are to be mailed

**CERTIFICATE**

I am submitting the above titled project proposal to MNRE/ NIWE for financial support.

1. I / We agree to abide by the terms and conditions of the MNRE / NIWE research grant.
  
2. I/We have not submitted the project proposal elsewhere for financial support.
  
3. I/We have requested for funds for the items, which are not available with the institution for the proposed work and are absolutely essential.
  
4. I/We will not proceed on long term / study leave/ deputation during the period of project implementation, without prior permission from MNRE/NIWE.
  
5. I/We have enclosed the following documents / materials.

Signature of the Principal Investigator / Executive Authority of the  
Institution

Name.....

Designation.....

Date .....