

WIND POWER PROGRAMME
Revised Guidelines for Wind Power Projects

No.66/241/95-WE/PG
Government of India
(Power Group)
{Wind Power Division}

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Subject: Revised Guidelines for Wind Power Projects.

The Ministry of Non-Conventional Energy Sources had issued guidelines on 13th July,1995 to ensure healthy and orderly growth of the wind power sector. The guidelines were well received, as a step towards streamlining the development of the wind power sector. The Ministry has reviewed the guidelines on the basis of feedback received and experience from their implementation since their issue.

The revised guidelines are addressed to the concerned Authorities in the States,

i.e. the State Electricity Boards (SEBs) and State Nodal Agencies (SNAs) that are responsible for clearance of wind power projects and issue of 'No Objection Certificates' (NOCs). They are also addressed to Financial Institutions, including IREDA, who should carry out appraisal of wind power projects in accordance with the guidelines.

No Objection Certificates should not be treated by SEBs/SNAs as a mere formality. It is the first and foremost requirement before a wind power project can be undertaken. It should invariably precede commencement of any work related to the project on site. A Technical Committee should be constituted by the respective SEBs/SNAs to periodically consider and provide time bound clearances, followed by issue of No Objection Certificates.

The concerned State Authorities, namely, State Electricity Boards/State Nodal

Agencies, as the case may be, should announce a schedule for capacity additions on a six monthly basis, once in the first week of April and another in October every year in line with power evacuation facilities available or likely to be created at different windy locations in the State. Applications should be invited for wind power projects for each location as per the power evacuation facilities available at the concerned substation.

No Objection Certificates should be issued, or financing provided, only to those projects that meet the requirements detailed below:-

1. Detailed Project Reports/Applications for Wind Power Projects: For projects of upto 1 MW capacity, submission of an Application giving details of the project, as per enclosed format (Annexure-I) should be made mandatory. For projects above 1 MW capacity, a Detailed Project Report, prepared by an independent consultant, covering all relevant aspects, including micro-siting (to optimise wind power configuration and layout), selection of equipment, capital cost, cost of generation, energy generation, operation and maintenance, etc. should be made a pre-requisite.
2. Approved Sites for Wind Power Projects: Clearances/ NOCs should be provided only for installations at locations notified by MNES from time to time. SEBs/SNAs should issue the No Objection Certificate only after analysing the wind data to ensure adequate availability of wind at the specific site.
3. Type Approval and Quality System Certification: SEBs/SNAs should issue NOCs only to those projects which involve installation of duly tested and certified quality equipment with a view to optimise energy generation. MNES has drawn up a list of manufacturers with models of wind turbines of unit capacity 225 KW and above that have obtained type approval, including power curve certification, from designated international Test Stations and Classification Societies. The list of manufacturers is given at Annexure-II. The list will be updated by MNES on a quarterly basis. Submission by the Indian manufacturers of Quality System Certification (ISO-9000 series) of manufacturing and installation carried out through an international qualified body or Classification Society should be made a pre-requisite for the issue of NOC w.e.f. 1.1.1997.

No NOC should be issued for a wind power project which involves the installation of used/second-hand wind turbines imported from abroad.

4. Capital Cost and Cost of Generation: Detailed estimates of the annual energy output should be checked by SEBs/SNAs at the time of clearing the projects in relation to the certified power curve of the machine and the wind speed distribution for the site. NOC should be issued by SEBs/SNAs after careful scrutiny of the capital cost and the cost of generation for optimal utilisation of the potential available at the site.

5. Commissioning of Projects: Commissioning certificate should not be given unless facilities for evacuation of the rated capacity have been provided and the system is properly connected to the grid. The SEBs/SNAs should also ensure that adequate stock of critical spare parts for atleast two years operation of the project have been provided at the time of commissioning to enable sustained operation and generation of optimum power.
6. Grid Parameters: It should be ensured that the projects generate power in accordance with duly laid down grid parameters. A penalty should be levied by the SEBs if the projects fail to achieve the minimum monthly average power factor of 0.85 at the metering point on the wind farm premises. They should disconnect the project from the grid in case the power factor continues to be low. A suitable charge may be levied for reactive power to discourage drawal of reactive power from the grid and to avoid free wheeling of the machines.
7. Performance Monitoring: The submission of a detailed monthly performance report to the SEBs/SNAs, alongwith a copy to MNES, as per enclosed format (Annexure-III) should be made mandatory.

SEBs/SNAs are advised to carry out periodic post commissioning verification to ensure compliance of the various requirements under the guidelines and clearance accorded by them. SEBs and SNAs may carry out regular inspection of windfarms by outside Agencies to ensure that generation is optimal. MNES will also either directly or through suitably designated agencies carry out periodic inspections of the wind farm projects in association with SEBs/SNAs to ensure proper and timely execution and effective operation of the projects. In case of any defaults, the SEBs should disconnect the project from the grid after serving due notice.

These guidelines are issued in supersession of the guidelines issued by this Ministry on 13 July, 1995. State Electricity Boards, State Nodal Agencies and Financial Institutions may circulate the revised guidelines to all manufacturers of wind turbine equipment; developers & investors of wind power projects.

Sd/-

(BML GARG)