F.No. 8-84/2002-FC
Government of India
Ministry of Environment and Forests
F.C. Division

Paryavaran Bhawan,
CGO Complex
Lodhi Road, New Delhi-110003

Dated: - 14.05. 2004

To,

1. The Chief Secretary/Administrator
2. The Principle Secretary (Forests)
3. Principle Chief Conservator of Forests
(All States/Uts).

Sub: - **Guidelines for diversion of forest land for non-forest purposes under the Forest (Conservation) Act, 1980-For projects utilizing wind Energy thereof.**

Sir,

Please refer to the policy issued by the Central Government for diversion of forest land for projects utilizing Wind Energy under the Forest (Conservation) Act, 1980 vide Ministry of Environment & Forests, letter of even number dated:- 10.11.2003. In this context, subsequently the Ministry of Environment & Forests has received some representations from various stakeholders seeking certain modifications in the policy guidelines to make it more compatible with the Indian conditions and available technology. Accordingly, a meeting of stakeholders was called by the Ministry of Environment & Forests on 13.04.2004 to discuss these issues, which was attended by representative of Minsitry of Non-Conventional Energy Sources, Government of India; Government of Karnataka, Maharashtra, Rajasthan besides the representatives of Indian Wind Turbine Manufactures's Association, Indian Wind Envergy Association and various other stakeholders.

The stakeholders have represented on certain points of policy guidelines. These issues were discussed at length in the meeting. After taking a holistic view on the existing technology available in the country and need to promote the investment in environment friendly energy sector and after careful examination of the technical issues with the State Governments and user agencies, the Government hereby, approves modifications in the already issued guidelines.

Therefore, **in suppression of the guidelines issued vide letter of even number dated :- 10.11.2003,** the Central Government hereby issues the following guidelines.

1. In order to have a long term view on energy sources, the State/UT Governments should fix the ratio of the wind energy with respect to other sources of energy in advance i.e. the ratio of thermal, nuclear, wind energy in the State/UT

2. (i) Area like National Parks and Sanctuaries, areas of Outstanding Natural Beauty (AONBs) Natural Heritage Site, sites of Archeological importance and sites of Special Scientific Interests and other important landscapes should not be considered for the wind energy farms.

(ii) The Wind energy farm shall be located at a safe distance from the sites mentioned para 2 (i)

(iii) The wind energy tips of the wind turbine shall be painted with orange colour to avoid bird this. The State Government should take sufficient precaution in considering the location of the wind mills so that it should not stand in the migratory path of the birds and should not be near the breeding sites of the migratory birds as the turbine of the wind mill produces a humming sound, which may cause disturbance for the avian habitat.

(iv) The distance of the wind mill turbines from the highways, village habitation shall be at a safe distance, and in normal course, a distance of 300 metre would be considered safe.

3. (i) A large number of small wind turbines, together with their access paths, will constitute more disturbance to the forest area than a small number of large turbines. Large size wind turbines upto 4.5 MW capacitie are being now utilized in most of the countries. Large size wind turbines are not only cost effective and generate substantially more power but also need less forest land. Therefore, as the technology is available, in forest areas the wind mills of less than 500 KW power generating capacity shall not be allowed. However, within the perimeter of wind farm having at least 500 KW power generating capacity turbines, smaller turbines may be allowed for optimization of wind energy.

(ii) It the terrain permits, winds mills of capacity of atleast 1 MW should be installed in order to ensure optimal use of forest land. However, this condition shall not be applicable to the proposals involving wind mills of 500 KW and above but below 1 MW power generating capacity, already in pipeline or pending before the State Government/Central Government as on date.

(iii) As an exception, "Stand alone" wind mills upto 10 KW off gird (Where no transmission grid is needed) shall be allowed in the forest areas, so that developer could strive for providing electricity in remote rural areas.

(iv) Wind energy sector is witnessing rapid technological innovation at the global level through research and development activates. In order to bring latest technology, after a period 3 years, the Ministry will review the situation and technology available to consider any further changes. The policy will be further reviewed after 5 years in order to see if the wind mills of high power generations capacity on the forest land could be promoted. The wind farm developers should therefore, be encouraged and motivated to adopt latest technology best at par in the world.

(v) The lease period initially shall be for a period of 30 years. The forest land will first be leased in favour of the developers and within a period of 4 years of State-II approval, the lease shall be transferred in the name of investors/power producers. In cae the developers fail to develop wind farms, the land shall be reverted back to Forests Department without any compensation.

(vi) The proposal shall include requirement of forest land inclusive of the corridors between the successive wind mills, statutory buildings earthing pits, transmission lines and road sincluding provision for repose, breast walls, drain, curvature etc.

(vii) Details of alternatives explored on non-forest lands shall be clearly given in the proposal.

(viii) Since the output of the wind mill is only 25% of its capacity, cost benefit analysis of the project would be an essential requirement. Details of employment generated, cost of

electricity produced by wind energy, economic viability of the project etc. should also be given in the proposal.

4. In order to plan the wind farms on the forest land systematically, reconnaissance survey etc. as allowed in other cases. shall be a allowed for wind farms development also in accordance with para 1.3 (i) of the guidelines issued under the Forest (Conservation) Act, 1980. For this purpose, the developers should ensure that "Wind Metmast" are erected in forest areas for wind mapping covering an area of not more than 50 m X 50 m @ one Wind Mast for every 500 hectare. A one time payment of Rs. 1.00 lakh per wind mast shall be further utilized for forest conservation activities and providing gas connections to the forest dependent communities. The wind mast shall be removed maximum after two years. Further, wherever wind data is already available, erection of wind mast shall not be mandatory. After the wind density and other technical parameters are ascertained, the proposal shall be forwarded by the State/UT Forest Department to the Central Government, for diversion of forests land for establishment of winds farms. However, existing proposals in the pipeline or under consideration at various stages, shall be dealt with according to the guidelines and parameters issued for different wind density regions by the Ministry of Non-conventional Energy Sources, Government of India.

5. A lease rent of Rs. 30,000/- per MW for the period of lease in addition to compensatory afforestation, net present value etc. shall be charged from the user agency. This amount shall be utilized in providing gas connections to the local villages under the Joint Forest Management Programme and for other conservation measure. This amount shall be deposited with Compensatory Afforestation Management and Planning Agency (CAMPA).

6. (i) Due to high wind velocity, most of the area where the wind farms are being established are having scrubby vegetation devoid of large size trees. Around 65% to 70% lease out area in the wind farms shall be utilized for developing medicinal plant gardens, wherever feasible, by the Forest Department at the cost of the User Agency. The State/UT Governments could also take help of National Medicinal Plant Board in properly creating corridors of medicinal plant gardens. The intervening areas between two wind mills footprints should also be planted up by dwarf species or trees at the project cost.

(ii) Soil & Moisture conservation measures like contour trenching shall be taken up on the hillocks supporting the wind mill.

7. The alignment of roads shall be done by a recognized firm and got approved by the Divisional Forest Officer concerned. Further, the transmission lines from the farms to the grid as far as possible should also be aligned collaterally along the roads.

8. The wind turbines/which mills to be on forest land shall be approved for use in the country by the Ministry of Non-Conventional Energy Sources, Government of India.

The States/UTs should follow these guidelines while considering proposals for diversion of forest lands for establishment of wind energy farms on forest lands.

This issues with the approval of the competent authority.

Yours faithfully,

Sd/-

(Dr. V.K. Bahuguna)

Inspector General of Forests

Copy to :-

1. The Secretary Ministry of Non-conventional Energy Sources, Govt. of India, C.G.O Complex, New Delhi.
2. The Secretary (Power), Govt. of India, New Delhi.
3. Nodal Officers- All States/UTs.
4. All Regional Offices of this Ministry
5. Director (FC), AIGs (FC).
6. General Manager, M/s KREDL, Government of Karnataka
7. General Manager, M/s MEDA, Government of Maharashtra
8. General Manager, M/s RREC, Government of Rajasthan.
9. Director (Technical) NIC, with a request to place these guidelines on website.
10. Indian Wind Turbine Manufacturers' Association
11. Indian Wind Engery Association
12. File No. 2-1/2003-FC
13. Guard File.

Sd/-

(Dr. V.K. Bahuguna)

Inspector General of Forests