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1. INTRODUCTION:

The State of West Bengal is blessed with abundant source of Renewable Energy in the form of Solar, Wind, Biomass, Hydro etc. This perennial and eternal source of energy has a vital role in the socio – economic development of the country. In addition, owing to environmental compulsions and the fast depleting finite fossil fuels, Renewable Energy Sources like Solar, Wind, Biomass, Hydro etc. have started occupying a central position in the area of Global Energy generation and supply. The spread of various Renewable Energy technologies has been added by a variety of policy and support measures. A whole range of institutional arrangement has been evolved in the state for these programmes. Financial Institutions are coming forward to finance Renewable Energy based Power Projects. The estimated Renewable Energy potential of the state of West Bengal is more than 1000 MW other than solar power, which is almost limitless. In the area of power generation from Renewable sources, over 80 MW of power generating capacity based on Renewable Energy sources has already been installed in the state. Under Private Sector about 50 MW, Renewable Energy power projects are under implementation now. The total investment shall be Rs.600.00 crores. This figure however, does not include large Hydro Power. Obviously, a vast potential of Renewable Energy Sources remained untapped. The present estimated potentials (already identified) of Renewable Energy Sources other than solar energy in the state are as follows:

➤ Solar Photovoltaic	: 16000 MW
➤ Small and Mini Hydel	: 250 MW
➤ Biomass	: 250 MW
➤ Wind Power	: 450 MW
➤ Energy from Municipal Solid Waste	: 150 MW
➤ Biogas based Power Generation	: 10 MW
➤ Biomass (non grid connected type in Sundarbans)	: 5 MW

Promoting of Renewable Energy seems to be strategically an important issue keeping in view energy security and sustainable development while encouraging clean technology for this purpose. Generally the Renewable Energy Power Generation Projects are eligible for CDM benefits. In addition Renewable Energy Projects are also eligible for various financial incentives. It is in this context, West Bengal Green

Energy Development Corporation Ltd. (WBGEDCL), the State Agency for promotion of commercial Renewable Energy Projects invites Expression of Interest from Private Sectors, Individuals, Institutions, Joint Venture Companies, etc. for setting up of Renewable Energy Projects in the state.

This booklet will provide first hand information to the prospective investors in regard to the procedures to be followed for investment in Solar Energy, Biomass, and Wind.

For small hydro, Waste to Energy and biogas, a separate expression of interest will be called within a short period.

2. WEST BENGAL GREEN ENERGY DEVELOPMENT CORPORATION LTD.:

West Bengal Green Energy Development Corporation Ltd has been created by the Govt. of West Bengal to promote Private Sector participation in the Renewable power. The Corporation will assist the Private Developers in respect of technical assistance, getting statutory approvals, signing of Power Purchase Agreements (PPA) with Power Utilities, arrangement of power evacuation, providing of various technical data etc. The Corporation will review and monitor from time to time regarding execution of the project. The Corporation will also assist the Developers in respect of getting different incentives in regard to implementation of Renewable Energy Projects. The Corporation will also assist the Private Developers in regard to coordination with various line departments.

3. RENEWABLE ENERGY POWER GENERATION TECHNOLOGIES:

A) Solar Photovoltaic Power Generation:

Many parts of West Bengal are endowed with abundant amount of Solar Radiation, which can be directly converted into grid quality power. This is done by use of Solar Photovoltaic cells, which directly convert the visible spectrum of incoming Solar Radiation onto them and directly fed to grid after reconditioning the power. The potential of such power generation in West Bengal is estimated to be 16000 MW

though it is not possible to tap all of it but a substantial amount of it can be tapped depending upon the availability of sufficient land and some other factors such as availability of optimum solar radiation, sufficient sunshine hours, availability of grid etc. The most promising sites are in the district of Purulia, Bankura, Burdwan, Birbhum etc. The main advantages of producing power through Solar Photovoltaics are eternal source, clean & ecofriendly due to no carbon generation, low maintenance. Land requirement for such power generation systems is generally of the order of 3 to 4 acres per MW in case of crystalline Solar cells and 7 acres per MW in case of thin film solar cells and approximate cost at present is about Rs. 20 crore per MW for crystalline and Rs.18.0 crores/MW for thin film. However in case of shortage of land especially in urban/city areas this type of Power plants can also be installed on a clear roof for connecting to the available grid for sale of energy to the concerned Power Utility. The capacity of such type of rooftop SPV Power plants should be 250 kW to 1000 kW. For such type of Solar PV Roof Top Power Plant some incentive from Govt. of India may also be available.

The basic system components of a typical Grid connected Solar Photovoltaic (SPV) Power Plant are:

- ◆ SPV Arrays consisting of SPV modules
- ◆ Module Interconnection arrangement
- ◆ Power Conditioning Units
- ◆ Suitable control systems with metering
- ◆ Power transformers
- ◆ Power evacuation arrangement

In the state of West Bengal separate feed-in tariff is available for such generation and sale to grid. The tariff order of West Bengal State Electricity Regulatory Commission is annexed at Annexure – I.

B) Biomass Based Power Generation:

All the earth's living matter together is termed as Biomass. This Biomass is a source of energy fixed from the energy of the Sun. Among the various Renewable

Energy alternatives the extraction of energy from biomass is one area, which holds considerable promise for the developing countries such as India, and it is receiving increasing attention. In Rural India Biomass provides about 90% of the total energy need because of non-availability of cheaper commercial fuel. Burning of cattle dung-cake, wood and agricultural residues has been a traditional practice in India. However, at present, technology is available to generate electricity from the Biomass, both woody and agricultural residue. The State of West Bengal is one of the leading States in the country in respect of rice production. As such huge rice husk is available in the state, which could be gainfully utilized for production of electrical power either through Gasifier route or through combustion route. Generally in Gasifier route up to 1 MW power could be generated through a single unit and in combustion route, size of the plant varies from 200 KW to 6 MW. In direct combustion route biomass (Rice Husk / Woody) is burnt directly to raise heat in boiler plant to supply process heat or to raise steam in order to generate electricity using standard steam turbine plant. In gasification process biomass is partially oxidize at temperature of around 800 to 900°C to produce a combustible gas. The gas is cleaned to remove tar and other contaminants, such as particular and alkali metals before being fed to a gas engine. There are a wide variety of gasification reactor concepts available including updraft, down draft and fluidize designs.

Generally 1.0 kg of dry rice husk or woody biomass is required to generate 1 kWh of electricity. For setting up of any biomass based Power Plant availability of rice husk or other woody biomass is very important. Cost of setting up of 1 MW of rice husk based power plant varies from Rs.4.00 crore to Rs. 5.00 crore depending on the technology. The cost of generation varies from Rs.2.50 to Rs.3.00 per kWh depending on the cost of fuel. In Gasifier mode both 100% producer gas based engine or duel fuel engine could be run. Woody biomass based Gasifier generally run from Biomass available from Energy Plantation. Multi fuel Gasifier is also available in the market. However Gasifier with dual fuel engine with diesel as supplementary fuel is not economically viable.

Presently some subsidy is available for Biomass Gasifier Project. Level of Subsidy varies according to system. Token subsidy is also available for Biomass combustion Route Power Plant. However, for Rice Husk based power plant application will be

considered only from Rice Mills on JV Company in which at least one partner should be a major Rice Mill owner (capacity 48 Tons per day minimum size)

C) Wind Power:

The power of wind is a force to be reckoned with and one that is increasingly recognized as a part of the solution to both the energy and climate change facing the world today. Modern Wind Turbines harness the energy present in the wind and convert it into electricity providing a secure supply without harmful waste products or emissions, from the source that is free and eminently sustainable. The wind power technology is matured now. Single machine of capacity ranging from 250 kW to 1.5 MW are available in Indian Market. Three things are very important in respect of harnessing wind power: -

- a) Adequate wind speed (generally not less than 18 kmph annual average at 25 m height).
- b) Adequate land (generally minimum 10 acres / MW)
- c) Stable grid supply.

Some of coastal areas of West Bengal fulfil the above conditions. However, annual wind speed of the coastal areas of West Bengal is just slightly above than the minimum requirement. As such Plant Load Factor (PLF) of wind farm in West Bengal is comparatively low. According to estimate of WBGEDCL, from a 1 MW Wind Farm in West Bengal maximum of 16.00 lac unit of electricity could be generated annually with present level of technology. The cost per MW works out to be slightly more than Rs.5.00 crores. The Unit cost works out to be in the range of Rs.3.00 to Rs.3.5 per kWh. However, Large size machines with high mast height could give better results. While wind turbines are most commonly classified by their rated power at a certain rated wind speed, annual energy output is actually a more important measure for evaluating a wind turbines valued at a given site. Wind turbine operators don't get paid for producing a large amount of power for a few minutes. They get paid by the number of kilo Watt hours (kWh) their turbines produce in a given time period.

3. Prospective Location/Districts where Solar/Biomass/ Wind farm could be set up.

A. Solar Photovoltaic Power Plant:

The entire districts of Purulia and Bankura and some part of Burdwan and Birbhum districts are suitable for Solar Photovoltaic Power Plant (SPV) with annual generation in the range of 1.4 to 1.5 million units per MW.

Apart from above, due to paucity of land on the ground in urban/city areas roof mounted SPV Power Plants with minimum capacity of 250 kW can also be installed on clear roofs of hotels, malls, hospitals, large commercial buildings, Office Buildings etc. The annual generation in urban areas from a solar PV power is however little lower than the rural areas. It is estimated in Kolkata city annual generation from a solar PV plant shall be 1.2 million units per MW

B. Name of Districts where Rice Husk based Biomass Project could be set up in Grid Connected mode (Balance available).

Sl. No.	District	MW	Remarks
1.	Hooghly	10	As per indicated balance availability. The raw material is available
2.	Birbhum	5	As per indicated balance availability. The raw material is available
3.	Midnapore (East / West)	5	As per indicated balance availability. The raw material is available
4.	Dinajpur (South and North)	5	Enough Rice Husk is available
5.	Burdwan	10	Enough Rice Husk is available
6.	Other Districts		Application for other districts shall also be considered provided the developer can prove the availability of raw materials

C. List of Prospective Wind Farm sites (Private Sector Project)

Sl. No.	Locations	Block & District	Capacity (kW)	Remarks
1	Bakkhali & Freserganj	Namkhana, South 24 Parganas	20 MW	Grid available
2	Sagar Island	Sagar, South 24 Parganas	30 MW	Grid likely to be available in the end of 2009
3	Coastal Belt of East Midnapore District	East Midnapore District	15 MW	Grid available

4. NAMES AND ADDRESSES OF DIFFERENT RENEWABLE ENERGY BASED FUNCTIONAL DEMONSTRATION PROJECTS IN THE STATE OF WEST BENGAL:

Sl. No.	Demonstration project	Address	Capacity
1.	Small & Mini Hydel Plant	i) Lodhama Hydro Electric project. Owner: M/S Nippon Power.	3 MW
		ii) Neroa Hydel project, Darjeeling. Owner: M/S TEXMACO	3 MW
2.	Rice Husk Power Generation in combustion route	i) Giriraj Rice Mills Vill & Mouza: Bamanpara P.S: Memari, Dist: Burdwan	800kW
		ii) Rajrani Agri Foods Ltd. Mouza: Durgapur, JL 470 PO: Hat Sultanpur PS: Kharagpur West Midnapur	900kW
3.	Rice Husk based Biomass Plant (Combustion route)	Birbhum Agro product Pvt. Ltd., Sainthia, Birbhum (For Off Grid Application)	200 kW (Individual capacity)
4.	Wind Farm (Grid connected)	Wind Farm project of WBREDA at Freserganj, Namkhana, South 24 Parganas.	2 MW
7.	Biogas Operated Micro Turbine Project (Grid connected)	Mohan Dairy, Mouza- Bangabari, Block & Dist.- Purulia.	60 kW

There are many such type of projects now which are under operation. DPR for the above mentioned Power Plants are available at concessional price (For guidance).

5. FACILITIES / INCENTIVES LIKELY TO BE AVAILABLE:

A. Solar PV Power Plants:

- i) Standard DPR with technical specification.
- ii) Information about land in Purulia and Bankura districts.
- iii) Standard Power Purchase Agreement.
- iv) Feed in tariff
- v) Incentives from the Govt. of India if any.

B. Rice Husk based Biomass Plant / Woody Biomass:

- i) Site Details (Provisional).
- ii) Rice Husk availability data for selected blocks at concessional rate.
- iii) Buy back arrangement of Power (Model – PPA)
- iv) Captive facility with wheeling.
- v) Assistance for Statutory Clearance.
- vi) Assistance in securing Loan from Financial Institutions.
- vii) Assistance in getting CDM facility.
- viii) Assistance in getting incentives from Govt. of India in respect of Biomass Gasifier, if any.
- ix) Copies of Standard DPR at concessional rate.
- x) Assurance regarding purchase of power.
- xi) General Assistance

C. Wind Farm:

- i) Prospective Site Details.
- ii) Wind resources data at concessional rate.
- iii) Buy back arrangement of Power (Model – PPA)

- iv) Captive facility with wheeling (Wheeling charge to be decided by SERC).
- v) Assistance for Statutory Clearance.
- vi) Assistance in securing Loan from Financial Institutions.
- vii) Assistance in getting CDM facility.
- viii) Assistance in getting MNES incentive, if any.
- ix) Copies of Standard DPR at concessional rate.
- x) Assurance regarding purchase of power.

6. SELECTION PROCEDURE:

Selection will be made by a committee mainly on the basis of experience, expertise, financial solvency, past performances, infrastructure availability etc. of the applicant. However, the following issues will be considered while evaluating the application:

- a) Experience in Renewable Energy Project implementation (not essential condition)
- b) Expertise in Renewable Energy Sector.
- c) Implementation time of the project after allotment.
- d) Past track record of the Company.
- e) Financial strength of the Company.
- f) Priority will be given to those developers who will set up power plant both in their own available land.
- g) In case of captive generation, the sector in which captive power will be utilized shall be looked into.
- h) Priority will be given to those developers who will opt for availing of CDM facility in association with WBGEDCL.
- i) Investor in the Wind Power Sector will get priority in getting allotment of site for other sectors.
- j) In case of rice husk based power plant allotment will be given only to the proposals of Rice Mill owners or JV project with one of the partner as Rice Mill owner.

7. LAST DATE OF SUBMISSION OF APPLICATION FORM WITH DOCUMENTS AND PROCESSING FEES:

Last Date for submission of Application: **19th December 2008**

Processing Fees: Rs. 3.0 lac/MW with maximum Rs. 20.0 lac (Rupees twenty lac only) up to 10 MW range. Processing fees shall be refunded to the Developer if not allotted with any site. The processing fees is to be deposited in favour of West Bengal Green Energy Development Corporation Ltd. through A/C payee Demand Draft/Banker's Cheque payable in Kolkata for getting all assistance from WBGEDCL as mentioned in the document. Maximum capacity of any project should not be more than 10 MW.

8. FORMALITIES TO BE OBSERVED AFTER PROVISIONAL ALLOCATION OF THE SITE (S).

- i) Before execution of the project, statutory clearances should be obtained from:
 - a) West Bengal Pollution Control Board.
 - b) Local Bodies.
 - c) District Collector regarding Government Land and Deptt. of Forest, Govt. of West Bengal for Forest Land.
 - d) Irrigation and Water Ways Deptt., Govt. of West Bengal for the use of River Water / State Water Investigation Directorate, Govt. of West Bengal for the use of ground water.
 - e) West Bengal Fire and Emergency Services, Govt. of West Bengal (Before commissioning of the project).
 - f) Directorate of Electricity, Govt. of West Bengal before commissioning of the project.
- ii) Arrangement of Private Land shall be the responsibility of the developer.
- iii) Arrangement with utility / distribution company regarding buy back arrangement of wheeling or Power Purchase Agreement (PPA)

- iv) Preparation of Detailed Project Report (DPR) and its clearance from WBGEDCL.

- v) Finalization of technical issues regarding evacuation of power from the power plant to the nearest grid sub-station in consultation with West Bengal State Electricity Transmission Company Ltd. or other Power Utility.

The Principal Applicant may opt for Partner in due course. But WBGEDCL will make all correspondences with the Principal Applicant only. If any Special Purpose Vehicle or JV are proposed to be launched same should be mentioned in the application format.

**INDICATIVE LISTS OF
CONSULTANTS
AND
MANUFACTURERS**

A. SOLAR PHOTOVOLTAIC

I. Indicative List Of Consultants And Service Providers

Sl. No.	Name & Address
1.	M/s. Synergy Renewable Energy (P) Ltd. 35, Rowland Road Kolkata -700 020 Telefax: 033-24745146/24851362/39502422
2.	M/S. Optimal Power Solutions India G-03, Shilpangan LB-1, Sector – III Salt Lake Kolkata – 700 098 Ph.: 033 23354847, Fax: 033 23354846
3.	M/s. Environ Energy Tech Service Ltd. 60A, Diamond Harbour Road, Thakurpukur Kolkata – 700 063. Ph.: 033 2285-0124
4.	M/S Srei Infrastructure Advisors Ltd. 'Vishwakarma', 86 C, Topsia Road (south) Kolkata – 700 046 Ph: 033 39873845, Fax: 033 39873861
5.	M/S Astonfield Renewable Sources Ltd. Makers Chamber V, Suite 916 Nariman Point, Mumbai – 400 021
6.	M/S SunTechnics xEnergy Systems Pvt. Ltd. "Abhishek Point", 4 th Floor 152, S.P. Mukherjee Road Kolkata – 700 026 Ph: 033 24633269, Fax: 033 24633270
7.	M/S. Reliance Industries Ltd. Reliance Corporate Park, Gate House Thane Belapur Road Gansoli Navi Mumbai – 400 701
8.	M/s. Sunshine Power Products Pvt. Ltd. "Sunshine House" Hanspukur Green Park (Khal Pole) Bakrahat Road P.O.- Joka, P.S. – Thakurpukur Kolkata - 700 104. Ph: 033 2403 7573, Fax: 033 24980476

II. Indicative List Of Solar PV Manufacturers

Sl. No.	Name & Address
1.	M/S. Webel-SL Energy Systems Ltd. Plot no: N1, Block – GP Sector – V, Salt Lake Kolkata – 700 091
2.	M/S. Synergy Renewable Energy (P) Ltd. 35, Rowland Road Kolkata -700 020 Telefax: 033-24745146/24851362/39502422
3.	M/S. Titan Energy Systems Ltd. 16, Aruna Enclave Trimulgherry Secundrabad –500 015 Andhra Pradesh
4.	M/S. Tata BP Solar India Ltd. 78, Electronics City Hosur Road Bangalore – 560 100
5.	M/S Moser Baer Photo Voltaic Ltd. 66, Udyog Vihar, Greater Noida G.B. Nagar (U.P.) – 201 306
6.	M/S. Reliance Industries Ltd. Reliance Corporate Park, Gate House Thane Belapur Road Gansoli Navi Mumbai – 400 701
7.	M/S. Azure Power, Inc M-171, 1 st Floor Greater Kailash – II New Delhi – 48 Ph No: 0991 4500003)
8.	M/S Rajasthan Electronics & Instruments Ltd. 2, Kanakpura Industrial Area, Sirsi Road Jaipur – 302 012 Ph: 0141 2470062
9.	M/S SunTechnics Energy Systems Pvt. Ltd. "Abhishek Point", 4 th Floor 152, S.P. Mukherjee Road Kolkata – 700 026 Ph: 033 24633269, Fax: 033 24633270

10.	M/S. Bharat Heavy Electricals Ltd. (BHEL) Regional Operations Divisions. Flat 9/1, Block – DJ, 3 rd Floor Sector – II, Karunamayee, Salt lake City Kolkata – 700 091., Ph: 033 23216584, Fax: 033 23216299
11.	M/S. Bharat Electronics Ltd. (BEL) 3 rd Floor, Chatterjee International Centre 33A, J. L. Nehru Road Kolkata – 700 071. Ph.: 033 2227 5421, Fax: 033 2227 5394

III. Indicative List Of Inverter/Power Conditioning Unit Manufacturers

Sl. No.	Name & Address
1.	M/S. Optimal Power Solutions India G-03, Shilpangan LB-1, Sector – III, Salt Lake Kolkata – 700 098 Ph.: 033 23354847, Fax: 033 23354846
2.	M/s. PPS Enviro Power Pvt. Ltd. D 97-A, Phase – I Road No: 18 IDA, Jeedimalta Hyderabad – 550 055
3.	M/S SMA, Germany
4.	Pulse Power Technologies Pvt. Ltd. 'Kamalaya Center', 5 th Floor 156A, Lenin Sarani, Room No: 502C Kolkata – 700 013 Ph: 033 22374705, Fax: 033 22251273

B. GASIFIER PROJECTS

I. Indicative List Of Consultants And Service Providers

Sl. No.	Name & Address
1.	M/S. Synergy Renewable Energy (P) Ltd. 35, Rowland Road Kolkata -700 020 Telefax: 033-24745146/24851362/39502422
2.	M/S. Dimension Engineering Consultants (P) Ltd. 40/91, C.R. Park New Delhi – 110 019

3.	Shri K.G. Sinha D-3, Anuradha Building, Neelachal Abasan, 98, Rajdanga Gold Park Kolkata – 700 107 Tel: 033-2442-6761
4.	Sri S.P. Banerjee AA – 179, Sector – I Salt Lake Kolkata – 700 064
5.	M/S. Solutions 28, Kalna Road Kali Mandir Burdwan – 713 103 Ph: 0342 2551076

II. Indicative List of Manufacturers of Gasifiers

Sl. No.	Name & Address
1.	M/s. Ankur Scientific Energy Technologies Pvt. Ltd. Near Old Sama Jakat Naka Vadodara - 390 009
2.	M/s. Associated Engineering Works P.B. No.: 17, Onivatam Road Tanuku - 534 211 Andhra Pradesh
3.	M/s. Cosmo Products Devpuri, Opp. Jain Public School Dhamtari Road Raipur - 492 015
4.	M/s. Grain Processing Industries (I) Pvt. Ltd. 29, Strand Road Kolkata -700 001 Tel: 033-2431639 Fax: 033-2204508
5.	M/s. Netpro Renewable Energy (I) Ltd. 139/B, 10 th Main Rajamahat Vilas Extension Bangalore - 560 080
6.	M/s. Electrotech E-61, Industrial Phase- VIII S.A.S. Nagar, Mohali Chandigarh
7.	M/s. Aruna Electrical Works (P) Ltd. Kongampattu, Ramakkam Post Villupuram Dt. Pin: 605 105
8.	M/s. Synergy Renewable Energy (P) Ltd. 35, Rowland Road Kolkata -700 020 Tel Fax: 033-24745146/ 248136

9.	M/s. Cether Vessels (P) Ltd. 4, Dindigul Road Tiruchirapalli - 620 001
10.	Prima Cogen Sytems Pvt. Ltd. P-214 C.I.T. Road Kolkata -700 010 Telefax: 033- 24071196
11.	M/s. Pondy Technologies Ltd. 03D/1, Block F, New Alipore Kolkata - 700 053
12.	Manufacturer of Small Capacity Steam Turbine for off grid Power Generation: M/s. Turbo Tech Precision Engineering Pvt. Ltd. Survey No. 8/2, Honnasandrda Village Kasba Hubli Nela mangala Taluk Bangalore Rural Disrict
13.	Small Boiler Manufacturer: M/s. Thermax Ltd. Azimganj House, 5 th Floor 7, Camac Street Kolkata – 700 016 Ph: 033-22826711/12/13 Fax: 033-22826796

III. Indicative List of Consultants for Biomass Power Generation through Combustion route:

Sl. No.	Name & Address
1.	Dimension Engineering Consultants (P) Ltd. 40/91, C.R. Park New Delhi – 110 019
2.	School of Energy Studies Jadavpur University Kolkata -700 032
3.	Pranam Consultants Pvt. Ltd. E-9/1, Salunke Vihar Kondhwa Pune - 411 048
4.	M.C. Jain & Associates 224, Zonal Market, Sector – D Bhilai - 490 006
5.	M/s. Synergy Renewable Energy (P) Ltd. 35, Rowland Road Kolkata- 700 020 Telefax : 033-24745146/2481362
6.	M/s. AKB Power Consultants Pvt. Ltd. BE-190, Sector-I Salt Lake Kolkata - 700 064 Telefax: 033 2321 0539

7.	M/s. M.N. Dastur & Company (P) Ltd. Engineering Centre 480, Anna Salai, Nandanam Chennai - 600 035
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B. WIND ENERGY

I. Indicative list of Wind Power Consultants:

Sl. No.	Name & Address
1.	M/s. Centre for Wind Energy Technology R-8, North Main Road Anna Nagar, West Extension Chennai - 600 101
2.	M/s. Consolidated Energy Consultants (P) Ltd. 27, M.P. Nagar, Zone-II Bhopal-1 Madhya Pradesh
3.	M/s. Auroville Energy Product Auroshilpam Auroville - 605 101 Email: aep@auroville.org.in
4.	M/s. Bharat Heavy Electricals Ltd. Electronic Division Bangalore -560 026 Tel: 080-2699 8308/09, 267 5643

II. Manufacturers of Wind Electric Generators/Wind Turbine Equipment

Sl. No.	Name & Address
1.	M/s. Bharat Heavy Electricals Ltd. Boiler Auxiliaries Plant Indira Gandhi Industrial Complex Ranipet - 632 406
2.	M/s. Elecon Engineering Company Ltd. Post Box No: 6 Anand Sojitra Road Vallabh Vidyanagar Gujarat - 388 120
3.	M/s. Enercon (India) Ltd Kolsite House Plot No.31, Shah Industrial Estate Veer Desai Road Andheri (West) Mumbai- 400 053

4.	M/s. GE Wind Energy India GE Power Controls India Pvt. Ltd 3 rd Floor, A-1, Golden Enclave Corporate Towers Airport Road Bangalore - 560 017
5.	M/s. NEG Micon (India) Pvt. Ltd. 298, Old Mahabalipuram Road Sholinganalur Chennai - 600 119
6.	M/s. NEP India Limited 36, Wallajah Road Chennai - 600 002
7.	M/s. Pioneer Asia Wind Turbines (A division of Pioneer Asia Industries Pvt. Ltd) 16-SP, Developed Plot Industrial Estate, Guindy Chennai – 600 032
8.	M/s. Suzlon Energy Ltd. 5 th Floor, Godrej Millennium 9, Koregaon Park Road Pune - 411 001
9.	M/s. Vestas RRB India No.17, Vembuliamman Koil Street K.K. Nagar (West) Chennai -600 078

D. CONSULANTS FOR FORMULATION OF CDM PROPOSALS:

Sl. No.	Name & Address
1.	ERNST & YOUNG Pvt. Ltd. 22, Camac Street Block – C, 3 rd Floor Kolkata -700 016 Tel: 033-22811224
2.	Price Water House Coopers, Plot No.Y-14, Block EP Sector –V, Salt Lake Electronic Complex, Kolkata - 700 091 Tel: 033-2357-3384 Fax: 033-23573394
3.	Quantum Solutions 46A, Satish Mukhejee Road Kolkata - 700 026 Tel: 033-24667794/24654799
4.	Mitsui & Co. India Pvt. Ltd. Metro Towers, 5 th Floor 1, Ho chi Minh Sarani Kolkata - 700 071

5.	Eco Securities Group Pvt. Ltd. 76, Nariman Bhavan Nariman Point Mumbai - 400 021
6.	Verve Consulting Private Limited 4387/484-A, Tankapani Road Bhubaneswar – 751018

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TUESDAY, MARCH 25, 2008

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WEST BENGAL ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

No.39/WBERC

Dated 25.03.2008

In exercise of the powers conferred by sub-section (1) and clause (zp) of sub-section (2) of section 181 read with clause (e) of sub-section (1) of section 86 of the Electricity Act, 2003 (36 of 2003) and all powers enabling it on that behalf and in supersession of notification No.28/WBERC dated 4th May, 2006 published in the Kolkata Gazette, Extraordinary on 4th May, 2006, the West Bengal Electricity Regulatory Commission hereby makes the following regulations:-

1.0 Short title, extent and commencement.

- i) These regulations may be called the West Bengal Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy) Regulations, 2008.
- ii) They extend to the whole of the West Bengal.
- iii) They shall come into force on the date of their publication in the Official Gazette.

2.0 Definitions

2.1 In these regulations, unless the context otherwise requires,—

- (a) 'ABT' means Availability Based Tariff as defined in the Tariff Regulations;
- (b) The 'Act' means the Electricity Act, 2003;
- (c) 'ALDC' means Area Load Despatch Centre as defined in the State Grid Code;
- (d) 'Bio-gas plant' means a power plant generating electricity through anaerobic digestion of wet biomass into fuel;
- (e) 'Commission' means the West Bengal Electricity Regulatory Commission;
- (f) 'DPL' means the Durgapur Projects Limited;
- (g) 'DVC' means the Damodar Valley Corporation established by the Damodar Valley Corporations Act, 1948;
- (h) 'KV' means Kilo Volt;
- (i) 'KVARh' means reactive energy in Kilo Volt Ampere hour;

- (j) 'kWh' means active energy in kilo Watt hour;
- (k) 'Licensee' means a person who has been granted a licence under section 14 of the Act for distribution of electricity and includes a deemed licensee for supply of electricity under first and fourth provisos to section 14 of the Act;
- (l) 'MNRE' means Ministry of New and Renewable Energy of the Government of India;
- (m) 'MOU' means the Memorandum of Understanding entered into between the seller / developer and the licensee;
- (n) 'MSW power plant' means the power plant that generates electricity by utilizing municipal solid waste as fuel for generation of electricity;
- (o) 'MW' means Mega Watt;
- (p) 'Nodal Agency' means SLDC or ALDC of respective licensees;
- (q) 'Open Access Regulations' means the regulations as defined in the Tariff Regulations;
- (r) 'PPA' means the Power Purchase Agreement between two agencies for purchase / sale of power;
- (s) 'Renewable source' means renewable electricity generating sources such as small / mini / micro hydel project up to 25 MW capacity, wind, solar, biomass based on 100% producer gas on combustion route, urban / municipal waste, industrial waste, geothermal, tidal, ocean thermal energy conversion (OTEC) or other such sources as approved by the MNRE;
- (t) 'SLDC' means the State Load Despatch Centre;
- (u) 'Solar PV power plant' means the Solar Photo Voltaic Power plant that uses sunlight for direct conversion into electricity through Photo Voltaic technology;
- (v) 'STU' means State Transmission Utility;
- (w) 'State' means the State of West Bengal;
- (x) 'Tariff Regulations' means the regulations made by the Commission under section 61 of the Act;
- (y) 'TOD' means the Time-of-the-Day;
- (z) 'Transmission licensee' means a person who has been granted a licence under section 14 of the Act for transmission of electricity and includes a deemed licensee for transmission of electricity under first proviso to section 14 of the Act;
- (za) 'UI' means Un-scheduled Interchange;
- (zb) 'WBERC' means the West Bengal Electricity Regulatory Commission;
- (zc) 'WBREDA' means the West Bengal Renewable Energy Development Agency;
- (zd) 'WBSUEDCL' means the West Bengal State Electricity Distribution Company Ltd.

2.2 Words and expressions used and not defined in these regulations but defined in the Act shall have the meanings respectively assigned to them in the Act.

3.0 Quantum of Purchase of Electricity from Cogeneration and Renewable Sources of Energy.

3.1 Minimum quantum of electricity to be purchased by the licensees from cogeneration and renewable sources expressed as percentage of their total consumption of electricity in a year in the respective area of supply of the licensees during the years 2008-09 to 2011-12 shall be such as shown in the table below.

Year	Licensees				
	WBSUEDCL	CESC Ltd.	DPL	DPSC Ltd.	DVC
2008-09	4.8	4.0	2.5	2.0	2.0
2009-10	6.8	6.0	4.0	4.0	4.0
2010-11	8.3	8.0	7.0	7.0	7.0
2011-12	10.0	10.0	10.0	10.0	10.0

For subsequent years the Commission may separately specify the purchase obligations for the licensees as the Commission deems fit.

- 3.2 Purchase obligations for the licensees as specified above are mandatory minimum percentage of purchase to be maintained by the licensees. The licensees shall have the option to purchase higher percentage with the prior approval of the Commission.
- 3.3 The buyer licensee shall indicate the proposed quantum of purchase of energy from cogeneration and renewable sources for each ensuing year of the control period in the application for determination of tariff duly indicating the sources of purchase.
- 3.4 The buyer licensee shall source the proposed quantum of electricity from cogeneration and renewable sources within the State. The drawal point at which the licensee shall purchase energy from cogeneration and renewable energy sources shall be the point of measurement for computing fulfillment of purchase obligation.
- 3.5 For the purpose of counter checking and monitoring of the fulfillment of purchase obligation of each licensee, the energy from cogeneration and renewable sources, purchased by the licensee, shall be considered for the average of last financial year as submitted in the application for determination of tariff for the ensuing years of the control period concerned and assessed on pro rata basis from annual energy purchase obligation specified in these regulations.
- 3.6 Energy from cogeneration and renewable sources generated within the State and used for captive purposes within the State shall be taken into account for computing the fulfillment of purchase obligation of the licensee in whose licensed area such captive use of energy from cogeneration or renewable sources is made provided the licensee submits the necessary details of such use to the Commission each year. In case of captive use through open access, the quantum of energy wheeled through the system of any licensee(s) against such open access shall also be taken into account as the fulfillment of purchase obligation for that licensee(s).
- 3.7 While contracting power purchase from cogeneration or renewable sources, the priority for purchase shall be on the basis of the comparative price of energy from cogeneration and other renewable sources only after the minimum obligation for purchase of energy from cogeneration and renewable sources as specified in regulation 3.1 above is achieved for each year.

4.0 **Determination of Tariff of Electricity from Cogeneration and Renewable Source.**

- 4.1 Tariff for purchase of electricity from cogeneration and renewable sources shall be agreed mutually by the licensees and the suppliers at a level not above the price cap specified by the Commission in these regulations.
- 4.2 To facilitate examination of reasonableness of price at which a licensee shall procure energy from cogeneration and renewable sources, the prospective purchaser may require the seller to submit all cost data and financial charges to the purchaser. MOU / PPA as agreed between the seller and the purchaser shall be submitted to the Commission. The Commission at this stage does not debar a licensee from agreeing to a negotiated price within the capped price. However, competitive price within the capped level will be a preferred alternative. The Commission may accept the same for the present if the PPA is made as per these regulations. PPA, if any, entered into between the seller / developer and purchaser before the Act came into force, shall remain valid so far it is not inconsistent with the provisions of these regulations. However, the licensee shall not decline to purchase energy from such sources within the specified capped price until the minimum purchase obligation is achieved each year provided that connectivity and all other conditions are consistent with these regulations.

5.0 **Price Capping for Energy from Cogeneration and various Renewable Sources.**

5.1 **(i) Bio-mass –**

The price at which the renewable energy from biomass source can be sold to a licensee is capped at Rs.4.00 per kWh and shall remain fixed for three years from the date of coming into force of these regulations with escalation @ 2.5% each year from 2011-12 onwards. The Commission may re-fix the capped price and validity period along with the rate of escalation *suo moto* in consideration of information from market sources or on the basis of any petition filed in this regard. Fuel for power generation from bio-mass source shall be generally rice husk or bio-mass made available by additional energy plantation undertaken by the owner of bio-mass plant. A maximum fuel mix of 15% conventional fossil fuel shall be allowed on yearly basis.

(ii) Wind –

For wind energy, the price cap shall be at Rs.4.00 per kWh for five years from the date of coming into force of these regulations.

(iii) Small Hydro -

For energy from small hydel projects, the price cap is fixed at Rs.3.60 per kWh for five years from the date of commissioning.

(iv) Cogeneration -

For energy from cogeneration, the price cap shall be Rs.2.55 per kWh and the same shall remain in force for five years from the date of coming into force of these regulations.

5.2 Solar PV –

(a) Eligible grid connected Solar PV power plant of capacity ranging from 1.0 MW (peak) to 5.0 MW (peak), if set up in the licensed area of supply of a licensee, shall avail the generation based incentive sanctioned under letter No. 32/61/2007-08/PVSE dated 24.1.2008 of the Ministry of New and Renewable Energy, Govt. of India, and the solar energy generated by such grid connected solar PV projects shall be sold to the connected licensees at a tariff not exceeding the highest capped price allowed by the Commission for that year for the purchase of energy by a licensee from among the various categories of renewable sources (other than any solar PV source) as specified in these regulations subject to other terms and conditions contained in the guidelines for generation based incentive of MNRE mentioned above till such date the aforesaid incentive of MNRE continues. On withdrawal of the aforesaid incentive by MNRE for reasons not attributable to the grid connected Solar PV plant authorities, the capped price for sale of such energy to the licensee shall be reviewed by the Commission on application to the Commission for such solar PV projects only which are commissioned upto 2011-12. The capped price of energy for grid connected solar PV plants (including those plants which are availing accelerated depreciation benefit under section 32 of the Income-tax Act, 1961) which are not eligible for aforesaid incentive declared by MNRE, shall be Rs.11.00 / kWh for sale to the distribution licensees and such tariff will be applicable for the grid connected solar PV projects commissioned upto 2009-10 and shall remain valid for ten years from the date of coming into force of these regulations. The capped price of energy for grid connected solar PV plants (including those plants which are availing accelerated depreciation benefit under section 32 of Income-tax Act, 1961) which are not eligible for aforesaid incentive declared by MNRE and commissioned after 2009-10 but on or before 31st March, 2012 shall be Rs.10/ kWh which shall remain valid for ten years from the date of coming into force of these regulations. If at any stage in future such a Solar PV Plant which was ineligible to avail the aforesaid generation based incentive becomes eligible for incentive declared by MNRE or by State or Central Government, the Commission may review the rate of Rs.11.00/ Kwh or Rs.10.00/ kWh, as the case may be, for sale to the licensees and fix a new rate duly taking into consideration the allowable incentive to such Solar PV plants. Any incentive received by the licensee from MNRE on this account shall be passed on to their purchasers of electricity. The Commission will take a fresh view on the price cap for grid connected Solar PV projects commissioned from 2012-13 onwards. The total purchase of energy of a licensee from grid connected Solar PV source in a financial year shall be limited in such a manner that the impact of purchase of such energy on the average cost of supply of the licensee as determined by the Commission in the respective tariff order of the year is less than 1 Paise / kWh in a year. Each proposal for addition of grid connected Solar PV power plant to the licensee's system will be examined and monitored by the licensee itself and the Commission is to be informed by the licensee about the aforesaid impact of cumulative capacity of solar PV projects in its licensed area on the average cost of supply of the licensee on the basis of actual data of a full financial year before finalizing any PPA or MOU with the developer of such solar PV power plant in the aforesaid area of supply of the licensee.

(b) Roof-top Solar PV sources of capacity ranging from 2 KW (peak) to 100 KW (peak) if installed for injecting into the distribution system of a licensee only by such institutional consumer(s) like Government hospitals and health centres, Government and Government aided schools and academic institutions, Government offices and organizations, any housing complex already promoted for this purpose by Government or any Government agency for the development of renewable sources, local bodies like municipalities, panchayats and cooperative societies of consumers located in the same premises, such injection from roof-top solar PV sources of the above mentioned consumer(s) shall not be more than 90% of the consumption from the licensee's supply by the above mentioned consumer(s) in a financial year. Such injection from roof-top solar PV sources of the above mentioned consumer(s) shall be settled on net energy basis at the end of each financial year. Any excess energy injected by the above mentioned consumer(s) from the roof-top solar PV sources being more than the 90% of the consumption of energy by that consumer(s) from the licensee's supply in each billing period shall be carried over to the next billing period within that financial year. Slab tariff, as per tariff order, shall be applicable for the net energy supplied by the licensee in a billing period if the supplied energy by the licensee is more than the injected energy by the roof-top solar PV sources of the consumer(s) after taking into account the quantum of energy, if any, carried forward from earlier billing period(s) of that financial year. If in a billing period the supplied energy by the licensee is less than or equal to energy injected by the roof-top solar PV sources of the consumer(s) after adding the cumulative carried

over injected energy from previous billing period(s) of that financial year the billed amount for energy will be nil for that billing period(s). At the end of the financial year, if the total energy supplied by the licensee to the consumer(s) for that financial year is found to be less than the energy injected by the roof-top solar PV sources of that consumer(s) for that financial year, the licensee shall not pay any charge to the consumer(s) for that net energy, injected by the consumer(s), in excess of 90% of consumption of that consumer(s) from the licensee's supply in that financial year and the same shall be treated as unwanted/inadvertant injunction. At the beginning of each financial year, cumulative carried over injected energy will be reset to zero. Payment in a billing period by the consumer(s) (owning roof-top solar PV sources) to the licensee shall be guided by the provisions of the regulations made by the Commission under section 50 of the Act. For each billing period in a financial year the licensee shall show the quantum of injected energy from roof-top Solar PV sources in the billing period, supplied energy from it source in the billing period, net billed energy for payment by the consumer(s) for that billing period and net carried over energy to the next billing period separately. Any delay in payment shall attract surcharge at the agreed rate. The MOU/PPA to be signed between the licensee and developer of roof-top Solar PV sources shall include necessary terms & conditions of meter reading, billing, payment, payment of security arrangements, rate of delayed payment surcharge etc.

5.3 MSW & Bio-gas Plants

(i) MSW

The price at which the renewable energy from Municipal Solid Waste can be sold to a licensee is capped at Rs.4.50/kWh and shall remain fixed for a period of five years from the date of coming into force of these regulations. Fuel for power generation from Municipal Solid Waste shall be generally from the garbage supplied by a municipality free of cost. A maximum fuel mix of 15% conventional fossil fuel shall be allowed on yearly basis.

(ii) Bio-gas

Electricity generated from Bio-gas Plant can be sold to the licensee at a capped price of Rs. 5 / kWh and shall remain fixed for a period of five years from the date of coming into force of these regulations.

5.4 All price caps as specified in these regulations shall include all applicable taxes and cost of connectivity through suitably connected line upto the nearest grid point.

5.5 The Commission may, at any time, review the period of capped price, mentioned in these regulations, if necessary.

6.0 Connectivity:

6.1 The cogeneration and renewable energy sources excepting roof-top Solar PV and bio-gas sources shall be connected to the State Grid at a voltage level of 33 KV or 11 KV / 6 KV subject to technical suitability determined by the licensee. If any dispute arises about the technical suitability of connection of such sources with the grid, the matter shall be referred to the Commission whose decision in this regard shall be treated as final. The delivery point shall be the nearest grid sub-station having 33 KV / 11 KV / 6 KV voltage level. Synchronization point shall, however, remain at the power station end with all protection and inter-lock as agreed between the licensees, STU and developers. Such connectivity shall also be provided for use of licensee's system under Open Access. More than one such projects located near each other are to be clustered together as far as possible in order to avail connectivity with the grid sub-station.

6.2 Roof-top Solar PV sources of capacity as mentioned in regulation 5.2 (b) shall be allowed connectivity at LV or MV or 6 KV or 11 KV of the distribution system of the licensee as considered technically suitable by the licensee. Supply of electricity to the consumer(s) from the licensee's sources and that to the licensee's distribution system from the roof-top Solar PV sources shall be measured either by two separate meters, the readings of which shall be used in each billing period for settlement on net basis as specified in regulation 5.2(b) or alternatively by an export-import type meter suitable for directly measuring the net exchange. The meter for measuring the energy injected from Solar PV sources shall be provided by the licensee against applicable meter rent along with the connection of the meter upto the nearest technically suitable point in the distribution system of the licensee. The connectivity from the roof-top Solar PV sources upto the meter shall be at the cost and responsibility of the consumer(s) and shall be in accordance with the guidance of the licensee so that the licensee's distribution system is not affected by any fault in the system owned by the consumer(s).

6.3 Bio-gas Plants, if connected to the distribution system, shall be connected at 415 V, 3 phase or at 6 KV or 11 KV level of the licensee according to the technical suitability examined by the licensee.

6.4 Communication system between grid sub-station and generating station shall be developed by the developer/ developers at its / their cost. Protection schemes shall be examined by the licensee to suit the requirements. Developers of cogeneration and renewable energy sources shall abide by all applicable codes, rules, regulations *etc.* in regard to operational and commercial practices.

- 6.5 Wherever cogeneration and renewable energy sources have already been connected to the State Grid at a voltage level lower than the level specified and wherever such State Grid connection causes any bottleneck in capacity addition or causes avoidable discontinuance of generation or low voltage during peak hours or frequent outage of line or insufficient redundancy, such grid connection shall be converted to suitable voltage level preferably with double circuit line and cost for such conversion shall be borne by the developer.
- 7.0 Open Access for Cogeneration and Renewable Sources of Energy.**
- 7.1 Any person generating electricity from cogeneration or renewable sources shall have open access, subject to availability of adequate transmission facility to any transmission licensee's system within the State on payment of various charges as specified.
- 8.0 Charges for Open Access.**
- 8.1.1 All open access charges shall be payable as per Open Access Regulations and Tariff Regulations except meter rent, meter reading and other related charges.
- 8.1.2 Meter rent and meter reading and other related charges shall be paid by the open access customer at the rate of 0.75 paise / unit of monthly energy reading per month subject to a minimum of Rs. 500/- and maximum of Rs. 2,000/- per month and shall be paid to the licensee who is rendering such service.
- 8.2 Transmission Charges:**
- 8.2.1 Transmission charges payable for open access availed by cogeneration and renewable energy sources shall be two-third of the rate of such charges applicable for open access customers for long term and short term open access as determined in relevant tariff order.
- 8.3 Wheeling Charges:**
- 8.3.1 Wheeling charges applicable for use of distribution system or associated facilities of a licensee by open access customers for conveyance of electricity from cogeneration and renewable energy sources shall be either one-third of the wheeling charges calculated as per tariff order under Tariff Regulations or 7.5% of the energy fed to the grid irrespective of the distance of wheeling, whichever is higher.
- 8.4 Reactive Energy Charges:**
- 8.4.1 Reactive energy charges will be payable as per Open Access Regulations for all co-generation and renewable sources of power generation except for wind power generation. For wind power the rate will be 20 Paise / KVARh in place of the specified charges for reactive energy in Open Access Regulations.
- 8.5 Other charges for Open Access:**
- 8.5.1 All other charges for open access shall be in terms of Open Access Regulations.
- 8.6 Un-scheduled / Mismatch Charges in Drawal / Injecting:**
- 8.6.1 Un-scheduled/mismatch charges in drawal/injecting energy shall be mutually decided and agreed either on ABT basis or on TOD basis. A 24 hour day ahead schedule shall be submitted by the open access customer/generator to the Nodal Agency on mutually agreed time block. Un-scheduled/mismatch charges for deviation from the schedule shall be paid weekly as per rate as specified in the Tariff Regulations. The modalities regarding billing and payment mechanism shall be in accordance with the Tariff Regulations. Wind power generation, grid connected solar PV sources and roof-top solar PV sources shall be excluded for unscheduled interchange payment.
- 9.0 Procedure to be followed for Cogeneration and Renewable Energy Sources:**
- 9.1 After preliminary discussions with the buyer licensee, the developer shall submit full details of the projects along with cost data and financial charges and tariff for direct sale to the licensee.
- 9.2 The buyer licensee shall examine the tariff proposal in the light of price reasonableness, impact on consumer tariff and the price cap specified in these regulations.
- 9.3 MOU / PPA shall be signed between developer and purchaser. In case of open access, the transmission and/or wheeling agency shall also be a party to the MOU / PPA. In the MOU / PPA with details of connectivity, completion of project and commencement of supply, periods of supply (month wise), time of supply (peak / off peak), technical & commercial obligation, security and modes of payment of each party, etc. in line with these regulations shall be suitably incorporated. The MOU / PPA, as agreed and signed, shall be submitted to the Commission.

10.0 Power to Amend:

The Commission may from time to time add, vary, alter, modify or amend any provisions of these regulations.

11.0 Power to Remove Difficulties:

The Commission may *suo moto* or on an application from any person generating electricity from cogeneration and renewable sources or a buyer licensee, review these regulations and pass appropriate orders to remove any difficulty in implementing the provisions of these regulations.

12.0 Repeal:

12.1 The West Bengal Electricity Regulatory Commission (Cogeneration & generation of electricity from Renewable Sources of energy) Regulations, 2006 issued under Notification No.28/WBERC dated 4.5.2006 and published in the Kolkata Gazette Extraordinary Part I dated 4.5.2006 are hereby repealed.

12.2 Notwithstanding such repeal, anything done or any action already taken under the repealed regulations, shall in so far as it is not inconsistent with the West Bengal Electricity Regulatory Commission (Cogeneration & Generation of Electricity from Renewable Sources of Energy) Regulations, 2008, be deemed to have been done or taken under the corresponding provisions of the West Bengal Electricity Regulatory Commission (Cogeneration & Generation of Electricity from Renewable Sources of Energy) Regulations, 2008.

Place: Kolkata
Date: 25.03.2008

By order of the Commission,

C. R. BHAUMIK,
Secretary of the Commission.

EXPRESSION OF INTEREST

APPLICATION FORM


(Allotment will be given to only the Principle Applicant)

Number : **1108 /**

1. Name of the promoter/Investor/Developer :

2. Registered Office Address :

- Telephone No. :
- Fax No. :
- E-Mail :
- Postal Address :

3. Area of Interest (Put  wherever applicable) : Solar Photovoltaic
(If interested in more than one indicate Power/Biomass project
clearly) based, (Grid Connected/Off
Grid type) Project/Biogas
Project/Wind Farm
Based Power Project/other
(specify)

4. Name of the specific project(s) to be undertaken :
along with location of the proposed project(s)
(Joint site visit is a must before showing interest
for any project)

5. Whether a new Company shall be promoted : Yes/No
to develop the power project. If yes, name
of the New Company and its status

6. Name of the Financial Institutions likely to fund the project(s). (In principle approval letter to be enclosed) :
7. Means of Financing (Project-wise)
- a) Promoter/Investor/Developer direct equity
 - b) Loan details from Financial Institution(s)
 - c) From other sources (specify)
8. Utilization Pattern of the Power to be generated (To be specified for each project)
- i) Captive : Yes/No
 - ii) Captive through wheeling : Yes/No
- If yes,
- a) Name of the owner of the Transmission Network through which wheeling will be done, is to be indicated :
 - b) Give full detail with name of place where power will be consumed :
 - iii) Any other mode like feed in to the grid :
9. Pre feasibility report of the project(s) proposed to be undertaken to be enclosed (Only concept note) :
10. Details of permanent manpower engaged in the organization:
- i) Degree holder Engineers :
 - ii) Diploma holder Engineers :
 - iii) Other technician (specify) :
 - iv) Management staff :

11. Whether project will be set up in own land : Yes / No
12. Proposed Project Completion period :
(To be indicated for each project separately)
13. Experience of the Company in implementation :
of Renewable Energy Project either as a
Developer or as a Consultant or as a Contractor
(Specific area wise to be enclosed)
14. Details of infrastructures available with the :
Company
15. Preference of the site(s) area(s) of the :
proposed project
16. Expected time required to start execution of :
physical project work from the date of
allotment of site(s)
17. Solvency certificate from Banker(s) to :
be enclosed
18. An undertaking duly signed is to be enclosed :
as per enclosed format in respect of
commencement of the project work
19. Following Documents to be enclosed with the
application form: -
- i) Registration Certificate :
 - ii) Latest Sales Tax Clearance Certificate :
 - iii) Latest Annual Report & Statement of Accounts :
 - iv) Permanent Account Number (PAN) :
 - v) Latest Income Tax Certificate :

- vi) Availability of Grid sub-station in nearby areas :
If yes details thereof
- vii) In case of Biomass Power Plant proof of :
Energy Plantation Land/Biomass Resource
Availability is to be furnished
- viii) Incase of Biogas Plant, proof of availability :
of cattle dung etc. is to be furnished
20. Type of Company. Partnership/Joint Venture/ :
Pvt. Ltd./Public Sector/Other (specify)
(Necessary documents to be enclosed)
*(No change in the name of the company will be
allowed subsequent to allotment of site)*

21. Types of activities so far undertaken by the :
Company indicating Annual turnover

Certified that the above information given by me on behalf of my organization is correct in all respects and no factual information has been suppressed.

(Signature of the Applicant)

With Seal

(Only authorized signatory should sign)

Submission of application does not mean that the applicant will get the allotment of site. WBGEDCL will allot the site only after careful consideration of the various information to be submitted by the developer. WBGEDCL reserve the right to make final allotment of site to the developer.

List of sites and power potential as indicated are indicative and based on information available with GEDCL. Survey and Investigation and resource assessment works for new sites are in progress, which will be notified at a later stage.
(Application form should be signed by the developer in all pages.)

UNDERTAKINGS

I on behalf of my organization (Name & Address)
.....
.....
.....
.....

..... do hereby assure that we will implement the Project(s) allocated to us by the concerned Authority within the time frame as indicated in the Application Form. Failing this assurance, we are liable to abide by the penalties to be imposed on us by the Authority as deemed fit.

(Signature with Seal)

(This undertaking shall however not be applicable in case of occurrence of any natural calamities at site or in case of occurrence of any unforeseen incidents, disturbances etc. at site. Under such circumstances the developer will submit necessary request letter well in advance to WGEDCL for extension of time.)