GUJARAT ELECTRICITY REGULATORY COMMISSION

1ST Floor, Neptune Tower, opp. Nehru Bridge, Ashram Road, Ahmedabad

May 7, 2006

PUBLIC NOTICE

Sub: Discussion Paper on Tariff for wind energy projects

In exercise of powers conferred under the Electricity Act, 2003, the Gujarat Electricity Regulatory Commission (the Commission) has prepared Discussion Paper on Tariff for wind energy projects. The Discussion Paper is annexed to this notice and can also be downloaded from the Commission's website www.gercin.org.

Comments of the stakeholders are invited on the above Discussion Paper latest by 31. 5. 2006.

The Commission would take a view and decide the tariff after considering the suggestions of the stakeholders.

(P.S.Shah)
SECRETARY

Discussion Paper

Tariff for wind energy projects

1. Introduction:

In exercise of the powers conferred under section 86 (1)(e) of the Electricity Act 2003, Gujarat Electricity Regulatory Commission has come out with Regulations on "Power procurement from renewable sources". The basic objective is to promote the use of renewable sources of power.

According to the annual report of the MNES for the FY 2004-05 estimated gross wind power potential of the Gujarat State is 9675MW. The wind power being one of the major sources for grid connected non conventional power generation in our State this paper highlights the proposed tariff rates for procurement of power from wind energy generators by Distribution licensee. In respect of other, the Commission will propose rate in due course.

2. Legal background:

2.1 Section 86(1) of the Electricity Act, 2003 inter alia regarding functions of the State Commission mandates as follows:

> ***"****86(1)(e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licence;"*

The National Electricity Policy notified by Ministry of Power, Government of India, has also addressed the issues of untapped potential of energy from non-conventional and renewable energy sources. The relevant section (5.12) of the policy is:

> *"5.12.1 Non-conventional sources of energy being the most environment friendly there is an urgent need to promote generation of electricity based on such sources of energy. For this purpose, efforts need to be made to reduce the capital cost of projects based on non-conventional and renewable sources of energy. Cost of energy can also be reduced by promoting competition within such projects. At the same time, adequate promotional measures would also have to be taken for*

development of technologies and a sustained growth of these sources.

5.12.2 The Electricity Act 2003 provides that co-generation and generation of electricity from non-conventional sources would be promoted by the SERCs by providing suitable measures for connectivity with grid and sale of electricity to any person and also by specifying, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee. Such percentage for purchase of power from non-conventional sources should be made applicable for the tariffs to be determined by the SERCs at the earliest. Progressively the share of electricity from non-conventional sources would need to be increased as prescribed by State Electricity Regulatory Commissions. Such purchase by distribution companies shall be through competitive bidding process. Considering the fact that it will take some time before non-conventional technologies compete, in terms of cost, with conventional sources, the Commission may determine an appropriate differential in prices to promote these technologies.

5.12.3 Industries in which both process heat and electricity are needed are well suited for cogeneration of electricity. A significant potential for cogeneration exists in the country, particularly in the sugar industry. SERCs may promote arrangements between the co-generator and the concerned distribution licensee for purchase of surplus power from such plants. Cogeneration system also needs to be encouraged in the overall interest of energy efficiency and also grid stability."

The Tariff Policy issued by Ministry of Power, Government of India, has also dealt with this matter and the same. The relevant portion is reproduced as below:

"6.4 Non-conventional sources of energy generation including Co-generation:

(1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage for purchase of energy from such sources taking into account availability of such resources in the region and its impact on retail tariffs. Such percentage for purchase of energy should be made applicable for the tariffs to be determined by the SERCs latest by April 1, 2006.

It will take some time before non-conventional technologies can compete with conventional sources in terms of cost of electricity. Therefore, procurement by distribution companies shall be done at preferential tariffs determined by the Appropriate Commission.

(2) Such procurement by Distribution Licensees for future requirements shall be done, as far as possible, through competitive bidding process under Section 63 of the Act within suppliers offering energy from same type of non-conventional sources. In the long-term, these technologies would need to compete with other sources in terms of full costs.

(3) The Central Commission should lay down guidelines within three months for pricing non-firm power, especially from non–conventional sources, to be followed in cases where such procurement is not through competitive bidding."

2.2 It appears from the above provisions that the function of the State Commission is to promote cogeneration and generation of electricity from renewable sources of energy. As provided under the above mentioned sections, the Commission has to fix the quantum of purchase of energy from renewable sources. Therefore, Commission has framed the Gujarat Electricity Regulatory Commission (power procurement from renewable sources regulations) Regulations, 2005. The commission is of the view that this must be coupled with suitable equitable tariff.

3. Tariff for wind energy projects:

According to the State Government Wind Power Policy: 2002, the tariff for wind energy projects is Rs. 2.70 per kWh in the base year with 5 paisa escalation every year for 10 years. The tariffs applicable to new wind energy projects in the other States are as below:

Table: 1Tariff for wind energy in different States

Sr. No.	States	Tariff Rate In Paise / kWh	Escalation Period
1	Tamil Nadu	270	No Escalation
2	Andhra Pradesh	337	No Escalation
3	Karnataka	310	2 % on base rate
4	Rajasthan	325	Rs. 3.25 for 1st year of operation, with an escalation of 2% every year up to the 10th year and keeping the Tariff constant at Rs. 3.79 from 11th to 20th year;
5	Madhya Pradesh	397	397 in 1st year, 3.80 in 2nd year, 3.63 in 3rd year, 3.46 in 4th year and 3.30 for 5th to 20th year
6	Maharashtra	350	Rs 3.50 in 2003-04 and increase at the rate of 15 paise per year for 13 years.

The difference can be clearly observed for the present tariff rates in Gujarat State which are low compared to other states except Tamilnadu. However, the Tamilnadu State is having two monsoons (wind) season. The average Capacity Utilization Factor in a season generally comes in the range of about 30-40 % as against 10-20% in non seasonal period.

4. Determination of Tariff:

In Regulations notified by the Commission (para 2.1 above) it is specified that the Commission shall determine the tariff for the purchase of electricity from renewable sources by a distribution licensee, provided that, the PPAs entered in to by GEB, prior to the notification of these regulations shall continue to apply for such period as mentioned in those PPAs, and thereafter provisions of these regulations shall apply. It also states that while determining the tariff, the Commission shall adopt best practice normative parameters for financing cost, O&M and other expenses.

Taking these into consideration the various norms are proposed as follows:

4.1 Single Part vs. Two Part Tariff:

Two part tariff is applied in order to recover fixed and variable costs through the fixed and variable components of tariff. This is specifically useful in a scenario of merit order dispatch. Since wind power is not amenable to merit order dispatch principles because of infirm nature and almost all the costs of wind energy generators are fixed in nature hence the Commission proposes to have a Single Part tariff for wind energy generators.

4.2 Capital cost of project:

Wind energy projects are located in sites identified with ideal wind density and speed. Such sites are located at places where the basic infrastructures like motorable roads are required to be developed by the developers. Apart from the cost of plant and machinery, the Developers are also required to construct substations at their cost for pooling of power from all the wind energy converters situated in the area. Moreover, the Developers are also required to construct transmission lines from the project site upto the nearest sub-station of the utility at their cost. In case of GEDA sub-station developer to pay Rs. 30 lacs per MW as charges apart from processing fees. So, the project cost includes the cost of tower, generator, necessary controllers, power and control cabinets, DP structure, transformer and other associated equipments, foundation and erection cost, transmission lines and sub-stations, Land, land development, roads including processing fee to GEDA and supervision charges to GETCO.

The project cost is also linked with machine efficiency defined by the Capacity Utilization Factor (CUF). The project cost may correspondingly increase with the machines of higher efficiency. Further the CUF widely varies from site to site depending on the wind source. It also varies on year to year basis due to yearly variation in wind speed.

4.2.1 The C-WET has conducted Micro Survey in Gujarat State at various stations wherein the monitored wind data at a location in the case of homogeneous terrain can be extended to a certain distance. The data of 20 such stations in Gujarat State are reproduces as under:

Table: 2 Micro survey of wind potential –Report of C-WET

SI. No.	Station	District	WPD at 50 m at mast Location W/m²	Estimated potential (MW)
1	Amrapur	Junagadh	241	-
2	Bamnabore-II	Rajkot	243	688.9
3	Bhandaria	Bhavanagar	208	226.9
4	Dank	Rajkot	414	493.2
5	Gala	Jamnagar	254	60.0
6	Godladhar	Rajkot	345	518.3
7	Haripur	Jamnagar	210	7.5
8	Jafrabad	Amreli	242	68.9
9	Jamanvada	Kachchh	299	1100.2
10	Kalyanpur	Jamnagar	327	418.5
11	Kukma	Kachchh	239	358.5
12	Mahidar	Surendranagar	231	42.8
13	Motisindholi	Kachchh	311	718.3
14	Mundra	Kachchh	303	63.7
15	Navibandar	Junagadh	213	-
16	Okha	Jamnagar	260	156.6
17	Polidya	Kachchh	278	131.1
18	Sanodar	Bhavanagar	373	111.8
19	Sinai	Kachchh	244	159.6
20	Surajbani	Kachchh	444	545.2
			Total	5870.0

Source: Directory Indian Wind Power-2005

It can be observed from the above table that eleven (11) identified stations having Wind Power Density (WPD) (at 50 m mast Location) falls in the range of 200 to 300 W/m^2 . Its average WPD works out to 263 W/m^2 with total estimated potential of about 3000 MW. Seven (7) identified stations having WPD falls in the range of above 300 W/m^2 . Its average WPD comes to 365 W/m^2 with total estimated potential of about 2870 MW.

4.2.2 Moreover, the Cost-CUF relationship data given in the Directory Indian Wind Power-2005 keeping in the view of wind resource scenario of the country are reproduced as under:

Table: 3 Cost-CUF relationship data

Technology	Capital Cost per MW	Capacity Utilization Factor (CUF)			
		Wind Resource	Low	Medium	High
		Wind power Density (WPD) at 50 mtr.	200 to 300 W/m^2	300 to 400 W/m^2	400 W/m^2 & above
		Number of Stations identified	132	45	31
Orthodox	Rs.400 lakh		18%	20%	22%
Modified	Rs.450 lakh		20%	22%	24%
Improved	Rs.500 lakh		22%	24%	26%
Capital Cost/kWh			Rs. 25.00	Rs. 22.50	Rs. 20.50

Source: Directory Indian Wind Power-2005

It may be seen from the above table:3 that with improved technology machines (having approximate Capital cost of Rs. 500 lakh per MW, the CUF achieved in the range of 22% to 26% depending upon the WPD of the location. The capital cost per MW for such improved technology machines comes in the range of Rs. 20.5 to 25 per kWh.

From the table:2 and table:3 above , it can be conclude that with the wind resource scenario of the State, CUF could be at 22% and 24% for the average WPD of 263 and 365 W/m^2 respectively. The average value of CUF with improved technology machines in the State comes to 23 %.

4.2.3 The Commission has also obtained the techno-commercial data of improved technology machines for the State of Gujarat from the various Wind Electric Generator (WEG) manufacturers/developers and wind power producers associations.

Table: 4 Techno-commercial data of improved technology machines for the State of Gujarat

Unit size kW	Approx Capital Cost/ unit in Gujarat Rs. Lacs	Capacity Utilization Factor	Generation in KWh Units in lacs	Cost per kWH generated Rs/kWh
750	351	21%	14	25
800	390	24%	17	23
1250	575	23%	25	23
1650	978	29%	42	23

It can be seen from the above table: 4 that CUF varies from the 21% to 29% and the capital cost per kWh generated varies from Rs. 23 to 25 per kWh. The commission has also considered the certificates, issued by the GEDA, for share of electricity generated by wind farms at Shikarpur, Lamba, Navadara, Bogat and Bamnasa, it is found that the annual Capacity Utilization Factor (CUF) of improved technology machines having unit size 750 kW to 1650 kW, achieved in the range of 21% to 29%.

Conclusion

From the analysis of the tables 2,3 & 4 , the Commission proposes to consider the Capital cost per kWh generated of MW series machines at Rs. 23/kWh as a benchmark in order to promote the use of the improved technology machines with 23% CUF. The corresponding capital cost for 1 MW of WEG proposed to be considered of Rs. 465 lacs.

4.3 Evacuation Infrastructure

The Ministry of Non Conventional Energy Sources (MNES), Government of India in its annual report for the year 2004-05 has mentioned that the onshore wind power potential in the State of Gujarat has been assessed at 9675 MW assuming 1% of land availability for wind power generation in the potential areas. However, MNES report says, technical potential is limited to only 1780 MW assuming 20% grid penetrations, which will go up with the augmentation of grid capacity in potential states.

It is therefore desirable to extend the grid in the remote areas of the State to harness this source of power.

According to the provisions made in the Electricity Act, 2003 and the National Electricity Policy, generation of electricity from non-conventional sources would be promoted by the SERCs by providing suitable measures for connectivity with grid.

Therefore, in order to promote generation of electricity from non-conventional sources to sale the same to the distribution licensee

under their purchase obligation, the Commission hereby proposes that total evacuation infrastructure cost (i.e. cost of transmission lines and associated facilities beyond the point of energy metering at 66 kV or 11 kV according to capacity of wind farm for the evacuation of power up to the nearest GETCO/distributon licensee's sub-station) to be borne by the GETCO/distribution licensee and the same will be recovered through its ARR. However, the developer shall bear the cost of project switchyard and interconnection facilities at the project site up to the point of energy metering.

Project cost proposed under para 4.2.3 not only includes cost of the plant and machinery but also includes other costs such as cost of infrastructure development like access roads, cost of establishment and improvement in the EHV/HV system for power evacuation etc. For the tariff determination purpose, the Commission has considered Rs. 30 lacs per MW as evacuation infrastructure cost (presently being charged by GEDA). So the corresponding capital cost for 1 MW of WEG proposed to be considered of Rs. 435 lacs for the determination of tariff.

In addition the Commission also proposes a option to developer to setup the evacuation arrangements out of their own fund according to prevailing practice. The corresponding capital cost for 1 MW of WEG proposed to be considered of Rs. 465 lacs for the determination of tariff.

Gujarat Energy Development Agency (GEDA) as notified by the Government of Gujarat will continue to perform as nodal agency as and when any small wind energy generator come together than GEDA may develop the pooling substation and transmission line from the pooling substation to GETCO/Distribution licensee's substation / interconnection point in consultation with the GETCO/ Distribution Licensee.

4.4 Cost of operation and maintenance:

The cost of operation and maintenance includes the cost of manpower, consumables, spares, turbine and other electrical system maintenances, road maintenance. It also includes insurance and other statutory duties, working capital and its interest liability.

Experience shows that maintenance cost are generally very low while the turbines are brand new, but they increase somewhat as the turbine ages. The studies done on the 5000 Danish wind turbines installed in Denmark since 1975 show that newer generations of turbines have relatively lower repair and maintenance costs that the older generations. According to above study for newer machines the estimates range around 1.5 to 2 per cent per year of the original turbine investment.

Considering above, the Commission proposes to consider 1.5 per cent of the capital cost as O&M costs for the first year with escalation of 5% every year on previous year considering the present trend in the inflation rate.

4.5 Debt – equity norm:

Generally, the Debt equity mix is project specific and depends upon the cost of the project, its revenue stream, cost of fund, credit rating of borrower and Financial Institution. This may be 65:35, 70:30 or 75:25.

In this kind of project where return on equity is assured, increasing equity share shall attract increased tariff of wind power. The Commission has in its tariff regulations specified such norms for the conventional power projects is 70:30, therefore, the Commission proposes to consider the same to be applicable in wind power projects for calculation of the tariff for wind power.

4.6 Interest rate on debt:

The relevant portion of the IREDA's financing guidelines for setting up of wind farms on ownership /lease basis w.e.f 24.06.2005 is as under:

Table: 5 IREDA's financing guidelines

Financing Schemes	Interest Rate (%) p.a.	Maximum Repayment Period (years)	Minimum Promoters Contribution (%)	Term Loan from IREDA
setting up of wind farms on ownership /lease basis	9.0	10	30	Up to 70% of total Project Cost
	8.5	8	30	
	8.0	6	30	

Note:

(1) Maximum of 1 year grace period after commissioning of project will be applicable for commencement of principal repayment subject to commissioning of project within a period of maximum of 1 year from first disbursement.

(2) Rebate of 1.50 % will be given in the event of borrower furnishing security of bank guarantee from scheduled commercial bank or unconditional or irrevocable guarantee of all India public financial institutions/ banks with 'AAA' or equivalent rating or pledge of FDR issued by scheduled commercial bank.

It could be seen from the above that the interest rate is up to 7.5% being offered by the IREDA. However considering the IREDA's share which is less than 5% in financing of wind power projects and considering that other Financial Institutions they may not have similar financing guidelines, the Commission proposes to

consider cost of debt as 9% per annum for tariff determination purposes.

4.7 Loan repayment schedule:

Loan repayment schedule generally varies from Institution to Institution. For determination of tariff the Commission is of the view that shorter loan repayment period shall have effect of the front loading tariff. This may affect the financials of the licensee and burden him with high payment in the initial years. However, Commission proposes to consider loan repayment period as 10 years which includes 1 year moratorium in accordance with the IREDA's financing norms to wind power projects as sited in para 4.5 above.

4.8 Return on equity:

The Commission proposes to consider return on equity computed on the equity base considered in accordance with para 4.4 @ 14% per annum.

4.9 Agreement period:

It is observed that the normally the manufacturers in the Indian market, design wind turbine generators with 20 years life expectancy. Therefore, the Commission has considered the life of project to be 20 years.

4.10 Rate of depreciation:

The CERC Terms and Conditions of Tariff mentions that the rate of depreciation for different type of assets derived by dividing 90% of the value of the assets by its expected useful life. Accordingly, the Commission proposes to consider the rate of depreciation for the wind farm as 4.5% being 90 divided by 20 (expected life of the project).

4.11 Income Tax liability:

The Commission has considered the effect of tax holiday available for any ten consecutive assessment years out of 15 years beginning from the year in which the WEG project starts generation of power under Section 80-IA of the Income Tax Act 1961. The Income tax, Minimum Alternate Tax (MAT) and surcharge are statutory liabilities and are therefore considered for the tariff determination purpose. The Commission has also considered the Income Tax benefit through Accelerated depreciation for the tariff determination purpose.

4.12 Wheeling charges and charges for T&D losses:

In case of sale of power to Distribution Licensee, the energy injected by such WEG in the grid (at metering point of WEG) is proposed to be paid for by the Distribution Licensee at the rate as

may be determined by the Commission and the wheeling charges in kind as well as cash, as may be specified by the Commission.

5. Generation Cost

5.1 Considering evacuation infrastructure to be developed by the GETCO/ Distribution Licensee

Based on the above assumption and considering the capital cost of the project as Rs. 435 Crore per MW the calculation of the cost per unit for new projects comes as under:

Table: 6 Generation cost per unit

Year Ending	1	2	3	4	5	6	7
Cost per kWh.	3.57	3.45	3.33	3.21	3.10	2.98	2.86
Year Ending							
Cost per kWh.	2.75	2.64	2.52	2.48	2.51	2.54	2.57
Year Ending							
Cost per kWh.	2.60	3.38	3.40	3.42	3.45	3.47	

The levelised cost of the above works out to Rs. 3.06 per kWh with the rate for discounting at weighted average cost of capital i.e.10.5%.

5.2 Generation Cost considering evacuation infrastructure to be developed by the Developer

Based on the above assumption and considering the capital cost of the project as Rs. 465 Crore per MW as the evacuation infrastructure proposed to be to be developed by the Developer, the calculation of the cost per unit for new projects comes as under:

Table: 7 Generation cost per unit

Year Ending	1	2	3	4	5	6	7
Cost per kWh.	3.82	3.69	3.56	3.44	3.31	3.19	3.06
Year Ending							
Cost per kWh.	2.94	2.82	2.70	2.65	2.68	2.71	2.74
Year Ending							
Cost per							

kWh.	2.77	3.61	3.63	3.66	3.68	3.71	

The levelised cost of the above works out to Rs. 3.27 per kWh. with the same rate for discounting used above.

6. Power purchase tariff for wind energy:

The Commission is of the view that strictly cost plus approach would lead to a very high tariff in the initial years and result in extra burden on the consumer. Therefore, the Commission has considered levelised cost as tariff as compared to the actual costs as shown in the above table: 6 and 7 during the project life of 20 years. The higher return in the subsequent years would compensate the project developer/investor for lower initial return.

(a) Tariffs for new wind energy projects

New Wind Energy Projects are defined as those, which have the date of purchase and commissioning of new machines after the date on which the Commission's tariff order comes into effect.

The Commission proposes following two options to fix Tariff for new units to the Distribution Licensees:

Option 1

Rs.3.06 (constant) from 1st to 20th year if the evacuation infrastructure developed by the GETCO / Distribution Licensee

Option 2

Rs.3.27 (constant) from 1st to 20th year if the evacuation infrastructure developed by the Developer or through GEDA.

(b) Tariffs for existing wind energy projects

Existing projects are those, which have their date of commissioning before the date on which the Commission's tariff order comes into effect. The tariff for existing wind energy projects shall continue to be governed by the PPA entered in to by erstwhile GEB for such period as mentioned in the PPA.

7. Tariff Review Period / Control Period:

Considering the trend of capital cost per unit generated and cost of debt, the Commission proposes that the control period shall be of three years. The first control period will start from the date of finalization of this purchase rate.

At the end of the control period the tariff determination process may be reviewed. Tariff decided in a particular control period shall apply to all projects that shall come up within that control period. The tariff determined for a project shall remain in effect for the whole project life, which is assumed to be 20 years.

8. Power Purchase Agreement:

The Wind Energy Generator (WEG)/ distribution licensee/ other parties that are willing to supply/purchase wind power shall have to sign a Power Purchase Agreements (PPA), for a period of at least 20 years.

Prior to finalizing any PPA, they shall have to send a copy of the draft PPA to the Commission for vetting, along with the fees determined by the Commission from time to time. The Commission shall approve the terms and conditions of the agreement after due scrutiny.

The Commission also directs all distribution companies to frame and file a model PPA. This should include a clause for penalty in case the developer winds up its operation before the 20 year power purchase agreement period.

9. Sharing of Clean Development Mechanism (CDM) proceeds:

Wind energy generation project qualifies as Clean Development Mechanism (CDM) projects; the emissions reductions by any wind energy generation project would give additional revenue to such CDM qualified project by the way of trading of carbon credit. This revenue may not be uniform across all the projects, as CDM is a project-based activity, and the baseline and emission reductions vary from project to project. The Tariff Policy has also addressed the issues of benefits under CDM. The relevant portion of the policy is quoted as below:

> *"5.3 (i) Benefits under CDM*
>
> *Tariff fixation for all electricity projects (generation, transmission and distribution) that result in lower Green House Gas (GHG) emissions than the relevant base line should take into account the benefits obtained from the Clean Development Mechanism (CDM) into consideration, in a manner so as to provide adequate incentive to the project developers."*

Considering the above, the Commission proposes to factor this issue in the PPA that any kind of benefit from carbon credit should be shared up to 25% by the Developer for qualifying as CDM project, with the Distribution Licensee.

10. As specified in the Regulations on "Power procurement from renewable sources", each Distribution Licensee shall procure the proposed quantum of purchase from renewable sources for the ensuing year. This will be calculated after deducting quantity of

the RE being used for the captive and third party sale purposes from the total potential of such energy in the State.

i. The proposed quantum of purchase for the year shall be according to the percentage of the approved power purchase quantity for the previous year.
ii. Due to increased sale of power in the ensuing year from that of the previous year, there may be a shortfall of the targeted quantum from the quantum that would arise from the increased sale. This amount would need to be added to the targeted quantum for the next year. However credit for excess sale would not be provided in the ensuing year.
iii. While indicating the proposed quantum of purchase from renewable sources, the distribution Licensee shall indicate the sources from which it plans to purchase the specified quantum of purchase.
iv. The Distribution Licensee to the extent possible shall source the proposed quantum of electricity from renewable sources within his Area of supply.
v. In a situation where the Distribution Licensee is unable to purchase the required quantum within Area of supply due to shortage or non availability of such sources in any given year, to the extent of shortfall, the Distribution Licensee may purchase the quantum from renewable sources outside the Licensee's area of supply preferably within the State.
vi. The Commission may review the quantum of purchase from renewable sources by a distribution licensee once in every 3 years or at lesser intervals as may be necessary.

11. Competitive bidding:

The Electricity Act, 2003 provides specific reference to determine tariff based on the competitive bidding. Section 63 of the Electricity Act, 2003 provides that:

> *"Notwithstanding anything contained in section 62, the Appropriate Commission shall adopt the tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government."*

The relevant provision of the Tariff Policy is as under:

> *"(2) Such procurement by Distribution Licensees for future requirements shall be done, as far as possible, through competitive bidding process under Section 63 of the Act within suppliers offering energy from same type of non-conventional sources. In the long-term, these technologies would need to compete with other sources in terms of full costs."*

Therefore, the Commission, in future, proposes to adopt a tariff based on competitive bidding among the WEGs in accordance with Section 63 of the Electricity Act.

The bidding may be initiated by distribution licensees as and when there are sufficient number of WEGs so that the competition may lead to the buyer getting the best possible price. The bidding process will not affect the existing PPAs.

12. The stakeholders are requested to submit their suggestions/ objections on the methodology followed in determination of wind power tariff rate to be payable by the Distribution Licensees, before 31st May, 2006. The Commission will examine the suggestions/objections and finalize the same.

SECRETARY
Gujarat Electricity Regulatory Commission

****