

**Appellate Tribunal for Electricity
(Appellate Jurisdiction)**

Appeal No. 194 of 2009

Dated: 3rd May, 2011

**Present: Hon'ble Mr. Justice M. Karpaga Vinayagam,
Chairperson
Hon'ble Mr. Rakesh Nath, Technical Member
Hon'ble Mr. Justice P.S. Datta, Judicial Member**

In the matter of:

M/S GUTTASEEMA WIND ENERGY COMPANY PVT. LTD.,

Having its Registered Office at Plot No. 1112/A,

Road No. 56, Jubilee Hills,

Hyderabad-500 033

rep. by its Managing Director

Mr. Anil Chalamalasetty

.....Appellant

Versus

1. **Andhra Pradesh Electricity Regulatory Commission,**
Singareni Bhavan, Red Hills, Hyderabad,
represented by its Chairman 500001
2. **Transmission Corporation of Andhra Pradesh Ltd.,**
represented by its Chairman & Managing Director,
Vidyut Soudha, Hyderabad 500082.
3. **Central Power Distribution Company of Andhra Pradesh Ltd. ,**
represented by its Managing Director,
11-5-423/1/A, First Floor,
Singareni Collieries Bhavan,
Lakdi-Ka-Pul, Hyderabad 500 001
4. **Southern Power Distribution Company of Andhra Pradesh Ltd.,**
represented by its Managing Director,
Upstairs, Hero Honda Showroom,
Renigunta Road, Tirupati 517 501.

5. Northern Power Distribution Company of Andhra Pradesh Ltd.,
represented by its Managing Director,
11-5-423/1/A, First Floor, 1-7-668,
Postal Colony, Hanamkonda, Warangal 506 001

6. Eastern Power Distribution Company of Andhra Pradesh Ltd.,
represented by its Managing Director, Sai Shakti, Opp Saraswati
Park, Daba Gardens, Visakhapatnam 530 020.

7. Andhra Pradesh Power Coordination Committee, Vidyut
Soudha, Khairatabad, Hyderabad-500 082 rep. by its Chief
Engineer (Commercial)

... Respondents

Counsel for the Appellant (s) : Mr. Challa Kodanda Ram, Sr. Advocate with
Mr. Mullapudi Rambabu

Counsel for the Respondent (s) : Mr. K.V. Mohan & Mr. K.V. Balakrishnan
for R.1
Ms. Surbhi Sharma, Ms. Shikha Ohri
for R 2 to7

JUDGMENT

HON'BLE MR. RAKESH NATH, TECHNICAL MEMBER

This Appeal has been filed by Guttaseema Wind
Energy Company Pvt. Ltd. against the Order dated
1.5.2009 passed by the Andhra Pradesh Electricity
Regulatory Commission determining the wind energy

tariff for purchase by the Distribution Companies of the State.

2. The Appellant is a wind energy project developer. The Respondent no. 1 is the State Commission. The Respondent no. 2 is the Transmission Company of Andhra Pradesh. The Respondent nos. 3 to 6 are the Distribution Companies. The Respondent no. 7 is the Power Coordination Committee of Andhra Pradesh.

3. The brief facts of the case are as under:

3.1. The Appellant has entered into Memorandum of Understanding with Non-Conventional Energy Development Corporation of Andhra Pradesh (NEDCAP), for developing 365 MW wind power projects.

3.2. The State Commission initiated suo-motu proceedings in O.P. no. 6 of 2009 for fixation of tariff in respect of wind power projects. A consultation paper was put in public domain and the State Commission invited views, comments, suggestions, etc. from the public. The Appellant also participated in the public hearing and presented its comments and suggestions. Consequently the State Commission passed the impugned order dated 1.5.2009. Aggrieved by the said order, the Appellant has filed this Appeal.

4. Assailing the Tariff order, the Appellant has raised the following issues in the Appeal.

4.1. Return on Equity: The State Commission has considered a pre-tax return on equity of 15.5%. With MAT @ 19.93% and corporate tax of 33.22% the post-tax ROE will work out to be 12.41% and 10.35%

respectively. Compared to this the post tax ROE for thermal and other conventional power plants provided by CERC is 15.5% and by the State Commission 14%. Moreover, the Central Commission's Regulations provide for pre-tax ROE of 19% (during MAT payment period) and 24% (during corporate tax payment period) for renewable power projects. Thus the return allowed by the State Commission to renewable power projects is inferior to that provided to conventional power projects by the State Commission. This is inconsistent with the provisions of the 61(h) of the 2003 Act and National Electricity Policy.

4.2. Capital Cost: The State Commission decided a capital cost of Rs. 4.7 crores per MW inclusive of interconnection facility which is not reflective of the actual capital cost. As against this the Central

Commission determined a capital cost of Rs. 5.15 crores/MW with inflation related indexation formula.

4.3. Capacity Utilization Factor (CUF): The State Commission provided a CUF of 24.5% without providing any rationale. NEDCAP, the State Agency for Non-conventional Energy has recommended a CUF of 22%. In reality the CUF varies in the range of 20 to 23% in the State depending on the location. The State Commission should have followed the Central Commission's methodology based on Wind Power Density Classification of sites and corresponding normative CUFs.

4.4. Interest on Working Capital: The State Commission has left out interest on Working Capital which is a must for day to day operations of the plant.

Therefore, provision for interest on Working Capital has to be kept in the tariff.

4.5. Sale to third party: The State Commission has not addressed the issue of sale from renewable energy sources to persons other than the distribution companies as envisaged under the Act and provided for by the Central Commission.

5. The learned counsel for the State Commission has submitted that the State Commission had arrived at a levelised tariff of Rs. 3.43 per kWh. However, to encourage wind projects, the State Commission has fixed a single part tariff for the first 10 years at Rs. 3.50 per kWh with a provision to review tariff. This tariff was adopted as per the revised wind power policy of Government of Andhra Pradesh. During the proceedings before the State Commission most of the

developers sought the adoption of State Govt. policy and fix tariff at Rs. 3.50 per unit. The Central Commission's Regulations for Renewable Energy Sources were issued on 16.9.2009 much later than the impugned order. Besides a tariff of Rs. 3.50 per kWh the other benefits and concessions available to the wind power developers are higher share in CDM benefits, lower supervision charges for inter-connection, lower cross subsidy surcharge for open access, etc. Besides the above benefits granted by the State Commission, other benefits available to Renewable energy projects are accelerated depreciation or Generation Based Incentive, Income Tax holiday and concessional excise duty. However, if the Appellant has any grievance against the said order, it can file an individual application before the State

Commission seeking fixation of tariff for their project by duly submitting the relevant data.

6. Based on the rival contentions of the parties, we frame the following issues for consideration:

- i) Has the State Commission erred in allowing a lower return on equity for wind energy than that allowed for conventional sources of energy?
- ii) Is the capital cost determined by the State Commission not reflective of the actual cost?
- iii) Is the Capacity Utilization Factor adopted by the State Commission on higher side?
- iv) Was the State Commission correct in not allowing interest on Working Capital?
- v) Whether the State Commission has erred in not providing for open access to wind energy projects?

7. Let us now take up the first issue regarding return on equity.

7.1. According to the Appellant the Return on Equity (ROE) allowed to wind energy projects is inferior to that allowed to thermal and other conventional power projects.

7.2. Let us examine the findings of the State Commission regarding Return on Equity in the impugned order. The relevant para is reproduced below:

“(e) Return on Equity: the Indian wind Energy Assn., through their petition stated that in order to operationalise “preferential” treatment for tariff determination of renewable energy projects as envisaged in the tariff policy. It is important that the return on equity for wind energy projects is considered at higher rates (say 16% per annum) than that

considered for conventional fossil fuel based generation projects at 14% per annum.

Accordingly, they requested to consider ROE of 16% post tax to attract investment in the sector. On the other hand NEDCAP, the promoting agency, recommended a ROE of 15.5% (pre tax). Commission having recognized the need to promote wind energy is inclined to accept ROE of 15.5% pre tax suggested by NEDCAP, the promoting agency for the Renewable projects. The developers are to manage their tax liability within this allowed return. Commission is aware of the tax holiday available under section 80-1A of the income tax Act and income tax benefit through Accelerated depreciation also pointed out by NEDCAP”.

7.3. The State Commission has thus allowed ROE of 15.5% (pre-tax) to wind energy projects. On the other hand, the State Commission has allowed 14% post tax

ROE to thermal and other conventional power projects. ROE of 15.5% (pre-tax) to wind power projects will work out to be less than the 14% post tax ROE admissible to conventional power projects.

7.4. Section 86(e) of the 2003 Act, stipulates that the State Commission shall promote generation of electricity from renewable sources of energy by providing suitable measures for connectivity and sale of energy to any person. According to Section 86(4) of 2003 Act the State Commission in discharge of its functions shall be guided by the National Electricity Policy and Tariff Policy.

7.5. The National Electricity Policy stipulates full exploitation of feasible non-conventional energy resources and efforts to be made to encourage private sector participation through suitable promotional

measures. Section 6.4 of the National Tariff Policy stipulates as under:

“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”.

7.6. We fail to understand how the State Commission has allowed ROE to wind energy projects which is inferior to that allowed to conventional power projects, having recognized the need to promote wind energy in the impugned order. The Central Commission's Regulations, even though notified after the impugned order, stipulate pre-tax ROE of 19% per annum for the first 10 years and pre tax ROE of 24% per annum from 11th year onwards.

7.7. The State Commission in its order has recorded availability of tax holiday under Section 80-IA and accelerated depreciation to wind energy projects. This could not be the reason for denying ROE at the same level as available to conventional power projects. In our opinion the benefit of tax holiday could be easily passed on to the consumers while allowing ROE at least of the same level as available to conventional power projects. Moreover, the State Commission's order does not demonstrate that the ROE to wind energy projects after the tax benefits is superior or at least at the same level as available to conventional energy sources.

7.8. In view of above we direct the State Commission to re-determine ROE for wind energy projects after considering its own Regulations for determination of tariff and Central Commission's Regulations for

Renewable Energy sources. However, the post tax ROE to wind energy projects shall not be less than that admissible to conventional power projects according to the State Commission's Regulations.

8. The second issue is regarding the Capital Cost.

8.1. According to the Appellant, the capital cost is not reflective of the market conditions.

8.2. Let us examine the submissions made by various stakeholders before the State Commission as recorded in the impugned order. The capital costs as suggested by various agencies for wind energy projects were as follows:

- | | | |
|------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| i) | Indian wind energy Association- | Rs. 5.75 Crores./MW (excluding transmission and evacuation cost) |
| ii) | NEDCAP
(State Agency) | Rs. 5.15 Cr./MW (excluding power evacuation charges of Rs. 10 lakh/MW) |
| iii) | Tamilnadu Electricity
Regulatory Commission's
Order dated 20.3.2009 | Rs. 5.35 Cr./MW
(excluding infrastructure development charges of Rs. 25 lakhs) |

- | | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| iv) | Kerala State Electricity
Regulatory Commission's
Order dated 27.2.2008
(upholding cost in its
Original order dt. 24.6.2006) | Rs. 4.4 Cr./MW
(inclusive of transmission
cost of Rs. 20 lakhs) |
| v) | Madhya Pradesh Electricity
Regulatory Commission's
Order of November 2007
(applicable upto 31.3.2012) | Rs. 4.6 Cr./MW |
| vi) | Gujarat Electricity
Regulatory Commission's
Order dated 11.6. 2006
(Valid upto 10.8.2009) | Rs. 4.65 Cr./MW-
(inclusive of evacuation
cost of Rs. 30 lakhs) |

The State Commission adopted a capital cost of Rs. 4.70 Cr./MW (including evacuation cost) more or less than that adopted by some of the states determined in years 2006/2007, even though effective when the impugned order was passed.

8.3. The Central Commission in its Regulations notified after the impugned order has provided for capital cost of Rs. 5.15 crores/MW during the first year of control period (FY 2009-10) with capital cost indexation mechanism with changes in Wholesale

Price Index for steel and Electrical Machinery for subsequent years of the control period.

8.4. The State Commission in the impugned order has relied on the capital cost determined by some of the Commissions of other states in the years 2006/2007 even though effective when the impugned order was passed. In our opinion this is not a correct approach. The State Commission has to give a reasoned order while determining the capital cost. Moreover, the State Commission has fixed the capital cost for the period from 1.5.2009 to 31.3.2014 i.e. for a period of about 5 years, without any clause for indexation linked to Wholesale Price Index for Steel and Electrical Machinery. If during the five year period the prices of steel and electrical machinery vary, either reduce or increase, the capital cost determined in the subsequent years will not be reflective of market

condition. Accordingly, we direct the State Commission to re-determine the capital cost and also provide for appropriate Capital Cost Indexation Mechanism, after considering the Regulations of the Central Commission and give a reasoned order in this regard. However, we would like to add that we are not suggesting any capital cost and the State Commission has to determine the capital cost after detailed analysis, giving reasoned order for determination of the capital cost.

9. The third issue is regarding Capacity Utilisation Factor (CUF).

9.1. The State Commission has recorded as under regarding CUF:

“(b) Capacity Utilization Factor: Indian Wind energy Association through their petition stated that with the advancement of machine technology, the CUF of 22-25% could easily be achieved with

the proper micro siting. Having stated thus, they requested to consider the maximum CUF of 24.5% for tariff determination of Wind power projects for the next control period. On the other hand NEDCAP assumed a CUF of 22%. The Commission is inclined to accept CUF of 24.5% for the purpose of tariff determination”.

9.2. We notice that the State Commission has not considered the wind power density map of the State before deciding the CUF and not given a reasoned order in this regard.

9.3. Accordingly, we direct the State Commission to determine the CUF after considering the wind power density map prepared by the Centre for Wind Energy Technology (C-WET)/Ministry of New & Renewable Energy.

10. The fourth issue is Interest on Working Capital.

10.1. According to the Appellant, the State Commission has not allowed interest on the Working Capital which is required for day to day operation.

10.2. We notice that the State Commission has not included Interest on Working Capital in the elements of tariff determination. We are of the opinion that interest on working capital is an important element of the tariff.

10.3. The Central Commission's Regulations for Renewable Energy Sources provide for Interest on Working Capital for wind energy to cover Operation & Maintenance (O&M) expenses for one month, receivables equivalent to two months of energy charges and maintenance spares @ 15% of O&M expenses.

10.4. We also notice that the State Commission's Regulation no. 1 of 2008 for tariff for supply of electricity by a generating company to distribution company for conventional energy sources also provides for Interest on Working Capital.

10.5. When the State Commission's Regulations for conventional energy sources provide for Interest on Working Capital, there is no reason for the State Commission for not including the same for wind energy generators. Accordingly, this issue is decided in favour of the Appellant.

11. The last issue is regarding third party sale.

11.1. According to the Appellant the State Commission has not dealt with the issue of open access and third party sale.

11.2. We notice that the State Commission has recorded the following with regard to open access of wind power projects:

“(xi) As regards the conditions governing Open access of Wind Power Projects (third party/captive), the existing provisions contained in relevant orders/regulations/codes issued by the Commission shall be applicable”.

Thus the provisions of relevant orders/regulations/codes issued by the State Commission shall be applicable to wind energy projects also. These orders are not part of the Appeal. Therefore, we do not find any substance in this issue.

12. **Summary of our findings**

- i) **Return on Equity (ROE) allowed by the State Commission to the Wind Energy Projects is inferior to that provided to**

thermal and other Conventional Power Projects by the State Commission. This is not in consonance with the provisions of the 2003 Act, National Electricity Policy and Tariff Policy. Accordingly, we direct the State Commission to re-determine ROE for wind energy projects after considering its own Regulations for conventional energy sources and Central Commission's Regulations for Wind Energy Projects. However, in no case ROE to Wind Energy Projects shall be less than that admissible to conventional energy projects according to its own Regulations.

- ii) The second issue is regarding the Capital Cost. In our opinion, the State Commission has not adopted a correct**

approach in relying on the capital cost determined by some State Commissions where capital cost was determined in years 2006/2007. The State Commission has not given a reasoned order in this regard. The State Commission has also not provided any price indexation mechanism for capital cost for projects to be commissioned subsequently during the period for which the tariff is applicable i.e. May, 2009 to March, 2014. Accordingly, the State Commission is directed to re-determine the capital cost with appropriate Capital Cost Indexation Mechanism, after considering the Central Commission's Regulations and give a reasoned order.

- iii) The State Commission has not considered the Wind Power density map of the State and has not given a reasoned order regarding Capacity Utilisation Factor. Accordingly, the State Commission is directed to determine the Capacity Utilisation Factor (CUF) after considering the Wind Power density map provided by C-WET/ Ministry of New & Renewable Energy and give a reasoned order.**
- iv) The State Commission has not included Interest on Working Capital which is an important element of the Tariff. We notice that the Interest on Working Capital is permissible according to the State Commission's Tariff Regulations**

applicable to conventional energy sources. The Central Commission has also provided Interest on Working Capital for Wind Energy Projects in its Tariff Regulations. Accordingly, the State Commission is directed to include Interest on Working Capital in the tariff applicable to Wind Energy Projects.

- v) Regarding open access and third party sale, the State Commission in the impugned order has recorded that the relevant provisions in existing orders/regulations/codes shall also apply to open access in case of wind energy projects. These orders are not part of the Appeal. Thus, the submission on this**

issue is without any substance and the same is rejected.

13. In view of above, we allow the Appeal partly and set aside the order to the extent as indicated above and direct the State Commission to re-determine the tariff for wind energy projects taking note of our findings referred to above and to give a reasoned order at the earliest, preferably within a period of four months from the date of this order.

14. Pronounced in the open court on this **3rd day of May, 2011.**

(Justice P.S. Datta) (Rakesh Nath) (Justice M. Karpaga Vinayagam)
Judicial Member Technical Member Chairperson

REPORTABLE / NON-REPORTABLE

vs