

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM**

PRESENT

**Shri. T.M. Manoharan, Chairman
Shri. P. Parameswaran, Member
Shri. Mathew George, Member**

**29th August 2013
Review Petition No. 2/2013**

PETITION IN THE MATTER OF

**Tariff applicable for Wind Energy Generators - review of Kerala State
Electricity Regulatory Commission (Power Procurement from Renewable
Sources by Distribution Licensee) Regulations, 2013**

| | | | |
|----------|------------|---|------------|
| Petition | Dy. No.769 | Inox Renewables Ltd Plot No 17, Sector 16 A Noida, 20301 Uttar Pradesh | Petitioner |
| | | Kerala State Electricity Board VaidyuthiBhavanam, Trivandrum | Respondent |

ORDER

Background

1. M/s Inox Renewable Ltd, Noida filed a petition for review of the tariff applicable to wind energy generation as per Kerala State Electricity Regulatory Commission (Power Procurement from Renewable Sources by Distribution Licensee) Regulations, 2013, No 442/CT/2012/KSERC dated 01-01-2013.

2. Petitioner is a public limited company engaged in the business of renewable energy generation. Petitioner submitted a technical proposal to Agency for Nonconventional Energy and Rural Technology (ANERT) for establishment of wind energy generators (22 MW) in the land allotted by KINFRA at Kanjikode in Palghat. The same was approved by ANERT vide Order No A.O. No 163/WPC/ANERT/2012 dated 13-06-2012. On the strength of the Order of ANERT petitioner applied for the concurrence of KSEB and KSEB vide Order No CE/TRN/E5/Inox-renewable-PE/12-13/2168 dated 30-01-2013 provided feasibility order. Petitioner stated that they have invested substantial amount of money on the project towards project activities, site studies, logistic studies and technical analysis.

Prayer

3. Prayers of the petitioner are the following:

- (1) To admit the review petition and direct review of the notification No 442/CT/2012/KSERC dated 01-01-2013 passed by this Commission for determination of Tariff for the wind power projects for the control period from 01-01-2013 onwards.
- (2) To re-determine the tariff for the wind power projects for the above control period after considering the various aspects mentioned in the review petition and other relevant aspects
- (3) To pass such other orders as the Commission may deem fit and proper in the circumstances of the case.

Hearing of the petition

4. In the hearing held on 25-06-2013 and in the petition dated 01-01-2013 the petitioner stated that Commission published notification dated 01-01-2003 reviewing the earlier draft notification No

442/CT/2012/KSERC dated 27-05-2012 . Commission had proposed the tariff for wind energy projects as Rs 5.96/Unit taking capacity utilization factor (CUF) as 20% in the Draft published. The petitioner has invested money on the project expecting that they will get the tariff of Rs 5.96/Unit at 20% plant load factor (PLF). Commission reviewing the earlier draft notification published the notification dated 01-01-2013 and fixed the tariff rate as Rs 4.77/Unit taking average CUF as 25% instead of 20% taken in the draft order.

5. According to the Petitioner such a huge difference in the tariff rate from draft regulations to final regulations can make a project unviable from viable stage. CERC in the tariff order has divided wind resources areas into five zones. Each Zone has different tariff structure. Tariff has to be fixed on the CUF available on each zone.
6. It is necessary to pursue Clause 5(3) and 5(4) of the Regulation dated 01-01-2013 Clause 5(3) reads as “ The Commission shall as far as possible be guided by the principles and methodologies , if any, specified by the CERC , National Electricity Policy and Tariff Policy, while deciding the terms and conditions of tariff for renewable energy.”
7. Clause 5(4) “ While determining the tariff , the Commission may, to the extent possible consider to permit an allowance based on technology, fuel, market risk, environmental benefits and social contribution etc of each type of renewable source. The Commission shall also consider appropriate operational and financial parameters”.
8. The petition has further added that in fixing tariff, the Commission has not considered the reports of nodal agencies and the environmental aspects of Kerala. Kerala has a very moderate wind regime. The state has some hilly areas where the wind regime is moderate. Barring those areas the whole state has CUF which is apparently less than 20%. There is an apparent error in fixing the tariff in the order dated 01-01-

13. If the above tariff is not revised suitably, the petitioner will be forced to close down the project and the same will cause irreparable loss and damage to the petitioner as stated in the petition.
9. KSEB stated that they have been purchasing wind energy from Agali and Koundickal wind farms located in Palghat District having a total capacity of 18.6 MW. The average plant load factor of these projects is almost 30%. The state nodal agency for renewable energy development in Kerala, the ANERT has recently conducted detailed wind monitoring studies at 26 locations in Kerala with technical support of C-WET. ANERT also has conducted micro survey in six locations – Ramakkalmedu, Panchalimedu, Parambukettimedu, Kanjikkode, Nallasingam and Kulathumedu. As per the report, wind power density measured at 50 M height at Kanjikkode is 296 W/m². The location having wind power density ranging from 251W/m² to 300W/m² is categorized under ‘Wind Zone -3’ as per the regulations.
10. KSEB pointed out that the petitioner had submitted that the tariff has to be fixed as per CUF available in each wind zone in line with CERC tariff order. In this regard it may be submitted that the KSERC (Power Procurement from Renewable Sources by Distribution Licensee) Regulations, 2013 are framed in alignment with CERC norms as explained in the explanatory note of the Regulation. As per Clause 26(2) of CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012 dated 6-02-2012, the annual mean wind power density specified above are at 80 M hub height. In Kerala even at 50 M height, the wind power density measured is 296 W/m² at Kanjikkode as per report of ANERT. If measured at 80 M height, the wind density will be more than 296 W/m² and this can make the project qualify even to Wind Zone-4. Hence claim of petitioner that

Kerala has a very moderate wind regime and for the whole state the CUF will be apparently less than 20%, is baseless.

As per Wind Resource Assessment Programme which is being co-ordinated by the Centre for Wind Energy Technology (C-WET), potential sites have been identified in 31 States and Union Territories. Two hundred and thirty potential sites have been identified having wind power density greater than 200 W/m² measured at 50 M height. From this report also it can be observed that the wind power density at Kanjikode at 50 M height is 296 W/m². Hence the Commission has not made any errors in assessing the wind power density of the State and has correctly fixed the wind zone and CUF as 25% for Kerala State. Accordingly Commission has correctly fixed the tariff of Wind Energy Generators as Rs.4.77/Unit vide KSERC (Power Procurement from Renewable Sources by Distribution Licensee) Regulation 2013 dated 1-01-2013.

11. The statement of petitioner that the final notification of KSERC (Power Procurement from Renewable Sources by Distribution Licensee) Regulation 2013 has made their proposed project at Kanjikkode unviable is baseless as the technical proposal of the project was submitted by the petitioner on 20-08-2011 whereas the Commission issued the draft KSERC (Power procurement from renewable sources by Distribution Licensee) Regulation 2013 only on 25-07-2012. The petitioner has submitted the technical proposal much before commission notified the draft regulation. The tariff prevailed for wind energy generators at the time of project proposal was only Rs 3.14/Unit. Further the petitioner, being a developer of wind energy across the country, ought to have known that draft regulations are subject to changes during finalization.
12. ANERT stated that the main objection raised by the petitioner is about the Capacity Utilization Factor (CUF) approved by the Commission while

fixing the tariff. Since CUF depends not only on meteorological data but also on the performance of the wind machine used, it cannot be directly related to the power tariff. But it can be taken as an indicator. CERC in its regulation has fixed five wind zones in accordance with average wind power density and has mentioned average CUF for these zones. Since Kerala is only a small strip of land between Western Ghats and Arabian Sea similar approach may make the wind farm sanctioning process more complicated. In the tariff order referred to in the petition, Commission has assumed that the average CUF in the state is 25%. This is high when the wind regime in the state is considered as a whole. Very high wind is available only in the hilly areas of Idukki and Attappadi where average CUF is also very high. But wind farmable area available in these places are very limited. Other parts of the state are having only moderate wind. As per Wind Atlas published by Centre for Wind Energy Technology (C-WET), the average wind power density in the low lands varies between 200 W/m² to 250 W/m². The corresponding CUF as per CERC Regulations is 22%.

13. In the light of the review petition, opinion was sought by ANERT from Wind Resource Assessment Division of C-WET. According to them the average CUF in the state can be taken as 20% based on actual measurement analysis. The land cost in Kerala is very high. According to the split up published by CERC regarding capital cost, the land value comes to about 5% of the total cost. In Kerala conditions, land being scarce and land cost on the higher side, this factor deserves due consideration.

Analysis

14. Under Sections 176 and 180 of the Electricity Act, 2003 the power to frame subordinate legislation to carry out the provisions of the Act vests with Central and State Governments. As per Sections 178 and 181 the

power to frame regulations is conferred on Regulatory Commissions. Section 177 deals with the power to frame regulations by the CEA. In this case the Regulation framed under Section 181 of the Electricity Act, 2003, is in the nature of subordinate legislation. As per sub Section 2(f) of Section 94 of the Electricity Act, 2003 the power of review by State Electricity Regulatory Commission is limited to its own decisions, directions and orders only.

15. Even the Appellate Tribunal of Electricity has no jurisdiction to examine the validity of the Regulations in exercise of appellate jurisdiction under Section 111 of the Act of 2003. Even, under Section 121 of the Electricity Act, 2003 which confers on the Tribunal supervisory jurisdiction over the Commission, APTEL cannot examine the validity of the Regulations framed by the Commission, but can only issue orders, instructions or directions to the Commission for the performance of its statutory functions under the Act. The Regulations framed by the Commission are under the authority of subordinate legislation conferred on the Commission in Section 181 of the Act. All regulations made by the State Commission under this Act were subject to the condition of previous publication. The Regulations so framed have been placed before the Kerala Legislature; therefore, they have become a part of the statute. The rules can only be challenged in the judicial review proceedings before a constitutional court. That being so, Commission cannot review a Regulation issued by it on a petition filed by a generating company challenging the validity of the Regulation. Hence the commission shall dismiss the petition holding that the review of Regulations cannot be undertaken by the Commission and liberty is given to the petitioner to approach the appropriate Forum to work out its remedies according to law.

16. National Tariff Policy (NTP) vide Clause 6.4 specifies that the Appropriate Commission shall determine the preferential tariff for power procurement by the Distribution Licensee from renewable energy sources. It is evident from the provisions of NTP that preferential tariff for renewable energy is to be determined by the Appropriate Commission, in accordance with the Section 61 of Electricity Act, 2003. Under Section 86 of the Electricity Act, 2003 read with sections 62 & 64, the Commission has the power to determine the tariff of the generating companies including Nonconventional Energy (NCE) projects which supply electricity to the Distribution Licensees. In exercise of its powers under these provisions, the Commission has issued KSERC(Power Procurement from Renewable Sources by Distribution Licensee) Regulations, 2006 dated 26th June, 2006, KSERC(Power Procurement from Renewable Sources by Distribution Licensee) Regulations, 2010 dated 22 November 2010 and KSERC(Power Procurement from Renewable Sources by Distribution Licensee) Regulations, 2013 dated 01-01-2013. For issuing these Regulations the Commission had carried out a detailed and comprehensive exercise to examine and study various parameters involved in renewable energy generation in order to evolve guiding principles for tariff determination from renewable energy source. These principles were also the result of an elaborate consultative process involving inputs from all the stake holders. In the case of CUF disputed by the petitioner , as per Indian Wind Atlas published by Centre for Wind Energy Technology (C-WET) the average wind power density (WPD) in different sites of Kerala varies from 68 W/m² at Vizhinjam in Trivandrum District to 691W/m² at Parampukettimedu in Idukki District. Nobody will set up wind mills (WEG) at places where the WPD is far below 200 W/m². Of the 24 locations of Kerala included in the Indian Wind Atlas 70% of the sites had a WPD of 200 W/m² or more and 38% of the locations had a WPD of more than 250 W/m². Based on

this an average WPD of 250 W/m² was approved for the state and the corresponding CUF 25% was approved for estimating the tariff.

17. The norms adopted for framing the Kerala State Electricity Regulatory Commission (Power Procurement from Renewable Sources by Distribution Licensees) Regulations, 2013, were CERC norms with appropriate modifications. While determining the tariff for different periods the Commission has ascertained whether the benchmark costs and underlying assumptions thereof, which have formed the basis for determination of tariff, remained valid during the periods for which the tariff has been specified.

Decision of the Commission

18. In view of the reasons explained above and after considering all the arguments raised by the parties concerned, Commission dismisses the petition, liberty being given to the petitioner to approach the appropriate Forum to seek remedies according to law.

Sd/-
Member (F)

Sd/-
Member (E)

Sd/-
Chairman

Approved for issue

Sd/-
Secretary