

HARYANA ELECTRICITY REGULATORY COMMISSION
SCO NO. 180, SECTOR – 5, PANCHKULA.

Date of Order: January 31, 2007

DETERMINATION OF TARIFF FOR RENEWABLE ENERGY SOURCES IN
HARYANA

ORDER

A request was received from HAREDA on 2.5.2006 to fix the percentage of energy to be procured from Renewable energy Sources, Wheeling Charges and Tariff for Biomass, Small Hydro and Wind Energy based power projects.

In view of this, a consultation paper was circulated/hosted on the official website of the Commission in September 2006 for inviting comments from experts and stakeholders on “power purchase from non-conventional energy sources in Haryana. The last date for receiving the comments was fixed as 17.10.2006. On the request of stakeholders, the last date for receiving the comments was extended up to 17.11.2006.

The comments received from the following stakeholders on the above three points can be seen at Annexure ‘A’:-

- (i) M/s. Tecpro Systems Limited, Chennai.
- (ii) M/s. POM Puri Oils Mills Limited, New Delhi.
- (iii) M/s. Enercon, Mumbai.
- (iv) M/s. Haryana Power Generation Corporation Ltd., Panchkula.
- (v) M/s. Mitcon Consultancy Services Ltd., Pune.
- (vi) M/s. Star Wire (India) Ltd., New Delhi.
- (vii) M/s. IDCS, Kolkata.
- (viii) M/s. True Fab Pvt. Ltd., Faridabad
- (ix) Director of Industries & Commerce, Haryana.
- (x) M/s. Gammon India Limited, Mumbai.
- (xi) M/s. Jyoti Bio Energy Ltd., Hyderabad.

Before proceeding further it would be appropriate to quote the statutory provisions and national policies in this regard.

(1) The Electricity Act, 2003: The Electricity Act, 2003, which has become effective from 10th June 2003, inter alia, lays emphasis on non-conventional energy generation i.e. renewable sources of energy and co-generation. While specifying the terms and conditions of determination of tariff under section 61 of the Electricity Act, regulatory commission inter-alia shall also be guided by the promotion of cogeneration and generation of electricity from renewable sources of energy [section 61(h) of the Electricity Act], and National Electricity Policy & Tariff Policy already notified by the Central Government under the provision of section 3(1) of the Act.

(2) National Electricity Policy:

In pursuance of section 3 of the Act, the Government of India has notified the National Electricity Policy vide MoP notification No. 23/40/2004-R&R(Vol-II) dated 12.2.2005. National Electricity Policy also stresses the need for the promotion of Non-Conventional Energy Sources.

(3) Tariff Policy: In compliance with section 3 of the Electricity Act, 2003, the Central Government has notified the Tariff Policy on 6th January, 2006, which would act as a guideline for the determination of tariff for sale from a generating company to the licensee. Relevant extracts from policy are reproduced as under:

“6.4 Non-conventional sources of energy generation including Cogeneration:

(i) 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 SERC's from April 1, 2006.

(4) HARYANA POLICY FOR PROMOTING GENERATION OF ELECTRICITY THROUGH RENEWABLE ENERGY SOURCES --The Govt. of Haryana has declared a new policy for Promoting Generation of Electricity through Renewable Energy Sources vide its notification No.22/69/2005-5P dated 23.11.2005 to encourage Independent Power Producers (IPPs) for setting up of power plants based on Renewable Energy Sources such as Biomass, Bagasse Co-generation, Wind Energy, Small Hydro and Waste to Energy. In this policy, various incentives like Wheeling and Banking of Power, exemption from the electricity duty, exemption of Local Area Development Tax, exemption of conversion charges by the Town & Country Planning Department for setting up of Renewable Power Projects in agriculture zone etc. have been provided and all new projects will be treated as industry in terms of Industrial Policy, 2004. This policy aims to achieve a minimum of 10% (i.e. 500 MW) of the total capacity addition of 5000 MW of conventional power, to be generated through Renewable Energy Power Projects by 2012.

(5) MNES/GOI POLICY GUIDELINES --MNES/GOI policy guidelines 1993-94 provide that the State's Electricity Board should announce a base purchase price every year for the electrical energy purchased by it from non-conventional energy based power projects.

The Commission has taken note of all the relevant statutory provisions on the subject and gone through the Government policies (both the Central and State Government) in this regard. The Commission has also examined the suggestions received from different stakeholders in response to the consultation papers floated in September 2006. After deliberating all the points in details, the Commission decides as under for inviting comments / suggestions from all the stakeholders:-

- (i) **Percentage of electricity from non-conventional sources of total consumption of electricity** in the area of distribution licensee to be prescribed under section 86 (1)(e) of the Electricity Act, 2003.

FY 2006-07	upto 2%
FY 2007-08	upto 2%
FY 2008-09	upto 3%
FY 2009-10	upto 10%

- (ii) **Wheeling Charges:** The wheeling charges are proposed to be 2% of the energy fed to the grid irrespective of the distance from the generating stations.
- (iii) **Tariff:** Benchmark tariff for procurement of power from various non-conventional sources is proposed as under:-

Rates in Rs. Per kwh.

Small Hydel	2.81
Wind	3.36
Biomass	3.32
Bagasse	3.28

The above shall be subject to escalation factor of 1.5% per annum in O&M charges in respect of Hydel and Wind energy from 2nd year onward. There will also be an escalation of 2% in tariff in case of Biomass & Bagasse from 2nd year onward.

It was also decided that the stakeholders may be asked to submit their objections / comments / suggestions to the above along with detailed computation & documentation to enable the Commission to finalize the tariff for renewable energy sources in Haryana by 9.03.2007.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on January 31, 2007.

Date: January 31, 2007.

Place: Panchkula.

T.S. Tewatia
Member

T.R. Dhaka
Member

Bhaskar Chatterjee
Chairman

ANNEXURE 'A'

1. **M/S. Tecpro Systems Ltd., Chennai.**

They have requested to exempt them from commenting on the Consultation Paper right now with a special right to comment after certain steps are completed.

2. **M/s. POM Puri Oils Mills Limited, New Delhi.**

- (a) The Wheeling charges either should be specified separately or may be in the composite form but should be subsidized for non-conventional energy sources.
- (b) The tariff should be fixed on the basis of capital cost, debt equity ratio, rate of depreciation, repayment period of loan, O&M cost, escalation rate, interest rate, term loan and working capital, PLF. The fact of higher cost of generation in case of Canal drop projects where the head is very small should also be considered.
- (c) Total generation should be prescribed at preferential tariff by distribution companies.

3. **M/s. POM Puri Oils Mills Limited, New Delhi.**

- (a) Wheeling: No Comments.
- (b) Tariff: The weighted average cost of capital considering 70% debt at 10.5% and 30% equity at 16% works out to 12.2% (i.e. 70% x 10.5% plus 30 % x 16%). Hence it is preferable to consider 12% discounting rate to arrive at the Levellised Tariff over a period of 20 years.
- (c) Percentage: 3% and increase the same slowly over the period depending upon the progress achieved in this sector.

4. **M/s. Haryana Power Generation Corporation Ltd., Panchkula.**

- (a) Wheeling: After injection into the system, wheeling charges are booked to the power utility or to the third party in the event of sale to the third party. Therefore, after injection into the system, NES power should be treated at par with other conventional power.
- (b) It should be determined on the basis of revised norms of capital cost, debt equity ratio, rate of depreciation, repayment period of loan, O&M cost, escalation rate, interest rate on term loan and working capital, heat rate, PLF.
- (c) Percentage: NIL

5. **M/s. Mitcon Consultancy Services Ltd., Pune.**
- (a) Wheeling charges may be specified as lump sum based on the distance between the generator and consumer.
 - (b) Tariff: Applicability of two-part tariff to Biomass or Bagasse Cogen. Projects is not viable, as such projects do not have long-term fuel supply agreement.
 - (c) Percentage: It would require some time to achieve a 10% target. A target of about 1.5% in initial years and 2% in later years can be set on the licensees.
6. **M/s. Star Wire (India) Ltd., New Delhi.**
- (a) Wheeling charges: 2%
 - (b) Tariff: The norms fixed by the Appellate Tribunal for Electricity in appeal No.20 of 2006 in the matter of Chhattisgarh Biomass Energy Developers Association Vs. Chhattisgarh State Electricity Regulatory Commission dated 7.9.2006.
 - (c) Percentage: Nil.
7. **M/s. IDCS, Kolkata.**
- (a) Wheeling: Nil.
 - (b) Tariff: Should be preferential tariff.
 - (c) Percentage: Nil.
8. **M/s. True Fab Pvt. Ltd., Faridabad**
- (a) Wheeling: Nil.
 - (b) Tariff: Several points should be kept in mind while fixing tariff, such as, availability of Biomass in adjoining areas, Biomass fuel is bulky in nature, so spare Govt. land to keep the rice straw should be available, Govt. land is available at affordable prices etc.
 - (c) Percentage: Nil

9. **Director of Industries & Commerce, Haryana**

All projects will be treated as Industry in terms of Industrial Policy, 2005 as all the incentives available to the new projects will be applicable as per Industrial Policy, 2005.

10. **M/s. Gammon India Limited, Mumbai.**

They had requested for extension in time for submitting comments/suggestions. Even after extension of time, they did not submit their comments/suggestions.

11. **M/s. Jyoti Bio Energy Ltd., Hyderabad:**

They had requested for extension in time for submitting comments/suggestions. Even after extension of time, they did not submit their comments/suggestions.