



Chhattisgarh State Electricity Regulatory Commission

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Petition No. 30 of 2007(M)

In the matter of approval of Power Purchase Agreement between Chhattisgarh State Electricity Board and M/s. RKM Powergen Pvt. Ltd. for a quantum of 490 MW power from 4x350 coal based power project of M/s. RKM Powergen Pvt. Ltd.

Petitioner:

Chhattisgarh State Electricity Board

**Present: S.K. Misra, Chairman
Sarat Chandra, Member**

ORDER (Dated 22/12/07)

This petition has been submitted by Chhattisgarh State Electricity Board (CSEB or Board) for approval, under the provision of section 86(1)(b) of the Electricity Act, 2003(the Act hereinafter), of the long term Power Purchase Agreement (PPA) entered into by CSEB with M/s. RKM Powergen Ltd.(RKM or company) for purchase of of 490 MW from the latters coal based power project at Tehsil Dabhra, dist. Janjgir Champa, Chhattisgarh. The Commission has on 22nd March 2006 issued guidelines for power purchase and the power procurement process under which all long term PPAs or amendment to existing PPAs entered into by the licensee, shall be subject to the prior approval of the Commission. This petition is also in pursuance of these guidelines.

2. The legal position with regard to long-term procurement of power by a distribution license is as follows. In compliance with section 3 of the Act the Government of India have notified the Tariff policy on 06.01.06. Clause 5.1 of this policy provides that all future requirement of power should be procured competitively by distribution licensees except in cases of expansion of existing projects (only upto 50%), or where there is a State controlled/owned company. Ministry of Power have clarified on 28-03-06 that a power generation project which satisfies any of the following conditions would not be required to go through competitive bidding process in regard to sale of power to a distribution licensee:-

- (i) Where the PPA has been signed and approved by the Appropriate Commission or pending before the Commission prior to 06.01.06.
- (ii) Similarly, where the appraisal of any power project has started before 06.01.06 by the financial institutions for lending funds to the project on the basis of appropriate evidence of process of procurement of power by any utility provided that in all such cases final PPA is filed before the Appropriate Commission by 30th September, 2006.

Section 61 & 62 of the Act provides for tariff regulation and determination of tariff of generation, transmission, wheeling and retail sale of electricity by the

Appropriate Commission. However, section 63 of the Act mandates that notwithstanding anything contained in section 62, the Appropriate Commission shall adopt the tariff which has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government.

Under the above provision of section 63, the Ministry of Power on 19th January 2005 have issued guidelines for determination of tariff by bidding process for procurement of power by distribution licensees. As per these guidelines Standard Bid Document (SBD) have also been issued for tariff based bidding process for procurement of power on long-term basis by setting up the power stations. The SBD includes the draft PPA to be entered into between a distribution licensee and the seller. The Commission has taken into consideration this draft PPA in examination of the PPA submitted with this petition.

3. The background of this PPA is that RKM signed Memorandum of Understanding (MOU) with Government of Chhattisgarh (GoCG) and CSEB for setting of a power plant on 3rd April'06. The important conditions of the MOU are as follows:-

- (a) The company will provide, on an annualised basis, to the government or its nominated agency, 5% of the net power generated by the project at energy (variable) charges as determined by the Commission. If the company is allocated captive coal block in the State for supply of coal to the project, 7.5% of the net power generated on the same terms.
- (b) The GoCG or its nominated agency shall have first right to purchase power upto 30% of the aggregate capacity of generating units for a period of 20 years through its nominated agency at the rate approved by the appropriate Commission. Sale of such power will be subject to terms and conditions in PPA to be agreed mutually between the company and purchasing entity.

The State Govt. vide its order no. 347 /F21/77/2/13/2007 dtd. 13.02.07 authorized CSEB as its authorized agency to procure power from the company as per MOU dtd. 03.04.06 and the longterm PPA reached between the company and the Board on 29.09.06 for purchase of power as above. As per the petition CSEB wants to procure a total of 490 MW power from the project which includes electricity to be availed at energy (variable) charges only.

4. Initially, the petition for approval of PPA was filed by RKM on 31.07.07 which was registered as petition no.17 of 2007(M). The Commission passed orders on 10.09.07 in this petition in which certain preliminary observations were made by the Commission regarding the PPA and the CSEB as the purchaser was asked to seek approval of the PPA in place of RKM. In compliance with this order, the CSEB has filed this petition.

5. The petition was heard on 15.11.07. Shri Shivraj Singh, Advisor to CSEB & Shri Harsh Gautam, Executive Engineer represented the CSEB and the RKM was represented by Shri T.M. Singaravel, Director, Shri G. Paranajothi, General Manager and Shri V.K. Kasu. The Commission have considered the submissions made by representatives of the CSEB & the company and the documents submitted by them.

6. The matters for consideration in this petition are:-
- (i) Is the proposed long-term procurement required as per demand projections of the Board?
 - (ii) What should be the tariff for purchase of this power?

Regarding the demand projections and the need for long term procurement of power, CSEB has sought to justify that demand growth of electricity during the 10th Five year plan in the state was of the order of 13% rising from (1275 MW to 2350 MW) at the end of 2006-07. The same growth rate has been considered for 11th plan also. On this basis, the demand forecast for the year 2011-12 comes to 4315 MW. After accounting for the reduction of T&D losses as likely to be achieved, the demand projection shall be 3700. For subsequent five-year plans the CAGR has been assumed to be 9.0%, which includes the effect of marginal loss reduction, since reduction in the T&D losses thereafter may be only marginal in the existing social and economic scenario in the country. At the end of year 2026-27, the projected demand will be 13475 MW against expected availability of 11440 MW thus the net deficit is expected to be about $13475 - 11440 = 2035$ MW at end of year 2026-27. The Commission accepts this justification for purchase of 490 MW from the company on long-term basis.

7. As regards determination of tariff for procurement of power by CSEB under this PPA, it is not possible for the Commission at the present to arrive at realistic tariff on the generation of power from the project. The Commission would be able to decide a provisional tariff within 6 months of the date of commercial operation (COD) and the final tariff within 6 months after the date of commercial operation and carrying out performance guaranteed tests on a petition to be filed in this regard. The COD of the first unit of the project is expected by March / April 2011. This estimation is based on the submission made in the petition that financial closure of unit no.1 will be achieved within 90 days from the date of approval of PPA by the Commission and COD will be achieved within 36 months thereafter. However, following the procedure as is being adopted by Central Electricity Regulatory Commission the project cost per MW needs to be capped now which will form the basis for provisional and final tariff determination in due course.

8. On perusal of the detailed project report it is observed that complete cost of proposed 350 MW unit no.1 will be around Rs. 1487.5 crores which works out to Rs. 4.25 crores per MW without transmission line, but inclusive of estimated cost of equipments, financing, IDC cost the margin money requirement of working capital, and upfront fees etc. As per the project report the project cost of 1400 MW (3x350 MW) shall be Rs. 5950 crores which also works out to Rs.4.25 crores per MW. Further, in the project report the indicative levellised tariff for the first 20 years is mentioned as Rs. 2.27 per KWhr. For the purpose of justification of reasonability of the project cost i.e Rs.4.25 crores per MW, the information in respect of estimated project cost of other independent power projects being set up in state has been given in the petition. The following information furnished appears to be relevant:

Sl. No.	Project	Project cost (Rs. Crores)	Cost Per MW (Rs. Crore/ MW)
1.	500 MW Stage-I Project of Jindal Power Ltd. at Raigarh, Chhattisgarh	2,141.6	4.3
2.	500 MW Stage-II project of Jindal Power Ltd. Raigarh, Chhattisgarh	2142.6	4.3
3.	300 MW Unit-II of Lanco Amarkantak at Korba, Chhattisgarh	1291.6	4.3
4.	300 MW Unit-II of Lanco Amarkantak at Korba, Chhattisgarh	1340	4.47

Further, the project cost of CSEB's new project of 2x250 MW capacity at Korba (E) is about 4.8 crores per MW. Considering the cost of these projects the Commission feels that the estimated project cost of Rs.4.25 crores per MW projected for this project is appears to be reasonable.

Subject to prudent check by the Commission the actual expenditure incurred upto COD of the first unit of the project shall form the basis for determination of final tariff by the Commission. However, the capital cost for arriving at the final tariff will be subject to a maximum ceiling of Rs.4.25 crores per MW. This ceiling shall be maintained for subsequent generation tariff determination. In case the capital cost goes beyond Rs. 4.25 crores per MW, due to change in taxes and duties or any other justifiable reasons, the decision of the Commission about such enhanced capital cost for the purpose of tariff determination, shall be final.

The Commission has further noted that coal from the project will be arranged by the company from a coal company through linkage. However, in case, the company is allotted captive coal block after determination of tariff by the Commission, it will approach the Commission for revision in the tariff considering the arrangement of coal from the captive coalmine. The company and the Board shall also amend the PPA accordingly and approach the Commission for approval of amendment(s) in PPA.

9. Taking an overall view, the Commission under provisions of section 86(1) (b) of the Act permits the CSEB to procure power from the company to the extent of 490 MW on long term basis. Further, the Commission approves the PPA signed on 29.09.07 and the first supplementary PPA signed on 04.10.07 between the CSEB and the company, subject to the following conditions:

- (1) In the petition it is mentioned that this PPA is for purchase of a total of 490 MW from the first and second units of the project. There is no clarity in the petition about the manner in which 490 MW which includes the electricity to be availed by CSEB at energy (variable) charge only will be procured. The PPA needs to clarify the position having regard to the provisions of MOU and Implementation Agreement (IA) of 22.05.2007. The PPA provides that the

CSEB will purchase the contracted capacity and the power output from the project i.e 30% of net power at the delivery point for a period of 20 years. It also states that the company will provide on an annualized basis to CSEB 5 (five) percent of the net energy (gross energy generated minus the auxiliary consumption) generated by the project to CSEB at the energy (variable) charges only, as determined by the Commission. Since the full quantum of power as per the MOU (i.e. 5% at variable cost and 30% as normal tariff) is to be availed from the first two units only, from unit number one (full capacity) and from number two (remaining power), the PPA must clarify as to the quantum of power to be availed at variable cost from unit no.1 and no.2. Secondly, there is no limitation of time period in the MOU as well as in PPA regarding supply of energy to CSEB at energy (variable) charge only by the company. Therefore, it must be clarified in the PPA that 5% or 7.5% of net energy (as the case may be) at energy (variables) charges only, will be sold by the company to CSEB or its successor entity till any of the unit(s) of the project remains in operation, at the same terms and conditions as mentioned in this PPA.

- (2) Since schedule-A & schedule-B are not a part of the PPA now these should be deleted from the PPA and the concerned clauses should be modified suitably by substituting the provisions to be incorporated wherever it is necessary.
- (3) The supplementary PPA dated- 04.10.07 provides that the entire power of the first unit shall be supplied to the Board and the remaining power (490 MU - power availed from the 1st unit) shall be supplied from the second unit. In case of outage of unit-I or unit-II, the agreed power would be supplied by the company from other units in service at the same tariff as applicable for Unit-I and Unit-II.

This clause should be suitably modified such that tariff for sale of power from any unit of this project will be as per the tariff for generation of power from 1st unit of the project only, as decided by the Commission.

- (4) In the supplementary PPA the following has been incorporated :-
"The Tariff determined shall be as per CERC norms and shall ensure a minimum return on equity of 14% to the project company."

Although the Commission will consider the CERC guidelines / norms, but it will not be appropriate to stipulate a minimum rate of return in the PPA. Therefore, the above provision should be amended by incorporating that the Commission will be guided by its own Regulations relating to tariff determination .

- (5) The tariff for power injected prior to COD which is treated as infirm power shall be decided by this Commission. The Commission shall be guided by the CERC Regulation for this purpose. This aspect should be clarified in the PPA wherever it is mentioned.
- (6) There is a mention of State Power Committee (SPC) in the PPA. Since SPC does not exist in the State this provision should be deleted from the concerned clauses.

- (7) The PPA provides that if a change in law results in the company's revenue or costs directly attributable to the project being decreased or increased during operation period, the tariff for power supplied shall be increased or decreased accordingly. It should be clarified in the PPA that any change in the tariff, as approved by the Commission, shall be with the approval of the Commission whether it becomes necessary due to change in law or due to any other reason whatsoever.
- (8) A clause should be incorporated in the PPA that any amendment(s) required to be made in the PPA after the PPA is duly modified as per this order, these should be made only with the approval of the Commission.
- (9) It needs to be incorporated in the PPA that adjudication of the dispute between the CSEB and the generating company shall be done by the Commission as per section 86(1)(f) of the Act. Any contrary provision in this regard in the PPA should be deleted .
- (10) A suitable clause should be incorporated in the PPA mentioning effective date of PPA.
- (11) Since there is a provision of tariff surcharge for delay of COD by CSEB and the tariff rebate for delay of COD by the company and the tariff adjustment payment due to change in law having impact on capital investment prior to COD, it is necessary to incorporate date of COD of atleast of the first and second units in the PPA. Hence, the date for COD of atleast unit no.1 should be mentioned in the PPA.

The Commission directs that a supplementary PPA complying with the above conditions be made by the CSEB and the company.

Sd/-
Member

Sd/-
Chairman