

**ORISSA ELECTRICITY REGULATORY COMMISSION  
BIDYUT NIYAMAK BHAWAN  
UNIT – VIII, BHUBANESWAR – 751012**

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**Present : Shri K C Badu, Member  
Shri B K Mishra, Member**

**Case No. 35/2010**

**In The Matter of:**                      **Application for non-submission of proposal by GRIDCO for determination of tariff for Middle Kolab and Lower Kolab Small Hydro Electric Power Stations as per order dtd. 09.06.2009 passed in Case No. 34/2009.**

AND

**In The Matter of:**

M/s. Meenakshi Power Ltd.

... Petitioner

- Vrs -

GRIDCO Ltd.

... Respondent (1)

M/s. PTC India Ltd.

... Respondent (2)

For the petitioner :                      Mr. R.P. Mahapatra, Authorised Representative of  
M/s. Meenakshi Power Ltd. & Mr. B. Srinivas

For the respondents :                      Mr. A.C. Mallick, Director (Commercial), Mr. P.C. Sahu,  
AGM (PP), GRIDCO  
Nobody present on behalf of M/s. PTC India Ltd.

**Date of Hearing: 04.05.2010**

**Date of Order:08.06.2010**

**ORDER**

1. An application made by M/s. Meenakshi Power Ltd. (in short M/s. MPL) before the Commission for determination of tariff for its two small hydro electric projects namely, Middle Kolab Small HEP (2 x 12.5 MW) and Lower Kolab Small HEP (3x4 MW).
2. The representative of M/s. MPL stated that the Commission in para 8 & 9 of its order dtd.09.06.2009 in Case No.34 of 2009 had observed the following:

*“8. Further, from the Power Sale Agreement (Annexure-A) between GRIDCO and PTC dtd.19.12.2008 it is observed that the tariff payable by GRIDCO to PTC shall be as determined in the PPA between M/s. MPL and M/s PTC India Ltd. or as determined by the Commission plus PTC’s margin of 4 Paise/Kwh.*

*9. The Commission is in the process of finalizing the policy guidelines for determination of the tariff for renewable sources of energy including the Micro/Mini/Small Hydro Projects. Since the detailed calculations to arrive at a particular definite tariff for MPL power have not been furnished, M/s GRIDCO is directed to submit a concrete tariff proposal of these two projects in the prescribed formats as per the new CERC Tariff Regulations, 2009 for necessary consideration of the Commission. However, in the interim period from date of this order i.e. 21.05.2009, the Commission approves a provisional rate of Rs.3.00 per unit which GRIDCO shall pay to M/s PTC India Ltd. M/s PTC India Ltd. in turn will keep 4 paise per KWh as its margin and pay the balance Rs.2.96 per Kwh to M/s MPL in respect of purchase of power from its two small hydro projects. This rate shall be reviewed by the Commission after 30.06.2009 on receipt of relevant cost details of MPL power from GRIDCO. Further, M/s. MPL should declare the date of commercial operation (COD) of their two small hydro projects Middle Kolab and Lower Kolab in order to arrive at the project cost for determination of tariff. Any revenue earned by M/s MPL for such sale of infirm power, before commercial operation shall go as reduction of capital cost for tariff purpose, after adjusting reasonable O&M cost.”*

3. In spite of continuous pursuing by M/s. MPL, GRIDCO did not submit the necessary proposals for determination of tariff of the two SHEPs by the Commission. Further, vide OERC letter dtd.02.01.2010, Director (Commercial), GRIDCO was reminded to file the tariff proposal of the said two SHEPs in accordance with CERC (Terms and Conditions of Tariff) Regulations, 2009 as well as CERC (Terms and Conditions for Tariff Determination of Renewable Energy Sources), Regulations, 2009 in the prescribed format of CERC. All the required data for filing the proposal to OERC was furnished by the petitioner to GRIDCO. But GRIDCO did not file the proposal before the Commission as per Commission’s order dtd.09.06.2009 and letter dtd.02.01.2010.
4. The provisional tariff of Rs.2.96 per Kwh is not adequate for M/s. MPL to meet the obligation towards payment of interest and principal dues to the financial institutions. Therefore, the petitioner has no other option but to approach the Commission under section 86(f) of the Electricity Act, 2003 to determine the tariff of its two SHEPs.
5. The representative of M/s.MPL further stated that CERC in its order dtd.03.12.2009 in a suo-motu petition No.284/2009 has determined the levelised generic tariff under Regulation-8 of the CERC (Terms and Conditions for Tariff Determination of Renewable Energy Sources), Regulations, 2009 and this tariff for SHEP of total

capacity from 5 MW upto 25 MW has been determined at Rs.4.00 per Kwh for the useful life of 35 years. The applicable levelised tariff for useful life of 30 years has been calculated by M/s.MPL as given below:

a)	<b>Lower Kolab SHEP:</b>		
	From 01.04.2009 to 15.09.2009	-	Rs.4.10 per Kwh
	From 16.09.2009 upto the tariff period	-	Rs.4.06 per Kwh
b)	<b>Middle Kolab SHEP :</b>		
	From 01.04.2009 to 15.09.2009	-	Rs.3.16 per Kwh
	From 16.09.2009 upto the tariff period	-	Rs.4.06 per Kwh

6. The evacuation system at 33 KV and 132 KV has been constructed and is also being operated and maintained by the Petitioner for evacuation of power generated to the Jayanagar Grid Substation of OPTCL. Therefore, a common transmission tariff for the energy generated by both the SHEPs has been calculated, taking into account a total of four 132 KV Bays (2 Bays at Middle Kolab SHEP Switchyard for evacuation of power of Lower Kolab SHEP and 2 Bays at the Jayanagar 220/132 KV Grid Substation). The total length of line involved is 70 KM (both 33 KV and 132 KV). The capital cost of the transmission system as approved by the State Technical Committee has been taken into account. Therefore, the transmission tariff comes to 51 paise per Kwh from 01.04.2009.
7. In its prayer the petitioner stated that pending determination of tariff including transmission charges for lower and middle kolab SHEPs of the petitioner, the Commission may approve provisionally the generic levelised tariff for both the SHEPs at Rs.4.00 per Kwh with effect from 16.09.2009.
8. GRIDCO, the Respondent No.1, stated that the tariff of the said two SHEPs of M/s.MPL had been calculated on the basis of the completed capital cost of Rs.243.73 cr. including transmission cost after deducting the revenue earned before date of commercial operation. But this capital cost has not yet been approved by the State Technical Committee (STC) of Govt. of Orissa. The capital cost of Middle Kolab Project and Lower Kolab Project has been approved by STC on 29.12.2007 at Rs.140.288 cr. and Rs.66.975 cr. respectively. The total cost is Rs.207.263 cr. inclusive of power evacuation cost as accorded by STC on 29.12.2007.
9. Since both the projects are in the sensitive areas of Koraput and Malkangiri districts, the demonstration of performance of the units could not be witnessed. Hence the very day when all the units were running its full load i.e. 39.69 MW on **14.07.2009, was**

**declared as the date of commercial operation (COD)** for both the projects as there was no separate meters for each project at Jayanagar Grid Substation. GRIDCO is purchasing power from these two projects through PTC at the rate of Rs.3.00 per Kwh including 4 paise trading margin of PTC. The evacuation system including drawing & design as approved by OPTCL, the generated power from both the stations are evacuated through a 132 KV single Ckt transmission line connected to Jaynagar Grid Sub-station of OPTCL. The metering arrangement is done for both stations combined through a single metering point with Main and Check at Jaynagar Grid S/s.

10. The individual generation data can be recorded only if the metering is done at Generator end of both the Middle Kolab & Lower Kolab SHEPs.
11. GRIDCO prayed the Commission to allow procurement of the power from these two SHEPs for meeting the demand of the State and in order to meet the minimum percentage of renewable power set out by the Commission.
12. The determination of tariff of these two SHEPs may be decided either on cost plus or generic tariff basis, which is the lowest. The developer has claimed completed project cost of Rs.167.03 cr. for Middle Kolab Project and Rs.76.75 cr. for Lower Kolab Project. The STC of Govt. of Orissa has not yet approved the same.
13. The Govt. of Orissa has granted 30 years lease for the projects with a provision for a further period of 20 years subject to all statutory, administrative and other clearance. So the tariff may be determined considering the life period of 35 years for these projects as per CERC Regulation.
14. The Commission heard both the parties and observes that the present case is originated from the Case No.34 of 2009 where GRIDCO had filed an application before the Commission for approval of the Power Sale Agreement (PSA) with PTC for purchase of power from PTC in respect of the entire power generated from the said two small hydro stations of M/s. MPL at a rate as per the PPA between M/s. PTC and the developer M/s. MPL or as determined by the Commission plus PTC's trading margin of 4 paise per Kwh.
15. In the hearing of the said Case No. 34/2009, GRIDCO had submitted that as per the Policy Resolution dtd. 03.06.2005 of the State Government on execution of Mini/Micro/Small HEPs by private developers, 12% free power was to be made available to the State designated agency. GRIDCO had also intimated PTC for

payment of 4 Paise margin on 88% power supply as 12% of the power to be supplied free of cost to the State designated agency in case the developer is supplying power to any agency outside the State. But PTC was insisting for levy of 4 Paise margin on entire power supplied from the aforesaid two SHEPs. GRIDCO had also prayed the Commission to consider purchase of power from PTC in respect of generation from the said two nos. of small hydro stations at a rate of 4 paise margin to PTC on the billable energy as per the terms and conditions to be decided by the Commission to meet the demand of the State.

16. The then representative of M/s. MPL had submitted the following:

- (a) Nothing in this Power Sale Agreement between PTC and GRIDCO should supersede any provisions of the power purchase agreement between PTC and M/s. MPL, in case it is against the interest of M/s. MPL.
- (b) All the power generated from Middle Kolab and Lower Kolab Small Hydro Projects of M/s. MPL is sourced by GRIDCO, the designated purchaser by the State Govt. through PTC. Therefore, supply of 12% free power to the home State is not applicable to the present transaction because the developer is not supplying power to any agency outside the State. The entire power generated is being used in the State only.
- (c) For determination of tariff of these two small hydro projects, the filing before the OERC may be done by M/s. MPL and not by PTC India Ltd. The Commission may determine the tariff payable by GRIDCO after adding trading margin to the tariff so determined.
- (d) At present GRIDCO is paying PTC India Ltd. @ Rs.2.02 per KWh, who in turn pays M/s. MPL @ Rs.1.98 per KWh which is much less than the levelised cost as per PPA.
- (e) The Commission has not approved tariff of these two hydro projects of M/s. MPL and the rate indicated in the tariff orders for the year 2008-09 and 2009-10 are that included unilaterally in the ARR of GRIDCO without the consent of M/s. MPL.
- (f) He also submitted that provisional payment @ Rs.3.10 per KWh be made to M/s. MPL from 27.01.2009 which is applicable to CGPs having co-generation plants in accordance with the interim order dtd. 28.02.2009 of the Commission

in Case No. 06/2009 to 20/2009. This provisional tariff may continue upto 30.06.2009 or till the tariff for M/s. MPL is determined by the Commission.

17. However, the Commission in its order dtd.09.06.2009 in Case No.34 of 2009, had observed the following:

*“The Commission is in the process of finalizing the policy guidelines for determination of the tariff for renewable sources of energy including the Micro/Mini/Small Hydro Projects. Since the detailed calculations to arrive at a particular definite tariff for MPL power have not been furnished, M/s GRIDCO is directed to submit a concrete tariff proposal of these two projects in the prescribed formats as per the new CERC Tariff Regulations, 2009 for necessary consideration of the Commission. However, in the interim period from date of this order i.e. 21.05.2009, the Commission approves a provisional rate of Rs.3.00 per unit which GRIDCO shall pay to M/s PTC India Ltd. M/s PTC India Ltd. in turn will keep 4 paise per KWh as its margin and pay the balance Rs.2.96 per Kwh to M/s MPL in respect of purchase of power from its two small hydro projects. This rate shall be reviewed by the Commission after 30.06.2009 on receipt of relevant cost details of MPL power from GRIDCO. Further, M/s. MPL should declare the date of commercial operation (COD) of their two small hydro projects Middle Kolab and Lower Kolab in order to arrive at the project cost for determination of tariff. Any revenue earned by M/s MPL for such sale of infirm power, before commercial operation shall go as reduction of capital cost for tariff purpose, after adjusting reasonable O&M cost.”*

18. Against the above order of the Commission, M/s MPL had filed a review petition before the Commission with a prayer that the provisional tariff for the two SHEPs of M/s MPL be determined as Rs.3.10 per Kwh and be made applicable with effect from 01.03.2009 because the Commission in its order dtd.28.02.2009 in Case No.6 of 2009 to 20 of 2009 has allowed a provisional tariff of Rs.3.10 per Kwh for Co-generation plants and these two small HEPs of M/s MPL are covered under renewable sources of energy. Further, M/s MPL has prayed to continue this provisional tariff till the Commission determines the tariff and the applicable date thereof based on the concrete tariff proposal to be submitted by GRIDCO as per the order dtd.09.06.2009 of the Commission. The Commission had heard this review petition of M/s MPL on 15.07.2009, but not passed any order on the ground that all the generating units of both the SHEPs were already commissioned and at that stage there was no need for any provisional tariff. The Commission has to determine the final tariff after receiving the necessary data from GRIDCO as per the direction of the Commission its order dtd.09.06.2009 in Case No.34 of 2009.

19. Since GRIDCO did not file the petition as per the direction of the Commission in its order dtd.09.06.2009 in Case No.34 of 2009, now M/s MPL has filed this petition for determination of tariff of these two SHEPs.
20. It is observed that as per the original Case No. 34/2009, the Commission has to approve the Power Sale Agreement (PSA) between GRIDCO and M/s PTC in respect of the entire power generated from the said two SHEPs of M/s MPL for State use and to determine the procurement price for GRIDCO thereon. Since the said PSA is exclusively for purchase of entire power of the two SHEPs of M/s MPL, Commission would like to determine the tariff of these SHEPs keeping in view the sustainability of the two SHEPs as well as interest of the consumers of the State.
21. Though Middle Kolab and Lower Kolab projects are two separate SHEPs, the Commission would like to determine a single tariff for both the projects as there is one delivery point at Jaynagar Grid Sub-station and further the Commission has to determine the single price for procurement of power by GRIDCO from PTC in respect of these two SHEPs.
22. M/s MPL has prayed for the generic levellised tariff as determined by the CERC in Order dtd. 03.12.2009 based on Regulation 8 of the CERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2009. Regulation 8 (1) of the said Regulations stipulated that

*“the Commission shall determine the generic tariff on the basis of suo-motu petition at least six months in advance at the beginning of each year of the control period for renewable energy technologies for which norms have been specified under the Regulations.”*

The CERC Regulation are guiding factors but not binding on the SERCs. OERC has not yet determined the generic tariff for various technologies of Renewable Energy sources. However, the process of finalizing the policy guidelines for determination of tariff for Renewable Energy sources for the State of Orissa is at final stage.

23. Further, Regulations 7(1) (c) of the said CERC Regulations stipulates that

*“Project specific tariff, on case to case basis shall be determined by the Commission for the following types of projects:*

- (c) *The renewable energy projects which have been commissioned before the notification of these Regulations but for which no power purchase agreement has been signed until the date of notification of these Regulations.”*

Both the SHEPs of M/s MPL have been commissioned before the notification of these Regulations. Therefore, project specific tariff would have been applicable for these projects as per the norms of these Regulations. However, as the Power Purchase Agreement (PPA) has already been signed in respect of these projects before the date of notification of these Regulations the determination of tariff be would be guided by the norms as per the PPA.

24. Regarding transmission of power from the generating bus bar to the inter-connection point at Jaynagar Grid Sub-station of OPTCL, M/s MPL has claimed a transmission charge of 51 Paise per KWh. Since the cost of transmission line has already been included in the project cost of the SHEPs, it is not justified for claiming the transmission charge. However, regarding transmission loss it is observed that in the Power Purchase Agreement between M/s. MPL and M/s. PTC it is agreed that auxiliary consumption, transformation losses and transmission losses between switch yard and interconnection point shall be 1% of the energy generated at the generator terminals. Accordingly 1% of the design energy has to be deducted to get the saleable energy and calculation of tariff thereon.
25. However, during the hearing Director (Com.), GRIDCO stated that GRIDCO would discuss with OPTCL and M/s MPL for necessary metering arrangement at the generating switch yard site so that the issue of transmission loss would be resolved.
26. M/s MPL has indicated the completed cost of the two SHEPs at Rs.251.70 crore (including cost of power evacuation system), which is not yet approved by STC and also M/s MPL has not submitted the project cost duly certified by the statutory auditors. The STC, in its meeting on 29.12.2007, had approved the total project cost of Rs.207.263 crore in respect of the said two SHEPs of M/s MPL, including the cost of power evacuation system. The completed project cost is pending with STC for approval.
27. As per the Power Purchase Agreement between M/s MPL and M/s PTC, the debt-equity ratio shall be 70:30 and the rate of interest on the both Debt-I, and Debt-II is 11.28% with the repayment period of 12 years. The Commission would like to consider the same for determination of tariff of these two SHEPs. Similarly as per the Power Purchase Agreement between M/s MPL and M/s PTC and Power Sale Agreement between M/s PTC and GRIDCO the combined design energy of these two SHEPs is 141.57 MU which is to be considered for determination of tariff.



28. However, Govt. of Orissa, Deptt. of Energy, vide its resolution dtd.03.06.2005 has resolved that “the developers supplying power to any agency outside the state should supply 12% free power to a state designated utility. The tariff for all such mini/micro and small hydro projects, which has not been commissioned till 01.04.2004 should factor into such supply of 12% free power to the State Designated Agency.” Accordingly, the Commission vide its order dtd. 01.10.2009 in Case No. 101/2009 in respect of Samal Barrage SHEP (5 x 4 MW), has approved that “the saleable power of the project shall be determined on 88% of the design energy of the project and the balance 12% of the power to be treated as free power for the home state. As GRIDCO buys the entire saleable power of the project i.e. power injected on the designated delivery point (calculated at Gross Energy generated less auxiliary and transformation loss, less transmission loss on the dedicated line, if any) minus 12% free power (calculated at 12% of net design energy of the Project), trading margin of 4 paise/kWH shall be paid by GRIDCO to PTC on saleable power. The tariff of the project shall be calculated on 88% net design energy of the project.” The Commission approved the above as per the views of the State Government, a respondent to the Case No. 101/2009. But in the present case the Government of Orissa has not been made a respondent. However, the same principle may be applicable in case of Middle and Lower Kolab SHEPs of M/s. MPL and, therefore, the tariff would have to be computed at 88% of the net design energy i.e. on 123.34 MU (88% of 141.57 MU less 1%).
29. In view of the above, the Commission observes that it may not be appropriate at this stage to determine the final tariff of the said two SHEPs of M/s. MPL along with the procurement price of GRIDCO for purchase of power from M/s PTC thereon, because the completed cost of these projects is yet to be approved by the STC. Now, GRIDCO is purchasing power from cogeneration plants at a price of Rs.3.20 per KWh w.e.f. 01.11.2009. Therefore, keeping in view the submission of M/s. MPL regarding its difficulties on meeting the obligations towards payment of interest and principal dues to the financial institutions, the Commission approves a provisional rate of Rs.3.20 per KWh which GRIDCO shall pay to M/s. PTC India Ltd and M/s PTC India Ltd. in turn, will keep 4 paise per KWh as its margin and pay balance Rs.3.16 paise to M/s MPL in respect of purchase of power from the said two SHEPs. Since the commercial operation is deemed to have commenced w.e.f. 14.7.2009 and the rate of power from the co-generating plants has been revised to Rs.3.20 per Kwh w.e.f. 01.11.2009, this

provisional rate shall be applicable from 01.11.2009 pending fixation of final tariff. Since the Commission in the ARR of GRIDCO for 2010-11 has approved purchase of 300 MU from small hydro sources at Rs.305 paise per unit, the extra power purchase cost of GRIDCO due to this enhanced rate of renewable energy from M/s. MPL shall be taken care of in the subsequent year while approving the BSP of GRIDCO. Further, the Commission directs GRIDCO to file a petition for determination of final tariff of these two SHEPs, immediately after finalization of the completed cost of the projects by STC. The views of the State Govt. are also required to be made available with regard to stipulation of 12% free power. At that time M/s. MPL has to submit the agreement of the loan availed from the financial institutions for these projects including the loan repayment schedule and rate of interest. After determination of final tariff if it falls below the tariff now determined, the extra amount paid to M/s MPL shall be refunded back to GRIDCO or adjusted from the future power purchase bills.

30. GRIDCO should take expeditious action for filing of calculation of tariff and follow up action on para -25.
31. Now the review petition filed by M/s MPL against the order of the Commission dtd. 09.06.2009 in Case No. 34/2009 and heard on 15.07.2009 has been dealt in this case. Hence, there is no need for issue of a separate order for that case.
32. The case is accordingly disposed of.

**(B.K. MISRA)**  
**MEMBER**

**(K.C. BADU)**  
**MEMBER**