

**KERALA STATE ELECTRICITY REGULATORY COMMISSION
THIRUVANANTHAPURAM**

**Present : Shri T K Jose, Chairman
Adv. A.J Wilson, Member
Shri B Pradeep, Member**

OP No. 24/2024

In the matter of : Petition seeking determination of project specific tariff for 50 kW Deviar Micro Hydro Electric power project.

Petitioner : M/s Hydro Power Ltd

Petitioner represented by : Shri. Ajay Abraham, Chief Executive Officer

Respondent : Kerala State Electricity Board Ltd (KSEB Ltd)

Respondent represented by : Shri M.P Rajan, Dy. Chief Engineer, TRAC
Smt. Latha S V, Executive Engineer, TRAC
Shri. Rajesh R, Assistant Executive Engineer, TRAC
Shri. Shine Raj, Assistant Executive Engineer, TRAC
Smt. Asha A V, Assistant Engineer, TRAC

Date of hearing : **14.08.2024**, 12:00 Noon

Venue : Court Hall of the Commission

Order dated 23.05.2025

1. M/s Hydro Power Ltd (herein referred as petitioner) on 03.06.2024 has filed a petition before the Commission with the prayer to determine the project specific tariff for 50kW Deviar MHEP, not less than @ Rs 5.50/unit the generic tariff established by the Commission for similar projects in previous years.
2. The summary of the petition filed by M/s Hydropower Ltd is given below;
 - (1) M/s Hydropower, had established a micro hydel plant namely Deviar Micro Hydro Electric Project of capacity 50 kW (2 x 25kW) at their own land at Neriamangalam, Idukki District. The project declared CoD on 23.11.2017. Since then, the electricity generated from the plant is injected into the State grid.
 - (2) The Commission vide the Order dated 28.02.2024 in petition OP No:77/2022, has ordered as follows regarding the tariff of the electricity generated from the project;
 - (i) The tariff for the electricity generated and supplied to KSEBL from the 50kW Deviar Micro Hydel plant of the developer M/s Hydropower shall be the 'average cost of power purchase of

KSEBL from sources other than its own plants as applicable for each financial years concerned, subject to a ceiling of Rs 4.50/unit, subject to orders, if any, on determination of project specific tariff.

- (ii) The above rate(s) shall be applicable for the entire electricity generated and supplied from 05.07.2016, i.e., the date of synchronization, subject to orders, if any, on determination of project specific tariff.
 - (iii) The developer M/s Hydropower, at its liberty, can file separate petition for the determination project specific tariff, provided the developer could submit all the necessary and sufficient details with all supporting documents along with the petition for the determination of the project specific tariff.
- (3) In compliance of the Order of the Commission dated 28.02.2024 in petition OP No. 77/2022, M/s Hydropower filed the instant petition.
- (4) The petitioner claimed that, total capital cost incurred for the project is Rs 72.93 lakh. The petitioner also submitted that, the O&M cost incurred is Rs 5.02 lakh annually.

The petitioner requested before the Commission to determine the project specific tariff of the project, not less than Rs.5.50/unit, i.e, not less than the generic tariff approved by the Commission for similar projects in previous years, including the 110 kW Mankulam (Pampumkayam) MHEP and 50 kW Kallar MHEP projects.

The Kerala Small Hydropower Policy 2012, promotes development of micro, mini hydel projects in the State.

- (5) Deviar MHEP was undertaken in 2014, primarily utilizing local manpower in the remote village of Kanjiraveli, Neriambangalam, Being a small, self funded initiative, detailed tax invoices for all local works may not have been generated as per the current GST Regulations. Hence, the petitioner requested to approve the capital cost based on the documents submitted for the project cost determination.
- (6) The details of the project cost submitted by the petitioner is given below;

Sl No.	Particulars	Amount (Cr)
1	Land cost	0.01
2	Civil, Electrical & other works	0.64
3	Expenses without invoice	0.08
	Total	0.73
5	O&M cost/year	0.050

- (7) The petitioner further submitted that, in future, they are planning to consume electricity generated from the Deviar MEHP and sell the remaining quantum after self consumption only to KSEBL.
 - (8) The petitioner has remitted the petition fee of Rs 10,000/- and requested to exempt them from payment of heavy petition fee for the determination of project specific tariff.
3. The Commission admitted the petition as OP No. 24/2024. Hearing on the petition was conducted on 14.08.2024 at Court Hall of the Commission at its office at Thiruvananthapuram. Shri. Ajay Abraham presented the matter on behalf of the petitioner. Shri. Shine Raj, Asst: Executive Engineer presented the matter on behalf of the respondent KSEBL. The summary of the deliberations during the hearing is given below.
- (1) The petitioner during the hearing submitted the following;

Deviar Micro Hydel plant is the only micro hydel plant presently functioning in the State.

Although, theoretical maximum output of the station was 1200units per day, the average generation is less than 850 units per day, due to the mechanical limitations. The plant is operating at a maximum capacity of 42kW as against 50kW.

The capital considered by the Commission for determination of generic tariff in the Year 2016-17 was Rs 646.75 lakh per MW, which translate to Rs 32.30 lakh for a 50kW project. However it is not practical to implement a micro hydel project at that cost, and the actual cost of the Deviar Micro Hydel Project exceeded Rs 70.00 Lakh.

The O&M cost of the project is typically about Rs 5 lakh annually, however they are operating at a reduced budget of Rs 4.00 lakh per year.

Regarding the tax invoices, the petitioner submitted that the project was commissioned in the Year 2014 prior to the implementation of the GST. Getting tax invoices from the local suppliers is difficult.

The actual cost of the project is Rs 72.92 lakh and they could produce invoice for about Rs 64.00 lakh and the balance claim is the salary and other labour related expenses.

The petitioner requested for a ceiling tariff of Rs 5.50/unit as a promotional measure to ensure sustainability and to encourage further RE development and entrepreneurship in this sector in the State.
 - (2) KSEBL submitted that, the determination of tariff of the Deviar Micro Hydel Plant (50kW) of the petitioner was extensively discussed and deliberated in the previous proceedings.

KSEBL point out that, earlier the petitioner has claimed the capital cost of the project at Rs 101.70 lakh, subsequently revised to Rs 75.96 lakh. However, in the instant petition the capital cost claimed is Rs 72.92 lakh. The petitioner could not submit tax invoices for the amount claimed towards the capital cost of the project.

KSEBL submitted that, the present petition filed by the petitioner may be rejected.

- (3) During the deliberations, the Commission has clarified that, project specific tariff can be determined on submission of the tax invoices for the cost incurred for the project. However, the petitioner could not produce invoices for the various cost elements claimed by the petitioner.

The Commission clarified that, it cannot review its early decision and determine the tariff @ Rs 5.50/unit, without supporting documents on the claim of capital cost of the project.

The Commission further clarified that, it cannot reopen the matter with the same documents and other claims.

4. KSEBL vide the submission dated 19.09.2024 has submitted the following regarding the petition filed by M/s Hydropower from its 50kW Deviar micro hydel projects.

- (1) The project cost claimed by the petitioner is Rs 72.92 lakh, and this make the per MW cost at Rs 14.584 Cr. The project was connected to the grid on 05.07.2016 and declared CoD w.e.f 23.11.2017. The normative captical cost of the SHPs commissioned during the year 2017 is Rs 6.46 Crore per MW only.
- (2) Deviar micro hydel project was allotted to the petitioner M/s Hydropower as per the provisions of Clause 7.3 of Kerala Small Hydro Policy 2012, notified by Government vide the Order GO (P) No. 25/2012/PD dated 03.10.2012, as the 'projects identified by persons on their own land'. Since the project belongs to own land category, land cost cannot be claimed for tariff determination.
- (3) The petitioner claimed that the total capital cost of the 50kW micro hydel project @Rs 72.92 lakh. However, tax invoices for Rs 6.56 lakh only produced by the petitioner.

The Commission in the earlier orders on determination of project specific tariff of the generating stations has taken the consistent stand that for claiming capital cost of the projects, it shall be supported with tax invoices.

Some of the invoices submitted by the petitioner is even without authorized signatory. Similarly, different rates mentioned in two invoices claimed for same items.

With the details submitted by the petitioner, it is not possible to verify the prudence of the expenses claimed in the petition.

- (4) It is seen that, the project was synchronised with the grid in the Year 2016. MNRE grants for micro, mini and small hydro projects was available till 31.03.2017. However, the petitioner could not get MNRE grant for the project.

Analysis and Decision of the Commission

5. Commission having examined in detail the petition filed by M/s Hydropower, the comments of the respondent KSEBL, provisions of the Electricity Act, 2003, Rules and Regulations in force, has decided on the matter as follows;

6. **Background**

- (1) M/s Hydropower, had established a micro hydel plant namely Deviar Micro Hydro Electric Project of capacity 50 kW (2 x 25kW) at their own land at Neriamangalam, Idukki District. The project was connected to the grid on 05.07.2016 and declared CoD on 23.11.2017. Since then the electricity generated from the plant is injected into the State grid.

- (2) KSEB Ltd and M/s Hydropower had initialed the 'draft PPA' in the year 2019 for the purchase of power from the project. Further, as per the Clause 5.4 of the draft initialed PPA specified the tariff of the project as follows.

"Tariff for power generated from the project shall be project specific tariff as determined by the Commission or generic tariff notified by the Commission, whichever is lower".

- (3) M/s Hydropower on 16.07.2019, had filed a petition before the Commission for approval of draft Power Purchase Agreement (PPA) duly initialed by the petitioner and KSEB Ltd. The petitioner requested to approve the **'term of the agreement' for 10 years from the date of commercial operation'**.

- (4) Since M/s Hydropower could not produce necessary and sufficient details, the Commission vide the Order dated 14.09.2019 had decided to approve an interim tariff for the period up to 31.03.2022, and directed M/s Hydropower to submit the necessary details for determining the project specific tariff. The relevant portion of the Order of the Commission dated 14.09.2020 in OP No.56/2019 is extracted below;

"(1) Since the petitioner has not submitted the authenticated documents to the Commission, the prayer to approve the draft PPA is not agreed to due to the reasons explained under paragraphs 20 to 24 above, till such time the project specific tariff is determined and incorporated in the PPA.

- (2) *The petitioner is hereby directed to submit complete details of the capital cost of the project along with authenticated supporting documents within the time limit specified under paragraph 24 above. The petitioner is also permitted to file a fresh petition for determination of project specific tariff and approval of the Draft PPA as per the provisions of the KSERC (Conduct of Business) Regulations, 2003, but not later than 31.03.2022. As a special case the petitioner is exempted from remitting the petition fee for filing this petition for determination of tariff as per this Order of the Commission.*
- (3) *The request of the petitioner to approve an interim tariff for claiming payments for the energy injected into the grid since the date of connection i.e. 05.07.2016 is approved subject to the following*
- (i) Till such time the project specific tariff is determined, KSEB Ltd shall pay Hydropower an interim tariff at the rate of the average cost of power purchase from sources other than from KSEB Ltd.'s own plants as applicable for each of the Financial Years.**
 - (ii) KSEB shall, within two weeks from the date of this order, communicate the APPC as explained in Para-26 above to enable the petitioner to claim the interim payments for the energy injected since 05.07.2016.*
 - (iii) Hydropower shall within one month of the date of this Order and before receiving the first interim payment execute an undertaking that any overpayment detected at a later stage shall be deducted from the payments due to Hydropower.*
 - (iv) Similarly, any payment due to Hydropower on account of this interim tariff being lower than the final tariff fixed shall be paid by KSEB Ltd based on an invoice raised by Hydropower.*
 - (v) Once the invoice is raised by the petitioner, KSEB Ltd shall make the payments within one month from the date of the invoice raised by the petitioner. If KSEB Ltd make delay the payments, it shall pay interest @1.25% per month for the delay from the due date, i.e., delay counted from one month after the date of invoice.*
 - (vi) Petitioner is not eligible for interest for the delay in raising the invoice. Petitioner is also not eligible for the interest for the delay in claiming the interim tariff for the energy injected into the grid since 05.07.2016 till date, for want of approved tariff.*
 - (vii) Petitioner is allowed to claim interim tariff only for the energy injected into the grid till 31.03.2022. Within the said period, i.e., by 31.03.2022, the petitioner shall get the approval of the project specific tariff of the project by filing proper petition as detailed under paragraph 24 above."*
- (5) As above, the Commission had approved the interim tariff up to 31.03.2022 @the Average Power Purchase Cost (APPC) of KSEB Ltd excluding cost of own plants. KSEB Ltd has been making payments to M/s Hydropower, at the APPC as approved by the Commission.
- (6) However, M/s Hydropower had not filed the necessary details for determining the project specific tariff as directed by the Commission vide the Order dated 14.09.2020.

Subsequently, M/s Hydropower vide the letter dated 19.03.2022 submitted that due to COVID-19 pandemic and the restrictions imposed in the State consequent to the COVID-19 pandemic, they could not fulfill the directives of the Commission to file a proper petition with all relevant

details for the determination of project specific tariff and requested to extend the interim tariff to one more year up to 31.03.2023.

- (7) The Commission had examined the request of M/s Hydropower and vide the letter dated 16.08.2022, had decided to extend interim tariff upto 31.03.2023, with the condition that any further extension of interim tariff shall not be considered under any circumstances.
- (8) In the meantime, KSEBL had filed a petition on 14.11.2022 to “re-examine the criteria fixed by the Commission for determining interim tariff in connection with the extension of Interim Tariff approved by the Commission vide Order dated 14.09.2020 in petition OP No:56/2019 for a further period of 1 year from 01.04.2022 to 31.03.2023”.
- (9) The Commission, after hearing the parties and also after appraising the entire matter in detail, vide the Order dated 28.02.2024 in petition OP No.77/2022, has ordered the following;

“

- (1) The tariff for the electricity generated and supplied to KSEBL from the 50kW Deviar Micro Hydel plant of the developer M/s Hydropower shall be the ‘average cost of power purchase of KSEBL from sources other than its own plants as applicable for each financial years concerned, subject to a ceiling of Rs 4.50/unit, subject to orders, if any, on determination of project specific tariff.*
- (2) The above rate(s) shall be applicable for the entire electricity generated and supplied from 05/07/2016 i.e., the date of synchronisation, subject to orders, if any, on determination of project specific tariff.*
- (3) The developer M/s Hydropower, at its liberty, can file separate petition for the determination project specific tariff, provided the developer could submit all the necessary and sufficient details with all supporting documents along with the petition for the determination of the project specific tariff.”*

- 7. As discussed above, the Commission vide the Order dated 28.02.2024 in petition OP No. 77/2022 had given liberty to the petitioner to file separate petition for determination of project specific tariff, with all necessary and sufficient details and supporting documents for the determination of project specific tariff. Accordingly, the petitioner filed the instant petition.
- 8. Commission has examined the entire documents submitted by the petitioner during the deliberations of the subject matter. However, the petitioner could not produce the tax invoices and other documents in support of the capital cost claimed by the petitioner. The capital cost incurred by a generator is the basis for the determination of the project specific tariff of the electricity generated from a power plant. More precisely, the main component of generator tariff such as interest of loan, return on equity, depreciation etc depends on capital cost of

the project. Without ascertaining the actual cost incurred for the project upto CoD, the Commission is not in a position to determine the project specific tariff of the 50kW micro hydel projects of the petitioner.

The Commission has also noted the difficulties pointed out by the petitioner for producing the tax invoices of a project which was commissioned in the Year 2017. However, the difficulties in submitting the tax invoices and other relevant details cannot be considered as a reason for accepting the capital cost claimed by the petitioner without supporting documents.

The petitioner also sought approval of the Commission for a project specific tariff not less than Rs 5.50/unit, the generic tariff determined by the Commission for similar projects in the previous years. The Commission vide the paragraph 21 of the original Order of the subject matter in Petition No. OP 56/2019 dated 14.09.2020 has stated under;

“ 21. Article 5.4 of the PPA provide as follows:

“5.4 Tariff for power generated from the project shall be project specific tariff as determined by the Commission or generic tariff notified by the Commission, whichever is lower”.

As per the above clause in the draft initialed PPA, the Commission is required to determine the project specific tariff of the project and the final tariff awarded shall be lower of the project specific tariff and generic tariff. The Commission noted that the COD of the project was on 23.11.2017, and accordingly the year of COD is the FY 2017-18. The Commission has not determined any generic tariff for micro hydel project commissioned in the year 2017-18. Hence, the tariff to be incorporated in the PPA has to be the project specific tariff to be determined by the Commission.”

However, Considering the reasons as explained in the previous paragraphs, the Commission is not in a position to determine the project specific tariff of the 50kW Deviar micro hydel project of the petitioner.

9. **Considering these aspects in detail, the Commission reaffirm that, the tariff of the electricity generated from the 50kW Deviar Micro Hydro Electric Project of the petitioner and supplied to the respondent KSEBL shall be the ‘average cost of power purchase of KSEBL from sources other than its own plants as applicable for each financial years concerned, subject to a ceiling of Rs 4.50/unit.**
10. During the deliberations of the subject matter, the petitioner submitted that, they are planning to consume electricity generated from ‘Deviar MHEP’ for their own use, and sell only the balance quantum after self-consumption to KSEBL.

The Commission further noted that, in the original petition OP No.56/2019, the petitioner has requested to approve to supply power to KSEBL for a term of ‘10 years’ from date of CoD.

The project achieved CoD on 23.11.2017, and the FY 2025-26 is the 9th year after CoD. Hence, after the completion of the 10th year after COD, the petitioner

with the consent of KSEBL can opt for own use or third party sale as per the provisions of the Kerala Small Hydro Policy, 2012, of the electricity generated from the 50kW Deviar Micro Hydel Project owned by M/s Hydropower.

Order of the Commission

11. Commission, after examining the petition filed by M/s Hydropower, the comments of the respondent KSEBL, provisions of the Electricity Act, 2003, Rules and Regulations in force, has Ordered as follows;
- (1) Reject the petition filed by M/s Hydropower for the determination of the project specific tariff for 50kW Deviar Micro Hydel Project, due to the reasons explained under paragraph-8 of this Order.
 - (2) The tariff of the electricity generated from the 50kW Deviar Micro Hydro Electric Project of the developer M/s Hydropower shall be the 'average cost of power purchase of KSEBL from sources other than its own plants as applicable for each financial years concerned, subject to a ceiling of Rs 4.50/unit.

The petition disposed of. Ordered accordingly.

**Sd/-
T K Jose
Chairman**

**Sd/-
Adv. A J Wilson
Member**

**Sd/-
B Pradeep
Member**

Approved for issue

C R Satheesh Chandran
Secretary