

Before The Hon'ble Himachal Pradesh Electricity Regulatory
Commission At Shimla

Petition No. of 2017.
M/S Kapil Mohan & Associates Hydro Power (P) LTD Petitioner
Versus

HPSEBL & others

Respondents

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Petitioner

Through counsel

Shimla
05.01.2018.

(Ajay Vaidya)
Advocate

and 50-A of the HPERC Regulatory Commission (conduct of Business) regulation 2005 in respect of Beas Kund HEP (9.00 MW) situated in DisttKullu(HP).

- B) That vide its order dated 3.11.2017 beside other observations the Honble Commission directed the petitioner for project specific tariff determination of the present project with full promptness and due diligence. The copy of the Order is placed on record **Annexure P-1**.
- C) Therefore as directed by HPERC in the aforesaid notice ,the Petitioner Company is filing a petition u/s 62, 94 of the Electricity Act 2003, read with regulation 6 of HPERC (Power Procurement from Renewable Sources and Co-generation by Distribution Licensee) Regulations, 2007 with a prayer to allow the petition & consequently determiné the tariff.

2) HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION(HPERC) REGULATIONS

- A) Himachal Pradesh Electricity Regulatory Commission (Power Procurement from Renewable Sources and Co-generation by Distribution Licensee) Regulations 2007, Regulation 6 (1) - Determination of Tariff for electricity from Renewable sources, states that :-

The Commission shall, by a general or special order, determine the tariff for the purchase of energy from renewable sources and co-generation by the distribution licensee, or the State Transmission Utility or the

transmission licensee, engaged in the activity of bulk purchase and sale of electricity to the distribution licensee;

Provided that the Commission may determine tariff including augmentation costs of the grid beyond interconnection point-

- by a general order, for small hydro projects not exceeding 5 MW capacity; and
- by a special order, for small hydro projects of more than 5 MW and not exceeding 25 MW capacity, on individual project basis.

B) Hence in pursuance to sub-regulation (1) of regulation 6 of HP Electricity Regulatory Commission (Power Procurement from Renewable Resources and Cogeneration by Distribution Licensee) Regulations, 2007, the petitioner company prays to this Honble Commission to determine tariff of Beas Kund HEP (9.00 MW) by a special order on individual project basis.

3) REFERENCE TO CERC BY HPERC REGULATIONS

Regulation 6 (3) - Determination of Tariff for electricity from Renewable sources, of Himachal Pradesh Electricity Regulatory Commission (Power Procurement from Renewable Sources and Co-generation by Distribution Licensee) Regulations, 2007, states that While deciding the terms and conditions of tariff for energy from renewable sources and co-generation, the Commission shall, as far as possible, be guided by the principles and methodologies specified by the Central Commission, the

National Electricity Policy, the Tariff Policy and the tariff regulations notified by the Central Commission.

Provided that the Commission, may for sufficient reasons and after exercising due diligence and applying prudence check, deviate from the terms and conditions of the generation tariff notified by the Central Commission.

4) CENTRAL ELECTRICITY REGULATORY COMMISSION REGULATIONS

A) In exercise of powers conferred under Section 61 read with Section 178 (2)(s) of the Electricity Act, 2003 (36 of 2003), and all other powers enabling it in this behalf, the Central Electricity Regulatory Commission made, Central Electricity Regulatory Commission (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009.

Among other renewable sources of energy, this Regulations provides for terms and conditions & procedure for determination of tariff of Small Hydro Projects with a station capacity up to and including 25 MW in the region of Himachal Pradesh.

B) The Regulations enjoins upon the CERC to determine the generic tariff on the basis of the suomotu petition, for the RE technologies for which norms have been provided in the regulations. Clause (1) of Regulation 8 of the said Regulations provides that "the Commission shall determine the generic tariff on suomotu basis 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

- C) commissioned during FY 2012-13, The CERC had suo motu issued the generic tariff order i.e CERC tariff order , which among other things , states the Parameter Assumptions ,principles and methodologies for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh.

5) THE LOGIC

Considering the FOLLOWING -

- A) Commissioning of Beas Kund HEP (9.00 MW) in the year 2012-13 ,
- B) Sub-regulation (1) of regulation 6 of HPERC (Power Procurement from Renewable Resources and Cogeneration by Distribution Licensee) Regulations, 2007, states that for small hydro projects of more than 5 MW and not exceeding 25 MW capacity, HPERC may determine tariff by a special order.
- C) Regulation 6 (3) of HPERC (Power Procurement from Renewable Sources and Co-generation by Distribution Licensee) Regulations, 2007 stating that the HPERC shall, as far as possible, be guided by the principles and methodologies specified by the Central Commission,
- D) CERC tariff, specific for Renewable projects commissioned during FY 2009-10.

E) CERC tariff ,among other things is also applicable to Projects between 5 MW and 25 MW,

CERC tariff order ,is the more relevant tariff order, for determination of tariff in respect of Beas Kund HEP (9.00 MW) of M/S Kapil Mohan & Associates Hydro Power Private limited.

Therefore for the purpose of tariff determination principles, methodologies, & parameters as stated in CERC tariff order is taken into consideration ,subject to variations which have been specified below (along with reasons thereof).

6) EVALUATION OF DIFFERENT PARAMETERS FOR THE PURPOSE OF TARIFF CALCULATION

The detailed computations for the tariff & Parameters considered have been enclosed to Petition as: Annexure C - Tariff Calculation, Annexure B -Parameters details for Tariff calculation.

A) Capacity Utilization Factor(CUF)-

As per Annexure – 2B of CERC tariff order ,for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, normative CUF is 45%.However as per detailed project report (DPR), energy generation in a 75% dependable year works out to be 46.397 MU & considering 5% Outage as per DPR, CUF works out to 55.91%.(Actual overall CUF achieved for the FY 2014-15 is 40.07 %, for FY 2015-16 is 47.59 % &for FY 2016-17 is 47.40 % on gross generation basis)

As project specific tariff is to be calculated for Beas Kund HEP (9.00 MW) , & as debt equity ratio, project cost, interest rate, Operation & Maintenance is taken at actual in tariff calculations , Transmission loss & Royalty is considered separately & subsidy is not factored in tariff calculations, higher CUF of 55.91% is considered in the calculations ,though norm is lower i.e 45 %

B) Useful Life –

As per Annexure – 2B of CERC tariff order dt 26.4.2010,for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, norm is 35 years. However Useful Life of the Beas Kund HEP (9.00 MW) as per DPR is 40 years, & the lease period is also of 40 years .Hence for tariff calculations 40 years of Useful Life is considered.

C) Auxiliary Consumption, Transformation Losses -

As per Annexure - 2B of CERC tariff order for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, norm is @ 1 % for auxiliary consumption, which is similar to DPR figures & the actuals. Hence Auxiliary Consumption, Transformation Losses is taken at @ 3 %.*DPR mentions auxiliary consumption as @ 0.5 % and transformation & transmission losses as @2.5 %*

D) Transmission loss –

CERC tariff order for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh. does not consider Transmission loss separately. Transformation & Transmission

loss is @ 2.5 % as per DPR. Average of Actual, Transformation & Transmission losses is 2.50% as per Note 2 of Annexure B to this petition.

As normative CUF is not considered in tariff calculations but CUF as per DPR is considered, Transmission loss of 1.04% has been considered in the tariff calculations, though it is less than the DPR figures.

Royalty-

As per Annexure – 2B of CERC tariff order, for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, normative CUF of 55.91 % is net of free power to the home state if any. However the petitioner company has considered higher CUF of 55.91 % as per DPR in the calculations. Hence actual Royalty as per DPR which is same as actual i.e. 13.65% for the 1st 12 years, 19.65 % for next 18 years, 31.65 % for remaining 10 years, is considered in the tariff calculations.

E) Project Cost -

As per Annexure – 2B of CERC tariff order dt 26.4.2010, for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, normative Project Cost is Rs. 5.71 crores /MW. Actual project cost is Rs.90.02crores.

As project specific tariff is to be determined & normative CUF is not considered in tariff calculations, Actual project cost of Rs.90.02crores has to be considered in the tariff calculations.

F) Debt: Equity -

As per Annexure – 2B of CERC tariff order dt 26.4.2010, for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, norm is 70% debt & 30% Equity. Actual debt equity proportion is 69% debt (Actual debt of Rs.62.12 crores) & 31% Equity.

As project specific tariff is to be determined, Project Cost is taken at actuals in the calculations & normative CUF is not considered in tariff calculations, the debt equity proportion is also taken at actuals in the calculations i.e 69% debt (Actual debt of Rs.62.12 crores) & 31% Equity.

G) Depreciation

CERC tariff order dt 26.4.2010 & Regulation 15 of the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009 provides for computation of depreciation in the following manner:

The Salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the Capital Cost of the asset. The depreciation rate for the first 10 years of the Tariff Period shall be 7% per annum and the remaining depreciation shall be spread over the remaining useful life of the project from 11th year onwards. Hence for the purpose of the tariff calculations the depreciation rate for the first 10 years of the Tariff Period is taken as 7% per annum, & remaining

depreciation is spread over the remaining useful life of the project i.e 30 years .

Depreciation Rate 11th year onwards is 0.80% in Annexure – 2B of CERC tariff order dt. 26.4.2010 & in tariff calculations 0.67% has been considered , as useful life is 35 years as per norm (hence in norm balance depreciation is spread over remaining useful life of $35-10=25$ years) & useful life is taken as 40 years in the calculations (therefore balance depreciation is spread over remaining useful life of $40-10=30$ years)

H) Repayment Period(including Moratorium)

CERC tariff order dt. 26.4.2010 & Regulation 14 of the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009 states that the loan tenure of 10 years is to be considered for the purpose of determination of tariff for RE projects. Notwithstanding any moratorium period availed by the generating company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed. Hence in tariff calculations Repayment is equal to the annual depreciation allowed & loan tenure of 10 years is considered

I) Interest Rate

As per Annexure – 2B of CERC tariff order dt 26.4.2010, for Small Hydro Power Projects between 5 MW and 25 MW in

Present interest rate (as on June 13), applicable to the petitioner company is 13.39% pa.

As project specific tariff is to be determined, Project Cost, debt equity ratio is taken at actuals in the calculations & normative CUF is not considered in tariff calculations, therefore Present interest rate (as on June 13) of 13.39 %p.a as applicable to the petitioner company ,is considered in tariff calculations .

J) Return on Equity

As per Annexure – 2B of CERC tariff order dt 26.4.2010, for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, Return on Equity for first 10 years is 19%p.a. Return on Equity 11th year onwards is 24% p.a. In tariff calculations same Return on Equity is considered.

As per Annexure – 2B of CERC tariff order dt 26.4.2010 Weighted average of ROE is 22.57% considering normative useful life of 35 years & taking no of years as weights .In tariff calculations Weighted average of ROE is taken at 22.75% as the weights i.e no of years are different because the useful life in tariff calculations is 40 years as against norm of 35 years .The calculations for Weighted average of ROE is given at Note 4 of Annexure B to this petition.

K) Discount Rate

As per Annexure – 2B of CERC tariff order dt 26.4.2010, for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, Discount Rate is 16.14% .Interest Rate

As project specific tariff is to be determined & Project Cost,debt equity ratio, interest rate, is taken at actuals in the tariff calculations & normative CUF is not considered in tariff calculations, Discount Rate of 16.77% is taken which is arrived by considering actual Interest Rate, actual debt equity ratio & Weighted average of ROE of 22.75%.The calculation of the discount rate of 16.77% is given in Note 4 of Annexure B to this petition.

L) Working Capital

Annexure – 2B of CERC tariff order dt 26.4.2010 & Regulation 17 of the CERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2009 provides for the working capital requirements of the Renewable Energy projects as under:

- (a) Operation & Maintenance expenses for one month;
- (b) Receivables equivalent to 2 (Two) months of energy charges for sale of electricity calculated on the normative CUF;

(c) Maintenance @ 15% of operation and maintenance expenses. In tariff calculations the same norms have been considered.

However Receivables per month have been taken as, those arrived for in respective years in tariff calculations & not receivables per month calculated on normative CUF. As project specific tariff is to be determined & As Project Cost,debt equity ratio, interest rate are taken at actuals & normative CUF is not considered in tariff calculations, the receivables per month are not based on normative CUF.

M)Interest On Working Capital

As per Annexure - 2B of CERC tariff order dt 26.4.2010,for Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, Interest On Working Capital is taken at 12.89%. Actual Present interest rate (as on June 13), applicable to the petitioner company is 13.39% p.a.

As project specific tariff is to be determined & As Project Cost,debt equity ratio is taken at actuals in the calculations, therefore Present interest rate (as on June 13) of 13.39%p.a as applicable to the petitioner company is considered in tariff calculations.

N) Operation & Maintenance

Small Hydro Power Projects between 5 MW and 25 MW in Himachal Pradesh, Operation & Maintenance Expense is Rs 15.86 lakhs/MW . Actual average O & M Expenses is Rs88.13 lakhs i.e Rs 16.32 lakhs/MW , as per note 5 to Annexure B .

As project specific tariff is to be determined & Project Cost,debt equity ratio, interest rate, is taken at actuals in the tariff calculations & normative CUF is not considered in tariff calculations,therefore O & M Expenses is taken at actual i.eRs 88.13 lakhs i.eRs 16.32 lakhs/MW.

As per Annexure – 2B of CERC tariff order dt 26.4.2010, Total O & M Expenses Escalation is 5.72% p.a ,the same rate of Escalation is taken in tariff calculations .

O) Miscellaneous

- I. For tariff calculations ,Part of the year proportionate calculations are not done i.e from commercial operation date 07.06.2012 to 31.03.2013, to avoid complications. Instead full year wise calculations are done for 40 years of useful life of project.
- II. Accelerated depreciation benefit not availed by the petitioner under the Income Tax Act.

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III. (CDM credits) not factored into tariff determination given the uncertainty involved in their award.


IV. As per HPERC Order On Small Hydro Power Projects Tariff And Other Issues dt December 18, 2007, HPERC has decided that the entire benefit of subsidy be given to developer as incentive for the purpose of promotion of small hydro power in the state. such subsidy / incentive shall not be adjusted against the capital cost of the project for the purpose of tariff determination. subsidy should not be accounted for within any tariff formulation but should be left as an incentive for the promoters, in line with the views enshrined in the National Tariff Policy. Hence subsidy is not factored in tariff calculations.

7. The Petitioners crave leave of this Hon'ble Commission to add, alter and/or amend the Petition, including the Grounds, at a later stage, if and when required and to supply further data and documents if and when required.

8. PRAYER

The Petitioner prays for allowing this petition & to determine the tariff accordingly.

proper may also be passed in favour of the petitioner company.


Petitioner

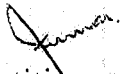
Through Counsel


Ajay Vaidya.
(Advocate)

Verification:

That the contents of paras 1 to 8 are true and correct to the best of my personal knowledge derived from the official record of the company. No part of it is false and nothing material has been concealed there from.

Verified on this 5th day of Jan, 2018 at Shimla.


Petitioner


B.L.P. P.L.L.