

**THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION**  
**SHIMLA-171 002**

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**ORDER**

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The Himachal Pradesh Electricity Regulatory Commission (hereinafter referred to as “the Commission”) in pursuance to Section 3, Section 61(h) and Section 86(1) (e) of the Electricity Act, 2003 read with Sub Regulation (1) of Regulation 6 of the Himachal Pradesh Electricity Regulatory Commission (Power Procurement from Renewal Sources and Co-generation by Distribution Licensees) Regulations, 2007, issued an order on Small Hydro Power Project Tariff and other related issues on December 18<sup>th</sup>, 2007 determining the tariff for purchase of energy from Small Hydro Power Projects (up to and including 5 MW capacity) (hereinafter referred to as “the SHP Order”). The said order was challenged before the Appellate Tribunal for Electricity (hereinafter referred to as “the Appellate Tribunal”) by way of appeal No. 50 of 2008 filed by M/S Techman Energy Ltd., (hereinafter referred to as “the appellant Company”) and in Appeal No. 65 of 2008 filed by the Himachal Pradesh State Electricity Board (hereinafter referred to as “the Board”) and the said appeals were disposed off by a common order passed by the Appellate Tribunal vide its order dated 18<sup>th</sup> Sep., 2009.

2. The Hon’ble Appellate Tribunal, while upholding the SHP Order dated 18.12.2007 has given the following directions (vide para 26 of its order): -

- (i) that the capital cost of Rs. 6.5 Crores/MW shall be treated as normative capital cost in all such cases as are found suitable by all parties;
- (ii) that the promoters of hydel power in the State of Himachal Pradesh as well as the Himachal Pradesh State Electricity Board shall be entitled to apply to the Commission for fixing project specific capital cost for any project in case the normative capital cost is not suitable to either of them. Similarly, if the Capacity Utilization Factor (CUF) of 45% for a specific project is contested by either party, it may approach the Commission with the site specific Capacity Utilization Factor (CUF);
- (iii) that the Commission shall factor in the cost of making up the deficit in the years in which the revenue falls short of cash flow to allow return on equity and enable repayment of loan;
- (iv) that the Commission shall factor in the additional return which can be gained by the hydel projects in the years in which the levelised tariff exceeds cost of generation including the return on equity, depreciation, O&M etc;
- (v) that the Commission while giving effect to directions (ii), (iii) & (iv) above, shall consider if the period of fixed levelised tariff can be reduced to about 25 years;

- (vi) that the Commission may also consider breaking up the period of levelised tariff into two parts (as suggested in paragraph 25 of the Appellate Tribunal Order dated 18.9.2009); and
- (vii) that the Commission shall remove arithmetical errors while re-computing the levelised tariff.

3. In light of the directions given by the Appellate Tribunal in items (iii), (iv), (v), (vi) and (vii) mentioned in the preceding para the Commission, proceeds to reconsider the impugned SHP Order as under:-

A. Negative Cash Flow [item (iii), (iv) & (vi)]

The operative portion of para 25 of the APTEL Order dated 18.9.2009, reads as under:-

“The problem of negative cash flow in the initial years may be solved by various ways like (i) reducing the length of the period during which the levelised tariff will apply say 25 years or (ii) by breaking up the levelised tariff period into two parts – the first 10 years and the remaining years (iii) or both so that negative cash flow is substantially reduced if not eliminated altogether. Therefore, in case any hydel power generator or purchaser of power requires project specific determination of levelised tariff as mentioned in paragraph 21 above, the Commission may also take into account prayer in this regard by the generator/purchaser of power.”

Therefore, if any developer of hydel project has a problem on account of negative cash flow in the initial years, the same shall be considered by the Commission on a project specific basis by breaking up the levelised tariff period into two parts. The first for twelve years and the second for the remaining years. The levelised tariff for the two periods shall take into consideration, the adjustment of the deficit and surpluses accrued over the period of levelised tariffs.

B. Periodicity of the levelised tariff [item (v)]:-

Even though there are no regulations which require the Commission to choose the period of 40 years for fixing the levelised tariff, the Commission in its SHP Order has taken forward the tariff period of 40 years as specified in the Government of H.P. Hydro Policy, 2006 and also prior to it. The Government of Himachal Pradesh in order to incentivise the development of hydro projects in the State had notified the tariff of Rs.2.50 paise for a period of 40 years in year 2000. All the Implementation Agreements (IAs) and Power Procurement Agreements (PPAs) subsequent to this notification have been executed and signed accordingly. Moreover, none of the developers from 2000 onward has objected to the levelised tariff period of 40 years. Therefore, keeping in view the aforesaid facts and option of breaking up levelised tariff period into two parts as mentioned in the preceding paragraph, the Commission deems it proper to keep the levelised tariff period at 40 years.

C. Arithmetical errors [item (vii)]

The Hon'ble Appellate Tribunal vide para 23 of its Order dated 18.9.2009 has observed that certain mistakes in arithmetical calculations, leading to determining levelised tariff have been identified by the appellant Company and the Learned Counsel for the Commission has agreed to check the arithmetical errors and to make necessary corrections in the levelised tariff.

The Appellate Tribunal vide sub-para (vii) of para 26 of its order has directed the Commission to remove arithmetical errors by re-computing the levelised tariff. In compliance to the aforesaid directions of the Appellate Tribunal, the Commission has considered the arithmetical errors identified by the appellant Company as under:-

(a) **Plant Availability Factor**

**Submissions**

The order of the Commission dated 18.12.2007 clearly specifies that the tariff calculations should be done on the basis of 95% of Plant Availability as per para 4.87 of the SHP Order dated 18.12.07, whereas in Commission's calculations it has been taken as 100% under head of 'Operating Norms' for the calculation of the tariff.

**Commission's View**

It is clarified that the availability factor is 100% as taken in the financial model and not as 95%, mentioned by mistake in para 4.87 as is also evident from para 3.32 of the SHP order. Thus the plant availability has been factored in, in the assumed CUF of 45% and it has been, therefore, taken as 100% in the model.

(b) **Royalty**

**Submissions**

The Rate of Royalty on water usage in shape of free power to the State of Himachal Pradesh from the Small Hydro Power Project upto 5 MW is 18% beyond 30 years of the plant operation as per clause 1.22 (e) of the SHP Order dated 18.12.2007, whereas it has been taken to be 12% in the "Power generation Calculation". Thus the net saleable generation after 30 years of plant operation reduces by 6% more.

**Commission's view**

The submissions of the appellant Company with respect of the Royalty on water uses for the period beyond 30<sup>th</sup> year (18%) as against 12% is correct in the context of the Govt. HP Hydro Policy, 2006. Therefore, the necessary correction of increasing the royalty from 12% to 18% needs to be carried out in the tariff model from the 31<sup>st</sup> to the 40<sup>th</sup> year.

(c) **Minimum Alternate Tax (MAT)**

**Submissions**

The minimum alternate tax should be applicable for first 10 years according to "Income Tax Act" as has been given in clause No. 4.84 of the SHP

Order dated 18.12.2007, but the same has been applied for first 15 years in the Computation of Unit Generation Cost.

**Commission's view**

The Commission accepts the submissions of the appellant Company. The MAT, therefore, needs to be applied for the first 10 years in the tariff model in place of 15 years.

**(d) Revenue Receipts**

**Submissions**

The revenue receipts shown in the "Profitability Statement" under the heading "Revenue Generated", have been increased roughly by 1% every year without any explanation, whereas the SHP Order dated 18.12.2007 speaks of a constant Levelised tariff of Rs. 2.87 per unit without any annual increment.

**Commission's view**

The impugned revenue generation has not been taken into account by the Commission for determination of Tariff. This was one of the options explored by the Commission to ascertain as how the revenue will change if the tariff of Rs. 2.87/unit is increased by 3 paise annually and thereafter assess annual revenue requirement vis-à-vis the revenue accrued.

**Depreciation**

**Submissions**

The balance stock shown in Depreciation Calculations as per SHP Order is wrong. But the said inadvertent error committed does not affect the calculations of tariff even then it has been pointed out for the sake of exactness.

**Commission's view**

In view of this submission of the appellant Company there is no impact on the tariff calculations on account of difference in the values of left over assets in the Commission's calculations vis-a-vis calculation provided by the appellant Company.

4. In addition to above the appellant Company has made the further submissions as follows: -

**(i) Addition of Transmission losses in interconnection lines.**

**Submissions**

The power energy purchaser/transmission utility (the Board here) has not made any arrangement to receive the generated power energy at the Power House of the hydel power producer. In general a long transmission line is required to be constructed by the hydel power producer to feed the power into the Substation of the Board. In this regard the Board itself has suggested to consider at least two percent power transmission losses for Kachela HEP in the Chamba district between the Power House of the hydel power producer and the interconnecting point at the nearest substation of the Board.

### **Commission's view**

The Commission earlier has not considered it as a separate item because transmission loss is a factor of power flow and length of transmission line which may vary from project to project and therefore cannot be normative like auxiliary consumption (0.5%) and transformation losses (0.5%). However, keeping in view that many of these projects are in remote areas and may have long interconnecting lines and many Power Producers may find it difficult to approach the Commission for ascertaining the impact of these losses on individual project basis, the Commission feels that transmission losses in these lines need to be factored in the tariff even if there is no norm available. The Commission based on certain assumptions arrived at a benchmark figure of transmission loss of 0.63%. The impact of this figure has been operationalised in the tariff model.

### **(ii) Changing of cess on Income tax from 2% to 3%.**

#### **Submissions**

The cess on Income tax has changed to 3% from earlier value of 2%.

#### **Commission's view**

Clause 4.85 of the SHP order reads as under :-

*"4.85 Any change in the aforesaid taxes or any statutory taxes, duties, cess or other kind of imposition(s) including tax on generation of electricity whatsoever imposed/charged by State/Central Government and/or any other local bodies/authorities on generation of electricity, after the date of signing of the power purchase agreement, shall be a pass through and shall be reimbursed by the board to the generator on the quantum of net saleable energy."*

In view of the above, the Commission shall allow the increase in taxes through a supplementary order.

5. Apart from the arithmetical errors as discussed above, the Commission in accordance with SHP Order, has Suo Motu considered the impact of moratorium period of two years on the levelised tariff.

6. After taking into consideration the submissions made by the appellant Company and as analysed in sub-para (C) of para 3 of this Order, the Commission has recalculated the tariff at Rs. 2.95/ unit by rectifying the arithmetical errors on account of royalty, minimum alternate tax, transmission losses and moratorium.

7. In the background what has been stated above, to implement the verdict of the Hon'ble Appellate Tribunal and also in exercise of the powers vested in it under sub-regulation (1) of regulation 6 of the H.P. Electricity Regulatory Commission (Power Procurement for Renewable Resources and co-generation by Distribution Licensee) Regulations, 2007 the Commission, makes the following modifications/amendments in the Commission's Order dated 18.12.2007 on the Small Hydro Power Projects Tariff and other related issues, and directs that the said SHP Order shall be deemed to have been modified to the following extent:-

- (i) If any hydel power producer has a problem on account of negative cash flow, he shall approach the Commission within 1 year of the commercial operation date of its project. The Commission, in order to mitigate the negative cash flow problem of the producer, may give two levelised tariffs i.e. the first for twelve years and the second for remaining years. The levelised tariff for the two periods shall take into consideration the adjustment of deficit and surpluses accrued over the periods of levelised tariff.
- (ii) the tariff at Rs. 2.87/unit, shall be taken as the tariff at Rs. 2.95/ unit. (as on 18-12-2007)

The Commission is aware that after issuance of the SHP Order dated Dec., 18, 2007 and till the issuance of this Order, the hydel power producers and the Board, have executed and signed the Power Procurement Agreements with the provision of the tariff of Rs. 2.87/Unit for the power producer by the SHPs in this State. In order to give the benefit of increase of tariff of Rs. 2.95/ unit from Rs. 2.87/Unit to the hydel power producers, who have executed the PPAs with the stipulation of Rs. 2.87/Unit, such hydel power producers and the Board are directed to modify the clauses in PPAs, in accordance with law.

SHIMLA

(Yogesh Khanna)  
Chairman

Dated: 9<sup>th</sup> Feb.,2010.