

HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION

(Determination of Generic Levelised Tariffs for Small Hydroelectric Projects under HPERC(Promotion of Generation from Renewable Energy Sources Terms and Conditions for Tariff Determination) Regulations 2012

Dated: 20-05-2013

Sl. No.	Description	Summary												
1. (Regulation 25)	Generic Levelised	The levelised tariffs and associated terms and conditions for various categories of small hydroelectric projects in respect of the control period (18-12-2012 to 31-3-2017) have been computed in accordance with RE Tariff Regulations 12 as discussed in the following paragraphs.												
2. (Regulation 26)	Useful Life	40 years from the date of commencement of operation												
3. (Regulation 27)	Control Period or Review Period	From 18-12-2012 to 31-03-2017												
4. (Regulation 28)	Tariff Period	40 years for generic levelised tariff												
5. (Regulation 29)	Tariff Structure	Cost components: (a) Return on equity (b) Interest on loan capital (c) Depreciation (d) Interest on Working Capital (e) Operation and maintenance expenses.												
6. (Regulation 30)	Levelised Tariff	Generic tariff on levelised basis												
7. (Regulation 31)	Debt Equity Ratio	70:30												
8. (Regulation 32)	Capital Cost	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Sl. No.</th> <th style="text-align: center;">Category of SHP</th> <th style="text-align: center;">Rs. in lacs/MW</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">(i)</td> <td style="text-align: center;">Above 100 KW to 2 MW Capacity</td> <td style="text-align: center;">780</td> </tr> <tr> <td style="text-align: center;">(ii)</td> <td style="text-align: center;">Above 2 MW to 5 MW Capacity</td> <td style="text-align: center;">750</td> </tr> <tr> <td style="text-align: center;">(iii)</td> <td style="text-align: center;">Above 5 MW to 25 MW Capacity</td> <td style="text-align: center;">700</td> </tr> </tbody> </table>	Sl. No.	Category of SHP	Rs. in lacs/MW	(i)	Above 100 KW to 2 MW Capacity	780	(ii)	Above 2 MW to 5 MW Capacity	750	(iii)	Above 5 MW to 25 MW Capacity	700
Sl. No.	Category of SHP	Rs. in lacs/MW												
(i)	Above 100 KW to 2 MW Capacity	780												
(ii)	Above 2 MW to 5 MW Capacity	750												
(iii)	Above 5 MW to 25 MW Capacity	700												
9 (Regulation 33)	Return on Equity	On the base of 30% of normative cost: (a) 19% per annum for first 10 years (b) 22% per annum from 11 th year onwards												
10 (Regulation 34)	Interest on Loan	Tenure of loan 12 years (a) The normative loan outstanding on April 1 st of the cumulative repayment inclusive of repayment gross normative loan on normative basis. (b) Average of SBI Base rate (s) prevalent during a period of 6 months preceding the date of commencement of these regulations plus 300 basis points shall be considered as normative interest rate. (c) Notwithstanding any moratorium period availed by the RE generator, the repayment of loan shall be conserved from the first year of the tariff period and shall be equal to the annual depreciation allowed. (d) The loan repayment for a financial year or the relevant part period of these shall be considered to have been done in the middle of that financial year or the relevant part thereof, as the case may be.												
11(Regulation 35)	Interest Rate Depreciation	12.875% (3% above average SBI base rate) Depreciation shall be worked out as under: (a) Capital Cost (for generic tariff) or the Capital Cost of the project admitted by the Commission (for project specific tariff). (b) Salvage value 10%, maximum depreciation 90% of capital cost of the asset.												

		(c) Depreciation shall be based on “Differential Depreciation Approach”, Depreciation @ 5.83 p.a. till loan is repaid. Balance depreciation to be spread over the residual useful life of the project on straight line method. (d) Depreciation shall be chargeable from 1 st year of operation.																		
12 (Regulation 36)	Working Capital	Working Capital Comprises (a) O&M expenses for one month (b) Receivables equivalent to 2 months of energy charges (c) Maintenance spares @ 15% of O&M expenses.																		
13 (Regulation 38)	O&M Expenses	Normative O&M expenses for the first year of the tariff period has been computed as below. (i) above 100 kW to 2 MW Capacity - Rs.25/lac per MW (ii) above 2 MW to 5 MW Capacity – Rs.22/lac per MW (iii) Above 5 MW to 25 MW Capacity – Rs.18/lac per MW O&M Expenses to be escalated @ 5.72% p.a. over the tariff period.																		
14 (Regulation 39)	Subsidy or Incentive or grant/ budgetary by Centre/State Govt.	Following MNRE subsidy is payable to SHPs in private sector. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">Areas</th> <th style="width: 33%;">Upto 1000 kW</th> <th style="width: 33%;">Above 1 MW & upto 25 MW</th> </tr> <tr> <td>N.E. States, J&K H.P. & Utrakhand (Special Category States)</td> <td>Rs.20,000 per kW</td> <td>Rs.2.00 crores for 1st MW + Rs. 30 lacs for each additional MW</td> </tr> </table>	Areas	Upto 1000 kW	Above 1 MW & upto 25 MW	N.E. States, J&K H.P. & Utrakhand (Special Category States)	Rs.20,000 per kW	Rs.2.00 crores for 1st MW + Rs. 30 lacs for each additional MW												
Areas	Upto 1000 kW	Above 1 MW & upto 25 MW																		
N.E. States, J&K H.P. & Utrakhand (Special Category States)	Rs.20,000 per kW	Rs.2.00 crores for 1st MW + Rs. 30 lacs for each additional MW																		
15 (Regulation 40)	Normative Net Saleable Energy	The annual normative net salable energy at the inter connection point has been computed as under: (i) CUF 55% for all SHPs (ii) Normative auxiliary consumption and transformation losses – 0.5% of gross generation (iii) Energy losses in project line – 0.7%																		
16 (Regulation 41)	Free Power (Energy) Structure and Adjustment in tariff for variations	Free Power Structure as stipulated in the Regulations The free power energy to be taken into account for any part of the tariff period shall not exceed 13% free power energy, which includes 12% free power to the Home State and 1% additional free power for local area development fund as stipulated in National Hydro Policy/Tariff Policy. If free power is revised, the generic levelised tariff shall be reworked.																		
17 (Regulation 42)	Discount Factor	10.58%																		
18 (Regulation 43)	Accelerated Depreciation Benefit	The commission shall determine two generic levelised tariffs or project specific levelised tariff one by considering accelerated depreciation and the other without it and the tariff to any RE generator shall be applicable as provided in sub-regulation (5). It shall be assured that RE generator shall avail the benefit of accelerated depreciation and accordingly the tariff which accounts for accelerated depreciation, shall be applicable unless the RE generator establishes that he has not availed or is not entitled to such benefit.																		
19 (Regulation 44)	Rounding	As per Regulations																		
20 (Regulation 45)	Generic Levelised Tariff and Associated Terms and Conditions	(A) The Generic Levelised Tariffs for various categories of SHPs shall be as under: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Category</th> <th rowspan="2">Capacity of SHP</th> <th colspan="2">Generic levelised tariff in Rs./kWh of net salable energy</th> </tr> <tr> <th>Without accelerated depreciation</th> <th>With accelerated depreciation</th> </tr> </thead> <tbody> <tr> <td>(i)</td> <td>Above 100 KW to 2 MW</td> <td>3.34</td> <td>3.04</td> </tr> <tr> <td>(ii)</td> <td>Above to 2 MW to 5 MW</td> <td>3.27</td> <td>2.98</td> </tr> <tr> <td>(iii)</td> <td>Above to 5 MW to 25 MW</td> <td>3.17</td> <td>2.89</td> </tr> </tbody> </table>	Category	Capacity of SHP	Generic levelised tariff in Rs./kWh of net salable energy		Without accelerated depreciation	With accelerated depreciation	(i)	Above 100 KW to 2 MW	3.34	3.04	(ii)	Above to 2 MW to 5 MW	3.27	2.98	(iii)	Above to 5 MW to 25 MW	3.17	2.89
Category	Capacity of SHP	Generic levelised tariff in Rs./kWh of net salable energy																		
		Without accelerated depreciation	With accelerated depreciation																	
(i)	Above 100 KW to 2 MW	3.34	3.04																	
(ii)	Above to 2 MW to 5 MW	3.27	2.98																	
(iii)	Above to 5 MW to 25 MW	3.17	2.89																	

		<p>(B) The tariff applicable as per 'A' above shall be subject to adjustments as applicable for relevant category of SHPs namely</p> <ul style="list-style-type: none"> (i) Adjustment on account of differential rate of capital subsidy and grants, budgetary support and Generation Based Incentives. (ii) Variation in free power structure – The above tariffs are subject to variation in free power structure as per the regulations. (iii) These tariffs shall be subject to the RE Tariff Regulations and the order as may be issued by the Commission there under.
<p>21 (Regulation 46)</p>	<p>Computation for Generic Levelised Tariff</p>	<p>The detailed computations for generic levelised tariff for SHPs under these categories (I,II,III) as well as 'illustrations thereof are enclosed as per Appendices A,B,& C respectively in the Regulations.</p>