

HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION

(Promotion of Generation from Renewable Energy Sources)

Notification dated 17th December 2012

Sl. No.	Description	Summary
1	Short title and commencement.	Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from Renewable Energy Sources and Terms and Conditions for Tariff Determination) Regulations 2012 To come into force on 18.12.2012 and valid upto 31.3.2017 unless reviewed or extended by the commission.
2.	Definitions and Interpretations	As per Regulations
3.	Scope and Extent of Application	(i) In cases of Wind, SHPs, biomass power based on Rankine Cycle, non-fossil based Co-generation projects, Solar PV and Solar thermal power projects, biomass gasifier, biogas power projects, these Regulations shall apply subject to fulfillment criteria specified in Regulation 4. (ii) These Regulations shall not apply in following (a) Where PPA has been signed or approved by the Commission and capacity not enhanced subsequently. (b) Projects upto 100 KW for which Commission may determine tariff separately. (c) Where tariff determined through transparent and competitive bidding. (a) Where long term PPAs have been signed, the provisions of such PPAs shall continue to be applicable. (b) Where PPAs have been approved by the commission before commencement of these Regulations
4.	Eligibility	(a) Wind Power Project – Using new plant & machinery (b) Small Hydro Project – Site approved by State Govt. or its agency, new machinery, capacity upto 25 MW at single location. (c) Biomass Power Project based on Rankine Cycle Technology new machinery, fossil fuel use upto 15%. (d) Non Fossil Fuel Based Co-generation Project using new machinery, topping cycle mode of Co-generation using non-fossil fuel for power generation and also use thermal energy generated for useful heat applications in other industrial activities simultaneously and the sum of useful power output and one half the useful thermal output be greater than 45% of the facility's consumption during the season. (e) Solar PV and Solar Thermal Power Project: Based on technologies approved by MNRE (f) Biomass Gasifier based power project: Using new machinery, grid connected system using 100% gas producer engine coupled with gasifier technologies approved by MNRE. (g) Biogas Based Power Project: Using new machinery, uses 100% biogas fired engine, coupled with biogas technology for codigesting agriculture residues, manure and other bio waste as may be approved by MNRE.
5	Promotion of Renewable Energy Sources	Promotion of Generation from Renewable Sources (i) Renewable Energy generator with prior approval of Commission, shall enter into a PPA on long term basis or under the REC mechanism with the Distribution licensee or may have open access to transmission/distribution system of the Licensee. (ii) shall apply for connectivity within 24 months prior to proposed connectivity but 12 months for SHPs. (iii) Licensee shall grant approval as per agreement or mutual acceptance.

		<ul style="list-style-type: none"> (iv) RE generator shall enter into an interconnection agreement with the State transmission utility and/or intra state transmission licensee and or distribution licensee. (v) The licensee shall provide inter-connection facilities within 12 months at existing system and within agreed time at new substation consistent with the grid standards and conditions specified in state grid code/IEGC-2010 or other relevant standards/codes. RE Generator shall give 4 months prior intimation before Commissioning. (vi) The RE generator may inject power from two or more generating stations through the interconnection facilities. (vii) Due to right of way limitations, distribution licensee may require RE generator to develop evacuation facilities jointly. (viii) The RE generator may provide distribution system beyond interconnection point, to be reimbursed by the licensee after agreement with him.
6.	Grid Connectivity	<ul style="list-style-type: none"> (i) RE generator shall set up and operate and maintain the project at his cost (ii) Licensee at the cost of RE generator shall provide operate and maintain, inter-connection facility (iii) Transmission licensee and or distribution licensee shall bear the cost of augmentation/ establishment of net work beyond the inter-connection point under the CAPEX PLAN.
7.	Co-ordination Committee	The Commission may constitute a Co-ordination Committee to facilitate Co-ordination among the State Transmission Utility, transmission licensee, distribution licensee, HIMURJA and Directorate of Energy of the State Government for evacuating power from renewable energy projects.
8.	Power Purchase Agreement	<ul style="list-style-type: none"> (1) Tariff Determination – General Principles <ul style="list-style-type: none"> (i) For entire period by availing tariff under Regulations. (ii) For mutually agreed period(s) under REC mechanism (iii) After selling power under REC mechanism, for balance period under Regulations 15 (iv) In any other manner/mutually agreed under these Regulations Initially the distribution licensee shall endeavour to procure through competitive bidding separately for each type of technology. (2) After arriving at a mutual understanding on various issues of PPA including tariff option under Regulation 12, they shall file a joint petition before the Commission and get it approved.
9	Control Period or review Period	<ul style="list-style-type: none"> (1) The control period for SHPs shall be from 18th Dec. 2012 to 31st March 2017. Technology specific parameters other than SHPs shall be fixed as specified in Regulation 17. (2) Tariff(s) determined shall be applicable for tariff period as specified in Regulation 10. (3) If Regulations for next control period are not notified, these Regulations shall continue to apply.
10	Tariff Period	Duration of tariff period for SHPs shall be 40 years and for other technologies, as may be fixed by the Commission under Regulation 17.
11	Tariff Design	<ul style="list-style-type: none"> (1) Single part levelised tariff structure shall be followed for RE technologies having full component, fixed cost component and fuel component shall be determined. (2) Fixed Cost Component shall include Return on Equity (ROE) interest on loan component, depreciation, interest on Working Capital and O&M expenses. (3) The generic or project specific tariff shall be determined on levelised basis for the tariff period. For two component tariffs, fixed component on levelised basis shall be determined for tariff period and full component on year of operation basis. (4) For levelised tariff computation, discount factor equivalent to post tax weighted average cost of capital shall be considered.

12	Tariff Options/ Applicability	<p>(1) Following tariff options shall be available to SHPs:</p> <ul style="list-style-type: none"> (i) levelised tariff in relation to control period in which PPA is approved. (ii) Project specific tariff (iii) Mutually agreed tariff (iv) Governed by process of competitive bidding <p>(2) For balance useful life of the project after completion of REC approved period, as per Regulations 15.</p> <p>(3) If capacity of plant is enhanced after PPA signing tariff as per regulation 16.</p> <p>(4) For projects other than SHPs, options under Regulation shall be available.</p> <p>(5) The tariff option mutually agreed and adopted in PPA shall be irrevocable and binding.</p>
13	Generic Levelised	<ul style="list-style-type: none"> (i) The Commission shall determine generic levelised tariff for SHPs separately and other technologies under regulation 17. (ii) The tariff being normative, no true up of any parameter shall be taken up during tariff validity except under specific provisions. (iii) The generic levelised tariff as opted in PPA shall be applicable for the control period.
14	Project Specific Levelised Tariff	<ul style="list-style-type: none"> (1) Where parties agreed for project specific tariff, the Commission shall determine such tariff taking into account various factors listed in this regulation. (2) If the project specific tariff fixed by the Commission is higher than the generic levelised tariff, the distribution licensee may opt out of PPA and if less than 95%, the RE generation may opt out. (3) Where option is exercised by any party, distribution licensee shall provide open access if requested.
15	Tariff for Residual Period after Sale/ purchase under REC Mechanism	<ul style="list-style-type: none"> (1) (a) Tariff for residual period after sale/purchase under REC mechanism, shall be fixed as provided in this regulation subject to a maximum limit of Rs. 2.90 per kWh. (b) If first PPA for sale/purchase of power from SHPs is signed after these regulations, the generic levelised tariff determined by the Commission shall be applicable. (c) For projects other than SHPs, Regulations 17 shall be applicable. (2) Any specific provision in PPA approved under REC mechanism shall be applicable.
16	Capacity Enhancement	<ul style="list-style-type: none"> (1) Where after allotment of the original project, capacity of SHP is enhanced with the approval of the State Govt., the tariff for sale shall be governed by sub-regulation (2) to (7). (2) Where no PPA signed or tariff approved, enhanced capacity shall be taken into account for tariff determination. (3) Where PPA approved before commencement of these Regulations <ul style="list-style-type: none"> (i) For capacity below 5 MW including enhancement, tariff as per original PPA adjusted for free power. (ii) If some more than 5 MW after enhancement, original tariff shall be reduced by 10% plus free power adjustment. <p>For the residual period after enhancement, tariff shall be determined by the Commission.</p> <ul style="list-style-type: none"> (iii) If original capacity is more than 5 MW, original tariff shall be applicable for total capacity after free power adjustment. (iv) If original capacity more than 5 MW and PPA does not spell out tariff, it shall be determined by the Commission. (4) If PPA approved and project executed after the Regulation then generic levelised tariff as per these Regulations but if original PPA provides for project specific tariff, the Commission shall determine this tariff on joint application. (5) (i) Where PPA signed for original capacity and additional capacity is sold under REC mechanism, after exist from REC mechanism, for the residual period, the tariff for entire saleable energy shall be determined as per regulations (3) or (4). <ul style="list-style-type: none"> (ii) (a) During interim period no additional free power adjustment. (b) Total saleable energy to be apportioned in the ratio of original and enhanced capacity. (6) (i) In case capacity enhancement is approved by State Govt., free power shall undergo change in intervening period between original and supplementary agreements as per prevailing free power policy applicable in this period.

		<p>(ii) Additional free power specially for enhancement of capacity shall not be considered for tariff adjustment.</p> <p>(7) Where the parties fail to agree for the enhanced capacity, the distribution licensee shall be entitled for protection about original capacity and the generator shall sell the incremental energy.</p> <p>(8) Where after approval of PPA, capacity is enhanced other than SHP, the tariff shall be fixed as per Regulation 17.</p>
17.	Tariff for Renewable Energy Projects other than Small Hydro Projects	<p>(1) The Commission shall fix technologies specific parameters including tariff period and life of the project, if not already specified. These norms shall be the ceiling norms except capital cost.</p> <p>(2) Based on these norms/parameters Commission may determine levelised tariff (s) for RE projects.</p> <p>(3) The RE generator and distribution licensee may agree for generic levelised tariff or project specific tariff for RE projects other than SHPs.</p> <p>(4) To facilitate agreement between distribution licensee and RE generator the Commission, subject to mutual agreement may direct the parties for incorporation of suitable provisions.</p>
18.	Petition and Proceedings for Determination of Project Specific levelised Tariff	<p>(1) Where the RE generator and distribution licensee have mutually agreed in PPA for project specific levelised tariff they shall submit specified information and documents to the Commission.</p>
19.	Review of Tariff	<p>(1) Same as provided in sub-regulation (2) and (3) the generic or levelised tariff determined shall not be subject to review.</p> <p>(2) Free power within permitted limit of 13% as per National Hydro/Tariff Policy shall be payable/adjustable.</p> <p>(3) If after determination of generic levelised tariff for the control period or project specific tariff, policy changes are notified,</p> <p>(i) Water Cess or tax on generation is levied.</p> <p>(ii) Limit of 13% free power as per National Hydro/Tariff Policy is raised.</p> <p>(iii) Capital subsidy or budgeting grant is changed as per policy.</p> <p>(iv) State Govt. revises minimum flow of SHPs and implements it.</p> <p>The Commission may also suo moto or on application may review the tariff for residual tariff period as deemed fit along with the applicable terms and conditions.</p>
20.	Capital Cost	<p>Financial Principles</p> <p>(1) Norms for Capital Cost for SHP projects shall be as specified in Chapter-V of Regulations and other RE Projects as per Regulation 17.</p> <p>(2) (i) Norms for Capital Cost shall be inclusive of all expenses as per prudent practices upto Commissioning of the project including but not limited to cost of capital works, land, preparation of DPR, Survey and Investigation, Plant and machinery Civil works, erection and commissioning, financing and interest during construction, land acquisition, R&R, statutory and non-statutory clearances, evacuation infrastructure upto inter-connecting period (also including inter-connecting facilities) insurance charges during construction stage etc. all taxes levies and duties on all such components/works, Capital Works.</p> <p>(ii) Cost pertaining to allotment of project including upfront premium or LD charges etc. levied as per PPA shall not form part of Capital Cost.</p> <p>(iii) For project specific tariff determination, RE generator shall submit all details to the Commission.</p>
21.	Subsidy or Incentive or grant/budgetary Support by State/ Central Govt.	<p>(1) While determining the generic levelised tariff or project specific tariff, any incentive/ grant/accelerated depreciation benefit under income tax and 90% of MNRE subsidy shall be taken into account for determination of tariff by the Commission.</p> <p>(2) 100% of additional grant or budgetary support shall be accounted.</p> <p>(3) Tariff shall be adjusted for any subsequent grant/subsidy.</p> <p>(4) Two alternative tariffs one with and other without accelerated depreciation and applied as per sub-regulation (5)</p> <p>(5) Tariff shall be determined assuming that accelerated depreciation has been availed unless proved by RE generator.</p>

22	Debt Equity Ratio	<p>(1) 70:30</p> <p>(2) If equity actually deployed is more than 30%, equity of 30% shall be considered and excess equity shall be considered as loan.</p> <p>(3) If actual equity deployed is less than 30%, then actual equity shall be considered.</p> <p>(4) Equity invested in foreign currency to be designated in Indian rupees on the date of investment</p>
23	Loan and Finance Charges	<p>(1) Loan period of 12 years to be inclusive of moratorium period. Capital subsidy to be considered for reduction of loan.</p> <p>(2) Loan arrived as per Regulation 22 to be gross loan. Outstanding loan on 1st April and repayment upto March 31st shall be deducted from gross normative loan.</p> <p>(3) For computation of tariff, average of SBI base rate(s) prevalent during 6 months preceding commencement of these regulations plus 300 points to be considered as normative interest rate.</p>
24	Depreciation	<p>Depreciation shall be computed based on:</p> <p>(a) Normative Capital Cost for generic tariff and actual admitted cost for project specific tariff.</p> <p>(b) Salvage value to be 10%.</p> <p>(c) 5.83% until loan repayment and balance to be spread over residual life of project on Straight line method operation of project for part of the year for project specific tariff.</p>
25	Return on Equity	<p>(1) Value base 30% for generic tariff and actual limited to 30% for project specific tariff.</p> <p>(2) (a) 19% for first 10 years. (b) 22% per annum from 11th year onwards</p>
26	Interest on Working Capital	<p>(1) Working Capital for Wind Energy projects, SHPs, Solar PV and Solar thermal shall be computed as under:</p> <p>(a) O&M expenses for one month</p> <p>(b) Receivables for 2 months based on net saleable energy and normative CUF.</p> <p>(c) Mtc. Spares @ of O&M expenses</p> <p>(2) In case RE technologies not covered under . in sub-regulations (1) & (2), commission may adopt norms ,as it may consider appropriate.</p> <p>(3) For technologies not covered above, Commission may consider adopting such norms at the time of determination of tariff.</p> <p>(4) Interest on Working Capital at the interest rate equivalent to average of SBI Base rate (5) percent during period of 6 months preceding the commencement of these Regulations plus 350 basis points.</p>
27	Operation and Maintenance Expenses	<p>(1) Expenditure on manpower, establishment (including employee expenses, administrative and general expenses) repairs, spares, consumables, insurance and overheads, taxes, duties, levies or all such activities.</p> <p>(2) Based on normative O&M expenses for SHPs as per Chapter V of Regulations and for other technologies as per relevant orders of the Commission.</p> <p>(3) Normative O&M expenses to be escalated @ 5.72% p.a.</p>
28	Taxes & Duties	Tariffs determined shall include all taxes & duties and shall not be subject to change except under Regulation 19.
29	Rebate	<p>(1) Due date is 60 days from date of billing.</p> <p>(2) Payment through LC, 2% rebate shall be allowed.</p> <p>(3) If payment made in 1 month not through LC, 1% rebate.</p>
30	Late Payment Surcharge	If payment not made in 60 days, surcharge @ 1.25% p.m. for actual number of days delay.
31	Ceiling Norms	The financial norms except for Capital Cost shall be considered as ceiling norms. RE generator and distribution licensee may agree to improve norms which shall be applicable for determination of project specific levelised tariff.
32	Categorization Capital Cost	<p>Technology specific parameters for SHPs.</p> <p>For tariff determination, SHPs shall be categorised as under:</p> <p>(i) above 100 kW upto 2 MV Capacity - Rs. 780 lac/MW</p> <p>(ii) above 2 MW to 5 MW Capacity – Rs. 750 lac/MW</p> <p>(iii) Above 5 MW to 25 MW Capacity – 700 lac/MW</p>

33	Normative Capital Cost	Subsidy/grant/budgetary support shall be adjusted as per Regulation 21.
34	Normative Saleable Energy	<ol style="list-style-type: none"> (1) For generic levelised tariff at inter-connection point <ol style="list-style-type: none"> (i) Normative CUF for SHPs upto 25 MW – 55%. (ii) Normative annual energy worked out at the normative CUF for installed capacity shall be adjusted for the auxiliary consumption, transformation losses and losses in project lines as per Regulations 36 & 37. (iii) Energy worked out under Clause (ii) shall be reduced by free power which shall be taken into account for working out the levelised tariff. (2) CUF accounts for mandatory release of water as per State Govt. instructions i.e. not less than 15% of the minimum flow observed in lean season. (3) Normative yearwise net saleable energy for project specific tariff determination shall be worked out on similar lines.
35	Free Power	<ol style="list-style-type: none"> (1) The Commission shall consider appropriate structure of free power for determining generic levelised tariffs for various categories as per Regulation 32 and for project specific tariff as per limits specified in Regulatory (3). (2) For change in free power, the generic or project specific tariff shall be revised as per formula. (3) Free Power for tariff determination shall be as under: <ol style="list-style-type: none"> (i) Not exceeding 13% which includes 12% to home state and 1% for local area development fund as per National Tariff/Hydro Policy. (ii) Free Power Committee above 13% shall not be factored (iii) Additional free energy provided to State Govt. due to default by generator shall not be accounted even if within 13%. (iv) Quantification and adjustment of free energy shall be accounted at inter-connection point. (v) Free energy allowed shall not be more than deducted in energy accounts out of energy received at inter-connection point.
36	Auxiliary Consumption and Transformation Losses	Auxiliary Consumption and Transformation Losses shall be 0.5% of gross generation and 0.5% of energy received at the switchyard liked to the generating Station respectively.
37	Energy Losses	<ol style="list-style-type: none"> (1) 0.7% of net generation (i.e. after deducting auxiliary consumption and transformation losses on normative basis from the gross generation). (2) For project specific levelised tariff, percentage losses worked out on the basis of actual length of project line (s), conductor size and expected flow shall be taken into consideration.
38	Operation and Maintenance Expenses	Normative O&M expenses shall be Rs. 25 lac/MW for projects (Above 100 kW to 2 MW), Rs. 22 lac (above 2 MW to 5 MW) and Rs. 18 lack (above 5 MW to 25 MW)
39	CDM benefits	To be retained by generator and not to be adjusted in tariff.
40	Tariff for higher or lower generation	The actual energy whether lower or higher shall be payable at the tariff determined.
41	Deviation from Norms	Renewable Energy generator and distribution licensee may agree to tariff in deviation to these norms provided the levelised tariff over the useful life of the project based on the norms deviated does not exceed tariff determined as per norms.
42.	Over riding Effect	The provision of these Regulations shall have over-riding effect.
43.	Power to Remove Difficulties	Vested with the Commission
44.	Power to Relax	Vested with the Commission
45.	Repeal and Savings	<ol style="list-style-type: none"> (1) HPERC Regulations 2007 for Power Procurement from RE Sources shall stand repealed (2) HPERC (Regulations 2007 shall however continue to be applicable in such cases as are covered under the said regulations and do not fall within the scope of these Regulations.