

THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION, SHIMLA

Subject:- Determination of generic levelled tariffs for Solar PV Projects under Regulation 17 of the Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) Regulations, 2012.

1. The Commission has been advocating a futuristic policy of power procurement by the Distribution Licensee from Green and Clean Sources of Technologies within the State. The State has already made considerable progress in implementing the SHP technology which provides power on secure and sustainable basis at competitive rates. The Commission feels that, apart from the SHPs, promotion of solar technology in the State can also help a long way in boosting the energy generation from the clean and green sources on secure and sustainable basis. With the technological advancements, the energy from solar PV plants may prove to be a secure, sustainable and competitive substitute of the thermal power, which comes with all the attendant negatives from environmental as well as financial point of view, to a large extent. The solar technology has added advantages as the construction period is quite short and there are hardly any unforeseen risks if procurement of works and equipments are done with due diligence. The Himachal Pradesh, being a hilly State, has generally clear sky and average solar radiation levels favour commercial as well as domestic generation of solar power. National Institute of Solar Energy has also estimated the solar potential of 34,000 MW in Himachal Pradesh and has observed that with rapid technological development in solar generation, it may be the most competitive in future and therefore capacity creation within the State should be catalysed. The Commission has also already initiated mapping of the solar potential sites and services of Aryabhat Centre of the Science & Technology Department and NIT Hamirpur are being availed for this purpose. Moreover, the HPSEBL is required to procure solar power of about 250 MW by FY 2021-22 to meet out its solar RPOs, and this capacity may go upto 800 MW due to national target of 1 Lac MW by the year 2021-22 set by Govt. of India. However, the real objective of fixing

RPO shall however be met only if adequate capacity of solar plants is created in the State itself at competitive rates. It is felt that appropriate regulatory mechanism for procurement of power by Distribution Licensee from the solar PV plants can help a long way in promotion of the solar PV technology in the State. The Commission has already notified the RE Regulations, 2012 covering solar PV technology also and now in order to activate the regulatory mechanism for purchase of power from solar PV plants in the State, the Commission finds it appropriate to fix the technological specific norms and also to work out the generic levelled tariff for relevant categories for FY 2015-16, under the regulation already framed by it.

2. As per the Sub-regulation (1) of Regulation 17 of the Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from the Renewable Energy Sources and Terms and Conditions for Tariff Determination) Regulations, 2012, notified by the Commission on 17th December, 2012 in the Rajpatra Himachal Pradesh (herein after referred to as “RE Tariff Regulations”), read with 1st amendment dated 19th February, 2015, published in the Rajpatra Himachal Pradesh, provide that the Commission is to determine separate generic levelled tariffs for renewable energy projects, other than small hydro projects. The regulation 17 of RE Tariff Regulations, also provides that:-

“17 (1).....xxxxxxxxxx.....

(2)Where the technological specific parameters and other terms and conditions, including the tariff period and useful life of the project, have not been specified, the Commission may, by an order, at any time and at such intervals as it considers appropriate to do so, fix the same.

.....xxxxxxxxxx....

Provided further that the Commission may, by order, categorize the renewable energy projects, other than SHPs, under the respective renewable energy technologies specified in sub –regulation (1), based on the capacity of projects, the available subsidy schemes and such other factors as may be considered appropriate by it:

Provided further that the Commission may, in order to promote such technologies for smaller capacities, follow, mutatis mutandis, upto the limits as it may consider necessary separately for each such technology but not exceeding 5 MW for any such technology, the technological specific

parameters, including capital cost, and other terms and conditions, as notified, or may be notified, by the Central Commission under the Central Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Renewable Energy Sources) Regulations, 2012, in respect of the relevant financial years of the control period ending on 31st March, 2017, for the relevant renewable energy technology, as may be considered appropriate by it.”; and

Provided further that the financial norms, except for capital cost, as specified under Chapter-IV of these Regulations shall also be considered as ceiling norms.

(3) The Commission may, after having fixed the norms/ parameters and other related terms and condition as per sub-regulation (2), determine, by order generic levellised tariff(s) for any or all categories of such renewable energy technology(ies).

Provided that the Commission may, by order, fix, on annual basis, the ceiling rates and associated terms and conditions to be used by the licensee for reverse bidding for procurement of power from the projects based on such technologies.

(4)xxxxxxxxxxxx.....

(5)xxxxxxxxxxxx.....

Categorization

3. In view of above provision, the Commission proposes to categorize and also to fix the technological specific norms and generic levellised tariff for procurement of power by the Distribution Licensee from solar PV plants as detailed in succeeding paragraphs.
4. The 2nd proviso of sub-regulation (2) of Regulation 17 of RE Tariff Regulations, provides that the Commission may, by order, categorize the renewable energy technologies other than SHPs based on capacity of the projects, the available subsidy scheme and such other factors as may be considered appropriate by it. The Commission feels that in view of the geographical and topographical conditions in the State and in order to promote smaller capacities of solar PV plants at different locations across the state it may be appropriate to create a separate category of solar PV projects upto 1 MW capacity. The capacity of such projects in the second category is proposed to be limited to 5 MW as the Commission expects that for higher

capacities the Distribution Licensee shall preferably purchase solar power through solar energy power corporation of India or else through the reverse competitive bidding route. All the solar PV projects with a capacity of more than 5 MW shall accordingly fall under the third category. The Commission thus proposes to categorize the solar PV generation capacity in the following categories for the purposes of normative capital cost and determination of levellised tariff.

Capacity	Capacity of Solar PV Project at one site
I	Upto 1 MW capacity
II	Above 1 MW to 5 MW capacity
III	Above 5 MW capacity

5. Technology Specific Parameters

The sub- regulation (2) of Regulation 17 of RE Tariff Regulations, 2012 provides that the Commission may, in order to promote such technologies for smaller capacities, follow, mutatis mutandis, upto the limits as it may consider necessary separately for each such technology but not exceeding 5 MW for any such technology, the technological specific parameters, including capital cost, and other terms and conditions, as notified, or may be notified, by the Central Commission under the Central Electricity Regulatory Commission (Terms and Conditions for Tariff Determination for Renewable Energy Sources) Regulations, 2012 (hereinafter referred as “CERC RE Tariff Regulations, 2012”), in respect of the relevant financial years of the control period ending on 31st March, 2017, for the relevant renewable energy technology, as may be considered appropriate by it. The Central Electricity Regulatory Commission (CERC) has notified its RE Tariff Regulations, 2012 and determines the capital cost and generic levellised tariff for solar PV projects every year. The capital cost and the generic levellised tariff of solar PV projects for the year 2015-16 has been determined vide their order dated 31.03.2015. Since this Commission presently does not have its own experience in relation to norms for solar generation in the State, it proposed to adopt, for the year 2015-16, the technological specific parameters relating to Capital Cost, Operation and

Maintenance Expenses (O&M), Capacity Utilization Factor (CUF), Applicability of tariff, as specified by it in RE Tariff Regulations, 2012 and also considered in the annual RE Tariff Order dated 31.03.2015, for the solar PV projects, as per the sub paragraphs 5.1 to 5.4. The technological specific norms for capacities above 5 MW are however not being fixed in view of position explained in para-4.

5.1 CAPITAL COST

CERC has fixed the normative capital cost of solar PV projects for FY 2015-16 as Rs.605.85 lakh per MW. This per MW cost is applicable for all capacities of solar PV projects. In our case since we have categorized the solar PV projects upto 5 MW capacity under two different categories based on the installed capacity as per para-4 above, it would be necessary to fix the capital cost for each such category.

The Commission observes that the capital cost fixed by CERC is based on their analysis for the country as a whole and also feels that even though the cost of most of the components is more or less fixed for all States, some costs like, civil & general works and mounting structure and evacuation of power etc. may vary from State to State. The capacity of the project may also have a bearing at least marginally in view of the economy of scale. The Commission also observes that even though some of the States in the country have made considerable progress towards building up the solar PV capacities, we have yet to make a start in Himachal Pradesh. As such in order to promote the said technology in the State it may be appropriate to allow the normative cost which is marginally higher than the CERC cost. The Commission accordingly, in order to promote the solar PV plants in Himachal Pradesh, proposes to fix the normative capital costs for the year 2015-16, for the solar PV project upto 1 MW capacity and from 1 MW to 5 MW at levels which are higher than the capital cost fixed by the CERC by 4% and 2.5% respectively. In the subsequent years these costs can be aligned with CERC cost based on the future experience. Accordingly the

normative capital cost for solar PV projects upto 5 MW capacity for 2015-16 shall be as given below:-

Sr. No.	Capacity of Solar PV Project at one site	Normative Capital Cost (Rs. Lakh. Per MW)
1	Upto 1 MW capacity	630.08
2	Above 1 MW to 5 MW capacity	620.99

5.2 OPERATION AND MAINTENANCE EXPENSES

In pursuance to the provisions of CERC RE Tariff Regulations, 2012, the CERC has fixed the normative O&M expenses for solar PV projects as Rs. 13.00 lakh per MW for the FY 2015-16. These charges are escalated at the rate 5.72% per annum over the tariff period. The Commission proposes to follow these norms for both the categories of solar PV plants upto 5 MW for the year 2015-16. These normative O&M charges shall also be escalated at the rate 5.72% per annum over the tariff period on the CERC pattern which, in fact, is also in line with the sub-regulation(3) of Regulation 27 of HPERC RE Tariff Regulations, 2012.

5.3 NORMATIVE NET SALEABLE ENERGY

The CERC regulations provide that the annual normative capacity utilization factor (CUF) of solar PV plant shall be 19%. The Commission proposes to adopt this norm with a slight variation that the annual net saleable energy shall be worked out on normative basis by considering energy losses @ 0.7% of the generation to cover the losses on the project line upto the interconnection point on normative basis and annual CUF of 19%.

5.4 Applicability of Tariff

The CERC RE Tariff Regulations, 2012 contain the following provisions with regard to applicability of tariff for solar generation:-

“ (1) The Commission shall determine the generic tariff on the basis of suo-motu petition 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.

(2) Notwithstanding anything contained in these regulations.

a) the generic tariff determined for Solar PV projects based on the capital cost and other norms applicable for any year of the control period shall also apply for such projects during the next year; and

b)xxxxxxxxxxxxxxxxxxxxx.....

Provided that:-

(i) the Power Purchase Agreements in respect of the Solar PV projects and Solar thermal projects as mentioned in this clause are signed on or before last day of the year for which generic tariff is determined and

(ii) the entire capacity covered by the Power Purchase Agreements is commissioned on or before 31st March of the next year in respect of Solar PV projects and.....xxxxxxxxxxxxxxxxxxxxx..”.

The Commission observes that the CERC determines the generic tariff for solar PV projects every year and such tariff for a year remains applicable for the project during next year if the PPA is signed by the end of the year and entire capacity covered by the PPA is Commissioned by the end of next year. The Commission feels that in view of the rapid technological advancement in case of solar PV technology it may be appropriate to review the benchmark capital cost every year. The Commission accordingly proposes to adopt aforesaid provisions of CERC RE Tariff Regulations, 2012 in relation to solar PV projects. Accordingly the Commission shall determine the generic levelled tariff for solar PV projects every year and the tariff so determined in respect the current financial year shall apply for the FY 2016-17 also in cases where PPA is signed by 31.03.2016 and the entire capacity covered by the PPA is commissioned on or before 31.03.2017. The Commission however observes that since there can be situations in which the PPA for a particular capacity is signed by 31.03.2016, but the capacity covered by the PPA may not be commissioned fully or partly on or before 31.03.2017, it may be appropriate to address the matter as a part of conditionalities attached with the tariff. The Commission feels that in case the PPA rate is allowed beyond 31.03.2017 for delay in the Commissioning of the project, it may amount to incentivizing the inefficiencies, keeping in view the fact that the tariff of

solar PV projects may witness a downward trend in next few years due to technological advancement. It is accordingly proposed that in case of delay in the commissioning of the project by 31.03.2017, the developer shall be allowed the rate determined for the year preceding the year in which the commissioning of solar PV project takes place or the tariff given in the PPA, whichever ever is lower.

5.5 The other technological specific parameters viz useful life of the project and tariff period, have already been specified in the RE Tariff Regulation, 2012, which are otherwise in line with the CERC Regulations also and the same shall be followed accordingly.

6. After having fixed the technological specific parameters as above, the Commission now proceeds to determine the generic levelled tariff based on the provisions of RE Tariff Regulations, 2012 for solar PV projects for the year 2015-16 under Regulation 17 of the RE Tariff Regulation, 2012. The main details of the proposed tariffs are as follows:-

6.1 **TARIFF STRUCTURE**

Regulation 11 of the RE Tariff Regulations stipulates that single part levelled tariff structure comprising of the following fixed cost components shall be followed, in case, where, no fuel cost component is involved in power generation, the following parameters shall be considered:-

- (a) Return on equity;
- (b) Interest on loan capital;
- (c) Depreciation;
- (d) Interest on working capital.

Accordingly single part generic levelled tariffs have been worked out for the respective categories of solar PV projects by adopting the methodology discussed in succeeding paragraphs.

Technological Specific Parameters

6.2 The normative parameters for capital cost, O&M charges, CUF, applicability of tariff as discussed in para 5 above have been followed. The proposed

tariff shall be applicable in cases where PPA is signed on or before 31.03.2016 and the entire capacity covered by the PPA is commissioned on or before 31.03.2017.

USEFUL LIFE and TARIFF PERIOD

6.3 Regulation 10 read with clause (aa) of sub-regulation (1) of Regulation 2 of the RE Tariff Regulations, 2012 specifies the 'useful life' and tariff period in relation to a Solar PV plant as 25 years from the date of commencement of operation of the project. Accordingly the useful life and tariff period has been taken as 25 years which is also in line with CERC regulations.

DEBT EQUITY RATIO

6.4 The normative debt equity ratio has been considered as 70:30 in accordance with Regulation 22 of the RE Tariff Regulations.

RETURN ON EQUITY

6.5 Regulation 25 of the RE Tariff Regulations, provides that the value base for the equity shall be 30% of the normative capital cost as determined under Regulation 20 and that the normative return on equity shall be -

- (a) 19% per annum for the first 10 years.
- (b) 22% per annum from 11th year onwards.

The return on equity has accordingly been considered at the above rates.

INTEREST ON LOAN

6.6 Sub-regulation (2) of Regulation 23 of the RE Tariff Regulations provides that the loan tenure of 12 years is to be considered, for the purpose of determination of Tariff for RE projects. Sub-regulation (2) of said regulation provides for commutation of rate of interest of loan as under:

“23 (2) Interest Rate:-

- (a) *The loan arrived at in the manner indicated in Regulation 22 shall be considered as gross normative loan for calculation for interest on loan. The normative loan outstanding as on April 1st of every financial year shall be worked out by deducting the cumulative repayment, inclusive of the prepayment, upto March 31st of the previous financial year from the gross normative loan on normative basis.*
- (b) *For the purpose of computation of tariff, the Average of State Bank of India 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 the normative interest rate.

Provided that where tariff is to be determined on financial year basis, in the control period, the Average Base Rate(s) of the State Bank of India (SBI) prevalent during the first six months of the previous year plus 300 basis points, shall be considered as the normative interest rate.

- (c) *Notwithstanding any moratorium period availed by the renewable energy generator, the repayment of loan shall be considered 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 thereof shall be considered to have been done in the middle of that financial year or the relevant part period thereof, as the case may be”.*

As per the proviso to clause (b) of sub-regulation (2) of Regulation 23 of RE Tariff Regulations, the interest rate has been taken as 13% based on the weighted average State Bank of India (SBI) Base Rate prevalent during the first six months of FY 2014-15, which has been worked out to 10%, as shown in the table below:

Period	Interest Rate
1/04/2014 to 30.09.2014	10.00%
Average Base rate for six months of FY 2014-15	10.00%

Source; State Bank of India (www.statebankofindia.com)

The computations of normative interest on loan has been carried out in tariff by treating 70% of the capital cost as the base value of loan.

DEPRECIATION

6.7 Regulation 24 of the RE Tariff Regulations provides as under:

For the purpose of tariff determination, depreciation shall be computed in the following manner, namely:-

“(a) the value base for the purpose of depreciation shall be the normative capital cost (for generic tariff) or the capital cost of the project as admitted by the Commission (for project specific tariff), as the case may be;

(b) 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;

(c) depreciation per annum shall be based on 'Differential Depreciation Approach'. For tariff purposes, the depreciation shall be allowed @ 5.83 % per annum till such time the requirement for repayment of loan component of the capital cost as per Regulations 20, 22 and 23 after adjusting the amount of subsidy as per Regulation 21, is fully provided and the remaining depreciation shall be spread over the residual useful life of the project on straight line method;

(d) depreciation shall be chargeable from the first year of commencement of operation of the project:

6.8 No adjustment has been made on account of subsidy in the tariff calculations and as such the rate of depreciation for the first 12 years has been considered as 5.83% and the rate of depreciation from the 13th year onwards has been spread over the balance useful life as under:-

Details	Solar PV Power Plant
Useful life (in year)	25
Rate of depreciation for 12 years (%)	5.83%
Rate of depreciation after first 12 years (%)	1.54%

INTEREST ON WORKING CAPITAL

6.9 In accordance with sub-regulation (1) of the Regulation 26 of the RE Tariff Regulations, the working capital requirement of solar PV comprises of the following:-

- (a) Operation and maintenance expenses for one month;*
- (b) Receivables equivalent to 2 (two) months of energy charges for sale of electricity calculated on the net saleable energy corresponding to the CUF considered for tariff determination on normative basis;*
- (c) Maintenance spare @ 15% of operation and maintenance expenses.*

Sub regulation 4 of the said regulation 26 provides as under:-

(4) Interest on working capital shall be the interest rate equivalent to average of SBI Base Rate (s) prevalent during the period of 6 months preceding the date of commencement of these Regulations, plus 350 basis points.

Provided that in cases where tariff is to be determined on financial year basis, in the control period, the Average Base Rate(s) of the State Bank of India (SBI) prevalent during the first six months of the previous year plus 350 basis points, shall be considered as the normative interest rate.

6.10 In view of provisions brought out in para -6.9, the interest on working capital has been worked out, on normative basis as under:-

Details	Solar PV power plant
(i) O&M expenses (month)	1
(ii) Maintenance spares (%) of O&M expenses	15
(iii) Receivable (months)	2
Interest on working Capital @ 350 basis points above average base rate of 10% (see para relating to interest on loan)	13.50

SUBSIDY OR INCENTIVE OR GRANT/ BUDGETARY SUPPORT BY THE CENTRAL/STATE GOVERNMENT

6.11 The sub-regulation (1) of Regulation 21 of the RE Tariff Regulations provides as under:

“(1) While determining the generic levellised or project specific levellised tariff, as the case may be, for the renewable energy project(s) under these Regulations, the Commission shall take into consideration any incentive and/or subsidy and/or grant available under the schemes of the Central or State Government or its agencies, including accelerated depreciation benefit under the Income Tax Act:

Provided that for tariff determination, 90% of the capital subsidy available to the project as per applicable scheme of the MNRE/ State Government shall be considered:

Provided further that the Commission may evolve suitable mechanisms for incorporating impact of the subsidy component for determination or adjustment of generic levellised tariffs for various categories of projects.

Provided further that the capital subsidy under the schemes of the Central or State Government or its agencies, shall, unless the circumstances otherwise warrant, be ordinarily adjusted against the principal component of the loan amount as additional reduction apart from the normal payment:

.....xxxxxxx.....”

6.12 In accordance with sub-regulation (3) of Regulation 21 of RE Tariff Regulations the amount of subsidy shall be considered for each renewable source as per the applicable policy of the MNRE/State Government.

6.13 No capital subsidy or incentive or grant /budgetary support has been considered in these calculations. In case a solar PV project is entitled to any incentive and/or subsidy and/or grant available subsidy/budgetary support/grant/generation based incentive (GBI)/viability gap funding (VGF), under the schemes of the Central or State Government or their agencies, the same shall be adjusted by the distribution licensee, at the time of signing the PPA, as per regulation 21 of RE tariff Regulations. However the accelerated depreciation benefit has been taken into consideration in this proposal as per para 6.15.

DISCOUNT FACTOR

6.14 In accordance with sub-Regulation(4) of Regulation 11 of the RE Tariff Regulations, the discount factor equivalent to the post tax weighted average cost of capital is to be considered for the purpose of levellised tariff computation. The discount factor has been calculated on this basis by following the normative debt: equity ratio (70:30). For this purposes, the interest rate for the loan component (i.e. 70%) of Capital Cost has been considered as 13.00% (as explained in para -6.6) which has been adjusted for the corporate tax. For equity component (i.e. 30% of the capital cost) the post tax ROE has been computed as 14.720% by adjusting the normative ROE of 19% per annum for first 10 years with MAT and 22% per annum for the remaining period with corporate tax. The rates for MAT & Corporate tax have been taken as 18.5% and 30% respectively. The surcharge and education cess have also been considered @ 10% and 3% respectively. Based on above, the annual discount rate has been calculated as 10.42%.

ACCELERATED DEPRECIATION BENEFIT

6.15 The sub-regulation 4 and 5 of Regulation 21 of the RE Tariff Regulations provide as under:-

“(4)The Commission shall determine two generic levellised tariffs or project specific levellised tariffs, as the case may be, one by considering accelerated depreciation and the other without it, and the tariff to any renewable energy generator shall be applicable as provided in succeeding sub-regulation(5):

Provided that for ascertaining income tax benefits on account of accelerated depreciation for the purpose of tariff determination-

- (a) assessment of benefit shall be based on normative capital cost or the cost admitted, as the case may be, accelerated depreciation rate, as per relevant provisions under the Income Tax Act and the Corporate Tax rate;*
- (b) in case of generic levelled tariff, capitalisation of renewable energy projects shall be considered during second half of the financial year and in case of project specific levelled tariff, the expected date of commencement of operation of the project shall be considered;*
- (c) per unit benefit shall be derived on levelled basis at the discount factor equivalent to the post tax weighted average cost of capital.*
- (5) It shall be assumed that the renewable energy generator shall avail the benefit of accelerated depreciation and accordingly the tariff, which accounts for the accelerated depreciation, shall be applicable unless the renewable energy generator establishes, to the satisfaction of the distribution licensee, that he has not availed or is not entitled to such a benefit.”*

6.16 The methodology and pattern followed by the CERC in their calculations of generic levelled rate for solar PV projects in their order dated 31.03.2015 has been followed for the purpose of determining the accelerated depreciation benefits CERC in their calculations have compared the depreciation @ 5.28% as per straight line method with depreciation as per Income Tax rate i.e. 80% of the written down value method. Moreover, additional 20% depreciation as extended to new assets acquired by power generation companies vide amendment in section 32, sub-section (1) clause (ii a) of the Income Tax Act has also been considered in initial two years . The tax benefit on this account has been computed at applicable Income Tax rate @33.99 %(30% IT rate +10% surcharge +3% education cess). As the project is considered to be capitalized during the second half of the financial year as per clause (b) of sub-regulation (4) of Regulation 21 of RE Tariff Regulations. The depreciation for the first year has been calculated at the rate of 50% of the capital cost. Income Tax benefit has been worked out as per normal tax rate on the net depreciation benefit. Per unit levelled accelerated depreciation benefit has been computed by considering the post tax weighted average cost of capital at the discount factor as per para 6.14.

GENERIC LEVELLISED TARIFF AND ASSOCIATED TERMS & CONDITIONS

7. In light of the discussions made in the preceding paragraphs, the generic levelled tariffs and the associated terms and conditions for Solar PV power plant in respect of FY 2015-16 are proposed to be determined as under:-

A. The generic levelled tariffs for Solar PV power plants in respect of FY 2015-16 shall be as under:

Category	Generic Levelled Tariff in Rs. / kWh of Net Saleable Energy of solar PV plant.	
	Without Accelerated Depreciation	With Accelerated Depreciation
Col.1	Col. 3.	Col. 4
Capacity upto 1 MW	7.14	6.45
Capacity above 1MW and upto 5MW	7.05	6.37

B. These tariffs shall be subject to the RE Tariff Regulations, 2012 and the orders as may be issued by the Commission thereunder from time to time.

C. These tariffs are applicable to solar photovoltaic (PV) power projects which directly convert Solar Energy into Electricity using the crystalline silicon or thin film technology or any other technology as approved by the Ministry of New and Renewable Energy and are connected to the Grid.

D. These tariffs shall be applicable for the entire tariff period in cases where PPAs are signed on or before 31.03.2016 and the entire capacities covered by the PPAs are commissioned on or before 31.03.2017.

E. These tariffs shall not be applicable in cases where the distribution licensee procures power through solar energy corporation of India or through competitive bidding at its level in accordance with section 63 of the Electricity Act, 2003. However, these rates shall be considered as the ceiling rate for reverse bidding in cases where procurement of power from solar PV projects by the Distribution Licensee is made through

competitive bidding at its level i.e. other than that through solar energy corporation of India.

F. These tariffs will not cover the solar PV plants which are installed by the consumers within their premises (rooftop or ground mounted) under net metering scheme.

8. The detailed computations for generic levelled tariffs for categories of solar PV power plant for FY 2015-16 as well as illustrations thereof are attached as per Appendix – “A” & “B”.

9. Norms and tariff for category III Projects (Above 5 MW)

The Commission has not fixed the norms for the category – III solar PV projects as it expects that Distribution Licensee to procure power from the solar PV plants of such capacities only through solar energy corporation of India or else through reverse competitive bidding at its level in accordance with section 63 of the Electricity Act, 2003. However, the Commission proposes to fix the tariff (with acceleration benefit) worked out for the category-II projects as the ceiling rate for the procurement of power from such projects through reverse bidding, other than that through solar corporation of India, in respect of the year 2015-16.

10. Comments and suggestions of the stakeholders on the above proposal/draft order are hereby invited by 16th July, 2015, so that the comments and suggestions so received are also considered, while finalizing the generic levelled Solar PV tariff and the associated terms and conditions.

Shimla:
Dated: 16.06.2015

Sd/-
Secretary
HPERC