

**THE HIMACHAL PRADESH ELECTRICITY REGULATORY COMMISSION,
SHIMLA**

In the matter of draft Regulations of the Himachal Pradesh Electricity Regulatory Commission (Promotion of Generation from the Renewable Energy Sources & Terms and Conditions for Tariff Determination), Regulations, 2012.

**CORAM:
Subhash. C. Negi
Chairman**

ORDER

1. Introduction

The Himachal Pradesh Electricity Regulatory Commission (hereinafter referred as “the Commission” or “the HPERC”), published the draft HPERC (Promotion of Generation from the Renewable Energy Sources & Terms and Conditions for Tariff Determination), Regulations, 2012 on 27th July, 2012 in Rajpatra Himachal Pradesh in exercise of the power conferred under section 61, sub-section (1) of section 62, (a),(b) and (e) of sub-section(1) of section 86 and clause (zd) of sub-section(2) of section 181 of Electricity Act, 2003(hereinafter referred as “the Act”).

As required vide sub-section (3) of section 181 of the Act the Commission invited public objections and suggestions by way of insertions in two News papers having circulation in the State i.e. “the Tribune” and “the Amar Ujala” on 29th July,2012 under Rule (3) of Electricity (Procedure for Previous Publication) Rules, 2005 and the full text of the draft Regulations, alongwith explanatory memorandum thereon, was made available on the Commission’s website www.hperc.org. A time of 30 days was allowed for filing objections and suggestions in relation to the said draft regulations. The Commission further extended the time for submission of the comments/objections/suggestions till upto 22nd September,2012 by way of insertions of Public Notice in News papers i.e. “the Tribune” and “the Divya Himachal” on 3rd September, 2012 and 2nd September, 2012 respectively. On the request of the Himachal Pradesh State Electricity Board Ltd.(hereinafter referred as “HPSEB Ltd.”) and M/s Moserbaer Engineering and Construction Ltd., the time period for submission of comments/suggestions was again extended upto 15th October, 2012 and the Public Notice for extended period was uploaded on the Commission’s website.

The Commission received comments/suggestions on the aforesaid draft regulations from the following stakeholders:-

1. The Himachal Pradesh Power Corporation Ltd., Shanti Kutir, Kamna Nagar, Chakkar, Shimla-05.
2. M/s Himadri Hydro Power Project Pvt. Ltd. and M/s Growel Energy Company Ltd. Redg. Office at 1, Electronics Complex, Chambaghat, Solan -173213.
3. *Green Infra*, 2nd Floor, Tower II, NBCC Plaza, Pushp Vihar, Sector 5, Saket, New Delhi-110017.
4. Sh. P.N. Bhardwaj, Consumer Representative, Arcadia, Vill. Ghat-ki-Ber, P.O. Dharmapur, Distt. Solan(HP).

5. M/s Moserbaer Engineering & Constructions Limited, 235, Okhla Industrial Estate, Phase-III, New Delhi-110020.
6. Himachal Small Hydro Power Association, B-99, Sector-3, New Shimla-171009.
7. Himachal Pradesh State Electricity Board Ltd, Vidyut Bhawan, Shimla-171004
8. H.P. Govt. Energy Development Agency(HIMURJA), Uraja Bhawan, SDA Complex, Kasumpti, Shimla-09.

The comments from the stakeholders mentioned at Sr.No.1 to 5 were received within the extended due date i.e. before the 15th October, 2012 and those from Sr. No.6 to 8 were received after the said date.

2 Approach for development of draft regulations:

In order to give impetus to the renewable sources, an appropriate regulatory framework for all the renewable sources is required to be in place. Accordingly, the Commission proposed its own regulations keeping in view the State specific situations, experiences gained, future strategies of the State Government and distribution licensee regarding power purchase etc. However for other RE technologies, the Commission has made only enabling provisions for the time being and shall determine generic or project specific tariff as and when need arises and for such purpose the Commission shall follow the technology specific parameters of the Central Electricity Regulatory Commission,(in brevity hereinafter referred as “the CERC”) as the ceiling parameters. The Commission in its explanatory memorandum to the draft regulations has elaborated the objects and reasons based on legal and policy framework, approach to new regulations, general principles, principles of tariff determination etc. Before considering the comments/objections received, the Commission briefly reiterates the approach to the regulations, as under:-

- (i) The Commission noted that the CERC guidelines provide for certain common norms applicable uniformly across the country and also that certain norms for SHPs are area specific e.g. there are different capital cost and O&M norms for North East /Hill States and other States. However, it is felt that within the North East/ Hill States also, specific conditions, policies, environment etc. are different. The Commission observed that in comparison to other States, the Himachal Pradesh has better capacities, accessibility, evacuation arrangements and

conducive investment environment. The Himachal Pradesh had been a pioneer in development of the Small Hydro Project (in brevity hereinafter referred as “SHPs”) and due to the progressive policies and strategies of the State Government, it has emerged as a leader in development of SHPs amongst the hill States. The multiple objectives of efficient and economic development of renewable energy, fairness to investors, choice to developer for disposal of power, interest of consumers, Utility interests, operational and implementation simplicity, competition, continuity etc., need to be achieved by careful and harmonious balancing.

- (ii) With the advent of various mechanisms and options for sale of power, the developers do not have to necessarily depend upon the distribution licensee for long term sale of power from their projects. Similarly, the licensee also does not have to necessarily purchase power from all the projects. The Commission, accordingly, felt that norms under these regulations may not fully meet the expectations of some of the SHPs which may be having unduly higher capital costs or lower the Capacity Utilization Factor (hereinafter referred as “CUF”). The Commission felt that developers of such SHPs should work out the economics of their projects by economising costs or exploring the markets like REC mechanism and open access consumers which may yield higher returns to them. Since it is not binding for the Utility to purchase power from all SHPs, any unduly liberal norms leading to higher tariff could discourage competition and also discourage the licensee to purchase power from SHPs. However, depending upon the market conditions and the energy requirements from renewable sources, the licensee can also resort to competitive bidding for purchase of power from such projects, after following due process.
- (iii) The Commission also took cognizance of the Power Purchase Agreements (in brevity hereinafter referred as the “PPAs”) which have been signed under REC mechanism and felt that such arrangement need to be encouraged. As such, the issue regarding tariff for the residual period of the tariff period (i.e. after availing REC mechanism) has been addressed in the draft regulations.
- (iv) The Commission, while framing the new regulations, has also considered the views earlier given by the State Government in the matter of philosophy and methodology of tariff determination of SHPs.

3. CONSIDERATION OF THE VIEWS OF THE STAKEHOLDER AND ANALYSIS AND COMMISSION'S VIEWS: ON IMPORTANT ISSUES :

The Commission now proceeds to discuss/consider the comments received by it, as under:

3.1 Validity of the comments:

The comments from HPSEB Ltd., HIMURJA and Small Hydro Association were received after the extended date. The Commission decides to take into account the comments received from these stakeholders also alongwith other comments which were received within the permitted period.

3.2 General comments:

Sh. P.N. Bhardwaj (Consumer Representative) have stated that the development of small hydro helps the reduction of power purchase cost of the licensee by the process of avoided costs and, therefore, it is a win-win situation for all stakeholders to encourage IPPs by ensuring attractive financial returns. He has suggested that the Regulations be so made so as to achieve the overall objectives of encouraging development of small hydro.

Commission Views:

In order to maintain balance between the interests of generators as well as consumers, the Commission shall follow an equitable approach as discussed in the para 2 above also. The Commission, however, observes that SHPs are mostly run of the river projects without any peaking benefits and it may be necessary to keep the tariff for SHPs within reasonable limits to actually have a win-win situation for all and also to encourage competition.

3.3 “Date of commencement of operation of the project” [Regulation 2(g) and regulation 8(1)(i)]:

M/s Moserbaer Engineering & Constructions Ltd. has submitted that since invariably any project would be commissioned unit-wise, the words “Date of commencement of operation of the project” as appearing in regulation 2(g) may be substituted by words “Date of commencement of operation of the unit” and if definition for “Date of commencement of operation of the Project” is also to be

included, then the words “first unit” may be substituted by the words “last unit” since the project by itself will then be complete. It has been suggested that in view of above Regulation 8(1)(i) the word “project” may also be replaced by the word “unit”.

Commission’s views:

The draft regulations envisage determination of levelled tariff for the entire useful life of the project and shall be applicable from the date of first synchronisation of the first unit of the project with the grid. The proposed definition of the aforesaid term, therefore, holds good in the context of the draft regulations. As such the Commission decides to retain the relevant provisions of the draft regulations as such.

3.4 Interconnection Point and Grid connectivity (Regulation 2(k), 2(l) & 6):

- (i) M/s Moserbaer Engineering & Constructions Ltd. have suggested that in Regulation 2(k) & 2(l) the “Inter-connection point” should be defined in line with the Central Electricity Regulatory Commission, RE Regulations, 2012 and the same should be considered at the generator’s end. It has been suggested that the distribution licensee should be mandated for the construction and operation and maintenance of the project lines. In support of this plea the provisions of CERC Regulations, 2012, CEA’s Technical Standards for Connectivity of Grid Regulations, 2007 and CEA’s draft Technical Standards for Connectivity of the Distributed Generation Resources)Regulations,2012 have been quoted.
- (ii) The HPSEBL have submitted that the cost of sharing of infrastructure beyond Interconnection Point may be considered on the principles notified for the Himachal Pradesh Electricity Regulatory Commission (Recovery of Expenditure for Supply of Electricity) Regulations, 2005 and the Himachal Pradesh Electricity Regulatory Commission (Recovery of Expenditure for Supply Electricity) Regulations, 2012.

Commission’s views:

In accordance with the practice being presently followed in the State, the project lines are constructed, operated and maintained by the generators and

the interconnection point is defined to mean the point of interconnection with the transmission or distribution system. The parameters regarding capital cost and the losses on the project lines have also been evolved by taking into account the existing practice. The Commission feels that inclusion of the cost of the project line in the project cost also facilitates the decision about the viability of the project in a more objective manner particularly in the peculiar geographical conditions in the States like Himachal Pradesh where some of the projects are located in farflung areas. The Commission also observes that in accordance with the Ministry of Power, Government of India order dated 8th June, 2005 i.e. Electricity [Removal of Difficulty](Fifth) order, 2005, the dedicated project lines can be constructed, operated and maintained by the generators.

The suggestion given by the HPSEBL that cost of infrastructure beyond the Interconnection Point should be shared by the generator and licensee is also not found acceptable on the lines and reasons discussed above. Moreover, the regulations referred to by the HPSEBL for cost recovery are applicable to consumers only and not to generators.

In view of the above, the Commission decides to retain the relevant provisions of the draft regulations as such.

3.5 Definition of Renewable Energy(Regulation 2(t):

M/s Moserbaer Engineering & Constructions Ltd. have stated that from the definition of “Renewable Energy” it appears that the proposed Regulations would be applicable for only grid connected RE plants. It has been suggested that Distributed Generation/Stand alone Systems and corresponding relevant provisions (wherever applicable) may also be included in the proposed draft Regulations.

Commission’s views:

The draft regulations are not intended to be made applicable for the distributed generation/stand alone systems at this stage. Accordingly, the definition of

renewable energy given in the draft Regulations, which is otherwise in line with the CERC's RE Regulations, 2012, shall be retained.

3.6 Option of mode of sale of energy(Regulation 5(1):

M/s Moserbaer Engineering & Constructions Ltd. have stated that since the generation of electricity is delicensed under Electricity Act, 2003; the option of mode of sale of energy may be left open to the generator.

Commission's views:

The draft regulations do not bind the generator to sell power in any particular mode. As such, the relevant provisions of the draft regulations shall be retained.

3.7 Timeframe for seeking connectivity (Regulation 5(2):

M/s Moserbaer Engineering & Constructions Ltd. and Himachal Pradesh Power Corporation Ltd. have suggested, with reference to Regulation 5(2) (which provides that renewable energy generator shall apply for connectivity to the licensee atleast 24 months prior to intended date of such connectivity or within such time frame as may be mutually agreed), that the period is sufficient for SHPs but for Solar and Wind Projects it should be 12 months prior to intended date of such connectivity or within such time frame as may be mutually agreed to.

Commission's views:

The provision for time limits within which the generator has to apply for connectivity, has been made so as to allow sufficient time to the licensee for taking necessary steps to provide the requisite facilities. Keeping in view the fact that the construction period for RE technologies other than SHPs may be shorter than that for SHPs and also the fact that the number of such projects in Himachal Pradesh may not be very large as compared to the SHPs, the Commission decides that the draft regulations be suitably amended to provide for time limit of 24 months for SHPs and 12 months for other technologies. However, the provision for mutual agreement about such time frame which

already exists in the draft regulations shall be retained. In view of this amendment, the provision under sub-regulation (5) of the Regulation 5 (stipulating the period in which the interconnection facilities shall be provided) shall also be rationalized.

3.8 Coordination Committee(Regulation 7) :

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the Renewable Energy Generators may also be included among the agencies (such as STU, distribution Licensee etc.) for coordination.

Commission's views:

Consequent to constitution of STU Coordination Committee under the Chairmanship of Additional Chief Secretary (Power) to the GoHP, the coordination functions are now being effectively discharged by the said Committee and as a matter of fact the generators are also associated by the Committee during the discussions. As such the relevant provision of the draft regulations which contains only an enabling provision to constitute a Committee, if felt necessary, shall be retained without any change.

3.9 Option for sale of Power under REC Mechanism (Regulation (8)(1) (ii)):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the Regulation may be replaced by the words "the generators availing REC Mechanism benefits shall be in accordance with the Central Commission's relevant Regulations for REC".

Commission's views:

The term REC mechanism has been defined in the draft regulations which also refers to the CERC regulations. As such the Regulation (8) (1) (ii) of the draft regulations shall be retained but only in a simplified form and shall not contain any further details about rate etc. under the said mechanism.

3.10 Joint petition for approval of PPA(Regulation 8(2)):

M/s Moserbaer Engineering & Constructions Ltd. have stated that -

- (i) generation being delicensed, getting approval of the PPA (along with payment of applicable fee/charges) from the Commission is the responsibility of the Distribution Licensee under section 86(1) (b) of the Electricity Act, 2003. Therefore, the words “the parties shall file a joint petition” may be substituted by the words “the distribution licensee shall file a petition”.
- (ii) the Commission has provided, under its previous Regulations, for a model PPA. Similarly, a model PPA for RE sources may be mandated under these Regulations.

Commission’s views:

In view of the provisions under sections 86(1) (a), and 86(1)(b); and also in view of the fact that the PPA is to be signed by the licensee and generator, it will be appropriate that a joint petition is filed before the Commission by both the parties. In this connection it is worth mentioning that HPERC(Conduct of Business) Regulations, 2005 also contain a specific provision for filing of joint petition for approval of PPA. As such the relevant provisions of the draft regulations shall be retained.

As regards, the model PPA, the Commission feels that this does not form a subject matter of these regulations. However, in order to incorporate the changes necessitated due to revision of regulations, necessary action to amend the existing modal PPA for SHPs, shall be initiated.

3.11 Duration of control period(Regulation 9 (1):

- (i) M/s Himadri Hydro Power Project Pvt. Ltd. and M/s Growel Energy Company Ltd. have suggested that the control period of five years for small hydro projects is too long and due to high inflationary trends, could lead to some projects, where PPA is entered into during the fourth or the fifth year of the control period, becoming unviable. It has been suggested that the control period be reduced from five years to three years.
- (ii) M/s Himachal Pradesh Power Corporation Ltd. have suggested that the control period or review period for the renewable energy sources, other than SHPs be also reviewed after every 5 years or as the Commission may find appropriate considering in view the market fluctuations.

Commission's views:

The HPERC's RE Regulations, 2007 provides for a control period of 5 years. The draft regulations envisage a control period of about 4 years and 3 months (i.e. upto 31.3.2017) to coincide with 5 year plan period. This will also match the closure of the control period under CERC's RE Regulations, 2012. The period for other technologies shall be fixed by the Commission as the need arises in accordance with Regulation 17. The provisions of draft regulations shall, therefore, be retained.

3.12 Revision of Regulations for next Control Period (Regulation 9(3)):

M/s Moserbaer Engineering & Constructions Ltd have suggested that the words "subject to adjustments under the revised Regulations" may be deleted as any such adjustments cannot be done from retrospective effect.

Commission's views:

The proposed enabling provision is applicable only for the transitory period. However, in case of any significant gap, the Commission can make suitable provision in the revised regulations to cover this aspect. Therefore, the provisions of draft regulations shall be retained.

3.13 Tariff period (Regulation 10):

M/s Himachal Small Hydro Project Association have proposed that the duration of tariff period in case of SHPs should be 13 years and for other renewable technologies the Commission may fix the same under regulation 17.

Commission's views:

The Commission feels that a longer tariff period provides a certainty to the developer as well as the licensee about the availability of power and the rates thereof. As such the provisions relating to tariff period incorporated in the draft regulations shall be retained.

3.14 Discount factor for determination of levellised tariff(Regulation 11(4)):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the discount factor be kept equal to the rate of Return of Equity (RoE). Complex formulae have also been suggested for working out the discount rate under the two scenarios i.e. based on pre tax rate of return and post tax rate of return.

Commission's views:

The Commission finds it appropriate to follow the methodology specified by the CERC in its RE Regulations, 2012. Accordingly, the Commission decides to retain the relevant provisions made in the draft regulations.

3.15 Generic levellised tariff (Regulation 13(1)):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the clarity may be provided about the tariff applicable for the projects, commissioned during the transitory period of 90 days from the date of commencement of these regulations(i.e. the period during which the levellised tariff is to be determined).

Commission's views:

The applicability of tariff for sale of power from SHP to the distribution licensee on long-term basis is not linked with the date of commissioning of the project. The tariff applicable in such cases is to be governed by the provisions of the power purchase agreement approved by the Commission (or otherwise signed by them if no such approval was required). Separate generic levellised tariff is to be determined by the Commission for each category of the SHPs, within 90 days from the commencement of regulations presently under consideration. In case any long-term power purchase agreement is to be approved by the Commission during this transitory period of 90 days, the tariff shall be governed in accordance with sub-regulation (3) of regulation 13. However, for the sake of clarity, the Commission may also, at the time of approval of any such PPA during the said transitory period, include suitable clause clarifying the position in this regard. As such, the relevant provisions already made in the draft regulations shall be retained.

3.16 Project specific levellised tariff (Regulations 14(1)(i), 31 & 41):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that -

- (i) any cost which is admitted as prudent by the Commission in project specific tariff in all fairness has to be independent of the specified norms or otherwise project specific tariff will have no relevance and that the reference to normative capital cost is not warranted. On a similar reasoning, corresponding references to normative cost/parameters in project specific tariff determination need to be deleted in the proposed Regulations.
- (ii) It has been suggested that there must not be any such ceiling (lower/higher) in case of project specific tariff determined by the Commission as putting a ceiling or floor on the project specific tariff determined by the Commission would suffer from an element of uncertainty and it needs to be avoided. It has also been stated that once the Commission has considered an expense to be prudent then keeping a ceiling (whether lower/higher) is not warranted so as to be in line with section 61(g) and (d) of the Act. In this regard it has been mentioned that the Tariff Policy vide its clause 5.3(f) and 5.3(h)(2) specifically provides that the approach of adopting lower of normative or actual values needs to be discarded.
- (iii) It is also suggested that regulations 31 and 41 which provide for deviation from norms within the overall tariff as per the draft regulation and treating the financial norms as ceiling norms be deleted.

Commission's views:

The provisions related to determination of project specific tariff, as proposed in the draft regulations are meant to provide guidelines to the Commission for determining the project specific cost and the Commission finds it appropriate to retain the same. In this regard the Commission also observes that the CERC's RE regulations, 2012 do not provide for determination of project specific levellised tariff in cases where generic levellised tariff is to be determined.

3.17 Project specific levellised tariff[Regulations 14(2) & 14(3)]:

- (i) The HPSEBL have submitted that the distribution licensee should have the option to exit from the Power Purchase Agreement in case the Project Specific Levellised Tariff exceeds the Generic Levellised Tariff even by 5%.
- (ii) M/s Moserbaer Engineering & Constructions Ltd. have suggested that the licensee/generator may be free to enter into PPA at the approved tariff. However, in order to meet the objective of the Act and Tariff Policy that renewable need to be promoted, the option to deny execution of PPA at the approved tariff should not be available to licensee as long as it is short of its RPO/SPO obligation.

Commission's views:

- (i) The maximum limit of 105% was included in the draft regulations in order to minimize the risk of the distribution licensee. The Commission, on consideration of the comments of the HPSEB Ltd., observes that the draft regulations only provide for an exit option and do not bind the impacted party to exit from the PPA. Since there may normally be a gap of about 3 years in the signing of PPA and completion of the Project, the distribution licensee may not always like to exercise the exit option available to it and may like to evaluate as to whether it should exit from the Project after taking into account market scenario at the time of the completion of the Project. The Commission, after thoughtful consideration, decides to accept the suggestion of the HPSEB Ltd. and shall modify the relevant provision suitably.

The Commission has also considered as to whether the corresponding limit of 95% of the generic tariff in case of exit option to the generator should also be reviewed in view of above. The Commission decides to retain this limit as the savings on account of reduction in tariff below 95% of the generic tariff can still be retained by the generator which is a mechanism to incentivise efficiencies.

- (ii) The Commission can not bind the licensee to purchase power from a particular project, even if it falls short of RPPO. The provisions contained in the draft regulations in this regard are meant to facilitate the process of power

procurement by the licensee from renewable technologies and shall be retained.

3.18 Capacity enhancement [Regulation 16(2) & (3)]:

M/s Moserbaer Engineering & Constructions Ltd. have stated that Regulation 16(3) creates uncertainty for the generator/licensee and should be deleted. Further the word “executed” may be deleted to be in line with the other Regulations where the word ‘approval/approved’ has been correctly provided.

Commission’s View:

The words ‘approved or executed’ are meant to take care of the situation where the approval of the PPA was not required for executing the PPA, such as before the Commission coming into existence. However, Regulations 16(2) and 16(3) shall be suitably reworded to provide more clarity.

Moreover, in order to avoid steep fluctuations in tariff for the residual periods, in the cases falling under clause (ii) of sub-regulation (3) of regulation 16, the Commission also decides to include a proviso in the said clause on the following lines:

“Provided that a levelled rate based on rate applicable as per the power purchase agreement for the original capacity, adjustments under this clause, duration of residual tariff period and the discount rate determined by the Commission under these Regulations, shall be applicable for the residual tariff period.”

3.19 Addressing of Capacity enhancement issues (Regulation 16(7)):

M/s Moserbaer Engineering & Constructions Ltd. have stated that since the PPA requires approval of the Commission (including for enhanced capacity of the project), the second proviso of the Regulation may be modified in consonance with the main para.

Commission's views:

The second proviso of regulation 16(7) takes care of the specific situation and does not contradict the main para.

3.20 Tariff for RE projects other than SHPs (Regulation 17):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that –

(i) for regulatory certainty, the generic levellised tariff for other technologies may be determined as early as possible for solar power, since it has good potential in the State.

(ii) the words “Where the generic levellised tariff has not been determined by the Commission for a renewable energy technology under sub-regulation (2)” may be deleted as absence or existence of generic tariff has no co-relation with the project specific tariff as provided in Regulation 18(2). It has been stated that the Appellate Tribunal of Electricity in the matter of Techman Infra Ltd. and HPERC has held that project specific tariff must be determined at the instance of any party. It has been suggested that, if required, the project specific tariff may be determined by the Commission irrespective of the existence of generic levellised tariff.

Commission's views:

(i) The intention of the Commission for determination of the generic levellised tariff for the renewable sources other than SHPs has been clearly expressed in regulation 17.

(ii) In accordance with regulation 12 of the draft regulations, the parties to the PPA can opt for the determination of generic levellised or project specific levellised tariff for all types of technologies. The said provision was incorporated in the draft regulations after duly taking into account the APTEL's order in the above referred case.

In view of above, the concept contained in draft regulations be retained in final regulations also. However, the provisions relating to renewable technologies

other than SHPs, shall be further rationalized to provide more clarity in this regulation as well as in other related clauses of these regulations.

3.21 Proceedings for determination of project specific levelled tariff (Regulation 18(1):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the word “at least” may be pre-fixed before the words “ninety days before the expected date of commencement of operation of the project.

Commission’s views:

The provision shall be rationalized suitably in the final regulations.

3.22 Proceedings for determination of project specific levelled tariff (Regulation 18(1) (b):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the words “capital expenditure incurred” may be substituted by the words “capital expenditure incurred/to be incurred”.

Commission’s views:

The Commission finds it appropriate to consider the expenditure to be incurred for completing the works covered in the original scope of work or for discharging the outstanding liabilities in respect of the completed work. The draft regulations shall be modified accordingly.

While reviewing the provisions of this regulation relating to project specific determination of tariff, the Commission also reviewed the other related provisions relating to project specific determination of tariff. It observed that clause (b) of sub-regulation (1) of Regulation 15 of the draft regulations envisages that in cases where the first PPA under REC mechanism for a SHP (5-25 MW) was approved by the Commission before the commencement of these regulations, the tariff for the residual tariff period (after having sold power under REC mechanism in initial periods) shall need to be determined based on the norms under HPERC’s existing RE Regulations, 2007 and that such rate shall be subject to a maximum limit of Rs.2.90/kwh. However, since the norms

for project specific determination of tariff to such SHPs (5-25 MW) have not been notified by the Commission, it was felt appropriate to include certain guidelines for the purpose in these regulations without changing the maximum rate of Rs.2.90 per KWh already incorporated in the draft regulations. Accordingly, the Commission decides to reword provisions of the aforesaid clause of regulation 15 on following lines:-

“(b) where the capacity of the SHP is more than 5 MW, the Commission may determine the project specific levellised tariff taking into consideration –

- (i) prudent capital cost as may be admitted by the Commission which shall be further restricted to the normative capital cost allowed by the Commission for the SHPs upto 5 MW pursuant to the Himachal Pradesh Electricity Regulatory Commission (Power Procurement from Renewable Sources and Cogeneration by Distribution Licensee) Regulations, 2007;
- (ii) the annual capacity utilisation factor worked out on the basis of data for 75% dependable year as per approved Detailed Project Report;
- (iii) the free power (in percentage) applicable in case of the project which, for any period, shall not exceed 13% as per the Central Government Hydro Policy/Tariff Policy and shall also be subject to further restrictions in accordance with the principles enunciated in sub-regulation (3) of regulation 35.
- (iv) the norms/parameters, other than those covered under the preceeding items (i) to (iii) fixed by the Commission for the SHPs upto 5 MW under the Himachal Pradesh Electricity Regulatory Commission (Power Procurement from Renewable Sources and Cogeneration by Distribution Licensee) Regulations, 2007 shall be considered as ceiling norms;
- (v) the liabilities relating to loan repayment, interest, depreciation etc which have been discharged or deemed as discharged during the initial period(s) in which power was being sold under REC mechanism;
- (vi) savings on account of the benefit of accelerated depreciation, if availed; and
- (vii) any other factors as the Commission may consider appropriate:

Provided that the rate so determined shall be subject to a maximum limit of Rs.2.90 per Kwh”.

3.23 Proceedings for determination of project specific levellised tariff Regulation 18(2):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the project specific provisional tariff may be determined by the Commission without any reference to generic levellised tariff.

Commission’s views:

This provision contains a useful guideline to the Commission to fix interim provisional tariff during the pendency of petition for project specific determination of tariff and as such it shall be retained.

3.24 Review of tariff(Regulation 19(2):

- (i) M/s Green Infra have suggested that the Commission may link the review of tariff for any change in policy / rule for free power applicable to generator without putting a limit of 13%.
- (ii) M/s Himachal Pradesh Power Corporation Ltd. have suggested that Clause (2) of regulation 19 should have also mention of State Hydro Policy as has been mentioned in clause (3) of regulation 34.

Commission’s views:

The limit of 13% has been fixed in the Central Government’s New Hydro Policy, 2008 (in brevity hereinafter also referred as “National Hydro Policy”) and Tariff Policy and shall be followed. However, provision has already been made in the draft regulations for review of tariff in case of revision of this limit under the National Hydro Policy/ Tariff Policy.

The mention of State Policy in regulation 34 has been made in a different context and the Commission does not find it appropriate to include the same under sub-regulation (2) of Regulation 19. However, the Commission also decides to provide more clarity in the provisions relating to adjustments on account of variation in the percentage rate of free power on following lines:-

- (a) the tariff adjustments falling under sub-regulation (2) of regulation 35 shall be done by the distribution licensee.
- (b) a suitable provision shall also be included in sub-regulation (6) of draft regulation 16 relating to capacity enhancement so as to provide clarification about the permissibility of changes in free power in case of enhancement of capacity of SHPs. on the following lines:-

“Provided that in case capacity enhancement is approved by the State Government, the percentage rate of free power undergoes change due to-

(i) any change in general policy during the intervening period between the dates of execution of Implementation Agreements for the original capacity and the Supplementary Implementation Agreement for the enhanced capacity, e.g. on account of Local Area Development, change in basic rates, change in the category of the project based on the capacity etc; or

(ii) additional free power specifically for enhancement of capacity;

the variations in free power on account of item (i) shall only be considered for adjustment in tariff as per sub-regulations (2) and (3) of regulation 35, but additional free power for capacity enhancement as per item (ii) shall not be considered for tariff adjustment”.

3.25 Review of tariff (Regulation 19(3) (iv):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that -

- (i) the review of tariff in case of variation in MAT or Corporate Tax may not be limited to $\pm 10\%$ of the MAT or Corporate Tax as the variation limit in draft Regulations is too large for any developer to absorb.
- (ii) the force majeure (such as flash flood, lightening etc.) may also be included for the reason for reviewing the tariff.

Commission’s views:

In view of the difficulties expressed to absorb the impact of variations in MAT or corporate tax, even within the proposed limits, the Commission now decides to adopt a pre tax rate on return of equity instead of post tax as mentioned under draft regulations on CERC pattern. Necessary modifications in the relevant

regulations shall be incorporated. In this connection views under the item relating to the return on equity may also be seen.

As regards the review of tariff in case of force majeure, it is pointed out that the regulations provide for generic levelled or project specific levelled tariff only, the impact of force majeure cannot be separately provided for. The developer should cover such risks through suitable insurance coverages.

3.26 Review of tariff (Proviso of Regulation 19(3)):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the proviso may be omitted as it creates uncertainty.

Commission's views:

This proviso contains an enabling provision for the Commission to incorporate the terms and conditions as it may deem fit, while revising the tariff under this regulation. The Commission finds it appropriate to retain the same, as all the contingencies cannot be foreseen at this stage.

3.27 Capital Cost (Regulation 20):

The HPSEBL have submitted that the upfront premium payment made by the IPP at the time of allotment of the Projects as per the Government Policy may be considered as a part of capital cost.

Commission's views:

It has been clearly stipulated in para 10.1(d) of the Hydro Power Policy, 2008 of the Government of India, that "while determining tariff the appropriate Regulatory Commission shall not allow as a part of the project cost the expenditure incurred or committed to be incurred by the project developer for getting the site allotted to him". In this connection it is worth mentioned that even in the Hydro Policy of State Government, it has been mentioned in the bid procedures for the projects above 5MW that "the upfront premium shall not form part of the Project cost in the DPR and financial closure, which shall be borne by the Developer out of financial strength of the Company". In view of above, the Commission decides to retain the basic concept enunciated in the

draft regulations and the upfront premium shall not be considered as part of the capital cost for any tariff, whether generic or project specific.

3.28 SHARING OF BENEFITS (Regulation 21 & 39):

(A) Subsidy or incentive or grant/budgetary support by the Central/State Government (Regulation 21):

(i) M/s Moserbaer Engineering & Constructions Ltd. have suggested that for tariff determination, 75% of the capital subsidy available to the project be considered instead of 90% in the first proviso of the Regulation 21 so as to cover generator's administrative costs and to encourage him to make best efforts for getting the subsidy. It has been mentioned that similar consideration exists in the relevant regulations of UERC. It has also been suggested that-

(a) In the last proviso of regulation 21(1) following may be added at the last sentence of the proviso;

Unless the generator is able to show to the satisfaction of the distribution licensee/Commission that he was not eligible or could not get the incentive for reasons not attributable to him.

(b) the words "available to any" as appearing in regulation 21(2) may be substituted by words "availed by any".

(ii) Shri P.N. Bhardwaj, Consumer Representative, M/s Himadri Hydro Power Project Pvt. Ltd. and M/s Growel Energy Company Ltd. have suggested that in order to meet the objectives of promoting renewable energy generation, the benefit of subsidy grants accruing to the project be continued to be retained /given to the developer as incentive for the purpose of promotion of small hydro power in the State. It has been suggested that Regulation 21 needs to be suitably amended to take care of the above concerns.

(iii) HIMURJA have submitted as under -

(a) "In point 20(2), 21(1) and 21(2) ---that the Tariff determined is not less than affixed by the Commission for electricity of any conventional

sources or large HEP. Various promotional incentives provided by the Govt. of India will otherwise be negated. Therefore last para of 21(1) needs modification to the extent GBI is availed by the generator.

- (b) In point 21(5)---that means the Government is actually offering benefits of subsidy only upto commissioning of the project. In the overall impact, has the Commission restricted reduction to the equivalent to the total derived benefit & interest accrued, lest Renewable Energy will be less beneficial than conventional energy for any generator”.

(B) CDM benefits(Regulation 39):

- iv) Shri PN Bhardwaj, Consumer Representative, M/s Himadri Hydro Power Project Pvt. Ltd. & M/s Growel Energy Company Ltd. have suggested that there is no reason for sharing the CDM benefits with the Distribution Licensee. One of these objectors have stated that the issue of sharing CDM benefit is welcome in case the Distribution Licensee also shares the 50% loss of generation in any given year, to be calculated based on the 75% dependable generation as per the sanctioned DPR of the project.
- v) M/s Moserbaer Engineering & Constructions Ltd. have suggested that the Regulation may specify as to how deduction is to be done by licensee and that too only upon receipt by generator.

Commission’s views:

These two aspects (sharing of subsidy and CDM benefits) have been discussed in a consolidated single item as the same pertain to sharing of incentives/benefits available to the developers in shape of subsidy/grant/CDM benefits. The Commission is required to maintain a balance between the interest of all stakeholders i.e. generators and consumers.

The Commission observes that CERCs RE Regulations, 2012 as well as the Tariff Policy envisage sharing of these benefits. After thoughtful consideration, the Commission, however, decides that the CDM benefits available to generators shall be allowed to be retained by the generators in line with the practice followed by this Commission in the order dated 18.12.2007 under the

existing RE Regulations of 2007. Accordingly, now the CDM benefits shall not be shared with the licensee.

The Commission has also considered the suggestion that the subsidy should either not be adjusted at all, or should be adjusted at a lower rate, in the tariff. The Commission observes that CERC's RE Regulations, 2012 provide for 100% adjustment of the amount of subsidy in the tariff. However, the Commission in its draft regulations has made a provision for adjustment of only 90% subsidy so as to allow the generator to retain the remaining 10% subsidy to cover its administrative expenses. The Commission, feels that provision of subsidy not only helps the generator in getting the project financed from financial institutions but also reduces the amount of funds required to be arranged for the project. Moreover, it also gives a positive indication about the intention of the Government of promoting such projects. However, since all the reasonable costs incurred are being allowed in the tariff, it may only be fair to adjust the amount of subsidy in the tariff/capital cost.

As regards the suggestion that capital subsidy should be adjusted only if it is actually availed by the generator, the Commission feels that it is the responsibility of the developer to avail the benefits to which he is entitled under the policy and accordingly the subsidy available shall be adjusted on normative basis while determining the levelled tariff. The Commission observes that provision for tariff and adjustment in case of any policy changes on account of subsidy available from the MNRE has already been included under regulation 19(3).

In view of above, the, Commission after thoughtful consideration of the suggestions received decides that since all the reasonable costs are being allowed while determining levelled tariff and the CDM benefit has also been allowed to be retained by the generator (inspite of provisions for sharing of the same in the CERC's regulations as well as in tariff policy), the provisions relating to adjustment of subsidy shall be retained. However, the provision for incorporating the impact of subsidy in the generic levelled tariff shall be rationalised to make an enabling provision for evolving suitable mechanism.

The draft regulations shall be modified on above lines.

3.29 Debt -Equity Ratio (Regulation 22(3)(i) & 23(1):

M/s Moserbaer Engineering & Constructions Ltd. have suggested that the loan tenure for the normative loan may be considered as weighted average tenor for project specific tariff and 12 years for generic tariff.

Commission's views:

This provision is applicable only for project specific levellised tariff and provides for taking the weighted average tenor of loan. In case of generic levellised tariff the fixed debt – equity ratio of 70:30 is to be adopted.

3.30 Loan and Finance charges(Regulation 23 Clause(2)(b):

M/s Himachal Pradesh Power Corporation Ltd. have suggested that Clause (2) (b) of regulation 23 states that “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, whereas, clause (4) of Regulation 26 reads as “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. It has been suggested that this figure of basis point should be same in both the regulations.

Commission's views:

The difference in interest rates is due to variation in nature of borrowing loans.

3.31 Depreciation (Regulation 24):

The HIMURJA have stated that whether residual life will be computed from 40 years lease period or would include subsequent period also as in case of depreciation computation.

Commission's views:

The provision relating to useful life has already been incorporated in the draft Regulations. The Regulation 24 also clearly states that the remaining depreciation after providing for loan repayment is to be spread over the

residual useful life of the project. As such relevant provisions of the draft Regulations shall be retained without any change.

3.32 Return on Equity [Regulation 21(4)(c), 25(2) & 25 (4)]:

(i) M/s Moserbaer Engineering & Constructions Ltd., M/s Green Infra and Himachal Small Hydro Project Association have suggested that the return on equity should be allowed at a higher base rate(post tax rate) instead of 14% envisaged in the draft regulations. The base rates of 16% to 19% have been suggested.

(ii) M/s Moserbaer Engineering & Constructions Ltd. have also suggested that the words “ post tax weighted average cost of capital” may be substituted by words “post tax on equity”.

Commission’s views:

In view of the difficulties expressed by the developers to absorb variations in MAT and corporate tax rate, even within proposed limits, the Commission decides to allow return on equity on pre tax basis, as is being adopted by the CERC also.

As regards the rates for return on equity, the Commission after taking into account the return on equity adopted for SHPs upto 5 MW in the Order of 18.12.2007 under the existing regulations of 2007, HPERC(Terms and Conditions for Determination of Hydro Generation Tariff) Regulations, 2011 as well as that applicable under CERC regulations and after careful balancing of various factors decides to allow the same at the following rates:-

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

Since the return on equity has been delinked from the MAT/Corporate tax, instead of what was proposed in the draft regulations, there shall be no pass through or grossing up or reimbursement on account of Corporate tax/MAT etc.

3.33 Taxes and Duties etc. (Regulation 28):

M/s Moserbaer Engineering & Constructions Ltd. have submitted that in case of determination of tariff the Commission considers only income tax (MAT/Corporate Tax) on normative basis and that levy of any other taxes and duties are beyond the jurisdiction of the Commission and tariff that is based on only costs and Corporate Tax cannot be inclusive of these taxes/duties. It has been suggested that the determined tariff under these Regulations may be exclusive of all taxes and duties except income tax.

Commission's views:

The Commission observes that the multiple activities involved during the construction and operational stages attract levies/taxes/duties etc. of various types which may also differ in various situations and it may not be practically feasible to smoothly operationalize a separate mechanism for adjustment/review on account of taxes etc. in such circumstances. The project cost worked out in the Detail Project Reports in such cases is also considered to be inclusive of all taxes and duties etc. The Commission has accordingly considered various norms/costs inclusive of all taxes and duties etc. except for the specific provisions made in the regulations. As regards the jurisdiction of the Commission, it is pointed that the Commission is only fixing the tariff rates inclusive of the taxes and is not exceeding its jurisdiction. As a matter of fact, the Commission has now fixed return on equity also on pre tax (gross basis) as discussed in a separate item. As such the tariff shall be considered as inclusive of all taxes and duties etc., and shall not be subject to any review, except tax on generation as stipulated in regulation 19.

In view of above, the provisions under regulation 28 shall be retained.

3.34 Rebate and Late payment surcharge (Regulation 29 & 30):

- (a) M/s Himachal Small Hydro Project Association have made submissions that –
 - (i) in regulation 29(1) the due date for payment of bills should be 30 days from the date of billing instead of 60 days envisaged in the draft regulations. M/s Himadri Hydro Power Project Pvt. Ltd. & M/s Growel Energy Company Ltd.

have also suggested that the date of payment of bills be reduced to 30 days from 60 days as to tide over cash flow problems;

- (ii) the provision of a rebate of 2% for prompt payment through letter of credit needs to be reviewed, since the distribution licensee is required to promptly pay the energy bills;
- (iii) the proposed rate of the payment of late payment surcharge needs to be revised from 15% (1.25% per month) to 18% (1.5% monthly), which will enforce a discipline on the distribution licensee to clear the energy bills within allotted time frame.

(b) The HPSEBL have submitted that where payments are made other than through the letter of credit, the rebate @1.5% instead of 1% may be allowed in line with the existing provisions.

Commission's views:

The provisions relating to rebate and late payment surcharge have been incorporated in line with the provisions under CERC's RE Regulations, 2012 and shall be retained accordingly.

3.35 Capital cost for Small Hydro Projects and categorizations of SHPs (Regulation 32 & 33):

- (i) M/s Himadri Hydro Power Project Pvt. Ltd. & M/s Growel Energy Company Ltd. have suggested that the normative cost of Rs. 7.5 Cr./MW, for projects falling in the range of 2-5 MW needs to be fixed to atleast Rs. 9.5 Cr. /MW.
- (ii) M/s Green Infra have suggested that the first two categories of SHPs(100 kW to 2 MW and 2 MW to 5 MW) be merged and the Commission may notify Rs. 780 Lac per MW as capital cost for projects up to 5MW.
- (iii) M/s Moserbaer Engineering & Constructions Ltd. have suggested that capital cost for all the three years of the Control Period is not realistic and will amount to contravention of section 61(g) of the Electricity Act, 2003 has been stated that annual indexation/escalation in capital cost is an accepted norm as is there is in CERC's RE Regulations. It has been suggested that either an

escalation/indexation formula may be specified or different capital costs may be specified for different years of the Control Period.

- (iv) M/s Himachal Small Hydro Project Association have submitted that in case of SHPs, the normative capital cost inclusive of all its components may be considered, for the control period as under:-
- (a) Above 100 KW to 2 MW capacity :- Rs. 780 Lac./ MW
 - (b) Above 2 MW to 5 MW capacity :- Rs. 800 Lac./ MW
 - (c) Above 5 MW to 25 MW capacity :- Rs. 750 Lac./ MW
- (v) Sh. P.N. Bhardwaj(Consumer Representative) has suggested that HPERC has allowed capital costs of large hydro projects owned by the State Government /Corporations in the recent past, which are much beyond the normative capital costs fixed for Small Hydro. It has been stated that it is an established case that the cost of small hydro is the highest at the lowest range and keeps reducing as the plant capacity rises and that once the HPERC has admitted various components of the capital cost even in the case of large hydro, the costing of various components cannot be widely different in case of small hydro. It has been suggested that the normative capital cost fixed for the small hydro needs to be raised upwards, to take care of high input costs.
- (vi) The HPSEBL submitted that capital cost of the SHPs have been taken as 780 lakh up to 2MW, 750 lakh between 2 to 5 MW and 700 lakh between 5 and 25MW. The increase in cost will result in increase in the tariff to be determined for purchase of renewable power from IPPs and ultimately will impact the retail tariff and put additional burden on general consumers. The capital cost may be kept lower to avoid additional burden on power purchase cost and likely to be passed on to consumers.
- (vii) The HIMURJA have submitted that based on the present trends, per MW cost fixed seems to be on lower side.

Commission's views:

The Commission has proposed the formulation of categories and the normative parameters for capital cost after due consideration of relevant aspects including the incentive extended to the Himachali entrepreneurs in the GoHP policy, the MNRE incentives to Micro Hydro developers, the cost difference between the projects of various categories and categorization of projects done by the GoHP. as has been adequately elaborated in the Explanatory Memorandum to the draft. The position is however, reiterated in brief as under:-

- (a) While determining the tariff for SHPs upto 5 MW under the existing Regulations of 2007, a normative cost of ₹6.5 cr. per MW was considered. There was no provision for any cost indexation during the control period.
- (b) The Commission felt that since the capital cost varies from State to State, the TEC cost of the project approved and also the projects commissioned within last few years in Himachal Pradesh can give sufficient indication of capital cost of SHP in the State. Accordingly, the capital cost as approved in TEC of various categories of SHPs was analyzed alongwith the benchmark capital cost considered by the CERC in its RE Regulations, 2012, to arrive at the benchmarks.
- (c) Himachal Pradesh has the added advantages in comparison to other States, having better capacities, accessibility, evacuation arrangements and conducive investment environment, particularly for SHPs and, therefore, prudent capital cost generally will be lower than the normative cost arrived at by the CERC. However, the Commission feels that capital cost norm should be reasonable to encourage investment in the SHPs in the State.
- (d) The Regulations, 2007 HPERC specifies two categories i.e. upto 5 MW and above 5 to 25 MW. However, the GoHP Policy, apart from above categories, provides for another category of projects i.e. upto 100 kW and above 100 kW to upto 2 MW for the purpose of allotment to the bonafide residents of Himachal Pradesh.
- (e) Even though the CERC and SERCs have created two categories i.e. less than 5 MW and 5 MW to 25 MW but it does not reflect the appropriate capital cost. More categories (as followed by UERC) may not reflect perceptible change in

cost between the successive categories of project. In Himachal Pradesh, there is distinct potential for Micro Hydro Projects upto 100 KW and the MNRE has also recognised this category by providing separate incentive scheme for them.

The Commission had proposed uniform norms for the capital cost for SHPs for the entire control period and did not make a provision for any indexation during the control period as it felt that the normative costs shall duly take care of reasonable costs for all the projects likely to be covered in these regulations and provision for any such increase could lead to situations where the inefficiencies on account of cost and time over run are rewarded.

The Commission notes that whereas the HPSEBL have suggested that the capital cost may be kept lower to avoid additional burden on the consumers, the others including the Consumer Representative, have suggested that the same needs to be raised upwards to take care of high input costs.

The Commission is aware that the capital cost in case of some of the projects may be higher than the normative cost proposed by the Commission. As indicated in the Explanatory Memorandum to the draft regulations, the developers in such case should take into account the financial aspect of such projects by balancing various factors affecting the economics e.g. better CUF can support a higher cost and vice versa. Sale of power by the generator to the licensee at the levellised rates determined under these regulations is just one of the many other options available to the generator. The regulations do not bind any of the generator/licensees to sell/purchase power at these rates.

The Commission after careful consideration of all relevant aspects including the comments received on the draft regulations decides to retain the provisions of the draft regulations.

3.36 CUF and Normative saleable energy(Regulation 34) :

M/s Himadri Hydro Power Project Pvt. Ltd., M/s Growel Energy Company Ltd., M/s Green Infra and M/s Moserbaer Engineering & Constructions Ltd. have commented that:-

- (i) The proposed CUF is on higher side and should be kept at 45% as in previous tariff.

- (ii) The proposal that any change in law providing for a higher compensatory discharge shall not entitle the IPP to any compensation /tariff revision is against the spirit of the development of Non-conventional sources of energy and therefore, needs to be deleted. It has been suggested that the Regulations should have a provision that any change in the hydro policy should necessarily entitle the developer to seek relief to the extent entitled.
- (iii) One of the objectors have stated that the proposed CUF is significantly on higher side as compared to the actual / expected CUF for most of the upcoming sites for small hydro plants in HP and the Commission may lower the normative CUF to 45%, in line with the latest CERC regulations.
- (iv) M/s Himachal Pradesh Power Corporation Ltd. have suggested that the normative annual capacity utilization factor (CUF) should also be defined for other renewable technologies and have also stated that if Commission considers appropriate, the said regulations for renewable technologies, other than SHPs, should be separate and for SHPs should be exclusive.
- (v) The HPSEBL have submitted that capacity utilization factor (CUF) for SHPs is generally around 60% and in their opinion it should be kept at 60%, the average CUF of commissioned projects supplying power to HPSEB Limited.

Commission's views:

The Commission had proposed the capacity utilization factor(CUF) of 55% on gross basis (i.e. inclusive of the free energy to State) after due consideration of various relevant facts as elaborated in the Explanatory Memorandum to the draft Regulations. Some of the points which were considered by the Commission while proposing the CUF of 55% are briefly given as under:-

- (a) The Commission, in its Order dated 18.12.2007 for SHPs upto 5 MW considered the normative CUF as 45% on gross basis (i.e. inclusive of free energy) for the purpose of tariff determination. The net saleable energy for tariff determination has been worked out by deducting the auxiliary consumption, transmission losses, losses in project line(s) and the free energy at applicable rates.

- (b) The CERC has specified that for the SHPs located in H.P., Uttarakhand, and North Eastern States, the CUF shall be 45% and the same is net of free power, if any, to the Home State. Tariff has also been worked out without any reduction on account of free energy from the energy quantum corresponding to CUF of 45%. The corresponding CUF on gross basis including 13% free power shall work out to about 52%.
- (c) In case of H.P., different rates of free power are applicable for the projects of different capacities and also for the projects allotted in various time frames. The Commission, therefore, finds it appropriate to adopt CUF inclusive of the free power and shall adjust the free power for various categories of projects based on the free power structure actually applicable to such projects.
- (d) The SHPs in the State are purely run-of-river projects and there is hardly any pondage available in these projects. As such, the sensitivity studies based on incremental energy benefits and the incremental costs should be the main criteria for deciding the capacity of such projects where peaking benefits are not available. The projects with unduly low CUF are likely to not only enhance the per unit cost of generation beyond acceptable economical limits but also burden the infrastructure for evacuation of power in an uneven manner which can lead to criticalities in certain cases and may require additional investments on evacuation system.
- (e) In view of above, the Commission felt that for the purposes of determination of levellised tariff for sale of energy to the licensee on long term basis, the CUF of such projects, which have hardly any peaking benefits, should be reasonably high and should not be less than 55% so that the tariff remains within such limits as are considered reasonable by the licensee to purchase power from such projects. The Commission also felt that adoption of a lower CUF, which would tend to increase the tariff, may discourage the licensee to purchase power from such projects as now it is not binding for either of parties to sell/purchase power from any category of such projects. The Commission felt that quite a few generators find it more convenient to sell power to the licensee for various reasons. The Commission does not want to deprive such generators of the market presently available to them in shape of long term sales to the licensee, by increasing the tariff to such limits which may be

unattractive for the licensee. In case of the SHPs having lower CUF, the developer has to study the overall economics and viability on case specific basis. For example, a project with a lower CUF may still be viable for developer in case developer can economise on the capital costs due to project specific features or if he can find a market (like REC mechanism etc.) which can fetch him higher returns.

- (f) While suggesting the normative CUF of 55% on gross basis, the Commission also examined the CUF of some of the projects (5-25 MW), which have been granted TEC in last few years and observes that average CUF of such projects is about 58%.
- (g) The Commission also observed that various other State Commissions like PERC, MERC, UPERC, APERC and OERC are also following higher CUF as compared to the normative specified by CERC for such States.

The Commission now observes that whereas the HPSEB Ltd. wants the normative CUF to be increased to 60%, some other stakeholders have commented that the proposed CUF is on higher side. The Commission after thoughtful consideration of the comments received from the stakeholders decides to retain the provisions of draft regulations with regard to normative CUF of 55% for the SHPs and attached conditions. However, in case the State Government revises its instructions about the minimum flow of water immediately downstream on the diversion structure, the impact thereof will be considered for review of tariff and the relevant provision shall be modified suitably to the extent.

As regard the suggestion for separate regulations for renewable energy technologies other than SHPs, the Commission has already made separate enabling provisions in the main regulations. Since some of the parameters are uniformly applicable for all renewable energy technologies, the Commission does not feel it necessary to have separate regulations for such other renewable energy technologies at this stage.

3.37 Free power(Regulation 35):

- (i) M/s Moserbaer Engineering & Constructions Ltd. have suggested that

the formula given in regulation 35(2) needs to be modified as follows:

Rate payable for Saleable Energy

$$= a \times \frac{\textit{Levellised Generation with old free power}}{\textit{Levellised Generation with new free power}}$$

(ii) M/s Himadri Hydro Power Project Pvt. Ltd. & M/s Growel Energy Company Ltd. have stated that for the purpose of fixing the generic tariff, free energy component shall be 13%. The State Government has, in its hydro policy, fixed various slabs during the project life of 40 years. It is, therefore, necessary that the levelised tariff is fixed based on the actual free power that has to be made available to the State during the various years of the project operation.

(iii) M/s Moserbaer Engineering & Constructions Ltd. have suggested that the words “unless mandated by Government” may be added at the end of the Regulation 35(3)(ii).

(iv) Sh. P.N. Bhardwaj have suggested that to have the realistic and transparent levelised tariff, it is necessary that the tariff calculated is based on the actual free power that has to be provided by the developer to the State. In the event, this gets modified, that tariff needs to be adjusted accordingly for universal benefits.

v) The HIMURJA have suggested that 1% additional free power towards LADF is to be taken over and above the royalty rates applicable to the SHPs for different period of useful life.

Commission’s views:

- (i) The formula given in the draft regulations envisages changes on monthly/periodical basis i.e. based on the percentage rate of free power actually levied from time to time viz-a-viz the same considered in the determination of levelised tariff. As such, the Commission decides to retain the formula given in the draft regulations.
- (ii) The draft regulations clearly provide for adjustment of rate as per the formula given thereunder based on free power to be actually provided by each generator. However, the permissible free power shall also be further subject to a limit of 13% in view of the provision of National Hydro Policy.

(iii) The issues regarding consideration of free power in the determination of levelled tariff have been adequately elaborated in the Explanatory Memorandum. The same are however, reiterated in brief as under:-

- (a) The State Government in its project allotment policy lays down free power to be provided to the State during various stages of project life, separately for projects upto 5 MW and above 5 MW. In case power is sold to HPSEBL by developers of projects upto 5 MW, there is waiver or concessional rate depending upon the policy of allotment. However, for projects above 5 MW, additional free power is offered by successful bidders based on competitive bidding. Additional free energy is also provided under certain specific situations such as curtailment of waiver period due to delay in commissioning of the project, capacity enhancement etc. The Commission feels that any additional free energy on such accounts or due to reasons attributable to the generator should not be pass through.
- (b) In accordance with the National Hydro Policy and Tariff Policy, the free power to be provided to the Home State is upto 13% which includes 12% the free power to the home State and 1% additional free power is earmarked for Local Area Development Fund. Any free power over and above 13% would be met by the developers from their own sources and would not be a pass through in tariff.
- (c) Keeping in view the above, including the provisions of National Hydro Policy, the Commission proposed to specify the limits upto which free power shall be allowed as a pass through in the tariff and also provide for a mechanism for automatic adjustment of tariff in case of variation in the permissible free power within the limits prescribed under National Hydro Policy/Tariff Policy. An enabling provision has also been made under Regulation 19 to provide for review of tariff in case of any revision of the said limit of 13% as per the National Hydro Policy/Tariff Policy.

In view of above and after consideration of the comments received the Commission decides to retain the provisions of the draft regulations.

3.38 O&M Expenses(Regulation 38):

- (i) M/s Moserbaer Engineering & Constructions Ltd. have suggested that annual escalation of O&M expenses during each year of control period may be considered as has been done by CERC and other Regulators.
- (ii) M/s Green Infra have suggested that since SHPs has been divided into three categories and there is unlikely to be much difference in the O&M cost for small projects and requested the Commission to consider merging these first two categories and notify Rs. 25 Lac per MW as O&M cost for projects up to 5 MW.
- (iii) M/s Himadri Hydro Power Project Pvt. Ltd. & M/s Growel Energy Company Ltd. have stated that “Regulation 38 provides for normative O&M expenses without providing an annual escalation. It is a well known fact that, as the units becomes old; its maintenance costs go up significantly as the time passes. The relationship may be linear initially, but after 8-10 years, will rise exponentially. There is thus a need to provide for an annual escalation in the prescribed O&M expenses of, say, 5%”.

Commission’s Views:

- (i) The rate for O&M expenses as well as categorization thereof were proposed after due consideration of various factors as discussed in the Explanatory Memorandum to the draft Regulations. The Commission has duly considered the O&M expenses allowed by it in its Order dated 18.12.2007 for the SHPs upto 5 MW as well as those allowed by the CERC in their RE Regulations, 2012. As mentioned in the Explanatory Memorandum also, the CERC has allowed O&M charges @ Rs.25 lacs/MW for the SHPs of less than 5 MW. In case of HPERC, the SHPs from 100 KW to 2 MW have been kept as a separate category. Moreover, the projects of 5 MW capacity fall in the lower category (2-5 MW) as against the CERC pattern which has categorized these projects in a higher category (5-25 MW). The Commission also feels that due to increasing number of SHPs in the State, the O&M activities can be slightly more cost effective as compared to those admissible under the CERC Regulations, 2012.

- (ii) In accordance with the SHP Order dated 18.12.2007 under the HPERC Regulations of 18.6.2007, the O&M expenses for the SHPs upto 5 MW were kept as 2.25% of the normative capital cost of Rs. 6.5 crores per MW. For tariff determination, these expenses are escalated @4% p.a. over the tariff period. However there is no provision for annual determination of tariff within the same control period. The Commission feels that these formulations considered under the SHPs Order 2007 are quite reasonable even in today's context if viewed as a package alongwith other provisions in the RE Regulations,2007.
- (iii) Subsequent to the HPERC Regulations of 2007, the CERC has however in their Regulations of 2009 and again in 2012 adopted the fixed per MW rates of O&M expenses which has no linkage with the capital cost.
- (iv) The Commission adopted a harmonious approach for fixing the O&M expenses. It is aware that by proposing an increase in normative CUF and providing for sharing a subsidy, the surpluses beyond the normative entitlements may get rationalised and as such found it appropriate to provide for O&M expenses at a reasonable level.
- (v) The rates shall be applicable for the entire control period no indexation shall be made during the control period. The reasons for not allowing annual escalation during the Control Period have also been discussed in the said memorandum as well as the item 3.35 relating to capital cost. However, since, the annual escalation has been proposed @ 5.72% per annum right from the first year, the generator should meet the increased requirements, if any, after initial 8-10 years out of the expenses so allowed on normative basis. The Commission after thoughtful consideration of the comments received decides to retain the provisions of draft regulations in this regard.

The draft regulations are to be modified/rationalised by incorporating the need based changes including those required in view of the above discussion and findings as well as other comments which might have escaped specific reference in this Order; and the final regulations are to be issued accordingly.

Place: Shimla

Date: the 12th December, 2012

(Subhash C.Negi)
Chairman