

# **CHAPTER - V**

## **GENERATION- PROJECTS ABOVE 5 MW CAPACITY**

## CHAPTER - V

### (GENERATION (PROJECTS ABOVE 5 MW CAPACITY))

#### GENERAL

Out of the total identified potential of 21,000 MW (approx.), Hydro power stations with installed capacity of 6150 MW only have so far been established as detailed below:-

(i) State sector	413.50 MW
(ii) Central Sector/	3829.57 MW
(iii) Joint Sector	1500.00MW
(iv) Private Sector	386.00 MW
(v) Under Himurja	<u>21.20 MW</u>
Total:	<u>6150.27 MW</u>

#### HYDRO POWER DEVELOPMENT IN VARIOUS SECTORS

In order to harness the untapped hydro power potential of the State, the Himachal Pradesh Government have involved State Sector, Central Sector, Joint Sector and Private Sector for execution of these Projects.

**State Sector** : A number of medium and small Hydro-electric Projects totaling 413.50 MW have been executed in the State Sector and Projects totaling 1219 MW are under implementation or stand allotted. The Government of Himachal Pradesh shall set up a Himachal Pradesh Power Corporation (HPC) to execute the projects allotted to it with such terms & conditions as it deemed fit. In such cases, Govt, shall sign an Implementation Agreement (IA) with this Corporation straightway, without signing the MOU first.

**Central Sector** : A few large size Projects involving high capital cost viz. Parbati, Chamera-I, II & III, Koldam etc. have been handed over to the Central Public Sector Undertakings like NHPC, NTPC. So far a total potential of 3829.57MW has been harnessed and Projects of 3101 MW capacity are at various stages of implementation under this Sector.

**Joint Sector** : Nathpa Jhakri H.E.P. of capacity of 1500MW has been commissioned under this Sector with SJVNL and Rampur HEP (402 MW) already stands allotted to it.

**Private Sector:** With a view to exploit its vast hydro power potential expeditiously the Himachal Pradesh Government in October, 1990 took the initiative to involve private companies for the implementation of Hydro-electric Projects in the State. Later the Government of India in October, 1991 mooted the policy of privatization of power Projects in India. Since then the Government of Himachal Pradesh has signed a number of MOUs/Agreements for the various Projects from time to time. Two Projects, viz., Baspa-II (300 MW) and Malana-I (86 MW) already stand commissioned and Projects with total installed capacity of 1811MW have been allotted to various IPPs for implementation in Private Sector on Build, Own ,Operate & Maintain (BOOM) basis , which are at various stages of implementation. 15 No. HEPs with a total installed capacity of 1767 MW were advertised in October 2005 for implementation in Private Sector on Build, Own, Operate & Transfer (BOOT) basis and the balance Identified hydel potential of a total capacity of app.3964.50MW along with other self identified Projects were advertised in January 2006 for implementation in Private Sector on (BOOT) basis.

In addition to above, Projects of 1101 MW capacity in Satluj basin are under the consideration of the Government for further allotment.

Electricity Act, 2003 provides that generating companies shall not be required to obtain any license to establish, operate and maintain the generating stations. Hydro Power developers shall, however, need the approval of the State Government regarding HEPs.

**POLICY :** The State Government may give first preference to the developers of HEPs above 5.00 MW and upto 25.00 MW to Himachalis who have been living in Himachal Pradesh from generation to generation and Cooperatives of such Himachalis. However, not more than 2 projects falling in this category shall be allotted to the same Himachalis. The state Government may allot some of the Projects to HPSEB upto 25MW from time to time.

The HEPs, identified so far have been divided into following two categories for allotment for implementation in Private Sector, to the eligible bidder i.e. a Company or a Consortium of Companies or a Corporation, whether in the Public or Private Sector and whether of Indian or Foreign Origin.

- **Category-I** : Projects above 5 MW to 100 MW installed capacity.  
Projects to be allotted through MOU Route.

- **Category-II** : Projects above 100MW installed capacity.  
Projects to be allotted through ICB Route.
- (i) All potential Projects/sites shall be advertised through Notice Inviting Proposals (NIP) in various News Papers for Global invitation of Bids from the eligible Bidders.
  - (ii) Interested parties can submit Bids for one or more Projects. One Bid Document purchased shall hold good for submission of Bid only for the Project for which the bid document is purchased by the party. The Bids as well as the Processing Fee shall be submitted separately for each Project applied for.
  - (iii) The Company/Consortium shall be selected for the Project on the basis of their equity participation in implementation of the Project as under:-
    - (a) The Company shall retain their equity participation till three years after commissioning of the Project. Any change in Consortium/equity participation would automatically result in termination of MOU/IA and the Project shall revert back to the Government. No compensation whatsoever shall be payable by the Government in this regard. It may be further noted that all the correspondence shall be made with the party which signs the MOU/IA till such time as the authority vested in gives authorization to any other person with valid authorization of Board of Directors of the Company.
    - (b) The Government may consider the request of the Company for changing the name of the Company or Consortium subject to the condition that the Principal Promoter shall retain the controlling interest i.e. 51% equity in the new entity. In the event of any contravention, the Government of Himachal Pradesh shall terminate the I.A. forthwith at any stage.
    - (c) Free transfer of shares will be permitted in the Company's allotted Projects as per the prevailing Policy.
    - (d) The Company shall be permitted to incorporate a Special Purpose Vehicle (SPV) for the implementation of the Project with its registered office within Himachal Pradesh with the same equity participation as stated above. All rights and obligations under this agreement shall thereafter be transferred to new Company.
  - (iv) The Company shall ensure to open its Corporate Office within the State of Himachal Pradesh.

- (v) After the Project is allotted, MOU / Pre-Implementation Agreement / Implementation Agreement as the case may be shall be signed. And following milestones shall be achieved by the Company failing which consequential action as mentioned will be taken by the Government.

**TABLE – 1**

**FOR PROJECTS ABOVE 5M AND UP TO 100MW INSTALLED CAPACITY -  
CATEGORY-I PROJECTS.**

S. No.	Milestones	Time Period		Consequential Action.
		For Projects where DPR/PFR ready.	For Projects where the Feasibilities is to be ascertained by the IPP.	
1	2	3	4	5
1	Upfront Premium	50% at the time of signing of MOU, 25% at the time of signing of Implementation Agreement and remaining 25% immediately at the time of Financial Closure.	50% at the time of signing of MOU, 25% at the time of signing of Implementation Agreement and remaining 25% immediately at the time of Financial Closure.	.
2	Security Deposit	30 days from the date of signing of MOU	30 days from the date of signing of MOU	Cancellation of the MOU,
3	A Compendium giving details of hydrological data/observations.	One year from the date of signing of MOU.	One year from the date of signing of MOU	Cancellation of the MOU and forfeiture of Security Deposit/ upfront Premium deposited.

<b>S. No.</b>	<b>Milestones</b>	<b>Time Period</b>		<b>Consequential Action.</b>
4	Topographical sheets prepared after conducting surveyas.	One year from the date of signing of MOU	One year from the date of signing of MOU	-do-
5	A Compendium giving details of Geological/Geophysical observations.	One year from the date of signing of MOU	One year from the date of signing of MOU	-do-
6	Conveyance of Feasibility/Non-feasibility of the Project.		One year from the date of signing of MOU	-do-
7	A report on the Power Evacuation Arrangement envisaged by the Company.	One year from the date of signing of MOU	One year from the date of signing of MOU	-do-
8	Submission of Detailed Project Report.	18 months (for Projects up to 50 MW) or 24 months (for Projects above 50 MW) from the date of signing of MOU.	24 months (for Projects up to 50 MW) or 30 months (for Projects above 50 MW) from the date of signing of MOU	-do-
9	Signing of the Implementation Agreement with the Government.	36 months (30 months for Projects where DPR is prepared by HPSEB & is ready) after the date of signing of MOU.	42 months after the date of signing of MOU	Cancellation of the allotment of the Project and forfeiture of Security Deposit/ Upfront Premium, deposited.

s. No.	Milestones	Time Period		Consequential Action.
10	Submission of necessary inputs for obtaining TEC proposal (s) for obtaining other statutory/ non-statutory clearances (Diversion of Forest Land. Environmental & Forest Clearance. Pollution Clearance) and Acquisition of Land by the Company to the Government.	Within 8 months from the date the IA is signed.	Within 8 months from the date the IA is signed	Termination of Implementation Agreement and forfeiture of Security Deposit/ Upfront Premium deposited.
11	To obtain required sanctions/ approvals/ clearances to the proposals submitted by the Government as per 10 above.	Within 10 months from the date of submission of proposal(s) by the Company.	Within 10 months from the date of submission of proposal(s) by the Company.	Extension of prescribed period in the MOU subject to deposit of prescribed Extension fee of Rs. 10,000/-per MW per month subject to a maximum of Rs. 50.00 lacs.
12	Achieving Financial Closure, signing of PPA, establishment of site office etc. and start of construction work on the Project.	Within 24 months from the date of signing of the IA or six months of obtaining the approvals/clearances mentioned at 11 above whichever is earlier.	Within 24 months from the date of signing of the IA or six months of obtaining the approvals/clearances mentioned at 11 above whichever is earlier.	Termination of the IA in case the construction work on the Project is not started and forfeiture of Security Deposit/ Upfront Premium deposited.

<b>S. No.</b>	<b>Milestones</b>	<b>Time Period</b>		<b>Consequential Action.</b>
13	Project commissioning (scheduled Commercial Operation Date of the Project)	As per Techno-economic Clearance of the DPR.	As per Techno-economic Clearance of the DPR.	Disincentive as per Clause stipulated in the IA.
14	Handing over of the Project to the Government free of cost.	The date falling 40 years after the Scheduled Commercial Operation Date of the Project.	The date falling 40 years after the Scheduled Commercial Operation Date of the Project.	Action as deemed fit.

**TABLE - 2**  
**FOR PROJECTS ABOVE 100 MW INSTALLED CAPACITY -**  
**CATEGORY-II PROJECTS.**

<b>S. No.</b>	<b>Milestones</b>	<b>Time Period</b>		<b>Consequential Action.</b>
		<b>For Projects where DPR/PFR ready.</b>	<b>For Projects where the Feasibilities is to be ascertained by the I PP.</b>	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1	Upfront Premium	50% at the time of allotment of Project, 25% at the time of signing of Implementation Agreement and remaining 25% immediately at the time of Financial Closure.	50% at the time of allotment of Project, 25% at the time of signing of Implementation Agreement and remaining 25% immediately at the time of Financial Closure.	



<b>S. No.</b>	<b>Milestones</b>	<b>Time Period</b>		<b>Consequential Action.</b>
<b>2</b>	A Compendium giving details of hydrological data/observations.	One year from the date of signing of Pre-Implementation Agreement	One year from the date of signing of Pre-Implementation Agreement	Cancellation of the Pre-Implementation Agreement and forfeiture of Upfront Premium deposited.
<b>3</b>	Topographical sheets prepared after conducting surveys.	One year from the date of signing of Pre-Implementation Agreement	One year from the date of signing of Pre-Implementation Agreement	-do-
<b>4</b>	A Compendium giving details of Geological/Geophysical observations	One year from the date of signing of Pre-Implementation Agreement	One year from the date of signing of Pre-Implementation Agreement	-do-
<b>5</b>	Conveyance of Feasibility/Non-feasibility of the Project.		One year from the date of signing of Pre-Implementation Agreement	-do-
<b>6</b>	A report on the Power Evacuation Arrangement envisaged by the Company.	One year from the date of signing of Pre-Implementation Agreement	One year from the date of signing of Pre-Implementation Agreement	-do-
<b>7</b>	Submission of DPR.	24 months from the date of signing of Pre-Implementation Agreement.	30 months from the date of signing of Pre-Implementation Agreement	-do-
<b>8</b>	Signing of the Implementation Agreement with the Government.	36 months (30 months for Projects where DPR is prepared by HPSEB & is ready) after the date of signing of Pre Implementation Agreement.	42 months after the date of signing of Pre-Implementation Agreement	Cancellation of the allotment of the Project and forfeiture of Upfront Premium deposited.

<b>S. No.</b>	<b>Milestones</b>	<b>Time Period</b>		<b>Consequential Action.</b>
<b>9</b>	Submission of necessary inputs for obtaining TEC proposal (s) for obtaining other statutory/non-statutory clearances (Diversion of Forest Land. Environmental & Forest Clearance. Pollution Clearance) and Acquisition of Land by the Company to the Government.	Within 8 months from the date the IA is signed.	Within 8 months from the date the IA is signed	Termination of Implementation Agreement and forfeiture of Security Deposit/Upfront Premium deposited.
<b>10</b>	To obtain required sanctions/ approvals/clearances to the proposals submitted by the Company as per 9 above.	Within 10 months from the date of submission of proposal(s) by the Company	Within 10 months from the date of submission of proposal(s) by the Company	Extension of prescribed period in the Pre Implementation Agreement subject to deposit of prescribed Extension fees of Rs. 10,000/- per MW per month subject to a maximum of Rs. 1.00 crore.

S. No.	Milestones	Time Period		Consequential Action.
11	Achieving Financial Closure, signing of PPA, establishment of site office etc. and start of construction work on the Project.	Within 24 months from the date of signing of the IA or six months of obtaining the approvals/clearances mentioned at 10 above whichever is earlier.	Within 24 months from the date of signing of the IA or six months of obtaining the approvals/clearances mentioned at 10 above whichever is earlier.	Termination of the IA in case the construction work on the Project is not started and forfeiture of Security Deposit/Upfront Premium.
12	Project commissioning (scheduled Commercial Operation Date of the Project)	As per Techno-economic Clearance of the DPR.	As per Techno-economic Clearance of the DPR.	Disincentive as per Clause stipulated in the IA regarding disincentive.
13	Handing over of the Project to the Government free of cost.	The date falling 40 years after the Scheduled Commercial Operation Date of the Project.	The date falling 40 years after the Scheduled Commercial Operation Date of the Project.	Action as deemed fit.

In case the Company is unable to achieve Financial Closure within the time limit specified above, the Company agrees to start construction work on the Project positively within the time limit specified above by investing from its equity component. The Financial Closure shall be concluded within six months of start of the construction work on the Project.

- (vi) For setting up the HEPs, concurrence of the competent authority (ies) shall be obtained as per the procedure applicable from time to time.
- (vii) The Projects will be allotted on the basis of tentative installed capacity as mentioned in the Notice Inviting Proposal. However, in case the capacity of the Projects increases/ decreases upon firming up of the potential as per TEC accorded by the competent authority, the Company

shall be required to sign the fresh/revised MOU/IA with the Government as the case may be. In all such cases, the royalty, upfront premium and other charges shall be levied according to the approved norms of the Government for the revised capacity.

- (vii)** The scope of the work will be from concept to commissioning and operation thereafter, including, inter-alia, survey and investigations, identification of transmission system for the evacuation of power and preparation/review of DPR. The transmission system for evacuation of power shall form part of the Project and shall be included in the DPR in consultation with HPSEB, keeping in view the integrated system requirements.
- (ix)** In Himachal Pradesh, electricity is generated only from HEPs which help in reduction of emission of "Green House Gases". The developer should carryout development of the Project(s) so that these qualify for carbon credits at the National/International levels. Sale of such equivalent Carbon credits by the developer on account of development of Project(s) should be through competitive process amongst buyers, in order to derive the maximum benefits.
- (x)** The Agreement shall remain in force up to a period of 40 years from the Scheduled Commercial Operation Date of the Project, thereafter, the Project shall revert to the State Government free of cost and free from all encumbrances. The Project assets would be maintained by the successful developer in a condition that would ensure a residual life of the Project at the rated capacity for at least 30 years at any point of time. During the 10th, 20th, 30th & 35th years of operations, the Government of Himachal Pradesh or one of its appointed agencies would carry out a mandatory inspection of the Project site to ensure that the Project assets are maintained to the required standards to ensure the specified generation capability and residual life of the Project. If such inspections find that the Project capacity or life is being undermined by inadequate maintenance, the Government of Himachal Pradesh would be entitled to seek remedial measures from the developer. If the developer fails to comply with the requirement, the

Government of Himachal Pradesh would have the right to take over the commercial operation of the Project and shall have full right upon the sale of power including developer share. The cost on account of suggestive remedial measures shall be deducted including the operation & maintenance cost for such a period till the Project's assets are restored to the required standards to ensure the specified generation capability and residual life of the Project as specified above. Thereafter, the Project shall be handed over to the developer.

- (xi)** The Company shall have no claim on any Project upstream and down stream of the Project.
- (xii)** The Company shall open a Police Station/Chowki and a Labour office in Projects above 50 MW at its cost. The Company shall also bear the cost of deployment of Police Personnel during the construction phase of the Project. For all the Projects above 5 MW, the Company shall inform the local Police Station and the Labour Office about the details of the labourers and other work force engaged who are both from within the State, country or outside the country, regularly.
- (xiii)** The Company, if ROR Project, shall ensure minimum flow of 15% water immediately downstream of the diversion structure of the Project all the times including lean seasons from November to March, keeping in mind the serious concerns of the State Govt, on account of its fragile ecology & environment and also to address issues concerning riparian rights, drinking water, health, aquatic life, wild life, fisheries , silt and even to honour the sensitive religious issues like cremation and other religious rites etc. on the river banks. However, the companies are at liberty to install mini hydel Projects to harness such water for their captive use, for their utilities, systems and colonies.
- (xiv)** The State Government have decided not to execute 210 MW Baspa-I HEP in Sangla Valley in Distt. Kinnaur, 126 MW Chamba HEP in Distt. Chamba, 99 MW Gharopa HEP in Kullu Valley and 25 MW Gara Gossain HEP alongwith eight mini Hydel Projects in Tirthan Valley in Kullu Distt. to conserve ecology, environment and also to protect the wild life, aquatic life and the trout rearing activities. In addition, the State Government may allow the natural flow of some of the portions of the

rivers in the State in order to exhibit the existence of such river in its pristine beauty before it disappears through the maze of tunnels and thus obliterate its very existence.

- (xv)** The IPPs have an option to develop such Projects either as run of the river (ROR) schemes or storage Projects. However, in the case of storage Projects, approval of the State Government shall be required to ensure that such Projects cause minimum submergence of habitations and agricultural holding of the people of the area.
- (xvi)** The Developer shall reimburse to the Himachal Pradesh State Electricity Board the amount, spent by the Board on investigations and infrastructure works of the Project up to the date of signing of Implementation Agreement, with compound interest @ 10% per annum within three months of signing the Implementation Agreement.
- (xvii)** The Company shall have to provide employment to Bonafide Himachalis whose names are registered on live register of any Employment Exchange located in the State of Himachal Pradesh, in respect of all the unskilled/skilled staff and other non-executives as may be required for execution, operation and maintenance of the Project, through the local Employment Exchanges or from other than live registers from anywhere within the State or outside the State who are bonafide Himachalis or through the Central Employment Cell at Shimla. However, the first preference will be given to oustees. In the event of non-availability of the requisite skilled manpower at various levels with requisite qualification and experience, non-availability certificates will be obtained from the Labour Commissioner/Director Employment, Himachal Pradesh and only thereafter the Company will be free to recruit such persons from outside the State of Himachal Pradesh.

  - (a) The Company shall satisfy the Government that the contractors/sub-contractors engaged by them for the Project shall give employment to local people/ Himachalis for appointment as supervisors, workmen and labourers/workers in the Project.
  - (b) In regard to direct recruitment of engineers and other executives, other things being equal in terms of eligibility criteria, qualification, experience etc, the Company shall give preference to the candidates

well conversant with customs, culture, language and dialect of Himachal Pradesh. The advertisement regarding employment shall be issued in two English dailies and three Hindi daily papers having wide circulation within Himachal Pradesh, besides advertising through Parsar Bharti and Giriraj.

- (c) The Company shall ensure that during the deployment of Himachalis in respect of Executive/Non-Executive/Skilled/Non-Skilled categories at any stage of the Project implementation, if it is not possible to recruit 100% staff from Himachalis for justifiable reasons, only then the Company shall maintain not less 70% of the total employees/officers/executives from Bonafide Himachali persons.
- (d) The Company shall provide employment to one member of each of the displaced families or adversely affected as a result of the acquisition of land for the Project, during construction of the Project. During the operation and maintenance of the Project, the Company shall give preference to members of the displaced families for employment in the Project.
- (e) The petty contracts of the road work, retaining walls, buildings construction, carriage of construction material like sand, aggregate, cement, steel etc, engagement of all categories of other service providers, taxis for the staff deployed to the sites, engagement of other light and heavy vehicles, running of canteens/mess, engagement of security personnel through ex-servicemen shall normally be awarded to locals/Himachalis.
- (f) The Company shall also provide training programme to the locals affected by the Project so that they are in a position to get employment for various technical/administrative jobs in the Project.
- (g) All the above mentioned stipulations shall be monitored strictly by the Labour Commissioner and Director, Employment as well as at the Government level by the Labour Department.

**(xviii)** The Government will constitute a Multi-disciplinary Committee under the Chairmanship of Chief Minister. Other members shall be State Power

Minister (Vice Chairman), Minister/MLAs of the area where Projects are being executed, representatives of the Company, representatives from various concerned departments of the Government, Chairman/Managing Director of the concerned Power Utility and Chairman, Local Area Development Committee (LADC). The Committee shall be monitoring the issues arising during the implementation of the Project, Employment related monitoring, Relief and Rehabilitation, review of Progress of LADC schemes, implementation of Catchment Area Treatment (CAT) Plan, Compensatory Afforestation, Environmental Management Plan, Environment Impact Assessment (EIA) Plan, and restoration of facilities which get damaged because of the implementation of the Project, quality control mechanism of the Projects the committee shall also review the recommendations and implementation thereof of the Forum of Hydroelectric Power Producers. The Committee shall review the progress of all statutory clearances, time and cost overruns of the Project, if any. The Committee shall also draw up the methodology to regulate the payments to be made by the Company to the various departments of the Government in connection with the implementation of the Project. The Committee shall meet at such intervals, preferably quarterly at such places as is decided by it.

- (xix)** Any violations of the above mentioned issues concerning policy parameters, MOU/IA may result into monetary penalty including cancellation of the Project.
- (xx)** The Government shall constitute a Local Area Development Committee (LADC) for Project (s) being implemented in each river valley. The Deputy Commissioners shall be the Chairman of the LADC and other members shall be nominated by the Government, which will include the representatives of HEP's also. Concerned SDM shall be the Member Secretary. The LADC will be entrusted with, but not limited to, the following activities in the Project Affected Areas, which are those areas/ villages surrounding/falling in the catchment/ watershed areas extending from the Reservoir to the Tail Race of the Project.-(a) Oversee the restoration of facilities adversely affected due to implementation of the Project.



- (b) Oversee the implementation of Rehabilitation and Relief Plan.
- (c) Oversee the implementation of Catchment Area Treatment (CAT) Plan and Compensatory Afforestation.
- (d) Local Development activities related to development of Agriculture, Horticulture, Animal Husbandry, Fisheries, Rural Development, I&PH, Health, Forest, Education, PWD, Power and other Social, Religious and Cultural activities etc.

**The Deputy Commissioner may co-opt any other member as he deems fit.**

However, PWD/ other roads leading to the Project areas shall not form part of LADC activities.

The activities of the LADC during execution shall be financed by the Project itself and for this purpose the Developer shall make a provision of 1.5% of final cost of the Project. The LADC activities shall be financed from the above provision and not from free power as royalty.

The amount on account of Local Area Development shall be paid by the Developer to the Deputy Commissioner of the Project Affected Areas (Chairman LADC) in equal annual instalments during the Construction Period of the Project and shall be payable in 1st quarter of every financial year, starting from the date of Financial Closure.

The Developer shall keep the Government informed of any change in the construction cost of the Project and for any increase in the construction cost of the Project from time to time, the Developer shall release the instalments accordingly.

- (xxi)** It has been observed that the setting up of various HEPs in Satluj basins, numbers of technical, environmental and socio economic problems have arisen due to the post effects of hydroelectric Projects in the State. To mitigate any eventuality with regard to the execution of Hydroelectric Projects in the Satluj Valley, a forum of Hydro Power Producers of Satluj basin has come into existence on 5.11.2005. The main function of the forum relates to (i) Environment (ii) Operation of power Stations and Sharing of Technical Expertise & Experience

(iii) Data Sharing (iv) Disaster Management and Planning and (v) Common Issues with State Government & Government of India. The guidelines of the forum wherever applicable, will be made applicable to all the Power Producers/ Developers in the State of Himachal Pradesh. If however, any such more forums are constituted for other river basins, the guidelines of the same shall also be applicable on developers/Power Producers, executing Projects in that area.

- (xxii)** The Government shall create an Authority of Hydro Project Safety, Quality Control & Management of water Flows and Discharge in due course. The State Government shall nominate suitable technical and professional persons in the Authority. The issues concerning Hydro Project's safety & management of water flows and discharges have assumed critical importance because of the recurrence of floods, earthquake, avalanches, glaciers, tunneling, piping, aging, terrorism etc. Un-regulated water flows and discharges particularly during the rainy seasons have been causing havoc downstream. The authority shall prepare safety regulations and guidelines and prepare safety management manual with respect to the Projects being executed by various Developers on the lines of International Commissions of Large Dams (ICOLD) and other Hydro Power Countries like Canada, US etc. The authority shall conduct continued surveillances on safety requirements right from the inception of the Project such as:-
- (a) Monitoring & access to quality of construction and designs of each Project and recommend the use of modern and appropriate technologies like Tunnel Boring Machines etc.
  - (b) It will ensure that such Hydro Projects operate normally and maintain emergency preparedness.
  - (c) Shall ensure periodic Hydro Project Safety & Management System Audit.
  - (d) Shall ensure dam safety assessment, traditional good practices and risk assessment.
  - (e) Shall prepare regulatory environment and ensure dam owners accountability including corporate man slaughter.

- (f) To monitor the releases downstream of the diversion and ensure availability of minimum flow of water immediately downstream of the trench/barrage/dam for downstream requirements.
  - (g) Shall impose fines/penalties for violations as may be prescribed by the Government.
  - (h) May resolve the inter Project disputes, if any.
- (xxiii)** The Company shall be required to prepare Disaster Management Plan and its implementation taking into consideration the different flood eventualities, cloud bursts or any kind of natural calamity at various stages of construction and operation of the Project and their mitigation measures. The Company shall include the same in the DPR to be submitted to the Government.
- (xxiv)** The Company shall be required to follow environmental related issues concerning disposal of blasting muck and soil etc. In Himachal Pradesh, because of the peculiar topography, the availability of land is scarce to have dumping sites. The Company shall use such material for the Project as may be found suitable for the construction and the remaining material shall be allowed to be used by other development departments like PWD, I&PH and several others for the execution of their area developmental schemes including the channelization of river waters by the concerned development agencies. Not only that, even private crusher owners etc. and other private users shall also be allowed to use such material from the site free of cost. The prescribed norms will be available with the Pollution Control Board.
- The Company agrees not to dump such material on the Project site or any other inappropriate place which flows further downstream rivers causing serious environmental concern, which shall attract punishment under various laws of Pollution Control Board.
- The Company shall ensure that the material excavated from the site shall be dumped in the area duly approved by the Ministry of Environments Forests, GOI/State Pollution Control Board.
- (xxv)** In case any existing facilities including but not limited to, irrigation systems, water supplies, roads, bridges, buildings, communication

System(s), power systems and water mills are adversely affected because of the implementation of the Project, the Company shall be responsible for taking remedial measures to mitigate such adverse effects. The cost of the above remedial measures shall become a part of the Project cost. Such facilities shall be mutually identified and agreed upon between the Company and the State Government. The Company shall not interfere with any of the existing facilities till an alternate facility, as identified, is created.

- (xxvi)** The Company shall ensure to protect the water rights of the local inhabitants for drinking and irrigation purposes etc. by verifying the revenue entries and activities of I&PH department so as to ensure that such rights are not infringed upon. Any dispute in the matter shall be referred to a committee to be appointed by the State Government involving Irrigation & Public Health and Revenue departments. However, the decision of the State Government shall be final and binding on all the parties. The Government of Himachal Pradesh shall have the right for withdrawal of water from the river course for the consumptive use of pumping or by gravity for the purpose of potable water supply and irrigation to the affected villagers.
- (xxvii)** The IPP shall give an undertaking to the Fisheries Department of the local area that wherever feasible, rearing of fish shall be promoted by the IPP in consultation with the Fisheries Department in the Project area at the time of final implementation of the Project.
- (xxviii)** The Company shall make suitable financial provisions for mitigation of adverse impacts as per the approved EIA plan, Environment Management Plan and mitigation of degradation of environment due to disturbance of eco-system in watershed area, at the cost of Project.
- (xxix)** The Developers will be free to dispose of power from the Projects, after allowing for royalty in the shape of free power to the State, in any manner they like in accordance with the provisions contained in the Electricity Act, 2003 and the rules and regulations made there under.
- (xxx)** The Project Developer shall be required to provide royalty in the shape of free power from the Project to the Government of Himachal Pradesh

in lieu of surrender of potential site @ 12% of the Deliverable Energy of the Project for the period starting from the date of synchronization of the first generating unit and extending up to 12 years from the date of Scheduled Commercial Operation of the Project, @ 18% of Deliverable energy of the Project for a period of next 18 years and @ 30% of the Deliverable Energy for the balance agreement period beyond 30 years. The royalty in the shape of free power shall start accruing to the Government from the Scheduled Commercial Operation Date/ synchronization of first generating unit whichever is earlier.

**(xxxii) INCENTIVE FOR EARLY COMMERCIAL OPERATION OF THE PROJECT:**

In case the Commercial Operation of the Project is achieved prior to the Scheduled Commercial Operation Date, the quantum of free power to Government shall be as under:-

- (a) Commencing from date of synchronization of the first unit up to the COD of the Project, 12% of Deliverable Energy.
- (b) From COD of the Project up to the Scheduled Commercial Operation Date of the Project, such percentage of Deliverable Energy as is equal to the following:-
  - (i) 12% less two tenth (0.2) percentage points for each period of seventy three (73) days (or part thereof) falling between the COD of the Project and Scheduled Commercial Operation Date of the Project.
  - (ii) 12% of the Deliverable Energy for a period of twelve (12) years from Scheduled Commercial Operation Date of the Project.

**(xxxiii) DISINCENTIVE FOR DELAYED COMMERCIAL OPERATION OF THE PROJECT:**

In the event that the Commercial Operation Date of the Project is delayed beyond the Scheduled Commercial Operation Date, the quantum of free power to Government shall be as under:-

- (a)** Commencing from date of synchronization of the first Unit up to the Scheduled Commercial Date of the Project, twelve (12) percent of Deliverable Energy.

- (b) Commencing from scheduled COD of the Project and for such number of days by which the Commercial Operation of the Project is delayed beyond the Scheduled Commercial Operation Date of the Project, such percentage of Deliverable Energy as is equal to the following :-
- (i) 12% plus two tenth (0.2) percentage points for each period of seventy three (73) days (or part thereof) falling between the Scheduled COD of the Project and Commercial Operation Date of the Project.
  - (ii) From Commercial Operation Date of the Project up to the date falling twelve (12) years from the Scheduled Commercial Operation Date of the Project, 12% of the Deliverable Energy.
  - (iii) The Developer shall pay the amount of free power component as mentioned in clause (ii) (i) above, in 10 equal monthly installments from actual COD of the Project, in addition to normal free power due.
- (xxxiii)** Any difference and/or disputes arising at any time between the parties out of the MOU/PIA/IA or interpretation thereof shall be endeavored to be resolved by the parties hereto by mutual negotiations, failing which the matter shall be referred to the Arbitrator to be appointed as per the provisions of the Arbitration & Conciliation Act, 1996. However, all disputes shall be settled within the jurisdiction of Courts of Himachal Pradesh.
- (xxxiv)** The Project Developer shall make arrangements for evacuation of power from the Project to the Board's/PGCIL's Sub-station (designated as the Interconnection Point) as per the provision mentioned in the DPR. For evacuation of power beyond the Interconnection Point, the Developer shall tie up with HPSEB/PGCIL for arrangements of a suitable integrated transmission system at mutually agreed wheeling charges.
- (xxxv)** For Projects above 100 MW installed capacity, the Government of Himachal Pradesh reserves the right of equity participation up to 49% on selective basis.

- (xxxvi) The Developer will be permitted to withdraw from the Project after the conveyance of non-feasibility of the Project, if the Government is satisfied that the Developer has sufficient ground to establish that the Project is not techno-economically viable, without any liability on the Government of Himachal Pradesh for the expenditure incurred by the Developer. The security deposited at the time of signing of MOU shall be refunded without interest. 50% of the upfront premium shall also be refunded without interest.
- (xxxvii) There are good number of Projects which are yet to be identified. The HPC/HPSEB shall identify such Projects. The Government of Himachal Pradesh reserves the right either to allot these Projects upto 25.00 MW to HPC & HPSEB or offer it to the IPPs and above 25MW to HPC & IPPs.. However, for Projects upto 25.00 MW, preference shall be given to Bonafide Himachalies. The developer shall have to prepare PFRs/DPRs and develop them as per agreed terms & conditions of Hydro Power Policy.

(xxxviii) **INCENTIVES TO THE DEVELOPERS BY MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (MNES), GOVERNMENT OF INDIA**

- (a) **MNES Capital Subsidy Scheme for setting up of commercial Small Hydro Power (SHP) Projects upto 25 MW station capacity in Himachal Pradesh** The Ministry of Non-Conventional Energy Sources will now provide capital subsidy through financial institutions. The subsidy is intended for making repayment of the term loan provided to the developer of the SHP Projects by the financial institution. The capital subsidy will be released after successful commissioning and commencement of commercial generation from the Project to financial institution providing loan to set up SHP Project. The quantum of subsidy will be independent of quantum of term loan and will be limited to the amount indicated below:-  
For projects having installed capacity upto 25 MW 45% of Project cost limited to Rs. 2.25 crores + Rs. 37.50 lacs per MW.

**(b) MNES Scheme for providing promotional incentives to carry out Detailed Survey & Investigation (DSI) and preparation of Detailed Project Report (DPR) for SHP sites up to 25 MW potential in Himachal Pradesh**

In order to encourage SHP development at the identified potential sites, the following promotional incentives under SHP programme of MNES will be applicable in the form of grant-in-aid as per the amount given below or actual cost incurred for carrying out Detailed Survey and Investigation (DSI) and Preparation of DPR of SHP Projects by the State/developers, whichever is less.

For projects having installed capacity upto 10 MW                      Rs. 3.00 lacs

For projects having installed capacity above 10 MW & upto 25 MW                      Rs. 5.00 lacs

**Eligibility Criteria**

- (i)** The promotional incentives for Detailed Survey & Investigation Report (hereinafter referred to as "DSIR") and DPR are applicable to the developers in Government, Public, Private, Co-operative, Non Government, Joint Sector who are the owners or have been allotted the Project site by the State Government for SHP development.
- (ii)** The Proposals to carry out DSI will be considered for identified hydel sites where pre-feasibility studies have been completed, and the Pre-Feasibility Report has been enclosed.
- (iii)** The proposal for preparation of Detailed Project Report (DPR) will be considered for SHP Project sites where detailed survey and investigations have already been completed, and the DSI report has been enclosed.
- (iv)** The Hilly areas would mean the areas in the State as mentioned/declared by various State Governments.

The above incentives are subject to modifications from time to time.

- Full details of MNES subsidy pattern, forms etc. are available at MNES website [www.mnes.nic.in](http://www.mnes.nic.in)





**Amendments in the Hydro Power policy, 2006**

Sl. No.	Provisions as per Hydro Power Policy, No. 2006	Amendments made after January, 2008
1.	<p><b><u>Allotment of Projects:</u></b></p> <p>i) Projects above 5 MW and up to 100 MW shall be allotted through MOU route at a fixed upfront premium of Rs. 1.00 lac/ MW for projects up to 50 MW and Rs. 2.00 lacs/MW for projects above 50 MW up to 100 MW.</p> <p>ii) The projects above 100 MW shall be allotted through International Competitive Bidding Route (ICB) on the basis of highest upfront premium to be quoted over and above the minimum upfront premium of Rs. 10.00 lacs/MW.</p>	<p>i). &amp; ii).</p> <p>All projects above 5 MW shall be allotted through Competitive Bidding Route. bidders are required to quote a fixed upfront charges of Rs. 20.00 lacs per Mega capacity of the project and 'Additional Power' at a uniform rate in all the three time bands of Royalty charges during the operation period of the Project of the Government of Himachal Pradesh over and above the royalty charges of 12%, 18% and 30% of the deliverable energy up to 12 years, next 18 years and balance agreement period beyond 30 years from Scheduled Commercial Operation date of synchronization of first generating unit whichever is earlier, in lieu of surrender of Potential site.</p>
2.	<p><b><u>Disposal of Power:-</u></b></p> <p>The Developers will be free to dispose of power from the Projects, after allowing for royalty in the shape of free power to the State, in any manner they like in accordance with the provisions contained in the Electricity Act, 2003 and the rules and regulations made there under.</p>	<ul style="list-style-type: none"> <li>• The Developer shall be free to dispose of merchant power as per Govt, of H.P. Guidelines from the Project(s), in any manner they like in accordance with the provisions contained in the Electricity Act, 2003 and Rules &amp; Regulations made there under.</li> <li>• The Govt, of H.P./HPSEB shall have right of first refusal on sale of such power as remaining after meeting commitments of royalty in the shape of Free Power, Additional Free Power and Merchant Sale of Power (as may be determined under the National Hydro Power Policy), on tariff to be determined by the State Electricity Regulatory Commission.</li> </ul>
3.	<p><b><u>Enhancement of Capacity of HEPs:</u></b></p> <p>The Projects will be allotted on the basis of tentative installed capacity as mentioned in the Notice Inviting Proposal. However, in case the capacity of the Projects increases/decreases upon firming up of the potential as per TEC accorded by the competent authority, the Company shall be required to sign the fresh/revised MOU/IA with the Government as the case may be. In all such cases, the royalty, upfront premium and other charges shall be levied according to the</p>	<p><b><u>Enhancement of Capacity of already allotted Projects:-</u></b></p> <p>i) Enhancement of capacity shall be allowed subject to levy of 3% 'Additional Free Power' over and above the existing power royalty (0 to 30% as the case may be).</p> <p>ii) 3% additional power will not apply in cases where the enhancement of capacity is up to 20% of the capacity originally allotted.</p> <p>iii) Where the enhancement of capacity results in the project getting shifted from below 5 MW capacity to above 5 MW capacity, 'Additional Free Power' royalty will be levied on the additional capacity.</p>

6.	<p><b><u>Minimum Discharge:</u></b>  The Company, if ROR Project, shall ensure minimum flow of 15% water immediately downstream of the diversion structure of the Project all the times including lean seasons from November to March, keeping in mind the serious concerns of the State Govt, on account of its fragile ecology &amp; environment and also to address issues concerning riparian rights, drinking water, health, aquatic life, wild life, fisheries, silt and even to honour the sensitive religious issues like cremation and other religious rites etc. on the river banks. However, the companies are at liberty to install mini Hydel Projects to harness such water for their captive use, for their utilities, systems and colonies.</p>	<p>The Second Party 'if ROR Project' shall ensure minimum flow of 15% water immediately downstream of the diversion structure of the Project through-out the year. For the purpose of determination of minimum discharge, the average discharge in the lean months i.e. December to February shall be considered. This minimum discharge is required keeping in mind the serious concerns of the State Government on account of its fragile ecology &amp; environment and also to address issues concerning riparian rights, drinking water, health, aquatic life, wild life, fisheries, silt and even to honour the sensitive religious issues like cremation and other religious rites etc. on the river banks. However, the Second Party is at liberty to install mini Hydel Projects to harness such water for their captive use, for their utilities, systems and colonies, subject to prior approval of the State Government.</p>
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## **AMENDMENTS TO HYDRO POWER POLICY -2006**

The following shall be substituted in place of original clauses in Chapter - IV of the Hydro Power Policy - 2006

**1. Clause 1.1 (iii), Page - 039 :-**

Small Hydro Projects up to 2.00 MW capacity shall be exclusively reserved for the bonafide Himachalis and the Co-operative Societies comprising of the bonafide Himachalis . While allotting such projects up to 5.00 MW, preference will be given to the bonafide Himachalies. Not more than 3 Projects shall be allotted for implementation to an IPP.

**2. Clause 2 (viii) (b), Page - 041 :-**

The IPP shall give an undertaking to the Fisheries Department of local area that wherever feasible, rearing of fish shall be promoted by the IPP in consultation with the Fisheries Department in the Project area at the time of final implementation of the Project.

The Fisheries Department will charge compensation @ Rs. 0.50 lac per KM from Tail Race to weir of the Project. In addition the IPPs will pay Rs. 0.50 lac per MW to the Fisheries Department. It will be mandatory to utilize this amount on the same stream/ nallah or elsewhere and formulate schemes accordingly. However, these provisions shall not be applicable to projects above 5 M.W.

**3. Clause 2 (xxxviii), Page - 049 :-**

The Company shall build such infrastructure development works in the vicinity of the Project area that may be essentially required for the benefit of local population. The expenditure on such works shall be incurred by the Company to the tune of 1 % of the Project cost. These development works may be mutually decided with the local authorities.

The amount on account of local area development shall be paid by the developer to Deputy Commissioner of the Project Affected Areas (Chairman LADC) in equal annual installments starting from the date of signing of the IA -till the date of commercial operation but not beyond the date of milestones as stipulated in the I.A.

**4. Clause 2 (xxxix), Page - 049 :-**

If the aggregate capacity of the Projects being developed in the cascade a' per provisions of against Para 1.1 (iii) exceeds 5 MW then the expenditure of such works shall be 1.5% of the total Project cost.

The amount on account of local area development shall be paid by the developer to Deputy Commissioner of the Project Affected Areas (Chairman LADC) In equal annual installments starting from the date of signing of the IA till the date of commercial operation but not beyond the date of milestones as stipulated In the I.A.

**5. Clause 3.1 (II), Page - 050 .-**

Wheeling charges of generated power by the IPP within and outside the State shall be determined as per the policy of HPSEB/ SERC at that time.

**6. Clause 3.1 (fv), Page - 050 :-**

Third party sale within the State shall be allowed in case of those project proposals where cost generation is above Rs. 2.50 per unit. However, It shall be obligatory on the part of the IPP to submit the third party power sale proposal within the State, wherever, peak load demand exists, duly approved by HPERC along with the DPR for accordance of TEC. However, the final tariff rates shall be determined by the HPERC after the financial closure.

**7. Clause 3.1 (v), Page - 050 & 051 :-**

Royalty on water usage in respect of sale of power within the State in shape of free power to the State from the Small Hydel Projects having installed capacity up to (5.00 MW), is waived off for a period of 12 years reckoned after 30 months from the date of signing of IA of the Project (Irrespective of extension in time period of IA granted to an IPP on any account). Beyond 12 years, the royalty will be @ of 12% for next 18 years and beyond that @ 18%. The 12 years relaxation in royalty shall however not be applicable to the Projects which make captive use of power outside the state or make third party sale outside the state. In that case, the royalty @ of 12% reckoned after 30 months from the date of signing of IA of the Project (irrespective of extension in time period of IA granted to an IPP on any account) shall be applicable.