

**Legal Issues Relating to Land Requirement Arising Out of  
the Small Hydro Electric Power Generation in the State:  
A Study of Chevron Hydel Power Project in Kullu,  
Himachal Pradesh**

**Case Study**

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**For the Government of Himachal Pradesh**

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**Non Lending Technical Assistance**

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# **Small Hydro Electric Power Generation in the State: A Study of Chevron Hydel Power Project in Kullu, Himachal Pradesh**

**Sanjay Upadhyay<sup>1</sup>**

## **Chapter I**

### ***1.1. Introduction:***

Power being a critical infrastructure for the socio-economic development of the country, its potential has been identified across the country. The overall identified hydel power generation potential of the state of HP is 20386 MW, which is about 25% of the total hydel potential of the country. Out of this huge potential only 6150 MW has been harnessed by the state so far. The potential of the state in small hydro electric power project (SHP) is also more than 750 MW. Himachal Pradesh Government attaches significant importance to the exploitation of small hydro potential since it has been widely recognized as a reliable, eco-friendly and renewable energy source, which can be exploited in decentralized and cost effective manner. SHP can be exploited wherever sufficient water flows - along small streams, medium to small rivers with small capital investment and short gestation period. Agreements have been signed for 64 projects and 92 sites have been identified (see Annex 1). Since SHP does not involve setting up of large dams it is believed that it also does not create problems of deforestation, submergence or rehabilitation.

Land Acquisition and its implications on the sectors as well as the different stakeholders can be seen in a myriad of contexts. One such sector is the small hydel projects which have been promoted vigorously by the state of Himachal Pradesh. The diversity of contexts with other sectors in terms of size, quantum of land, time taken to procure land and compensate people or government makes it necessary to examine a specific case. In this context, particular concerns of various stakeholders and most important the role of the state as a facilitator to address the energy requirement and loss of livelihood is extremely critical.

### ***1.2. Development of Policy on Hydro Power Generation in the State***

The state has been trying to harness the vast hydel potential by its own agencies and with the help of the central public sector undertakings, joint venture partners and independent power producers. Over all these years there

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<sup>1</sup> The author wishes to thank Mr. Neeraj Kanwar, Director, Chevron Hydel Pvt. Ltd. and wishes Aruna Kanwar of Chevron Hydel Pvt. Ltd. For their inputs and time for the above note.

was no systematic hydro power policy to facilitate harnessing of power potential of the state including that of small hydro electric projects.

In 2006 the state government formulated a comprehensive hydro power policy which aims to maintain a delicate balance between the interests of the people of the state on one hand and maintaining and preserving the ecology of the state on the other. This policy has given fullest priority to the environmental safeguards one needs to adhere to while executing a hydro power project.

The seeds for having a hydro power policy was perhaps sown when, in Himachal Pradesh (HP) Industrial Policy Guidelines, 1999(IPG) for the first time, encouragement to private sector for participation in the infrastructure development projects was advocated. Power<sup>2</sup> the most important infrastructure for development of a state was also intended to be opened up for private investment. The 2004 Industrial policy document once again reiterated government's commitment to develop key infrastructure sectors like housing, power, social infrastructure development etc<sup>3</sup>. In the field of hydro power generation the formulation of this policy therefore was the final culmination of what the government had been doing in piecemeal manner so far.

### ***1.3. Salient Features of Hydro Power Policy 2006 vis-a vis SHPs***

Himachal Pradesh is among the few states in the country, which has streamlined and crystallized the various procedures to minimize the bottlenecks and has also finalized the Implementation Agreement and Power Purchase Agreements for small hydro projects. The reason for government to thrust development of SHP is to provide cheap renewable and reliable power for people living in remote area. The quality of power in the tribal and remote areas is likely to increase due to generation from SHP as it would ensure decentralized energy supply to these areas and the transmission losses would also be reduced. Apart from being able to produce energy with a clean technology, it would provide employment opportunities to local people.

#### **Procedure to be followed in view of the Hydro policy for setting up of SHP:**

Following is the brief outline of the various steps involved in the setting of a SHP by an independent developer.

- The projects can either be identified by the independent power purchaser (IPP) or the projects are identified by HIMURJA which is the energy development agency created by the state government.

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<sup>2</sup> see C 1.5 ibid

<sup>3</sup> see 2.1 of Industrial Policy 2004

- SHP up to 2 MW is reserved for bonafide Himachalis and co-operative societies comprising of bonafide Himachalis.
- While allotting projects up to 5 MW, preference will be given to the bonafide Himachalis.
- Once the potential sites for SHP is identified whether by the IPP or HIMURJA the state government is required to obtain permission from the Wildlife department stating that the concerned project site is out of wildlife park, sanctuary and zoo. Further, the Irrigation and Public Health (IPH) department will give the permission if the proposed project does not infringe with the drinking and the irrigation rights of the local inhabitants and of the ownership of traditional water mills.
- In tribal area for any land transfer the clearance has to be taken from the revenue department apart from the panchayat of the area.
- Independent Power Purchaser (IPP) also has to give an undertaking to the fisheries department of the local area that wherever feasible rearing of fish shall be promoted by the IPP with the fisheries department in the project area at the time of the final implementation of the project<sup>4</sup>.
- The application made by the IPP includes a pre feasibility report along with information whether there is water availability, whether any wildlife will be affected, whether any gharats or water mills are involved, the amount of power of generation and approximate cost among other things.
- Once the project is allotted to an IPP and upon fulfilling certain criteria such as furnishing of processing fee, security charges and a resolution from the Board of Directors to authorize one of the directors for signing application, MOU/IA, the allottee firm has to sign a MOU with the government of HP within a stipulated date as mentioned in the allotment letter. The contents of the MOU are standard and are mentioned in the Hydro policy itself. See Check List in Box 1
- The applicant allottee then has to take effective steps to undertake survey and investigation within a period of 3 months from the date of the MOU. After finding the site feasible has to prepare a Detailed Project Report (DPR) with in a period of 24 months from the date of the signing of the MOU. The DPR should be based on discharge data for 2 lean seasons. If the allottee does not do this with in stipulated time the MOU is automatically cancelled and the site is allotted to other applicant.
- After the submission of DPR if the same is found satisfactory, techno economic clearance is given by a committee to be constituted by the HP

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<sup>4</sup> This undertaking is to be given before signing of the implementation agreement and fees for this are also prescribed which are as under:-1.For Memorandum of Understanding which have been signed before the 31<sup>st</sup> December, 2003, the fee is Rs. 1 lac/km and R.1 lakh per mega watt. (both payable).2.For MOUs signed w.e.f. 1.1.2004 it is Rs.1 lakh per KM and Rs.5 lakh per mega watt (both payable).Note: The kilometer is calculated from the point of intake to the point of outfall.

government and once this clearance is accorded the implementation agreement (IA) is signed.

- The total time envisaged to be taken between the signing of the MOU and the signing of IA should not be more than 30 months. (IA and PPA)
- After the signing of the IA, the IPP would have to take all statutory/non-statutory/ final clearance from forest, I&PH, HPPWD, Fisheries, Pollution control board, wildlife and revenue within six months of signing the IA, after paying the prescribed fee<sup>5</sup> fixed by these departments necessary for the implementation of the project.
- Commencement of the construction work is within 6 months of the signing if the IA otherwise the IA stands automatically cancelled<sup>6</sup>
- The incentives/concessions offered by the MNES/ Himachal Pradesh government would be applicable for small hydel projects up to 5 MW.
- Except for permanent structure, the land required whether private or government for the project shall be taken only on lease basis at the rates approved by the government for the agreement period<sup>7</sup>.
- The rates and norms are set by the Revenue department<sup>8</sup>.
- The entire process takes about seven to eight months
- Up to 5 MW the company developing the hydel project shall build such infrastructure development works in the vicinity of the project area that may be essentially required for the benefit of the local population. The cost of such developmental works would be up to 1 % of the total project cost. The works may be mutually decided with the local authorities.
- If the total capacity of the hydel project is more than 5 MW then the 1.5% of the project cost is spent on developmental activities.

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<sup>5</sup> The fee is as under:-Forest : the fee is for compensatory afforestation and is charged as per trees standing on the land and assessing their value; Fisheries: For MOUs signed before 31.12.2003 the fee is Rs.1 lakh per KM and Rs.1 lakh per mega watt also. For MOUs signed w. e.f. 1.1.2004, the fee is Rs.1 lakh per KM and Rs.5 lakh per mega watt also. Pollution Control Board charges fee as under:- (See Box 2)

<sup>6</sup> Construction work is to commence within 6 months of signing of the IA. Failing which extension fee is to be charged @ Rs.10,000 per MW per month and maximum extension allowed is (6) months only. The above will reveal that the crucial date for commencement of all tasks is the date of signing of the MOU.

<sup>7</sup> The lease period of land is to coincide with the period for which the Implementation agreement is in force which is 40 years only. Lease money is to be charged as per HP Government lease Rules, 1993.

<sup>8</sup> The norms are separate for each requirement i.e. if land is to be acquired then the provisions of Section 118 of the HP Tenancy and Land Reforms Act, 1972 are attracted and in case the question is of lease money then the HP Land Lease Rules, 1993 are attracted

**Box 1-[Check List of the Documents to be Enclosed**

1. Application fee of Rs. 5000/- submitted vide DD No. \_\_\_\_\_ issued by \_\_\_\_ Bank.
2. A certified copy of the partnership deed.
3. A certified copy of Registration, if the partnership registered.
4. A certified copy of Memorandum and Articles of Association of the Public/Private Limited company and copy of Registration Certificate.
5. A certified copy of registration certificate in case of Society/Co-operative Society.
6. The resolution of Board of Directors on stamp paper of worth Rs. 5/- duly attested by the public notary or oath commissioner to the person(s) who is/are competent to sign the application, MoU, Implementation Agreement and for all the correspondences which will be made with Himurja, Himachal Pradesh Government, HPSEB and other Government Departments related to the Project applied for. The authority should be in the name of one of the Director of the Company.
7. Original published audited balance sheet and profit and loss account for the last three years of the applicant company.
8. Original published audited balance sheet and profit and loss account for the last three years of parent/subsidiary/associate companies.
9. Details of field organization/equipment and other infrastructure available with the applicant company.
10. Every paper of the application should be paged and signed /self attested by the authorized person(s) with seal full name and designation.
11. Any other relevant document asked for in the application, brochure etc.]

**Box 2: Pollution Control Board charges fee****CONSENT FEE****a) Fee for all Development Project**

SN	Classification (Capital Investment	Consent to Establish (Amt. in Rupees)	Consent to Operate (Amt. in Rupees)	Renewal of Consent (Amt. in Rupees)
1.	All projects above Rs. 10,000 Crores.	10,00,000.00	10,00,000.00	4,00,000.00
2.	More than Rs. 5,000 Crores and upto Rs. 10,000 Crores.	7,50,000.00	7,50,000.00	3,00,000.00
3.	More than Rs. 1,000 Crores and upto Rs. 5,000 Crores.	5,00,000.00	5,00,000.00	2,00,000.00

SN	Classification (Capital Investment)	Consent to Establish (Amt. in Rupees)	Consent to Operate (Amt. in Rupees)	Renewal of Consent (Amt. in Rupees)
4.	More than Rs. 600 Crores and upto Rs. 1,000 Crores.	4,00,000.00	4,00,000.00	1,60,000.00
5.	More than Rs. 300 Crores and upto Rs. 600 Crores.	2,50,000.00	2,50,000.00	1,00,000.00
6.	More than Rs. 100 Crores and upto Rs. 300 Crores.	1,50,000.00	1,50,000.00	60,000.00
7.	More than Rs. 50 Crores and upto Rs. 100 Crores.	1,00,000.00	1,00,000.00	40,000.00
8.	More than Rs. 5 Crores and upto Rs. 50 Crores.	75,000.00	75,000.00	30,000.00
9.	More than Rs. 1 Crores and upto Rs. 5 Crores.	25,000.00	25,000.00	10,000.00
10.	More than Rs. 50 Lakhs and upto Rs. 1 Crores.	7,000.00	7,000.00	2,800.00
11.	More than Rs. 10 Lakhs and upto Rs. 50 Lakhs.	3,000.00	3,000.00	1,200.00
12.	Minimum Fee	1,500.00	1,500.00	600.00

## **Chapter II-**

### **Case of Chevron Hydel Private Ltd.**

#### **Background:**

The issues arising out of land acquisition or land transfer in small hydro power being vigorously by the Himachal government is showcased below through a case study of the Chevron Hydel Private Ltd. promoted small hydel project. The Jiwa - Kothiari Small Hydel Project, located in Village Siundh in Sub - Tehsil Sainj, in the District of. Kullu, H.P. is a run of the river, project on Jiwa Khad, a tributary of river Sainj in the Beas Basin. The capacity of the project is one Mega Watt.

The total land details of the project are as follows. It comprises Class III undemarcated forest land of 0.796 hectare, Private land of 3.1 bighas (classified as Gair Mumkin in the revenue records and Private land which has been acquired as 2.1 Bigha. It is clarified that in the said project only part of the land acquired so no titleholder went landless and no irrigation assets affected as such. The project was allotted in November 1996, the MOU was signed on the 16<sup>th</sup> November, 1996. The Implementation Agreement (IA) and Power Purchase Agreement (PPA) was signed with the Government of Himachal Pradesh on 30 March 2000. The last date for commissioning (starting) the project was 30.9.2001. The construction commenced in April 2003 and the project was commissioned in December 2006.

It will be useful to understand the project in a step wise manner to appreciate the distinction between the policy as enunciated above and the practice. The foremost stage is the preparation of the Detailed Project Report (DPR) which was prepared in the above said project

DPR prepared



The DPR was scrutinized by three different aspects covering Civil, Electrical and Transmission including Site Visit for Techno- Economic Clearance.

(Time taken: Nine months)



Subsequent to the techno-economic clearance the project was Submitted to Himurja-The Nodal Agency for Hydro Power Development in the state



It was then forwarded it to the Himachal Pradesh State Electricity Board (HPSEB)

[There is a separate department called Private Sector Project (PSP) in H.P.SEB which looks after the PSPs.



Committee comprised of Chief Engineer, Executive Engineer and other technical officials of the HPSEB was formed for site visit which conducted the site visits and were satisfied on technical aspects by the IPP.

[The DPR approval took about six months for the Jiva Hydel Project Chevron)]



With approved DPR the next stage is the forest clearance procedure



#### Forest Clearance procedures

(The Forest Clearance procedure starts through an application to the Principal Chief Conservator of Forests down to Conservator for the case for diversion of Forest Land. In the said project Class III undemarcated forest land of 0.796 hectare was to be accorded Forest Conservation Act clearance. Procedurally speaking, There are two options of taking forest lands, one where it can be taken on lease and the other option is rental<sup>9</sup>. The lease is a cheaper option and therefore the lease option was exercised. Forest clearance was obtained on the 26<sup>th</sup> June, 2003 ]



**Forest clearance:** Since land cannot be mortgaged, and financial institutions do not give loans till land is securitized, the Government issued a special notification where the Government gives an undertaking on behalf of the Private Developer. This notification works as collateral.

The application was forwarded to the Deputy Commissioner (DC) where he directed the Naib Tehsildar to make the necessary papers including layout, *tatima* (record of rights including division of land and rights of land holders as well as sub land holder). The Naib Tehsildar then forwarded it to the Sub-Divisional Magistrate (SDM) and eventually back to the DC.

<sup>9</sup> There is no statutory provision for renting out forest land but this needs to be confirmed from the HPFD

In the process a Joint Inspection Committee of Tehsildar and DFO was constituted for inspection of number of trees, valuation for Compensatory Afforestation value as per guidelines under the Forest Conservation Act (see box)

(Note that all objections need to be solved between IPP and the Jt. Committee before the Forest Conservation Act clearance is granted.) The said project was granted FCA clearance after a little difference of opinion of valuation of trees was resolved.



The remaining land was Private land where the options are two fold Either purchase it or go for LA.

The above project exercised both the options of purchase and acquisition not out of choice but by compulsion. In the said project while all land holders were willing to give their land at a premium price one land holder was demanding exorbitant amount as explained below where the LA process had to be instituted.

#### **Private land:**

On the issue of private land acquisition the project authorities followed a process of first ascertaining the circle rate and then revising it upward to the satisfaction of the land holders. In this case The value of the land was determined at a rate of four times the circle rate (the circle rate then was about Rs. 25000 per bigha which was bought at about Rs. 90,000 per bigha). One of the method used by the project proponent to come to an consensus on the value of private land was through a process for negotiation in an informal Panchayat Meeting. An open offer was given in view of the prevailing rates and it seems to have worked well for the project proponent. The time taken for such a private negotiation was about two months.



In two cases the IPP had to request the state for LA. The reasons adduced for going through the process the LA, as stated earlier, was the abnormal compensation cost being asked by the land holder. (One of the land holder asked for hundred crores per bigha!. This clearly demonstrates that coercive action that may be taken by land holders based on mis-information and artificial inflation of land prices which discourages bonafide private investments. In the above situation, as the request of the IPP, the government

followed the standard LA process. It took about three years for the entire LA process. The compensation rate was fixed as per government norms. The rate was approximately calculated at about Rs. 80,000 per bigha. Clearly, this was lower than what was already offered about three years back (i.e. Rs. 90,000 per bigha) and this was in addition to the time loss and other expenses and problems that both the parties including the state government's incurred during the process. As a mark of maintaining equality the IPP chose to pay the difference of Rs. 10,000/- per bigha to the land holder to maintain equality and heartburning on the site.

What was ironical in this case is the fact that despite land acquisition, land transfer the IPP was not allowed to function by the sheer advantage of one land holders local force. It is believed that the IPP informed all the relevant authorities including the Deputy Commissioner, The Superintendent of Police but no action was taken. Eventually, an amount of about Rs. 2.5 lakhs was paid as Disturbance allowance! What is most disheartening from the IPPs perspective<sup>10</sup> is that they lost about two years in the whole process and construction was delayed accordingly. It is apparent that the state government has not made adequate preparation for inviting private players at small scale levels such as SHPs. Clearly, the implementation mechanism is weak even after transfer of land.

### **Some other Legal Concerns on SHP:**

#### ***2.1. Fixing of costs of the project: Implementation of benefit sharing***

This is one of the first step in the process which has a bearing on local participation. The current policy fixes about one percent of the project cost for local area development. The Panchayat's No Objection certificate is a must for the clearance of the project. The money is deposited at the Deputy Commisioner's office which inturn is supposed to take care of the local needs.

*It is recommended that a clear set of guidelines be made to spend the relevant fund where the affected community or landholders have a say in the manner in which such money is spent. The local communities must determine, in accordance with the needs of the area, through a Resolution duly passed by the Gram Sabha, the manner in which the money accumulated through such SHPs should be spent.*

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<sup>10</sup> As per personal communication

## **2.2. Negotiating the Project: Role of Panchayats**

The setting up of the project involves numerous negotiations with local community where Panchayat assumes the role of the Authority. Issues concerning common lands, damage to crops, project area, the alignment of the pipelines, the location of project facilities, forest land and pasture land among others are left to be negotiated with the IPP. This, in the case of Chevron, delayed the project considerably. The Project Authorities did witness the role of the Panchayat which played an arbiter's role, although, this is not mandated by any law.<sup>11</sup> *It is recommended that a nodal authority be created which assumes a focal point for all requirements at the District headquarters.*

## **2.3. Land requirement for SHP:**

There are no fixed criteria for land requirement and it differs from one hill context to another. The land requirement typically for a SHP includes land for:

- a) *Project Facility* (which includes Diversion weir, Pipeline (Channel to conduct water) Desilting works, Four Bay Tank before it is dropped into the turbine, Penstock (Vertical drop), Power House, Switch Yard Area, Transmission Line)
- b) *Storage*
- c) *Work Force*
- d) *Building Area, workshops*
- e) *Paths to site etc.*

*The above was also the requirement of the Jiwa hydel Project.* The entire facilities required an area of about one ha depending on the site.

The details of all of the above is described in the detail project report (DPR)

## **2.5. Some More observations and Recommendations<sup>11</sup>:**

### **2.5.1. Reduction of time in LA process for SHP possible:**

- Currently there is no specific focus on the SHPs in the District Headquarters. Most of the operational issues arise within the District. It is thus recommended that within DC office there should be a separate cell to examine the cases of small developers. Perhaps a Single Window Clearance system at the DC's office would be useful.
- The District Administration must also have a grievance cell for the local community to hear their case. The support for project should be ensured by the District Administration as it has been approved by the Government in

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<sup>11</sup> These are based on interviews with officials of SHPs.

principle and thus it should be ensured that is not hampered by locals. Local disputes can mar an existing project and discourage future projects.

#### *2.5.2. Compensation for common lands including pasture: fixed value required*

There is no fixed method of compensating *Ghasni* rights (rights over Grass on forest land). Since there is no fixed value which exists as of present, it creates disparity within various right holders as was witnessed by the project proponents, Jiwa Hydel.

*It is recommended that Ghasni Rates be fixed for compensation to avoid disparity in compensation.*

#### *2.5.3. Forum for appeal:*

*It is recommended that there must be a forum for appeal, grievance redressal for both the developer and the affected communities, which the current mechanism lacks.*

#### *2.5.4. Time line must fixed:*

It is believed that since land records are not updated and there is no binding on the local officials to prepare land papers in a definitive time line during revenue scrutiny of SHPs, there are unwarranted delays. This was specifically experienced by the Project proponent.

*It is recommended that the time line especially for Tehsildar to prepare land papers (during the revenue process) must be fixed. This will cut down substantially the time taken in the revenue departments at the District level.*

#### *2.5.5. Role of Himurja*

It has emerged during discussions that there are serious and non-serious Developers. In other words there are those who are developing the projects on their own and then there are those who trade in such projects. The role of Himurja becomes critical in distinguishing these projects. Similarly, the processes for transfer of government land, tribal land, forest land are different.

*Thus, it becomes imperative that Himurja which is the nodal agency at the state level must make efforts to have a coordinated framework for a single window clearance. Clear procedures on each category of land which are required to be transferred for SHP or similar projects be prescribed in accordance with legal provisions. Thus for example tribal land would have to conform to Provisions of Panchayats( Extension to Scheduled Areas) Act, 1996 as adapted in the state and the H.P.Transfer of Land (Regulation) Act, 1968.*

Similarly, for forest land, the provisions of Forest Conservation Act and the interim Orders of the Supreme Orders of the Godavarman case<sup>12</sup> would be relevant. As regards other Government land, revenue laws such as Himachal Pradesh land Revenue Act, 1953 have to be adhered to and in case they are common lands then legal provisions on common lands such as the Himachal Pradesh Village Common Lands Vesting and Utilization Act, 1974 needs to be adhered to.

#### *2.5.5. Quarterly review meetings*

*It is suggested that Quarterly meetings headed by Secretary Power and other line secretaries along with DC, SDM incharge of the site where such SHPs are developed are conducted in order to streamline implementation hurdles. It is believed that such quarterly review meetings were being held earlier but have discontinued for some reason.*

#### *2.5.6. Disparity between adjoining Big Projects and Small Projects*

Disparity in compensation between Big Projects and Small Projects adjoining each other is another serious concern for SHPs. Bigger projects have bigger packages and when adjoining land holders engaged in two different projects see these diversities it creates an obvious discomfort with regard to benefits. The state must step in such situation and come out with clear guidelines between two sets of projects and their compensation mechanism. Accurate and authentic information on compensation must be given to both the developer and the affected to avoid disparity.

#### *2.5.7. Special emphasis on landlessness*

There must be special emphasis on the affected communities where he or she is rendered landless due to the project and in such cases the compensation must be much higher including a plan for alternative livelihood and rehabilitation irrespective of the number of people affected. Currently there is no special legal framework addressing them.

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<sup>12</sup> C.W.P. No 202 OF 1995; T.N.. Godavarman versus Union of India

Annex 1

Projects Under Implementations LIST OF PROJECTS FOR WHICH IA SIGNED					
Sr. No.	Name of Project	District.	Capacity in MW	Estimated Cost in Lacs	Date of Implementation Agreement
1	Manuni*	Kangra	2.50	1462	30-3-2000
2	Timbi*	Sirmour	3.00	1673.43	30-3-2000
3	Chandni*	Sirmour	3.00	1746.87	30-3-2000
4	Manal*	Sirmour	3.00	1632.35	30-3-2000
5	Shirir*	Kullu	1.00	617.06	30-3-2000
6	Baragran*	Kullu	3.00	1401	30-3-2000
7	Machhad-I*	Shimla	3.00	2171	30-3-2000
8	Machhad-II*	Shimla	2.00	1691	30-3-2000
9	Jiwa- Kothiari*	Kullu	1.00	713	30-3-2000
10	Manjhal*	Chamba	1.00	761	30-3-2000
11	Dehar*	Chamba	3.00	1765.15	30-3-2000
12	Hul*	Chamba	2.50	1586.25	26-12-2001
13	Salag*	Kangra	0.15	126.43	31-5-2000
14	Ching*	Shimla	1.00	628	31-5-2000
15	Iqu*	Kangra	3.00	1847.18	31-5-2000
16	Neogal-II*	Kangra	3.00	1820	31-5-2000
17	Awa*	Kangra	3.00	1755	31-5-2000
18	Luni*	Kangra	3.00	1827	31-5-2000
19	Binwa-II*	Kangra	3.00	2076	31-5-2000
20	Palchan*	Kullu	2.50	1086	31-5-2000
21	Lower Baijnath-Kuhl*	Kangra	1.00	728	17-12-2000
22	Chirchind	Chamba	3.00	1971.56	16-05-2001
23	Gehra	Chamba	2.00	1251.76	16-05-2001
24	Maujhi*	Kangra	4.50	2562.62	16-05-2001
25	Prini	Kullu	1.00	732	11/6/2001
26	Kakhnal	Kullu	0.80	642	29-09-2001
27	Belij	Chamba	3.00	1864.65	10/7/2001
28	Melan	Kinnaur	3.00	1668	3/8/2001
29	Panwi	Kinnaur	3.00	1781	3/8/2001
30	Duling	Kinnaur	3.00	1856	3/8/2001
31	Sechi	Shimla	3.00	1943	3/8/2001
32	Sup	Chamba	1.00	591	19-9-2001
33	Dunali	-do-	5.00	2929.60	18-11-2002
34	Kuwarsi	Chamba	3.00	1975.70	30-4-2002
35	Kolri	Chamba	2.00	1392.00	4-2-2002.
36	Sharan	Kullu	2.60	1498.20	25-05-2002
37	Brahm - Ganga*	Kullu	5.00	3287.10	2-8-2002
38	Suman- Sarwari	Kullu	2.50	1349.33	28-8-2002

39	Palor	Sirmour	3.00	1961.73	18.9.02
40	Aleo*	Kullu	3.00	1486.39	24-10-2002
41	Balij-Ka - Nala	Chamba	3.50	2177.44	24-10-2002
42	Masli	Shimla	5.00	2411.91	28-10-2002
43	Jagat- Sukh	Kullu	4.80	2606.36	28-10-2002
44	Samshar	Kullu	1.50	1051.00	2/11/2002
45	Kotlu	Kullu	1.80	1189.00	14-05-2003
46	Bakhli*	Mandi	4.50	2680.26	8/8/2003
47	Barseu	Kullu	3.00	1760.00	14-05-2003
48	Sarbari	Kullu	4.50	2663.45	14-05-2003
49	Taraila*	Chamba	5.00	2958.00	14-05-2003
50	Soldan	Kinnaur	5.00	2950.00	14-05-2003
51	Guarahan	Mandi	1.50	880.00	30-5-2003
52	Hurla*	Kullu	3.00	1829.37	8/8/2003
53	Sahu*	Chamba	5.00	2817.48	3/9/2003
54	Shyang	Kinnaur	0.80	1795.00	007-07-2004
55	Pangi	Kinnaur	3.00	1728.18	20/07/2004
56	Tangling	Kinnaur	3.00	1983.00	20/07/2004
57	Banjar	Kullu	1.60	1115.38	20/07/2004
58	Marhi	Kullu	5.00	2077.46	20/07/2004
59	Toss	Kullu	5.00	2659.81	20/07/2004
60	Andhra-II	Shimla	5.00	3050.00	20/07/2004
61	Haripur Nallah	Kullu	1.50	951.00	20/07/2004
62	Kurhed	Chamba	4.50	2744.82	20/07/2004
63	Tulang	Chamba	3.00	2042.64	20/07/2004
64	Sainj **	Shimla	3.00	1990.50	26/07/2004
		Total	186.35	111969.42	

Note:- 1. \* Denotes PPAs Signed2. \*\* Transferred from HPSEB

Source: Himurja

LIST OF PROJECTS YET TO BE ALLOTTED			
Sr. No	NAME OF PROJECT	RIVER BASIN	ESTIMATED POTENTIAL(MW)
	DISTT. KINNAUR		
1	Cherang Hydel Project	Satluj	2.00
2	Duba Hydel Project	Satluj	1.50
3	Gara Hydel Project	Satluj	2.50
4	Gekod Lungpa Hydel Project	Satluj	0.80
5	Ginam Hydel Project	Satluj	0.90
6	Hurba Hydel Project	Satluj	2.30
7	Kanam Hydel Project	Satluj	0.70
8	Kandlu Hydel Project	Satluj	0.15

9	Khayo Hydel Project	Satluj	2.60
10	Lambar Hydel Project	Satluj	3.00
11	Mangsa Hydel Project	Satluj	0.60
12	Narudu Hydel Project	Satluj	1.30
13	Pangrang Hydel Project	Satluj	1.70
14	Raldang Hydel Project	Satluj	1.30
15	Rothen Lunga Hydel Project	Satluj	3.00
16	Rovang Hydel Project	Satluj	2.00
17	Shailpya Hydel Project	Satluj	0.50
18	Shankvi Hydel Project	Satluj	1.80
19	Shaune Hydel Project	Satluj	3.00
20	Singan Hydel Project	Satluj	0.70
		SUB TOTAL	32.35
	<u>DISTT. SHIMLA</u>		
21	Banah Swol Hydel Project	Yamuna	1.50
22	Basari Hydel Project	Yamuna	0.85
23	Bhalu Katal Hydel Project	Yamuna	0.50
24	Chagaunti Hydel Project	Yamuna	0.90
25	Chakred Hydel Project	Yamuna	0.75
26	Chapla Hydel Project	Satluj	1.00
27	Deya Hydel Project	Satluj	0.20
28	Dhurmu Hydel Project	Satluj	1.40
29	Dogar Hydel Project	Satluj	0.55
30	Guhi Hydel Project	Satluj	0.70
31	Kashta Hydel Project	Satluj	0.60
32	Khagna Hydel Project	Yamuna	0.50
33	Khanali Hydel Project	Yamuna	0.60
34	Kunda Hydel Project	Satluj	0.30
35	Kunu Hydel Project	Yamuna	0.60
36	Malgi Hydel Project	Yamuna	1.40
37	Mashram-Barhanu	Yamuna	0.90
38	Mirgali Hydel Project	Yamuna	1.20
39	Nalia Hydel Project	Yamuna	0.80
40	Nargani Hydel Project	Yamuna	1.80
41	Nati Hydel Project	Yamuna	0.75
42	Ranwi Hydel Project	Yamuna	0.55
43	Rupin Hydel Project	Yamuna	2.30
44	Shantha Hydel Project	Yamuna	0.20
45	Tatu Hydel Project	Yamuna	0.60
		SUB TOTAL	17.05
	<u>DISTT. SIRMOUR</u>		

46	Jhaneti Hydel Project	Yamuna	1.20
47	Kheri Hydel Project	Yamuna	0.75
		SUB TOTAL	1.95
<u>DISTT. CHAMBA</u>			
48	Chandal Hydel Project	Ravi	0.60
49	Daredi Hydel Project	Ravi	1.20
50	Haredh Hydel Project	Ravi	1.00
51	Kala Hydel Project	Ravi	1.20
52	Khinar Hydel Project	Chenab	1.50
53	Kihan Hydel Project	Chenab	0.50
54	Kunkali Hydel Project	Chenab	1.25
55	Mehled Hydel Project	Chenab	0.55
56	Ol Nala Hydel Project	Chenab	0.65
57	Patned Hydel Project	Ravi	0.50
58	Pher Hydel Project	Ravi	1.75
59	Raula Hydel Project	Ravi	1.25
60	Sundrali Hydel Project	Ravi	2.15
		SUB TOTAL	14.10
<u>DISTT. KANGRA</u>			
61	Ganunu Hydel Project	Beas	0.15
62	Haroti Hydel Project	Beas	0.20
		SUB TOTAL	0.35
<u>DISTT. KULLU</u>			
63	Baga Hydel Project	Beas	0.50
64	Bakar Kiara Hydel Project	Beas	1.10
65	Dawla Hydel Project	Beas	0.70
66	Dhaugi Hydel Project	Beas	0.50
67	Ghatgar Hydel Project	Beas	0.70
68	Jijar Hydel Project	Satluj	0.85
69	Kajo Hydel Project	Satluj	0.70
70	Kherd Hydel Project	Satluj	0.20
71	Kyali Hydel Project	Satluj	0.80
72	Ogan Hydel Project	Satluj	0.65
73	Shiri Hydel Project	Satluj	0.45
74	Sumun Hydel Project	Satluj	0.90
		SUB TOTAL	8.05
<u>DISTT. LAHAUL-SPITI</u>			
75	Chhatru Hydel Project	Chenab	2.20
76	Hamtah Hydel Project	Chenab	2.50
77	Lanrenttar Hydel Project	Chenab	3.00

78	Limphu Hydel Project	Chenab	2.75
79	Sakchum Hydel Project	Chenab	3.00
80	Shashin Hydel Project	Chenab	1.70
81	Tungu Lampa Hydel Project	Chenab	2.60
		<b>SUB TOTAL</b>	<b>17.75</b>
<b>DISTT. MANDI</b>			
82	Arnodi Hydel Project	Beas	0.45
83	Barway Hydel Project	Beas	1.50
84	Beas Hydel Project	Beas	0.35
85	Chhatri Hydel Project	Beas	1.35
86	Dev Ki Khad Hydel Project	Beas	0.40
87	Gohar Hydel Project	Beas	0.55
88	Kasani Hydel Project	Beas	0.20
89	Ratti Hydel Project	Beas	0.45
90	Sangroi Hydel Project	Satluj	0.35
91	Shushang Hydel Project	Beas	0.90
92	Sun Hydel Project	Beas	0.90
		<b>SUB TOTAL</b>	<b>7.40</b>
		<b>GRAND TOTAL</b>	<b>99.00</b>
Note: The potential indicated for each project is tentative and not guaranteed.			
Source:Himurja			