State Hydel Policy For Development Of Small Hydro Power Projects through Private Sector Participation

GOVERNMENT OF MAHARASHTRA WATER RESOURCES DEPARTMENT

Government Resolution No. PVT-1204/(160/2004)/ HP

Mantralaya, Mumbai 400032 Dated: 15th September 2005.

I. PREAMBLE:

Power is a critical infrastructure on which the socio-economic development of the country depends. The growth of the economy and its global competitiveness hinges on the availability of quality power at competitive rates. Therefore, it is imperative that electricity is made available at globally competitive cost.

The Government of Maharashtra (GoM) has laid maximum emphasis on the full development of its hydro potential being a clean & renewable source of energy. It has been therefore decided to encourage private sector participation in development of Small Hydro Projects (SHPs). Accordingly GoM declared policy vide Water Resources Department's (previously known as Irrigation Department's (ID)) G.R. No. HEP (7/2002)/HP, dated 28th November 2002. This policy is applicable to CPP through hydropower projects up to 25 MW installed capacity which is considered as one of the non-conventional energy source.

Electricity Act 2003 (EA 2003) has come into force since 10th June, 2003. This act has replaced the Indian Electricity Act 1910, the Electricity (Supply) Act 1948 and Electricity Regulatory Commissions Act, 1998.

The act has delicenced the generation and permitted direct commercial relationship between generating company and consumer/trader. The act has awarded generating company a right to open access to State Transmission Utilities (STU) for the purpose of wheeling electricity. The EA 2003 has also enlarged the definition of Captive user.

During the policy implementation process of GoM's policy dated 28.11.02 number of suggestions have been received requesting for certain amendments to the provisions in the state policy in light of provisions of EA 2003.

On this background and with an intention to harmonise the provisions in the state policy with that in EA 2003 , GoM is pleased to declare revised policy for development of SHPs up to 25 MW capacity, through the private sector participation. This policy seeks to replace the earlier policy dated 28th November, 2002. The revised policy is intended to encourage the participation of both the Captive Power Producers (CPPs) and Independent Power Producers (IPPs) in development of SHP in the state.

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II. Objectives:

The objective of the policy is

- to harness the green power with the help of private sector.
- to create suitable environment for attracting private sector investment .&
- to lay down the framework for the implementation of the policy.

Part A : Policy Guide Lines:

A-1 Scope:

The list of identified SHPs (up to 25 MW) sites is available with Government of Maharashtra , Water Resources Department (GoMWRD). The same shall be updated from time to time. The projects from this list shall be offered for development as CPP/IPP. Unidentified SHP sites proposed by the developers for development of CPP/IPP shall also be governed by this policy.

For the purpose of this policy, Captive Power Plant (CPP) is defined as a SHP set up under section 9 read with clause (8) of section 2 of EA 2003 and compiling the requirements stipulated in Electricity Rules 2005 notified by Ministry of Power, Govt. of India (GoI) on 8th June, 2005.

For the purpose of this policy IPP is defined as SHP set by any person as defined in EA 2003 for generating electricity, which can be sold to any consumer located in the state of Maharashtra or any other willing distribution licensee or any Power Trading Company.

The provisions of this policy are also applicable for any governmental or semigovernmental organisation of GoM who owns the water reservoirs.

A-2 Operative Period:

The policy shall be in operation from the date of publication of this resolution till it is cancelled/revised. All the projects awarded within this period shall be governed by this policy.

The SHP allotted under this policy shall be on Build, Operate & Transfer Basis (BOT). The BOT period shall be 30 years. The BOT period shall start from the date of commissioning of the project. At the end of the BOT period the absolute ownership of the SHP along with land, switchyard & allied equipment shall automatically stand transferred to GoMWRD free of cost.

MERC has initiated the tariff determination process for SHPs. Tariff and other dispensation determined through this process may or may not apply for a period coterminus with BOT and/or lease period agreed to between the developer and GoMWRD.

GoMWRD may extend the BOT period at its discretion. If the period is extended GoMWRD reserves the right to review the charges specified in section A-14 of this policy.

A-3 The procedure for selection of Developers:

The procedure for selection of developers shall be as under.

- **A-3.1** The list of sites for SHPs to be offered for privatisation is available with GoMWRD. This list shall be displayed on the web site of GoMWRD and shall be updated from time to time. GoMWRD shall offer projects from this list for development through public notification. The bidding process shall be open to both CPP and IPP.
- **A-3.2** Prequalification evaluation of the interested developers shall be done. The criteria for pre-qualification shall be technical & financial capabilities, past experience and other relevant attributes of the developer. The necessary information regarding attributes to be evaluated, their inter-se weightage, guidelines for evaluation, passing score on attributes required for pre-qualification shall be specified in pre-qualification document. Based on the above criteria the developers shall be pre-qualified.
- **A-3.3** The bidding procedure shall be as under.
- **A-3.3.1** Main bidding documents shall be issued only to pre-qualified developers. The minimum threshold premium shall be mentioned in the bidding document. The bidders shall quote a premium payable to GoM over and above threshold premium and support his bid by Earnest money Deposit (EMD). Upfront premium will be the primary consideration for allotment of the project. Upfront premium offered by both IPPs/CPPs will be evaluated. The highest bid so evaluated will be the criteria for selection.
- A-3.3.2 In most of the projects GoMWRD already constructed intake structure hosting trash rack & sluice gates. Reinforced concrete lined penstock is also laid in the body of the dam. GoMWRD intends to recover its exclusive investment on power component viz. trash rack and steel penstock by fixing the threshold premium for bidding. This threshold premium shall be Rs. 50 Lakhs/MW in case of SHPs in which GoMWRD has already made investment on trash rack and penstock. In other cases it shall be zero.
- **A-3.4** The GoMWRD shall intimate developer regarding his selection and Letter of Permission (LoP) to the developer. This LoP will empower the developer to make necessary investigations and prepare Techno-Economic Feasibility Report (TEFR). The data available with GoMWRD if any shall be made available to the selected developer, free of cost. The Developer shall draw his own inferences from this data.
- **A-3.5** If the developer comes forward with his own site for development of the project, GoMWRD shall issue LoP directly provided the proposed project is not already investigated by GoMWRD. Decision of Secretary (CAD), GoM in this regard shall be final.

A-4 Development of Project:

A-4.1 After receipt of the LoP the developers shall prepare Techno Economic Feasibility Report (TEFR). The TEFR shall be prepared considering the fact that the release of water shall be strictly as per irrigation/domestic/industrial demands and the generation

will have to be synchronised with these releases. GoMWRD reserves the right to decide the release schedule and modify it from time to time as per the requirements. GoMWRD shall make serious efforts to release maximum volume of water in such a manner that it can be used for generation of electricity at desired time. However, the decision of GoMWRD in this regard shall be final and binding. No claims of compensation on these grounds shall be entertained.

If the developer is satisfied about the techno-economic viability of the project he shall submit the TEFR to GoMWRD within three months from the date of LoP alongwith the processing fees as indicated hereinafter.

Sr. No.	Installed Capacity	Processing Fees in Rs. lakhs.
1.	Up to 999 kW	1
2.	1000 kW to 1999 kW	3.5
3.	2000 kW to 4999 kW	5
4.	5000 kW to 25000 kW	10

Under any circumstance (whether the project is viable or not) the developer is not entitled for any claim for reimbursement of expenditure that he has made on investigations, preparation of TEFR and its scrutiny.

- A-4.2 GoMWRD before concurring with TEFR shall ascertain whether or not in its opinion,
- **A-4.2.1** Proposed scheme will prejudice the prospect for best ultimate development of the hydro potential of the site consistent with the requirements of the domestic/irrigation/industrial water, navigation, flood control or other public purposes.
- **A-4.2.2** Proposed company exploits the full potential of the site allotted to the developer. In normal situation development in stages will not be allowed. However, due to any project specific reasons if stage wise development of the project is necessary, Secretary (CAD), GoM is authorised to allow stage wise development.
- **A-4.2.3** Proposed scheme meets the norms regarding dam design & safety.
- **A-4.3** If the TEFR satisfies all the above prerequisites GoMWRD shall approve the TEFR and issue Letter of Allotment (LoA) within one month from the date of submission of TEFR or date of giving all the clarifications by developer, whichever is later. On receipt of LoA developer shall deposit the Performance Security and sign the Hydro Power Development Agreement (HPDA) with GoMWRD within eight days. Amount of Security deposit shall be such that yearly charges payable to GoMWRD on account of water royalty, maintenance charges and land lease charges could be recovered from it.
- **A-4.4:** Developer shall arrange for all the necessary clearances & financial closure within 6 months from the date of signing HPDA. GoMWRD shall facilitate developer in getting clearances. However, it shall be the primary responsibility of developer to arrange for various clearances within stipulated time. This period shall be extended if there are valid

reasons for such extension, which shall be decided by Secretary (CAD), GoM. Failure of developer in arranging the various clearances & finance within a stipulated period will result into automatic cancellation of HPDA and forfeiture of Performance Security. In case, any of the state level or central level clearance is denied for a particular reason the performance Security shall be refunded to the developer. However, cost incurred by developer for investigations, preparing TEFR, getting clearances and arranging finance shall not be refunded in any case.

A-4.5: After getting necessary clearances & financial closure within stipulated period & submitting the documentary proof there of GoMWRD shall issue letter to the developer (within 8 days) to deposit the amount of Upfront Premium offered by him within one month.

Failure of developer to deposit amount of Upfront Premium within stipulated period will result into automatic cancellation of HPDA and forfeiture of Performance Security. GoMWRD shall authorise the developer to start the development work within 8 days from payment of amount of Upfront Premium.

A-4.6 In case of surrender of allotment by developer due to any reason he will be penalised as under and no compensation would be payable to the developer in such instance...

Sr. No.	Stage at which project is surrendered	Penalty		
1.	Before signing HPDA	Forfeiture of Earnest Money Deposit except in the event the project is found unviable		
2.	After signing HPDA	Forfeiture of Performance Security except when any state/central level clearances are denied.		
3.	After permission for development is given	Forfeiture of Performance Security plus amount of Upfront Premium.		

A-4.7 The project shall be made operational within 24 months from the date of authorisation for development. However, any project specific issues shall be considered and project implementation schedule shall be drafted accordingly and incorporated in HPDA. The land under the possession of the government will be handed over to the developer on lease rent. If no government land is available for setting the unit, the developer has to arrange for land acquisition from private parties at his cost.

A-4.8: During the project implementation the progress of the developer shall be reviewed at various milestones & if the progress is not found satisfactory reasons for the delay shall be called for. If the reasons for the delay are found to be beyond the control of the developer, necessary time extension shall be given otherwise developer would be liable to pay a penalty as decided by GoMWRD. The details regarding various milestones and rate of penalty shall be included in the HPDA.

A-4.9 The developer shall be responsible for carrying out the work with due diligence with regard to his responsibilities under various Central/ State / Local laws, rules and regulations & ensure the compliance of the same.

A-4.10 The developer shall insure the assets of the project and keep them insured during the term of HPDA.

A-5 Consultancy:

In case, the developer opt to utilise the Consultancy services of GoMWRD in respect of further investigations, preparation of TEFR, estimates, designs & drafting specifications etc. he can avail the same at mutually agreed rates & conditions. GoMWRD has ISO 9001-2000 recognized design organization which has expertise in this field.

A-6 Generation:

Developer can establish, operate & maintain a generating power plant without any license, subject to following requirements.

- **A-6.1** TEFR is approved by GoMWRD.
- **A-6.2** All the Statutory Clearances are received.
- **A-6.3** Technical standards relating to connectivity with the grid referred to in clause (b) of Section 73, provisions in section 10 and other applicable provisions of EA 2003 are followed.

A-7 Grid Interfacing & Evacuation Arrangements:

This will be as per dispensation emerging from the tariff and procurement process determination exercise initiated by MERC.

A-8 Transmission/Distribution entities:

Developer may construct and maintain dedicated transmission lines as defined in EA, 2003 from the generation plant to the destination of his use. However, he will have the right to access for existing transmission facilities in the State as per the provisions of EA, 2003 and the Regulations and other dispensations of MERC regarding Transmission Open Access. The local distribution licensee shall be permitted to evacuate power from SHP directly if he desires to do so. The developer shall sign Energy wheeling agreement with Transmission entity / distribution licensee. When transmission lines of Transmission entities are used, rates of wheeling charges and transmission losses shall be as decided by MERC from time to time, and wheeling transactions shall be settled accordingly.

When an open access is provided by MERC under subsection (2) of section 42 of Electricity Act 2003 the developer shall be responsible for payment of transmission charges & surcharge thereon as decided by MERC for the energy sold to Third Party Consumer/Distribution Licensee/Power Trading Company.

The metering of energy generated at generating station and corresponding credit at the consumption point shall be on ToD (Time of Day) tariff slots.

A-9 Banking:

This will be as per dispensation emerging from the tariff and procurement process determination exercise initiated by MERC.

A-10 Generation Restrictions:

In extraordinary circumstances arising out of threat to security of the state, public order or a natural calamity or such circumstances arising out of public interest, the developer shall have to operate & maintain generating station in accordance with the directives of state government subject to the provisions of section 11 of EA, 2003.

A-11 No Compensation for Grid Failure:

Developer/ Third party consumer/ Captive user/ Licensee (authorised consumer) shall abide by grid discipline & will not be entitled for any compensation in the event of grid failure, shut down, interruption in power supply etc.

A-12 Developers to Pay to GoMWRD:

- **A-12.1 Water royalty:** Developer shall pay the water royalty at the rate of Rs.0.05 per unit of energy generated.
- **A-12.2** Charges for maintenance of intake structure, penstock etc. at the rate of Rs 0.05 for every unit generated.
- **A-12.3** Land lease charges for the GoMWRD land at the rate of Rs.1/kW of installed capacity/ Year.
- **A-12.4** The above rates of royalty charges, maintenance charges and lease charges are for the first year and the same shall be increased in every subsequent years by 5% by compounding.
- **A-12.5** The above rates of royalty charges , maintenance charges and lease charges shall be reviewed after 30 years if lease period is extended.
- **A-12.6** Water royalty charges and maintenance charges shall be invoiced quarterly at the end of each quarter and land lease charges shall be invoiced at the beginning of every financial year. All these charges will have to be settled within 30 days after the receipt of the invoice. Thereafter the interest at S.B.I. prime lending rate plus 2% (Two percent) per annum on delayed payment for delayed period shall be made applicable.
- **A-12.7** During first 10 years after commissioning, if in any particular year, 75% of the 75% dependable water could not be made available to the developer, then water royalty charges and maintenance charges for that year shall be waived off.

A-13 Taxes & Duties:

The developer shall pay taxes, duties & other levies as applicable from time to time to the respective departments of the State & Central and Local Governments unless developers are specifically exempted from paying such taxes & duties. It will be presumed that developer has considered all these aspects before bidding.

However, to encourage and promote sale of available surplus captive power within the state and to avoid undue overburden on CPP with further levy of Electricity Duty, Govt. of Maharashtra exempt CPPs under this policy from Electricity Duty and Tax on Sale of Electricity.

A-14 Transfer of Allotment:

If the developer wants to transfer ownership of generating unit completely to other developer he will be permitted to do so on prior approval of GoMWRD. GoMWRD may give such approval provided,

- **A-14.1** Financial institution has consented such transfer.
- **A-14.2** GoMWRD is satisfied that the new developer shall consume the generated energy primarily for his own use (in case of CPP only).
- **A-14.3** Proposed developer agrees to all the terms & conditions agreed to by the original developer.
- **A-14.4** And new developer deposits the transfer fees with GoMWRD as RS. 1 Lakhs/MW of installation. This transfer fee may vary as per prevailing Whole Sale Price Index with base index of 2003-04. This transfer fees are in addition to transfer fees payable if any, to other authority.

A-15 Sale of Power:

Generated electricity can be sold to any consumer locate in the state of Maharashtra or any willing distribution licensee or any power trading company. However, Maharashtra Electricity Distribution Company shall have the first right of refusal. Sale of power shall be as per dispensation emerging from the tariff and procurement process determination exercise initiated by MERC.

A-16 Inspection of Project :

The GoMWRD engineers before and after the monsoon shall inspect the power project from safety point of view. The developer shall render all requisite help and cooperation for such inspection. Similarly, statutory inspection from Factory inspector /

Electrical Inspector shall be got done. The Inspection Reports shall be furnished to GoMWRD annually.

Developer shall maintain all the record regarding capacity, generation, PLF, downtime with relevant constraints etc. and make available all these records to inspecting authority for inspection.

A-17 Exclusive Jurisdiction Of MERC:

MERC has exclusive jurisdiction on those provisions of this Policy which are within its regulatory mandate under the provision of Electricity Act, 2003, especially regarding electricity sales rates, power purchase agreements and provisions regarding wheeling, banking distribution and transmission loss charges etc. Similarly, MERC has jurisdiction as per the provisions of EA 2003 as regards the promotion of non-conventional energy sources, facilities for transmission of energy, sale of power to any interested consumer and sharing of purchase of power amongst the STU/Transmission Licensee/Distribution Licensee. Orders regulations, directives, guidelines issued by MERC regarding these issues from time to time shall be binding on all.

In the event of dispute in interpretation of this policy or any clause in the agreement between developer & GoMWRD or STU/Transmission Licensee/Distribution Licensee, the same shall be refereed to MERC to the extent of its jurisdiction under section 86(1) and other provisions of EA. 2003.

A-18: Obligations of GoMWRD:

- **A-18.1:** Nodal officer of GoMWRD shall extend all the possible assistance for getting the various clearances required.
- **A-18.2:** GoMWRD shall approve the TEFR within 1 month from the date of submission or date of giving all the clarifications by developer whichever is later.
- **A-18.3:** GoMWRD shall hand over the site for development of the project within 15 days from the permission accorded to commence the work.
- **A-18.4:** Developer shall be allowed to use the approach road to the power house if it is in possession of GoMWRD . However, the developer at his own cost shall carry out the maintenance of the same.
- **A-18.5:** GoMWRD shall provide residential quarters of suitable type, if and as available near the project site for developer for his staff during construction period on rental basis. However, the developer at his own cost shall carry out the maintenance of the same.

A-18.6: GoMWRD shall make available the piece(s) of land if available to the developer for construction of residential quarters/office of maintenance staff on reasonable terms to be agreed between GoMWRD & developer. The period of such agreement shall be the same as that of HPDA. In such case the developer shall handover such buildings to the GoMWRD at the end of the agreement free of cost. However, the developer shall not be allowed to make any commercial use of such land.

Part-B General Provisions:

- **B-1** The developers to whom CPP is allotted by GoMWRD under previous policy & willing to opt for the provisions of this policy may apply for the same alongwith the necessary processing fee. GoMWRD shall accord such permission if requisite requirements are complied by the developer. The processing fees for this purpose shall be of Rs. One lakh per MW of installation. This processing fee may vary as per prevailing Whole Sale Price Index with base index of 2003-04. However, this permission of GoMWRD shall be subjected to provisions of Section A-17 of this policy and dispensation emerging from the tariff and procurement process determination exercise initiated by MERC.
- **B-2:** IPPs & CPPs are free to change their option (entity) in due course of time. However, this permission shall be subjected to provisions of Section A-17 of this policy and dispensation emerging from the tariff and procurement process determination exercise initiated by MERC.
- **B-3:** Change in option from sale to third party to Licensee and vice versa and switching from one third party consumer to other third party consumer without change in entity shall also be governed by provisions of Section A-17 of this policy and dispensation emerging from the tariff and procurement process determination exercise initiated by MERC.
- **B-4:** Provisions in the Policy shall be periodically reviewed in view of the dynamic economics of the sector. In normal circumstances next review shall be after three years. However, GoM reserves the right to amend / delete certain provisions of this policy and include additional provisions, if found necessary for operational ease or to deal with unforeseen issues or if found necessary due to any further dispensation of GoI or MERC as the case may be. GoM may from time to time issue orders and practice directions in regard to the implementation of this policy and matters incidental or ancillary thereto as the GoM may consider appropriate. However, such amendments shall be made applicable with prospective effects only.

Part-C: Promotional Incentives Offered by GoM

SHPs are the renewable non-polluting energy sources. However, like any other non-conventional source they are costlier as compared to conventional sources. With an intention

to make available energy from these sources at competitive rates Ministry of Non-conventional Energy Sources (MNES) GoI has offered some incentive schemes. On the same lines GOM is pleased to offer following incentives.

- **C-1** The developer is supposed to commission the project within 24 months from the date of authorisation. If the developer commissions the project at earlier date, he will be exempted from water royalty charges & maintenance charges to an extent of units generated before scheduled date of commissioning.
- **C-2** CPPs shall be exempted from Electricity Duty on the self consumption of electricity only for first five years after commissioning if the consumption unit is located in Maharashtra.
- **C-3** CPPs shall be exempted from tax on Sale of Electricity only if the consumption unit is located in Maharashtra.
- **C-4** Technical Consultancy at nominal charges.
- **C-5** Maharashtra Energy Development Agency, (MEDA), Pune shall assist the developers in getting incentives for SHPs from MNES, GoI.

This resolution is issued in concurrence of Finance, Energy, Planning and Industry Departments. This resolution is being in supersession of Irrigation Department's GR No. HEP (118/99) HP dated, 22nd September 1999 and G.R. No. HEP (7/2002)HP, dt. 28th November, 2002.

By order and in the name of the Governor of Maharashtra,

Sd/-

(V.M. KulKarni)

Deputy Secretary to Government of Maharashtra.

Copy to:

The P.S. to Hon. Chief Minister, Maharashtra State, Mantralaya, Mumbai-400 032

The P.S. to Hon. Dy. Chief Minister, Maharashtra State, Mantralaya, Mumbai-400 032

The P.S. to Hon. All Ministers, Maharashtra State, Mantralaya, Mumbai-400 032

The P.S. to Hon. All State Ministers, Maharashtra State, Mantralaya, Mumbai-400 032

The Chief Secretary, Maharashtra State, Mantralaya, Mumbai-400 032

The Additional Chief Secretary (Finance), Finance Department, Mantralaya, Mumbai-400 032.

The Additional Chief Secretary (Planning), Planning Department, Mantralaya, Mumbai-400 032.

The Principal Secretary (Energy and Environment), Industries, Energy & Labour Deptt., Mantralaya, Mumbai-32.

The Secretary (Industries), I.E.& L.Department, Mantralaya, Mumbai-400 032.

The Secretary (Legal Remembrancer), Law & Judiciary Department, Mantralaya, Mumbai-32.

The Secretary (Water Resources), Water Resources Department, Mantralaya, Mumbai-400 032.

The Secretary (CAD), Water Resources Department, Mantralaya, Mumbai-400 032.

All CE & Joint Secretaries, Water Resources Department, Mantralaya, Mumbai-400 032

The Chairman, Maharashtra Electricity Regulatory Commission, Mumbai (By letter)

The Managing Director, MSEB Holding Company Ltd., Prakashghad, Mumbai-400 051.

The Managing Director, Maharashtra State Transmission Company Ltd., Prakashghad, Mumbai-400 051.

The Managing Director, Maharashtra State Electricity Distribution Company Ltd., Prakashghad, Mumbai-400 051.

The Managing Director, Maharashtra State Power Generation Company Ltd., Prakashghad, Mumbai-400 051.

Executive Directors and Chief Engineers of all Irrigation Development Corporations Chief Engineer (Electrical), Hydro Projects, Mumbai-400 023

All Regional Chief Engineers of Water Resources Department.

Directorate General of Information & Public Relations, Maharashtra State, Mantralaya, Mumbai (2 copies)

Director, Maharashtra Energy Development Agency (MEDA), MHADA Commercial Complex, 2nd floor, Opp. Tridal Nagar, Yerwada, Pune-411 006

All Superintending Engineers and Executive Engineers in Water Resources Department, HP Desk (for collection)

HYDRO CAPACITY IN MAHARASHTRA (Upto 25 MW)						
Sr.	Name of the Projects	Installed	Taluka	District	Type of	
No.	Name of the Frojects	Capacity	Taluka	District	Project	
	Nilwande-2	3.000	Akolo	Abmodnogor	Dam Foot	
2	Upper Wardha (LBC)	0.750	Akola Morshi	Ahmednagar Amravati	Dam Foot	
3	Shahanoor-2	0.750	Achalpur	Amravati	Canal Drop	
4	Chandrabhaga	1.000	Achalpur	Amravati	Dam Foot	
5	Chandrabhaga II	0.250	Achalpur	Amravati	Canal Fall	
6	Purna	0.230	Chandurba	Amravati	Dam Foot	
7	Sapan	0.300	Achalpur	Amravati	Dam Foot	
8	Upper Wardha (RBC)	1.800	Morshi	Amravati	Dam Foot	
9	Paithan L.B.C.	3.000	Paithan	Aurangabad	Dam Foot	
10	Paithan R.B.C.	1.000	Paithan	Aurangabad	Dam Foot	
11	Wan	0.600	Ambejogai	Beed	Independent	
12	Bawanthadi-1	0.350	Tumsar	Bhandara	Canal Fall	
13	Bawanthadi-2	0.500	Tumsar	Bhandara	Canal Fall	
14	Bawanthadi-3	0.300	Tumsar	Bhandara	Canal Fall	
15	Pentakli	0.750	Mehkar	Buldhana	Dam Foot	
16	Man	0.350	Khamgaon	Buldhana	Dam Foot	
17	Utwali	0.330	Mehkar	Buldhana	Dam Foot	
18	Dongagaon	0.200	Chandrapur	Chandrapur	Damirout	
19	Dara	0.750	Shahada	Dhule	Dam Foot	
20	Itiadoh	0.500	Morgaon	Gadchiroli	Dam Foot	
21	Bagh-Pujaritola	0.300	Gondia	Gaddilloll	Canal Fall	
22	Bagh-Kalisarar	0.400	Gondia	Gondia	Canal Fall	
23	Bagh-Pujaritola	0.500	Gondia	Gondia	Canal Fall	
24	Bagh-Shirur	1.500	Gondia	Gondia	Canal Fall	
25	Waghur	1.000	Bhusawal	Jalgaon	Dam Foot	
26	Suki	0.750	Jalgaon	Jalgaon	Dam Foot	
27	Chikotra	1.800	Ajara	Kolhapur	Dam Foot	
28	Hiranyakeshi	0.350	Ajara	Kolhapur	Dam Foot	
29	Tarhol	0.500	Chandgad	Kolhapur	Dam Foot	
30	Ambehol	0.500	Ajara	Kolhapur	Dam Foot	
31	Tulshi	1.600	Radhanagri	Kolhapur	Dam Foot	
32	Gosikhurd L.B.C.	2.500	Pauni	Nagpur	Dam Foot	
33	Gosikhurd R.B.C.	1.500	Pauni	Nagpur	Dam Foot	
34	Lower Wunna L.B.C.	0.200	Umred	Nagpur	Canal Fall	
35	Lower Wunna R.B.C.	0.250	Umred	Nagpur	Canal Fall	
36	Isapur R.B.C. Km.81	1.000	Nanded	Nanded	Canal Drop	
37	Lendi	0.350	Mukhed	Nanded	Dam Foot	
38	Upper Manar	0.350	Loha	Nanded	Dam Foot	
39	Channapur	0.200	Bhokar	Nanded	Canal Drop	
40	Tirkaswadi	0.250	Bhokar	Nanded	Canal Drop	
41	Karwa	0.500	Nandgaon	Nashik	Dam Foot	
42	Gangapur Fall	0.500	Igatpuri	Nashik	Independent	
43	Girna	1.000	Nandgaon	Nashik	Dam Foot	
44	Mukane	1.500	Igatpuri	Nashik	Dam Foot	
45	Punand	0.500	Kalwan	Nashik	Dam Foot	
46	Waldevi	0.600	Nashik	Nashik	Dam Foot	
47	Gautami Godavari	0.750	Nashik	Nashik	Dam Foot	
48	Kashyapi	0.900	Nashik	Nashik	Dam Foot	
	,	0.300		Nashik	Dam Foot	

50	Askhed	0.500	Nashik	Nashik	Dam Foot
51	Waki	1.000	Igatpuri	Nashik	Dam Foot
52	Bham	1.400	Nashik	Nashik	Dam Foot
53	Darna	3.000	Nashik	Nashik	Dam Foot
54	Lower Dudhna R.B.C.	0.250	Selu	Parabhani	Dam Foot
55	Lower Dudhna L.B.C.	0.250	Selu	Parabhani	Dam Foot
56	Dimbhe L.B.C. Km.55	0.200	Junnar	Pune	Canal Fall
57	Mulshi	1.000	Mulshi	Pune	Dam Foot
58	Thugaon	1.200	Mawal	Pune	Independent
59	Bhama-Askhed	2.000	Khed	Pune	Dam Foot
60	Dimbhe L.B.C. Km.53	0.100	Junnar	Pune	Canal Fall
61	Chilhewadi	0.500	Junnar	Pune	Dam Foot
62	Kalmodi	0.500	Khed	Pune	Dam Foot
63	Dimbhe L.B.C. Km.51	1.500	Junnar	Pune	Canal Fall
64	Ghod	0.500	Shirur	Pune	Dam Foot
65	Gunjawani Simodi	0.300	Mulshi	Pune	Dam Foot
66	Yedgaon	2.500	Junnar	Pune	Dam Foot
67	Pimpalwadi Dubi	0.300	Khed	Ratnagiri	Dam Foot
68	New Mandve	0.500	Khed	Ratnagiri	Dam Foot
69	Gadh	1.000	Chiplun	Ratnagiri	Dam Foot
70	Morna	0.400	Shirala		Dam Foot
71	Uttarmand	0.400	Patan	Sangli Satara	Dam Foot
71		0.800	Patan	Satara	Dam Foot
73	Morna Gureghar Kudali	1.200		Satara	Dam Foot
	Wang	3.000	Jawali	Satara	Dam Foot
74 75	Kodhashi	2.000	Patan Karhad	Satara	River Fall
76	Hingni Pangaon	0.100	Solapur	Solapur	Dam Foot
77	Dham	0.750	Arwi	Wardha	Dam Foot
78	Kar	1.100	Karanja	Wardha	Dam Foot
79	Madan	0.150		Wardha	Daill Foot
80	Lower Wardha RBC	0.130	Karanja Arwi	Wardha	
81	Lower Wardha LBC	0.250	Arwi	Wardha	
82	Lower Wardha	0.230	Arwi	Wardha	
83	Arunawati LBC	0.720		Yeotmal	Dam Foot
84	Upeer Penganga-2	0.330	Digraj Pusad	Yeotmal	Dam Foot
85	Bembala	1.000	Babhulgaon	Yeotmal	Dam Foot
86	Ganjawane	8.500	Mahad	Raigad	Independent
87	Gomashi	6.000	Mahad		•
88	Karbhatle	10.000	Sangameshwar	Raigad Ratnagiri	Independent Independent
89	Nagzari	14.000	Chiplun	Ratnagiri	Independent
90	Wadgaon	18.000	Poladpur	Ratnagiri	Independent
90	Jawara	20.000	Lanja	Ratnagiri	Independent
91	Gugalashi	15.000	Mahad	Raigad	Independent
93	Bhamburda	5.000	Mulshi	Pune	Independent
93	Khanu	5.000	Velhe	Pune	Independent
95	Patgaon		Kudal/Bhudargad	Sindhudurga	Independent
96	Kashtipada	17.000	Shahapur	Thane	Independent
96	Rayate	17.000	Peth	Nashik	Independent
98	Khadki	8.000	Mokhada	Thane	Independent
99	Gosali	7.000	Peth	Nashik	Independent
100	Akhar	15.000	Jawahar	Thane	Independent
100	Aknar	12.000	Mokhada	Thane	Independent
101	Bigipada	17.000	Jawahar	Thane	Independent
102	Pandi	4.000	Roha		Independent
103	li aliui	4.000	ivolia	Raigad	Imachemacur

104	Ghol	5.000	Velhe	Pune	Independent
105	Takpada	8.000	Shahapur	Thane	Independent
106	Radhagari	8.000	Radhanagri	Kolhapur	
107	Tarli	6.000	Patan	Satara	Dam Foot
108	Dhamni	3.500	Radhanagri	Kolhapur	Dam Foot
109	Ghataprabha	8.000	Chandagad	Kolhapur	Dam Foot
110	Jambhre	4.000	Chandagad	Kolhapur	Dam Foot
111	Ujjani Small	4.000	Bhimanagar	Solapur	Dam Foot
112	Girwi	8.000	Phaltan	Satara	Canal Fall
113	Thoseghar	7.000	Satara	Satara	
114	Digraj	4.000	Miraj	Sangli	River Fall
115	Par	15.000	Surgana	Nashik	Independent
116	Mula	5.750	Rahuri	Ahmednagar	Dam Foot
117	Damanganga	18.000	Nashik	Nashik	Independent
118	Upper Penganga-1	3.400	Nanded	Nanded	Dam Foot
119	Nilwande	8.000	Akole	Ahmednagar	Dam Foot
120	Sahastrakund	10.000	Umarkhed	Yeotmal	Independent
121	Lower Penganga	4.000	Kelapur	Yeotmal	Dam Foot
		417.920			

Note: for further details regarding policy, please contact to:

Chief Engineer (Electrical),
Hydro Projects, 4th floor, HSBC Bldg.,
Hutatma Chowk, Mumbai 400 023.

■: 022-22670074/22674867 (fax)

E mail: ceehpid@vsnl.net

LIST OF SMALL HYDRO ELECTRIC PROJECTS (UPTO 25 M.W.) UPDATED ON 26.10.2006 (ORIGINAL LIST OF 121 PROJECTS PUBLISHED WITH G.R. DATED 15.09.2005)					
Sr.	Name of the Projects	Installed	Taluka	District	Type of
No.		Capacity			Project
1	Nilwande-2	3.00	Akola	Ahmednagar	Dam Foot
2	Upper Wardha (LBC)	0.75	Morshi	Amravati	Dam Foot
3	Shahanoor-2	0.35	Achalpur	Amravati	Canal Drop
4	Chandrabhaga	1.00	Achalpur	Amravati	Dam Foot
5	Sapan	0.75	Achalpur	Amravati	Dam Foot
6	Upper Wardha (RBC)	1.80	Morshi	Amravati	Dam Foot
7	Paithan L.B.C.	3.00	Paithan	Aurangabad	Dam Foot
8	Paithan R.B.C.	1.00	Paithan	Aurangabad	Dam Foot
9	Bawanthadi-1	0.35	Tumsar	Bhandara	Canal Fall
10	Bawanthadi-2	0.50	Tumsar	Bhandara	Canal Fall
11	Bawanthadi-3	0.75	Tumsar	Bhandara	Canal Fall
12	Pentakli	0.35	Mehkar	Buldhana	Dam Foot
13	Dara	0.25	Shahada	Dhule	Dam Foot
14	Itiadoh	0.50	Morgaon	Gadchiroli	Dam Foot
15	Bagh-Kalisarar	0.40	Gondia	Gondia	Canal Fall
16	Bagh-Pujaritola	0.50	Gondia	Gondia	Canal Fall
17	Bagh-Shirur	1.50	Gondia	Gondia	Canal Fall
18	Waghur	1.00	Bhusawal	Jalgaon	Dam Foot
19	Chikotra	1.80	Ajara	Kolhapur	Dam Foot
20	Hiranyakeshi	0.35	Ajara	Kolhapur	Dam Foot
21	Tarhol	0.50	Chandgad	Kolhapur	Dam Foot
22	Ambehol	0.50	Ajara	Kolhapur	Dam Foot
23	Lower Wunna L.B.C.	0.20	Umred	Nagpur	Canal Fall
24	Lower Wunna R.B.C.	0.25	Umred	Nagpur	Canal Fall
25	Isapur R.B.C. Km.81	1.00	Nanded	Nanded	Canal Drop
26	Lendi	0.35	Mukhed	Nanded	Dam Foot
27	Upper Manar	0.35	Loha	Nanded	Dam Foot
	1 - : '		Bhokar		
28 29	Channapur Tirkaswadi	0.20 0.25	Bhokar	Nanded Nanded	Canal Drop
					Canal Drop
30	Karwa	0.50	Nandgaon	Nashik	Dam Foot
31	Gangapur Fall	0.50	Igatpuri	Nashik	Independent
32	Girna	1.00	Nandgaon	Nashik	Dam Foot
33	Mukane	1.50	Igatpuri	Nashik	Dam Foot
34	Punand	0.50	Kalwan	Nashik	Dam Foot
35	Waldevi	0.60	Nashik	Nashik	Dam Foot
36	Gautami Godavari	0.75	Nashik	Nashik	Dam Foot
37	Kashyapi	0.90	Nashik	Nashik	Dam Foot
38	Bhawli	0.30	Igatpuri	Nashik	Dam Foot
39	Waki	1.00	Igatpuri	Nashik	Dam Foot
40	Bham	1.40	Nashik	Nashik	Dam Foot
41	Lower Dudhna R.B.C.	0.25	Selu	Parabhani	Dam Foot
42	Lower Dudhna L.B.C.	0.35	Selu	Parabhani	Dam Foot
43	Mulshi	1.00	Mulshi	Pune	Dam Foot
44	Thugaon	1.20	Mawal	Pune	Independent
45	Bhama-Askhed	2.00	Khed	Pune	Dam Foot
46	Dimbhe L.B.C. Km.53	0.10	Junnar	Pune	Canal Fall
47	Kalmodi	0.50	Khed	Pune	Dam Foot
48	Dimbhe L.B.C. Km.51	1.50	Junnar	Pune	Canal Fall
49	Ghod	0.50	Shirur	Pune	Dam Foot
50	Pimpalwadi Dubi	0.30	Khed	Ratnagiri	Dam Foot

51	New Mandve	0.50	Khed	Ratnagiri	Dam Foot
52	Uttarmand	0.50	Patan	Satara	Dam Foot
53	Morna Gureghar	0.80	Patan	Satara	Dam Foot
54	Kudali	1.20	Jawali	Satara	Dam Foot
55	Wang	3.00	Patan	Satara	Dam Foot
56	Kodhashi	2.00	Karhad	Satara	River Fall
57	Dham	0.75	Arwi	Wardha	Dam Foot
58	Lower Wardha LBC	0.25	Arwi	Wardha	
59	Arunawati LBC	0.35	Digraj	Yeotmal	Dam Foot
60	Bembala	1.00	Babhulgaon	Yeotmal	Dam Foot
61	Gomashi	6.00	Mahad	Raigad	Independent
62	Nagzari	14.00	Chiplun	Ratnagiri	Independent
63	Wadgaon	18.00	Poladpur	Ratnagiri	Independent
64	Gugalashi	15.00	Mahad	Raigad	Independent
65	Bhamburda	5.00	Mulshi	Pune	Independent
66	Khanu	5.00	Velhe	Pune	Independent
67	Patgaon	18.00	udal/Bhudarga	Sindhudurga	Independent
68	Kashtipada	17.00	Shahapur	Thane	Independent
69	Rayate	17.00	Peth	Nashik	Independent
70	Khadki	8.00	Mokhada	Thane	Independent
71	Gosali	7.00	Peth	Nashik	Independent
72	Akhar	15.00	Jawahar	Thane	Independent
73	Amal	12.00	Mokhada	Thane	Independent
74	Bigipada	17.00	Jawahar	Thane	Independent
75	Ghol	5.00	Velhe	Pune	Independent
76	Takpada	8.00	Shahapur	Thane	Independent
77	Tarli	6.00	Patan	Satara	Dam Foot
78	Dhamni	3.50	Radhanagri	Kolhapur	Dam Foot
79	Ghataprabha	8.00	Chandagad	Kolhapur	Dam Foot
80	Ujjani Small	4.00	Bhimanagar	Solapur	Dam Foot
81	Digraj	4.00	Miraj	Sangli	River Fall
82	Par	15.00	Surgana	Nashik	Independent
83	Damanganga	18.00	Nashik	Nashik	Independent
84	Sahastrakund	10.00	Umarkhed	Yeotmal	Independent
		306.00			