

**DIRECTORATE OF ENERGY**  
**GOVERNMENT OF HIMACHAL PRADESH**  
**SHANTI BHAWAN, PHASE-III, SECTOR-VI, NEW SHIMLA-171009(HP)**


**OFFICE ORDER**

In supersession to Office Order endorsement No. DoE/CE(TEC)/TEC-Upper Kurmi/2013 -1378-86 dated 23-05-2013, Directorate of Energy (DoE), Govt. of Himachal Pradesh, is pleased to accord Revised Concurrence to Upper Kurmi SHP (8.00 MW) on Nanti khad (Sagon & Sugh nallahs), a tributary of Satluj river in Satluj basin, District Shimla, Himachal Pradesh, allotted to "M/S Vimla Hydro Power Pvt. Ltd., Vill. & PO Sarahan, Tehsil Rampur, Distt. Shimla (HP)", at an estimated cost of Rs. 62.20 crore (Rupees sixty two crore twenty lac) only including Interest During construction (IDC), Escalation, Financial Charges (FC) and LADC @ 1.50% of total project cost with the following stipulations:

- i) The completion cost shall not exceed the above cost except on account of the following:
  - a) Interest During Construction (IDC) and Financial Charges (FC) shall be as per actuals but not exceeding the amount as indicated at Annex-I, unless revised by DoE, GoHP while according concurrence under Section-8 of Indian Electricity Act 2003 after review of the financial package.
  - b) Change in rates of Indian taxes and duties such as Excise Duty, Sales Tax/VAT, Custom Duty and levy of any other taxes/duties subsequent to issue of Concurrence.
  - c) Change in Indian law resulting in change in the cost.
- ii) The abstract of the Estimated Cost approved by DoE, GoHP is furnished at Annex-I, summary of the Financial Package as considered by DoE, GoHP is at Annex-II and the Salient Features of the scheme are at Annex-III.
2. The Concurrence is subject to the fulfilment of the following conditions:
  - i) Completed cost/Concurrence shall not be re-opened due to the following:
    - a) Non acquisition of land.
    - b) Non- finalization of Power Purchase Agreement (PPA)
    - c) Delay in financial closure.
  - ii) The final financial arrangement shall not be inferior to the financing arrangement projected in the Detailed Project Report (DPR) for Concurrence.
  - iii) The cost of the project cleared by the DoE, GoHP is indicative and shall have no binding on the regulator while fixing the tariff. The tariff of the project shall be regulated by the appropriate Electricity Regulatory Commission.
  - iv) The public issue expenses, if any, shall be reconsidered at the time of approval of completion cost based on documentary proof and in accordance with Security Exchange Board of India (SEBI) guidelines regarding regulation of public issue expenses.
  - v) Fulfilment of conditions stipulated in Central Electricity Authority(CEA)/Central Water Commission(CWC) guidelines in respect of civil works at the stage of detailed designs/execution.
  - vi) In case, changes are made in design parameters during construction due to site conditions or otherwise, the same shall be intimated and got Concurred from DoE, GoHP before implementation of such changes.
  - vii) Any increase in the cost estimate due to design modifications and geological surprises would be absorbed by the Independent Power Producer(IPP) i.e. "M/S Vimla Hydro Power Pvt. Ltd., Vill. & PO Sarahan, Tehsil Rampur, Distt. Shimla(HP)".
  - viii) No additional cost shall be allowed due to Resettlement & Rehabilitation (R&R) Plan.
  - ix) Normal operation life of the hydro power plant shall be as per provisions of CWC/CEA guidelines or CERC/HPERC regulations.
  - x) The Concurrence is subject to clearance of the project and transmission line by MoEF from environmental and forests angle. The statutory and administrative clearances as per Annex-IV shall be obtained before execution/ implementation of the project.






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- xi) The interconnection point with the State grid and interconnection facilities at the interconnection point shall be provided, operated and maintained at the cost of the IPP.
  - xii) The cost of providing and/or strengthening/ additions etc. of the system at and beyond the Interconnecting Sub-station which may also include the cost of replacement of switchgear/ protection and provision of shunt capacitors, strengthening of bus bars, apart from other works required at injection voltage level and other one or more successively higher voltages, civil works relocation of existing bays etc. shall be recovered by HPSEBL/HPPTCL, as per the regulations of HPERC read with the clarifications/decisions by HPERC and/or any other competent authority as may be finally applicable. The share of IPP on this account shall be paid by the IPP to HPSEBL/HPPTCL as per the final decision of the competent authority.
  - xiii) Whereas the HPSEBL/HPPTCL shall endeavour to provide the evacuation system at the earliest, the scheduled date for providing evacuation arrangements shall be spelt out in the PPAs on case to case basis inter-alia, keeping in view the time lines indicated in the relevant plan and approved by HPERC.
  - xiv) The powerhouse generating equipment as well as other electrical equipment to be provided by the developer shall be compatible for parallel operation with the State grid after interfacing. The IPP shall be responsible for any loss of generation on this account.
  - xv) O&M charges for maintenance of inter connection facilities at the interconnection sub-station shall be paid by the IPP to HPSEBL/HPPTCL throughout the period, the IPP runs the project and the same shall be reviewed at the beginning of every financial year.
  - xvi) For evacuation of power the IPP shall interface this project at 33 kV switchyard of Upper Nanti SHP (12.00 MW) by constructing 33 kV S/C line on double circuit structures with 0.15 sq. in. ACSR WOLF conductor from where the power will be further evacuated in joint mode with Upper Nanti HEP upto 33/66 kV Pooling Station at Nanti SHP. Cost on account of this joint evacuation arrangement shall be shared with other IPPs on proportionate basis.
  - xvii) The project line shall be provided, operated and maintained by the IPP at his cost as per normal conditions after obtaining approval of HP Govt. under Section 68(1) of Electricity Act, 2003.
  - xviii) The above mentioned evacuation arrangements shall be subject to the HPERC approval of "Comprehensive area wise plan for augmenting and establishing of transmission/ sub-transmission system for evacuation of power from small HEPs" which has already been submitted to HPERC. The Transmission/Distribution Licensee may however also evolve alternate system(s) depending on the site conditions and subsequent developments with the approval of HPERC.
  - xix) The IPP shall develop operate and maintain the Project including the dedicated transmission system subject to compliance with the following:
    - a) Grid code and standards of grid connectivity.
    - b) Technical as well as Mechanical standards for construction of Electrical lines.
    - c) Norms of System Operation of the concerned State Load Dispatch Center (SLDC) or Regional Load Dispatch Center (RLDC).
    - d) Directions of the concerned SLDC or RLDC regarding operation of dedicated transmission line.
    - e) The IPP will only be allowed to inject power in HP system with the undertaking that necessary action to provide tele-metering to SLDC shall be provided by them and specifications required to be got approved from the office of SE(SLDC), HP Load Despatch Society, Totu, Shimla from compatibility point of view with existing SCADA system.
  - xx) The hydro generating units shall be capable of generating upto 110% of rated capacity (Subject to rated head being available) on continuous basis as per Sr. No 7 ( Part-II) of Ministry of Power (Central Electricity Authority) notification No 12/X/STD ( CONN) GM/CEA dated 15/10/2013 and subsequent amendments thereof.
  - xxi) The conditions on these lines shall have to be suitably included by the developer in the PPA etc. apart from other standard conditions.
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- xxii) Geological exploration as per CWC guidelines and as per the suggestions of Geologist vide letter No HPSEBL/I&P/GLG/ 2015-1321 dated 10.11.2015 (ANNEX-V) shall be carried out before execution of the project and reports be submitted to DoE, GoHP.
- xxiii) The observations of DoE, GoHP on the DPR and replies thereof shall form an integral part of the DPR.
- xxiv) Minimum 15% release of water immediately downstream of diversion structure shall be ensured all the times including lean season as per Power Policy of HP Govt., 2006 and subsequent amendments thereof. The necessary monitoring equipment as per recommendations of the Pollution Control Board shall be installed by the IPP during execution of the project.
- xxv) LADC/LADF amount and activities shall be implemented as per Power policy of HP Govt., 2006 and subsequent amendments thereof.
- xxvi) The additional 1% (one percent) free power from the project shall be provided and earmarked for a Local Area Development Fund(LADF) as per HP Govt. Notification No. MPP-F(1)-2/2005-V dated 30.11.2009 and subsequent amendments thereof.
- xxvii) The Concurrence is based on the reports and data furnished by the IPP in the DPR and it is presumed that information furnished is correct and has been collected reliably after carrying out detailed field investigations and surveys under the supervision of competent personnel. The broad technical aspects of the project proposal in the DPR have been scrutinized and it does not cover the examination of the detailed designs and working drawings of project components in regard to their structural, hydraulic and mechanical performance & safety which shall be ensured by the project authority/IPP.
3. The project shall be completed within 36 months from the date of start of the construction work.
4. The completion cost of the scheme shall be submitted to DoE, GoHP within 3 months from the Commercial Operation Date (COD) of the plant.
5. The Project Promoters/Project Authorities shall give free accessibility to the officers and staff of DoE, GoHP to have on the spot assessment of various aspects of the project.
6. The firm financial package and tie-up of balance inputs/clearances shall be completed within the period as stipulated in the HP Govt. power Policy, 2006 and subsequent amendments thereof/Implementation Agreement.
7. In case the time gap between the Concurrence to the scheme by DoE, GoHP and actual start of work by the Project Developer is three years or more, a fresh Concurrence of DoE, GoHP shall be obtained by the Developer before start of actual work.
8. Monthly Progress Report of the project shall be submitted to the DoE, GoHP. Three(3) copies of the semi-annual physical progress report of the scheme and expenditure actually incurred, duly certified by statutory auditors shall be submitted to the DoE, GoHP till the Commercial Operation of the plant.
9. The DoE, GoHP reserve the right to revoke the concurrence, if the conditions stipulated above are not complied with to the satisfaction of the GoHP.

BY ORDER OF THE GoHP



Director,  
Directorate of Energy, GoHP,  
New Shimla 71009(HP).

No. DoE/CE/TEC-Upper Kurmi(R)/2017-12300-307 Dated: 23/02/2017

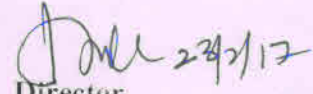
Copy for information and necessary action to the:

1. Addl. Chief Secretary (MPP & Power) to H.P. Govt., Shimla-171002(HP).
2. Addl. Chief Secretary (NES) to H.P. Govt., Shimla-171002(HP).



3. Secretary, Ministry of Non-Conventional Energy Sources (MNES), Block No.14, CGO Complex, Lodhi Road, New Delhi-110003.
4. Director, Environmental & Scientific Technologies, Narayan Villa, Near Wood Villa Palace, Shimla-171002(HP).
5. General Manager(C&D), HPPTCL, Himfed Building, Tuti Kandi, Shimla-171004(HP).
6. Chief Engineer (SO&P), HPSEB Ltd, Vidyut Bhawan, Shimla-171004(HP).
7. Chief Engineer(Commercial), HPSEB Ltd, Vidyut Bhawan, Shimla-171004(HP).
- ✓ 8. M/S Vimla Hydro Power Pvt. Ltd., Vill. & PO Sarahan, Tehsil Rampur, Distt. Shimla(HP).



  
Director,  
Directorate of Energy, GoHP,  
New Shimla-171009(HP).

## ANNEXURE-I


Upper Kurmi SHP (8.00 MW) in District Shimla of Himachal Pradesh of "M/S Vimla Hydro Power Pvt. Ltd., Vill. & PO Sarahan, Tehsil Rampur, Distt. Shimla(HP)".

## ABSTRACT OF COST ESTIMATE

Sr. No.	Description of works	Amount (In Rs. lac)	
(a)			
1.	Civil works i/c other Misc. Expenses	3673.47	Price Level March, 2016
2.	Electro Mechanical works	1705.73	
3.	Transmission works	99.40	
	<b>Sub Total (a)</b>	<b>5478.60</b>	
(b)			
1.	Interest During Construction (IDC)	433.53	
2.	Escalation	155.07	
3.	Financial Charges(FC)	60.99	
	<b>Sub Total (b)</b>	<b>649.59</b>	
	<b>Total (a+b)</b>	<b>6128.19</b>	
(c)	LADC @ 1.50 % of (a+b)	91.92	
	<b>GRAND TOTAL (a+b+c)</b>	<b>Rs. 6220.11 lac</b>	
		<b>Say Rs. 62.20 crore</b>	

(Rupees sixty two crore twenty lac only)



  
 Director,  
 Directorate of Energy, GoHP,  
 New Shimla-171009(HP).



## ANNEXURE - II

Upper Kurmi SHP (8.00 MW) in District Shimla of Himachal Pradesh of "M/S Vimla Hydro Power Pvt. Ltd., Vill. & PO Sarahan, Tehsil Rampur, Distt. Shimla(HP)".

### I. Tentative Financial Package

Debt : Equity - 70 : 30

Sr. No.	Description	Amount (Rs. in crore)
A	Equity	18.66
B	Debt. from Financial Institutions	43.54
	Total (Debt. + Equity)	62.20

### II. Term of Loan

Sr. No.	Item	Package
1.	Source of Debt.	Financial Institutions
2.	Loan Amount (Rs. in crore)	43.54
3.	Rate of Interest	13.00 %
4.	Repayment Period	10 Years
5.	Moratorium Period	2 Year



*Date 28/7/17*  
 Director,  
 Directorate of Energy, GoHP,  
 New Shimla- 171009(HP).

Upper Kurmi SHP (8.00 MW) in District Shimla of Himachal Pradesh of "M/S Vimla Hydro Power Pvt. Ltd., Vill & PO Sarahan, Tehsil Rampur, Distt. Shimla(HP)".

### SALIENT FEATURES

#### I LOCATION

State	:	Himachal Pradesh		
District/Tehsil	:	Shimla/Rampur		
River/Stream	:	Nanti khad a tributary of Satluj river		
Vicinity	:	Pancha, Nanti villages		
Proposal	:	Two Diversion Weirs on Sagon nallah and Sugh nallah at EL $\pm$ 2670.00 m and EL $\pm$ 2668.26 m respectively and Power House on left bank of Nanti khad at EL $\pm$ 2470.00 m.		
Accessibility	By Road	:	200 km from Shimla on Shimla-Rampur-Nanti road.	
	By Railway	:	BG- Kalka(Har.), NG - Shimla(HP)	
	By Air	:	Jubberhatti, Shimla	
Geographical co-ordinates	:	<b>Weir-I</b>	<b>Weir-II</b>	<b>Power House</b>
• Longitude	:	77 <sup>0</sup> 42'18.35"E	77 <sup>0</sup> 42'19.44"E	77 <sup>0</sup> 42'52.97"E
• Latitude	:	31 <sup>0</sup> 38'17.95"N	31 <sup>0</sup> 38'20.79"N	31 <sup>0</sup> 37'30.74"N
SOI Topo sheet	:	53 E/10		

#### II HYDROLOGY

Name of stream/nallah	:	Nanti khad (Sagon & Sugh nallahs)		
Tributary of/Basin	:	Satluj river/Satluj Basin		
Design Discharge	:	5.00 cumecs		
Catchment area upto diversion-II	:	52.05 Sq km		
Design Flood Discharge	:	251.92 cumecs		
HFL	:	<b>Weir-I</b>	<b>Weir-II</b>	<b>Power house</b>
	:	EL+2672.50 m	EL+2670.76 m	EL+2467.70 m

#### III PROJECT COMPONENTS

##### A DIVERSION STRUCTURE-I ( On Sagon nallah)

Type	:	Drop type Trench Weir
Trash Rack/Full Reservoir Level	:	EL $\pm$ 2670.00 m
Size of weir	:	20.00 Long, 2.00 m Wide
Depth	:	Varies from 0.65 m to 1.30 m
Design Discharge	:	1.30 cumecs + Flushing & overloading dis.

##### B CONVEYANCE CHANNEL-I(From D/Structure-I to HRT-I inlet)

Type	:	Rectangular RCC Box type channel
Size	:	5.00 m x 3.00 m x 1.60 m i/c 0.30m freeboard
Design discharge	:	1.30 cumecs + flushing & overloading dis.

##### C HEAD RACE/TUNNEL-I (From Box Channel-I outlet to D/Structure-II)

Type	:	D-Shaped tunnel with MS pipe inside.
Length	:	324.00 m
Size of tunnel	:	1.80 m x 1.80 m
Size of pipe	:	1.18 m dia., 6 mm to 10 mm thickness
Design Discharge	:	1.30 + flushing & overloading dis.
Velocity	:	1.73 m/sec
Slope	:	1 in 200

##### D DIVERSION STRUCTURE-II (On Sugh nallah)

Type	:	Drop type Trench Weir
Trash Rack/Full Reservoir Level	:	EL $\pm$ 2668.26 m

Size of branch penstock : 1.12 m dia. each  
Length of branch penstock : 42.00 m each


**K POWER HOUSE**

Type/Location : Surface on left bank of Nanti stream  
Installed capacity : 8.00 MW (2 units of 4.00 MW each)  
Size of PH : 30.00 m x 15.00 m x 12.50 m  
Gross Head : 194.23 m  
Net Head : 187.65 m  
C/L of turbine jet : EL  $\pm$  2471.50 m  
Powerhouse Crane : 30/8 Ton, Semi EOT  
**Turbine(s)**  
• Type : Horizontal shaft Pelton  
• Number : Two  
• Rated Capacity : 4000 KW each  
• Speed : 500 rpm  
**Generator(s)**  
• Type : Horizontal shaft Synchronous  
• Number : Two  
• Rated Capacity : 4000 KW each  
• Frequency : 50 Hz  
• Power factor : 0.90 lag  
• Rated Voltage : 6.6 kV  $\pm$  10%  
• Generator excitation : Brushless type  
• Overloading capacity : 20 %

**L TAIL RACE**

Type : Rectangular RCC channel  
Length : 20.00 m  
Size : 2.00 m x 1.90 m with 0.24 m freeboard  
Bed Slope : 1 in 500 m



  
Director,  
Directorate of Energy, GoHP,  
New Shimla-171009(HP).



# ANNEXURE-IV

Upper Kurmi SHP (8.00 MW) in District Shimla of Himachal Pradesh of "M/S Vimla Hydro Power Pvt. Ltd., Vill. & PO Sarahan, Tehsil Rampur, Distt. Shimla(HP)".

## LIST OF STATUTORY AND ADMINISTRATIVE CLEARANCES REQUIRED

Sr. No.	ITEM	AGENCY	REMARKS
1.	WATER ABAILABILITY	1. State Govt. 2. CWC	Interaction between State Govt. Deptt. & CWC required. Relevant Irrigation Act of the State & Central Water Commission.
2.	SEB CLEARANCE	1. SEB. 2. State Govt.	Indian Electricity Act, 2003.
3.	POLLUTION CLEARANCE WATER AND AIR	State/Central Pollution Control Board	Water (Prevention & Control of Pollution) Act, 1974 Air (Prevention & Control of Pollution) Act, 1981.
4	FOREST CLEARANCE	1. State Govt 2. Min. of E&F G.O.I.	Coordination with State Forest Deptt./ Min. of Environment & Forest (MoE&F) regarding Forest (Conservation) Act, 1980.
5	ENVIRONMENT & FOREST CLEARANCE	1. State Govt 2. Min. of E&F G.O.I.	As per item (3) & (4) and Govt. Policy in force.,
6.	REGISTRATION	Registrar of Companies.	Under Indian Companies Act, 1950.
7.	REHABILITATION & RESETTLEMENT OF DISPLACED FAMILIES BY LAND ACQUISITION	1. State Govt 2. Min. of E&F G.O.I.	
8.	EQUIPMENT PROCUREMENT	DGTD, CCI& E	Import & Export Acts.



*28/1/17*

Director,  
Directorate of Energy, GoHP,  
New Shimla-171009(HP).

No. HPSEBL/1+P/CLG/2015-

HPSEBL :

1321

ANNEXURE-V

27-10-11-2015

To

✓ The Deputy Chief Engineer,  
Directorate of Energy,  
Govt. of H.P., Shanti bhawan, Phase-III,  
Shimla-9.



Subject- Revised DPR's of enhanced capacity of Upper Kurmi(8MW) and Kot Dogri (10MW) in Distt Shimla, HP-TEC thereof

Sir,

This is in reference to your Office letter number DoE/CE(Energy)/Chate Ka Nallah/Salun/Toral Kundli/Upper Kurmi/2015-4899 dated 24/08/2015, regarding TEC from Geological point of view, please.

After going through the DPR's of Upper Kurmi SHP and Kot Dogri SHP as subjected above, it is found that though these projects are feasible but precautionary measures are required to be taken care of during constructing the project in regard to stabilization of strata at different project component locations and construction should be done in a scientific way. It is suggested that before the execution of above said projects, following Geological parameters are to be ensured.

- The necessary required explorations in terms of pits, trenches, drill holes, drifts etc should be carried out before execution of the project to get the appropriate design data so that amendments if any, could be made at the respective project locations.
- Sufficient horizontal as well vertical cover is to be taken care of at Surge shaft and along WCS alignment with required support system immediately.
- Appropriate protection works be ensured along power house bench since these are located along the bank of nala and should be kept significantly above HFL.
- Stabilization along penstock slope is to be maintained and should be done scientifically with all measures required for stability.

In case of Kot Dogri SHP, one nala is to be crossed along the penstock alignment should be provided with appropriate supports along each bank of nala with stabilization.

- Sufficient reserves of construction material with suitability of aggregate tests be ensured.

Thus, TEC could be accorded for Upper Kurmi and Kot Dogri SHPs in favour of concerned IPP from Geological point of view, subjected to above conditions.

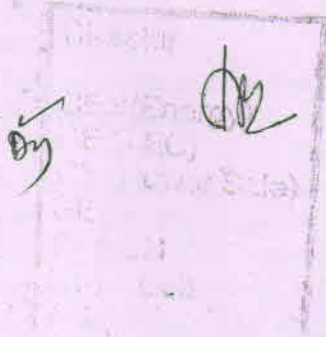
Yours Sincerely

M L Sharma

Geologist.

O/o CE.(HP)

HPSEBL, Sundernagar.



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Copy 19-11-2015