

No. / 5541  
HP Forest Department

Dated Kullu the. / 25/11/22

From: DFO, Kullu

To: CF, Kullu

Subject                                      Diversion of 0.1669 ha. Forest land in favour of Parkash Chand VPO Shang , Tehsil Manali , District Kullu , for the construction of Shanag Middle HEP (100 KW), within the jurisdiction under Manali Range, Kullu Forest Division Kullu District Kullu, Himachal Pradesh

Memo,

Kindly refer to GoI , MOEF & CC letter No. FC/HPB/01/151/2022 dated 13/10/2022 on the subject cited above.

2.                                      The observations as raised by GoI , MOEF & CC have been attended by user agency as under:-

1. The user agency has intimated that all the components have been marked in KML file with legends.
2. The letter of Consent from the Deptt of Himurja is issued only once. The Deptt. Of Directorate of Energy has issued the Techno Economic Clearance also on dated 18-10-2021(Copy Enclosed) .
3. As per the revenue records ( Copy Enclosed) , the Power House, Tail Race & Muck dumping site no.4 is under Khasra No- 1136 and is in name of Himachal Pradesh Sarkar and nature of land is "Charagarh" which is forest land.
4. The revenue papers i.e Jamabandi and Tatima of diversion area is enclosed and uploaded in the portal.
5. The detail regarding Transmission line (T/L) on following points may be provided:
  - (i) It is submitted that the 11kV Underground cable will be laid in a trench of width 1.0 mtr having a total depth of 550 mm. The cable is to be laid into a trench for its easy maintenance and accessibility; therefore it is requested to kindly allow the width of 1.0 mtr as right of way for the underground transmission line of 11kV. The copy of drawing of trench to be constructed is enclosed for reference please.
  - (ii) Transmission line has been marked in KML file with legend and in Geo-referenced map, Toposheet & Layout Plan.
6. The Project is designed as a penstock scheme where the functions of the Desilting tank and Forebay tank are envisaged in the same Tank and has been shown as Desilting Tank. The Desilting Tank has been renamed to Desilting cum Forebay Tank in all the maps.

7. The details of muck generation, utilization and dumping is prepared afresh and total estimated quantity to be dumped is 912 cum, estimated quantity of muck to be utilized is 364 cum for filling up the depressions /masonry walls /filling, estimated quantity of muck to be dumped in 546 cum. Accordingly, keeping in view of the muck generated from the various components the dumping sites heights have been designed and therefore the area required for dumping will be the same as before. It is requested to kindly consider the same as the dumping site shall be restored fully as green area.
8. Muck Management Plan and Reclamation Plan have been authenticated by the DFO concerned and uploaded on MoEF Portal.
9. The user agency has reported that all the documents as issued by the O/o the Deputy Commissioner Kullu in respect of the FRA is enclosed and uploaded for further perusal please.
10. Large numbers of trees (35 no) are proposed for felling and all the tree and saplings has already been mentioned in Part-II. The tree enumeration list and abstract has been uploaded in parivesh portal.
11. The revised bill of revised NPV is sent in triplicate.
12. It is submitted that out of three alternatives, the best alignment for the project having minimum trees and area was chosen in consultation with the forest officials and technical experts at site. For the project to be constructed, all the saplings and trees are required to be felled. We request you to kindly consider our request for the same.
13. It is submitted that before submitting the forest case, consultations were held with the land owners near to the project, however the surrounding area is having apple orchards and buildings for commercial activity and no non-forest land/private land is available for dumping.
14. The clear Toposheet of diversion area has been uploaded in the Parivesh Portal.

Endst. No

5542

Dated Kullu, the

25/11/22

Divisional Forest Officer,  
Kullu Forest Division, Kullu

Copy to Parkash Chand VPO Shang , Tehsil Manali , District  
Kullu for information and further necessary action.

Divisional Forest Officer,  
Kullu Forest Division, Kullu



**SHANAG MIDDLE MICRO HYDEL ELECTRIC PROJECT**  
**PROPRIETER-MR PRAKASH CHAND, VPO- SHANAG**  
**THESIL- MANALI, DISTT- KULLU, H.P.**

Ref No: SM/DFO-Kullu/22-23/1101

Dated:16-11-2022

To,

The Divisional Forest Officer,

Kullu, H.P.

Subject: Diversion of 0.1669ha of forest land in favour of Prakash Chand VPO , Shanag, Tehsil-Manali, Distt- Kullu or the construction of Shanag Middle HEP(100kW), within the jurisdiction of Kullu Forest Division, Distt-Kullu, H.P. Online Proposal No: FP/HP/HYD/123608/2020.

Sir,

This is in reference to the letter from the O/o Regional Officer, Integrated Regional Office, Shimla dated : 13-10-2022, the point wise reply is as under:

1. All the components have been marked in KML file with legends and uploaded online in the portal.
2. The letter of Consent from the Deptt of Himurja is issued only once. The Deptt. Of Directorate of Energy has issued the Techno Economic Clearance also on dated 18-10-2021.( Copy Enclosed) .
3. As per the revenue records ( Copy Enclosed) , the Power House, Tail Race & Muck dumping site no.4 is under Khasra No- 1136 and is in name of Himachal Pradesh Sarkar.
4. The revenue papers i.e Jamabandi and Tatima of diversion area is enclosed and uploaded in the portal.
5. The detail regarding Transmission line (T/L) on following points may be provided:
  - (i) It is submitted that the 11kV Underground cable will be laid in a trench of width 1.0 mtr having a total depth of 550 mm. The cable is to be laid into a trench for its easy maintenance and accessibility; therefore it is requested to kindly allow the width of 1.0 mtr as right of way for the underground transmission line of 11kV. The copy of drawing of trench to be constructed is enclosed for reference please.
  - (ii) Transmission line has been marked in KML file with legend and in Geo-referenced map, Toposheet & Layout Plan.
6. The Project is designed as a penstock scheme where the functions of the Desilting tank and Forebay tank are envisaged in the same Tank and has been shown as Desilting Tank. The Desilting Tank has been renamed to Desilting cum Forebay Tank in all the maps.
7. The details of muck generation, utilization and dumping is prepared afresh and total estimated quantity to be dumped is 912 cum, estimated quantity of muck to be utilized is 364 cum for filling up the depressions /masonry walls /filling, estimated quantity of muck to be dumped in


- 546 cum. Accordingly, keeping in view of the muck generated from the various components the dumping sites heights have been designed and therefore the area required for dumping will be the same as before. It is requested to kindly consider the same as the dumping site shall be restored fully as green area.
8. Muck Management Plan and Reclamation Plan have been authenticated by the DFO concerned.
  9. All the documents as issued by the O/o the Deputy Commissioner Kullu in respect of the FRA is enclosed and uploaded for further perusal please.
  10. It is requested that the required correction/modification in Part-II may be attended by the Divisional Office, Kullu.
  11. It is requested that the revised NPV may be calculated.
  12. It is submitted that out of three alternatives, the best alignment for the project having minimum trees and area was chosen in consultation with the forest officials and technical experts at site. For the project to be constructed, all the saplings and trees are required to be felled. We request you to kindly consider our request for the same.
  13. It is submitted that before submitting the forest case, consultations were held with the land owners near to the project, however the surrounding area is having apple orchards and buildings for commercial activity and no non-forest land/private land is available for dumping.
  14. The clear Toposheet of diversion area has been uploaded in the Parivesh Portal.

It is requested to kindly consider our submissions and the forest case may be approved for further submission please.

Yours Faithfully,

Authorized Signatory  
(For Shanag Middle HEP-100kW)

SHANAG MIDDLE HEP (100KW)





Point No

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

**OFFICE ORDER**

Directorate of Energy (DoE), Government of Himachal Pradesh, is pleased to accord Technical Concurrence (TC) to Shanag Middle MHEP (100 kW) within elevation range of El.± 2135.00 m to El.± 2100.00 m on Haindi Stream, tributary of Beas river in Distt. Kullu, Himachal Pradesh allotted to "M/s Prakash Chand, S/o Nokhu, V.P.O- Shanag, Tehsil Manali, Distt. Kullu, H.P.", at an estimated cost of Rs. 182.10 (Rupees One Hundred Eighty Two Lakh and Ten Thousand only) including Interest During Construction (IDC), Escalation, Financial Charges (FC) and Local Area Development Fund (LADF) @ 1% (one percent) of total project cost with the following stipulations:-

1.
  - i) The abstract of the Estimated Cost approved by DoE, GoHP is enclosed at **Annex-I** and the Salient Features of the scheme are enclosed at **Annex-II**.
  - ii) 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 Goods and Service Tax (GST), Custom Duty and levy of any other taxes/duties subsequent to issue of Technical Concurrence (TC).
    - c) Change in Indian law resulting in change in the cost.
2. The Technical Concurrence (TC) is subject to the fulfilment of the following conditions:
  - i) Completed cost/Technical Concurrence (TC) 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) As proposed and agreed upon by the developer during appraisal of the DPR, the project is viable by considering Central Financial Assistance (CFA)/MNRE subsidy. 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 "M/s Prakash Chand, S/o Nokhu, V.P.O- Shanag, Tehsil Manali, Distt. Kullu, H.P."
  - viii) No additional cost shall be allowed due to Resettlement & Rehabilitation (R&R) Plan.

SHANAG MIDDLE HEP (100KW)

ACE (TRC)



- ix) Normal operation life of the hydro power plant shall be as per provisions of latest CWC/CEA guidelines or Central Electricity Regulatory Commission (CERC)/ Himachal Pradesh Electricity Regulatory Commission (HPERC) regulations.
- x) The statutory and administrative clearances as per Hydro Power Policy of HP Govt. for setting up of Micro Hydel Projects up to 100 kW in the state shall be obtained before implementation of the project.
- xi) For evacuation of power, 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 Developer.
- 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 Developer on this account shall be paid by the Developer to Himachal Pradesh State Electricity Board Limited (HPSEBL)/ Himachal Pradesh Power Transmission Corporation Limited (HPPTCL) as per the final decision of the competent authority.
- xiii) Whereas the HPSEBL/HPPTCL shall endeavour to provide the power 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 equipments as well as other electrical equipments to be provided by the Developer shall be compatible for parallel operation with the State grid after interfacing. The Developer 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 Developer to HPSEBL/HPPTCL throughout the period, the Developer runs the project and the same shall be reviewed at the beginning of every financial year.
- xvi) The power of Shanag Middle MHEP (100 kW) can be evacuated through existing 11 kV Burwa feeder by providing solid tap arrangement at 250 kVA, 11/0.4 kV DTR subject to following conditions :-
- a) The IPP shall bear the cost of construction of 11 kV dedicated HT line from power house to inter connection point and the inter connection facilities.
  - b) The IPP shall arrange necessary right of way for dedicated HT line and inter connection facilities. It shall also arrange land for inter connection facilities.
  - c) The IPP shall not be allowed any deemed generation benefits due to back down of power generation on account of system constraints.
  - d) The losses on account of wheeling of power upto the 33/11 kV substation Palchan shall be borne by the IPP.
  - e) The IPP shall provide appropriate protection arrangements as per CEA safety code at the inter connection point.
- xvii) The project line shall be provided, operated and maintained by the Developer at his cost as per normal conditions after obtaining approval of HP Govt. under Section 68(1) of Electricity Act, 2003.



- xviii) The Developer 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 Developer 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 SLDC, HP Load Dispatch Society, Shimla from compatibility point of view with existing Supervisory Control and Data Acquisition (SCADA) system.
- xix) The Hydro generating units shall be capable of generating up to 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.
- xx) The conditions on these lines shall have to be suitably included by the Developer in the PPA etc. apart from other standard conditions.
- xxi) The observations of DoE, GoHP on the DPR and replies thereof shall form an integral part of the DPR.
- xxii) Minimum 15% release of water immediately downstream of diversion structure shall be ensured all the times including lean season as per prevailing GoHP notification. The necessary monitoring equipment as prescribed by the Pollution Control Board for the same shall be installed by the IPP during execution of the project.
- xxiii) The levels as specified and approved shall strictly be adhered to for construction of project, also the riparian distances within upstream and downstream projects as per allotment of projects or any other project specific directions / conditions shall be maintained.
- xxiv) The proposed arrangement of laying Penstock with length 358 m should be designed w.r.t all necessary parameters of earth pressure/water pressure in empty/full condition, earthquake condition and with regard to all safety standards norms. The design should be vetted from an authorized & approved agency.
- xxv) LADF/LADC and local area development activities shall be applicable as per Hydro Power Policy of HP Govt. for setting up of Micro Hydel Projects upto 100 kW in the state.
- xxvi) The TC is based on the reports and data furnished by the Developer in the DPR and the relevant information provided therein. 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 scrutiny of DPR does not cover the examination of the detailed designs & working drawings of project components in regard to their structural, hydraulic and mechanical performance, safety and also of their positioning and fixing at site. This shall be ensured by the Developer as per standard norms & manuals.
3. The project shall be completed within 18 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 IPP's shall give free accessibility to the officers and representatives of DoE, Himurja and other relevant Govt. Departments, Commissions etc. 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 (IA) /Supplementary Implementation Agreement (SIA).
7. In case the time gap between the Technical Concurrence (TC) of the scheme and actual start of work on the project is three years or more, a fresh Concurrence shall be obtained from DoE, GoHP before start of actual work.
8. The DoE, GoHP reserve the right to revoke the TC, if the conditions stipulated above are not complied with to the satisfaction of the GoHP.

BY ORDER OF THE GoHP

*K. N. K. K.*  
Chief Engineer,  
Directorate of Energy, GoHP,  
New Shimla- 171009(HP).

No. DoE/CE(Energy)/TC-Shanag Middle/2021- 5679-88

Dated: 18/10/2021

Copy for kind information and necessary action please, to the:-

1. The Addl. Chief Secretary (MPP & Power) to H.P. Govt., Shimla-171002.
2. The Addl. Chief Secretary (NES) to H.P. Govt., Shimla-171002.
3. The Secretary, Ministry of Non-Conventional Energy Sources (MNES), Block No.14, CGO Complex, Lodhi Road, New Delhi-110003.
4. The Director, Environmental & Scientific Technologies, Narayan Villa, Near Wood Villa Palace, Shimla-171002.
5. The Deputy Commissioner, Distt. Kullu, Himachal Pradesh - 175101.
6. The General Manager, HPPTCL, Himfied Bhawan, Panjari, Below Old MLA Quarters, Shimla-171005.
7. The Chief Engineer (SP), HPSEB Ltd, Unam Bhawan, Dogra Lodge, Shimla-171004.
8. The Chief Engineer (SO), HPSEB Ltd, Vidyut Bhawan, Shimla -171004.
9. The Chief Executive Officer, Himurja, 8A-SDA Complex, Kasumpti, Shimla-171009.
10. M/s Prakash Chand, S/o Nokhu, V.P.O- Shanag, Tehsil Manali, Distt. Kullu, H.P.

*K. N. K. K.*  
Chief Engineer,  
Directorate of Energy, GoHP  
New Shimla-171009(HP).



## ANNEXURE-I

Shanag Middle MHEP (100 kW) in Distt. Kullu of Himachal Pradesh allotted to "M/s Prakash Chand, S/o Nokhu, V.P.O- Shanag, Tehsil Manali, Distt. Kullu, H.P."

ABSTRACT OF COST ESTIMATE

Sr.No.	Description of work	Cost (Rs. in lakh)	
(a)			
i)	Civil works i/c other Misc. expenses	103.24	} Price level Jan, 2021
ii)	Electro Mechanical Work	60.89	
iii)	Transmission Works	0.75	
	<b>Sub-total (a)</b>	<b>164.88</b>	
(b)			
i)	Interest During Construction (IDC)	9.75	
ii)	Escalation	4.73	
ii)	Financial Charges	1.82	
	<b>Sub-total (b)</b>	<b>16.30</b>	
	<b>Grand Total (a+b)</b>	<b>182.10 Lakh</b>	

(Rupees One Hundred Eighty Two Lakh and Ten Thousand only)

*K. Srinivas*  
Chief Engineer,  
Directorate of Energy, GoHP  
New Shimla-171009(HP).

*SP*  
*SEE (TEC)*

*[Signature]*

*[Signature]*  
Divisional Forest Officer  
Kullu Forest Division Kullu

SHANAG MIDDLE MHEP (100KW)

## ANNEXURE-II

Shanag Middle MHEP (100 kW) in Distt. Kullu of Himachal Pradesh allotted to "M/s Prakash Chand, S/o Nokhu, V.P.O- Shanag, Tehsil Manali, Distt. Kullu, H.P."

### SALIENT FEATURES

#### I. LOCATION

State	Himachal Pradesh
District	Kullu
Village	Near Shanag village
River/ Nallah	Halindi Stream, a Tributary of Beas river
Proposal	Diversion weir on Halindi Stream at El. 2135 m and Power House site on left bank of Halindi Stream at El 2102 m with Min. Tail Water Level at El 2100.00 m.
Accessibility	By Road 8 km from NH3 (near manali)
	By Rail 171 km (Joginder Nagar Railway station)
	By Air 57 km (Bhuntar Kullu)

#### Geographical Coordinates

• Weir	<b>Longitude</b> 77° 10' 3.85" E	<b>Latitude</b> 32° 17' 3.91" N
• Power House	77° 10' 16.53" E	32° 16' 59.82" N
SOI Topo sheet	52 H/3	

#### II. HYDROLOGY

Stream	Halindi
Tributary of	Beas river
Catchment area at diversion site	12.50 Sq. km.
Design discharge	0.42 cumecs
Design flood	73 cumecs
HFL	<b>Weir</b> El 2136.00 m
	<b>Power House</b> El 1999.50 m

#### III. PROJECT COMPONENTS:-

##### A. DIVERSION STRUCTURE/INTAKE

Type	RCC trench type weir
Size	7.00 m (L) x 0.75 m (W)
Depth	Varies from 0.50 m to 1.00 m
Design discharge	0.42 cumecs plus flushing and overloading discharge
Crest level at weir	El 2135.00 m
Type of Intake	Well Type
Size of Intake	1.50 m (L) x 1.00 m (W) x 3.24 m (D)

##### B. FEEDER PIPE (Intake to De- silting Tank)

Size	0.64 m $\phi$
Length	10.00 m
Design discharge	0.42 cumecs plus flushing and overloading discharge



Velocity 1.758 m/sec

**C. DESILTING CUM FOREBAY**

Type RCC Surface tank  
Size 10.00 m (L) x 2.50 m (W)  
Depth 3.24 m  
Design Discharge 0.42 cumecs plus flushing and overloading discharge  
Full Supply Level El. 2134.99 m  
Min. Draw Down Level El. 2133.91 m

**D. PENSTOCK**

Type Mild Steel fabricated pipe  
Number /size of main penstock One/ 490 mm  $\phi$   
Length of main penstock 358 m  
Plate Thickness Varies from 6 mm to 10 mm  
Material of steel liner IS: 2062 grade B

**E. POWER HOUSE**

Type Surface Power House  
Size 10.00 m (L) x 6.00 m (W) x 5.00 m (D)  
C/L of Jet El 2102 m  
Installed Capacity 100 kW  
Gross Head 32.99 m  
Net Head 29.02 m  
Power House Crane EOT crane

**TURBINE**

Type of Turbine Horizontal Shaft Francis Turbine  
Number 1 Nos.  
Rated capacity 100 kw (each)  
Rated Speed 800 rpm

**GENERATOR**

Type Synchronous  
Number 1 Nos.  
Rated capacity 100 kW (each)  
Power Factor 0.9 lag  
Rated Voltage 415 volts  
Rated Frequency 50 Hz  
Rated Speed 800 rpm  
Overloading Capacity 10%

**F. TAIL RACE**

Size 17.00 m (L) x 0.60 m (W)  
Slope 1 in 400  
Min. Tail Water Level El 2100.00 m

**G. Construction Period**

18 months

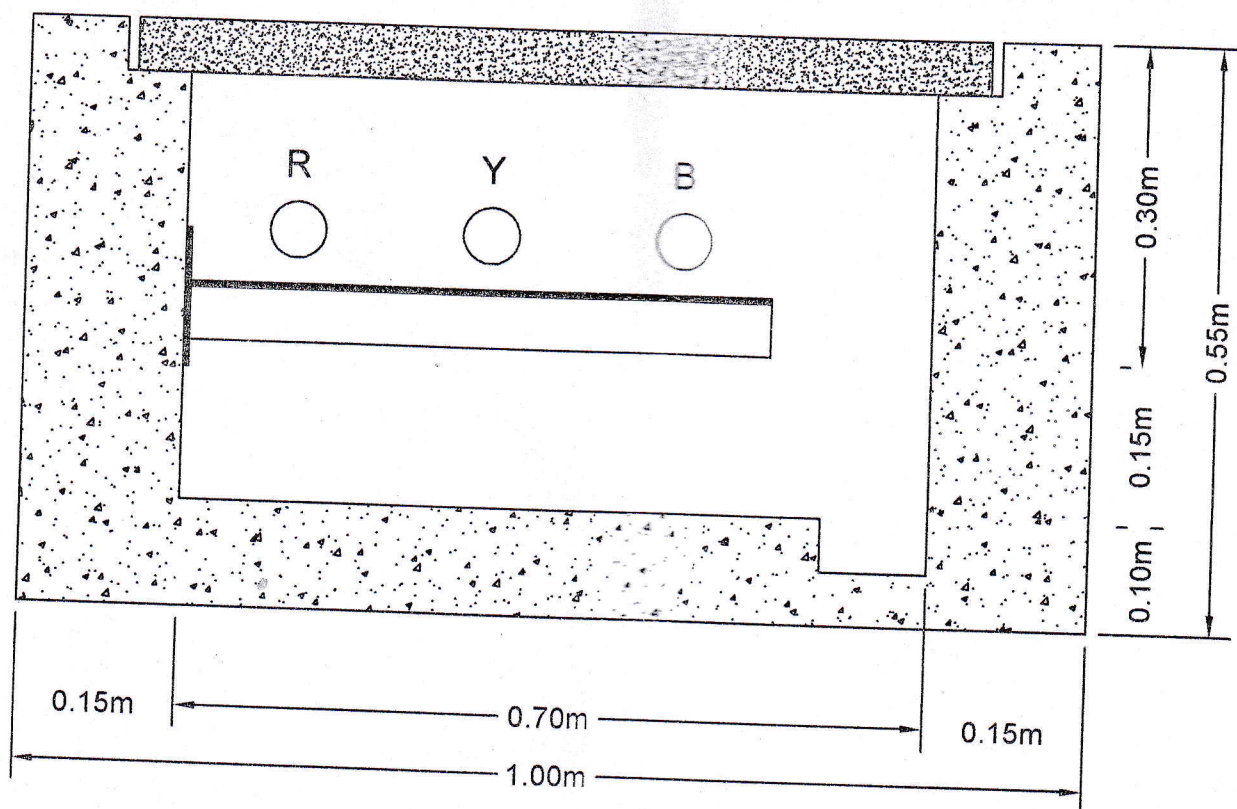
K. S. S. S.  
Chief Engineer,  
Directorate of Energy, GoHP,  
New Shimla-171009(HP).








Point No-5+ii  
iii)



Drawing for 11 Kv underground cable, 3 phase, single circuit trench details for Shanag Middle HEP (100KW)

  
SHANAG MIDDLE HEP (100KW)

  
Divisional Forest Officer  
Kullu Forest Division Kullu



# **DETAILS OF MUCK GENERATION, UTILIZATION AND DUMPING**

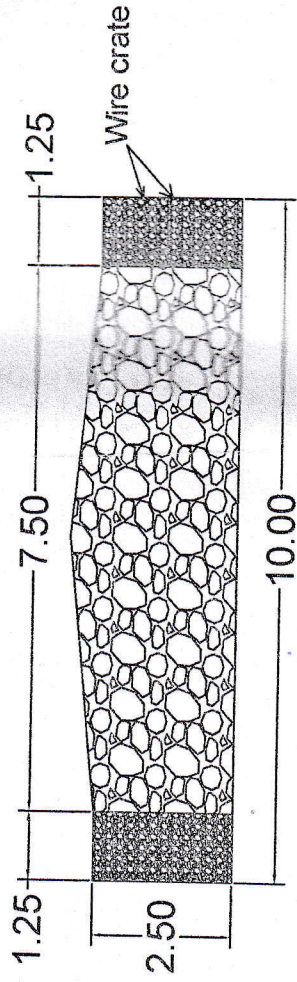
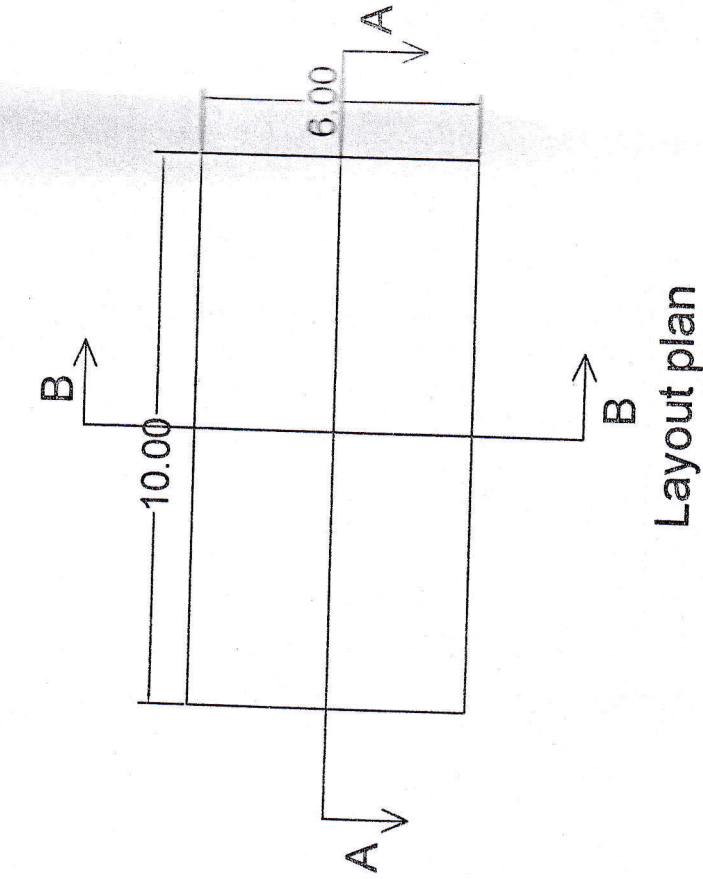
Project Name : Shanag Middle HEP (100KW)											
S.No	Name of Component	Length	Breadth	Height/ depth	Quantity of muck/debris generated (Cum)	Quantity of muck with 45% swell factor (Cum)	Total quantity of muck/debris including swell factor (Cum)	Estimated quantity of muck/debris proposed to be utilized (Cum)	Estimated quantity of muck/debris proposed to be dumped (Cum)	Capacity of dumping site (Cum)	Name of dumping site as shown in the plan
	1				2	3	4=(2 + 3)	5	6=(4 - 5)	7	8
											Muck dumping -4
1	Weir site	8.00	5.00	2.00	80.00	36.00	116.00	46.40	69.60	70.00	
2	Feeder pipe	19.00	1.00	0.30	5.70	2.57	8.27	3.31	4.96	200.00	Muck dumping -1
3	D-Tank	20.00	5.00	1.50	150.00	67.50	217.50	87.00	130.50		
4	Flushing pipe	15.00	1.00	1.00	15.00	6.75	21.75	8.70	13.05		Muck dumping-2
5	Penstock	175.00	1.00	0.30	52.50	23.63	76.13	30.45	45.68		
6	Penstock-1	183.00	1.00	0.30	54.90	24.71	79.61	31.84	47.76	250.00	Muck dumping-3
7	Power house	18.00	7.50	1.50	202.50	91.13	293.63	117.45	176.18		
									59.16		
8	Tailrace	17.00	2.00	2.00	68.00	30.60	98.60	39.44		570.00	
	Total				628.60	282.87	911.47	364.59	546.88		

*h.c.*  
Divisional Forest Officer  
Kullu Forest Division Kullu

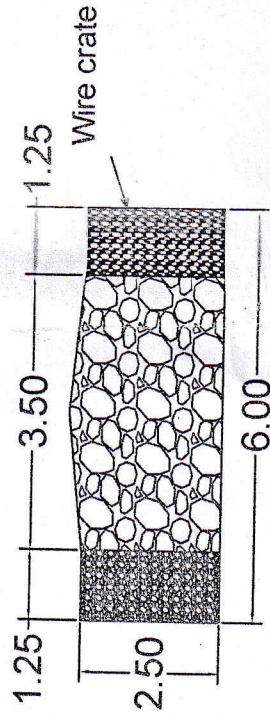
SHANAG MIDDLE HEP (100KW)



# Dumping site -4



Section A - A



Section B - B

SHANAG MIDDLE HEP (100KW)

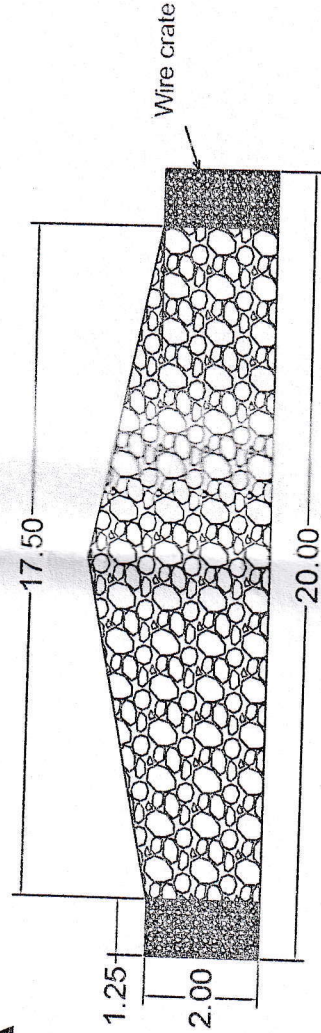
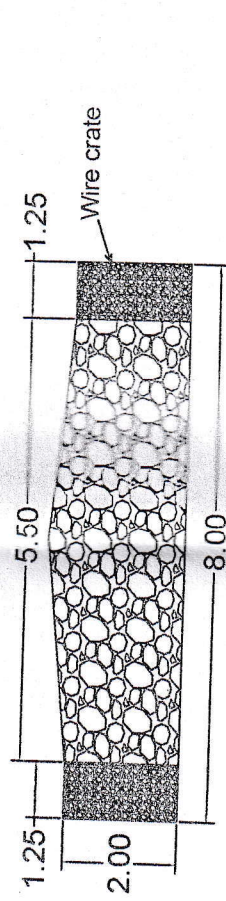
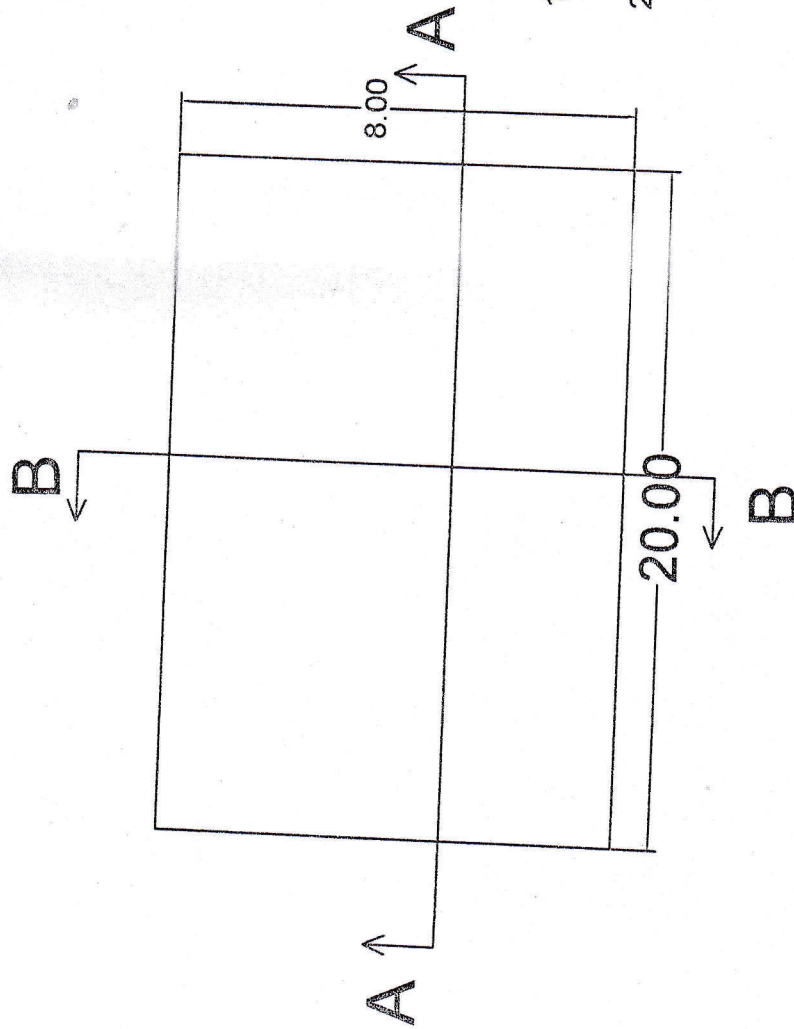
Divisional Forest Officer  
Kullu Forest Division Kullu

Project Name : Shanag Middle 100KW

Note : All dimensions are in meter  
Capacity of dumping site - 70 Cum



# Dumping site -1



Layout Plan

Section A - A

Provisional Forest Officer  
Kullu Forest Division Kullu

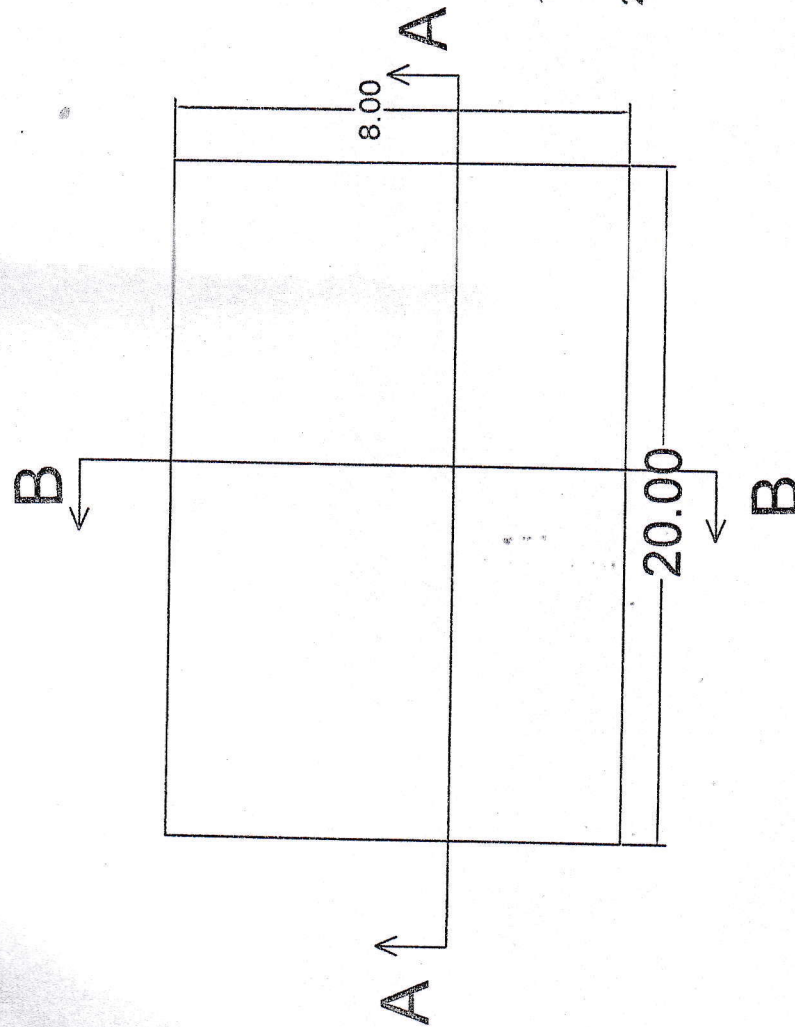
Project Name : Shanag Middle HEP 100KW

SHANAG MIDDLE HEP (100KW)

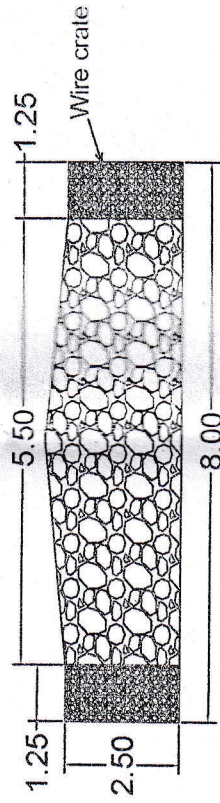
Note : All dimensions are in meter

Capacity of dumping site - 200 Cum

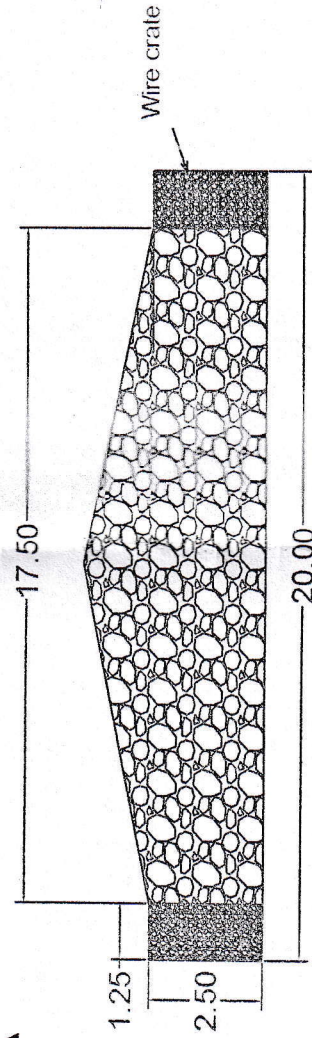
# Dumping site -3



Layout Plan



Section B - B



Section A - A  
Divisional Forest Officer  
Kullu Forest Division Kullu

Project Name : Shanag Middle HEP 100KW

SHANAG MIDDLE HEP (100KW)

Note : All dimensions are in meter  
Capacity of dumping site - 250 Cum



**Full Title of the Project:**

**Diversion of 0.1669 ha. Forest land in favour of Parkash Chand VPO Shang , Tehsil Manali , District Kullu , for the construction of Shanag Middle HEP (100 KW), within the jurisdiction under Manali Range, Kullu Forest Division Kullu District Kullu, Himachal Pradesh**

**BILL OF NET PRESENT VALUE**

In respect of Diversion of 0.1669 ha. Forest land in favour of Parkash Chand VPO Shang , Tehsil Manali , District Kullu , for the construction of Shanag Middle HEP (100 KW), within the jurisdiction under Manali Range, Kullu Forest Division Kullu District Kullu, Himachal Pradesh

Name of Project		Construction of Shanag Middle HEP (100 KW),					
Name of User Agency		Parkash Chand VPO Shang , Tehsil Manali , District Kullu					
Sr. No	Name of Forest	Location	Area involved Area in Ha.	Category of NPV	Category of rate for NPV	Rate (Rs.) Per ha.	Amount Net Payable
1.	Manali-III ( UPF)	Shanag beat, Manali Range	0.1669	Dense Forest	Eco Class-VI	1372410	229055
(Rs. Two Lakh Twenty Nine Thousand Fifty Five Only )							

Place: Kullu  
Date: 22/11/2022

  
Divisional Forest Officer,  
Kullu Forest Division, Kullu



Geo referenced layout plan of the forest land for the construction of Shanag Middle SHEP -100kW, being implemented by Sh. Prakash Chand in Vill- Shanag, Teh- Manali, Distt- Kullu, Total Forest Land = 0-16-69 Hec





77°10'15"E



77°10'15"E

