

No./ 1084
H.P. Forest Department.

From:- Divisional Forest Officer,
Churah Forest Division,
Salooni

To:- Sr.Executive Engineer,
Hydel Invest, Division HPSEBL,
Chamba Distt. Chamba (H.P)

Dated Salooni, the/ 4-6-2022

Subject:- Diversion of 11.9813 ha of forest land in favour of HPSEB. Ltd Chamba for construction of Sai-Kothi-II HEP(16.5 MW) within the jurisdiction of Churah Forest Division Distt. Chamba H.P.

Sir,

Please refer to Integrated Regional Office Shimla (MoEF) letter No. 8B/H.P/01/129/2019/ FC/dated 19-04-2022 on the subject cited above.

2 Conservator of Forests Central has accorded a In-Principal approval for diversion of 11.9813 ha of forest land in favour of HPSEB. Ltd Chamba for construction of Sai-Kothi-II HEP(16.5 MW) within the jurisdiction of Churah Forest Division Distt. Chamba H.P. subject to the compliance of realization of funds as under:-

Sr. No.	Detail of Component	Amount	Remarks.
1	Net Present Value	1,28,13,641-00	To be deposited in CAMPA Head.
2	Compensatory Afforestation	52,20,917-00	
3	Cost of CAT Plan	2,24,23,500-00	
4	17.5% Departmental Charges on CA	8,70,153-00	To be deposited as Forest Remittance in 0406-01-800-18.
5	Value of trees	1,59,84,705-00	To be deposited as Forest Remittance in 0406-01-800-15.
	Total	5,73,12,916-00	

You are therefore requested to deposit the above amount of Rs. 4,04,58,058-00 (Four crore four Lakh fifty eight thousand and fifty eight) only into CAMPA Head through generating E-Challan Rs.8,70,153-00 (Eight lakh seventy thousand one hundred fifty three) only as a forest remittance into 0406-01-800-18 and Rs.1,59,84,705-00 (One crore fifty nine lakh eighty four thousand seven hundred and five only) also as a forest remittance into 0406-01-800-15. Beside this you are also requested to submit the point wise compliance report to each stipulation as desired by MOEF vide above referred communication. So that further necessary action to obtain the stage-II approval of the case could be initiated. Photocopy of NPV bill, C.A and value of trees are enclosed for ready reference please.

Encl:- As above.


Divisional Forest Officer,
Churah Forest Division,
Salooni

*Drawing branch
to upload on penवेश portal*

BIL FOR NET PRESENT VALUE.

CALCULATION OF NET PRESENT VALUE FOR DIVERSION OF 11.9813 HA.FOREST LAND TO BE DIVERTED UNDR FCA-1980 FOR THE CONSTRUCTION OF SAI-KOTHI-II HEP IN FAVOUR OF HYDEL INVESTIGATION DIVISION CHAMBA DISTT. CHAMBA (H.P) WITHIN THE JURISDICTION OF CHURAH FOREST DIVISION.

Classification of land being diverted into various ECO classes as per Hon'ble Supreme Court directions.

Nature of forests	Area being diverted		Classification as per Champion and Seth									Eco value class.
Shalli DPF,Kardeu & Khakhri DPF	11.9813		Himalayan Moist Temperate Forest.									VI
Trees coming in the land to be diverted	U/V	V	IV	III	IIA	IIB	IA	IB	IC	ID	IE	TOTAL
	71	291	250	150	63	21	10	7	4	5	6	878
Trees upto III												612
Trees of III and above class												266
Total mature trees(nationally) after conversion of 2 trees of below IIIrd class into one mature class												572
Per Hac. Number of trees												48.0
Percentage Density												12%
Density Class												VI
Calculation of NPV												
Name of Forest	Area to be diverted		ECO Class	Density Class	NPV rate applicable		Amount Rs.					
Shalli DPF,Kardeu & Khakhri DPF	11.9813		VI	VI	1069470-00		12813641-00					


 Divisional Forest Officer,
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REVISED BILL OF COMPENSATORY AFFORESTATION TO BE CARRIED OUT IN LIEU OF 11.9813 HA OF FOREST LAND INCLUDING PROVISION FOR 10 YEAR MAINTENANCE OF FOREST LAND INCLUDING NURSERY COST IN FAVOUR OF HYDEL INVESTIGATION DIVISION, HPSEB CHAMBA DISTT. CHAMBA (H.P) WITHIN THE JURISDICTION OF CHURAH FOREST DIVISION DISTT. CHAMBA HP.

YEAR	Area in Ha.	Rate per ha. including nursery cost	Total Amount.
(A):-0 Year	24 ha	107945	2590680-00
(B):- At the rate 25% planting cost.			647670-00
1 st Year	24 ha	16386	393264-00
2 nd Year	24 ha	10990	263760-00
3 rd Year	24 ha	5609	134616-00
4 th Year	24 ha	5609	134616-00
5 th Year	24 ha	5609	134616-00
6 th Year	24 ha	5609	134616-00
7 th Year	24 ha	5609	134616-00
8 th Year	24 ha	5609	134616-00
9 th Year	24 ha	5609	134616-00
10 th Year	24 ha	5609	134616-00
Total (A+B)			4972302-00
Add 5% contingency			248615-00
Sub Total			5220917-00
Add 17.5 % Departmental Charges			870153-00
G.Total			6091070-00


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CALCULATION COST OF CAT PLAN

Sr. No.	Total cost of the project as per "Salient Features" of project (Photocopy enclosed). (In Rupees)	Outlay of CAT Plan @ 1.5% of the total project cost as per latest govt. notification (photocopy enclosed). (In Rupees)
1.	1494900000.00	22423500.00
Total cost of cat plan (In Rupees)		22423500.00


Sr Executive Engineer,
Hydel Invest.Division,
HPSEBL,Chamba.

Government of Himachal Pradesh
Forest Department.

No. FFE-B-F-(5)-9/2017

Dated: Shimla-2, 21st November, 2019

NOTIFICATION

In partial modification of the earlier Notification No. FFE-B-F(2)-72/2004-Pt.-II dated 30-09-2009, the Governor, Himachal Pradesh is pleased to revise the outlay of Catchment Area Treatment Plan from existing 2.5% to 1.5% of the total project cost for all the Hydro Electric Projects having capacity above 10MW in Himachal Pradesh. The remaining terms as mentioned in the aforesaid Govt. of H.P. Notification No. FFE-B-F(2)-72/2004-Pt.-II dated 30-09-2009 shall remain the same.

The revised outlay shall become applicable to all the Catchment Area Treatment Plan(s) which shall be submitted by the User Agencies to the Forest Department on or after the date of issue of this notification.

By Order,

Ram Subhag Singh

Addl. Chief Secretary (Forests) to the
Government of Himachal Pradesh.

Endst. No. As above Dated, Shimla-2 the 21st November, 2019

- 1 All Administrative Secretaries to the Government of Himachal Pradesh.
- 2 The Pr.CCF(HoFF) Shimla-1. He is requested to circulate this notification to all the CCFs/CFs/DFOs(WL.&T) in H.P.
- 3 The Pr.CCF(W.L) Tulland, Shimla-1.
- 4 The APCCF-cum-Nodal Officer(FCA) Tulland Shimla.
- 5 The Under Secretary (GAD) to the GoHP w.r.t Cabinet Item No. 22 dated 18-11-2019.
- 6 The Private Secretary to the Chief Minister, Himachal Pradesh.
- 7 The Private Secretary to the Forest Minister Himachal Pradesh.
- 8 The Private Secretary to the Chief Secretary to the GoHP.
- 9 Guard File.

S/ FCA
APCCF (FCA)
22/11

(Sat Pal Dhiman) 21-11-2019
Joint Secretary (Forests) to the
Government of Himachal Pradesh.

SALIENT FEATURES

1 LOCATION

State	Himachal Pradesh
District	Chamba
River/ Stream	Baira nallah, a tributary of river Suil and sub-tributary of river Ravi.
Vicinity	Intake structure on tail race outfall of Sai Kothi HEP-17 MW, at El. \pm 1219m near village Shali and Power House on the right bank of Joiner khad near village Khakri, just u/s the confluence of Baira nallah with Joiner Khad, in Teh. Tissa, Distt. Chamba (HP).

2 HYDROLOGY

Catchment area at diversion site of Sai Kothi HEP-17 MW	390 Sq. Km
Snow catchment	70 Sq. Km
90 % available discharge at diversion site	5.02 cumecs
75% available discharge at diversion site	7.22 cumecs
50% available discharge at diversion site	13.88 cumecs
Design discharge	23.30 cumecs
Availability corresponding to design discharge	22.51 %
Design flood at diversion site	\pm 1800 cumecs

3 DIVERSION CUM INTAKE STRUCTURE

APPROACH CHANNEL

Type	Trapezoidal, open channel from tail race outfall of Sai Kothi HEP -17 MW
Size 1(V)	Base width 12.60 m with side slope 2(H):
Length	28.90 m
Slope	1: 400

BALANCING RESERVOIR

Storage capacity	3362.29 cum
Full Supply Level (FSL)	El.1218.75m
Minimum Draw Down Level (MDDL)	El.1215.75m
Top level	El.1220.00 m

SPILLING ARRANGEMENT

Crest length	14 m
Crest level	El.1218.75m

4 WATER CONDUCTOR SYSTEM

FROM R.D. 0.00 M TO R.D. 4423.91 M

Type	Modified horse shoe shaped, concrete lined tunnel.
Size	3.50 m dia, finished
Length	4405.91m
Design discharge	23.30 cumecs
Slope	1:145.91

AQUEDUCT (At R.D. 1781.32 m)

Type	Pipe aqueduct, circular
Size	3.50 m dia.
Length	± 18 m

5 SURGE SHAFT

Type	Restricted orifice type, underground, open to sky
Size and shape	9 m dia, circular
Height	60 m
Max. Surge Level	El. 1234.45 m
Min. Surge Level	El. 1188.75 m
Orifice dia	1.50 m
Adit to Surge shaft, HRT and Pressure shaft	4.00m x 6.00m D-shaped, ±480 m long

6 PRESSURE SHAFT

Type	Underground
Main: (1 No.)	
Diameter	2.60 m
Length	± 88 m
Type & thickness of steel liner	ASTM- A-516- Grade-60, thickness varies from 8 mm to 16 mm
Branches: (3 Nos.)	
Diameter	1.40 m
Length	± 66 m
Type & thickness of steel liner	ASTM- A-516- Grade-60, thickness 10 mm

7 POWER HOUSE

Type	Underground
Installed capacity	16.50 MW (3x5.50 MW)
Size of Power house	49.60 m x 9 m x 28 m
Type of turbine	Francis, vertical shaft
C/L of turbine	El. 1123.40 m
Service bay level	El. 1131.20 m
Erection bay floor level	El. 1131.20 m
Generating units	3 units of 5.50 MW each
Max. TWL	El.1126.65 m
Nor. TWL	El.1125.00 m
Min. TWL	El.1123.00 m
Gross head	93.75 m
Net head	81.75 m
Main access tunnel	5.40 m dia, D-shaped, ± 68 m long
Cable cum ventilation tunnel	3.50m x 4.00m D-shaped, ±365m long

8 TAIL RACE TUNNEL

Type	Underground
Size & shape	3.50 m dia, D-shaped
Length	± 119 m

9 ENERGY GENERATION

Annual energy generation in:

75% dependable year 75.57 Gwh

50 % mean year 88.82 Gwh

10 COST ESTIMATE (Dec, 2009 Price level)

Capital cost of the project

Civil works	Rs. 87.67 Crores
Electrical works:	
P- Production	Rs. 58.00 Crores
T- Transmission	Rs. 3.82 Crores
Capital cost of Generation	Rs. 145.67 Crores
Capital cost of Generation & Transmission	Rs. 149.49 Crores

11 FINANCIAL ASPECTS

Cost of generation per MW of Installed capacity	Rs. 8.83 Crores
In 75 % dependable year:	
First year tariff at P.H. bus bars	Rs. 5.06 per unit
First year tariff at purchase center	Rs. 5.34 per unit
Levellized tariff at P.H. bus bars	Rs. 3.77 per unit
Levellized tariff at purchase center	Rs. 3.96 per unit

12 CONSTRUCTION PERIOD 4 Years

CALCULATION OF VALUE OF TREES.

Sr. No.	Specy	No of trees	Volume	Rate for the year 2021-22	Rate for the year 2022-23 by increasing 10% at the rate for the year 2021-22	Value as per the rates for 2022-23	Total
1	Chil	369 Nos	264.98 m3	41976/-	46174-00	12235187-00	12235187-00
2	Obl	509 Nos.	278.34 m3	12246/-	13471-00	3749518-00	3749518-00
3	Total	878 Nos				15984705-00	15984705-00

(Rs. One cror fifty nine lac eighty four thousand seven hundred five only.)


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