

No./ 2548
H.P. Forest Department.

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

To:-- Addl. Superintending Engineer,
Project Const. Division No. 1 HPSEBL, Tissa
Chamba Distt. Chamba (H.P.)

Dated Salooni, the/ 12-08-2022

Subject:- Diversion of 9.739 ha of forest land in favour of HPSEB. Ltd for construction of
Devi-Kothi HEP (16.00 MW) within the jurisdiction of Churah Forest Division Distt.
Chamba H.P.

Sir,

Please refer to Integrated Regional Office Shimla (MoEF) letter No.
08B/H.P/01/116/2019/ FC/dated 06-2022 & this office letter No.2252 dated 16-07-2022 on the
subject cited above:

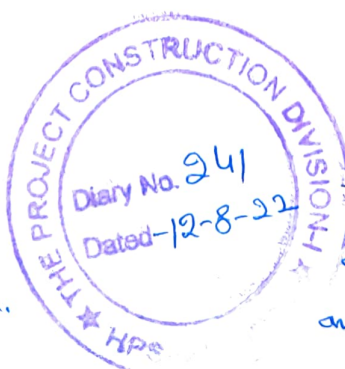
2 Conservator of Forests Central has accorded a In-Principal approval for diversion
of 9.739 ha of forest land in favour of HPSEB. Ltd Chamba for construction of Devi-Kothi
HEP(16.00MW) within the jurisdiction of Churah Forest Division Distt. Chamba H.P. subject to the
compliance of realization of funds as under:-

Sr. No.	Detail of Component	Amount	Remarks.
1	Net Present Value	10415568-00	To be deposited in CAMPA Head.
2	Compensatory Afforestation	4242000-00	
3	Cost of CAT Plan	15633000-00	
4	17.5% Departmental Charges on CA	707000-00	To be deposited as Forest Remittance in 0406-01-800-18.
5	Value of trees	3615162-00	To be deposited as Forest Remittance in 0406-01-800-15.
	Total	34612730-00	

You are therefore requested to deposit the above amount of Rs. 3,02,90,568-
00 (Three crore two Lakh ninety thousand five hundred and sixty eight) only into CAMPA Head
through generating E-Challan Rs.7,07,000-00 (Seven lakh seven thousand) only as a forest
remittance into 0406-01-800-18 and Rs.36,15,162-00 (Thirty six lakh eighty fifteen thousand one
hundred sixty two 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.

DB
PC-2
7/8/22




Divisional Forest Officer,
Churah Forest Division,

HPSEBLtd.


No: HPSEBL/PCD-1/DB-FCR/2022

Copy to the AE, PCSD-I, II, III for information

and necessary action please.
Addl. Superintending Engineer,
Projects Const. Division No. 1
HPSEB Ltd. Tissa Distt. Chamba (H.P.)

REVISED BILL OF COMPENSATORY AFFORESTATION TO BE CARRIED OUT IN LIEU OF 9.739 HA OF FOREST LAND INCLUDING PROVISION FOR 10 YEAR MAINTENANCE OF FOREST LAND INCLUDING NURSERY COST IN FAVOUR OF HPSEB Ltd, TISSA 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	19.500 ha	107945	2104928-00
(B):- At the rate 25% planting cost.			526232-00
1 st Year	19.500 ha	16386	319527-00
2 nd Year	19.500 ha	10990	214305-00
3 rd Year	19.500 ha	5609	109376-00
4 th Year	19.500 ha	5609	109376-00
5 th Year	19.500 ha	5609	109376-00
6 th Year	19.500 ha	5609	109376-00
7 th Year	19.500 ha	5609	109376-00
8 th Year	19.500 ha	5609	109376-00
9 th Year	19.500 ha	5609	109376-00
10 th Year	19.500 ha	5609	109376-00
Total (A+B)			4040000-00
Add 5% contingency			202000-00
Sub Total			4242000-00
Add 17.5 % Departmental Charges			707000-00
G.Total			4949000-00



Divisional Forest Officer,
Churah Forest Division,
Salooni

BIL FOR NET PRESENT VALUE.

CALCULATION OF NET PRESENT VALUE FOR DIVERSION OF 9.739 HA.FOREST LAND TO BE DIVERTED UNDR FCA-1980 FOR THE CONSTRUCTION OF DEVIKOTHI (16.00 MW) HEP IN FAVOUR OF HPSEB.LTD 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.
Sapranjla,Banjai, Laddan,Galua and Chalunj-2 DPF.	9.739	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
	44	152	119	50	17	11	3	2	1	0	6	405
Trees upto III												315
Trees of III and above class												90
Total mature trees(nationally) after conversion of 2 trees of below IIIrd class into one mature class												247.50
Per Hac. Number of trees												25.0
Percentage Density												6%
Density Class												VI
Calculation of NPV												
Name of Forest	Area to be diverted	ECO Class	Density Class	NPV rate applicable		Amount Rs.						
Sapranjla,Banjai, Laddan,Galua and Chalunj-2 DPF.	9.739	VI	VI	1069470-00		10415568-00						


Divisional Forest Officer, TIL
Churah Forest Division,
Salooni

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.	1042200000.00	15633000.00
Total cost of CAT Plan (In Rupees)		15633000.00

Sharma
J.E.

AS
Sr. Executive Engineer
Projects Const. Division No -1
HPSEB Ltd. Tissa Distt. Chamba (H.P.)
P. Singh
J.E.

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.
21st November, 2019

Endst. No. As above Dated, Shimla-2 the

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(WI.&T) in H.P.

3 The Pr.CCF(W.L) Talland, Shimla-1.

4 The APCCF-cum-Nodal Officer(FCA) Talland 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.

(Sat Pal Dhillon) 21-11-2019

Joint Secretary (Forests) to the
Government of Himachal Pradesh.

S/FCA
APCCF(FCA)
22/11

CHECK LIST NO.- 3**DETAIL NOTE ABOUT THE PROJECT****Background**

In order to create additional capacity in state sector to meet the ever increasing demand for power, Govt. of Himachal Pradesh has allotted construction of Devi kothi Hydro Electric Project(16.00MW) to Himachal Pradesh State Electricity Board Ltd vide letter no. MPP(F)2-7/2010 GOVT. OF H.P, department of MPP & Power dated Shimla-2, the 06-04-2013. In pursuant to above field investigation and survey has been taken up by the Projects Construction Division No.1, HPSEBL Tissa, Chamba and the land required to be acquire for the construction of Devi-Kothi-HEP (16.00) M.W coming in the alignment of the scheme for development of the project has been prepared i.e forest land to the extent of 9.739 hect and private land 0.4469 hect. and is now proposed to acquire the land in question .

Forest Land in Project area

The forest land is required for the construction of Devi-Kothi-HEP (16.00 MW) forest land involved for the construction of project area is approximately 9.739 Ha.

Project Location:-

The project has been located in district Chamba of Himachal Pradesh on Balsio Nallah a tributary of river Ravi. The Intake structure on Balsio nallah at EL \pm 1815.40 m at about 50m d/s the confluence of cheni & chhawed nallahs and Power House on the right bank near village sanole at EL \pm 1645.00m


Project Cost and Energy Output:-


The Devi- Kothi hydro electric project (16.00MW) will generate the electricity free from any type of environmental pollution. The natural water of Balsio Nallah will be used as raw material for generation of electric power. The cost estimate of the project (based on June, 2014 price level) is to the tune of Rs 104.22 Crores. The construction of the project has been proposed to be completed within 4 years.

Benefits of the Project:-

The revenue has been assessed assuming Power Tariff for supply of Power House bus bars Rs. 3.37/unit for 55.31 million units per year for 75 % dependable year as ` 18.64 Cr/year which will increase the national income

Authorized Signatory


Assistant Engineer,
PCSD-I, HPSEBL,
Tissa Chamba.


Sr. Executive Engineer
Projects Construction Division No.1
HPSEBL, Tissa Chamba.

SALIENT FEATURES

1 LOCATION

State	Himachal Pradesh
District	Chamba
River/ Stream	Balsio nallah, a tributary of Baira nallah and a sub-tributary of river Ravi
Vicinity	Diversion on Balsio nallah at El. $\pm 1815.40\text{m}$ at about 50m d/s the confluence of Cheni & Chhawed nallahs and Power House on the right bank near village Sanole at El. $\pm 1645.00\text{ m}$

2 HYDROLOGY

Catchment area at diversion site	152.25 Sq. Km
90 % available discharge at diversion site	1.90 cumecs
50% available discharge at diversion site	5.39 cumecs
Design discharge	11.50 cumecs
Availability corresponding to design discharge	9.15 %
Design flood at diversion site	1203 cumecs

3 DIVERSION STRUCTURE

Type	Trench Weir, raised
Stream bed elevation	El. 1815.40 m
Size	24.00 m x 2.50m
Design discharge i/c flushing discharge	17.42 cumecs
Trash rack elevation	1817.00 m

Shingle Flushing System

Type	C.I. Pipe
Length	50 m
Size	1.05 m dia

DESILTING TANK

Type	Vortex type, surface
Dia. of Tank	22.00 m
Dia. of Orifice	1.00 m
Size of particles to be removed	Down to 0.20 mm size
Crest length of spill weir	10.00 m
Crest Elevation	El. 1815.96 m

FEEDER CHANNEL TO DESILTING TANK

Type	Rectangular, open channel
Size	4.40 m wide
Length	21.00 m
Slope	1:55✓

SILT FLUSHING SYSTEM

Type	C.I. Pipe
Size	1.00 m dia
Length	21.00 m

5 WATER CONDUCTOR SYSTEM: CONNECTING CHANNEL

Type	Rectangular, open channel
Length	25 m
Size (Finished)	3.00m x 3.00m

HEAD RACE TUNNEL

Type	D-shaped, concrete lined
Size (Finished)	3.00 m dia
Length	2670 m
Bed slope	1: 655
Water depth	2.25 m

ADIT (AT RD 1270 m)

Shape	D-Shaped
Length	200m
Size	3.00 m dia.

6 FOREBAY/SURGE SHAFT

Type	Surface
Size	65.00 m x 25.00 m
Full supply level	El. 1810.05 m
Minimum draw down level	El. 1806.00 m
C/L of penstock	El. 1804.60 m

Capacity	3450 cum
Peaking storage	5 minutes

7 PENSTOCK

Type	Surface, circular steel penstock
Main	1 No., 1.70 m dia, 280 m long
Branches	3 Nos., 1.00 m dia, 60 m long
Velocity	5.07 m/sec
Type & thickness of steel liner	ASTM- A-516, Grade-70, thickness varies from 8 mm to 16 mm

8 POWER HOUSE

Type	Surface
Size	46.00 m x 15.00 m x 15.80 m
Type of turbine	Francis, horizontal axis
C/L of turbine	El. 1645.89 m
Service bay level	El. 1652.00 m
Generating units	3 Nos. of 5.33 MW each
Gross Head	165.00 m
Net Head	160.00 m
Installed capacity	16.00 MW

9 TAIL RACE

Type	Open, rectangular
Size	3.00 m x 3.20 m
Length	75.00 m
Min. TWL	El. 1644.50m
Nor. TWL	El. 1645.00 m

10 ENERGY GENERATION

Annual energy generation in:

75% dependable year	70.15 Gwh
50% mean year	73.85 Gwh

11 COST ESTIMATE (March, 2013 Price level)

Capital Cost of the Project:

Civil works	Rs. 68.20 Crores
Electrical works:	
P- Production	Rs. 34.69 Crores

T- Transmission	Rs. 1.33 Crores
Capital cost of Generation	Rs. 102.89 Crores
Capital cost of Generation & Transmission	Rs. 104.22 Crores

12 FINANCIAL ASPECTS

Cost of generation per MW of installed capacity	Rs. 6.51 Crores
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In 75 % dependable year:


First year tariff at P.H. bus bars	Rs. 5.19 per unit
First year tariff at Purchase centre	Rs. 5.41 per unit
Levellized tariff at P.H. bus bars	Rs. 3.75 per unit
Levellized tariff at purchase centre	Rs. 3.90 per unit

13 CONSTRUCTION PERIOD 4 Years

CALCULATION OF VALUE OF TREES.

Sr. No.	Specie	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
	Deodar	10 Nos	4.28 m3	84683/-	93151-00	398686-00	398686-00
1	Kail	1 No	0.57 m3	61669/-	67836-00	38667-00	38667-00
2	Obl	394 Nos.	235.90m3	12246/-	13471-00	3177809-00	3177809-00
3	Total	405 Nos				3615162-00	3615162-00

(Rs. Thirty six lac fifteen thousand one hundred sixty two only.)

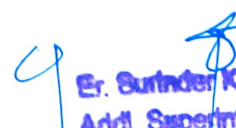

 Divisional Forest Officer,
 Chitwan Forest Division
 Salooni, Chitwan (H.P.)

H.P. STATE ELECTRICITY BOARD LTD.

No 40000/PCD-1/PCA-2019/2022-650-53 dt 16-7-2022

Gty to Mr. J. K. Singh :-

1. Pl. Subordinate Engineer, Planning (Circular) H.P.S.E.B. for information please.
2. Gty to Assistant Engineer, Project Construction & Planning - I-II-III H.P.S.E.B. for information and necessary action please.


 Er. Surinder Kumar
 Addl. Superintending Engineer
 Projects Const Division No. 1
 HPSEB Ltd. Tissa Dist. Chitwan (H.P.)