

Phone :01892-224959 FAX 01892-228029

e- mail:cfdharamshala@yahoo.in

From: -

CCF Dharamshala

Dated: Dharamshala, the 13/6/23

Po: - Nodal Officer-Cum-APCCF(FCA) O/o Pr. CCF (HoFF) HP. Shimla.

Subject:

Diversion of 0.6806 ha. of forest land in favour of Sanjeev Hydro Projects Private Limited, VPO Sauhora, Tehsil & District Kangra, H.P. for the construction of Lower Iku Small Hydro Project, within the jurisdiction of Dharamshala Forest Division, District Kangra H.P. (Online Proposal No. FP/HP/HYD/41472/2019).

Memo:

Kindly refer to the points discussed in Minutes of 16th Meeting of Regional Empowered Committee of Integrated Regional Office, Shimla held on 21st February, 2023, Agenda item No. 3on the subject cited above.

2. The point wise reply of the observations submitted by DFO Dharamshala is as under:-

Sr. No.	Query / Observation	Reply
1.	State Government shall submit proper justification of proposing many number of dumping sites.	The justification for proposing 7 (seven) number of Dumping Sites has been uploaded by the User Agency against Additional Information Detail in Online Part I and same is enclosed herewith.
2.	The documentary proof regarding the possession of CA Land with Forest Department is required to be submitted.	The copy of Working Plan of Compartment No. UP 145 K Dhar Narwana in Malan Forest Range has been uploaded against Additional Information in Online Part-II.
3.	State Government shall provide the balance CA area for Plantation of 1362 plants in 1.36 ha area along with all required documents / maps etc.	The Revised Location Map of CA Land, Geo Reference Map, CA Scheme for 1362 Plants and Land Suitability Certificate has been uploaded against Additional Information in Online Part- II and same is enclosed herewith.
4.	State Government shall provide approved copy of study on "Assessment of Environmental Management Systems and Implementation Capacity" carried out by Department of Environment, Science and Technology regarding mitigation measures to be adopted in Small Hydro Electric Projects upto 25 MW alongwith an undertaking from User Agency duly authenticated by concerned DFO to comply the mitigating measures suggested in the aforesaid study.	As submitted by the User Agency, the letter from Department of Environment, Science and Technology regarding mitigation measures to be adopted in Small Hydro Electric Projects upto 25 MW, alongwith undertaking to comply with the mitigation measures as suggested in the aforesaid study has been uploaded against Additional Information Detail in Online Part- I and same is enclosed herewith.

It is therefore, requested that necessary approval for the diversion of 0.6806 ha of forest land for the construction of above mentioned project may kindly be obtained from Govt. of India under Forest (Conservation) Act, 1980 and conveyed to this office. Encl: As above.

Chief Conservator of Forests, Dharamshala Circle, H.P. E-mail:cfdharamshala@yahoo.in

Phone No. 01892-224959

FILE NO.

: FP/HP/HYD/41472/2019

DATE OF PROPOSAL:

JUSTIFICATION REGARDING DUMPING SITES

The Lower Iku Small Hydro Project is a run-off river scheme. The components to be constructed are not connected with road facility, so the muck generated cannot been transported to a particular site. The Dumping Sites as required have been proposed in the adjoining area of the component. The muck generated shall be disposed-off in a planned manner. The proposed Dumping Sites will be protected by constructing Retaining walls and no muck shall be disposed-off in the forest land or rolled down on hill side. The Reclamation of the Dumping Sites will be done in a planned manner. Plantation of suitable local species will be done with consultation of Forest Department, before handing over the said land to Forest Department.

For M/s Sanjeev Hydro Projects (P) Ltd.

Authorised Signatory

Place: Dharamshala Dated: 09-05-2023

Countersigned by:

Divisional Porest Officer Dharamshala Forest Division Dharamshala Forest Division

Dharamshala

FILE NO.

: FP/HP/HYD/41472/2019

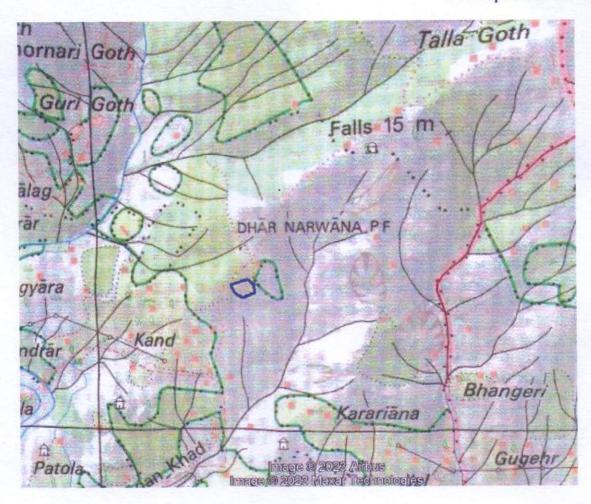
DATE OF PROPOSAL

CHECK LIST SERIAL NUMBER: - 16

LOCATION MAP

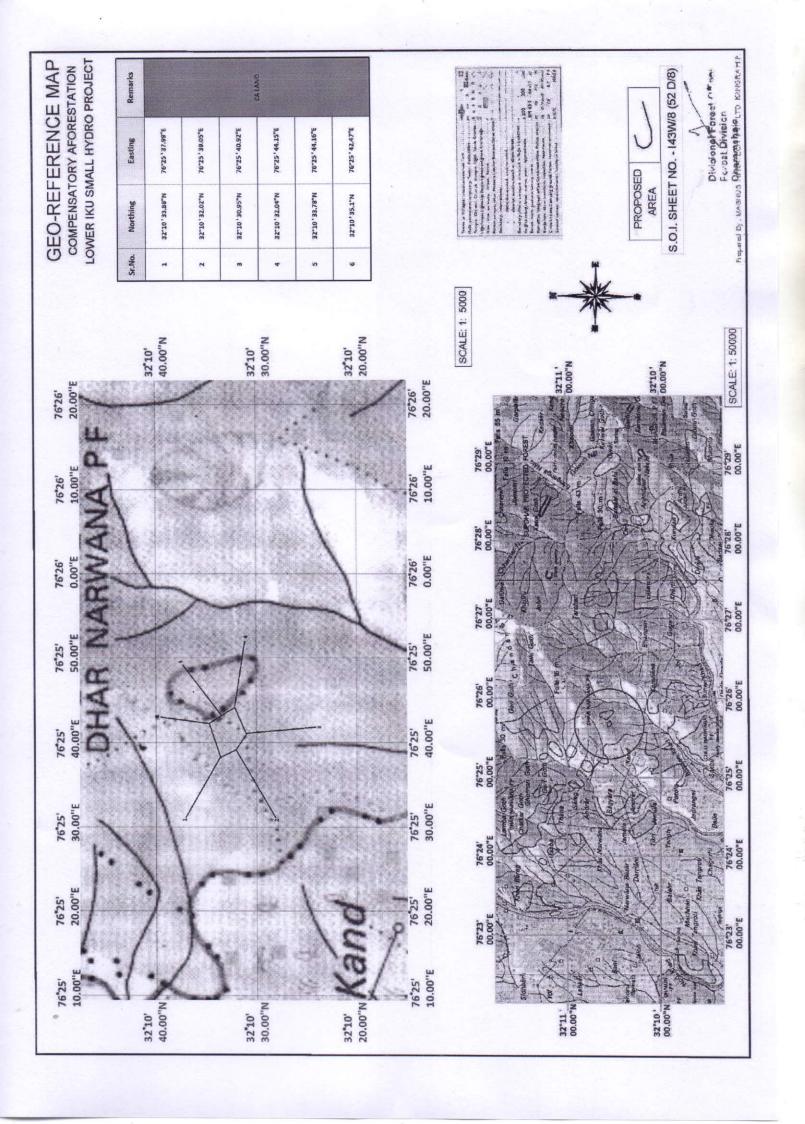
Location Map of degraded forest Area identified for Compensatory Afforestation in lieu of proposal for diversion of 0.6806 ha. of forest land for construction of Lower Iku SHP 1 MW in District Kangra. Name of Forest – UP 145-K Dhar Narwana, Malan Forest Range, Dharamshala Forest Division Area 1.36 ha for Planting of 1360 number of plants.

SOI Topo Sheet No. 52 D/8



Area to be taken for Compensatory Afforestation.

Divisional Forest Officer Divisional Forest Division Divisional Division Divisional Division



FILE NO.

: FP/HP/HYD/41472/2019

DATE OF PROPOSAL:

CHECK LIST SERIAL NUMBER: - 17 "SCHEME FOR COMPENSATORY AFFORESTATION"

Detail scheme for Compensatory Afforestation for Plantation of 1362 number of Plants in 1.36 ha area, to be carried out in lieu of 0.6806 ha. of forest area to be diverted for the construction of Lower Iku Small Hydro Project (1 MW) in District Kangra.

Detail of degraded forest land /non-forest land:

District Kangra: UP 145 K Dhar Narwana

Tehsil: Dharamshala

Name of Division: Kangra

Range: Mallan

Area to be afforested - 1.36 Hac.

2. Description of Area

a.	Whether the site selected for Compensatory Afforestation is a land bank or not	Land Bank
b.	If the CA site is other than the land bank, reasons be given	Not Applicable
c.	In case of non- forest area identified for CA, then what is the distance of CA site from the adjoining forest boundary	Not Applicable
d.	Soil type	Sandy Loam
e.	Topography: a.) Hilly/Undulating /Plain b.) Slope- Steep/Medium/Gentle	Hilly Medium
f.	Whether the area is bearing any root stock of vegetation	Yes

3. Plantation Model

Copy of the approved Compensatory Afforestation Scheme/Model showing component wise physical and financial breakup to be enclosed.

4. Schedule of Plantation Programme

Detail of year wise break-up of requirements of funds is as under:-

YEAR	AREA	AMOUNT (in Rs)
0 Year	1.36 Hac. (1362 Plants)	3,67,043 /-
1st Year	1.36 Hac. (1362 Plants)	36,952 /-
2 nd Year	1.36 Hac. (1362 Plants)	25,537 /-
3 rd Year	1.36 Hac. (1362 Plants)	14,311 /-
4 th Year	1.36 Hac. (1362 Plants)	15,333 /-
5 th Year	1.36 Hac. (1362 Plants)	16,355 /-
6 th Year	1.36 Hac. (1362 Plants)	17,377 /-
7 th Year	1.36 Hac. (1362 Plants)	18,400 /- 19,422 /- 20,444 /- 21,466 /-
8 th Year	1.36 Hac. (1362 Plants)	
9 th Year	1.36 Hac. (1362 Plants)	
10 th Year	1.36 Hac. (1362 Plants)	
TOTAL (Rs.)	5,72,640 /-	
Contingency Charges 5 %	28,632 /-	
TOTAL (Rs.)	6,01,272 /-	
Departmental Charges 17.	1,05,223 /-	
GRAND TOTAL (Rs.)	7,06,495 /-	

5. Technical details

Technical details of Compensatory Afforestation Scheme are as follows:-

a.	General Details	Area for Compensatory Afforestation in UP 145K Dhar Narwana, Malan Range in		
		Dharamshala Division area 1.36 Hac.		
b.	Spacement	2.5 X 2.5		
c.	Species	Tall Plants, Arjun, Tuni, Ambla, Mix Fruit Bearing trees.		
d.	Plantation Method	By pits 30 cm & 45 cm.		
e.	Soil and Moisture Conservation Works	Check dam / Retaining walls / Vegetative check dam		
f.	Protection (Fencing, Watch man, People's Participation etc.)	Fencing, Watch man, People's Participation etc. Fencing 5 Stand Barbed Wire interlacing with thorny bushes.		
g.	Proposed Monitoring Mechanism	Proper inspection of the area by field staff & officers of the Department.		
h.	Any other information	N.A.		

Place: Dharamshala
Dated: 31-05-2023

Divisional Forest Officer Divisional Forest Officer Dharamshala Forest Division Dharamshala

FILE NO.

DATE OF PROPOSAL

FP/HP/HYD/41472/2019

Unit

Rate per Amount @

Qty.

Scheme for Compensatory Afforestation for 2022-23 in lieu of Diversion of 0.6806 ha of forest land for Construction of Lower Iku Small Hydro
Project in District Kangra, H. P.

Village Narwana, Forest Division Dharamshala, Malan Forest Range, District Kangra, Compartment No. UP 145K Dhar Narwana, 1362 Plants in Area 1.36 Hac.

Particulars of work

No.					Qiy.	Oint	Unit at wage rate of Rs. 150/-	Wage Rate of Rs.350/- for Non Tribal Areas
1	Survey & demarcation of plantation	rea			1.36	Ha.	101.00	320.51
2	Bush Cutting in Strips	2002	C Part		1.36	На.	1192.80	
3	Collection of Debris and Burning				1.36	Ha.	681.80	
4	Preparation of Inspection Path 60 cm	wide			340	m.	11.00	8726.67
5	Digging of pits 60x60x60 cm		ALC: N		1362	No.	1745%	55456.10
6	Filling of pits 60x60x60 cm.		112 5 11 11		1362	No.	254%	8072.12
7	Carriage of plants in P/bags from nur	sery to work site over dis	stance 1 km. (leve	1)	1362	No.	1476%	46907.28
8	Planting of tall plants including ramn	ing			1362	No.	654%	20702 65
9	Cost of RCC fence posts				75	No.	358.00	20793.65
10	Carriage of RCC Fence Post				75	No.	L/S	62650.00
11	Fixing of RCC Posts including strutting	Į.			75	No.	696.35%	17200.00
12	Stretching and fixing of barbed wire		nds		873	Rmr.	4.80	1218.61 9777.60
13	Interlacing of thorny bushes with bar				291	Rmt.	4.00	
14	Cost of barbed wire				0.130	MT.	65100.00	2716.00 8463.00
15	Cost of U -staple				0.002	MT.	64000.00	96.00
16	Mulching of plants				1362	No.	84.80%	2694.94
17	Irrigation as per need/photography e	tc.		-	1502	L/s	04.00%	5000.00
18	Nursery Cost of Tall Plant			-	1362	No.	57.00	77634.00
			Total				37.00	333675.21
		Total	Planting Cost			Section - Facilities		333675.00
		Add 1	10 % Increase			1		33368.00
		Total Pla	intation Cost (A)					367043.00
	MAINTENANCE COST							
	Year	Amount	Number of	Cost of	Total Amount	increase %	Increased	Total
			Plants	Plants			Amount	Maintainance Cost
1	Ist year Maintenance	7480	409	57	30793	20%	6159	36952
2	2 nd year Maintenance	4140	272	57	19644	30%	5893	25537
3	3 rd year Maintenance	2470	136	57	10222	40%	4089	14311
4	4 th year Maintenance	2470	136	57	10222	50%	5111	15333
5	5 th year Maintenance	2470	136	57	10222	60%	6133	16355
6	6 th year Maintenance	2470	136	57	10222	70%	7155	17377
7	7 th year Maintenance	2470	136	57	10222	*80%	8178	18400
8	8 th year Maintenance	2470	136	57	10222	90%	9200	19422
9	9 th year Maintenance	2470	136	57	10222	100%	10222	20444
10	10 th year Maintenance	2470	136	57	10222	110%	11244	21466
	7-2-7-2-7-2-7-2-7-2-7-2-7-2-7-2-7-2-7-2		ntenance Cost (E	(5.2)	10222	110%	11244	
			Total (A + B)	,,				205597.00 572640.00
			ncy Charges @ 59	2/0			-	
		Son Struct	Total					28632.00
		Denartment	al Charges @ 17	5%				601272.00
_			and Total	.570				105223.00
			A for 1362 Tall F	Name-				706495.00
								706495.00



FILE NO.

: FP/HP/HYD/41472/2019

DATE OF PROPOSAL:

CHECK LIST SERIAL NUMBER: - 18

"SUITABILITY CERTIFICATE BY THE DFO"

This is to certify that 1.36 ha. land bearing Survey No. / Compartment No UP 145K Dhar Narwana, of Village Dhar Narwana, Malan Forest Range, Dharamshala Forest Division identified for Compensatory Afforestation for plantation of 1362 number of Plants in lieu of 0.6806 ha of Forest land being diverted for construction of Lower Iku – I Small Hydro Project, is not MDF. The proposed area is degraded forest land having a crown density of less than 0.3 having bushes and under growth economical species so seems to be MDF, but the site is suitable for plantation of 1000 plants per hectare.

Place: Dharamshala Dated: 31-05-2023

Divisional Forest Officer.
Divisional Forest Division
Diagrams pala Forest Division

FILE NO.

: FP/HP/HYD/41472/2019

DATE OF PROPOSAL:

PART-II

(To be filled by the concerned Deputy Conservator of Forests)

State serial No. of proposal_____

. Lo	ecation of the project/Scheme:	
i.	State/Union Territory	Himachal Pradesh
ii.	District.	Kangra
iii.	Forest Division	Dharamshala Forest Division
iv.	Area of forest land proposed for diversion (in ha.)	0.6806 hac.
iv.	Legal status of forest	0.6640 (Unprotected Forest) 0.0166 (Unclassed Forests)
v.	Density of vegetation.	0.1
vi.	Species-wise (scientific names) and diameter class-wise enumeration of trees (to be enclosed. In case of irrigation / hydel projects enumeration at FRL, FRL-2 meter & FRL-4 meter also to be enclosed.)	Yes, the list is attached at Page Sr. No.
vii.	Brief note on vulnerability of the forest area to erosion.	The area in question is not vulnerable to land slide.
viii.	Approximate distance of proposed site for diversion from boundary of forest.	0.500 kms.
ix.	Whether forms part of National Park, wildlife sanctuary, biosphere reserve, tiger reserve, elephant corridor, etc. (If so, the details of the area and comments of the Chief Wildlife Warden to be annexed).	No
х.	Whether any rare/ endangered/ unique species of flora and fauna found in the area- if so details thereof.	No
ci.	Whether any protected archaeological /heritage site/defence establishment or any other important monument is located in the area. If so, the details thereof with NOC from competent authority, if	No

required.	34) 6363 m31+1-
8. Whether the requirement of forest land as proposed by the user agency in col. 2 of Part-I is unavoidable and barest minimum for the project. If no, recommended area item-wise with details of alternatives examined.	Yes, the area proposed for diversion is unavoidable and barest minimum for the project.
9. Whether any work in violation of the Act has	No
been carried out (Yes/No). If yes, details of the same including period of work done, action taken on erring officials. Whether work in violation is still in progress.	TERLINES PORTER TO THE STATE OF
10. Details of compensatory afforestation scheme:i. Details of non forest area/degraded forest area identified for compensatory afforestation, its.	Enclosed at page No
distance from adjoining forest, number of patches, size of each patch.	
ii. Map showing non-forest/degraded forest area identified for compensatory afforestation and adjoining forest boundaries.	Enclosed at page No
iii. Detailed compensatory afforestation scheme including species to be planted, implementing agency, time schedule, cost structure, etc.	Enclosed at page No
iv. Total financial outlay for compensatory afforestation scheme.	Rs. 7,06,495/-
v. Certificates from competent authority regarding suitability of area identified for compensatory afforestation and from management point of view. (To be signed by the concerned Deputy Conservator	Enclosed at Page No.
of Forests).	
11. Site inspection report of the DCF (to be enclosed) especially highlighting facts asked in col. 7 (xi, xii), 8 and 9 above.	Enclosed at Page No.
12. Division/District profile:	
i. Geographical area of the district.	573900 ha
ii. Forest area of the district.	61061.58 ha

and the second of the second

iii. Total forest area diverted since 1980 with number of cases.	204.0269 ha (102)
iv. Total compensatory afforestation stipulated in the district/division since 1980 on :	
(a) forest land including penal compensatory afforestation,	401.1854 ha
(b) non-forest land.	Nil
v. Progress of compensatory afforestation as on (date) 31.03.2022 on	
(a) forest land	383.0814 ha
(b) non-forest land.	Nil
13. Specific recommendations of the DCF for acceptance or otherwise of the proposal with reasons.	The proposal is recommended for approval since the construction of this Project will enhance the capacity of the Hydro Power in the State and will benefit large community.
	Land of the control o

Place: Dharamshala
Dated: 31-05-2023

Dinesh Sharma (HPFS)
Divisional Forest Officer
Dharamshala Forest Division
Dharamshala



DIRECTORATE OF ENRGY

GOVERNMENT OF HIMACHAL PRADESH SHANTI BHAWAN PHASE-III SECTOR-6 NEW SHIMLA -9

TEL NO: 0177-2673551, FAX NO: 2673553, Email: dir.doehp@nic.in, ceenergy09@gmail.com
No. - HPDoE/CE (Energy)/CEIA (Ravi Basin)/2021- ちんとう Dated: 12012042

To

The Nodal Officer-cum-APCCF (FCA), Forest Department, Tolland, Shimla, Himachal Pradesh.

Subject:

Diversion of 8.0678 hectare of forest land in favour of M/s Friends Him Energies, C/o near Happy Sr. Secondary School, Jail Road, Gurdaspur-143521, for the construction of Suil-IV SHEP within the jurisdiction of Churah Forest Division, Distt. Chamba, Himachal Pradesh (On line no. FP/HP/HYD/3537/2018)

Ref: -

Your Office letter no Ft. 48-3785/2018(FCA) dated 24.07.2021.

Sir.

Please refer to above letter addressed to CEO, HIMURJA and subsequently in receipt of HIMURJA letter no Himurja/SHP-IA/Suil-V-6200 dated 02.12.2021(copy enclosed) from Project Director Cum Dy. CEO, HIMURJA on the subject cited matter where in it has been informed that MoEF & CC, GoI has observed following:

"The concern of the State to provide for mitigating measures of individual projects in the EMP does not seem to be tenable as it is devoid of factual basis. The hydel projects up to 25 MW are not covered under the EIA notifications and hence may not involve preparation of EMPs and also cannot be apprised by the SEAC as adverted by the state. The state Govt. may provide their comments in this regard."

In this context, it is submitted that Deptt. of Environment, Science & Technology, GoHP is appropriate Deptt. to offer comments on the above observation. The matter in a similar case (for SHEP Upper Makkan-II - 5 MW, Distt.- Chamba) was taken up with Environment, Science & Technology Deptt. and Deptt. of Environment Science and Technology vide letter no. Env.S&T/SEIAA (061)/2009-Miscellaneuous-2660 dated 09.12.2021 has stated that "the hydel project up to 25 MW does not fall in purview of Environment Impact Assessment Notification, 2006 and its subsequent amendments". Further the comments and correspondence w.r.t. mitigative measures to address the projects up to 25 MW as received from Env. Scie, & Tech. Deptt., GoHP are attached herewith at Annexure-I for your kind information and further necessary action in the matter please.

Yours faithfully,

DA: As above

(Er.Khem Singh Thakur)
Chief Engineer,
Directorate of 1999
Gohp Shim

Cories Hydry ratoris Pyt. Ltd.

Copy to the Project Director-cum-Chief Executive Officer, HIMURJA, Urja Bhawan, Kasumpti Shimla-09 for kind information w.r.t. letter referred above please.

Chief Engineer, Directorate of Energy, GoHP Shimla-09

Sarject (ydro Actools Policy)
Signatory

HIMURJA

(HP Energy Development Agency) Uria Bhawan, Kasumpti, Shimla-171009.

No. Himurja/ SHP-IA/Suil-V- 6200

M/s Deepak Jasrotia, Superintending Engineer, Shanti Bhawan Phase-III. New Shimla-171009.

Subject: -

Diversion of 8.0678 hectare of forest land in favour of M/s Friends Him Energies, C/o Near Happy Sr. Secondary School, Jail Road, Gurdaspur-143521, for the construction of Suil-IV SHEP within the jurisdiction of Churah Forest Division, Distt. Chamba, Himachal Pradesh. (On FP/HP/HYD/3537/2018).

Sir,

On the subject cited matter this office is in receipt of letter No. Ft.48-3785/2018 (FCA). dated 24.7.2021 from Nodal Officer.Cum-APCCF (FCA) office of Pr. CCF (HoFF) H.P. vide which it has been informed that the MOEF has observed as under:-

"The concern of the State to provide for mitigating measures of individual projects in the EMP does not seem to be tenable as it is devoid of factual basis. The hydel projects up to 25 MW are not covered under the EIA notifications and hence may not involve preparation of EMPs and also cannot be appraised by the SEAC as adverted by the State. The State Govt, may provide their comments in this regard."

In this context it is submitted that as per point No. 2 and point No.4 (iii) of the notification dated 14th September 2006 of Ministry of Environment and Forests (MoEF), State Environment Authority (SEIAA) is authorized to give environmental clearance for projects put in Category-B in the schedule. Perusal of schedule reveals that no environment clearance is required for the projects upto 25 MW. This fact has also been clarified vide letter No. STE-F (1) 3/2017 dated 14.6.2017 of Spl. Secretary (Env. Science & Technology) to the

Director (Energy) LEE (Energy) W

S.E. 1 (Dam, Env. I.T Wb, SDA, Safety)

S.E -2 (TEC)

S E -3 (Power Sale, SDA, Commercial Bixing) S.E. 4 (AHot, Policy, LADF, Legal, V.S., Monitoring)

(Admin., Accounts & Finance)

Holder Ase (da no. 1)

d Signatory

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Govt of H.P. (copy enclosed). This letter also mentioned that as these projects are of white category hence there is no need for such projects to undergo for consent mechanism, from EIA, therefore no cost on EMP is to be levied. Therefore in view of above, no EIA & EMP is required in respect of the projects upto 25MW.

As the issue involves projects upto 25 MW, and the comments have been sought from Government, therefore, further comments be forwarded to the quarter concerned at the lever of Directorate of Energy on behalf of the State Government.

Your faithfully,

Project Director Cum Dy. CEO, HIMURJA Shimla-171009

As above:-Copy to:- 6201

Dated: - 09-12-9021

The Nodal Officer-Cum- APCCF (FCA) O/o Pr. CCF (HOFF) H.P. Shimla-I (H.P.) with reference to letter No. Ft.48-3785/2018 (FCA) dated 24-07-2021 and letter of even file number dated 12-11-2021 for information please.

Project Director Cum Dy. CEO, HIMURJA Shimla-171009

Surja Signatory

No. STE-F (1)2/2017 Government of Himachal Pradesh Department of Env. Science & Tech.

gx.

From

The Addl. Chief Secretary (Env. Science & Tech.) to the Government of Himachal Pradesh

To

- The Director, Environment, Science & Technology, Paryavaran Bhawan, Near US Club, Shimla Himachal Pradesh-171001
- The Member Secretary,
 HP State Pollution Control Board,
 Him Parivesh, Phase-III, New Shimla, Himachal Pradesh 171009

Dated: Shimla-171002, the

14th June, 2017

Subject: -

Issues pertain to hydro power projects up to 25 MW in the State.

Madam/Sir.

I am directed to refer to the subject captioned above and to say that the matter with regard to consent to operate for the projects up to 25 MW was engaging the attention of the Government for some time past since the hydel projects up to 25 MW have been declared as white category project by the GoI, hence there is no need for such HEP (up to 25 MW) to undergo consent mechanism under Water/Air Act and also to obtain Environmental Clearance from SEIAA.

Further, no Environmental Management Plan (EMP) cost be levied on HEP (up to 25 MW) as these are not required to undergo EIA mechanism.

You are, therefore requested to take further necessary action in the matter under intimation to this department.

Yours faithfully,

(Hans Raj Sharma)

Spl. Secy. (Env. Science & Tech.) to the Government of Himachal Pradesh

+91-177-2624899

Contd...P/2-

Curio figuratory

No. Env. S&1 SEIAA (061) 2009-Miscellancous- 2665 Department of Environment, Science & Technology Paryavaran Bhawan, Near US Club, Shimla-1

Ph. 0177-2656559, fax: 2059609

From:

The Director,

Department of Environment, Science & Technology. Government of H.P.

To

The Superintending Engineer,

Directorate of Energy, Shanti Bhawan Phase-III. Sector-Vl. New Shimla, H.P.

Dated: Shimla-1.

the 09.12.2021.

Subject:

Diversion of 2.74 hectare of forest land in favour of M/s Himjal Hydel Power Pvt. Ltd. for the construction of Upper Makkan-II (5MW) Small Hydro

Power Project in District-Chamba-reg.

Sir,

Please refer to your office letter no. HPDoE/CE(Energy) CEIA (Ravi Basin) 2021-

4850-53 dated 08.09.2021, on the subject cited above.

In this regard, the matter has been examined by this office and it is observed that "the hydel project up to 25 MW does not fall in purview of Environment Impact Assessment Notification, 2006 and its subsequent amendments". However, the comments w.r.t. mitigative measures to address the projects up to 25 MW of this Department are attached herewith for your kind information and further necessary action please.

Yours faithfully.

Director (Energy)

C.E (Energy) W S.E. 1 (Dam, Env. 1.7 Wb, SDA, Safety)

S.E -2 (TEC)

S E -3 (Power Sale, SDA, Commercial Billing) S.E. 4 (Allot, Policy, LADF, Logal, V.S., Monitoring)

(Admin., Accounts & Finance)

(Sudesh Kumar Mokhta, IAS)

Department of Environment, Science & Technology Himachal Pradesh, Shimla-1

The change in hydrological flow regimes, sedimentation, deteriorating water quality, greenhouse gas emission, migration corridors barriers and biodiversity loss are environmental impacts of hydropower projects. The small HEP's are Clean and renewable source of energy. They result in saving of non-renewable fuel resources such as coal, liquid

Like all energy and water management works, hydropower projects including small scale have negative and positive environmental and social impacts. Hydropower may have significant environmental impacts at local and regional level but also provides advantages at macro ecological level.

Potential Environmental Impacts of Small Hydro Power projects:

A. Positive Environmental Impacts:

- 1. Clean and renewable source of energy.
- 2. Decrease of pollution in the area.
- Improved ground water table increase greenery all around the area, which provide sink to CO₂ emission.
- 4. -Improved biodiversity due to creation of habitats.
- 5. Benefits under EMP & CER to the affected areas.

B. Positive Social Impacts of HEP's:

- 1. Generation of employment opportunities to local people.
- 2. Improvement of living standard of local people.
- 3. Increased tourism potential.
- 4. Improvements of agriculture produce to lift irrigation schemes.
- 5. Improvement in infrastructure (road, health facilities, education facilities) of the

Negative Impacts of HEP's:

During Construction phase:

- Due to construction activities of small hydro power projects, the probable impacts
 may be reservoir sedimentation, if constructed, deterioration of water quality, air
 and noise pollution, soil erosion, Illegal muck dumping, change in river coarse,
 damage to existing structures due to blasting etc.
- Due to diversion of stream there may be loss of aquatic life, depletion of ground water recharge, loss to aesthetic beauty of the stream/river etc.
- 3. Due to ponding, it can cause disruption of flow, change in land use, change in water temperature etc.
- 4. Due to construction of transmission line there can be damage to flora of the area, soil erosion etc.

All all

During Operational phase:

- Increase in pollution load due to residential areas in the downstream areas, which
 can be controlled by installing waste water treatment plant.
- 2. Released water contained low dissolved oxygen, which may affect aquatic life.
- 3. Noise level may increase due to rotation of turbine.
- 4. Erosion of banks near Tail Race Tunnel (TRT).

Parameters which also requires special attention in Small Hydro Power:

- 1. Land environment (land use, soil, geology & seismology)
- Water environment (water resources, water quality, hydrology, ambient air quality, meteorology, noise)
- 3. Biological environment (ecology, aquatic ecology)
- 4. Socio environment (socio economic Impacts)

Impact Prediction:-

- 1. Effect on air.
- 2. Effect on noise,
- 3. Effect on water,
- 4. Effect on Land,
- 5. Biological impacts,
- 6. Socio-economic impacts.

Other mitigative measures which can be the made essential for Small HEP:-

- 1. Environment Management Plan.
- 2. Catchment area treatment Plan.
- 3. Creation of green belt development plan.
- 4. Biodiversity Conservation and Wild life Management Plan.
- 5. Fisheries Development plan for conservation/management of reverine fishes.
- 6. Resettlement & Rehabilitation (R&R)
- 7. Muck Disposal Plan in consultation with HP PCB & State Forest Department
- 8. Energy Conservation Measures
- 9. Dam Break Analysis & Disaster Management Plan.
- 10. Restoration and landscaping of working Areas
- 11. Management during the Road Construction
- 12. Sanitation & Solid Waste Management Plan for domestic waste from colonies and labour camps, etc.
- 13. Water and Air Quality & Noise Environment Management during construction and post construction periods:
- 14. Forest Protection Plan.
- 15. Environmental Monitoring Programme (With physical & financial details covering all the aspects of EMP).

Sarjon John St.

FILE NO.

: FP/HP/HYD/41472/2019

DATE OF PROPOSAL

UNDERTAKING TO COMPLY WITH THE MITIGATION MEASURES

It is to certify that I, Sanjeev Kumar, Authorised Signatory for M/s Sanjeev Hydro Projects (P) Ltd. having its office at VPO Sauhora, Tehsil & District Kangra – 176001, have applied for diversion of 0-68-06 ha. of forest area for the purpose of execution of Lower Iku Small Hydro Power Project 1 MW in District Kangra.

I, hereby undertake to comply the mitigation measures suggested by the Department of Environment, Science and Technology to be adopted in Small Hydro Electric Projects upto 25 MW. The adverse impact during and after the construction of Project on the environment shall be taken care of.

For M/s Sanjeev Hydro Projects (P) Ltd.

uthorised Signatory

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Place: Dharamshala Dated: 89-05-2023

Countersigned by:

DDivisional Forest Officer

Forest Division

Dharanishala