

Full Title of the Project: _____

File No. : FP/HP/HYD/3874/2019

Date of Proposal: _____

CHECK LIST SERIAL NUMBER-11

CERTIFICATE FOR MINIMUM USE OF FOREST LAND

This is to certify that the forest area involved in the proposal unavoidable and barest minimum forest area i.e. 4.7639 hectare area is proposed for diversion for the construction of M/s Broot Fozal Hydro Pvt Ltd (5M.W) at village Kathi, Kasta, Zingling, Narayndug in Distt kullu. Three alternatives have been considered for this project and adopted alternative use minimum forest land. The alternatives are as under:

VARIOUS ALTERNATIVES FOR THE PROJECT

Alternative I- This alternative involves construction of diversion structure of Fozal Khad at EL 2216 m. The left bank have exposed rocky strata at diversion site. The water conductor system consists of conveyance channel, surface desilting tank and 1700 m long power tunnel, surface forebay, surface penstock and surface power house near village Kasta on the left bank to the khad. The gross head shall be about 190 m. In this alternative net head is slightly more than alternative II due to lesser length of water conductor system leading to higher annual generation of energy. Lesser land is required in this alternative and dispute with local people in this alternative has been minimized. Environmentally and financially this scheme is better than alternative land alternate III.

Alternative II- This mainly a left bank alternative. The alternative involves construction of diversion structure of EL2216m on Fozal khad. The water conductor shall consist of conveyance channel, surfacing desilting tank cut and cover type power channel 4800 m long and surface penstock and a surface power house near EL 2050 m on left side of Fozal khad. The gross head available for power generation shall be around 190 m. Further more open channel shall run into very steep slopes in few reaches which will have stability problems leading to time and cost overrun problem. This alternative was proposed earlier and techno-economic clearance for it was accorded. In this alternative water conductor passes through cultivable land in many reaches and the local people are now refusing to give their land for the project. This alternative has therefore lost its feasibility and another alternative to it has to be found.

Alternative III- This alternative is on the right bank of the khad. In this alternative all the land required is private land. Moreover the land near proposed forebay and power house is slided portion where the construction of these components would be very difficult. There is also no road available near this alternate site, so more land will be required for the construction of the road.

Therefore, alternative I which involves less forest area and lesser number of trees has been chosen for the layout of the project. This alternative is environmentally better than other two alternatives.

A summarized view is presented in the table below

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S.No	Description	Alt I	Alt II	Alt III
1	Road	2600	3250	3800
2	Road length in forest	2600	3250	3600
3	Water conductor in forest	1700	4800	3580
4	No of tree in alignment	70	95	110

Place :.....*Kullu*.....

Date :.....*20/12/2021*.....

[Signature]
Range Forest Officer
Forest Range Patikural

Signature of User Agency

Office Seal

M/s Bloot Fozal Hydrop Ltd

[Signature]
Authorized Signature

[Signature]
Divisional Forests Officer
.....*Forest Division*.....
Kullu Forest Divn Kullu
Office Seal

Countersigned by:-

[Signature]
Divisional Forest Officer
Kullu Forest Division