

DIVERSION OF 1.1163 HA. OF FOREST LAND FOR CONSTRUCTION OF LINGTI SHP

FILE NO. : FP/HP/HYD/12958/2015
 DATE OF PROPOSAL : 30/05/2015

**ALTERNATE SITES CONSIDERED TO MINIMISE THE USE OF
 FOREST LAND FOR CONSTRUCTION OF
 LINGTI SMALL HYDRO ELECTRIC PROJECT (0.5 MW)**

ALTERNATIVE-I

The proposed project is situated on the right bank of the Lingti Khad. The alternative involves construction of diversion structure at EL \pm 1710 m on Lingti Khad, upstream of Rakh village. The water from the Weir Site shall be conveyed through 15 m long conveyance channel upto a surface Desilting tank on the right bank of Lingti khad from Desilting Tank, the water shall be conveyed through 810 m long channel upto surface Forebay Tank upstream of Rakh village. From where the water shall be dropped through 122m long surface penstock upto the surface power house at EL 1630 m downstream of village Rakh the channel runs along the houses and involves private land. The gross head available for power generation shall be around 80 m.

Feature considered:

- Alignment of the proposed project falls on right bank of the stream. The strata of water conductor system is loose and not safe for the village
- Forest land involved to the tune of 1.3612 Hectares.
- There will be disturbance to the stable slope and green cover.
- 28 trees involved for the construction of Project

ALTERNATIVE- II

This alternative involves construction of diversion structure on Lingti Khad at EL \pm 1710 m and conveyed to a surface Desilting Tank cum Forebay tank through 10 m conveyance channel. The water from the Forebay Tank shall be conveyed through 663 m long pressurized power pipe passing through a hard rock on the right bank of the khad. Geologically, this alternative is appropriate with the safety point of view of the Project components and the local villages.

Feature Considered:

- Forest land involved to the tune of 1.1163 hectares.
- The Project components are fixed on the right bank of the stream and there are no trees involved in the alignment. The pressurized pipe does not involve any private land so there is no displacement of population resulting in the safety of the villagers.
- Gross head available is 80 m, resulting in optimum power generation
- There are no trees to be cut.

ALTERNATIVE- III

This is mainly left bank alternative involving construction of diversion structure at EL \pm 1710 m on the Lingti Khad, upstream of Rakh Village. Water of Lingti khad shall be diverted through a 820 m long

PARSHANTI HYDRO ENERGIES PVT. LTD.

Auth. Sign.


 Director

Water Channel upto a surface Forebay Tank. The penstock shall be partially underground and partially surface. The Power House shall be located downstream of village Rakh. The gross head shall be about 70 m. Geologically, this alternative is not appropriate for safety of the Project components as the strata is loose.

Features Considered:

- Entire alignment falls on left bank of Lingti khad.
- Forest land involved to the tune of 1.50 hectares.
- Length of water conductor system involves Tunnel which increases the construction time as well as cost of the Project.
- Total area involved is more which leads to cutting of more trees i.e. 64 trees, Diversion of more forest land.
- Water Conductor System and Penstock shall run through loose strata which is vulnerable to landslides.

Keeping in view all the above three alternative, the **alternative- II**, which is more suitable and environmental friendly, has been finally adopted.

Place : Palampur

Dated :

For Prashanti Hydro-Energies (P) Ltd.

Auth. Sign.
Director

Dashrath
Director

Countersigned by :

[Signature]
Divisional Forest Officer
Palampur Forest Division
Palampur