Annexure-XI

SHORT NARRATIVE OF THE PROPOSAL AND PROJECT/SCHEME FOR WHICH FOREST LAND IS REQUIRED

Government of Himachal Pradesh (GoHP) has signed Memorandum of Understanding (MoU) with NHPC Limited on 25th September 2019 for the implementation of Dugar Hydroelectric Project on Build Own Operate & Transfer Basis (BOOT) for a period of 70 years including DPR and pre construction periods. The project is proposed on Chenab River and is located in the Pangi Valley (killar) which is remote area of Chamba district of Himachal Pradesh. This project has been envisaged as Run of River scheme with underground Power House.

The Dugar Hydro Electric Project (500 MW) is envisaged as a run-of-river scheme for utilizing the flows of Chenab River to harness the head created by constructing a 128 m high (from deepest foundation) dam near Luj village with FRL of EL 2114.00 masl and the proposed underground power house located on the left bank of Chenab River just downstream of dam. It is a medium head scheme with rated net head of 91.21 m having Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) as 2114.00 masl and 2102.35 masl respectively. It is essentially a run-of river scheme with diurnal storage for generation of electricity. The project comprises of a 128 m high concrete gravity dam (from deepest foundation level), 2 Nos. underground circular pressure shafts of length 270 m and 307 m. Each pressure shaft is bifurcated upstream of the unit valves. An underground power house is envisaged followed by a tailrace surge chamber and two tail race tunnels of finished diameter as 7.8 m. The tail race tunnels, located on the left bank of the Chenab River, are discharging back into Chenab River at a distance of about 725 m downstream of dam axis with normal tail water level as 2015.00 masl (under normal operating condition) and minimum tail water level as 2012.26 masl.

An underground Power House cavern, housing 4 units of 103 MW each, is envisaged along with a d/s Surge Chamber & u/s Transformer Cavern & a Tail Race Tunnel. To harness the environmental flow during lean season and non-lean non-monsoon season three units each of 44 MW are housed in the power house cavern. Therefore the total capacity of plant shall be 500 MW (412 + 88 MW).

The main components of the project are:

- A 128 m high concrete gravity dam (from the deepest foundation level) located on River Chenab at Latitude N 33° 07' 05" and longitude E 76° 21' 20.7".
- Two numbers main intakes and one intake for auxiliary power house located at the left bank.
- Two numbers main pressure shafts and one pressure shaft for auxiliary power house.
- Underground cavern housing four number main units of 103 MW each and two units of 44 MW each for auxiliary power house.
- Transformer Cavern located upstream of power house cavern.
- Four number main TRTs having Surge Chamber at the upstream end and one TRT for auxiliary power house discharging downstream of dam.

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