

Full title of the project: - Construction of 66kV D/C transmission line from Proposed 220/66kV S/Stn.Nadukhar to existing 66/22kV S/Stn. Gumma. (H.P)

File No. _____

Date of proposal: _____

Check List Serial Number-10

JUSTIFICATION FOR LOCATING THE PROJECT IN FOREST AREA

Shimla Jal Prabandhan Nigam Ltd. (SJPNL/I&PH) has proposed to establish its water supply schemes in three pumping stages for fulfilling the deficit of water requirements of Shimla town and its surrounding areas and has requested HPSEBL to supply requisite power for all its pumping stages at 66kV level. Accordingly for supplying power to the pumping stage – I & II for the scheme it was envisioned to construct a 220/66kV sub-station at Nadukhar (Basantpur) by tapping the 220kV Kashan-Bhaba-Kunihar D/C line which is in very close proximity to the sub-station. However, it was not practical to construct a 220/66kV sub-station solely for providing 20-25 MVA power to SJPNL. It would be pertinent to mention that HPSEBL's existing 66kV Jutogh-Gumma transmission line is a single source of supply which is currently meeting the load requirements of Mashobra, Sunni, Theog, Sainj, Kotkhai & Chopal regions in Shimla district and is currently overloaded. Thus, in order to supplement the power requirements of these regions by a secondary source and further keeping in view the voltage improvement it would bring for these areas, it was proposed to construct a 66kV D/ C line from Nadukhar to Gumma. The additional load drawl of 30-40 MVA from 220 kV level and further relief from overvoltage in Kinnaur district would further justify the setup of the sub-station and the proposed 66kV D/C line from Nadukhar to Gumma. The resulting proposal was later approved by HPSEBL's EHV committee HPSEBL vide letter No. HPSEBL/CE(SP)/W-76(EHV)/2019-700-24 dated 16-05-2019 vide agenda item No.75.10.

It is not possible to construct the entire line from proposed Nadukhar sub-station to 66/22kV sub-station at Gumma in private land, hence the intervening forest land has to be used. After exploring & surveying three alternate alignments the following was observed: -

Route-I (Red-finalized route): - Least amount of forest area (8.4085 ha) is required to be diverted, least amount of tree felling shall be required, shortest route, minimum number of towers to be erected, all towers are in safe locations. Minimum HT/LT line crossings and minimum cultivated land in the Right of Way.

Route-II (Blue): - Forest area required to be diverted is more than Route-I & route-III, more number of trees in Right of Way than Route-I, line length is maximum, maximum cultivated land in Right of way (i.e more than Route-I & III), maximum HT/LT line crossings and maximum line falls in the snow zone area.

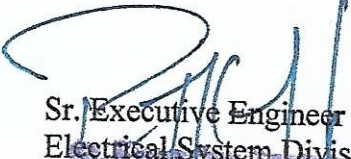

Route-III (Pink): - Forest area required to be diverted is more than Route-I, number of trees in right of way shall be maximum, some towers are falling in landslide prone area, HT/LT line crossings are more than Route-I but less than Route-II, line length is intermediate, non-accessibility of approach road intermediate cultivated land in Right of way and number of towers to be erected is maximum.



From above it is evident that all three line routes are passing through the forest area but the finalized route i.e. Route-I has been selected in such a manner that least amount of forest area is

required to be diverted for line construction. Hence, there is no escape from using forest land and a minimum of 8-40-85 hectares of forest land is required to be diverted for construction of 66kV D transmission line from Nadukhar to Gumma.

Date: - 27.07.2022

Place: Totu (Shimla-11)


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SHIMLA