

LILO of 400kV D/C Mandola-Bawana T/L

ALTERNATIVE ROUTE ANALYSIS

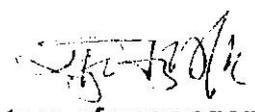
Various options regarding route of this transmission line were explored by carrying out survey of the optional routes at ground level. Possibilities of routes were explored in different directions to shortlist best feasible route considering various options. Accordingly, 03 alternatives route of the line were finalised and same were marked/plotted on survey of India map, copy of same is enclosed herewith. Since only available space for placing this line was between western and eastern bank of Yamuna river, the routes were placed in best possible manner with optimisation of resources, infrastructure and environment. Exploring the route of transmission line from its start (tapping) point near Village Pachara, Dist.:- Ghaziabad to existing 400/220KV Substation of POWERGRID at Maharaniabagh (Opposite to ISBT Sarai Kalekhan) was a herculean task. After lot of effort by teams of surveyor and POWERGRID Engineers, 03 alternate routes were explored. Out of these 03 alternative routes, best possible/feasible route was finalised with minimum route length and with least Plantation/Forest area. The constraints experienced in proceeding through other optional routes are as follows:

1. Existing 400/220KV Maharaniabagh Substation is on the western side of Yamuna river. An alternate route was explored through Western side of Yamuna bank, but it was not feasible due to following reasons:
 - a. Sufficient space was not available between western bank of Yamuna and Yamuna river for construction of 400KV D/C Transmission line. Very important establishments like I.P. Powerhouse, Chatt Ghat, Nigambodh Crimination Ghat, Gurudwara etc. are existing on this side and very close to Yamuna river. Density of Plantation is also high on this side. It is not possible to cross the line over these establishment.
2. Another route was explored through in between eastern bank of Yamuna river and Yamuna river. The 2nd alternate route was having more line length and also having more forest area. So, finally route marked in red colour was been finalized and approved for construction of LILO of 400KV Bawana – Mandola Transmission line at Maharaniabagh.

In view of above constraints and space limitations, the recommended route (as mentioned in Red Colour on the survey of India map) is the shortest one and involves minimum no. of establishment as well as minimum affected forest area. Other options shown in the attached route map are having more line length, consequently it will affect larger forest area.

Therefore, no other route except the recommended one is feasible for this Transmission line project, construction of which affects total affected area of 13.516 Hect.. in Delhi Forest territory.

Thanking you,


Signature of user agency.

Place: Delhi.

Date: 17-12-2018.

शुभर कुमार सिंह / SHUBHAR SINGH
मुख्य अभियंता / Chief Engineer
एन.ए.पी.ए. / N.A.P.E.A.
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COMPARATIVE STATEMENT OF ALTERNATIVE ROUTE

Full Title of the Project: CONSTRUCTION OF LILO OF BOTH CIRCUIT OF BAWANA – MANDOLA 400 KV TRANSMISSION LINE AT MAHARANIBAGH.

PROPOSAL No: FP/DL/TRANS/36614/2018

Date of Proposal: 18/10/2018.

Area Proposal Alternative Route-I				
Name	Quantity	Length(M)	Corridor (M)	Area in sq. meter
Sonia Vihar Forest	1	1368.35	46	62944.10
Gurudwar Forest	1	559.638	46	25743.34
Garhi Mandu Forest	1	327.09	46	15046.14
Railway Forest	1	683.28	46	31430.88
Total				135164.46

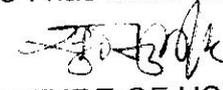
Area Proposal Alternative Route-II				
Name	Quantity	Length(M)	Corridor (M)	Area in sq. meter
Sonia Vihar Forest	1	688.199	46	31657.197
Gurudwar Forest	1	545.14	46	25076.451
Garhi Mandu Forest	1	1268.097	46	58332.485
Railway Forest	1	678.241	46	31199.129
Total				146265.26

Area Proposal Alternative Route-III				
Name	Quantity	Length(M)	Corridor (M)	Area in sq. meter
Sonia Vihar Forest	1	1146.412	46	52734.957
Gurudwar Forest	1	568.596	46	26169.225
Garhi Mandu Forest	1	1175.681	46	54081.348
Railway Forest	1	650.460	46	29921.172
Total				162906.702

Analysis of above all three routes have been done and route-I has been selected because it has minimum forest land and low project cost.

Place: - Delhi

Date: 17-12-2018


SIGNATURE OF USER AGENCY

Office Seal
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मुख्य प्रबंधक / Chief Manager
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Power Grid Corporation of India Ltd.
(भारत सरकार का उद्यम) / (A Govt. of India Enterprise)
400/220 के.वी. जी.आई.एस. महारानी बाग उपकेंद्र
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