

I/27200/2023



सत्यमेव जयते



भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत संचार विकास प्रभाग
Power Communication Development Division

CEA Case No. : UP-604		
PTCC approval for 400 kV Obra-B/C-Jaunpur D/C Transmission Line from Tower No: 1 to 38 [Length-10 km]-Regd.		
S. No	Reference No.	Dated
(i)	UPPTCL: 2193/ETD/ (GZP) /	05.11.2022
(ii)	UPPTCL: 299/ETD/ (GZP) /	22.02.2023
(iii)	UPPTCL: E-Mail	06.04.2023
(iv)	BSNL: DET/PTCC/ND/DV-10155/UP-1100/2022-23	17.01.2023
(v)	North Central Railway: एनसीआर/एसएंडटी/2074/दूरसंचार/पी.टी.सी.सी (पार्ट-1)	16.12.2022
(vi)	East Central Railway: ELD/378/20/GHD-CPU-SGRL	29.03.2023
(vii)	Defense: B/46937/Sigs7(b)/3111	27.02.2023

The PTCC proposal submitted vide reference (i), (ii) & (iii) has been examined. The LF induction on Block and Telecom circuits of BSNL, North Central Railway and East Central Railway with respect to details furnished vide above reference (iv), (v) & (vi) respectively have been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of BSNL, North Central Railway and East Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I, Annexure-II & Annexure-III respectively. The screening factors as applicable have been considered. DG Signals, MoD have issued No Objection Certificate (NOC) vide reference (vii).

EPR zone for proposed 400 kV S/S at Obra-C is mentioned below:

Name of the proposed Substation	Half diagonal distance, D/2 (mts)	Fault Current I (KA)	Resistance of Earth Mat, R (ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7kV	d (mts) at 10kV
400 kV Obra-C	260	30	0.0055	N.A	N.A	N.A	N.A

As per the Telecom Details submitted by BSNL vide above reference (iv), no telephone exchange of BSNL is falling within the EPR zone of proposed 400 kV Obra-C Substation.

Taking above into consideration, necessary action regarding issuance of PTCC approval for the subject cited transmission line might be taken under intimation to this office.

Encl.: As above

Chief Engineer

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To,

1.	Divisional Engineer (PTCC), Northern Zone	BSNL, O/o PGM(North), QA & Inspection Circle D-Tax Building, Eastern Court, Janpath New Delhi-110001	
2.	GM (S&T)	North Central Railway, HQ Office Subedarganj, Prayagraj	
3	GM (S&T)	East Central Railway DRM Office, Dhanbad	
4.	Ex. Engineer UPPTCL	Electricity Transmission Division Ghazipur	Copy for information.

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ANNEXURE-I

CEA Case No.: UP-604			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 kV Obra-B/C-Jaunpur D/C Transmission Line from Tower No: 1 to 38 [Length-10 km]			Total Length : 10 km		
			S.R. Value : 20,000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

BSNL Letter No: DET/PTCC/ND/DV-10155/UP-1100/2022-23 Dated 17.01.2023**Affected Blocks & Telecom Circuits Details**

1	Copper cable (U/G) from Obra TE to Club No1 colony 100 pair x 3	0.5	0.0053	29357	156
2	Copper cable (U/G) from Obra TE to Club No1 colony 50 pair	1	0.0058	29434	171
3	Copper cable (U/G) from Obra TE to Sec-9 & colony 200 pair	0.3	0.0063	29614	187
4	Copper cable (U/G) from Obra TE to Sec-9 & colony 100 pair & 50 pair	3	0.015	29357	440
5	Copper cable (U/G) from Obra TE to Sec-8 & colony 400 pair	2.5	0.014	29426	412
6	Copper cable (U/G) from Obra TE to convent market 100 pair	0.5	0.002	29100	58
7	Copper cable (U/G) from Obra TE to convent market 50 pair	0.75	0.0018	29271	53
8	Copper cable (U/G) from Obra TE to chopan and MLLTCL4 100 pair	0.5	0.0019	29314	56
9	Copper cable (U/G) from Obra TE to chopan and MLLTCL4 100 pair	1.5	0.0067	29400	197

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ANNEXURE-II

CEA Case No.: UP-604			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 kV Obra-B/C-Jaunpur D/C Transmission Line from Tower No: 1 to 38 [Length-10 km]			Total Length : 10 km		
			S.R. Value : 20,000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
North Central Railway Letter No: एनसीआर/एसएंडटी/2074/दूरसंचार/पी.टी.सी.सी(पार्ट-1) Dated 16.12.2022					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	Aghory Khas R/s to Chopan R/s				-Out of Parallelism-

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ANNEXURE-III

CEA Case No.: UP-604			Map Scale : 1 cm= 500 m		
Name of the Power line: 400 kV Obra-B/C-Jaunpur D/C Transmission Line from Tower No: 1 to 38 [Length-10 km]			Total Length : 10 km		
			S.R. Value : 20,000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
East Central Railway Letter No: ELD/378/20/GHD-CPU-SGRL Dated 29.03.2023					
<u>Affected Blocks & Telecom Circuits Details</u>					
1	Chopan R/s to Billi R/s	5.3	0.0135	28444	384
2	Billi R/s to Obra Dam R/s	1	0.0007	28300	20
3	Obra Dam R/s to Paprakhund R/s	1.3	0.0005	28400	14
4	Billi R/s to Salai Banwa R/s	2	0.0006	28450	17
5	Salai Banwa R/s to GurmuraR/s	-Out of Parallelism-			