



सत्यमेव जयते

भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

विद्युतसंचारविकासप्रभाग

Power Communication Development Division

No.: CEA/PCD/ PTCC/GUJ-796 / 1835-37

Date: 24.12.2020

Subject: PTCC proposal for 765 kV D/C Lakadia to Banaskantha transmission line-regd.

- Ref.:** (i) Lakadia Banaskantha Transco Ltd. Ref. No. LBTL/PTCC/2019- Dated: 20.04.2020
20/156
(ii) BSNL Ref. No. IC/MBI/PTCC/GJ-2824 Dated: 01.10.2020
(iii) Western Railway Ref. No. SG.158/28/12(1136) Dated: 22.10.2020
(iv) Defense Ref. No. B/46937/Sigs 7(b)/2066 Dated: 04.09.2020

The PTCC proposal submitted vide ref. (i) has been examined. The LF induction on telecom cables of BSNL and Block & Telecom circuits of Western Railway with respect to details furnished vide above references (ii) and (iii) respectively has been computed. The Soil Resistivity (SR) value has been taken as 7,500 Ohm-cm. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of Western Railway under Single Line to Ground fault condition are enclosed at Annex-I and II respectively. The screening factors, as applicable, have been considered. Vide ref. (iv) above, Defence Authority have issued No Objection Certificate (NOC). (a copy enclosed as Annex-III).

Taking above into consideration, kindly take necessary action for PTCC route approval.
Encl.: As above.

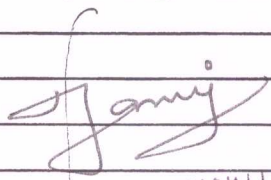
उप-इंजीनियर

(Upendra Kumar)
Chief Engineer

To,

1. Divisional Engineer (PTCC), Inspection Circle, Bharat Sanchar Nigam Limited (BSNL), 3rd Floor, D-Wing, BSNL Admin Building, Juhu Tara Road, Santacruz (West), Mumbai-400054. (Annex-1 & Annex-III only)
2. GM (S&T), Western Railway, Office of CSTE, S&T Dept., 5th Floor, Station Building, Church gate, Mumbai-400020. (Annex-II only)

Copy to:- Associate General Manager, Lakadia Banaskantha Transco Ltd., H. No. 31, Vedant Bunglows, Opposite Balaji Society, Ambika Nagar Road, Radhanpur Distt. Patan, Gujrat-385340.

CEA office case No: GJ-796		Map Scale: 1 Cm=500 Meters			
DET (PTCC) Office Case No: 2824		Route Length: 176.206 Kms			
Railway Office Case No:		Soil Resistivity: $\frac{1}{2} - \frac{1}{2}$ Ohm-Cm			
Name of Power Line: 765 KV D/C Lakadia-Banaskantha Transmission line		7500 rcm			
Telecom Details from BSNL		Details from Power Company/Authority			
Sl No.	Name of the Telecom Cable/Line	Length of Parameter in Km	Mutual coupling in Ohms	Fault current in Amp	Induced Voltage in Volts
1	Lakadia Exch.				
1A	Lakadia Exch. to Local 400PX1, 100PX1, 50PX2				} Out of parallelism
2A	Lakadia Exch to Local 200PX1, 50PX2, 20PX1				
3A	" " to Local 50PX1, 20PX1				
4A	" " to Local 20PX1				
2	Chitrod Exchange				
1B	Chitrod Exchange to local 50PX1, 20PX1				} IV less than 430V
2B	" " to local 20PX1				
3.	Puggal Exch				
1C	Puggal Exch to local 50PX1, 20PX1				
4	Bhimasen Exch				
1D	Bhimasen Exch to 200PX1, 50PX1				
2D	Bhimasen Exch to 100PX1, 50PX1, 20PX1				
 JAMIJ/TANUJ सहायक निदेशक/Asst. Dir. of E.A. विद्युत विभाग/Ministry of Power भारत सरकार/Govt. of India नई दिल्ली/New Delhi-6					

CEA office case No: GUJ-796	Map Scale: 1 Cm=500 Meters
DET (PTC) Office Case No: 2824	Route Length: 176.206 Kms
Railway Office Case No:	Soil Resistivity: Ohm-C

Name of Power Line: ^{7500 sqm} 765KV D/C Lakadia - Banaskantha Transmission Line

Telecom Details from BSNL		Details from Power Company/Author			
Sl No.	Name of the Telecom Cable/Line	Length of Parameter in Km	Mutual coupling in Ohm's	Fault current in Amp	Induc Voltage Volt
5.	Santelpur Exch	}	Outside IV consideration		
1E	" to Highway Pillar 200P X 2				
2E	Highway Pillar to Local 5P X 3				
6.	Dahisar Exch	}	IV less than 430V		
1F	Dahisar Exch to Road Pillar 100P X 1				
2F	Road Pillar to Local 50P X 1, 20 X 3, 10 X 4	}	Outside IV consideration		
7.	Bhilot Exch				
1G	Bhilot Exch to local 200P X 1, 100P X 2				
2G	Bhilot Exch to local 10P X 3, 5P X 4	}	IV less than 430V		
8.	Dev Exch				
1H	Dev Exch to Highway 100P X 1				
2H	Dev Exch to Local 20P X 4, 10P X 3				
3H	Dev Exch to Local 20P X 1, 10P X 1	}	IV less than 430V		
9.	Tejvada Exch				
1I	Tejvada Exch to local 50P X 1, 20P X 1				
2I	Tejvada Exch to local 20P X 1, 10P X 2	}	IV less than 430V		
10.	Nathoura Exch				
1J	Nathoura Exch to Rajpur 50P X 1				
2J	Nathoura Exch to Local 20P X 2	}	Outside IV consideration		
11.	Shihari Exch				
1K	Shihari Exch to Highway 800P X 1				
2K	Highway to local 200P X 1, 50P X 1				
3K	Highway to local 100P X 1, 50P X 1	}	IV less than 430V		
4K	Highway to local 50P X 2				
12.	Bukoli Exch				
1L	Bukoli Exch to local 400P X 1	}	IV less than 430V		
2L	Bukoli Exch to Goliya 50P X 1				
13.	Zalmar Exch	}	IV less than 430V		
1M	Zalmar Exch to Pillar 100P X 1, 50P X 2				
2M	Zalmar Exch to Chamangadh 50P X 1				
3M	Zalmar Exch to Namota 50P X 1				

(2/3)

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 तमज/TAMUJ
 सहायक विद्युत निरीक्षक/Asst. S.E.
 केन्द्रीय विद्युत निरीक्षण/CEA
 विद्युत विभाग/Ministry of Power
 भारत सरकार/Govt. of India
 नया दिल्ली/New Delhi

CEA office case No: G.U.J-796	Map Scale: 1 Cm=500 Meters
DET (PTCC) Office Case No: 2824	Route Length: 176.206 Kms
Railway Office Case No:	Soil Resistivity: - Ohm-Cr

Name of Power Line: ^{7500.2cm}
 765 KV D/C Lakadia - Banaskantha Transmission Line

Telecom Details from BSNL		Details from Power Company/Author			
SI No.	Name of the Telecom Cable/Line	Length of Parameter in Km	Mutual coupling in Ohms	Fault current in Amp	Induce Voltage Volts
4M	Zalmana Exch to local 50px1, 20px1	} IV	less than 430V		
14	Khimana Exch				
1N	Khimana Exch to local 50px2				
2N	Khimana Exch to local 50px1	} Outside IV consideration			
15	Diodar Exch				
10	Diodar Exch to kotda 100px1				
20	Diodar Exch to NAVE 100px1	} IV less than 430V			
30	Diodar Exch to local 800px1, 400px2				
40	Diodar Exch to local 400px1, 200px2				
16	Raiya Exch	} Outside IV consideration			
1P	Raiya Exch to local 200px2, 100px1				
17	Ujainwada Exch				
1Q	Ujainwada Exch to 200px1 local	} IV less than 430V			
2Q	Ujainwada Exch to local 100px1				
18	Bhildi Exch	} Out of parallelism			
1R	Bhildi Exch to local 800px1				
2R	Bhildi Exch to Ratanpura 200px1				
3R	Bhildi Exch to Mauntyard 800px1				
4R	Bhildi Exch to soylea 3 pusta 400px1				
5R	Soylea 3 pusta to local 100px1, 50px1, 20px1				

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(3/3) तहसिल/TANUJ
 मुख्य निर्देशक/Chief Director II
 क्षेत्रीय विद्युत प्राधिकरण/C.E.A.
 विद्युत विभाग/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-66

ANNEXURE – II

Case No.: GUJ-796 Name of the Power line: 765 kV D/C Lakadia to Banaskantha transmission line.			Map Scale : 1cm=500mts Total Length : 176.206 km S.R. Value : 7,500 Ohms-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

WESTERN RAILWAY					
Ref. No: SG. 158 / 28 / 12 (1136) DATED: 22-10-2020					
Affected Blocks & Telecom Circuits Details					
1	Lorwada to Bhildi	Outside IV consideration Zone			00
2	Bhildi to Jasali	Outside IV consideration Zone			00
3	Bhabhar to Devagam	2.8	0.0016	14659	23
4	Devagam to Radhanpur	2.9	0.0008	14205	11
5	Chhansara to Santalpur	Outside IV consideration Zone			00
6	Santalpur to Garamadhi	Outside IV consideration Zone			00
7	Garamadhi to Piprala	Outside IV consideration Zone			00
8	Piprala to Lakhpat	Outside IV consideration Zone			00
9	Lakhpat to Adesar	Outside IV consideration Zone			00
10	Adesar to Bhutkiya Bhimasar	Outside IV consideration Zone			00
11	Bhutkiya Bhimasar to Padampur	5.6	0.0005	15966	08
12	Padampur to Kidiyanagar	7.5	0.0012	16705	20
13	Kidiyanagar to Chitrod	10.8	0.0041	17439	71
14	Chitrod to Shivilakha	6.3	0.0066	18751	124
15	Samakhiyali to Lakadiya	Outside IV consideration Zone			00
16	Jasali to Dhanakwada	Outside IV consideration Zone			00
17	Dhanakwada to Diyodar	Outside IV consideration Zone			00
18	Diyodar to Mitha	Outside IV consideration Zone			00
19	Mitha to Bhabhar	Outside IV consideration Zone			00
20	Shivilakha to Lakadiya	2.9	0.0011	19659	22

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 सहायक विनिर्देशक (सिस्टम) - 11
 क्षेत्रीय विद्युत आपूर्ति विभाग, D.C. L.A.
 विद्युत आपूर्ति विभाग, Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

Tele : 23019746

GUS-796
(Annex-III)

Directorate General of Signals
Signals 7
General Staff Branch
Integrated HQ of MoD, (Army)
DHQ PO, New Delhi – 110011


B/46937/Sigs 7(b)/2066/

04 Sep 2020

Associate General Manager
Lakadia Banaskantha Transco Ltd
H.No. 31, Vedant Bunglows, Opp. Balaji Society
Ambika Nagar Road, Radhanpur
Distt. Patan, Gujrat-385340

**SUBMISSION OF PROPOSAL FOR PTCC ROUTE APPROVAL FOR LAYING OF 765KV D/C
LAKADIA-BANASKANTHA TRANSMISSION LINE**

1. Ref your letter No LBTL/PTCC/2019-20/156 dt 20 Apr 2020 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheets received under your letter mentioned above.
3. Documents alongwith map sheets (in original) are returned herewith for your further necessary action.


(A Rawat)
Maj
GSO 1 (Comn)
for SO-in-C

Enclosures : As above

Copy to :-

✓ The Director (PTCC), CEA
Power Communication Development Division
NRPC Complex, 18-A Shaheed Jeet Singh Marg
Katwaria Sarai, New Delhi – 110016

The DET(PTCC), Northern Zone
O/o PGM (North), QA & Inspection Circle,
D-Tax Building, Janpath
New Delhi-110001

for information