सत्यमेव जयते

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

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CEA Case No. : GUJ-902		
Induced Voltage (IV) calculation for 765 kV D/C Navsari (New) - Ahmedabad Transmission Line [Length- 294.958 km]– Regd.		
S. No	**Reference No.**	**Dated**
(i)	PGCIL**:** WR-II/KhavdaPartC/TBCB/TL02/PTCC/1	14.08.2024
(ii)	PGCIL: e-Mail	06.12.2024
(iii)	BSNL**:** IC/MBI/PTCC/GUJ-2982 & 2991	12.12.2024
(iv)	Western Railway: SG/158/28/12(1418)	04.10.2024
(v)	Defense: B/46937/Sigs7(b)/4130	09.12.2024

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

EPR Zones for proposed substation is mentioned below.

Name of the proposed SS	Half Diagonal Distance, D/2 (mts)	Fault Current, I (kA)	Resistance of earthmat, R (Ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7 kV	d (mts) at 10 kV
765/400kV Ahmedabad S/s	436	44.1	0.0094	NA	NA	NA	NA
765/400kV Navsari S/s	268	44.1	0.019	279	94	NA	NA

As per the details submitted by BSNL vide reference (iii) above, no telephone exchange is falling in the EPR zone of the proposed substation.

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office in the stipulated period as specified in PTCC Manual and subsequent CLPTCC meetings.

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for "*Deemed Energization approval*" shall be specified while issuing RAC.

Signed by Suman Kumar Maharana
Date: 24-01-2025 13:41:26
Chief Engineer

To,

1.	Divisional Engineer (PTCC), Western Zone	QA & Inspection circle,1st floor, D- wing, BSNL Bldg., Santa Cruz (West), Mumbai-400054	
2.	GM (S&T) Western Railway	O/o PCSTE, S&T Dept. Western Railway Church gate, Mumbai	Annexure-I
3.	Sr. GM- PGCIL	Khavda-II C TLC office, Crystal Bunglow no 05 & 06 Navsari, Gujarat	

ANNEXURE-I

CEA Case No.: GUJ-902 **Name of the Power line**: 765 kV D/C Navsari (New) - Ahmedabad Transmission Line.	**Map Scale :** 1 cm= 500 m **Total Length :** 294.958 km **S.R. Value :** 3000 Ohm-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: SG/158/28/12(1410) Dated 03.09.2024					
Affected Blocks & Telecom Circuits Details					
1.	Vedhchha R/s to Navsari R/s	-Out of Parallelism-			
2.	Navsari R/s to Maroli R/s	1.5	0.003	25600	77
3.	Maroli R/s to Sachin R/s	2.0	0.0035	25200	88
4	Sachin R/s to Bhestan R/s	-Out of Parallelism-			
5	Kim R/s to Kosamba R/s	-Out of Parallelism-			
6	Kosamba R/s to Panoli R/s	2.5	0.0025	22800	57
7	Panoli R/s to Ankleshwar New R/s	2.0	0.0023	22400	52
8	Ankleshwar New R/s to Bharuch R/s	-Out of Parallelism-			
9	Bharuch R/s to Chavaj Block Cabin R/s	-Out of Parallelism-			
10	Chavaj Block Cabin R/s to Nabipur R/s	-Out of Parallelism-			
11	Nabipur R/s to Varediya R/s	-Out of Parallelism-			
12	Bharuch R/s to Tham R/s	-Out of Parallelism-			
13	Tham R/s to Samni R/s	5.0	0.012	18800	225
14	Samni R/s to Vagra R/s	-Out of Parallelism-			
15	Vagra R/s to Pakhajan R/s	-Out of Parallelism-			
16	Pakhajan R/s to Dahej R/s	-Out of Parallelism-			
17	Ankleshwar R/s to Rajpipla R/s	-Out of Parallelism-			