



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

पावर कम्युनिकेशन डेवलपमेंट प्रभाग

Power Communication Development Division

No./CEA/PCD/PTCC/GUJ-775

Date : 28.03.2019

Divisional Engineer (PTCC), Inspection Circle,
Bharat Sanchar Nigam Limited (BSNL),
3rd Floor, D-Wing, BSNL Admin Building
Juhu Tara Road, Santacruz (West)
Mumbai-400054

Subject: Induced Voltage Calculation in respect of PTCC proposal for Green Infra Wind Energy Ltd (GIWEL-Roha) – Bhuj PS 220 kV S/C line

Reference: i) BSNL letter no. IC/MBI/PTCC/GUJ-2756 dated 20.12.2018
ii) Western Railway letter no. SG.158/28/12(1052) dated 14.01.2019
iii) Defense letter no. B/46937/Sigs 7(b)/1386 dated 25.02.2019

Sir,
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block and Telecom circuits of Western Railway with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 30,000 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 & II respectively. The screening factors, as applicable, have been considered. Vide ref. (iii) above, Defense Authority have issued No Objection Certificate (NOC) (enclosed as Annex – III).

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

Encl.: As above

m/c

Yours faithfully,

(Naresh Bhandari)
Chief Engineer

Copy to:

1. GM (S&T), Western Railway, Office of CSTE, S&T Dept., 5th Floor, Station Building, Churchgate, Mumbai-400020 (With annexure-II Only).
2. M/s Green Infra Wind Energy Limited, Door no. 515 & 514, Tolstoy House, Tolstoy Marg, New Delhi - 110001

CEA Office Case No.-----	GUJ-775	Map scale- 1 Cms = 500 Meters			
DET (PTCC) Office Case No. 2756		Route Length- 63.7 KMs			
Railway Office Case No.		Soil Resistivity- 30,000 Ω -cm			
Name of Power Line: 220/33 KV GIWEL-Roha Windfarm PSS to 220/400/765 KV Bhuj PGCIL					
DETAILS FROM BSNL SIDE		DETAILS FROM POWER COMPANY			
Sl.No.	Name of the Telecom line/Cable	Length of parameter in KM	Mutual coupling in Ohms	Fault Current in Amp	Induce Voltage in Volts
1	NIRONA EXCHANGE				
1A	Nirona Ex- Local 10x1+20x2P	}	OUT OF PARALLELISM		
2A	Nirona Ex- Local 50x1P				
3A	Nirona Ex- Local 20x3P				
2	SUMRASAR EXCHANGE				
1B	Sumrasar Ex- Local 400x1P	}	OUT OF PARALLELISM		
2B	Sumrasar Ex- Local 50x2P				
3B	Sumrasar Ex- Local 20x2P				
3	SAMATRA EXCHANGE				
1C	Samatra Ex- Local 100x2P	}	OUT OF PARALLELISM		
2C	Samatra Ex- Local 50x2P				
4	DESALPAR EXCHANGE				
1D	Desalpar Ex- Local 100x1P	}	IV LESS THAN 430 V		
2D	Desalpar Ex- Local 100x1P				
3D	Desalpar Ex- Local 100x1P				
5	KALYANPUR EXCHANGE				
1E	Kalyanpur Ex- Local 400x1P+100x3P	}	IV LESS THAN 430 V		
2E	Kalyanpur Ex- Local 50x2P, 20x2P				
6	ANANDSAR EXCHANGE				
1F	Anandsar Ex- Local 100x1P	}	IV LESS THAN 430 V		
2F	Anandsar Ex- Local 20x1P				
7	MADHAPAR EXCHANGE				
1G	Madhapar Ex- Local 100x1P+50x1P	}	IV LESS THAN 430 V		
2G	Madhapar Ex- Manjal Nani 50x1P				
3G	Madhapar Ex- Kurboi- 100x1P				
8	ANANDPAR EXCHANGE				
1H	Anandpar Ex- Local 100x1P	}	IV LESS THAN 430 V		
2H	Anandpar Ex- Local 50x2P				
9	SUKHPAR(R.) EXCHANGE				
1I	Sukhpar (R.) Ex- Local 400x2P	}	IV LESS THAN 430 V		
2I	Sukhpar (R.) Ex- Local 100x1P				
3I	Sukhpar (R.) Ex- Local 50x2P				
4I	Sukhpar (R.) Ex- Khirshara- 100x1P+20x2P				
10	RAMPAR (V) EXCHANGE				
1J	Rampar(V) Ex- local 200x2P	}	OUT OF PARALLELISM		
2J	Rampar(V) Ex- School 200x2P				
3J	Rampar(V) Ex- Vekaria 100x1P				
4J	Rampar(V) Ex- Local 100x1P				

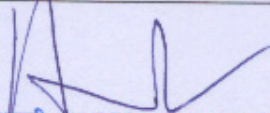
नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियंता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

ANNEXURE – II

Case No.: GUJ-775		Map Scale : 1cm=500mts			
Name of the Power line: Green Infra Wind Energy Ltd (GIWEL-Roha) – Bhuj PS 220 kV S/C line		Total Length : 63 Km.			
		Soil Resistivity : 30000 ohm-cm			
Telecom. Details		Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

Western Railway letter no. – SG.158/28/12(1052) dated 14.01.2019

1	New Bhuj RS – Sukhpar RS	OUTSIDE IV CALCULATION CONSIDERATION ZONE			0
2	Sukhpar RS – Deshalpar RS	1.65	0.0007	6500	5
3	Deshalpar RS – Vijapasar RS	10.3	0.0354	8000	283
4	Vijapasar RS – RS Flag Sanosra	6.9	0.0163	10000	163
5	RS Flag Sanosra - Naliya	OUTSIDE IV CALCULATION CONSIDERATION ZONE			0


 नरेश भंडारी / NARESH BHANDARI
 मुख्य अभियन्ता / Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण / C.E.A.
 विद्युत मंत्रालय / Ministry of Power
 भारत सरकार / Govt. of India
 नई दिल्ली / New Delhi-66

Tele : 23019746

GUV-775

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

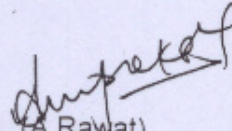
B/46937/Sigs 7(b)/1386/

Feb 2019

Green Infra Wind Energy Limited
Door No. 515&514, Tolstoy House,
Tolstoy Marg, New Delhi-110001

**PTCC APPROVAL OF THE CENTRAL GOVERNMENT FOR LAYING OF 220KV OVERHEAD
LINE UNDER ELECTRICITY ACT 2003 OF 220/33KV GIWEL-ROHA WINDFARM PSS TO
220/400/765 BHUJ PGCIL PSS**

1. Ref your letter No. GIWPL/SGRE/PTCC/Bhujpul/0006 dt 22 Nov 2018 (copy att).
2. No Objection Certificate (NOC) is accorded based on inputs provided vide Map sheet 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

for information.

