



सत्यमेव जयते

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-774/572-74

Date: 13.05.2019

DET (PTCC), Western Zone,  
Bharat Sanchar Nigam Limited (BSNL),  
O/o DET(PTCC), QA & Inspection Circle,  
3<sup>rd</sup> Floor, D-Wing, BSNL Admin Bldg.,  
Juhu Tara Road, Santacruz (West),  
Mumbai -- 400054.

**Subject: Induced Voltage calculation in respect of PTCC proposal of 220 kV D/C & M/C line from Gadhsisa S/S to Nirona PGCIL S/S (765 kV S/S Badi)**

**Ref:** (i) BSNL letter no. IC/MBI/PTCC/GUJ-2755 dated 20.12.2018  
(ii) Western Railway letter no. SG.158/28/12/ (1054) dated 21.01.2019  
(iii) Defense letter no. B/46937/Sigs 7(b)/1366/ dated 30.01.2019

Sir,

The low frequency induction on BSNL and Railway Telecommunication circuits as per details furnished vide above cited references (i) and (ii) respectively has been examined. The Soil Resistivity value has been taken as 25,000 Ohms-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling BSNL Telecom Cables and Railway Telecommunication circuits under single line to ground fault condition are enclosed at Annex-I & II respectively. The screening factors as applicable have been considered. Defense has accorded NOC vide above Ref.(iii) for the above line (a copy enclosed at Annex-III).

Taking above into consideration, kindly take necessary action regarding issue of PTCC route approval.

**Encl.:** As above

m/c

Yours faithfully,


  
(Naresh Bhandari)  
Chief Engineer

**Copy to:**

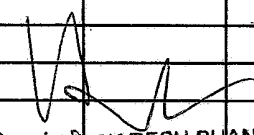
- 1) Office of CSTE, Western Railway, S&T Dept. , 5<sup>th</sup> Floor, Station Building, Churchgate, Mumbai – 400020 (Only Annex-II)
- 2) Sh Aashish Bissa, ReNew Wind Energy (AP 2) Private Limited, DLF Building, Block-1, Zone 6, Main Sector Road, Phase – V, Commercial Complex, Golf Course Road, Gurgaon, Haryana- 122002.

CEA Office Case No.----- GUD-774		Map scale- 1 Cms = 500 Meters			
DET (PTCC) Office Case No:-- 2755		Route Length- 69.583 KMS			
Railway Office Case No.		Soil Resistivity- <del>25000</del> Ohm/CM			
Name of Power Line: 220 KV M/C & D/C O/H TRANSMISSION LINE FROM RENEW WIND ENER (AP2) PVT.LTD.GADHSISA(220 KV) TO NIRONA 220/400/765 PGCIL S/S.					
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
<b>1 NIRONA EXCHANGE</b>					
1A	Nirona Exch.- Local-- 100*1+ 10*2 P	} ← 1V	less than	430V	→
2A	Nirona Exch.- Local-- 50*1 P				
3A	Nirona Exch.- Local-- 20*3P				
<b>2 DEVISAR EXCHANGE</b>					
1B	Devisar Exch. - Local-- 200 *1 P	← 1V	less than	430V	→
<b>3 NAKHATRANA EXCHANGE</b>					
1C	Nakhatrana Exch. - local-- 400*1 P	} ← 1V	less than	430V	→
2C	Nakhatrana Exch. - Counterside-- 200*1 P				
3C	Nakhatrana Exch. - Maninagar-- 50*1 P				
4C	Nakhatrana Exch. - ISchool-- 50*1 P				
5C	Nakhatrana Exch. - IVirani-- 200*1+ 50 P				
<b>4 VITHON EXCHANGE</b>					
1D	Vithon Exch.-Local-- 400*2 + 50*2 P	} ← 1V	less than	430V	→
2D	Vithon Exch.-Local-- 4200*2 + 20*3 P				
3D	Vithon Exch.-Local-- 100*2 + 10*3 P				
<b>5 ANANDPAR EXCHANGE</b>					
1E	Anandpar Exch.-Local- 100*1 p	} ← 1V	less than	430V	→
2E	Anandpar Exch.-Local- 50*2 p				
<b>6 SUKHPAR (R) EXCHANGE</b>					
1F	Sukhpar (R) Exch.- Local--400*2 P	} ← 1V	less than	430V	→
2F	Sukhpar (R) Exch.- Local--100*1 P				
3F	Sukhpar (R) Exch.- Local--50*2 P				
4F	Sukhpar (R) Exch.-Khirsara--100*1+20*2 P				
<b>7 MADHAPAR EXCHANGE</b>					
1G	Madhapar Exch. Local--100*1 +50 P	} ← 1V	less than	430V	→
2G	Madhapar Exch. Kurboi -100*1 P				
3G	Madhapar Exch. Nanimanjali -50*1 P				

1/2

  
 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

Annex-1

CEA Office Case No.----- GUS-774		Map scale- 1 Cms = 500 Meters			
DET (PTCC) Office Case No:-- 2/155		Route Length- 69.583 KMS			
Railway Office Case No.		Soil Resistivity- 25000 Ohm-CM			
Name of Power Line: 220 KV M/C & D/C O/H TRANSMISSION LINE FROM RENEW WIND ENERG (AP2) PVT.LTD.GADHSISA(220 KV) TO NIRONA 220/400/765 PGCIL S/S.					
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
<b>8 KALYANPAR EXCHANGE</b>					
1H	Kalyanpar Exch.- Local-- 400*1+ 100*3 P	} ← out of 115m →	}	}	}
2H	Kalyanpar Exch.- Local-- 50*2+ 20*2 P				
<b>9 GADGSISA EXCHANGE</b>					
1I	Gadhsisa Exch. - Local--800 *1 P	} ← IV less than 430V →	}	}	}
2I	Gadhsisa Exch. - Local--400 *1 P				
3I	Gadhsisa Exch. - Local--800 *1 P				
4I	Gadhsisa Exch. - Maun Moti--100 *1 P				
5I	Gadhsisa Exch. - Devpar--100 *1 P				
<b>10 GANGAPAR EXCHANGE</b>					
1J	Gangapar Exch. - Local- 100*1 P	} ← out of 115m →	}	}	}
2J	Gangapar Exch. - Shefa- 50*1 P				
<b>11 DARSADI EXCHANGE</b>					
1K	Darsadi Exch. - Local-- 200*1 P	} ← out of 115m →	}	}	}
2K	Darsadi Exch. -Mamalmota-- 50*1+20*1 P				
3K	Darsadi Exch. - Ludva-- 100*1+10*1 P				
 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					

2/2



Tele : 23019746

GUVJ - 774

**ANNEX-3**  
Directorate General of Signals  
Signals 7  
General Staff Branch  
Integrated HQ of MoD, (Army)  
DHQ PO, New Delhi - 110011

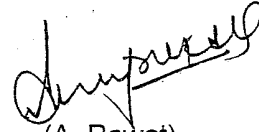
B/46937/Sigs 7(b)/1366/

30 Jan 2019.

ReNew Wind Energy (AP2) Private Limited  
138, Ansal Chambers II,  
Bikaji Cama Place,  
Delhi-110066

**SUBMISSION FOR PTCC APPROVAL OF THE CENTRAL GOVERNMENT FOR LAYING OF 220KV OVERHEAD LINE FROM 300MW GADHSISA RENEW WIND ENERGY (AP2) PRIVATE LTD SWITCHYARD TO PGCIL BHUJ 765/400/220KV SS DIST. KUTCH, GUJARAT UNDER ELECTRICITY ACT 2003**

1. Ref your letter No Renew/GE/GJ-GADHSISA/PTCC/2018-19/01 dt 29 Oct 2018. (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