



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

No.: CEA/PCD/ PTCC/MRA-1165/25-27

Date: 08.01.2021

Subject: PTCC proposal for 220 kV S/C transmission line on D/C and M/C tower from Bhuj-II PSS to AGEL 1st S/S & 2nd S/S with AL-59 Zebra conductor-regd.

Ref.: (i) Adani Renewables Ref. No.220 kV M/C SECI-V-2020-04 dated 28.08.2020
(ii) BSNL Ref. No. IC/MBI/PTCC/GJ-2846 dated 21.12.2020
(iii) Western Railway Ref. No. SG. 158/28/12(1137) dated 22.10.2020
(iv) Defense Ref. No. B/46937/Sigs 7(b)/2156 dated 10.12.2020

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) & (iii) respectively has been computed. The average Soil Resistivity (SR) value has been taken as 60,000 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. Defense has accorded NOC vide above ref. (iv) for this line (a copy enclosed at Annex-III).

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

Encl.: As above.

उपेन्द्र कुमार
(Upendra Kumar)
Chief Engineer

To,

- (i) 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-I & III only)
- (ii) Secy to PCSTE, Western Railway, O/o PCSTE, S&T Dept., 5th floor, Station Building, Church gate, Mumbai-400020. (Annex-II only)

Copy to:-

✓ Adani Green Energy Ltd., Adani Corporate House, 4th floor, South Wing, Shantigram, S.G. Highway, Ahmedabad-382421.

M/c

CEA

(Annex-I) U

CEA office case No: MRA-1165	Map Scale: 1 Cm=500 Meters
DET (PTCC) Office Case No: 2846	Route Length: 15.5 Kms
Railway Office Case No:	Soil Resistivity: 100 Ohm-Cr
Name of Power Line: 220KV SLT Transmission line on DL & MK Tower from Bhuil-II PSS to AGFL 1st SS & 2nd SS	

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 Ohms	Fault current in Amp	Induce Voltage Volts
1.	Nakhabrama Exch				
1A	" to local 400 p x 1, 200 p x 2, 50 p x 2				IV less than 430V
2A	" to local 200 p x 2, 50 p x 2				
3A	" to Vizami 100 p x 1				
2.	Kotda Jadodeu Exch				
1B	" to local 100 p x 1, 50 p x 1				Out of parallelism
2B	" to local 100 p x 1, 50 p x 2				
3B	" to local 100 p x 1, 50 p x 1, 20 p x 2				
3.	Kadiya Mata Exch				
1C	" to Kadiya Nama 100 p x 1				Out of parallelism
2C	" to Todiya 50 p x 1				
4.	Khombhdi Mati Exch				
1D	" to local 100 p x 1, 20 p x 4				Out of parallelism
2D	" to Khombhdi Nemi 20 p x 1				
4.	Khombhdi Mati Exch				
1D	" to local 100 p x 1, 20 p x 4				Out of parallelism
2D	" to Khombhdi Nemi 20 p x 1				
5.	Sukhpai Exch				
1E	" to local 400 p x 1				IV less than 430V
2E	" to local 200 p x 1				
6.	Madhapur Exch				
1F	" to Kusboi 100 p x 1				IV less than 430V
2F	" to local 100 p x 1, 20 p x 4				
7.	Amardapur Exch				
1G	" to local 100 p x 1, 20 p x 5				IV less than 430V
8.	Veshalpur Exch				
1H	" to local 100 p x 1, 20 p x 5				

Repeated

Jain

Mr. TANUJ
 Sr. Asst. Director-II
 CEA
 New Delhi

3

CEA office case No: MRA-1165 Map Scale: 1 Cm=500 Meters
 DET (PTCC) Office Case No: 2846 Route Length: 25.55 Kms
 Railway Office Case No: Soil Resistivity: 600 Ohm-Cm
 Name of Power Line: 220 KV SLT Transmission line on DL & MIC
Tower from Bhoj-11 PS to AGEL 1st SS & 2nd SS

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
9.	Gadhsisa Exch				
1I	" to local 400x1, 200x3, 100x1, 50x3				
2I	" to local 400x1, 200x3, 100x1, 50x3				
10.	Darsahadi Exch				
1J	" to local 200x1, 100x1, 50x1				
2J	" to local 200x1, 50x2				
11.	Gangapur Exch				
1K	" to local 100x1, 50x1				
2K	" to local 100x1, 50x1				
12.	Padampur Exch				
1L	" to local 100x3, 50x1				
2L	" to local 100x1, 50x1				
13.	Bhojaj Exch				
1M	" to local 100x1				
2M	" to local 50x1				
14.	Shabheri Exch				
1N	" to local 100x2, 50x1				
2N	" to local 100x2, 50x1				

IV

less

than 430V

Out of parallelism

(2/2)

तन्वी/TANUJ
 सहायक निदेशक-I/Asst. Genl. S-I
 केन्द्रीय विद्युत प्राधिकरण/C.P.A.
 विद्युत विभाग/Ministry of Power
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-68


ANNEXURE-II

Case No.: MRA - 1165 Name of the Power line: 220 kV S/C transmission line on D/C and M/C tower from Bhuj-II PSS to AGEL 1 st S/S & 2 nd S/S with AL-59 Zebra conductor.			Map Scale : 1 cm=500 m Total Length : (16.313+25.044+33.2) km S.R. Value : 60,000 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(1137) DATED: 22-10-2020

Affected Blocks & Telecom Circuits Details					
1	Mothala to Sanosara	1.5	0.0007	7794	05
2	Sanosara to Sukhpur Roha	8.4	0.0116	6379	73
3	Sukhpur Roha to Deshalpur	5.6	0.0043	6486	28


तनुज/TANUJ
सहायक निदेशक-II/Asstt. Dir. II
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
विद्युत मंत्रालय/Ministry of Power
भारत सरकार/Govt. of India
नई दिल्ली/New Delhi 68

Tele : 23019746

MRA-1363 (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)/2156/

10 Dec 2020

Adani Green Energy Ltd
Adani Corporate House, 4th Floor-South Wing
Shantigram, SG Highway
Ahmedabad 382421, Gujarat, India

SUBMISSION OF PTCC PROPOSAL FOR 220KV S/C TRANSMISSION LINE ON D/C AND
M/C TOWER FROM BHUJ-II PSS TO AGEL IST SS 82ND SS WITH AL-59 ZEBRA
CONDUCTOR AND 48 FIBRE OPGW CABLE

1. Ref your letter No 220kv M/C SECI-V-2020-04 dt 28 Aug 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