



भारत सरकार

Government of India
विद्युत मंत्रालय

Ministry of Power
केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority
पावर कम्युनिकेशन डवलपमेंट प्रभाग

Power Communication Development Division

No./CEA/PCD/PTCC/TNG-12 /2605-07

Date : 20.12.2018

The Divisional Engineer Telecom (PTCC),
QA & Inspection (T&D) circle, BSNL,
1st floor, Raj Bhavan Exchange,
No.26, Sardar Patel Road,
Guindy, Chennai-600032

Subject: Induced Voltage Calculation in respect of PTCC proposal for 220 kV DC/SC line from existing 400/220 kV Veltur SS to proposed 100 MW solar power project being set up by M/s Renew Akshay Urja Pvt Ltd at Gudibanda (V) Addakal (M) Mahabubnagar (Dist.)

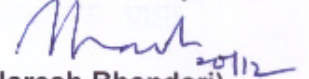
Reference: i) BSNL letter no. SR-PTCC/TG25/05 dated 02.04.2016
ii) South Central Railway letter no. SG.85/4/3/PTCC/TS-2015 RTD dated 29.02.2016
iii) Defense letter no. B/46937/Sigs 7(b)/1144 dated 19.07.2018

Sir,
The instant PTCC proposal has been examined. The low frequency induction on telecom cables of BSNL and Block and Telecom circuits of South Central Railway with respect to details furnished vide above reference has been computed. The Soil Resistivity (SR) value has been taken as 50,000 Ohm-cm, as intimated by the Power authority (TSTransco). The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of South Central 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

Yours faithfully,


(Naresh Bhandari)
Chief Engineer

Copy to:

- GM(S&T), South Central Railway, Head Quarters Office, Signal & Telecomm Branch, Rail Nilayam, Secunderabad – 500071 (Annexure II only)
- Chief Engineer, Construction, TSTRANSCO, Vidyut Soudha, Hyderabad-500082



सत्यमेव जयते

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Central Electricity Authority

पावर कम्युनिकेशन डेवलपमेंट प्रभाग

Power Communication Development Division

नंबर / सीईए / पीसीडी / पीटीसीसी /टीएनजी-12

दिनांक: 20.12.2018

डिवीजनल इंजीनियर टेलीकॉम (पीटीसीसी),
क्यू ए एंड इंस्पेक्शन (टी एंड डी) सर्कल, बीएसएनएल,
1 तल, राज भवन एक्सचेंज,
नं 26, सरदार पटेल रोड,
गुडंडी, चेन्नई -600032

विषय: पीटीसीसी प्रस्ताव - 400/220 केवी वेल्टूर उपकेन्द्र से मेसर्स रेन्यू अक्षय उर्जा प्राइवेट लिमिटेड द्वारा 100MW सोलर
पावर प्रोजेक्ट तक 220 केवी DC/SC लाइन - के संबंध में प्रेरित वोल्टेज गणना

- संदर्भ: i) बीएसएनएल पत्र संख्या SR-PTCC/TG25/05 दिनांक 02.04.2016
ii) दक्षिण मध्य रेलवे पत्र संख्या SG.85/4/3/PTCC/TS-2015 RTD दिनांक 29.02.2016
iii) रक्षा सन्दर्भ सं. B/46937/Sigs 7(b)/1144 दिनांक 19.07.2018

महोदय,

तत्काल पीटीसीसी प्रस्ताव की जांच की गई है। उपर्युक्त संदर्भों में दिए गए विवरण के अनुसार, बी.एस.एन.एल. एवं रेलवे सर्किटों पर निम्न आवृत्ति प्रेरण (Low frequency induction) की जांच की गई है। औसत मृदा प्रतिरोधकता 50,000 ओम-सेमी ली गयी है। सिंगल लाइन to ग्राउंड फाल्ट अवस्था में समानांतर बी.एस.एन.एल. एवं रेलवे सर्किटों पर प्रेरित वोल्टेज (Induced Voltage) क्रमशः अनुलग्नक -I एवं II में संलग्न है। स्क्रीनिंग कारक (screening factor) का मान यथानुरूप लिया गया है। रक्षा प्राधिकरण ने उपरोक्त सन्दर्भ (iii) के द्वारा अनापत्ति प्रमाण पत्र (No objection certificate) जारी किया है। (अनुलग्नक- III में प्रतिलिपि संलग्न)।

अतः आपसे अनुरोध है कि ट्रांसमिशन लाइन के लिए पीटीसीसी रूट अनुमोदन के संबंध में आगे की आवश्यक कार्रवाई करने की कृपा करें।

संलग्न: ऊपरोक्त अनुसार

आपका आभारी,

(नरेश भंडारी)
मुख्य अभियन्ता

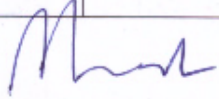
कॉपी:

- i) महाप्रबंधक (सिवटू), मुख्यालय कार्यालय, सिग्नल एवं दूरसंचार शाखा, रेल निलयम, सिकंदराबाद - 500071 (अनुलग्नक- II केवल)
ii) मुख्य अभियन्ता, निर्माण, TSTRANSCO, विद्युत सौधा, हैदराबाद -500082

ANNEXURE - I

Case No.: TNG-12					
Name of the Power line: 220 kV DC/SC line from existing 400/220 kV Veltur SS to proposed 100 MW solar power project being set up by M/s Renew Akshay Urja Pvt Ltd at Gudibanda (V) Addakal (M) Mahabubnagar (Dist.)		Map Scale : 1cm=500mts Total Length : 9.5 Km. Soil Resistivity: 50000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

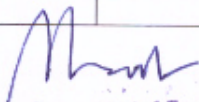
BSNL letter no. – SR-PTCC/TG25/05 dated 02.04.2016					
KOTHAKOTA EXCHANGE					
K1	Exchange to Pallem	OUT OF PARALLELISM			
K2	Exchange to Kanimetta				
K3	Exchange to Ramanthapur				
ADDAKAL EXCHANGE					
P1	Exchange to Chinna Munagala	IV LESS THAN 430 V			
P2	Exchange to Munagala				
P3	Exchange to Katavaram Thanda				
P4	Exchange to Toll Gate	4.35	0.0572	10000	572
P5	Exchange to Gudibando	5.05	0.1192	10000	1192
PONNAKAL EXCHANGE					
M1	Exchange to Rasala	IV LESS THAN 430 V OUT OF PARALLELISM			
M2	Exchange to Kandur				
M3	Exchange to Dasapally	IV LESS THAN 430 V			
M4	Exchange to Nadipata				


मुख्य अभियन्ता/Chief Engineer
केन्द्रीय विद्युत प्राधिकरण/C.E.A.
सेवा भवन, आर.के. पुरम,
Sewa Bhawan, R.K. Puram,
नई दिल्ली-66/New Delhi-66

ANNEXURE – II

Case No.: TNG-12					
Name of the Power line: 220 kV DC/SC line from existing 400/220 kV Veltur SS to proposed 100 MW solar power project being set up by M/s Renew Akshay Urja Pvt Ltd at Gudibanda (V) Addakal (M) Mahabubnagar (Dist.)		Map Scale : 1cm=500mts Total Length : 9.5 Km. Soil Resistivity: 50000 ohm-cm			
S.No	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SOUTH CENTRAL RAILWAY letter no. – SG.85/4/3/PTCC/TS-2015 RTD dated 29.02.2016					
1	Devarakadra (DKC) – Kaukuntla (KQQ)	OUTSIDE IV CALCULATION CONSIDERATION ZONE			0
2	Kaukuntla (KQQ) – Wanaparathi (WPR)	6.95	0.0035	10000	35


 मुख्य अभियन्ता/Chief Engineer
 केन्द्रीय विद्युत प्राधिकरण/C.E.A.
 सेवा भवन, आर.के. पुरम,
 Sewa Bhawan, R.K. Puram,
 नई दिल्ली-66

Annex - III

Tele : 23019746

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

B/46937/Sigs 7(b)/1144 /

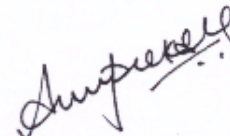
19 Jul 2018

The Chief Engineer,
Construction,
Vidyut Soudha,
Hyderabad - 500082

ERECTION OF 220 KV DC/SC LINE FROM EXISTING 400/220KV FELTOOR SS TO PROPOSED SOLAR POWER : PROJ WHICH IS BEING SET UP BY M/S RENEW AKASHAYA URJA PVT LTD (SPV) OF M/S RENEW SOLAR POWER LTD AT GUDIBANDA (V) ADDAKAL (M) IN MAHABOONAGAR DIST &

400/220 KV VELTOOR SUBSTN TO SOLAR POWER PLANAT SETUP BY M/S SE SOLAR LTD (SPV) OF M/S SUZION ENERGY LTD AT MUTYALAMPALLY (V) DEVARAKADRA (M) IN MAHABOONAGAR DIST (8.435 KM)

1. Reference your letter Lr.No.TST/CE(Const.)/SE (Const)/DE-II/F.PTCC-Renew & Suzlon - Veltoor - Solar/ D.No. 314/18, dt 22 May 2018.
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

Copy to :-

Central Electricity Authority
Power Communication Development Division
NRPC Complex, 18-A, Shaheed Jeet Singh S Marg
Katwaria Sarai, New Delhi - 110016

- For information.