



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-41/490-92

Date : 16.04.2019

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 Plant of M/s SE Solar Ltd at Muthyalampally

Reference: i) BSNL letter no. SR-PTCC/STS-1662/03 dated 19.12.2017
ii) South Central Railway letter no. SG.85/4/3/PTCC/SCRSTS201664 RTD dated 23.05.2017
iii) Defence 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 & Telecom circuits of South Central Railway with respect to details furnished vide above references have been computed. The Soil Resistivity (SR) value has been taken as 25,000 Ohm-cm. 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

M/C

Yours faithfully,


(Naresh Bhandari)
Chief Engineer


Copy to:

1. GM (S&T), Head Quarters Office, Signal & Telecomm Branch, South Central Railway, Rail Nilayam, Secunderabad - 500025 (Annexure-II only)
2. Chief Engineer, Construction, TSTRANSCO, Vidyut Soudha, Hyderabad-500082

ANNEXURE - I

Case No.: TNG-41 Name of the Power line: 220 kV DC/SC line from existing 400/220 kV Veltur SS to proposed 100 MW Solar Power Plant of M/s SE Solar Ltd at Muthyalampally		Map Scale : 1cm=500mts Total Length : 8.435 Km. Soil Resistivity : 25000 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/STS-1662/03 dated 19.12.2017					
Koukuntala Exchange					
1	Exchange to P20 – DP2001				
2	Exchange to P21 – DP2105				
3	Exchange to P22 – DP2206				
IV LESS THAN 430 V					
Addakal Exchange					
1	Exchange to DP23				
2	Exchange to DP12				
3	Exchange to P21 – DP2101				
OUT OF PARALLELISM					
IV LESS THAN 430 V					


 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

ANNEXURE – II

Case No.: TNG-41 Name of the Power line: 220 kV DC/SC line from existing 400/220 kV Veltur SS to proposed 100 MW Solar Power Plant of M/s SE Solar Ltd at Muthyalampally		Map Scale : 1cm=500mts Total Length : 8.435 Km. Soil Resistivity : 25000 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/SCRTS201664 RTD dated 23.05.2017					
1	Kaukuntla (KQQ) – Wanaparthi Road (WPR)	1.6	0.0067	10000	67


 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

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)/1144 /

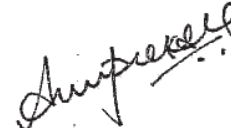
19 Jul 2018

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.