



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/MP-469/30-33

Date://.01.2021

Subject: - Induced voltage calculation in respect of 400 kV DCDS line from Nagda (400 kV) to proposed Ujjain (Tajpur) under phase -I project of Green Energy Corridor Scheme of MNRE, GoI-Reg.

Ref.: - (i) MPPTCL Ref. No. 04-01/PTCC/2488/TR-I/6401 dated 07.10.2019

(ii) BSNL Ref. No. IC/MBI/PTCC/MP-645 dated 25.01.2020

(iii) West Central Railway Ref. No. WCR/N-HQ/120 PTCC-T-50-III Caes-273 dated 09.12.2019

(iv) Defense Ref. No. B/46937/Sigs 7(b)/1859 dated 27.12.2019

The PTCC proposal submitted vide ref. (i) has been examined. The low frequency induction on BSNL Telecom Lines and Block and Communication circuits of West Central Railway as per details furnished vide above cited references (ii) and (iii) respectively has been examined. IV calculation for BSNL is not required as there are no primary U/G cable and no armoured OFC within 08 km of power line. The Soil Resistivity value has been taken as 10,000 ohm-cm, as per data submitted by Power Authority. Voltages likely to be induced on paralleling West Central Railway Block and Communication circuits under single line to ground fault condition are enclosed at Annex-I. The screening factors as applicable have been considered.

Telecom details from Western Railway are pending and Power Authority has shown urgency for charging of the proposed line. Therefore, voltage likely to be induced on paralleling Western Railway Block and Communication circuits are calculated on the basis of topo-map and are enclosed at Annex-II. Defense has accorded NOC vide above ref. (iv) for this line (a copy enclosed at Annex-III).

In view of this, kindly take necessary action regarding issuance of **provisional PTCC route approval for 400 kV DCDS line from Nagda (400 kV) to proposed Ujjain (Tajpur) under phase -I project of Green Energy Corridor Scheme of MNRE, GoI.**

Encl.: As above.

उपेन्द्र कुमार
(Upendra Kumar) 11.01.21
Chief Engineer

To,

- (i) The Divisional Engineer (PTCC), Western Zone, BSNL O/o DET (PTCC), QA & Inspection Circle, 3rd Floor, D-Wing, BSNL Admin Building, Juhu Tara Road, Santacruz (West), Mumbai-400054.(Annex-III only)
- (ii) Dy. CSTE/Tele & Plg., West Central Railway, O/o GM (S & T), 1st Floor, Annex II building, Jabalpur-482068. (Annex-I only)
- (iii) CSTE (Tele) O/o GM(S&T), Western Railway, 5th floor, Station Building, Churchgate, Mumbai-400020. (Annex-II only. Please may inform, if any deviation in circuit details mentioned at Annex-II, at the earliest)

Copy to :- Chief Engineer (Procurement), Madhya Pradesh Power Transmission Co. Ltd., Block No. 3, Shakti Bhawan, Rampur, Jabalpur-482008.

M/C

ANNEXURE - I

Case No.: MP-469 Name of the Power line: 400 kV DCDS line from Nagda (400 kV) to proposed Ujjain (Tajpur) under phase -I project of Green Energy Corridor Scheme of MNRE, GoI		Map Scale : 1cm=500 m Total Length : 53.36 km S.R. Value : 10,000 ohm-cm			
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

WEST CENTRAL RAILWAY Ref. No. WCR/N-HQ/120 PTCC-T-50-III Caes-273 dated 09.12.2019					
Affected Blocks & Telecom Circuits Details					
1	Rohalkhurd to Nagda	2.2	0.0002	14992	03

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-66

ANNEXURE - II

Case No.: MP-469 Name of the Power line: 400 kV DCDS line from Nagda (400 kV) to proposed Ujjain (Tajpur) under phase -I project of Green Energy Corridor Scheme of MNRE, GoI			Map Scale : 1cm=500 m Total Length : 53.36 km S.R. Value : 10,000 ohm-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					
Affected Blocks & Telecom Circuits Details (According to Topo-Map)					
1	Maksi to Tajpur R/S	Outside IV consideration zone			00
2	Tajpur R/S to Pingleshwar R/S	1.7	0.0002	14831	03
3	Pingleshwar R/S to Ujjain R/S	Outside IV consideration zone			00



सचिव/TANUJ
 सहायक निदेशक-II/Asstt. Comr. of II
 केन्द्रीय विद्युत प्राधिकरण CEA,
 विद्युत मंत्रालय/Ministry of Power,
 भारत सरकार/Govt. of India
 नई दिल्ली/New Delhi-110055

MP-469
(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)/1859/

22 Dec 2019

Chief Engineer (Procurement)
Madhya Pradesh Power Transmission Co. Ltd.
Block No. 3, Shakti Bhawan, Rampur,
Jabalpur (M.P.) 482008

**PTCC ROUTE APPROVAL FOR CONSTRUCTION OF 400KV DCDS LINE FROM NAGDA
(400KV) TO PROPOSED 400KV S/S UJJAIN (TAJPUR) UNDER PHASE-I PROJECT OF
GREEN ENERGY CORRIDOR SCHEME OF MNRE, GOI**

1. Ref your letter No 04-01/PTCC/2488/TR-I/6401 dt 07 Oct 2019. (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

Divisional Engineer Telegraph (PTCC)
O/o GM (North); BSNL, QA & Inspection Circle,
CTS Compound, Africa Avenue Road,
Netaji Nagar, New Delhi-110023

} for information