



सत्यमेव जयते

भारत सरकार
Government of India
विद्युत मंत्रालय
Ministry of Power
केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority
विद्युत प्रणाली संचार विकास प्रभाग
Power System Communication Development

CEA Case No.: AND-783		
Induced Voltage (IV) calculation in respect of PTCC proposal for 400 kV D/C line from ARE42L 600MW Chitravathi Pumped Storage Power project SS to 765/400 kV Kurnool III PS (60.163 km)- regd.		
S. No	Reference No.	Dated
(i)	Adani: ARE42L/Chitravathi PSP/PTCC/2025/01	14.03.2025
(ii)	ARE42L: Email_ EMD Parameters_ Tower Schedule	03.12.2025
(iii)	BSNL: SR-PTCC/AND-783/2025-26/1	07.07.2025
(iv)	South Central Railway:SG.85/4/3/PTCC/2025-26/SCRAP 13 RTD	16.05.2025
(v)	Defense: B/46937/Sigs 7(b)/4637	10.06.2025

The PTCC proposal submitted vide above reference (i) & (ii) has been examined. The LF induction on Block and Telecom circuits of South Central Railway with respect to details furnished vide above reference (iv) has been computed. The voltage likely to be induced on paralleling Block and Telecom circuits of South Central Railway under Single Line to Ground fault condition are enclosed at Annexure-I. The screening factors as applicable have been considered. DET (PTCC), SZ, BSNL has issued NOC vide reference (iii) above.

ADG (Telecommunications) has issued No Objection Certificate (NOC) vide reference (v) above (attached as Annexure –II).

EPR Zones for proposed substation are mentioned below.

Name of the proposed SS	Half Diagonal Distance, D/2 (mts)	Fault Current, I (kA)	Resistance of earthmat, R (Ohms)	d (mts) at 430 V	d (mts) at 650 V	d (mts) at 7 kV	d (mts) at 10 kV
400 kV Chitravathi PSP (Power House)	53.2	12.663	1.296	1976	1289	71	34
400 kV Chitravathi PSP (Take Off Yard)	41.6	12.663	0.079	55	22	NA	NA
400 kV Chitravathi PSP (Tail Race Area)	11.2	12.663	0.337	100	62	NA	NA

As per the details submitted by BSNL vide reference (iii) above, no telephone exchanges are falling in the EPR zone of the proposed substation.

Taking above into consideration, necessary action for issuance of PTCC route approval (RAC) shall be taken under intimation to this office in the stipulated period as specified in PTCC Manual and subsequent CLPTCC meetings.

As per the decision taken in 111th and 112th CLPTCC meeting, necessary instructions for “*Deemed Energization approval*” shall be specified while issuing RAC.

Encl.: As above

Chief Engineer,

To,

1.	Divisional Engineer (PTCC), Southern Zone	BSNL, Inspection Circle, 2 nd Floor, Sanchar Complex, WMS Compound, Jayanagar 5 th Block, 9 th Main, 47 th Cross, Bangalore-560041	
2.	PCSTE/SCR	O/o Principal Chief Signal & Telecom Engineer 7th Floor, Rail Nilayam, Secunderabad-500025	
3.	General Manager (Plant & Projects, ARE42L)	Adani Renewable Energy Forty Two Limited 2 nd Floor, D.No. 16/191, On Northern Side, Tapovanam Circle, Ananthapuramu, Anantpur, AP-515004	Copy for information

ANNEXURE-I

CEA Case No.: AND-783 Name of the Power line: 400 kV D/C line from ARE42L 600MW Chitravathi Pumped Storage Power project SS to 765/400 kV Kurnool III PS			Map Scale: 1 cm= 500 m Total Length: 60.163 km S.R. Value: 3000 Ohm-cm		
S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.

SCR Letter No: SG.85/4/3/PTCC/2025-26/SCRAP 13 RTD						Dated 16.05.2025	
1.	KDP-RLL	Out of Parallelism					
2.	RLL-VRN	4.2	0.001	17200	17		
3.	VRN-CLPE	2	0.0008	17329	14		
4.	CLPE-TU	Out of Parallelism					

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

B/46937/Sigs-7(b)/4637

10 Jun 2025

AND - 783

DGM, Plant and Projects
Adani Renewable Energy Forty-Two Ltd
2nd floor, D.No 16/191, On Northern Side,
Tapovanam Circle, Ananthapuramu,
Anantapur, Andhra Pradesh- 515004

**SUBMISSION OF PROPOSAL FOR PTCC APPROVAL OF ADANI
RENEWABLE ENERGY FORTY-TWO LTD FOR LINE ARE42L
600 MW CHITRAVATHI PUMPED STORAGE POWER
PROJECT S/S TO KURNOOL III PS 400 KV D/C
LINE ON D/C TOWER- 60KMS (APPROX)**

1. Ref your Letter No ARE42L/Chitravathi PSP/PTCC/2025/01 dt 14 Mar 25.
2. No Objection Certificate (NOC) is accorded based on inputs provided as per Map sheet received vide your letter mentioned above.
3. Documents along with map sheets (in original) are returned herewith for your further necessary action.



[Signature]
(Puneet Lakhanpal)
Lieutenant Colonel
General Staff Officer Grade-I (Communication)
for Additional Director General (Telecom)

Encl: As above

Copy to :-

HQ Southern Comd (Sigs)

Chief Engineer, PSCD Division
Central Electricity Authority
Room No 702 (North Wing)
Sewa Bhawan, RK Puram, Sector-1
New Delhi - 110 066

[Signature] (DD)
18/07

- for info pl.

Authority

PSCD Division

980

Diary No.

17-07-2025