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

Case No.: KER-328 :

PTCC proposal of Upgradation of Pallivasal to Aluva 66 kV D/C line to 220 kV/110 kV Multi circuit Multi Voltage line with one circuit LILO at Kothamangalam Substation.(83 km)

Reference:

S. No.	Reference No.	Dated
(i)	KSEBL: DCE(TS)/EEII/AEE1/PTCC/Pallivasal-Aluva 220KV/18-19/1616	29.10.2018
(ii)	BSNL: SR-PTCC/SKL/2450/12	30.01.2020
(iii)	Southern Railway: W.384/3/4/543	07.11.2018
(iv)	Defense: B/46937/Sigs 7(b)/2302	25.02.2021

The PTCC proposal submitted vide reference (i) has been examined. The low frequency induction on telecom cables of BSNL and Block & Telecom circuits of Southern Railway with respect to details furnished vide above references (ii) and (iii) respectively has been computed. The voltages likely to be induced on paralleling telecom cables of BSNL and Block & Telecom circuits of Southern Railway under Single Line to Ground fault condition are enclosed at Annexure-I and Annexure-II respectively. The screening factors, as applicable, have been considered. Vide above reference (iv), Defence Authority have issued No Objection Certificate (NOC) (a copy enclosed as Annexure-III).

Taking above into consideration, necessary action for issuance of PTCC route approval may be taken.

Encl.: As above.

Signature Not Verified
Digitally signed by RAGHVENDRA PRATAP SINGH
Date: 2021.09.13 11:55:40 IST

Director

To,

1.	Divisional Engineer (PTCC), Southern Zone.	BSNL, Inspection Circle,1st Floor, Raj Bavan Exchange No. 26, Sardar Patel Road, Guindy, Chennai-600032	Annexure-I & Annexure-III
2.	ASTE/S&T	Southern Railway, Head Quarters Office, S&T Branch, Chennai-600003.	Annexure-II
3.	Deputy Chief Engineer (Tech)	KSEBL; O/o Chief Engineer (Transmission South), Vydyuthi Bhavanam, Pattom, Thiruvananthapuram-695004.	Copy for information

M/C

KER-328

Encl: TD marked topo map

Case No.SRPTCC/SKL/2450							SR: 75,000 new
Scale: 1:50000			SSA : Ernakulam				
Name of Power line: :–: Upgradation of Pallivasan – Aluva 66 KV DC Line to to 220 KV/110 KV Mult Circuit							
Length: 83.0 KMs							

Average SR value : 75,000 new

No	Name of telecom line	LOP in KMs	MC in Ohms	FC in Amps	IV in Volts	Safe Separation Distance
	Thottakkattukara Exchange (TTK)					
1	Exchange to P 30					
2	Exchange to P 67					
3	Exchange to P 35					
4	Exchange to P 71					
5	Exchange to P 64					
6	Exchange to P 33					
7	Exchange to P 69					
	Aluva Exchange (ALV)					
1	Exchange to P 55					
2	Exchange to P 58					
3	Exchange to P 69					
4	Exchange to P 62					
5	Exchange to P 64					
6	Exchange to P 63					
7	Exchange to P53					
8	Exchange to P 80					
9	Exchange to P 81					
10	Exchange to P 54					
	Choondy Exchange (CDY)					
1	Exchange to P 86					
2	Exchange to P 72					
3	Exchange to P 74					
4	Exchange to P 88					
5	Exchange to 89					
6	Exchange to 32					
7	Exchange to P 33					
8	Exchnge to P 35					
9	Exchange to P 45					
	Kalamassery Exchange (KMSR)					
1	Exchange to P 51					
2	Exchange to P 53					
3	Exchang e to P 57					
4	Exchange to P 41					
5	Exchange to P 28					
6	Exchange to P 29					
7	Exchange to P 74					

IV less than 430 V

तनुज / TANUJ
सहायक निदेशक-II / Asstt. Director-II
केन्द्रीय विद्युत प्राधिकरण / C.E.A.
विद्युत मंत्रालय / Ministry of Power
भारत सरकार / Govt. of India
नई दिल्ली / New Delhi-66

(1/12)

8	Exchange to P 63						
9	Exchange to P 75						
10	Exchange to P 67						
11	Exchange to P 76						
	Thikkakara Exchange (TKK)						
1	Exchange to P 22						
2	Exchange to P 54						
3	Exchange to P 41						
	Cusat Exchange (CUS)						
1	Exchange to P 53						
2	Exchange to P 68						
3	Exchang e to P 66						
	Kalamassery Exchange (KMR)						
1	Exchange to P 55						
2	Exchange to P 45						
3	Exchange to P 56						
4	Exchange to P 51						
5	Exchange to P 52						
6	Exchange to P 57						
7	Exchange to P 53						
8	Exchange to P 48						
9	Exchange to P 41						
10	Exchange to P 28						
11	Exchange to P 29						
12	Exchange to P24						
13	Exchange to P 74						
14	Exchange to P 63						
15	Exchange to p 76						
16	Exchange to P 75						
17	Exchange to P 67						
	Thrikkakara Exchange						
1	Exchange to P 22						
2	Exchange to P 23						
3	Exchange to P 24						
4	Exchange to P 25						
5	Exchange to p 26						
6	Exchange to P 27						
7	Exchange to P 28						
8	Exchange to P 29						
9	Exchange to P 31						
10	Exchange to P 32						
11	Exchange to P 34						
12	Exchange to p35						
13	Exchange to P 36						
14	Exchange to P 41						
15	Exchange to P 42						
16	Exchange to P 43						
17	Exchange to P 44						
18	Exchange to P 45						

IV less than 930V

40	Exchange to P 44				
41	Exchange to P 54				
	Thottakkattukara Exchange (TTK)				
1	Exchange to P 30				
2	Exchange to P 75				
3	Exchange to P 36				
4	Exchange to P 72				
5	Exchange to P 39				
6	Exchange to P 66				
7	Exchange to P 67				
8	Exchange to p 35				
9	Exchange to P 32				
10	Exchange to P 73				
11	Exchange to p 37				
12	Exchange to P 71				
13	Exchange to P 34				
14	Exchange to P 64				
15	Exchange to P31				
16	Exchange to P 33				
	Sreemoolanagaram Exchange (SMN)				
1	Exchange to P 21	IV less than 430V			
2	Exchange to P 22				
3	Exchange to P 31				
4	Exchange to p 32				
4	Exchange to P 33				
5	Exchange to P 41				
6	Exchange to P 42				
7	Exchange to P 51				
8	Exchange to P 52				
9	Exchange to P 61				
10	Exchange to P 62				
11	Exchange to P 63				
12	Exchang to P 64				
	Nedumbassery Exchange (NBS)				
1	Exchange to P 41				
2	Exchange to P 42				
3	Exchange to P 44				
4	Exchange to P 51				
5	Exchange to P 52				
6	Exchange to P 53				
7	Exchange to P 54				
	Kizhakkambalam Exchange (KZM)				
1	Exchange to P 27				
2	Exchange to P 23				
3	Exchange to P 44				
4	Exchange to P 32				
5	Exchange to P 82				
6	Exchange to P 58				
7	Exchange to P 72				

8	Exchange to P 55					
	Marampally Exchange (MPY)					
1	Exchang to P 31					
2	Exchange to P 32					
3	Exchange to P 33					
4	Exchange to P 51					
5	Exchange to P 52					
6	Exchange to P 41					
7	Exchange to P 45					
8	Exchange to P 44					
9	Exchange to P 42					
10	Exchange to P 21					
11	Exchange to P 23					
12	Exchange to P 24					
13	Exchange to P 43					
	Kalady Exchange (KLD)					
1	Exchange to P 24 A					
2	Exchange to P 22					
3	Exchange to P 92					
4	Exchange to P 72					
5	Exchang e to P 82					
6	Exchange to P 41					
7	Exchange to P 91					
8	Exchange to P 61					
9	Exchange to P 51					
10	Exchange to p 65					
11	Exchange to P 85					
12	Exchange to P 46					
13	Exchange to P 76					
14	Exchange to P 25					
15	Exchange to p 45					
16	Exchange to P75					
17	Exchange to P 83					
18	Exhange to P 53					
19	Exchange to p 33					
20	Exchange to p 23					
21	Exchange to p 63					
22	Exchange to P 73					
23	Exchange to P 21					
24	Exchange to P 24, 34					
25	Exchange to 36					
26	Exchange to P 26					
27	Exchange to P 32					
28	Exchange to P 42					
	Pattimattom Exchange					
1	Exchange to P 31					
2	Exchange to P 32					
3	Exchange to P 41					
4	Exchange to P 42					
5	Exchange to P 43					

IV less than 430V

6.	Exchange to p 21					
7	Exchange to P 81					
8	Exchange to p 22					
9	Exchange to P 23					
10	Exchange to P 61					
11	Exchange to P 62					
12	Exchange to P 63					
	Perumbavoor Exchange (PBR)					
1	Exchange to P 21					
2	Exchange to P 27					
3	Exchange to P 28					
4	Exchange to P 29					
5	Exchange to P 94					
6	Exchange to P 98					
7	Exchange toP 99					
8	Exchange to P 25					
9	Exchange to P 26					
10	Exchange to P 21					
11	Exchange to P 22					
12	Exchange to P 23		IV less than 430V				
13	Exchange to P 24					
14	Exchange to P 91					
15	Exchange to P 92					
16	Exchange to p 93					
17	Exchange to P 97					
18	Exchange to P 96					
19	Exchange to p 58					
20	Exchange to P 95					
21	Exchange to P 99					
22	Exchange to P 58					
23	Exchange to P 39					
24	Exchange to P 40					
25	Exchange to P 90					
26	Exchange to P 31					
27	Exchange to P 32					
28	Exchange to p89					
29	Exchang to P 33					
30	Exchange to P88					
31	Exchange to P 33A					
32	Exchange to P 34					
33	Exchange to p80					
34	Exchange to P 35					
35	Exchange to P 80					
36	Exchange to P 36					
37	Exchange to P 37					
38	Exchange to p 30					
39	Exchange to p 30					
40	Exchange to P 61					
41	Exchange to P 62					
42	Exchange to P 62A					
43	Exchange to p61A					
44	Exchange to P 63					
45	Exchange to P64					

46	Exchange to p81					
47	Exchange to P 65					
48	Exchange to p19					
49	Exchange to P 66					
50	Exchange to P 82					
51	Exchange to P 67					
52	Exchange to p 68					
53	Exchange to P 84					
54	Exchange to p86					
55	Exchange to p69					
56	Exchange to P87					
57	Exchange to P85					
58	Exchange to p83					
59	Exchange to p51					
60	Exchange to P53					
61	Exchange to p52					
62	Exchange to p 60					
63	Exchange to p50					
64	Exchange to P 55					
65	Exchange to P 54		IV less tham 430 V			
66	Exchange to P56					
67	Exchange to p 57					
68	Exchange to p 59					
69	Exchange to p 42					
70	Exchange to p 71					
71	Exchange to P 72					
72	Exchange to P 73					
73	Exchange to p 70					
74	Exchange to p 44					
75	Exchange to P45					
76	Exchange to P 43					
77	Exchange to P 49					
78	Exchange to p 46					
79	Exchange to P 47					
80	Exchang e to P 78					
81	Exchange to P 48					
82	Exhange to P 79					
83	Exchange to P 77					
84	Exchange to P74					
85	Exchange to P 75					
86	Exchange to P 76					
	Koovapady Exchange (KVP)					
1	Exchange to P 42					
2	Exchange to P 22					
3	Exchange to P 23					
4	Exchange to P 31					
5	Exchange to P32					
6	Exchange to P 24					
7	Exchange to P 33					
8	Exchange to P 26					
9	Exchange to P 51					
	Mazhuvannoor Exchange					

1	Exchange to P 32					
2	Exchange to P 42					
3	Exchange to P 54					
4	Exchange to P 53					
5	Exchange to P 52					
6	Exchange to P 51					
7	Exchange to p 21					
8	Exchange to p 23					
	Chundakuzhu Exchange (CDK)					
1	Exchange to P 31					
2	Exchange to P 32					
3	Exchange to P 33					
4	Exchange to p 41					
5	Exchange to P 22					
6	Exchange to P 21					
7	Exchange to P 23					
8	Exchange to P 24					

	Keezhillam Exchange (KLM)					
1	Exchange tto P 45					
2	Exchange to P 39		IV	less than	430V	
3	Exchange to P 33					
4	Exchange to P 31					
5	Exchange to P 37					
	Odakkali Exchange (ODK)					
1	Exchange to P 21					
2	Exchange to P 22					
3	Exchange to P 31					
4	Exchange to P 32					
5	Exchange to p41					
6	Exchange to P 51					
7	Exchange to P61					
8	Exchange to P 62					
9	Exchange to p 63					
10	Exchange io P 81					
11	Exchange to P 71					
12	Exchange to P 72					
	Vengoor Exchange (VNG)					
1	Exchange to P 21					
2	Exchange to P 31					
3	Exchange to P 32					
4	Exchange to p 42					
5	Exchange to P 41					
6	Exchange to p 43					
7	Exchange to p 81					
8	Exchange to P 91					
9	Exchange to p 61					
10	Exchange to p 62					
11	Exchange to P 71					
12	Exchange to p 51					

13	Exchange to p 52						
14	Exchange to P 82						
	Kombanad Exchange (KMB)						
1	Exchange to Vettuvalavu						
	Muvattupuzha Exchange (MPZ)						
1	Exchange to P 54						
2	Exchange to P 59						
3	Exchange to P 53						
4	Exchange to P62						
5	Exchange to p 55						
6	Exchange to P 23						
	Vazhapilly Exchange (VPL)						
1	Exchange to P 29						
2	Exchange to P 28						
3	Exchange to p 47						
4	Exchange to P 64						
5	Exchange to P 65						
6	Exchange to p 43						
7	Exchange to p 48						
8	Exchange to p27						
9	Exchange to p 26						
10	Exchange to p 25						
11	Exchange to P 45						
12	Exchange to P 50						
13	Exchange to P 44						
	Cheuvattoor Exchange (CVT)						
1	Exchange to P 32						
2	Exchange to P 21						
3	Exchange to P 23						
4	Exchange to P 24						
	Kottappady Exchange (KPD)						
1	Exchange to P 21						
2	Exchange to P 22						
3	Exchange to P 23						
4	Exchange to P 32						
5	Exchange to P 41						
6	Exchange to P 43						
	Perumattom Exchange (PMT)						
1	Exchange to P 24						
2	Exchange to P 49						
3	Exchange t P 46						
	Kothamangalam Exchange (KMX)						
1	Exchange to P 41						
2	Exchange to P 52						
3	Exchange to P 51						
4	Exchange to p 21						
5	Exchange to p 31						

IV less than 450V

6	Exchange to p 32					
7	Exchange to P 33					
8	Exchange to p 34					
9	Exchange to P 35					
10	Exchange to P 36					
11	Exchange to P53					
12	Exchange to P 45					
13	Exchange to P42					
14	Exchange to P64					
15	Exchange to P 44					
16	Exchange to P 47					
17	Exchange to P 24					
18	Exchange to P 22					
	Varapetty Exchange (VPY)					
1	Exchange to P 21					
2	Exchange to p 41					
3	Exchange to P 31					
	Kozhipilly Exchange (KZP)		IV less than 430V			
1	Exchange to P 21					
2	Exchange to P 23					
3	Exchange to P 24					
4	Exchange to P 31					
5	Exchange to P 34					
6	Exchange to P 35					
7	Exchange to P 42					
	Chelad Exchange (CHD)					
1	Exchange to P 31					
2	Exchange to P 33					
3	Exchange to P 42					
4	Exchange to p 35					
5	Exchange to P34					
6	Exchange to P 21					
7	Exchange to P 23					
8	Exchange to P 22					
9	Exchange to P 24					
	Pothanikad Exchange (PTK)					
1	Exchange to P 32					
2	Exchange to P 42					
3	Exchange to P 45					
4	Exchange to P 23					
	Neilimattom Exchange (NLT)					
1	Exchange to P 61					
2	Exchange to P 41					
3	Exchange to P 51					
4	Exchange to P 21					
5	Exchange to P 31					
	Onukkal Exchange (OKL)					
1	Exchange to P 42					

2	Exchange to P 32					
3	Exchange to P 33					
4	Exchange to P 21					
5	Exchange to P 52					
6	Exchange to P 41					
	Chathamattam Exchange (CHM)					
1	Exchange to P 31					
2	Exchange to P 21					
	Kadavoor Exchange (KDV)					
1	Exchange to P 32					
2	Exchange to P 41					
3	Exchange to P 21					
	Neriamangalam Exchange (NRM)					
1	Exchange to p 32					
2	Exchange to P 41					
3	Exchange to P 22					
4	Exchange to P 51					
	Vannappuram Exchange (VPM)					
1	Exchange to P 27					
2	Exhange to P 41					
3	Exchange to P 33					
	Mullaringad Exchange (MGD)					
1	Exchange to P 32					
2	Exchange to P 24					
3	Exchange to P 25					
4	Exchange to P 41					
	Irumpupalam Exchange (IRP)					
1	Exchange to P 42					
2	Exchange to P 21					
3	Exchange to P 32					
4	Exchange to P 41					
	Adimaly Exchange (ADM)					
1	Exchange to P 52					
2	Exchange to P 33					
3	Exchange to P 32					
4	Exchange to P 45					
5	Exchange to P 28					
	Vattayar Exchange (VTR)					
1	Exchange to P 42					
2	Exchange to P 21					
	Kathippara Exchang (KPR)					
1	Exchange to P 42					
2	Exchange to P 32					
3	Exchange to P 21					
4	Exchange to P 41					

IV less than 430V

	Iruttukanam Exchange (IKN)			
1	Exchange to P 32			
2	Exchange to P 41			
3	Exchange to P 23			
	Vellathuvai Exchange (VTL)			
1	Exchange to P 21			
2	Exchange to P 22			
3	Exchange to P 51			
4	Exchange to P 41			
5	Exchange to P 42			
		_a_	I V	less than 450 V
	Chithirapuram Exchange (CPM)			
1	Exchange to P 31			
2	Exchange to P 21			
3	Exchang e to P 41			
	Munnar Exchange (MAR)			
1	Exchange to P 51			
2	Exchange to P 52			
3	Exchange to P 53			
4	Exchange to P 31			
5	Exchange to P 21			
6	Exchange to P 24			
7	Exchange to P 22			
8	Exchange to P 23			
9	Exchange to p 25			
10	Exchange to P 27			
11	Exchange to P 28			
12	Exchange to P 26			
13	Exchange to P 41			

TANUJ /Asstt. Director-II
सहायक विद्युत आधिकारी /C.E.A.
विद्युत मंत्रालय /Ministry of Power
भारत सरकार /Govt. of India
नई दिल्ली /New Delhi-66

(12 / 12)

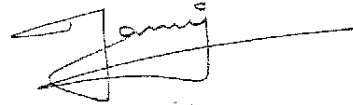| Case No.: KER-328	Map Scale : 1 cm=500 m
Name of the Power line: Upgradation of Pallivasal to Aluva 66 kV D/C line to 220 kV/110 kV Multi circuit Multi Voltage line with one circuit LILO at Kothamangalam Substation.	Total Length : 81+2 km Soil Resistivity : 75,000 ohm-cm

S.No.	Telecom. Details	Length of Parallelism in Km.	Mutual Coupling in Ohms.	Effective Fault current in Amps.	I.V in Volts.
	Southern Railway letter no:- W.384/3/4/543 dated 7.11.2018				
	Affected Blocks & Telecom Circuits Details				
1	Angamali to Alwaye	2	0.0022	9632	21
2	Alwaye to Kalamserri	1.4	0.0026	9912	27
3	Kalamserri to Idapalli	Out of Parallelism			00

Tele 23018748   KER-328J

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

B/46937/Sigs 7(d)/2307   Feb 2021

Office of the Chief Engineer (Transmission South)
Kerala State Electricity Board Limited
Vydyuthi Bhavanam, Pattom
Thiruvananthapuram-695 004, Kerala

UPGRADATION OF PALLIVASAL ALUVA 66KV DC LINE TO 220KV/110KV MULTI CIRCUIT MULTI VOLTAGE LINE WITH ONE CIRCUIT LILO AT KOTHAMANGALAM SUBSTATION-PTCC CLEARANCE

1.   Refer your letter No DCE (TS)/EE 1/AEE 1/PTCC/Pallivasal Aluva/20-21/1405 dt 14 Jan 2021 (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 Divisional Engineer (PTCC)
'D' Wing, 3rd Floor, Admn Bldg
Telecom Complex,
Juhu Tara Road,
Santracruz West, Mumbai - 400054

The DET(PTCC), Northern Zone
O/o PGM (North), QA & Inspection Circle,
D-Tax Building, Eastern Court, Janpath
New Delhi-110001

- for information