



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/J&K-46/119 -12)

Date: 28/1/19

DET (PTCC), Northern Zone,  
Bharat Sanchar Nigam Limited (BSNL),  
O/o PGM (N), Inspection Circle,  
CTS Compound, Netaji Nagar,  
New Delhi - 110023

**Subject: PTCC Approval for 220kV S/C Drass - Kargil Transmission Line**

**Reference:** (i) BSNL No. DET/PTCC/ND/DV-9228/J&K-221/2017-18 Dated: 19.03.2018  
(ii) Northern Railway letter No. 342-SIG/1/PTCC Dated: 08.11.2017

Sir,

220kV Drass-Kargil T/L is a part of SLTS (Srinagar Leh Transmission System), to connect Srinagar with the National Grid. It was challenging to compute Induced Voltage (IV), as the line was located in Srinagar and route map of SOI (Survey of India) was not available due to security reasons. Therefore, Google Earth map was used to find out proximity of telecom circuits of BSNL and Defense w.r.t. power line. Railway vide ref. (ii) above has already informed that there was no Railway line in the route of the power line, hence, no IV calculation was required. So, the issue was to compute IV for BSNL and Defense telecom circuits. But, the information available was not enough, particularly Defense.

#### DEFENSE

Defense vide letter dated 10/8/17, a copy enclosed at Annex-I, had submitted the information. As the information was not complete, the matter was taken up with PGCIL, the power authority. PGCIL forwarded another Defense letter dated 27/9/18 (a copy enclosed at Annex-II). As per this, there is only one JFC armoured telecom circuit between Drass and Thasgam, which qualifies for IV calculation. As the stretch between Drass and Thasgam was long and no information regarding in between terminating stations was available, a meeting with BSNL and PGCIL was held in the office CE, CEA on 26/11/18, and PGCIL was requested to furnish the details of termination station, if any, between Drass and Thasgam along with their locations in a schematic diagram. Accordingly, PGCIL furnished a schematic diagram on 29/11/18, a copy is enclosed at Annex-III. It gives details of three terminating stations between Drass and Thasgam i.e. Army Drass Camp, War Memorial and Bhimbat. With this information, the likely IV at Defense telecom circuits has been calculated and enclosed at Annex-IV.

#### BSNL

BSNL vide letter dated 21/1/19 furnished details of operational cables, a copy is enclosed at Annex-V. The likely IV at BSNL telecom circuits is given at Annex-VI.

**ADDITIONAL INFORMATION**

PGCIL vide letter dated 24/01/19, a copy enclosed at Annex-VII, has informed that the instant power line has been slightly re-routed between Bhimbat and Thasgam to avoid Army Helipad and to get clearance from Indian Army. The same has also been repeated between Hardas and Chanigund. PGCIL has also certified that there is no parallelism between power line and any telecom line of BSNL/Defense.

For computing IV under SLG fault condition for BSNL and Defense telecom circuits, the soil resistivity of 20000 ohm-cm has been considered. The screening factors as applicable have been considered.

Keeping above information into consideration, BSNL is requested to issue PTCC Route Approval Certificate.

**Encl.:** As above.

  
(Naresh Bhandari)<sup>28/11</sup>  
Chief Engineer

**Copy to:**

- 1 DGM, POWERGRID, SLTS Kargil, NRTS-II, Hazi Mubarak Manzil, Bagh-e-Khumeini, Near Govt. ITI, Kargil, Laddakh (J&K)-194103
- 2 Directorate General of Signals, Signals 7, General Staff Branch, Integrated HQ of MoD, (Army) DHQ PO, New Delhi – 110011 [With all annexures, except Annex-V & VI]

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)/431/

19 Aug 2017

Mr Mohd. Nasim Eqbal  
 Dy General Manager, Kargil  
 Srinagar-Leh Transmission System, NRTS-II  
 Haji Mubarak Manzil, Bagh-e Khomeini.  
 Near Govt ITI, Kargil, Ladakh (J&K) - 194103

**PTCC CLEARANCE FOR 220 K/V SC DRASS - KARGIL TRANSMISSION LINE**  
**(PART- III)**

1. Reference your letter No N2KGL/DKTL/PTCC/2016/710 dated 27 Oct 2016.
2. Most of the Army Copper cable falls within 8 Km of the alignment of the proposed Pylons. Therefore, interference issues will exist in case pylons are erected on the proposed alignment. However, NOC can still be recommended subject to resolution of interference issues to the satisfaction of India Army. For further details, It is requested that Maj Gaurav Saxena, Mob No 9419299323 be contacted.  
9596711644
3. PGCIL Tower locs, OFC, JFC routes have been plotted on Google Earth. Image of entire route of txn lines & towers under Proj Pragati Strat, TAG & Ring OFC and JFC plotted on Google Earth is att as Appx 'B' & 'C' ( enclosed as CD).
4. Documents alongwith map sheets (in original) and CD are returned herewith for your further necessary action.

*Bikram*  
 (Bikram Kunwar)  
 Lt Col  
 GSO 1 (Comn)  
 for SO-in-C

**Enclosures** (As above)



पावर ग्रिड कारपोरेशन ऑफ इन्डिया लिमिटेड

(एक भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

ANNEX -11

Page 1/2

Srinagar – Leh Transmission System, NRTS-II, Hazi Mubarak Manzil,  
Bagh – e- Khumeini, Near Govt. ITI, Kargil (J&K) – 194103  
E-mail - sltskargil@gmail.com, CIN – L40101DL1989GOI038121

Ref. No.: NR2/SLTS/TW-04/2018-19/PTCC-II

Date: 22.10.18

To,  
The Chief Engineer  
Central Electricity Authority  
Power Communication Development Department  
New Delhi

**Subject: Submission of Defence telecom details – PTCC approval of 220 kV S/c Kargil – Khalsti & 220 kV Drass – Kargil transmission lines under Alusteng (Srinagar) – Leh Transmission system.**

**Reference:**

- (i) Your letter no. CEA/PCD/PTCC/J&K-49/2070 dt. 31.08.2018..
- (ii) Our letter no. NR2/SLTS/TW-04/2018-19/PTCC dt. 30.08.2018
- (iii) Your letter no. CEA/PCD/PTCC/J&K-49/2045 dt. 24.08.2018..
- (iv) Letter no. के.वि.प्रा./पी.सी.डी./पीटीसीसी/जे.&के.-49/1920 dt. 27.07.2018.

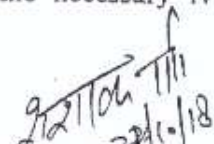
Sir,

In reference to your letter dated 31.08.2018, vide which the clarifications was sought regarding the armoured/un-armoured status of the cables shown in the CD submitted. This information was again sought from Defence Authorities and same was received vide their letter dt. 27.09.18. As per the information received the following is hereby submitted:

- a. All the Defence lines which falls in the 8 kms perimeter of 220 kV S/c Kargil – Khalsti line are un-armoured.
- b. All the Defence lines which falls in the 8 kms perimeter of 220 kV S/c Drass – Kargil line are un-armoured except only one JFC (Drass – Thasgam) which is armoured and IV are required to be calculated for this JFC only.

The above mentioned detail is based on the letter received from Head Quarters 14 Corps, Signals, Leh (Copy attached). You are requested to please provide the necessary IV calculations/NOC clearance for the subject transmission lines.

Thanking You,

  
(Shashank Garg)

Manager

Mob: 9729872323

पंजीकृत कार्यालय : बी-9 कुतब इन्स्टीटयूशनल एरिया, कटवर्निया सराय, नई दिल्ली-110016.

दूरभाष : 26560112, 26560121, 26564812, 26560193.

Registered Office: B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016.

EPABX: 26560112, 26560121, 26564812, 26560193.

आप हमसे हिन्दी में पत्र व्यवहार कर सकते हैं।

BY HAND

Headquarters 14 Corps (Signals)  
Postal Index Number - 908514  
care of 56 Army Postal Office

6151/Comm Gen/Sigs 2/

27 September 2018

Power Grid Corporation of India Ltd.  
NRTS II, Hazi Mubarak Manzil,  
Bagh - e-Khumeim, Near Govt ITI,  
Kargil (J & K) PIN - 194103

**DETAILS REQUIRED FOR THE COMMUNICATION CHANNELS FROM DRASS  
TO KHALTSI - CONSTRUCTION OF 220 KV TRANSMISSION SYSTEM  
FROM ALUSTENG (SRINAGAR) - LEH TRANSMISSION SYSTEM**

1. Please refer your office letter No NR2/SLTS/TW04/2018-19/PTCC dated 10 September 2018.
2. Inputs regarding the OFC links between Drass and Khaltai are as under:-

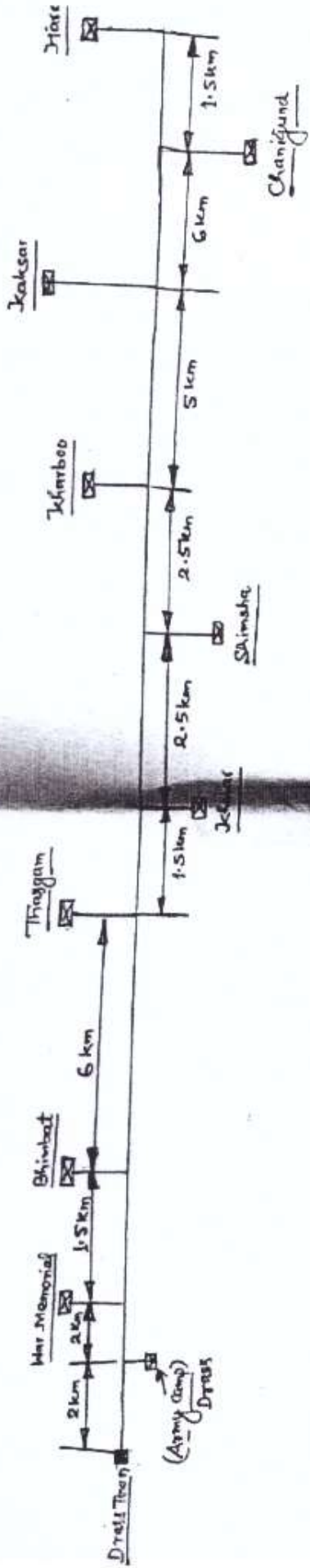
<u>Ser No</u>	<u>Links</u>	<u>Status</u>	<u>Remarks</u>
(a)	STRAT OFC	Un-armored	-
(b)	NFS OFC	Un-armored	-
(c)	JFC (Kaksar to Khaltai)	Un-armored	-
(d)	JFC (Drass to Thasgam)	Armored	-

3. For your necessary action please.



(RN Bhandari)  
Lieutenant Colonel  
Staff Officer 1 (Communication)  
for Chief Signals Officer

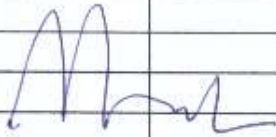
RROKV s/c Drass-Kargil (TL) Details of army establishments along the route of the line.



Note: Sketch Not to the scale and distances are approximately.

Signature  
20/11/18  
Madan Lal  
Manager (P)  
SITP, Kargil

Case No. : J&K- 46		Annex - IV			
Name of the power line: 220kV S/C Drass - Kargil Transmission Line		Line Length : 60 KM		S.R. Value : 20000 Ohms-cm	
S. No.	Defense Telecom Circuits	Length of Parallelism (KM)	Mutual Coupling (Ohm)	Effective Fault current (Amp)	Induced Voltage (Volt)
1	Drass Town – Army camp Drass	2.0	0.0070	9600	67
2	Army camp Drass – War Memorial	2.0	0.0070	9400	66
3	War Memorial - Bhimbat	1.5	0.0052	9200	48
4	Bhimbat - Thasgam	6.0	0.0209	8000	167
<b>Note-1:</b>					
The safe limit is 430 V.					
<b>Note-2:</b>					
Defense vide letter dated 27/9/18, a copy enclosed at Annex-II, has informed that the telecom circuit between Drass and Thasgam is JFC (Jelly Filled Cable) and is armoured, so, accordingly suitable screening factor has been considered for computing IV.					
<b>Note-3:</b>					
PGCIL vide letter dated 24/1/19, a copy enclosed at Annex-VII, has informed that the instant power line has been re-routed between Bhimbat and Thasgam to avoid Army Helipad and to get clearance from Indian Army. PGCIL has certified that there is no parallelism between power line and Defense telecom circuits.					



नरेश भंडारी / NARESH BHANDARI  
मुख्य अभियन्ता / Chief Engineer  
केन्द्रीय विद्युत प्राधिकरण / C.E.A.  
विद्युत विभाग / Ministry of Power  
भारत सरकार / Govt. of India  
नई दिल्ली / New Delhi-66

ANNEX-V

DET(PTCC), Northern Zone,  
O/o PGM(N), Inspection Circle,  
CTS Compound, Netaji Nagar,  
New Delhi-110023



भारत संचार निगम लिमिटेड  
भारत संचार निगम लिमिटेड  
BHARAT SANCHAR NIGAM LIMITED  
(A Govt. of India Enterprise)

No. DET/PTCC/ND/DV-9228/J & K-221/2019-19

Dated:- 21.01.2019

To,

✓ Chief Engineer, CEA,  
Central Electricity Authority,  
18, A, Shaheed Jeet Singh Marg,  
Katwaria Sarai, New Delhi-110016.

**Sub:- Reg. PTCC case of 220 KV S/C Drass-Kargil Transmission Line**

**Ref:- 1. Gist of discussion of meeting No. CEA/PCD/PTCC/J & K-46/2496-99 dated:- 29.11.2018**

With reference to the above mentioned subject and gist of discussion of the meeting held on 26/11/2018 for processing PTCC proposal of 220 KV S/C Drass-Kargil Transmission Line the details of the BSNL lines are as follows:-

- i) The status of four BSNL Lines are as detailed below:-
  - a) **Drass to Bhimbhat**- Partially operational for 01 KM, from Drass towards Bhimbhat (100 Pair U/G Cable Armoured).
  - b) **Thusgam Exchange to Thusgam Army Camp**- Not operational.
  - c) **Thusgam Exchange to Khiber**- Not operational.
  - d) **Hardass Exchange to Chanigund Army Camp**- Operational . Crossing at Hardass Bridge ( 50 Pair U/G Cable Armoured).
- ii) In Regards to telecom Cable between Hardass Exchange and Army camp Chanigund there is termination of cable at Hardass Exchange and Army camp Chanigund.

It is therefore requested to calculate the induced voltage on the above mentioned details submitted by BSNL.

Sh. Reddy, DD

be PGM urgently

23/1/19

*Shubhraj*

21/01/2019  
DET (PTCC) NZ

New Delhi-110023  
DET (PTCC), NZ  
Inspection Circle  
Netaji Nagar  
New Delhi-110023



Case No.: J&K - 46		Annex-VI			
Name of the line - 220kV S/C Drass – Kargil Transmission Line		Line Length : 60 KM S.R. Value : 20000 Ohms-cm			
S. No.	BSNL Telecom Circuits	Length of Parallelism (KM)	Mutual Coupling (Ohm)	Effective Fault current (Amp)	Induced Voltage (Volt)

1	Drass – Bhimbat	IV less than 430 V			
2	Thasgam Exch – Thasgam Army Exch	Not operational			
3	Thasgam Exch - Khiber	Not operational			
4	Hardas Exch – Army camp Chanigund	IV less than 430 V			
1	Drass – Dandal Thang	No induction, as these cables are OFC Unarmoured			
2	Dandal Thang - Thasgam				
3	Thasgam – Shamsha Kharba				
4	Shamsha Kharba – Kaksar bridge				
5	Kaksar bridge – Chanigurd Army camp				
6	Chanigund Army camp - Hardas				
7	Hardas – Kargil Exch				



नरेश भंडारी/NARESH BHANDARI  
मुख्य अभियन्ता/Chief Engineer  
केंद्रीय विद्युत प्राधिकरण/C.E.A.  
विद्युत मंत्रालय/Ministry of Power  
भारत सरकार/Govt. of India  
नई दिल्ली/New Delhi-66



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड  
 (भारत सरकार का उद्यम)  
 POWER GRID CORPORATION OF INDIA LIMITED  
 (A Government of India Enterprise)  
 OFFICE OF THE CHIEF GENERAL MANAGER (J&K),  
 NARWAL BALA, BYPASS ROAD, NH-1A, JAMMU-180006  
 TEL :- 0191-2490989



Ref. No: N2JM/JKPROJ/2019/ 530

Dated: 24.01.2019

To

The Chief Engineer,  
 CEA, New Delhi.

Subject: Regarding PTCC NOC for 220 KV S/C Drass- Kargil TL of SLTS.

Dear Sir,

This is with reference to the matter discussed on telephone. In this regard it is to inform that subject mentioned transmission line has been slightly re-routed between Bhimbat and Thasgam to avoid Army Helipad and to get clearance from Indian army. The same has been repeated between Hardas and Chanigund also. It is also to mention here that there is no parallelism of subject mentioned transmission line with any telecom line of BSNL/Defence.

This is for your kind information and necessary action at your end please.

Yours sincerely

(S. M. Kargwal)

मुख्य प्रबंधक (J&K)  
 मुख्य प्रबंधक (J&K)  
 पावरग्रिड / POWERGRID  
 नरवाल बाला जम्मू / Narwal Bala Jammu  
 कर्मचारी सं. 20059 / Employee No. 20059