



# KARNATAKA POWER TRANSMISSION CORPORATION LIMITED

Corporate office, 'Kaveri Bhavan' Bangalore-560 009.

Bangalore : 080 22212343

KPTCL/OT/PS/2016-17/53-55

15 JUN 2016

To

Sri. Ravindra Kumar

GM (Projects)

Power Grid Corporation of India Ltd,

SRTS-II, RHQ, Near RTO Driving Test Track,

Singanayakana Halli, Yelahanka Hobli,

Bangalore-560 064.

Sub : Transmission System for Ultra Mega Solar Park at Tumkur (Phase-II), Part B-reg.

Ref : Yours office Letter No SRTS-II/Pavagada/2016 Dtd 15.06.2016.

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Please refer to your letter dated 15.06.2016 in reference in which you have requested for consent for Two issues,

1. Taking up bay extension works on behalf of Power Grid on Deposit basis : KPTCL has no Objection for taking up the bay extension work on deposit basis, the Cost for the same will be intimated to you.
2. Bringing Multi Circuit line in existing Nelamangala-Hoody Double Circuit corridor on Multi Circuit Towers : During Inspections with the Staff of PGCIL, it was expressed that the height of the Multi Circuit tower will be between 75 to 85mtrs (approx). The Airport authority may object to take the line in this corridor. Further it was also expressed by Power Grid that these Multi Circuit Towers will be put in the same corridor. You will appreciate that the base width of the Multi circuit Tower is much bigger than the existing 400kV Double circuit Tower. As this is a developed area PGCIL may face problem while executing the same, even if line clears are issued.

Under the above circumstances it was suggested whether a switching station can be constructed by PGCIL between Devanahalli and Nelamangala near Bettenahalli and replace the twin moose line between Bettenahalli and Devanahalli by HTLS conductor of suitable capacity

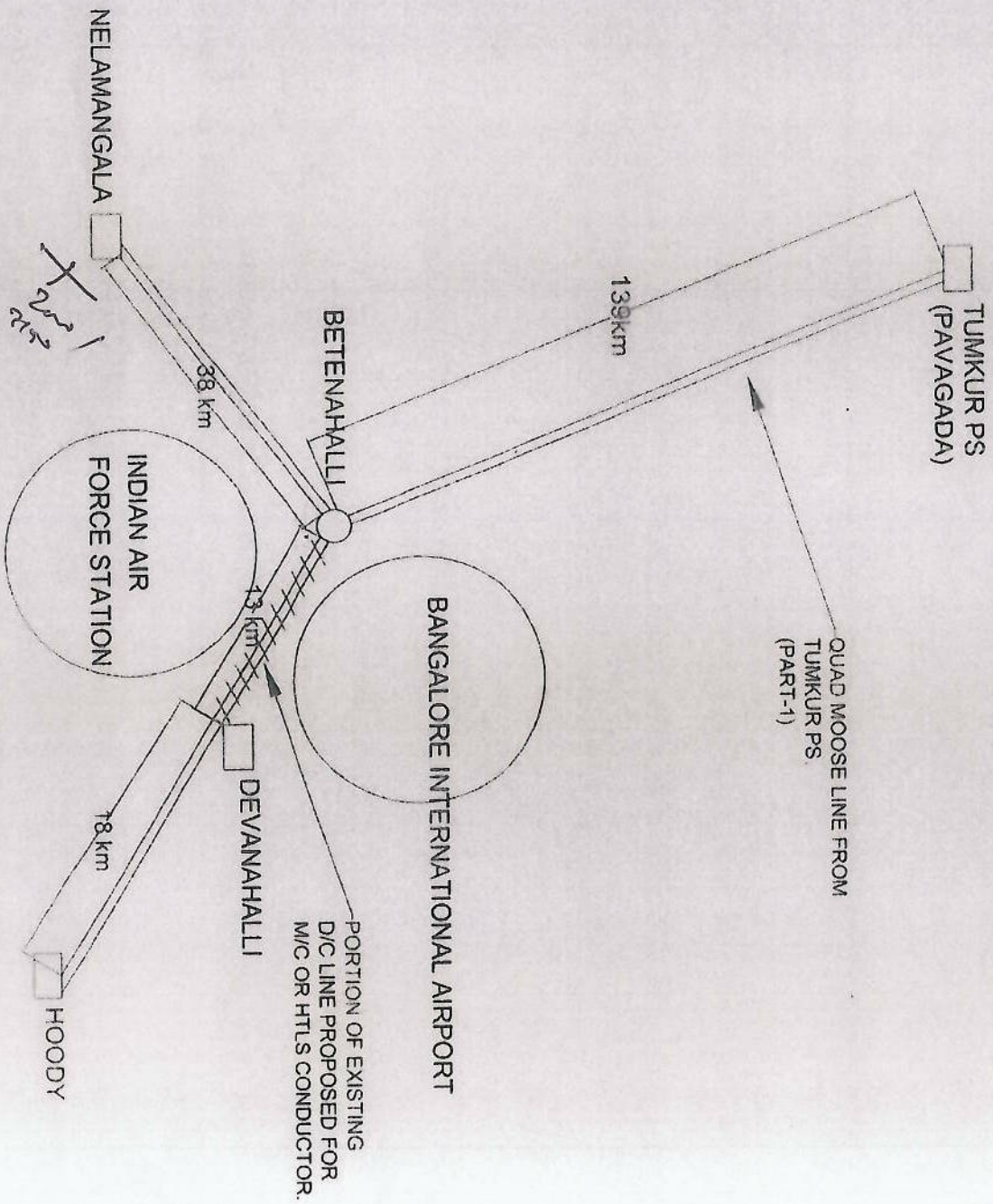
with live line techniques. This would ease the corridor and ROW problem. This alternative may not necessitate the bay extension as requested in SI No.1

You may kindly revert back on the points raised and confirm your action plan on 2, so that estimation can be finalized.

Yours faithfully

*[Handwritten Signature]* 15/6  
Director (Transmission)  
KPTCL

# SKETCH SHOWING THE PROPOSED LINE BETWEEN TUMKUR PS AND DEVANAHALLI.



पावर ग्रिड कारपोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उद्यम)

POWER GRID CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)



पावरग्रिड

केन्द्रीय कार्यालय : "सौदामिनी" प्लॉट सं. 2, सेक्टर-29, गुडगाँव-122 001, हरियाणा  
 फोन : 0124-2571700-719, फैक्स : 0124-2571760, 2571761 तार 'नेटग्रिड'  
 Corporate Office : "Saudamini" Plot No. 2, Sector-29, Gurgaon-122 001, Haryana  
 Tel. : 0124-2571700-719, Fax : 0124-2571760, 0124-2571761 Gram : 'NATGRID'

संदर्भ संख्या / Ref. No.

C/SG/00/TUMKUR

28<sup>th</sup> Jun 2016**Shri S.Sumanth**

Director (Transmission)

Karnataka Power Transmission Corporation Ltd

Corporate office, 'Kaveri Bhavan'

Bangalore -560009

**Sub: Development of Tumkur (Pavagada) UMSPP Phase-II Transmission scheme**

Dear Sir,

We write with reference to your letter dated 15.06.16 regarding development of Tumkur (Pavagada) UMSPP phase-II transmission scheme comprising 400kV Tumkur PS- Devanhalli D/c line. In view of severe Right-of-way constraint in about 13 km section near Devanhalli for line termination, KPTCL suggested an alternate arrangement of developing a switching station between Nelmangala and Devanahalli near Bettenahalli and replacement of twin moose line (Neelmangla- Devanahalli) between Bettenahalli and Devanahalli section by HTLS conductor of suitable capacity.

Considering severe ROW issue, time required in development of transmission system and short gestation period of solar project, we are intending to proceed ahead with above arrangement of re-conductoring of line between Bettenahalli and Devanahalli S/s by HTLS conductor. However 400kV switching station at Bettenahalli may be developed by KPTCL under the STU scope, as no new substation was envisaged under the Ph-II transmission scheme agreed in 39<sup>th</sup> meeting standing committee of Southern region. Further, it is requested that for termination of 400kV Tumkur(Pavagada)- Bettenahalli D/c line, associated bay extension works at Bettenahalli Sw. Station may be taken up by KPTCL on deposit work basis on behalf of POWERGRID.

We solicit your confirmation in this regard to proceed further.

Thanking you,

Yours faithfully,

( Subir Sen )

Executive Director (Smart Grid &amp; EE)



केंद्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
विद्युत प्रणाली योजना एवं मूल्यांकन -2 प्रभाग  
Power System Planning & Appraisal -2 Division  
सेवा भवन, रा. कृ. पुरम, नयी दिल्ली - 110066  
Sewa Bhawan, R. K. Puram, New Delhi-110066



[ISO:  
9001:2008]

No. 51/4/2016(40<sup>th</sup>)/PSPA-2/-349-17

Dated 28.07.2016

To

|   |   |
|---|---|
| (i) Sh. Subir sen<br>ED, Smart Grid<br>Power Grid Corporation of India Ltd.,<br>"Saudamini" Plot no-2, Sector-29,<br>Gurgram- 122001, Haryana | (ii) The Director (Transmission),<br>Karnataka State Power Trans.<br>Corp.Ltd.,<br>Cauvery Bhawan,<br>Bangalore - 560 009.<br>FAX : 080 -22228367 |
|---|---|

**Subject: Minutes of the meeting on "Development of Tumkur UMSPP Phase-II Transmission Scheme\_Alternate arrangement for Tumkur(Pavagada)-Devanahalli DC line".**

Sir/Madam,

A meeting was held on 5<sup>th</sup> July, 2016 (Tuesday) in the office of Chief Engineer(PSPA-2), Central Electricity Authority in the 3<sup>rd</sup> Floor, Sewa Bhawan, R. K. Puram, New Delhi to discuss issues regarding "Development of Tumkur UMSPP Phase-II Transmission Scheme\_Alternate arrangement for Tumkur(Pavagada)-Devanahalli DC line".

The minutes of the meeting is enclosed herewith.

Yours faithfully,

*Shivani*  
29.7.2016

(Shivani Sharma)

Deputy Director (PSPA-2)

**Copy to:**

|  |  |
|--|--|
| 1. COO, CTU (Planning)<br>Power Grid Corporation of India Ltd.,<br>"Saudamini" Plot no-2, Sector-29,<br>Gurgram- 122001, Haryana | 2. Sh Mukesh Khanna,<br>AGM(CTU-Plannning)<br>Power Grid Corporation of India Ltd.,<br>"Saudamini" Plot no-2, Sector-29,<br>Gurgram- 122001, Haryana |
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केंद्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
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The minutes of the meeting is enclosed herewith.

Yours faithfully,

(Shivani Sharma)  
Deputy Director (PSPA-2)

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|--|--|

Minutes of the Meeting on “Development of Tumkur UMSP Phase-II Transmission Scheme Alternate arrangement for Tumkur(Pavagada)- Devanahalli DC line” held on 5th July, 2016 in the Office of Chief Engineer(PSPA-2), CEA, New Delhi

1. A meeting was held in CEA regarding- **Development of Tumkur UMSP Phase-II Transmission Scheme Alternate arrangement for Tumkur(Pavagada)- Devanahalli DC line**. The meeting was participated by representatives of CEA, CTU, and KPTCL. List of participants is enclosed at Annex I.
2. Chief Engineer (PSPA-2 Division), informed that in 39<sup>th</sup> meeting of the Standing Committee on Power System Planning of SR held on 28<sup>th</sup> -29<sup>th</sup> December, 2015, Inter-State Transmission System was agreed for Tumkur (Pavagada) ultra mega solar power park (2000 MW) to be implemented by PGCIL in two phases. Also, Phase-II scheme includes establishment of 400 kV Tumkur-Devanahalli D/c (Quad) line in addition to other elements.
3. Director(T) KPTCL suggested that a switching station may be constructed by PGCIL between Devanahalli and Nelamangala near Bettenahalli and replace the twin moose line between Bettenahalli and Devanahalli by HTLS conductor of suitable capacity.
4. POWERGRID informed that they have already awarded works for Phase-I transmission scheme. However, during preliminary inspection for 400 kV Tumkur- Devanahalli D/c (Quad) line, difficulties in obtaining RoW near proposed Devanahalli S/s of KPTCL have been envisaged. To address ROW issue, following two options were explored:
  - i. Conversion of part of existing 400kV Neelmangala-Hoody KPTCL line, which is passing through proposed Devanahalli S/s, with a multicircuit line. For this, replacement of some of the existing D/c multicircuit towers (with approx. 75-85 m height) would be needed. In this option, clearance of airport authority is required as Bangalore airport is on one side whereas IAF airport is on other side
  - ii. A Switching station near Bettanahalli may be established from where a high capacity (HTLS) line may be drawn upto Devanahalli S/s (about 13kms) by replacing existing twin moose conductors of Neelmangala- Hoody line.
5. Director, KPTCL expressed their apprehension regarding implementation of first alternative in view of the fully developed area near those locations and suggested to explore second option. KPTCL further suggested that Bettanahalli

Sw Stn and Bettanhalli – Devnahalli HTLS line may be taken up as an ISTS by POWERGRID.

KPTCL also said that they would extend support in implementation of this system including shut down of their line when required and also in facilitating Govt land for establishment of proposed 400kV Bettanhalli Sw Stn.through Govt of Karnataka.

6. Chief Engineer(PSPA-2),CEA advised POWERGRID to carry out a joint survey for 400 kV Tumkur- Devanhalli D/c (Quad) line with above options to check its feasibility as well as approach airport authority regarding aviation clearance issues for multi circuit tower. Upon survey and discussion with airport authority, CEA may be apprised so that matter may be taken up further.
7. PGCIL proposed that in view of the severe ROW issues in/near Bangalore area for transmission development, Tumkur phase-II (1000MW) generation may be implemented in two phases (500MW in each phase) with commissioning schedule of Mar'18 & Sep'18 respectively. CEA requested KPTCL to discuss with M/s KSPDCL i.e. Tumkur SPPD to further take up the matter with NTPC for phasing of commissioning of Phase-II generation