

भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सडक परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India (Ministry of Road Transport and Highways, Government of India)

श्रेत्रीय कार्यालय : 41-29-45A, सर्वे नं: 373/2A, कोदंडरामालयम्,चलसानी नगर, रानीगारीतोटा, कृष्णालंका, विजयावाडा - 520 013, आन्ध्र प्रदेश

Regional Office: D.No. 41-29-45A, RS.No. : 373/2A, Kodandaramalayam, Chalasani Nagar, Ranigari Thota, Krishna Lanka, Vijayawada - 520 013, Andhra Pradesh. फोन / Tel : 0866-2483910, ई-मैल/e-mail: rovijayawada@nhai.org, nhairovja@gmail.com

Ref: NHAI/RO-VJA/UTS/APTRANSCO/22/08/9/2022/23/90v.in

October 26, 2022

Τo

3545

The Sr. Technical Director, NIC, Transport Bhawan, New Delhi- 110001.

Sub: RO - Vijayawada - Four laning of Gundugolanu - Devarapali - Kovvuru section of NH-16 in the State of Andhra Pradesh under Bharatmala Pariyojana on Hybrid Annuity Mode - Erection of 200 KV DC line from 400/200 KV sub-station, Kamavarapukota to 220/132/33 KV sub-station, Bhimadolu in West Godavari District including erection of 2 nos 220 KV bays at 400/220 KV K. Kota sub-station and 2 nos 220 KV bays at 229/132/33 KV Bhimadole substation, West Godavari District - Grant of Permission to APTRANSCO for stringing work between Towers 64+C+6 & 65+C+6 at Ch.23+220 of project stretch in Palasanipalli Village, Bhimadole Mandal - Public comments - Reg.

Sir,

Please find enclosed herewith a proposal submitted by APTRANSCO for according permission for Erection of 200 KV DC line from 400/200 KV sub-station, Kamavarapukota to 220/132/33 KV sub-station, Bhimadolu in West Godavari District including erection of 2 nos 220 KV bays at 400/220 KV K. Kota sub-station and 2 nos 220 KV bays at 229/132/33 KV Bhimadole substation, West Godavari District - Grant of Permission to APTRANSCO for stringing work between Towers 64+C+6 & 65+C+6 at Ch.23+220 of project stretch in Palasanipalli Village, Bhimadole Mandal, Andhra Pradesh.

2. As per MORTH guidelines vide letter No. RW/NH-33044/29/2015/S&R dated 22nd November 2016, the application along with the recommendations of PD, PIU - Rajamahendravaram are enclosed herewith with a request to host the same in the Ministry's website for 30 days seeking claims and objections (on grounds of public inconvenience, safety and general public interest), for taking further necessary action.

Encl: As above

(R.K. Singh), Regional Officer RO - Vijayawada

Copy to:

- (i) PD, PIU Rajamahendravaram
- (ii) The Executive Engineer, Construction Division, APTRANSCO, Eluru, Andhra Pradesh 534001 for information.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सडक परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
National Highways Authority of India

(Ministry of Road Transport and Highways, Government of India)

श्रेत्रीय कार्यालय : 41-29-45A, सर्वे नं: 373/2A, कोदंडरामालयम्,चलसानी नगर, रानीगारीतोटा, कृष्णालंका, विजयावाडा - 520 013, आन्ध्र प्रदेश

Regional Office: D.No. 41-29-45A, RS.No.: 373/2A, Kodandaramalayam, Chalasani Nagar, Ranigari Thota, Krishna Lanka, Vijayawada - 520 013, Andhra Pradesh.

फोन / Tel : 0866-2483910, ई-मैल/e-mail: rovijayawada@nhai.org, nhairovja@gmail.com

Ref: NHAI/RO-VJA/UTS/APTRANSCO/2006/92022-201/gov.in

October 26, 2022

INVITATION OF PUBLIC COMMENTS

Sub: RO - Vijayawada - Four laning of Gundugolanu - Devarapali - Kovvuru section of NH-16 in the State of Andhra Pradesh under Bharatmala Pariyojana on Hybrid Annuity Mode - Erection of 200 KV DC line from 400/200 KV sub-station, Kamavarapukota to 220/132/33 KV sub-station, Bhimadolu in West Godavari District including erection of 2 nos 220 KV bays at 400/220 KV K. Kota sub-station and 2 nos 220 KV bays at 229/132/33 KV Bhimadole substation, West Godavari District - Grant of Permission to APTRANSCO for stringing work between Towers 64+C+6 & 65+C+6 at Ch.23+220 of project stretch in Palasanipalli Village, Bhimadole Mandal - Public comments - Reg.

The Project Director, PIU - Rajamahendravaram submitted a proposal of APTRANSCO for according permission for Erection of 200 KV DC line from 400/200 KV sub-station, Kamavarapukota to 220/132/33 KV sub-station, Bhimadolu in West Godavari District including erection of 2 nos 220 KV bays at 400/220 KV K. Kota sub-station and 2 nos 220 KV bays at 229/132/33 KV Bhimadole substation, West Godavari District - Grant of Permission to APTRANSCO for stringing work between Towers 64+C+6 & 65+C+6 at Ch.23+220 of project stretch in Palasanipalli Village, Bhimadole Mandal, Andhra Pradesh.

As per MORTH guidelines vide letter No.RW/NH-33044/29/2015/S&R® dated 22nd November 7016, the Highway Administration will put out the application in the Ministry's website for 30 days seeking claims and objections (on grounds of public inconvenience, safety and general public interest).

In view of the above, the comments of public, if any, on the above mentioned proposal is invited on below mentioned address.

Regional Officer - Vijayawada, National Highways Authority of India, Regional Office, Dr. No.41-29-45A, R. S. No.373/2A Near Kodandaramalayam, Chalasani Nagar, Ranigarithota, Krishnalanka, Vijayawada - 520 013. Email: rovijayawada@nhai.org

> (R.K. Singh), Regional Officer RO - Vijayawada



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)

National Highways Authority of India (Ministry of Road Transport & Highways, Govt. of India) परियोजना कार्यान्वयन इकाई - टोयोटा षोरूम के बाजु, राजमार्ग 216 ए,

दिवान चेरुतु, राजमहेन्द्रवरम - 533 102. आं.प्र PROJECT IMPLEMENTATION UNIT - Adjacent to Toyota Showroom, NH-216A, Diwancheruvu, Rajamahendravaram - 533102, A.P. Phone: 0883 - 2431170 ई-मेटल, e-mail : raj@phaj.org / piwsishmundru@e

दूर भाष / Phone : 0883 - 2431170 ई-मेइल, e-mail : raj@nhai.org / piurajahmundry@gmail.com

HTTTHI NHAI

ారతీ జాతీయ రహీదారు ప్రాథికార పీరిస్ట్ గాజాసహీయము

Ref No: NHAI/PIU-RJY/UTS/GDK/2022/ 28 668

To The Regional Officer, National Highways Authority of India Vijayawada - 520 013 13 OCT 2022

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Sub: NHAI, PIU, Rajamahendravaram – Four laning of Gundugolanu-Devarapalli-Kovvuru section of NH - 16 in the State of Andhra Pradesh under Bharatmala Pariyojana on Hybrid Annuity Mode–Erection of 200 KV DC line from 400/220 KV Sub station, Kamavarapukota to 220/132/33 KV sub station, Bhimadolu in West Godavari District including erection of 2 nos 220 KV bays at 400/220 KV K. Kota substation and 2 nos 220 KV bays at 220/132/33 KV Bhimadole sub station, West Godavari District - Grant of permission to APTRANSCO for stringing work between Towers 64+C+6 and 65 C+6 at Ch. 23+220 of project stretch in Palasanipalli Village, Bhimadole Mandal - Approval – Requested - Reg.

Ref: 1. Executive Engineer, Construction Division, APTRANSCO letter no. EE/Const/ELR/F. 22/D. No. 485/2022, dated 02.09.2022

2. This office email dated 12.09.2022

3. IE, M/s. MSV - ARMENGE letter no. MSVARMENGE/IE GDK/2022/1111, dated 29.09.2022

Sir,

- 1. It is to submit that vide reference 1st cited, the Executive Engineer, Construction Division, APTRANSCO, has requested this office to accord approval for stringing HT tower lines work between Towers 64+C+6 and 65 C+6 at Ch. 23+220, Palasanipalli Village, Bhimadole Mandal in the stretch of Gundugolanu-Devarapalli-Kovvuru section of NH 16 as per MORT&H guidelines with the following undertakings and requested to accord approval for crossing of NH.
 - a) Undertaking for compliance to safety norms during execution of stringing work.
 - b) Undertaking to compensate or pay for the damages during execution of the work.
 - c) Undertaking to relocate the tower at own cost during the 6-laning or further development works of the project stretch.

d) Indemnity against all damages and claim.

e) Draft license deed for laying of overhead of electric power line across NH land.

f) Methodology of laying of overhead electric power line.

- g) Check list for getting approval for laying of overhead electric power line across NH land.
- 2. Vide reference 2nd cited, this office has requested the Independent Engineer of the project stretch to inspect the site and furnish necessary report to this office.
- 3. Vide reference 3rd cited, the Independent Engineer, M/s. MSV-ARMENGE for the project stretch has informed this office that they have inspected the site along with Concessionaire and submitted that the proposed tower line is crossing the Main Carriageway / Service Roads at Ch. 23+220. The LHS tower has been erected 72 m beyond the RoW and RHS tower has been erected 53 m beyond RoW and recommended that the permission may be accorded.

Building a Nation, Not Just Roads

- 4. In this regard, it is to submit the proposal submitted by the Executive Engineer, Construction Division, APTRANSCO was examined as per MORT&H guidelines dated 22.11.2016 and the following is submitted:
 - The tower line is crossing the Main Carriageway and Service Roads at Ch. 23+220.
 - The LHS tower has been erected at a distance of 72 mts beyond the RoW of NH boundary.
 - ➤ The RHS tower has been erected at 53 mts beyond the RoW of NH boundary.
 - ➤ APTRANSCO proposed to erect the towers on both sides of NH in the private lands and proposed strings will have 16.72 mts clearance from the existing FRL of the project highway at the crossing location.
 - ➤ All necessary undertakings were submitted by M/s. APTRANSCO.
- 5. Under the above circumstances, it is recommended that necessary approval may please be accorded to APTRANSCO for erection of HT tower lines work between Towers 64+C+6 and 65 C+6 Palasanipalli Village, Bhimadole Mandal at Ch. 23+220 of Gundugolanu-Devarapalli-Kovvuru section of NH in the State of Andhra Pradesh
- 6. Submitted for orders.

Thanking You

Encl: As above

Yours faithfully,

(D. Surendra Nath)
Project Director





ISO 9001: 2015 Certified Company

MSV INTERNATIONAL INC.

In Association with

ARMENGE ENGINEERING AND MANAGEMENT CONSULTANTS PVT. LTD.

MSV International, Inc.

Door No: 79-14-8 Prashanthi Estate, Tilak Road Rajahmundry-533103 East Godhavari (Dt), Andhra Pradesh CIN: F04214

Email: msv.gundugolanu@gmail.com msvarmenge.gdk@gmail.com Mob: +91 8118876958

and Constraint

IE FOR FOUR LANING OF GUNDUGOLANU-DEVARAPALLI-KOVVURU SECTION OF NH-16, BHARATMALA RAIYOJANA IN ANDHRA PRADESH

MSVARMENGE/IEGDK/2022/ 1111

To,

The Project Director

National Highways Authority of India Project Implementation Unit Door No.78-14-21, Shyamala Nagar Rajamahendravaram – 533103, Andhra Prade Email: piurajahmundry@gmail.com

Tel: +91 0883-2431170

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Sub: Consultancy Services for Independent Engineer Services for Supervision of four laning of Gundugolanu – Devarapalli-Kovvuru section of NH-16 (old SH 107) from Km 15.320 (Existing Km 15.700) to Km 85.204 (Existing Km 81.400) (Design Length=69.884 Km) in the state of Andhra Pradesh – Grant of Permission to APTRANSCO for Stringing Work between Towers 64 C+6 and 65 C+6 AT Ch.23+220, PALASANIPALLI VILLAGE, BHIMADOLE MANDAL - Regarding

Ref 1: - Authority Email No. NHAI-PIU-RJY-69447 dated 12.09.2022.

Dear Sir,

In continuation to the above cited subject, we inspected the site along with concessionaire for the tower line crossing the Main Carriage Way and Service Roads at Ch.23+220. The LHS tower has been erected 72m beyond our RoW and RHS tower has been erected 53m from our RHS RoW.

Hence the permission may be accorded.

Thanking you and looking forward to render our best of services all the times

For MSV International Inc in association with ARMENGE Engineering and Management Consultants Pvt Ltd.

Y Radha Krishna Rao

(Resident Engineer cum Acting Team Leader)

Copy To: M/s GR Gundugolanu Devarapalli Highway Private Limited for information.



From The Executive Engineer, Construction Division, APTRANSCO D.no.24A-4-8, 1st Floor, Near Union Bank Ashok Nagar, ELURU. Cell No. 94910 58551

0. The Project Director, National Highway authority of Ind Sy no.560/3, Adjacent Toyan Showro NH-216A, Diwancheruvu M(T) Rajahmundry - 533 102, IRS - Di Email: piurjy@nhai.org SE-I HOU

F 3

Lr. No.EE/ Const/ELR/F.22 /D. No.

Sir, Sub:-APTRANSCO - Const. Division--ELURU -" Erection of 220KV DC line from 400 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh- for stringing works between tower location No.64 C+6 & 65 C+6 - Permission requested - Reg.

Ref:- 1) Contract Order P.O.No.516/CPT220/SE/PM/APT-e-02/2018/F.220 KV DC line from K kota to BMDL/RC-4449/2018 D.No 632/2018,Dt.10.09.18

Lr.No.SE/OMC/Circle/Eluru/Tech/AE.1/F.Doc/D.No.1326/18 Dt.21.07.18.

3) Lr. No. EE/ Const/ELR/F. /D. No.402 / 2022, Dt.28-07-2022.

The APTRANSCO is erecting 220KV DC line from existing 400/220KV Kamavarapukota Substation to 220/132/33 KV Bhimadolu Substation as per the ref (1&2) cited above. Accordingly, APTRANSCO has made arrangements for overhead crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District between tower location No.64 (C+6) & 65 (C+6).

This office vide ref 3rd cited has requested for the Road Blockage on NH-16 Gundugolanu to Kovvuru between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godayari District for the stringing of conductor. In response to the ref (3) cited the NHAI has informed to submit the necessary proposals for crossing NH as per MORT&H guidelines dated 22.11.2016 for obtaining the approval of the Competent Authority of NHAI.

In this connection, the proposals for crossing NH is here with submitted duly following the above mentioned guidelines. The details of the documents enclosed are as follows:

- 1. Power of Attorney on Non-Judicial stamped Paper of Rs. 100/-
- 2. Certificate on Non-Judicial stamped Paper of Rs. 100/-
- 3. Undertaking on Non-Judicial stamped Paper of Rs. 100/-
- 4. License deed for laying overhead electric power line across NH land on Non-Judicial stamped Paper
- 5. Crossing details at NH (Plan) & Sketch showing crossing of overhead line.
- 6. Picture showing NH Crossing (Google image)
- 7. Methodology of laying of overhead electric power line.
- 8. Checklist for getting approval for laying of overhead electric power line across NH land

It is requested to kindly examine the proposal and convey your approval at the earliest so as to enable us to complete the stringing of the crossing section NH-16 Gundugolanu to Kovvuru between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District between tower location No.64 (C+6) to 65 (C+6) of the subject line for completing the line works within the stipulated time.

Considering the Importance of the Project, your early action and kind co-operation is solicited in this regard. Yours Sincerely,

> Construction Division, APTRANSCO: ELURU.

Copy submitted to

The Superintending Engineer / OMC Circle / APTRANSCO / Eluru - for favour of information The Superintending Engineer/ Projects/APTRANSCO/ Rajamahendravaram - for favour of information Copy to the Dy. Executive Engineer / Construction / SD-I/APTRANSCO /ELURU.



ಆಂಧ್ರವ್ಷ आन्ध्र प्रदेश ANDHRA PRADESH

SLNo. 1340 Rs. 100-00 Date 29 - 08 - 2022

Sold To Erukala Suresh Kumar S/o Kesanna, Eluru

For Whom Self

B. NAGARAJU Licensed Stamp Vendor L.No. 05/01/002/1994 R.L.No. 05/01/015/2021-2023 NALLAJERLA - 534 112 Ph. 9849932753

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

Date: 02-09-2022.

POWER OF ATTORNEY

Sub:- Permission for laying of Transmission Line "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh. Power of attorney Signatory.

This is to certify that Sri. E. Suresh Kumar, Executive Engineer, Construction Division, APTRANSCO, Eluru is authorised to sign and submit applications and other correspondences on behalf of Transmission corporation of Andhra Pradesh limited to National High ways authority of India for obtaining clearances / Crossing permission in connection with the laying of overhead electric power

transmission line viz., "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu -18.45Kms (approx.). Transmission Line across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

Specimen Signature

E.SURESH KUMAR Emp ID No.1062541, Executive Engineer, Construction Division, APTRANSCO: ELURU.

For TRANSMISSION CORPORATION OF AP Ltd.

SUPERING WEING ENGINEER
PROJECTS/FIELD/A.P.TRANSCO
RAJAMAHENDRAVARAM



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RIDIA INDIA NON JUDICIAL

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S.L.No. 1335 Rs. 100-00

Sold To Erukala Suresh Kumar S/o Kesanna, Eluru

For Whom Self

Licensed Stamp Ph. 98499327

CERTIFICATE

Name of the work:- Proposal to lay overhead Electric Power Transmission line, Niz., " Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from 🖁 Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village , Bhimadole Mandal, West Godavari District, Andhra Pradesh.

Undersigned, Erukala Suresh Kumar, Executive Engineer, on behalf of Transmission Corporation Of Andhra Pradesh Limited, certify that

1. Laying of overhead Electric power transmission line will not have any deleterious effects on any of the bridge components and roadway safety for traffic.

Page 1 of 2

Construction Division A.P. Transco:: Eluru

- For six-laning "We do undertake that we will relocate service road / approach road / utilities at our own cost notwithstanding the permission granted within such time as will be stipulated by NHAI" for future six-laning or any other development.
- 3. This proposal implemented now will not affect any likely future improvement to geometrics.
- 4. We undertake that permission does not lead to the adverse impact on the safety and stability of the Highway structure.

Executive Engineer
Construction Division
A.P.Transco::Eluru



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S.L.No. 1336 · Rs. 100-00

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For Whom Self

B, NAGA RAJU Licensed Stamp Vendor L.No. 05/01/002/1994 R.L.No. 05/01/015/2021-2023 NALLAJERLA - 534 112 Ph. 9849932753

UNDERTAKING

Name of the work:- Proposal to lay overhead Electric Power Transmission line, Viz., " Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

Undersigned, E.Suresh Kumar, Executive Engineer, on behalf of Transmission Corporation Of Andhra Pradesh Limited, undertake that

1. Not to damage other utility; if damaged then to pay losses either to NHAI or to the concerned agency.

Page 1 of 2

Executive Engineer
Construction Division
A.P.Transco::Eluru

- 2. The work will be carried out, conforming to all standard conditions of NHAI's guidelines.
- 3. Shifting of overhead power transmission line as and when required by NHAI at the cost of the Transmission Corporation Of Andhra Pradesh Limited.
- 4. For six-laning / widening, we do undertake that we will relocate the overhead power transmission line at our own cost notwithstanding the permission granted within such time as will be stipulated by NHAI for future six-laning or any other development.
- 5. Indemnity against all damages and claim.
- 6. Traffic movement during laying of overhead power transmission line to be managed by Transmission Corporation Of Andhra Pradesh Limited.
- 7. If any claim is raised by the Concessionaire, then the same has to be paid by Transmission Corporation Of Andhra Pradesh Limited.
- 8. Prior approval of the NHAI shall be obtained before undertaking any work of installation, Shifting, repair or alterations to the shown overhead electric power transmission line in the National Highway right-of-ways.
- 9. Expenditure, if any, incurred by NHAI for repairing any damage caused to the National Highway by the laying, maintenance or shifting of the overhead power transmission line will be borne by the agency owning the line.

Construction Division
A.P.Transco::Eluru



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S.L.No. \3\12 Rs. 100-00
Date 29 - 08 \2022
Sold To Erukala Suresh Kumar S/o Kesanna, Eluru
For Whom Self

B. NAGARAJU Licensed Stamp Vendor L.No. 05/01/002/1994 R.L.No. 05/01/015/2021-2023 NALLAJERLA - 534 112 Ph. 9849932753

LICENSE DEED FOR LAYING OVERHEAD ELECTRIC POWER TRANSMISSION LINE ACROSS NATIONAL HIGHWAY LAND

Agreement to lay overhead Electric Power Transmission line across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Rolasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

An agreement made on this day of 2nd September 2022 between the President of India/ National Highway Authority of India (herein after called the Government which expression shall unless excluded by or repugnant to the context include his successor in office and assigns) of the one part and Transmission Corporation Of Andhra Pradesh Limited, Executive Engineer, Construction Division, APTRANSCO, D.no.24A-4-8, 1st Floor, Near Union Bank, Ashok Nagar, ELURU, Andhra Pradesh-534002 (herein after called in 'Licensee' which expression shall, unless excluded by or repugnant to the context, include his heirs its successors / their successors and assigns) of the other part.

1

Page 1 of 4

Executive Engineer
Construction Division
A.P.Transco::Eluru

- 2. WHEREAS the Licensee has / Licensees have applied to the Government / NHAI for permissions to lay overhead electric power transmission line Viz., " 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu ". Transmission Line Crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.
- 3. And whereas the Government / NHAI has agreed to grant such permissions on the terms and conditions hereinafter mentioned.
- 4. Now, this agreement witnesses that in consideration of the conditions hereinafter contained and on the part of the Licensee / Licensees to be observed and performed the Government / NHAI hereby grants to the Licensee / Licensees permission to lay overhead Electric Power Transmission line as per the approved drawing attached here to subject to the following conditions, namely.,
 - (i) That the Licensee / Licensees shall within three months from the date hereof, but without interfering with the road traffic complete the laying of Overhead Power Transmission line to the satisfaction of the Divisional Engineer / Project Director incharge of the National Highways in accordance with the drawings and specifications approved by the Project Director.
 - (ii) That the Licensee / Licensees shall be responsible for restoring the road at his / their own cost to its original condition after laying the overhead power transmission line or, after any damage caused due to inadequate maintenance / operation of the overhead transmission line.
 - (iii) That in case of any breakdown of transmission line the licensee / licensees shall bear the entire cost of restoration of damage caused to the road.
 - (iv) That the Licensee / Licensees shall not without the prior permission in writing of the Project Director undertake any work of shifting, repairs or alteration to the said overhead transmission line.
 - (v) That the licensee / Licensees shall at all time permit any duty authorized officer or servant of the Government / NHAI to inspect the said overhead transmission line.
 - (vi) That the Licensee / Licensees shall be liable for any loss or damages caused to the Government / NHAI by drainage obstruction or any other cause due to the said overhead transmission line.
 - (vii) That the Licensee / Licensees within two months of a notice duly given to him to this behalf by the NHA! / Government shall at his / their own cost remove the overhead transmission line and restore the road land to its original condition when required to do so by the Government / NHA! or by any person authorized on its behalf. The Licensee / Licensees shall not be entitled to any compensation on account of such removal or restoration.



- (viii) That if the Licensee fails / Licensees fail to execute any work which he has/they have agreed to execute under this agreement to the entire satisfaction of the Project Director NHAI, the work shall be executed by the Project Director NHAI / Government at the cost of the Licensee / Licensees and the amount shall be recoverable from the Licensee / Licensees as arrears of land revenue without prejudice to any other remedies which may be open to the Government / NHAI in this behalf.
- (ix) That the Licensee / Licensees shall not sell, transfer or otherwise dispose of the premises without obtaining the previous consent of the Government / NHAI in writing.
- (x) That this agreement will remain in force for a period of five years from the date of execution in the first instance and be terminated by a notice of Two months and the permission may not be renewed after the expiry of the said period.
- (xi) That the permission granted by this License shall not in any way to be deemed to convey to the Licensee / Licensees any right to or over any interest in Government land other than what is herein expressly granted.
- (xii) That during the subsistence of this Licensee, that overhead transmission line located on the road shall be deemed to have been constructed and contained only by the consent and permission of Government so that the right of the Licensee / Licensees to the use thereof shall not become absolute and defeasible by lapse of time.
- (xiii)That the Licensee / Licensees shall bear the stamp duty charges on this agreement.
- (xiv)Govt. of India / NHAI will not be responsible for any damage of any kind whatsoever means natural or otherwise to the overhead transmission line.
- 5 The overhead transmission line shall not be brought into use by the Licensee / Licensees unless a completion certificate to the effect that the overhead transmission line have been laid in accordance with the approved specification and drawings has been obtained from the Project Director, NHAI.
- 6. The Licensee shall abide by the conditions enclosed herewith as annexure -1.
- 7. Notwithstanding anything contained in Clause 4 (vii) the License may be cancelled at any time by the government / NHAI for a breach of any condition of the license and the license / licensees shall not be entitled to any loss caused to it by such cancellation, nor shall it be absolved from any liability already incurred under this agreement.
- 8. The permitted Highway on which Licensee has been granted the right to lay overhead electric power transmission line has also been granted as a right of way to the concessionaire under the concession agreement for upgradation of (National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh. -- on Build, Operate and Transfer Basis) and therefore, the Licensee shall honour the same.

This agreement has been executed in duplicate and each party to this agreement has retained one stamped copy each.

Signed by Shri E. SURESH KUMAR	
For TRANSMISSION CORPORATION OF AP LTD	Project Director National Highways Authority of India For and on behalf of President of India
Executive Engineer Construction Division A.P.Transeo::Eluru	esence of
Ch. RAMA CRICHOLD	1
Name in full (Signature) with designation Deputy Executive Engineer Construction Sub-Division-1 AP TRANSCO, ELURU	Name in full (Signature) with Designation
A Gange verson	2
Name in full (Signature) with designation	Name in full (Signature) with Designation
Assistant Executive Engineer Construction Sub-Division-1 AP TRANSCO, ELURU	

CONDITIONS TO BE ENCLOSED / INCORPORATED IN THE APPROVAL LETTER FOR PERMISSION FOR LAYING OF OVERHEAD ELECTRIC POWER TRANSMISSION LINE.

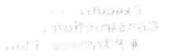
- 1. The overhead electric power transmission line shall be located as close to the extreme edge of the right-of-way as possible but not less than 15 metre from the centre-lines of the nearest carriageway.
- 2. The overhead electric power transmission line shall not be permitted to run along the National Highway when the road formation is suitable in double cutting Nor shall these be laid over the existing culverts and bridges without the prior approval of NHAI / Government of India.
- 3. The overhead electric power transmission line shall be so placed that at no time there is interference with the maintenance of the National Highways.
- 4. These should be so laid that their top is at least 1.5 meter below the ground level so as not to obstruct drainage of the road land.
- 5. The authority / owner of the overhead electric power transmission utility shall ensure that laying overhead electric power transmission line should not have any deleterious effects on any of the bridge components and roadway safety for traffic.
- 6. The Lines shall cross the National Highways preferably on a line normal to it or as nearly as practicable.
- 7. Crossings shall not be too near the existing structures on the National Highway, the minimum distance being 15 meter.
- 8. The Overhead Power Transmission line is permitted to cross the National Highway either encased in pipes or through structure of conduits specially built for that purpose at the expense of the agency owning the line. Existing drainages structures shall not be allowed to carry the line across.
- 9. The casing pipe (or conduit pipe in the case of electric cable) carrying the overhead electric power transmission line shall be of steel, cast iron or reinforced cement concrete and have adequate strength and be large enough to permit ready withdrawal of the carrier pipe /cable. Ends of the casing/conduit pipe shall be sealed from the outside, so that it does not act as a drainage path.
- 10. The casing/conduit pipe should, as minimum extend from drain to drain in cuts and toe of slope toe of slope in the fills.
- 11. The top of the casing/conduit pipe should be at least 1.2 meter below the structure of the road subject to being at least 0.3 m below the drain inverts.
- 12. The casing/conduit pipe may be installed under the road embankment either by boring or digging a trench. Installation by boring method shall only be permitted where the existing road pavement is of cement concrete or dense bituminous concrete type.
- 13. The casing/conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.

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- 14. Open a trench method.(May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type)
 - (a) The sides of the trench should be done as nearly vertical as possible; The trench width should be at least 30 cm, but not more than 60 cm wider than outer diameter of the pipe.
 - (b) Filling of the trench shall confirm to the specifications contained herein below.
 - (c) Bedding shall be to a depth of not less than 30 cm, It shall consist of granular material, free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value. Unsuitable Soil and rock edged should be excavated and replaced by selected material.
 - (d) The backfill shall be completed in two stages (i) side- fill to the level of the top of the pipe and (ii) overfill to the bottom of the road crust.
 - (e) The side fill shall consist of granular material laid in 15 cm layers each consolidated by mechanical tempering and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted.
 - (f) The road crust shall be built to the same strength as the existing crust on either side of the trench or to thickness and specifications stipulated by the Highways Authority. Care shall be taken to avoid the formation of a dip at the trench.
 - (g) The excavation shall be protected by flagman, signs and barricades and red lights during night hours
- 15. If needed, a diversion shall be constructed at the expanse of agency owning the overhead electric power transmission line.
- 16. Prior approval of NHAI shall be obtained before undertaking any work of installation, shifting or repairs or alterations to the overhead electric power transmission line located in the National Highway right-of-ways.
- 17. Expenditure, if any, incurred by the Highway Authority for repairing any damage caused to the National Highway by the laying, maintenance or shifting of the overhead electric power transmission line will be borne by the agency owning the overhead electric power transmission line.
- 18. If the NHAI considers it necessary in future to move the overhead electric power transmission line for any work of improvement of repairs to the road, it will be carried out as desired by the Highway Authority at the cost of the agency owning the overhead electric power transmission line within a reasonable time (not exceeding 60 days) of the intimation given.

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- 19. The licensee shall ensure making good the excavated trench for laying overhead electric power transmission line by proper filling and compaction, so as to restore the land in to the same conditions as it was before digging the trench, clearing debris/loose earth produced due to execution of trenching at least 50 m away from the edge of the right of way.
- 20. The licensee shall furnish a bank Guarantee to the NHAI @100/- per running meter (parallel to NH) and Rs 1,00,000/- per crossing of NH f or a period of one year initially (extendable if required till satisfactory completion of work) as a security for ensuring/making good the excavated trench for laying the overhead electric power transmission line /ducts by proper filling and compaction , clearing debris/loose earth produced due to execution of trenching at least 50m away from the edge of the right of way .No payment shall be payable by the NHAI to the licensee for clearing debris/loose earth.
- 21. In case of work contemplated herewith is not completed to the satisfaction of the NHAI, which has granted the permission, within a period of 11 months from the date of issue of the bank guarantee, the licensee shall either furnish a fresh guarantee or extend the guarantee for a further period of one year. In case of the licensee failing to discharge the obligation of making good the excavated trench, the NHAI shall have a right to make good the damages caused by excavation, at the cost of the licensee and recover the amount by invoking the bank guarantee furnished by the licensee.
- 22. The licensee shall shift the overhead electric power transmission line within 60 days (or as specified by the respective agency / owner) from the date of issue of the notice by the NHAI / Govt of India to shift / relocate the overhead electric power transmission line, in case it is so required for the purpose of improvement / widening of the road / route / highway or construction of flyover / bridges and restore the road / land to its original conditions at his own cost and risk.
- 23. Regarding the location of other cables, underground installation/Utilities etc, the licensee shall be responsible to ascertain from the respective agency in coordination with NHAI. The licensee shall ensure the safety and security of already existing cables/Underground installation/Utilities facilities etc. before commencement of the excavation.
- 24. The Licensee shall be solely responsible / liable for fully compensation / indemnification of concerned agency / aggrieved owner for any direct, indirect or consequential damage caused to them / claims or replacement sought for at the cost and risk of the Licensee. The concerned agency in coordination with NHAI shall also have a right to make good such damage / recover the claims by way of invoking of bank guarantee furnished by the licensee.
- 25. If the Licensee fails to comply with the condition 22 and 23 above to the satisfaction of the NHAI, the same shall be got executed by the NHAI at the risk and cost of the licensee.



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- 26. The licensee shall procure insurance from reputed insurance company against damages to already existing cables/underground installation/utilities/facilities etc. during trenching.
- 27. The licensee has to cross the NH by horizontal drilling method (trenchless technology only). In case any damage is caused to the road pavement in this process; the licensee will be required to restore the same to the original condition at his own cost.
- 28. No trenching will be done on pucca road, boring method will be issued in pucca road and overhead electric power transmission line will be laid at the extreme edge of the road in the non-BT surface only.
- 29. The licensee shall inform/give a notice to the NHAI, Govt. of India or its authorized agency at least 15 days in advance with route details prior to digging trenches for fresh or maintenance/repair work. A separate work plan and a separate performance Bank Guarantee @Rs 100/- per meter length for maintenance/repair work shall have to be furnished by the licensee.
- 30. Each day, the extent of digging the trenches should be strictly regulated so that cables are laid and trenches be filled up before the close of the work that day. Filling should be completed to the satisfaction of the concerned agency designated by the NHAI.
- 31. The Licensee shall indemnify the concerned agency in coordination with NHAI, against all damages and claims, if any, due to construction of overhead electric power transmission line.
- 32. The NHAI has a right to terminate the permission orto extend the period of agreement. In case the licensee wants shifting, repairs or alteration to overhead electric power transmission line, he will have to furnish a separate Bank Guarantee.
- 33. The Licensee shall not without prior permission in writing from the NHAI / Govt. of India or its authorized agency undertake any work or shifting, repairs or alterations to the said overhead electric power transmission line.
- 34. The permission granted shall not in any way be deemed to convey to the Licensee any ownership right or any interest in route / road / highway / land / property, other than what is herein expressly granted.
- 35. During the subsistence of this agreement, the laying of overhead electric power transmission line located in Highway land / property shall be deemed to have been constructed and continued only by the consent and permission of the NHAI so that the right of the Licensee to the use thereof shall not become absolute and indefeasible by lapse of time.

36 The Licensee shall bear the stamp duty charged for the agreement.

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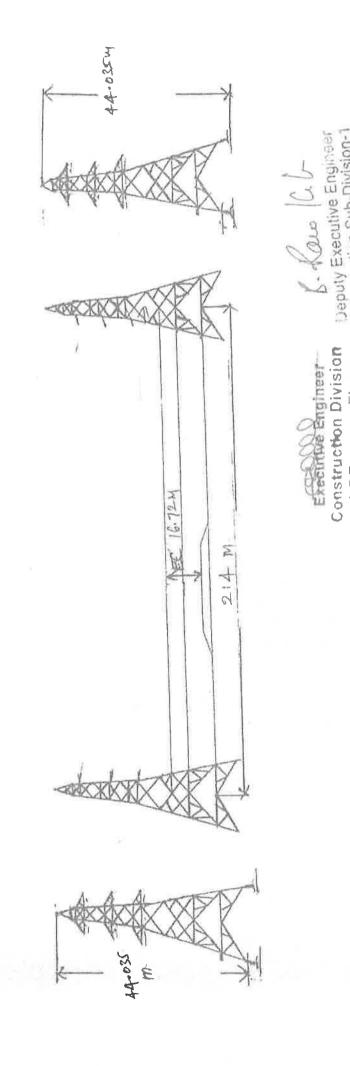
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- 37. The overhead electric power transmission line shall not be brought into use by the Licensee unless a completion certificate to the effect that the laying of overhead electric power transmission line has been laid in accordance with the approved specifications and drawings and the trenches have been filled up to the satisfaction of the concerned agency in coordination with the owner has been obtained.
- 38. Notwithstanding anything NHAI contained herein this agreement may be cancelled at any time by the or breach of any condition of the same and the Licensee shall neither be entitled to any compensation for any loss caused to it by such cancellation nor shall it be absolved from any liability already incurred.
- 39. The Licensee shall have to provide barricading, Danger Lighting and other necessary caution boards while executing the work and during maintenance.
- 40. If any traffic diversion works are found necessary during the working period, such diversion shall be provided at the cost of Licensee. After the termination/ expire of the agreement, the Licensee shall remove the overhead electric power transmission line within 60 days and the site shall be brought back to the original condition failing which the Licensees will lose the right to remove the overhead electric power transmission line. However, before taking up the work of removal of overhead electric power transmission line the Licensee shall furnish a Bank Guarantee to the owner for a period of one year for an amount assessed by the owner for making good the excavated trench by proper filling and compaction, clearing debris, loose earth produced due to excavation of trenching at least 50 meter away from the edge of the right of way.
- 42. If NHAI is required to do some emergent work, the Licensee will provide an observer within 24 hours. NHAI will not be responsible for any damage of any kind by whatsoever means natural or otherwise.
- 43. The enforceability of the Right-of-way permission granted here in shall be restricted to the extent of provision / scope of service contained / defined in the License agreement and for the purpose for which it is granted. Either by content or by intent, the purpose extending this Right-of-way facility is not to enhance the scope.

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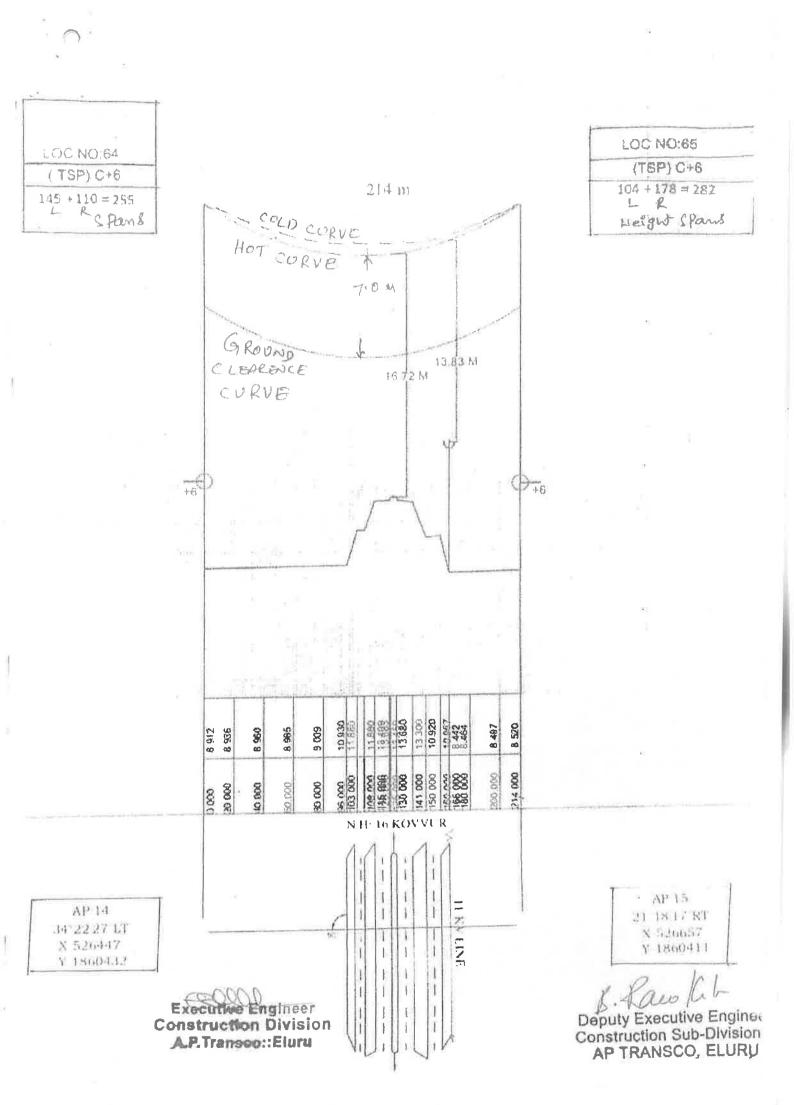
"Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadolc Substation, West Godavari District."Transmission Line crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.



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Transmission Corporation of Andhra Pradesh Limited

Proposal to lay overhead power transmission line i.e Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District on turnkey basis

Crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

METHODOLOGY FOR LAYING OF OVERHEAD POWER LINE

The methodology for laying of overhead power line can be broadly classified as 3steps

- I. Foundation
- II. Erection
- III. Stringing,
- I. FOUNDATION (SUBSTRUCTURE)
- 1. The route for laying of power line is selected using Bee line method connecting both substations for selecting best route technically and economically.
- 2. Upon selection of route, tower spotting is done considering nominal span of 350 meter, utilizing tower spotting data, angle of deviation, statutory/critical crossings and terrain conditions.
- 3. Upon spotting of tower on the site, a test pit is excavated and the foundation classification is decided based on the soil strata encountered.
- 4. Appropriate foundation design is selected and 4nos of pits for four legs of the tower as per the design for tower/foundation type are excavated.
- 5. A Cement concrete bed of 40mm is cast initially on the bed of the pit.
- 6. Stubs(base leg of tower) are erected in the pits using template/Prop, aligned to the route and reinforcement steel as per foundation design, is erected in the pit.
- 7. Reinforcement Cement concrete if mix $M20(1:1^{1/2}:3)$ is used for casting the foundation of each leg of tower using form work to achieve required size and shape.
- 8. After casting all the four legs, the form work is removed and the pits are backfilled with excavated earth. The concrete work is cured for a period of 15days.
- 9. In case of undulations in the terrain at the tower location or where extra protection is to be given due to site conditions, same is done using revetment and/or benching etc.

II. ERECTION(SUPERSTRUCTURE)

- 1. The superstructure or tower forms the supports for overhead power conductor charged to appropriate voltage level for transmission of electrical power.
- 2. The height of tower is so designed to withstand mechanical load and provide adequate electrical & statutory clearances for the safe transmission of power, safety to men and material in the Vicinity.
- 3. The tower is erected using MS/HT steel angles of different sections which are fastened using Bolt and nuts to form a lattice structure of required height.

Now, the tower is ready for stringing activity.

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III.STRINGING

Stringing is a process involving hoisting and fixing of power conductor along with hardware fittings and making the overhead power line ready for transfer of power. This process involves the following activities.

- 1. Once the tower is completely erected and ready for stringing, insulator strings are hoisted on to the tower. The stringing are firmly fixed to the cross arm of the tower using appropriate hard ware
- 2. Arial Rollers are hoisted on to the tower and fixed to the bottom of the insulator string to received pilot wire.
- 3. A tensioner fitted with a conductor drum at one end and a puller at the other end of the section are used for drawing of the power conductor for the stinging section.
- 4. Now a pilot wire is run through the rollers from end of the section to the other end where Stringing activity is planned. Both the ends of pilot wire are connected to Puller and Tensioner Equipment to commence the stringing activity.
- 5. Pilot wire at the Tensioner end is connected to the conductor and when the pilot wire is pulled out by the puller, the pilot wire is drawn out and conductor passes through the rollers on the tower to get into the final position.
- 6. Once the Pilot wire is pulled out completely, conductor gets in to position on the rollers in all the towers. The sag/tensile load on the conductor passes through the rollers on the tower to get into the final position.
- 7. Using Sag template and Dynamometer the sag/tension load of the conductor is adjusted to the specified value as per sag chart. This is called "Final Sag" and forms the final shape of the line maintaining the clearances as per the design.
- 8. Now, the Arial rollers are removed and the conductors are clipped to the Hardware of the insulator string.
- 9. Other accessories like spacers, dampers, jumpers, copper bonds etc are fixed to the line.
- 10. The tower is properly earthed using appropriate type of earthing for protection.

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Now the construction activity of the line is completed and ready to charge for transfer of power after obtaining required statutory clearances.

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CHECK - LIST

Guidelines for project Directors for processing the proposal of laying Overhead Electrical Power Transmission Line in the land across National Highways vested with NHAI.

Relevant circulars

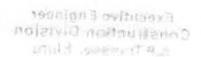
- 1) Ministry Circular No.NH-III/P/66/76 dated 19.11.1976
- 2) Ministry Circular No. NH-III/P/20/77 dt. 08.04.1982
- 3) Ministry Circular No.RW/NH/-III/P/66/76 Date 11.5.1982
- 4) Minstry Circular No.RW/NH-11037/1/86/DOI/dated 19.01.1995

Check list for getting approval for laying of Overhead Electric Power Transmission Line on NH land

SI. no	ltem	Information/status	Remarks
1	General Information		
1.1	Name and Address of the Applicant	The Executive Engineer, Construction Division APTRANSCO, Eluru Andhra Pradesh-534001.	
1.2	National Highway Number	NH - 16	
1.3	State	ANDHRA PRADESH	
1.4	Location	Crossing National Highway No-16 Gundugolanu to Kovvuru between Km 22/2L - 23/3L at Polasanipalli Village , Bhimadole Mandal, West Godavari District, Andhra Pradesh.	
1.5	(Chainage in km)	between Km 22/2L - 23/3L	
1.6	Length in Meter	NA, as the proposal is for crossing of NH	
1.7	Width of available ROW	- N.A -	
	(a) Left side from center line towards increasing chainage/km direction	1848	
	(b) Right side from center line towards increasing chainage/km direction	357	
1.8	Proposal to lay overhead Electric Power Transmission line	- N.A -	
	(a)Left side from center line towards increasing chainage/km direction	***	
	(b) Right side from center line towards increasing chainage/km direction	and a	
1.9	Proposal to acquire land	- N.A -	
	(a)Left side from center line		
	(b)Right side from center line	122	
1.10	Whether proposal is in the same side where land is not to be acquired If not then where to lay the cable	NA, as the proposal is for crossing of NH only.	
1.11	Details of already laid services, if any, along the proposal route	- Nil -	
1.12	Number of lanes (2/4/6/8 lanes) existing	6 Lane	

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SI. no	Item	Information/status	Remarks
1.13	Proposed Number of lane (2 lane with paved shoulders/4/6/8 lanes)	6 Lane	
1.14	Service road existing or not	Yes	
	If yes then which side	Existing on either side of NH	
	(a)Left side from center line	Yes	
	(b)Right side from center line	Yes	
1.15	Proposed service road	- N _* A -	
	(a)Left side from center line	\ 	
	(b)Right side from center line	2,044	
1.16	Whether proposal to lay Overhead Power Transmission line is after the service road in between the service road between the service road and main carriage away	Over head Tower line is crossing NH	
1.17	The permission for laying Overhead Power Transmission line shall be considerd for approval/rejection based in the ministry circulars mentioned as above	Requet to consider the approval.	
1.18	If crossings of the road involved	Yes	
4	If yes, it shall be either encased in pipes or through structure or conduits specially built for that purpose at the expenses of the agency owning the line	Yes. Overhead Electrical line by arranging towers.	
	(a) Existing drainage structures shall not be allowed to carry the lines.	- N.A -	
	(b) Is it on the line normal to NH	Yes	
	(c) Crossings shall not be too near the existing structures on the National Highway, the minimum distance being 15 metre. What is the distance from the existing structures.	From Loc.no.64 C+6 - 126 Mtrs. From 65 C+6 - 88 Mtrs.	
	(d) The casing pipe (or conduit pipe in the case of electric cable) carrying the utility line shall be of steel, cast iron or reinforced cement concrete and have adequate strength and be large enough to permit ready with drawal of the carrier pipe /cable.	- N.A -	
	(e) Ends of the casing / conduit pipe shall be sealed from the outside, so that it does not act as a drainage path	- N.A -	
	(f) The casing/conduit pipe should as minimum extended from drain to drain in cuts and toe of slope toe of slopes in the fills.	- N.A -	
	(g) The top of the casing /conduit pipe should be atleast 1.2 meter below the surface of the road subject to being atleast 0.3 metr below the drain inverts.	- N.A -	
	(h) Crossing shall be by boring method HDD, specially where the existing road pavement is of cement concrete or dense bituminous concrete type.	NA as crossing is overhead. Methodology is enclosed.	

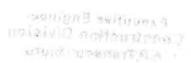




SI. no	Item	Information/status	Remarks
	(i) The casting / conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.	- N.A -	
2	Documents / Drawings enclosed with the proposal		
2.1	Cross section showing the size of trench for open trenching method (is it normal size of 1.2m deep x 0.3m wide) (i) Should not be greater than 60cm wider than the outer diameter of the pipe. (ii) Located as closed to the extreme edge of the right of way as possible but not less than 15m from the centre lines of the nearest carrage way. (iii) Shall not be permitted to run along the national highways when the road formation is situated in double cutting. Nor shall these be laid over the existing culverts and bridges. (iv) These should be so laid that their top is atleast 0.6meter below the ground level so as not to obstruct drainage of the road land.	- N. A - as the crossing is overhead and across NH.	
2.2	Cross section showing the size of pit and location of cable for HDD method	 N.A - as crossing is overhead. 	
2.3	Strip plan / route plan showing Overhead Power Transmission Line Chainage, width of ROW ,distance of proposed cable from the edge of ROW , important mile stone, intersections, cross drainage works etc.	Yes, Enclosed.	
2.4	Methodology for laying of Overhead Power Transmission Line,	Yes, Enclosed.	
2.4.1	Open Trenching Method. (May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type), If yes, Methodology of refilling of trench.	- N,A -	
	(a) The trench width should be atleast 30cm, but not more than 60cm wider than the outer diameter of the pipe.	- N.A -	
	(b) For filling of the trench, Bedding shall be to a depth of not less than 30cm. It shall consist of granular material, free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edged should be excavated and replaced by selected material.	- N.A -	
	(c) The Backfill shall be completed in two stages (i) side - fill to the level of the top of the pipe and (ii) overfill to th bottom of the road crust.	- N.A -	
	(d) The sidefill shall consist of granular material laid in 15cm layers each consolidated by mechanical tampering and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted. (e) The road crust shall be built to the same strength as the existing crust on either side of the trench. Care shall be taken to avoid the formation of a dip at the trench.		
	(f) The excavation shall be protected by flagman, signs and barricades, and red lights during night hours.	- N.A -	
	(g) If required, a diversion shall be constructed at the expense of agency owning the utility line.	- N.A -	
2.4.2	Horizontal Direction Drilling (HDD) method	- N.A -	
2.4.3	Laying of Overhead electrical line through CD works and method of	- N.A -	



SI. no	Check list for getting approval for laying of Overhead Electric Item	Information/status	Remarks
3	Draft License Agreement signed by two witnesses	Yes	
4	Perfomance Bank Guarantee in favour of NHAI has to be obtained @ Rs. 50/- per running meter (parallel to NH) and Rs. 1,00,000/- per crossing of NH, for a period of one year initially (extendable if required till satisfactory completion of work) as a security for ensuring / making good the excavated trench for laying the cables / ducts by proper filling and compaction, clearing debris / loose earth produced due to execution of trenching atleast 50m away from the edge of the right of way. No payment shall be payable by the NHAI to the licensee for clearing debris / loose earth.	'- N. A - due to over head line crossing	
5	Affidavit /Undertaking from the applicant for		
5.1	Not to damage to other utility, if damaged then to pay the losses either to NHAI or to the concerned agency.	Yes, Enclosed.	
5.2	Conforming all standard condition of NHAI guidelines	Yes, Enclosed.	
5.3	Shifting of Overhead Power Transmission as and when required by NHAI at their own cost.	Yes, Enclosed.	
5.4	Shifting due to 6 laning /widening of NH	Yes, Enclosed.	
5.5	Idenmnity against all damages and claims clause (XXIV)	Yes, Enclosed.	
5.6	Traffic movement during laying of Overhead Power Transmission line to be managed by the applicant	Yes, Enclosed.	
5.7	If any claim is raised by the concessionire then the same has to be paid by the applicant	Yes, Enclosed.	
5.8	Prior approval of the NHAI shall be obtained before undertaking any work of installation shifting or repairs, alteration to the over head power Transmission line located in the National Highway Right-of ways.	Yes, Enclosed	
5.9	Expenditure, if any, incurred by NHAI for repairing any damage caused to the national highway by the laying, maintenance or shifting of the over head power Transmission line will be borne by the agency owing the line.	Yes, Enclosed.	
5.10	If the NHAI considers it necessary in future to move the utility line for any work of improvement or repairs to the road, it will be carried out as desired by the NHAI at the cost of the agency owing the utility line within a reasonable time (not exceeding 60 days) of the intimation given.	Yes, Enclosed.	
5.11	Certificate from the applicant in the following format		
	(i) Laying of Overhead Power Transmission Line will not have any deleterious effects on any of the bridge components and road way safety for traffic. (ii) For 6 lanning "We do undertake that I will relocate service road / approach road / utilities at my own cost notwithstanding the permission granted within such time as well be stipulated by NHAI for future four / six laning of any other development."	Yes, Enclosed.	
b 1	Who will sign the agreement on behalf of Overhead Power Transmission Line agency.	Executive Engineer, APTRANSCO	





SI. no	Item	Information/status	Remarks
7	Certificate from the Project Director		
7.1	Certificate for conforming of all standard condition issued vide Ministry circular no. NH-III/P/66/76, Dt 19.11.1976, Ministry Circular No. NH-III/P/20/77 Dt 8-04-1982, Ministry circular no. RW/NH-III/p/66/76 Dt 11.5.1982 and Ministry circular no. RW/NH-11037/1 /86/DOI, dated 19-01-1995.	Yes, Enclosed.	
7.2	Certificate from the P D in the following Format		
	(i) "It is certified that any other location of the Overhead Power Transmission line would be extremely difficult and unreasonable costly and the installation of Overhead Power Transmission Line within ROW will not adversely affect the design, stability and traffic safety of the Highway nor the likely future improvement such as widening of the carriage way, easing of curve etc."	Yes, Enclosed.	
	(ii) For 6 laning (a) Where feasibility is available "I do certify that there will be no hinderance to proposed six laning based on the feasibility report considering proposed structures at said location" (b) In case feasibility report is not available "I do certify that sufficient ROW is available at side for accommodating proposed six laning".	NA	
8	If NH Section proposed to be taken up by NHAI on BOT basis a clause is to be inserted in the agreement ."The permitted Highway on which licensee has been granted the right to lay over head power transmission line has also been granted as a right of way to the concessionaire under the concession agreement for upgradation of (National Highway No-16 Gundugolanu to Kovvuru between Km 22/2L-23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.— on Build, Operate and Transfer Basis) and therefore, the Licensee shall honour the same".	Yes, Inserted	
9	Who will supervise the work of laying Overhead Power Transmission Line.	APTRANSCO and Project Director, NHAI	
10	Who will ensure that the defects in road portion after laying of Overhead Power Transmission Line are corrected and if not correceted then what action will be taken.	APTRANSCO & NHAI	
11	Who will pay the claims for damages done/disruption in working of concessionaire if asked by the concessionaire.	APTRANSCO	
12	A certificate from PD that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed).	Yes, Enclosed.	
13	If any previous approval is accorded for laying of Overhead Power Transmission then photocopy of register of records of permissions accorded as maintained by PD may be enclosed.	Yes, Enclosed.	





ఆంధ్రప్రదేశ్ आन्ध्र प्रदेश ANDHRA PRADESH

S.L.No. 1239 Rs. 100-00 Date 29 - 08 2022

Sold To Erukala Suresh Kumar S/o Kesanna, Eluru

For Whom Self

B. NAGARAJU Licensed Stamp Vendor L.No. 05/01/002/1994 R.L.No. 05/01/015/2021-2023 NALLAJERLA - 534 112 Ph. 9849932753

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

Date: 02-09-2022.

POWER OF ATTORNEY

Sub:- Permission for laying of Transmission Line "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh. Power of attorney Signatory.

APTRANSCO, Eluru is authorised to sign and submit applications and other correspondences on behalf of Transmission corporation of Andhra Pradesh limited to National High ways authority of India for obtaining clearances / Crossing permission in connection with the laying of overhead electric power

transmission line viz., "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu -18.45Kms (approx.). Transmission Line across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

Specimen Signature

E.SURESH KUMAR Emp ID No.1062541, Executive Engineer,

Construction Division, APTRANSCO: ELURU.

For TRANSMISSION CORPORATION OF AP Ltd.

SUPERINGING ENGINEER
PROJECTS/FIELD/A.P.TRANSCO
RAJAMAHENDRAVARAM



ಆಂಧ್ರವ್ಧಕ್ಷ आन्ध प्रदेश ANDHRA PRADESH

S.L No. 132 Rs. 100-00
Date 29 - 08 4 2022
Sold To Erukala Suresh Kumar S/o Kesanna, Eluru
For Whom Self

B. NAGARAJU Licensed Stamp Vendor L.No. 05/01/002/1994 R.L.No. 05/01/015/2021-2023 NALLAJERLA - 534 112 Ph. 9849932753

CERTIFICATE

Name of the work:- Proposal to lay overhead Electric Power Transmission line, Viz., "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

Undersigned, Erukala Suresh Kumar, Executive Engineer, on behalf of **Transmission**Corporation Of Andhra Pradesh Limited, certify that

 Laying of overhead Electric power transmission line will not have any deleterious effects on any of the bridge components and roadway safety for traffic.

Page 1 of 2

Construction Division
A.P.Transco::Eluru

- For six-laning "We do undertake that we will relocate service road / approach
 road / utilities at our own cost notwithstanding the permission granted within
 such time as will be stipulated by NHAI" for future six-laning or any other
 development.
- 3. This proposal implemented now will not affect any likely future improvement to geometrics.
- 4. We undertake that permission does not lead to the adverse impact on the safety and stability of the Highway structure.

Construction Division
A.P. Transco::Eluru



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S.L.No. 33/ Rs. 100-00

Sold To Erukala Suresh Kumar S/o Kesanna, Eluru

For Whom Self

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UNDERTAKING

Name of the work: Proposal to lay overhead Electric Power Transmission line, Viz., "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

Undersigned, E.Suresh Kumar, Executive Engineer, on behalf of Transmission Corporation Of

Andhra Pradesh Limited, undertake that

\$1. Not to damage other utility; if damaged then to pay losses either to NHAI or to the concerned agency.

Page 1 of 2

Executive Engineer
Construction Division
A.P.Transco::Eluru

- 2. The work will be carried out, conforming to all standard conditions of NHAI's guidelines.
- 3. Shifting of overhead power transmission line as and when required by NHAI at the cost of the Transmission Corporation Of Andhra Pradesh Limited.
- 4. For six-laning / widening, we do undertake that we will relocate the overhead power transmission line at our own cost notwithstanding the permission granted within such time as will be stipulated by NHAI for future six-laning or any other development.
- 5. Indemnity against all damages and claim.
- 6. Traffic movement during laying of overhead power transmission line to be managed by

 Transmission Corporation Of Andhra Pradesh Limited.
- 7. If any claim is raised by the Concessionaire, then the same has to be paid by Transmission Corporation Of Andhra Pradesh Limited.
- 8. Prior approval of the NHAI shall be obtained before undertaking any work of installation, Shifting, repair or alterations to the shown overhead electric power transmission line in the National Highway right-of-ways.
- 9. Expenditure, if any, incurred by NHAI for repairing any damage caused to the National Highway by the laying, maintenance or shifting of the overhead power transmission line will be borne by the agency owning the line.

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S.L.No...\3\4\1...Rs. 100-00 Date 29 - 08 2022

Sold To Erukala Suresh Kumar S/o Kesanna, Eluru

For Whom Selfi

B. NAGARAJU
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R.L.No. 05/01/015/2021-2023
NALLAJERLA - 534 112
Ph. 9849932753

LICENSE DEED FOR LAYING OVERHEAD ELECTRIC POWER TRANSMISSION LINE ACROSS NATIONAL HIGHWAY LAND

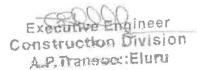
Agreement to lay overhead Electric Power Transmission line across National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

An agreement made on this day of 2nd September 2022 between the President of India/ National Highway Authority of India (herein after called the Government which expression shall unless excluded by or repugnant to the context include his successor in office and assigns) of the one part and Transmission Corporation Of Andhra Pradesh Limited, Executive Engineer, Construction Division, APTRANSCO, D.no.24A-4-8, 1st Floor, Near Union Bank, Ashok Nagar, ELURU, Andhra Pradesh-534002 (herein after called in 'Licensee' which expression shall, unless excluded by dr repugnant to the context, include his heirs its successors / their successors and assigns) of the other part.

(a)

Page 1 of 4

- 2. WHEREAS the Licensee has / Licensees have applied to the Government / NHAI for permissions to lay overhead electric power transmission line Viz., " 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu ". Transmission Line Crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L 23/3L at Polasanipalli. Village , Bhimadole Mandal, West Godavari District, Andhra Pradesh.
- 3. And whereas the Government / NHAI has agreed to grant such permissions on the terms and conditions hereinafter mentioned.
- 4. Now, this agreement witnesses that in consideration of the conditions hereinafter contained and on the part of the Licensee / Licensees to be observed and performed the Government / NHAI hereby grants to the Licensee / Licensees permission to lay overhead Electric Power Transmission line as per the approved drawing attached here to subject to the following conditions, namely.
 - (i) That the Licensee / Licensees shall within three months from the date hereof, but without interfering with the road traffic complete the laying of Overhead Power Transmission line to the satisfaction of the Divisional Engineer / Project Director incharge of the National Highways in accordance with the drawings and specifications approved by the Project Director.
 - (ii) That the Licensee / Licensees shall be responsible for restoring the road at his / their own cost to its original condition after laying the overhead power transmission line or, after any damage caused due to inadequate maintenance / operation of the overhead transmission line.
 - (iii) That in case of any breakdown of transmission line the licensee / licensees shall bear the entire cost of restoration of damage caused to the road.
 - (iv) That the Licensee / Licensees shall not without the prior permission in writing of the Project Director undertake any work of shifting, repairs or alteration to the said overhead transmission line.
 - (v) That the licensee / Licensees shall at all time permit any duty authorized officer or servant of the Government / NHAl to inspect the said overhead transmission line.
 - (vi) That the Licensee / Licensees shall be liable for any loss or damages caused to the Government / NHAI by drainage obstruction or any other cause due to the said overhead transmission line.
 - (vii) That the Licensee / Licensees within two months of a notice duly given to him to this behalf by the NHAI / Government shall at his / their own cost remove the overhead transmission line and restore the road land to its original condition when required to do so by the Government / NHAI or by any person authorized on its behalf. The Licensee / Licensees shall not be entitled to any compensation on account of such removal or restoration.



- (viii) That if the Licensee fails / Licensees fail to execute any work which he has/they have agreed to execute under this agreement to the entire satisfaction of the Project Director NHAI, the work shall be executed by the Project Director NHAI / Government at the cost of the Licensee / Licensees and the amount shall be recoverable from the Licensee / Licensees as arrears of land revenue without prejudice to any other remedies which may be open to the Government / NHAI in this behalf.
- (ix) That the Licensee / Licensees shall not sell, transfer or otherwise dispose of the premises without obtaining the previous consent of the Government / NHAI in writing.
- (x) That this agreement will remain in force for a period of five years from the date of execution in the first instance and be terminated by a notice of Two months and the permission may not be renewed after the expiry of the said period.
- (xi) That the permission granted by this License shall not in any way to be deemed to convey to the Licensee / Licensees any right to or over any interest in Government land other than what is herein expressly granted.
- (xii) That during the subsistence of this Licensee, that overhead transmission line located on the road shall be deemed to have been constructed and contained only by the consent and permission of Government so that the right of the Licensee / Licensees to the use thereof shall not become absolute and defeasible by lapse of time.
- (xiii)That the Licensee / Licensees shall bear the stamp duty charges on this agreement.
- (xiv)Govt. of India / NHAI will not be responsible for any damage of any kind whatsoever means natural or otherwise to the overhead transmission line.
- 5 The overhead transmission line shall not be brought into use by the Licensee / Licensees unless a completion certificate to the effect that the overhead transmission line have been laid in accordance with the approved specification and drawings has been obtained from the Project Director, NHAI.
- 6. The Licensee shall abide by the conditions enclosed herewith as annexure -1.
- 7. Notwithstanding anything contained in Clause 4 (vii) the License may be cancelled at any time by the government / NHAI for a breach of any condition of the license and the license / licensees shall not be entitled to any loss caused to it by such cancellation, nor shall it be absolved from any liability already incurred under this agreement.
- 8. The permitted Highway on which Licensee has been granted the right to lay overhead electric power transmission line has also been granted as a right of way to the concessionaire under the concession agreement for upgradation of (National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh. -- on Build, Operate and Transfer Basis) and therefore, the Licensee shall honour the same.

This agreement has been executed in duplicate and each party to this agreement has retained one stamped copy each.

Signed by Shri E. SURESH KUMAR	Signed by Shri
For TRANSMISSION CORPORATION OF AP LTD	Project Director National Highways Authority of India For and on behalf of President of India
Construction Division In the pre	esence of
1. B. Raen Jah	1.
Name in full (Signature) with designation Deputy Executive Engineer Construction Sub-Division-1 AP TRANSCO, ELURU	Name in full (Signature) with Designation
(A. GRANCAA MURAL3)	2
Name in full (Signature) with designation Assistant Executive Engineer Construction Sub-Division-1 AP TRANSCO, ELURU	Name in full (Signature) with Designation

CONDITIONS TO BE ENCLOSED / INCORPORATED IN THE APPROVAL LETTER FOR PERMISSION FOR LAYING OF OVERHEAD ELECTRIC POWER TRANSMISSION LINE.

- 1. The overhead electric power transmission line shall be located as close to the extreme edge of the right-of-way as possible but not less than 15 metre from the centre-lines of the nearest carriageway.
- 2. The overhead electric power transmission line shall not be permitted to run along the National Highway when the road formation is suitable in double cutting Nor shall these be laid over the existing culverts and bridges without the prior approval of NHAI / Government of India.
- 3. The overhead electric power transmission line shall be so placed that at no time there is interference with the maintenance of the National Highways.
- 4. These should be so laid that their top is at least 1.5 meter below the ground level so as not to obstruct drainage of the road land.
- 5. The authority / owner of the overhead electric power transmission utility shall ensure that laying overhead electric power transmission line should not have any deleterious effects on any of the bridge components and roadway safety for traffic.
- 6. The Lines shall cross the National Highways preferably on a line normal to it or as nearly as practicable.
- 7. Crossings shall not be too near the existing structures on the National Highway, the minimum distance being 15 meter.
- 8. The Overhead Power Transmission line is permitted to cross the National Highway either encased in pipes or through structure of conduits specially built for that purpose at the expense of the agency owning the line. Existing drainages structures shall not be allowed to carry the line across.
- 9. The casing pipe (or conduit pipe in the case of electric cable) carrying the overhead electric power transmission line shall be of steel, cast iron or reinforced cement concrete and have adequate strength and be large enough to permit ready withdrawal of the carrier pipe /cable. Ends of the casing/conduit pipe shall be sealed from the outside, so that it does not act as a drainage path.
- 10. The casing/conduit pipe should, as minimum extend from drain to drain in cuts and toe of slope toe of slope in the fills.
- 11. The top of the casing/conduit pipe should be at least 1.2 meter below the structure of the road subject to being at least 0.3 m below the drain inverts.
- 12. The casing/conduit pipe may be installed under the road embankment either by boring or digging a trench. Installation by boring method shall only be permitted where the existing road pavement is of cement concrete or dense bituminous concrete type.
- 13. The casing/conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.

- 14. Open a trench method.(May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type)
 - (a) The sides of the trench should be done as nearly vertical as possible; The trench width should be at least 30 cm, but not more than 60 cm wider than outer diameter of the pipe.
 - (b) Filling of the trench shall confirm to the specifications contained herein below.
 - (c) Bedding shall be to a depth of not less than 30 cm, It shall consist of granular material, free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value. Unsuitable Soil and rock edged should be excavated and replaced by selected material.
 - (d) The backfill shall be completed in two stages (i) side- fill to the level of the top of the pipe and (ii) overfill to the bottom of the road crust.
 - (e) The side fill shall consist of granular material laid in 15 cm layers each consolidated by mechanical tempering and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted.
 - (f) The road crust shall be built to the same strength as the existing crust on either side of the trench or to thickness and specifications stipulated by the Highways Authority. Care shall be taken to avoid the formation of a dip at the trench.
 - (g) The excavation shall be protected by flagman, signs and barricades and red lights during night hours
- 15. If needed, a diversion shall be constructed at the expanse of agency owning the overhead electric power transmission line.
- 16. Prior approval of NHAI shall be obtained before undertaking any work of installation, shifting or repairs or alterations to the overhead electric power transmission line located in the National Highway right-of-ways.
- 17. Expenditure, if any, incurred by the Highway Authority for repairing any damage caused to the National Highway by the laying, maintenance or shifting of the overhead electric power transmission line will be borne by the agency owning the overhead electric power transmission line.
- 18. If the NHAI considers it necessary in future to move the overhead electric power transmission line for any work of improvement of repairs to the road, it will be carried out as desired by the Highway Authority at the cost of the agency owning the overhead electric power transmission line within a reasonable time (not exceeding 60 days) of the intimation given.

- 19. The licensee shall ensure making good the excavated trench for laying overhead electric power transmission line by proper filling and compaction, so as to restore the land in to the same conditions as it was before digging the trench, clearing debris/loose earth produced due to execution of trenching at least 50 m away from the edge of the right of way.
- 20. The licensee shall furnish a bank Guarantee to the NHAI @100/- per running meter (parallel to NH) and Rs 1,00,000/- per crossing of NH f or a period of one year initially (extendable if required till satisfactory completion of work) as a security for ensuring/making good the excavated trench for laying the overhead electric power transmission line /ducts by proper filling and compaction , clearing debris/loose earth produced due to execution of trenching at least 50m away from the edge of the right of way .No payment shall be payable by the NHAI to the licensee for clearing debris/loose earth.
- 21. In case of work contemplated herewith is not completed to the satisfaction of the NHAI, which has granted the permission, within a period of 11 months from the date of issue of the bank guarantee, the licensee shall either furnish a fresh guarantee or extend the guarantee for a further period of one year. In case of the licensee failing to discharge the obligation of making good the excavated trench, the NHAI shall have a right to make good the damages caused by excavation, at the cost of the licensee and recover the amount by invoking the bank guarantee furnished by the licensee.
- 22. The licensee shall shift the overhead electric power transmission line within 60 days (or as specified by the respective agency / owner) from the date of issue of the notice by the NHAI / Govt of India to shift / relocate the overhead electric power transmission line, in case it is so required for the purpose of improvement / widening of the road / route / highway or construction of flyover / bridges and restore the road / land to its original conditions at his own cost and risk.
- 23. Regarding the location of other cables, underground installation/Utilities etc, the licensee shall be responsible to ascertain from the respective agency in coordination with NHAI. The licensee shall ensure the safety and security of already existing cables/Underground installation/Utilities facilities etc. before commencement of the excavation.
- 24. The Licensee shall be solely responsible / liable for fully compensation / indemnification of concerned agency / aggrieved owner for any direct, indirect or consequential damage caused to them / claims or replacement sought for at the cost and risk of the Licensee. The concerned agency in coordination with NHAI shall also have a right to make good such damage / recover the claims by way of invoking of bank guarantee furnished by the licensee.
- 25. If the Licensee fails to comply with the condition 22 and 23 above to the satisfaction of the NHAI, the same shall be got executed by the NHAI at the risk and cost of the licensee.

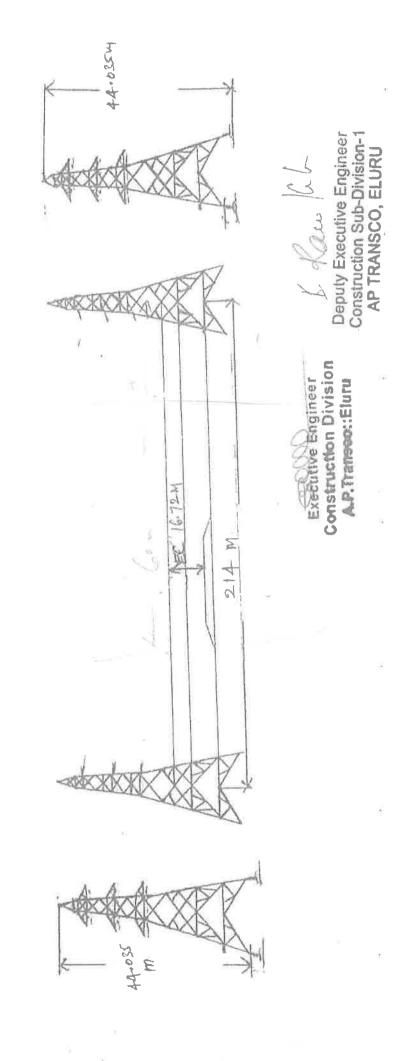


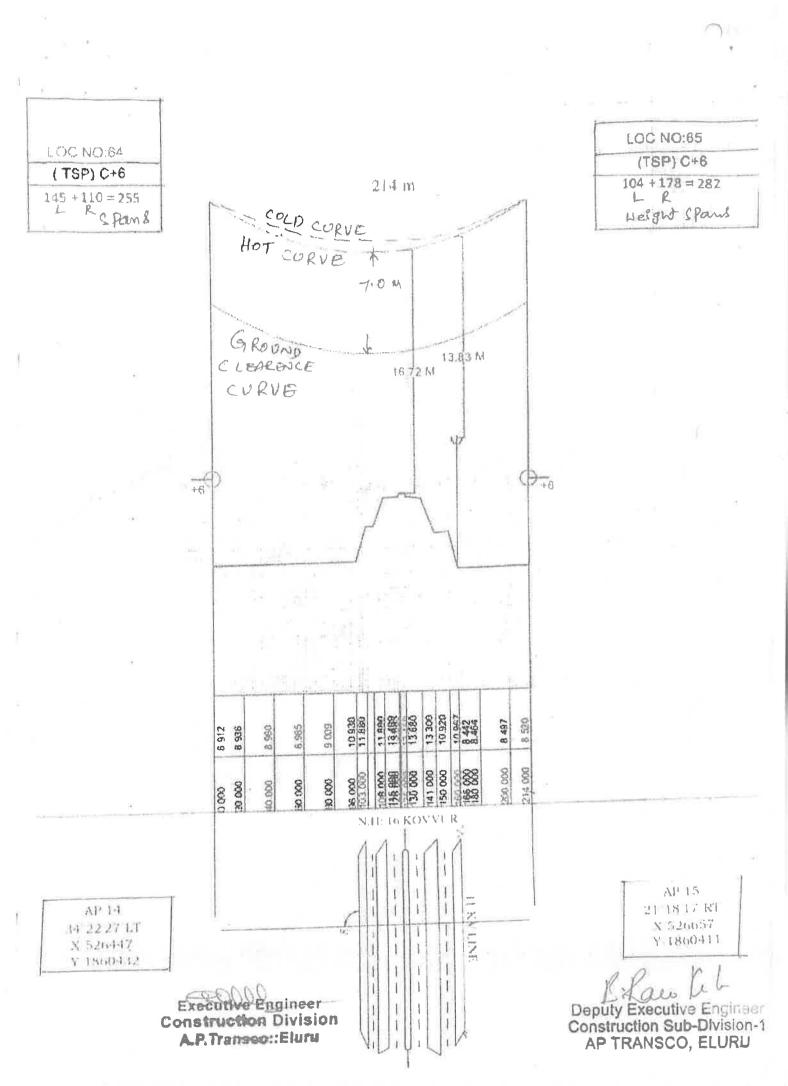
- 26. The licensee shall procure insurance from reputed insurance company against damages to already existing cables/underground installation/utilities/facilities etc. during trenching.
- 27. The licensee has to cross the NH by horizontal drilling method (trenchless technology only). In case any damage is caused to the road pavement in this process; the licensee will be required to restore the same to the original condition at his own cost.
- 28. No trenching will be done on pucca road, boring method will be issued in pucca road and overhead electric power transmission line will be laid at the extreme edge of the road in the non-BT surface only.
- 29. The licensee shall inform/give a notice to the NHAI, Govt. of India or its authorized agency at least 15 days in advance with route details prior to digging trenches for fresh or maintenance/repair work. A separate work plan and a separate performance Bank Guarantee @Rs 100/- per meter length for maintenance/repair work shall have to be furnished by the licensee.
- 30. Each day, the extent of digging the trenches should be strictly regulated so that cables are laid and trenches be filled up before the close of the work that day. Filling should be completed to the satisfaction of the concerned agency designated by the NHAI.
- 31. The Licensee shall indemnify the concerned agency in coordination with NHAI, against all damages and claims, if any, due to construction of overhead electric power transmission line.
- 32. The NHAI has a right to terminate the permission orto extend the period of agreement. In case the licensee wants shifting, repairs or alteration to overhead electric power transmission line, he will have to furnish a separate Bank Guarantee.
- 33. The Licensee shall not without prior permission in writing from the NHAI / Govt. of India or its authorized agency undertake any work or shifting, repairs or alterations to the said overhead electric power transmission line.
- 34. The permission granted shall not in any way be deemed to convey to the Licensee any ownership right or any interest in route / road / highway / land / property, other than what is herein expressly granted.
- 35. During the subsistence of this agreement, the laying of overhead electric power transmission line located in Highway land / property shall be deemed to have been constructed and continued only by the consent and permission of the NHAI so that the right of the Licensee to the use thereof shall not become absolute and indefeasible by lapse of time.

36 The Licensee shall bear the stamp duty charged for the agreement.

- 37. The overhead electric power transmission line shall not be brought into use by the Licensee unless a completion certificate to the effect that the laying of overhead electric power transmission line has been laid in accordance with the approved specifications and drawings and the trenches have been filled up to the satisfaction of the concerned agency in coordination with the owner has been obtained.
- 38. Notwithstanding anything NHAI contained herein this agreement may be cancelled at any time by the or breach of any condition of the same and the Licensee shall neither be entitled to any compensation for any loss caused to it by such cancellation nor shall it be absolved from any liability already incurred.
- 39. The Licensee shall have to provide barricading, Danger Lighting and other necessary caution boards while executing the work and during maintenance.
- 40. If any traffic diversion works are found necessary during the working period, such diversion shall be provided at the cost of Licensee. After the termination/ expire of the agreement, the Licensee shall remove the overhead electric power transmission line within 60 days and the site shall be brought back to the original condition failing which the Licensees will lose the right to remove the overhead electric power transmission line. However, before taking up the work of removal of overhead electric power transmission line the Licensee shall furnish a Bank Guarantee to the owner for a period of one year for an amount assessed by the owner for making good the excavated trench by proper filling and compaction, clearing debris, loose earth produced due to excavation of trenching at least 50 meter away from the edge of the right of way.
- 42. If NHAI is required to do some emergent work, the Licensee will provide an observer within 24 hours. NHAI will not be responsible for any damage of any kind by whatsoever means natural or otherwise.
- 43. The enforceability of the Right-of-way permission granted here in shall be restricted to the extent of provision / scope of service contained / defined in the License agreement and for the purpose for which it is granted. Either by content or by intent, the purpose extending this Right-of-way facility is not to enhance the scope.

and 2 no 220 KV Bays at 220/132/33 KV Bhimadolc Substation, West Godavari District."Transmission Line Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli "Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.









Transmission Corporation of Andhra Pradesh Limited

Proposal to lay overhead power transmission line i.e Erection of 220KV DC line from 400/220 KV Substation, Kamavarapukota to 220/132/33 KV Substation, Bhimadolu in West Godavari District Including Erection of 2 No 220 KV Bays at 400/220 KV K.Kota Substation and 2 no 220 KV Bays at 220/132/33 KV Bhimadole Substation, West Godavari District on turnkey basis

Crossing National Highway No.16 from Gundugolanu to Kovvur between Km 22/2L - 23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.

METHODOLOGY FOR LAYING OF OVERHEAD POWER LINE

The methodology for laying of overhead power line can be broadly classified as 3steps

- I. Foundation
- II. Erection
- III. Stringing,

I. FOUNDATION (SUBSTRUCTURE)

- 1. The route for laying of power line is selected using Bee line method connecting both substations for selecting best route technically and economically.
- 2. Upon selection of route, tower spotting is done considering nominal span of 350 meter, utilizing tower spotting data, angle of deviation, statutory/critical crossings and terrain conditions.
- 3. Upon spotting of tower on the site, a test pit is excavated and the foundation classification is decided based on the soil strata encountered.
- 4. Appropriate foundation design is selected and 4nos of pits for four legs of the tower as per the design for tower/foundation type are excavated.
- 5. A Cement concrete bed of 40mm is cast initially on the bed of the pit.
- 6. Stubs(base leg of tower) are erected in the pits using template/Prop, aligned to the route and reinforcement steel as per foundation design, is erected in the pit.
- 7. Reinforcement Cement concrete if mix $M20(1:1^{1/2}:3)$ is used for casting the foundation of each leg of tower using form work to achieve required size and shape.
- 8. After casting all the four legs, the form work is removed and the pits are backfilled with excavated earth. The concrete work is cured for a period of 15days.
- 9. In case of undulations in the terrain at the tower location or where extra protection is to be given due to site conditions, same is done using revetment and/or benching etc.

II. ERECTION(SUPERSTRUCTURE)

- 1. The superstructure or tower forms the supports for overhead power conductor charged to appropriate voltage level for transmission of electrical power.
- 2. The height of tower is so designed to withstand mechanical load and provide adequate electrical & statutory clearances for the safe transmission of power, safety to men and material in the Vicinity.
- 3. The tower is erected using MS/HT steel angles of different sections which are fastened using Bolt and nuts to form a lattice structure of required height.

Now, the tower is ready for stringing activity.

III.STRINGING

Stringing is a process involving hoisting and fixing of power conductor along with hardware fittings and making the overhead power line ready for transfer of power. This process involves the following activities.

- Once the tower is completely erected and ready for stringing, insulator strings are hoisted on to the tower. The stringing are firmly fixed to the cross arm of the tower using appropriate hard ware
- 2. Arial Rollers are hoisted on to the tower and fixed to the bottom of the insulator string to received pilot wire.
- 3. A tensioner fitted with a conductor drum at one end and a puller at the other end of the section are used for drawing of the power conductor for the stinging section.
- 4. Now a pilot wire is run through the rollers from end of the section to the other end where Stringing activity is planned. Both the ends of pilot wire are connected to Puller and Tensioner Equipment to commence the stringing activity.
- 5. Pilot wire at the Tensioner end is connected to the conductor and when the pilot wire is pulled out by the puller, the pilot wire is drawn out and conductor passes through the rollers on the tower to get into the final position.
- 6. Once the Pilot wire is pulled out completely, conductor gets in to position on the rollers in all the towers. The sag/tensile load on the conductor passes through the rollers on the tower to get into the final position.
- 7. Using Sag template and Dynamometer the sag/tension load of the conductor is adjusted to the specified value as per sag chart. This is called "Final Sag" and forms the final shape of the line maintaining the clearances as per the design.
- 8. Now, the Arial rollers are removed and the conductors are clipped to the Hardware of the insulator string.
- 9. Other accessories like spacers, dampers, jumpers, copper bonds etc are fixed to the line.
- 10. The tower is properly earthed using appropriate type of earthing for protection.

Now the construction activity of the line is completed and ready to charge for transfer of power after obtaining required statutory clearances.

Construction Division
A.P.Transoo::Eluru

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CHECK - LIST

Guidelines for project Directors for processing the proposal of laying Overhead Electrical Power Transmission Line in the land across National Highways vested with NHAI.

Relevant circulars

- 1) Ministry Circular No.NH-III/P/66/76 dated 19.11.1976
- 2) Ministry Circular No. NH-III/P/20/77 dt. 08.04.1982
- 3) Ministry Circular No.RW/NH/-III/P/66/76 Date 11.5.1982
- 4) Minstry Circular No.RW/NH-11037/1/86/DOI/dated 19.01.1995

Check list for getting approval for laying of Overhead Electric Power Transmission Line on NH land

SI. no	ltem	Information/status	Remarks
1	General Information		
1.1	Name and Address of the Applicant	The Executive Engineer, Construction Division APTRANSCO, Eluru Andhra Pradesh-534001.	
1.2	National Highway Number	NH - 16	
1,3	State	ANDHRA PRADESH	
1.4	Location	Crossing National Highway No-16 Gundugolanu to Kovvuru between Km 22/2L - 23/3L at Polasanipalli Village , Bhimadole Mandal, West Godavari District, Andhra Pradesh.	
1.5	(Chainage in km)	between Km 22/2L - 23/3L	
1.6	Length in Meter	NA, as the proposal is for crossing of NH	
1.7	Width of available ROW	- N.A -	
	(a) Left side from center line towards increasing chainage/km direction	***	
	(b) Right side from center line towards increasing chainage/km direction		
1.8	Proposal to lay overhead Electric Power Transmission line	N.A -	
	(a)Left side from center line towards increasing chainage/km direction	(New Parts	
	(b)Right side from center line towards increasing chainage/km direction	/444	
1.9	Proposal to acquire land	- N.A -	
	(a)Left side from center line	4	
	(b)Right side from center line		
1.10	Whether proposal is in the same side where land is not to be acquired If not then where to lay the cable	NA, as the proposal is for crossing of NH only.	
1.11	Details of already laid services, if any, along the proposal route	- Nil -	
1.12	Number of lanes (2/4/6/8 lanes) existing	6 Lane	

Check list for getting approval for laving of Overhead Electric Power Transmission Line on NH land

Sl. no	ltem	Information/status	Remarks
1.13	Proposed Number of lane (2 lane with paved shoulders/4/6/8 lanes)	6 Lane	
1.14	Service road existing or not	Yes	
	If yes then which side	Existing on either side of NH	
	(a)Left side from center line	Yes	
	(b)Right side from center line	Yes	
1.15	Proposed service road	- N.A -	
	(a)Left side from center line	***	
	(b)Right side from center line	****	
1.16	Whether proposal to lay Overhead Power Transmission line is after the service road in between the service road between the service road and main carriage away	Over head Tower line is crossing NH	
1.17	The permission for laying Overhead Power Transmission line shall be considerd for approval/rejection based in the ministry circulars mentioned as above	Requet to consider the approval.	
1.18	If crossings of the road involved	Yes	
	If yes, it shall be either encased in pipes or through structure or conduits specially built for that purpose at the expenses of the agency owning the line	Yes. Overhead Electrical line by arranging towers.	
	(a) Existing drainage structures shall not be allowed to carry the lines.	- N.A -	
	(b) Is it on the line normal to NH	Yes	
	(c) Crossings shall not be too near the existing structures on the National Highway, the minimum distance being 15 metre. What is the distance from the existing structures.	From Loc.no.64 C+6 - 126 Mtrs. From 65 C+6 - 88 Mtrs.	
	(d) The casing pipe (or conduit pipe in the case of electric cable) carrying the utility line shall be of steel, cast iron or reinforced cement concrete and have adequate strength and be large enough to permit ready with drawal of the carrier pipe /cable.	→ N.A ~	
×	(e) Ends of the casing / conduit pipe shall be sealed from the outside, so that it does not act as a drainage path	- N.A -	
	(f) The casing/conduit pipe should as minimum extended from drain to drain in cuts and toe of slope toe of slopes in the fills.	- N.A -	
	(g) The top of the casing /conduit pipe should be atleast 1.2 meter below the surface of the road subject to being atleast 0.3 metr below the drain inverts.	- N,A ~	
	(h) Crossing shall be by boring method HDD, specially where the existing road pavement is of cement concrete or dense bituminous concrete type.	NA as crossing is overhead. Methodology is enclosed.	

Check list for getting approval for laying of Overhead Electric Power Transmission Line on NH land

SI. no	ltem	Information/status	Remarks
	(i) The casting / conduit pipe shall be installed with an even bearing throughout its length and in such a manner as to prevent the formation of a waterway along it.	- N.A -	
2	Documents / Drawings enclosed with the proposal		
2.1	Cross section showing the size of trench for open trenching method (is it normal size of 1.2m deep x 0.3m wide) (i) Should not be greater than 60cm wider than the outer diameter of the pipe. (ii) Located as closed to the extreme edge of the right of way as possible but not less than 15m from the centre lines of the nearest carrage way. (iii) Shall not be permitted to run along the national highways when the road formation is situated in double cutting. Nor shall these be laid over the existing culverts and bridges. (iv) These should be so laid that their top is atleast 0.6meter below the ground level so as not to obstruct drainage of the road land.	- N. A - as the crossing is overhead and across NH.	
2.2	Cross section showing the size of pit and location of cable for HDD method	- N.A - as crossing is overhead.	E
2.3	Strip plan / route plan showing Overhead Power Transmission Line Chainage, width of ROW ,distance of proposed cable from the edge of ROW , important mile stone, intersections, cross drainage works etc.	Yes, Enclosed.	
2.4	Methodology for laying of Overhead Power Transmission Line.	Yes, Enclosed.	
2.4.1	Open Trenching Method. (May be allowed in utility corridor only where pavement is neither cement concrete nor dense bituminous concrete type), If yes, Methodology of refilling of trench.	- N,A -	
	(a) The trench width should be atleast 30cm, but not more than 60cm wider than the outer diameter of the pipe.	- N _* A -	
27	(b) For filling of the trench, Bedding shall be to a depth of not less than 30cm. It shall consist of granular material, free of lumps, clods and cobbles and graded to yield a firm surface without sudden change in the bearing value. Unsuitable soil and rock edged should be excavated and replaced by selected material.	- N.A -	
25	(c) The Backfill shall be completed in two stages (i) side - fill to the level of the top of the pipe and (ii) overfill to th bottom of the road crust.	- N.A -	
180	(d) The sidefill shall consist of granular material laid in 15cm layers each consolidated by mechanical tampering and controlled addition of moisture to 95% of the Proctor's Density. Overfill shall be compacted to the same density as the material that had been removed. Consolidation by saturation or ponding will not be permitted. (e) The road crust shall be built to the same strength as the existing crust on either side of the trench. Care shall be taken to avoid the formation of a dip at the trench.	- N.A-	
	(f) The excavation shall be protected by flagman, signs and barricades, and red lights during night hours.	- N.A -	
	(g) If required, a diversion shall be constructed at the expense of agency owning the utility line.	- N.A -	
2.4.2	Horizontal Direction Drilling (HDD) method	- N.A -	
2.4.3	Laying of Overhead electrical line through CD works and method of laying	- N.A -	



Check list for getting approval for laying of Overhead Electric Power Transmission Line on NH land

SI. no	ltem	Information/status	Remarks
3	Draft License Agreement signed by two witnesses	Yes	
4	Perfomance Bank Guarantee in favour of NHAI has to be obtained @ Rs. 50/- per running meter (parallel to NH) and Rs. 1,00,000/- per crossing of NH, for a period of one year initially (extendable if required till satisfactory completion of work) as a security for ensuring / making good the excavated trench for laying the cables / ducts by proper filling and compaction, clearing debris / loose earth produced due to execution of trenching atleast 50m away from the edge of the right of way. No payment shall be payable by the NHAI to the licensee for clearing debris / loose earth.	'- N. A - due to over head line crossing	
5	Affidavit /Undertaking from the applicant for		
5.1	Not to damage to other utility, if damaged then to pay the losses either to NHAI or to the concerned agency.	Yes, Enclosed.	
5.2	Conforming all standard condition of NHAI guidelines	Yes, Enclosed.	
5.3	Shifting of Overhead Power Transmission as and when required by NHAI at their own cost.	Yes, Enclosed.	
5.4	Shifting due to 6 laning /widening of NH	Yes, Enclosed	
5.5	Idenmnity against all damages and claims clause (XXIV)	Yes, Enclosed.	
5.6	Traffic movement during laying of Overhead Power Transmission line to be managed by the applicant	Yes, Enclosed.	13
5.7	If any claim is raised by the concessionire then the same has to be paid by the applicant	Yes, Enclosed.	
5.8	Prior approval of the NHAI shall be obtained before undertaking any work of installation shifting or repairs, alteration to the over head power Transmission line located in the National Highway Right-of - ways.	Yes, Enclosed.	
5.9	Expenditure, if any, incurred by NHAI for repairing any damage caused to the national highway by the laying, maintenance or shifting of the over head power Transmission line will be borne by the agency owing the line.	Yes, Enclosed.	
5.10	If the NHAI considers it necessary in future to move the utility line for any work of improvement or repairs to the road, it will be carried out as desired by the NHAI at the cost of the agency owing the utility line within a reasonable time (not exceeding 60 days) of the intimation given.	Yes, Enclosed.	
5.11	Certificate from the applicant in the following format		
	(i) Laying of Overhead Power Transmission Line will not have any deleterious effects on any of the bridge components and road way safety for traffic. (ii) For 6 lanning "We do undertake that I will relocate service road / approach road / utilities at my own cost notwithstanding the permission granted within such time as well be stipulated by NHAI for future four / six laning of any other development."	Yes, Enclosed.	
0 1	Who will sign the agreement on behalf of Overhead Power Fransmission Line agency.	Executive Engineer, APTRANSCO	-



Check list for getting approval for laying of Overhead Electric Power Transmission Line on NH land

SI. no	item	Information/status	Remarks
7	Certificate from the Project Director.		
7.1	Certificate for conforming of all standard condition issued vide Ministry circular no. NH-III/P/66/76, Dt 19.11.1976, Ministry Circular No. NH-III/P/20/77 Dt 8-04-1982, Ministry circular no. RW/NH-III/P/66/76 Dt 11.5.1982 and Ministry circular no. RW/NH-11037/1 /86/DOI, dated 19-01-1995.	Yes, Enclosed	
7.2	Certificate from the P D in the following Format		
	(i) "It is certified that any other location of the Overhead Power Transmission line would be extremely difficult and unreasonable costly and the installation of Overhead Power Transmission Line within ROW will not adversely affect the design, stability and traffic safety of the Highway nor the likely future improvement such as widening of the carriage way, easing of curve etc."	Yes, Enclosed.	
E	(ii) For 6 laning (a) Where feasibility is available "I do certify that there will be no hinderance to proposed six laning based on the feasibility report considering proposed structures at said location" (b) In case feasibility report is not available "I do certify that sufficient ROW is available at side for accommodating proposed six laning".	NA NA	
8	If NH Section proposed to be taken up by NHAI on BOT basis a clause is to be inserted in the agreement ."The permitted Highway on which licensee has been granted the right to lay over head power transmission line has also been granted as a right of way to the concessionaire under the concession agreement for upgradation of (National Highway No-16 Gundugolanu to Kovvuru between Km 22/2L-23/3L at Polasanipalli Village, Bhimadole Mandal, West Godavari District, Andhra Pradesh.— on Build, Operate and Transfer Basis) and therefore, the Licensee shall honour the same".	Yes, Inserted	
9	Who will supervise the work of laying Overhead Power Transmission Line.	APTRANSCO and Project Director, NHAI	
10	Who will ensure that the defects in road portion after laying of Overhead Power Transmission Line are corrected and if not correceted then what action will be taken.	APTRANSCO & NHAI	
11	Who will pay the claims for damages done/disruption in working of concessionaire if asked by the concessionaire.	APTRANSCO	-3
	A certificate from PD that he will enter the proposed permission in the register of records of the permissions in the prescribed proforma (copy enclosed).	Yes, Enclosed	X
	If any previous approval is accorded for laying of Overhead Power Transmission then photocopy of register of records of permissions accorded as maintained by PD may be enclosed.	Yes, Enclosed.	

