



## TRANSMISSION CORPORATION OF TELANGANA LIMITED

TSTRANSCO-Sita Rama Lift Irrigation Scheme-Extension of Power Supply for a CMD of 685.788MVA at 400kV level to Pumping Station at Kamalapuram and at 220kV level to Pumping Stations at B.G.Kothur and V.K.Ramavaram in Bhadradri Kothagudem District– Bulk Load works – Revised Administrative Approval – Accorded.

T.O.O. (CE-400kV) Ms.No.449

Dt.10.10.2019

Read the following: -

- Ref: 1. Lr.No.SE/DPC/KMM/DB/AEE2/SRLIP/TRANSCO/471M, dt:24.05.2017.  
 2. CEA Lr.No.51/4/(41st )/PSPA-II/2017/1569-82, dt:06.12.2017.  
 3. T.O.O.(ED -LIS) Ms.No. 1,Dt.03.01.2018  
 4. U.O.No. ED(LIS)/SE(LIS)/DE-II(LIS)/ADE2/D.No.1260/18, Dt:10.09.2018

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### PROCEEDINGS:

1. Administrative approval was accorded for Sita Rama Lift Irrigation Scheme at an estimated cost of Rs.525.51Crs (including development charges) for extension of Power Supply to Pumping Stations at Kamalapuram, B.G.Kothur and V.K.Ramavaram in Bhadradri Kothagudem District (Bulk Load and Deposit Contribution works) vide reference (3) cited above.
2. The scheme cost was informed to I&CAD department. Subsequently the works against the above scheme are taken up as per the request of I&CAD department and are under execution.
3. 400/220/11kV Kamalapuram LI SS was envisaged with 2x500MVA PTRs initially. However, CEA has given approval for 3x315MVA PTRs in the 41<sup>st</sup> meeting of Standing Committee on Power System Planning of Southern Region. Subsequently, CEA has suggested to erect 1 No.125MVAR Bus Reactor at Kamalapuram LI SS to control the high voltage during the 1<sup>st</sup> meeting of Southern Region Standing Committee on Transmission held on Dtd:07.09.2018.
4. The following lines were envisaged against the Sita Rama LI Scheme for providing additional source to 220kV V.K.Ramavaram LI Substation in order to satisfy N-1 redundancy criteria.
  - i. LILO of existing 220kV KTS-Lower Sileru-I line to 220kV V.K.Ramavaram LI SS—3kMs(approx.).

- ii. LILO of existing 220kV KTS-Lower Sileru-I line to 400/220kV Asupaka SS—0.5kMs (approx.)
5. Executive Director/LIS informed that the assets created for Bulk Load works i.e. up to metering arrangement are the property of TSTRANSCO and all the assets created for DC works (works pertaining to the consumer) i.e. beyond the metering arrangement are the property of consumer and are to be capitalized separately.
6. Accordingly, Sita Rama Lift Irrigation Scheme (Bulk load works) is formulated for extension of Power Supply to Pumping Stations at Kamalapuram, B.G.Kothur and V.K.Ramavaram. The scheme consists of following lines and substations:

| Sl.No.    | Description  |
|-----------|--|
| <b>1.</b> | <b>Pump House-1 at B.G.Kothur</b>  |
| a)        | Erection of LILO of one circuit of 220kV KTPS V-Lower Sileru -II Line (single zebra) to 220/11kV B.G.Kothur LI SS of length 20kMs.                         |
| b)        | Erection of LILO of one circuit of 220kV KTPS-Manuguru Line (single zebra) to 220/11kV B.G.Kothur LI SS of length 1kM.                                     |
| c)        | Erection of 220/11kV LI Substation at B.G.Kothur(V), without Pump PTRs(up to metering arrangement)   |
| <b>2</b>  | <b>Pump House-2 at V.K.Ramavaram</b>   |
| a)        | Erection of 220kV TMDC Line from 400/220/11kV Kamalapuram LI SS to 220/11kV V.K.Ramavaram LI SS of length 25kMs.   |
| b)        | Erection of 220/11kV LI Substation at V.K.Ramavaram without Pump PTRs(up to metering arrangement)  |
| c)        | LILO of 220kV KTS-Lower Sileru-I line to 220kV V.K.Ramavaram LI SS (single moose) for a length of 3kMs.  |
| d)        | LILO of 220kV KTS-Lower Sileru-I line to 400/220kV Asupaka SS (single moose) for a length of 0.5kM   |
| e)        | Erection of 2 Nos. 220kV Bays at 400/220kV Asupaka SS  |
| <b>3</b>  | <b>Pump House-3 at Kamalapuram</b>   |
| a)        | Erection of 400kV TMDC Line from 400/220kV Julurupadu SS to 400/220/11kV Kamalapuram LI SS of length 50kMs.  |
| b)        | Erection of 400/220/11kV LI SS at Kamalapuram with 3x315MVA 400/220kV PTRs and 1 No.125MVAR Bus Reactor and without Pump PTRs (up to metering arrangement) |
| c)        | Erection of 2 Nos 400kV Quad Moose Bays at 400/220kV Julurupadu SS for 400kV Kamalapuram Feeders   |

7. After careful examination, TSTRANSCO accords revised Administrative approval for “Sita Rama Lift Irrigation Scheme- extension of Power Supply for a CMD of 685.788MVA at 400kV level to Pumping Station at Kamalapuram and at 220kV level to Pumping Stations at B.G.Kothur and V.K.Ramavaram in Bhadradri Kothagudem District” at an estimated cost of Rs.471.88Crores for Bulk Load works(including development charges) as detailed below:

| S.No | Description   | Amount<br>(Rs.in Crs) |
|------|---|-----------------------|
| 1    | Development Charges @ Rs.1000/KVA for a CMD of 6,85,788 KVA | 68.58                 |
| 2    | Scheme cost for Bulk Load works(as per annexure-I)          | 352.74                |
|      | <b>Total</b>  | <b>421.32</b>         |
|      | GST@12%   | 50.56                 |
|      | <b>Grand Total</b>  | <b>471.88</b>         |

8. The approval accorded at para No.7 is subject to instructions issued by TSTRANSCO on release of services and tariff as may be in force from time to time.
9. Chief Engineer/400kV/Vidyut Soudha is here by authorized to take up the above works.
10. An amount of Rs.471.88Crores shall be collected from I&CAD department for taking up the works by TSTRANSCO.
11. This order is issued as per the minutes of 34<sup>th</sup> Board Meeting held on 26.09.2019 at Vidyut Soudha.

(BY ORDER AND IN THE NAME OF TRANSMISSION CORPORATION OF  
TELANGANA LIMITED)

Encl: Annexure-I

D.PRABHAKAR RAO  
CHAIRMAN AND MANAGING DIRECTOR

To:

Chief Engineer/400kV/TSTRANSCO/ Vidyut Soudha, Hyderabad.

Copy to:

- 1) Executive Director/LIS/TSTRANSCO/VS/Hyd.
- 2) Executive Director (Finance)/ TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 3) Chief Engineer/ Power Systems/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 4) Chief Engineer/ 400kV/Construction/TSTRANSCO/Warangal.
- 5) Chief Engineer/Transmission/TSTRANSCO/Vidyut Soudha/Hyderabad.
- 6) Chief Engineer/ SLDC/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 7) Chief Engineer/ Telecom/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 8) Chief Engineer/ Civil/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 9) Chief Engineer/Comml.&RAC/TSTRANSCO/VS/Hyd.

- 10) Chief General Manager/HRD/TSTRANSCO/Vidyut Soudha/Hyderabad.
- 11) Chief Engineer/Metro Zone/ TSTRANSCO/ Hyderabad.
- 12) Chief Engineer/Rural Zone/ TSTRANSCO/ Hyderabad.
- 13) Chief Engineer/ Karimnagar Zone /TSTRANSCO/ Karimnagar.
- 14) Chief Engineer/Warangal Zone/ TSTRANSCO/ Hyderabad.
- 15) SE(T) to CMD/TSTRANSCO/Vidyut Soudha/ Hyderabad.
- 16) Superintending Engineer/Power Systems/TSTRANSCO/Vidyut Soudha/Hyd.
- 17) Superintending Engineer/400kV/Const./TSTRANSCO/Warangal.
- 18) DE(T) to Director (Projects)/TSTRANSCO/ VS/ Hyd.
- 19) DE(T) to Director (Transmission)/TSTRANSCO/ Vidyut Soudha/ Hyd.
- 20) ADE(T) to Director (Lift Irrigation)/ TSTRANSCO/ VS/ Hyderabad.
- 21) AE(T) to Director (Grid Operation)/ TSTRANSCO/VS/ Hyderabad.
- 22) P.S. to JMD (Finance,Comml.,& HRD) /TSTRANSCO/VS/Hyd.
- 23) Company Secretary/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 24) Estate Officer/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 25) Central Record Section – 2 copies.

**ANNEXURE-I**

**Cost estimate for extension of 400kV and 220kV Power Supply to Pump Houses under  
Sita Rama LI Scheme  
(BULK LOAD WORKS)**

| <b>Sl.No</b> | <b>Description</b>   | <b>Amount<br/>( Rs. in<br/>Crs.)</b> |
|--------------|--|--------------------------------------|
| <b>I.1.</b>  | <b>Pump House-1 at B.G.Kothur</b>  |                                      |
| a)           | Erection of LILO of one circuit of 220kV KTPS V-Lower Sileru-II Line to 220/11kV B.G.Kothur LI SS (single zebra) of length 20kMs                                   | 22.00                                |
| b)           | Erection of LILO of one circuit of 220kV KTPS-Manuguru Line to 220/11kV B.G.Kothur LI SS (single zebra) of length 1kM  | 1.10                                 |
| c)           | Erection of 220/11kV LI Substation at B.G.Kothur(V), without Pump PTRs(up to metering arrangement)   | 21.04                                |
| d)           | Telecommunication on the above line and Substation   | 2.65                                 |
|              | <b>Sub Total (1)</b>   | <b>46.79</b>                         |
| <b>2</b>     | <b>Pump House-2 at V.K.Ramavaram</b>   |                                      |
| a)           | Erection of 220kV TMDC Line from 400/220/11kV Kamalapuram LI SS to 220/11kV V.K.Ramavaram LI SS of length 25kMs  | 38.25                                |
| b)           | Erection of 220/11kV LI Substation at V.K.Ramavaram without Pump PTRs(up to metering arrangement)  | 22.00                                |
| c)           | LILO of 220kV KTS-Lower Sileru-I line to 220kV V.K.Ramavaram LI SS (single moose) for a length of 3kMs.  | 3.33                                 |
| d)           | LILO of 220kV KTS-Lower Sileru-I line to 400/220kV Asupaka SS (single moose) for a length of 0.5kM   | 1.51                                 |
| e)           | Erection of 2 Nos. 220kV Bays at 400/220kV Asupaka SS  | 3.60                                 |
| f)           | Telecommunication on the above line and Substation   | 1.92                                 |
|              | <b>Sub Total (2)</b>   | <b>70.61</b>                         |
| <b>3</b>     | <b>Pump House-3 at Kamalapuram</b>   |                                      |
| a)           | 400kV TMDC Line from 400/220kV Julurupadu SS to 400/220/11kV Kamalapuram LI SS of length 50kMs   | 99.50                                |
| b)           | Erection of 400/220/11kV LI SS at Kamalapuram with 3x315 MVA 400/220kV Power Transformers, 1x125MVAR Bus Reactor and without Pump PTRs(up to metering arrangement) | 120.68                               |
| c)           | Erection of 2 Nos 400kV Quad Moose Bays at 400/220kV Julurupadu SS for 400kV Kamalapuram feeders   | 15.16                                |
|              | <b>Sub Total (3)</b>   | <b>235.34</b>                        |
|              | <b>Total-II</b>  | <b>352.74</b>                        |
| <b>II</b>    | <b>Development charges at the rate of Rs.1000/- per KVA for a CMD of 685.788MVA</b>  | <b>68.58</b>                         |
|              | <b>Total (I + II)</b>  | <b>421.32</b>                        |
|              | <b>GST @ 12%</b>   | <b>50.56</b>                         |
|              | <b>GRAND TOTAL</b>   | <b>471.88</b>                        |

Sd/-

**CHIEF ENGINEER/400kV**