

# TRANSMISSION CORPORATION OF TELANGANA LIMITED



TSTRANSCO- CE(400kV)- KTPP System Improvement Scheme – Construction of 400/220/132kV Sub-station at KTPP switchyard, Bhupalapally District and connected network- Administrative Approval – Accorded.

T.O.O.(CE-400kV) Ms.No.297

Dt:09.02.2019

Read the following:

## PROCEEDINGS:

1. TSTRANSCO has envisaged to construct the 400/220/132kV Substation at KTPP Switchyard to meet the load of existing 220kV&132kV Substations and to reduce the transmission losses in Bhupalapally District. The scheme also provides a source to meet the load demand of LI Schemes at Bheemghanpur and Devannapet LI Substations.
2. As per the field feasibility report, system studies were conducted for construction of 400/220/132kV Substation at KTPP Switchyard with 220kV/132kV downstream connectivity and is found feasible.
3. Central Electricity Authority have accorded approval for construction of 400/220/132kV Substation at KTPP Switchyard and connected network along with 1x125MVAR Bus Reactor in the 1<sup>st</sup> Meeting of Southern Region Standing Committee on Transmission(SRSCT) dated 01.11.2018.
4. Accordingly, KTPP System Improvement Scheme is formulated for construction of 400/220/132kV Substation at KTPP Switchyard and connected network. The Scheme contemplates the following Lines and Sub-stations:
  - i. Erection of 400/220/132kV Substation at KTPP Switchyard—  
2x500MVA+2X160MVA PTRs + 1x125MVAR Bus Reactor.
  - ii. LILO of existing 220kV Pudukurthy-Bhimghanapur SC line to proposed 400/220/132kV KTPP SS at Ramappa point with Twin Moose ACSR Conductor-25 kMs
  - iii. LILO of existing 220kV Salivagu-Bhimghanapur SC line to proposed 400/220/132kV KTPP SS at Ramappa point with Twin Moose ACSR Conductor -25 kMs

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- iv. 220kV DC Line with Single Moose ACSR conductor from proposed 400/220/132kV KTPP SS to 220/132kV Manthani SS-49kM
  - v. 132kV DC Line with Single Moose ACSR conductor from proposed 400/220/132kV KTPP SS to 132/33kV Chelpur SS on 220kV Multi Circuit Towers-2 kM
  - vi. Upgradation of existing 220kV Nagaram-Warangal DC Line with HTLS Conductor-14kM
5. After careful examination, TSTRANSCO accords Administrative approval for “KTPP System Improvement Scheme- Construction of 400/220/132kV Substation at KTPP Switchyard, Bhupalapally District and connected network”, at an estimated cost of Rs. 423.31 Crores and Rs. 30.92 Crores towards Interest During Construction. (IDC). The total cost of the scheme including IDC is Rs.454.23 Crores as per the Annexure enclosed.
6. Chief Engineer/400kV/Vidyut Soudha and Chief Engineer/Construction/Vidyut Soudha are here by authorized to take up the 400kV and 220/132kV works respectively and shall provide the necessary budget as per the scope.
7. The scheme will be executed with capital funds of TSTRANSCO (or) Loan sanctioned by REC/PFC/any other Financial Agencies.
8. This order is issued with the concurrence of the JMD/TSTRANSCO vide Regd. No.5453, dated:27.12.2018.

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

Encl: Annexure

D. PRABHAKAR RAO  
CHAIRMAN AND MANAGING DIRECTOR

To:

- 1) Chief Engineer/ 400kV/TSTRANSCO/ Vidyut Soudha, Hyderabad.
- 2) Chief Engineer/ Construction/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 System/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/Planning /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 the CMD /TSTRANSCO/Vidyut Soudha/ Hyderabad.
- 16) DE(T) to the Director (Projects)/TSTRANSCO/ VS/ Hyd.
- 17) DE(T) to the Director (Transmission)/TSTRANSCO/ Vidyut Soudha/ Hyd.
- 18) ADE(T) to the Director (Lift Irrigation)/ TSTRANSCO/ VS/ Hyderabad.
- 19) AE(T) to the Director (Grid Operation)/ TSTRANSCO/VS/ Hyderabad.
- 20) P.S. to the JMD (Finance,Comml.,& HRD) /TSTRANSCO/VS/Hyd.
- 21) Superintending Engineer/Power System/TSTRANSCO/Vidyut Soudha/Hyd.
- 22) Superintending Engineer/400kV/Const./Warangal.
- 23) Company Secretary/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 24) Estate Officer/TSTRANSCO/ Vidyut Soudha/Hyderabad.
- 25) Central Record Section – 2 copies.

## ANNEXURE

KTPP System Improvement Scheme - Erection of 400/220/132kV Sub-station at KTPP Switchyard, Bhupalapally District and connected network				
ABSTRACT ESTIMATE				
(Amount in Lakh Rs.)				
S.No.	Description of Line/ Substation	PTRs capacity/ Length/ No. of bays		Estimated Cost
A:400kV Transmission System:				
1	400/220/132kV Sub Station at KTPP switchyard	2x500MVA +2x160MVA +1x125MVAR		15,558.00
	Total of A:			15,558.00
B:220kV & 132kV Transmission System:				
1	220 kV Lines:			
i)	LILO of existing 220kV Pulkurthy-Bhimghanapur SC line to proposed 400/220/132kV KTPP SS at Ramappa point with Twin Moose DC Line	25	KM	5,450.00
ii)	LILO of existing 220kV Salivagu-Bhimghanapur SC line to proposed 400/220/132kV KTPP SS at Ramappa point with Twin Moose DC Line	25	KM	5,450.00
iii)	220KV Single Moose DC Line from proposed 400/220/132kV KTPP SS to 220/132kV Manthani SS	49	KM	6,762.00
iv)	Upgradation of existing 220kV Nagaram-Warangal DC Line with HTLS Conductor	14	KM	2,254.00
2	220kV Bay Extensions:			
i)	Bay Extensions at 220/132kV Manthani SS	2	Nos.	362.00
3	132kV Lines			
i)	132KV Single Moose DC Line from proposed 400/220/132kV KTPP SS to 132/33KV Chelpur SS on 220kV Multi Circuit Towers	2	KM	416.00
4	132kV Bay Extensions			
i)	Bay Extensions at 132/33kV Chelpur SS	2	Nos.	212.00
	Total of B:			20,906.00

<b>C : Communication Equipment:</b>				
(i)	400kV, 220kV and 132kV Works	LS		425.79
	<b>Total of C:</b>			<b>425.79</b>
	<b>Total (A+B+C) :</b>			<b>36,889.79</b>
<b>D)</b>	Special T & P @ 1% :			368.90
<b>E)</b>	Contingencies (3%) :			1,106.69
<b>F)</b>	Estt. and other charges @ 10.75% :			3,965.65
	Grand Total :			42,331.03
	or Say (Rs. in Crores) ::			<b>423.31</b>
	Interest During Construction (Rs. in Crores) :			30.92
	Total (including IDC)-(Rs. in Crores) :			<b>454.23</b>

**CHIEF ENGINEER / 400kV**