



## TRANSMISSION CORPORATION OF TELANGANA LIMITED

SUB: 400kV Shadnagar GIS Scheme: (i) 400kV and 220kV Transmission Network Connectivity at proposed Shadnagar 400/220kV GIS Sub Station(ii) 3Nos. 500 MVA , 400/220kV ICTs and 1 No. 125 MVAR Bus Reactors required at the proposed 400/220kV Shadnagar GIS- Administrative approval -Accorded – Regarding

T.O.O.(CE-400kV) Ms.No.2645

Date: 31.01.2026

Ref: T.O.O.(CE-400kV) Ms.No.2644, Dt: 31.01.2026.

Read the following:

### **ORDER**

1. Transmission system for Kurnool-IV REZ Phase-II (3 GW) Scheme evolved for the potential Renewable Energy Zone (REZ) in the Kurnool area. As part of the above scheme, CTUIL has envisaged the construction of a 765/400kV Shadnagar Substation by the LILO of the Kurnool-IV – Bidar 765kV double circuit line at Shadnagar.
2. To facilitate the termination of 400kV lines from the proposed 765/400kV Shadnagar Substation under the Transmission System for Kurnool-IV REZ Phase-II (3 GW) Scheme, TGTRANSCO has proposed the construction of a 400/220kV Shadnagar GIS Substation in Rangareddy District, along with the associated network.

This scheme will also serve as a source to meet the exponentially increasing load demand observed in recent times, with further growth anticipated due to the development of the industrial areas near Elikatta and Mekaguda villages.

3. Subsequently, as per the field feasibility report, power system studies were conducted for the construction of the 400/220 kV Shadnagar GIS Substation in Rangareddy District, along with the associated transmission network. The proposals were submitted to the Central Electricity Authority (CEA) for approval vide letter dated 29.04.2025. Subsequently, the CEA accorded approval for the following works vide mail dated 21.07.2025.

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4. CEA has accorded approval for the following scheme and has communicated vide mail Dt.21.07.2025.
  - a) 400/220 kV Shadnagar GIS with 3x500 MVA, 400/220 kV ICTs and 1x125 MVAR Bus Reactor (utilizing the proposed 220 kV switching station at (Giridhari) Elikatta as LV bus of proposed 400 kV Shadnagar SS).
  - b) LILO of one circuit of 400 kV Suryapet – Kethireddypally QMDC line at 400/220 kV Shadnagar SS (5 km LILO Length).
5. TGTRANSCO accorded administrative approval vide T.O.O (CE-400kV) Ms.No.2644, dated 31.01.2026 for Construction of 400/220kV Shadnagar GIS at Ranga Reddy District (excluding ICTs and Rectors) under 400kV Shadnagar GIS Scheme at an estimated cost of Rs.279.86Crore and Interest During Construction (IDC) of Rs.16.79 Crore. The total cost of the Scheme including IDC is 296.65 Crore.
6. As such to establish the required Transformation Capacity, the Scheme is formulated with the following scope of works, **as per the proposed 400kV Shadnagar Site Conditions:**
  - a) 3 Nos. 500 MVA, 400/220kV ICTs required at the proposed 400/220kV Shadnagar GIS
  - b) 1 No. 125 MVAR Bus Reactor required at the proposed 400/220kV ShadnagarGIS
  - c) LILO of one circuit of 400 kV Suryapet – Kethireddypally QMDC line at 400/220 kV Shadnagar SS (5 km LILO Length).
  - d) Interlinking arrangements of proposed 400/220kV Shadnagar GIS to proposed 220kV Switching station at (Giridhari) Elikatta through 220kV TMDC Line
7. After careful examination, TGTRANSCO accords Administrative Approval for 3 Nos. 500 MVA, 400/220kV ICTs and 1 No. 125 MVAR Bus Reactors required at the proposed 400/220kV Shadnagar GIS and 400kV and 220kV Transmission Network connectivity at the proposed 400/220kV Shadnagar under 400kV Shadnagar GIS Scheme at an estimated cost of Rs. 281.48 Crores and Interest During Construction of Rs. 16.89 Crores (i.e. Rs. 298.37 Crores including IDC).

8. The Chief Engineer/ 400kV, VidyutSoudha, Hyderabad is authorized to take up the 400kV and 220kV works and FA&CCA (Resources &Accounts) & CFO shall provide the necessary budget as per the scope of works.
9. The Scheme will be executed with financial assistance from PFC/ REC/ HUDCO/any other financial assistance or from Internal resources.
10. This Order is issued with the concurrence of the Director (Finance, Comml.,&HRD), TGTRANSCO vide Regd. No.2479, dated.22.12.2025.

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

Encl: Annexure

D.KRISHNA BHASKAR, IAS  
CHAIRMAN AND MANAGING DIRECTOR

To,

The Chief Engineer/400kV, TGTRANSCO, VidyutSoudha, Hyderabad  
The FA & CCA / (Resources & Accounts) & CFO, TGTRANSCO, VS, Hyd

Copy to:

The FA &CCA (Audit and Expenditure), TGTRANSCO, Vidyut Soudha, Hyderabad  
The Chief Engineer/Comml.&RAC, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/P&MM, TGTRANSCO, VidyutSoudha, Hyderabad  
The Chief Engineer/Construction I & II, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/Power Systems, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/SLDC, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/Transmission, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/Civil, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/Telecom, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Chief Engineer/400kV, Construction, TGTRANSCO, Warangal  
The Chief Engineer/Metro Zone, TGTRANSCO, Erragadda, Hyderabad.  
The Chief Engineer/Rural Zone, TGTRANSCO, Erragadda, Hyderabad.  
The Superintending Engineer/400kV/Const./Metro, TGTRANSCO, Hyderabad.  
SE (Technl.) to CMD/TGTRANSCO/VidyutSoudha / Hyderabad.  
DE (Technl.) to Director/ Projects,TGTRANSCO, VidyutSoudha, Hyderabad.  
DE (Technl.) to Director/Grid & Transmission Management, TGTRANSCO, Hyd.  
PA to Director/ Finance,Comml. &HRD, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Company Secretary, TGTRANSCO, VidyutSoudha, Hyderabad.  
The Estate Officer, TGTRANSCO, VidyutSoudha, Hyderabad.  
Central Record Section - 2 copies

400kV Shadnagar GIS Scheme : (i) 400kV and 220kV Transmission Network Connectivity at proposed Shadnagar 400/220kV GIS Sub Station (ii) 3Nos. 500 MVA , 400/220kV ICTs and 1 No. 125 MVAR Bus Reactors required at the proposed 400/220kVShadnagar GIS				
(Amount in Rs. crores )				
Sl. No.	Description of Line/ Substation	Length/ No. of bays	Estimated Cost	
A:400kV Transmission System:				
1)	LILO of one circuit of 400 kV Suryapet – Kethireddypally QMDC line at 400/220 kV Shadnagar SS (5 km LILO Length).	5	kM	117.20
2)	500MVA,400/220kV ICT	3	Nos	108.45
3)	125 MVAR, 400 kV Reactor	1	Nos	16.52
Total of A:			242.17	
B:220kV Transmission System:				
1	Interlinking arrangements for connecting 400Kv Shadnagar GIS to proposed 220kV Switching station at Elikatta (Giridhari).	1	kM	2.84
Total of B:			2.84	
	Total (A+B) :		245.01	
C:	Special T & P @ 1% :		2.45	
	Total (A+B+C) :		247.46	
	Total price		247.46	
	Contingencies (3%) :		7.42	
	Estt. and other charges @ 10.75% :		26.60	
	Grand Total :		281.48	
	or Say (Rs. in Crores) ::		281.48	
	IDC in Rs. Crores		16.89	
	Total price including IDC in Rs. Crores:		298.37	
Sd/- CHIEF ENGINEER/400kV				