

INTRODUCTION

Telangana State Power Generation Corporation Limited (TSGENCO) is one of the pivotal organizations of Telangana, engaged in the business of Power Generation. Apart from operation & maintenance of the power Station it has undertaken the execution of the ongoing & new power projects scheduled under capacity addition programme and is also taking up renovation & modernization works of the old power stations.

TSGENCO has been incorporated as per Companies Act-2013 on 19.05.2014 and commenced operations from 02.06.2014. This was a sequel to Government's reforms in power sector to un-bundle the activities relating to generation, transmission and distribution of power. All the Generating Stations owned by erstwhile APSEB in Telangana area were transferred under the control of TSGENCO.

The installed capacity of TSGENCO as on date is 4365.30 comprising of 2282.5 MW Thermal, 2081.80 MW Hydel and 1 MW from renewable energy sources thus contribute about 58% of the total energy requirement of Telangana. TSGENCO is the third largest power utility in the country.

The state of Telangana requires substantial addition to its power generating capacity to meet power demand of its rapidly growing industrial, agricultural and other sectors. Presently, the peak demand supply gap in the state of Telangana is amounting approximately to 2000 - 2700 MW. In view of the proposed Lift irrigation projects, Drinking water scheme declared by Government and due to various proposed projects, the gap between supply and demand escalates. To meet the progressive demand of about 8000 MW in the next few years apart from the increasing agricultural load, as detailed in the **Enclosure-IV**, establishing of new Thermal Power Units in next three years is necessitated.

The proposed site is mostly reserved forest, semi-agricultural and partly revenue land with isolated pockets of habitation. There are no historic places in the vicinity. The total area of extent for establishment of Power Station is 2800 Acres (Forest land is Ac. 1867.36 Gts, Patta Land, Government Land, Udfa patta Land, D-Patta Land etc is Ac. 704.12 Gts and RoFR Land is Ac. 227.32 Gts)

The Coal will be sourced from the Singareni Coal Colleries Ltd (SCCL) and imported coal and supporting fuel will be HFO/LDO from nearest refinery/oil depots. The coal will be transported to power station from coal mines through Indian Railways. The nearest port is Kakinada which is about 328 KM from the project site. The quantity of fuel requirement is given in table below

Fuel Requirement	Quantity	Source
50% Domestic coal + 50% Imported coal of GCV 4550 kcal/kg and heat rate 2109.4 kcal/kwh	1854.42 tph 13.81 mtpa	Domestic Coal from SCCL by rail and Imported Coal from Kakinada Port rail
100% Imported coal) of GCV 5700 kcal/kg and heat rate 2109.4 kcal/kwh	1480.28 tph 11.02 mtpa	Imported Coal from Kakinada Port rail
Support fuel (HFO/LDO) 0.5 ml/kwh	17520 KL/Year (Average)	Supported fuel sourced from nearby refinery/oil depots by rail tankers

The steam turbine generator will be single shaft, two / three cylinders, tandem compound, reheat, regenerative, condensing unit directly coupled to AC Generator giving a continuous output at generator terminal of 800, 000 KW at 22~27 KV.

Distributed Digital Control and Management Information System (DDCMIS) with integrated, CRT/Key Board operation for Steam Generator, Turbine, Generator and auxiliaries from Central Control room.

Two(2) twin flue and One(1) single flue chimney of 275 M high

In line with the MoEF guidelines for new Thermal Power Projects, it is proposed to adopt closed circuit cooling water system deploying cooling towers and draw only make up water requirement from the source.

The makeup and consumptive water requirement of 5x800 MW thermal power station is assessed as 12100 m³/Hr. the source of water is Krishna River is 3 km from proposed project site.

Ash utilization plan will be drawn as per MOEF guidelines. In the vicinity of the proposed power project, 22 cement

plants are already set up at a radius of 10 Km. The ash generated by the proposed power project about 14280 TPD will be fully utilised for manufacture of Pozzolona cement and for other purposes.

Salient Features of the Project	
Type of proposed project	Establishment of 5x800 MW super critical Coal based Yadadri Power Station
Category of Project	Category A
S. No. in the schedule as per EIA notification, 2006	1 (d) Thermal Power Station
Project coordinates	16° 40' 19"N, 79° 35' 18"E 16° 41' 42"N, 79° 36' 13"E 16° 42' 38"N, 79° 35' 46"E 16° 41' 53"N, 79° 33' 15"E 16° 40' 41"N, 79° 33' 54"E
Elevation	72m to 93m above MSL
Area of land	Main Plant: 250 Acres BOP Area: 350 Acres Raw Water Reservoir: 100 Acres Coal Handling Plant: 250 Acres Ash Dyke Area: 700 Acres Green Belt Area: 1000 Acres Colony Area: 100 Acres Pipeline & Rly Corridor: 50 Acres Total Area: 2800 Acres
Accessibility	
Nearest Railway station	Vishnupuram (5 km)
Air Port	Hyderabad Airport (135 km)
Sea Port	Kakinada port (328 km)
Nearest habitation	Veerlapalem (1.0 km)
Nearest head quarter	Nalgonda(50 km)
Road to the project site	Site is approachable from Narketpally on NH 65 via Miryalaguda (80 KM) or via Addanki on SH 2 (100 KM). State Highway No. 2 connecting Hyderabad and Addanki.
Distance from highway	7 km
Environmental Sensitivity	
Water bodies	Krishna River about 3 km
Forest Area	Plant area falls under forest area and partly in patta lands. Forest Clearance is obtained vide Lr. No. F.No. 8-07/2015-FC, dated: 7th July 2015.
Sanctuaries / National Parks	None within the study area
Archaeological/ Historically Important Site	None within the study area
Seismic zone	Seismic Zone – III