

Government of Telangana

TELANGANA STATE POWER SECTOR -WHITE PAPER

Energy Department

INDEX

SI.No	Торіс	Page No.
1	Introduction	5-7
1.1	Overview of National Power Sector	5
1.2	Recent Developments in Power Sector	6
1.3	Telangana Power Sector from 2014 to 2023	7
1.4	Performance of Telangana in Per Capita Power Consumption	7
2	Infrastructure	8-13
2.1	Contracted Capacity	8
2.2	TSGENCO Capacity Addition	9
2.3	Projects planned/started before 2014 and completed after formation	9
2.4	Projects taken up and completed after state formation	10
2.5	Projects under construction	10
2.6	Power from Chhattisgarh	11
2.7	TSTRANSCO Capacity Addition	13
2.8	TSDISCOMs Capacity Addition	13
3	Power Supply Position	14-18
3.1	Base Load Vs Demand of last nine years	14
3.2	Peak demand	15
3.3	Special provisions for Telangana in AP Reorganization Act, 2014.	16
3.4	Sector –wise consumption	17
3.5	Supply to agriculture	17

4	Financial Position	19-21
4.1	TSGENCO	19
4.2	TSTRANSCO	20
4.3	TS DISCOMS	21
5	Financial difficulties of TS Discoms	22-27
5.1	Accumulated losses of discoms	22
5.2	Reasons for financial difficulties	23
5.3	Government Dues	25
5.4	Working Capital Loans	26
5.5	Average Collection & Expenditure of TS DISCOMs per month	27
5.6	Payables to SCCL for Purchase of Power	27
6	Summary	28

1. **INTRODUCTION**

1.1 Overview of National Power Sector

India is the third largest producer and consumer of electricity worldwide with an installed capacity of 4,26,131.6 MW as on 30.11.2023. the details of source wise installed capacity is shown below.

SI No.	Source	Installed Capacity
1	Coal	2,06,825.5 MW
2	Gas	25,038.2 MW
3	Diesel	589.2 MW
4	Nuclear	7,480.0 MW
5	Hydro	46,880.0 MW
6	Renewable Energy	1,32,698.5 MW
	TOTAL	4,26,131.6 MW

The Peak Demand met so far nationally occurred in September 2023 and it was 2,39,931 MW. CEA forecasts the peak demand of 2,56,531 MW in September 2024. The forecasts of CEA for energy requirement and peak demand as per 20th Electric Power Survey (EPS) is shown below:

	Year			CAGR	
Particulars	2021-22	2026-27	2031-32	2021-22 to 2026-27	2026-27 to 2031-32
Energy Requirement (MU)	13,81,646	19,07,835	24,73,776	6.67%	5.33%
Peak Demand (MW)	2,03,115	2,77,201	3,66,393	6.42%	5.74%

Projected Peak Demand and Electricity Consumption forecast as per 20th EPS for Telangana is as follows:

	Year			CAGR		
Particulars	2021-22	2026-27	2031-32	2021-22 to 2026-27	2026-27 to 2031-32	
Energy Requirement (MU)	70,871	92,967	1,20,549	4.63%	4.11%	
Peak Demand (MW)	14,176	19,529	27,059	5.48%	5.23%	

1.2 Recent Developments in Power Sector

There is a need to provide for capacity to handle high variations in Renewable Energy for which, the following actions have to be taken:

- i. Maintenance of spinning reserve.
- ii. Reduction of technical minimum of all thermal power stations from current60% of capacity to 55% by 2024 and 40% by 2026.
- iii. Increasing the ramp rate of thermal stations from current average of 1% per minute to 3%per minute.
- Augmentation of Energy Storage Systems (ESS) such as Hydro Pumping Stations, Batteries etc.

1.3 Telangana Power Sector from 2014 to 2023

Particular	At the time of State formation (on 02.06.2014)	Current status (as on 01.12.2023)
Contract Capacity (MW)	7,778	19,475
Solar Capacity (MW)	74	6,123
Maximum demand (MW)	5,661	15,497*
Maximum consumption in a day (MU)	128	298
Per capita consumption (kWh)	1,356	2,126**
Total consumers served (Nos) in crores	1.11	1.82
Subsidy (FY 23-24)	Rs.3,600 Crs	11,500 Crs

Key statistics of power sector in Telangana are shown in table below:

* The peak demand incident on 30.03.2023.

** CEA statistics (2021-22).

1.4 Performance of Telangana in Per Capita Power Consumption

Growth in per capita power consumption at national and state level is shown below:

	2014-15	2021-22
All India	1010	1255
Telangana	1356	2126
Telangana Rank	13	10

2. INFRASTRUCTURE

2.1 Contracted Capacity

(a) The contracted capacity of Telangana has increased from 7,778 MW as on 02.06.2014 to 19,475 MW as on 01.12.2023.

Details of the contracted capacity of Telangana (in MW) are shown below:

Sector	At the time of state formation	Present Capacity
TSGENCO		
Thermal	2,282.50	4,042.5
Hydel	2,082.76	2,442.76
Total	4,365.26	6,485.26
Singareni	0.00	1,200.00
Interstate Hydel	76.31	76.31
Joint sector (Gas- APGPCL)	31	24.51
Solar	74	5600
Gas	926	807.31
Mini Hydel, Bagasse, Biomass etc.	163	256.24
Central Sector	1,873	3,186.76
Sembcorp	270.00	839.45
Chhattisgarh Power	0	1000
Total Contracted Capacity	7,778	19,475

2.2 TSGENCO Capacity Addition

Since the formation of the state the net generation capacity of 2,840 MW has been added as shown below:

Type of power	Installed Capacity (MW) as on 02.06.2014	Capacity additions thereafter	Installed capacity (MW) as on date
Thermal	2,282.50	2,480 MW (KTPP-II: 600MW, KTPS-VII: 800MW, BTPS : 1,080MW) Less: KTPS O&M: 720 MW (Decommissioned)	4,042.50
Hydel	2,082.76	360 MW (Lower Jurala HEP :240 MW Pulichintala HES :120 MW)	2,442.76
Total	4,365.26	2,840 MW (720 MW Decommissioned)	6,485.26

2.3 Power Projects planned/started before 2014 and completed after formation

Significant generation capacity had already been planned/ started prior to2014 itself. These were completed after formation of the state. The details are as shown below:

S.No	Project	Capacity
1	1x800 MW Kothagudem TPS Stage-VII	800 MW
2	2x600 MW Singareni TPP	1,200 MW
3	1x600 MW Kakatiya TPP	600 MW
4	6x40 MW Lower Jurala Hydro Electric Project	240 MW
5	4x30 MW Pulichintala Hydro Electric Station	120 MW
	Total	2,960 MW

2.4 Projects taken up and completed after State formation

After the formation of the state, 1080 MW consisting of 4x270MW of Bhadradri Thermal Power Station (BTPS) was planned and completed.

4x270MW (1080MW) Bhadradri Thermal Power Station wasplanned with Subcritical Technology and envisaged to be completed in two years at a cost of Rs.6.75 Cr/MW. This project was, however, completed in seven (7) years at a cost of Rs. 9.74Cr/MW. During this period, 800MW KTPS-VII stage was commissioned in 48months with super critical technology at a cost of Rs. 8.01Cr/MW.

2.5 **Projects under construction**

A total of 7,495 MW of generation capacity is under construction as shown in table below:

Projects under Construction		Expected date of commissioning	
Yadadri (5X800MW)	MW	4,000	2024-25
NTPC (1X800MW)	MW	800	Feb,2024
Solar	MW	2,695	2024-25
Projects under Construction Total	MW	7,495	

(a) Yadadri Thermal Power Station

TSGENCO has taken up 4000MW (5x800MW) Yadadri TPS in Nalgonda District. Zero date of this project was 01.06.2015 and the project is under implementation. The initial capital cost of this project was Rs.25,099 Cr

(Rs. 6.27 Cr/MW) and as per the latest DPR the project cost has become Rs. 34,543Cr (Rs. 8.64Cr /MW).

Here it may be mentioned that NTPC Ramagundam phase-I is being constructed with a cost of Rs. 7.63 Cr/MW.

The coal for this project is envisaged to be taken from the Mines of SCCL in Khammam and Bhadradri districts. This coal has to be transported by rail. It is estimated that the transport cost of coal is likely to be <u>Rs.803Cr/annum @</u> <u>Rs.550/MT</u>. At present the Railway line is a single track which may present some challenges in plant operations.

(b) NTPC Thermal Power Station at Ramagundam

AP Reorganization Act, 2014 envisaged a dedicated 4000MW thermal power plant exclusively for Telangana. In Ramagundam, NTPC has proposed to set up 2x800MW in Phase-I and 3x800 MW in phase-II. First unit of phase-I is operationalised and the second unit is nearing completion. The phase-II of the project has not been taken up by NTPC.

2.6 Power from Chhattisgarh

Government of Telangana has signed an MOU on 03.11.2014 with the Government of Chhattisgarh for 1,000MW of Power from Marwa Thermal Power Station of Chhattisgarh. Government has also requested Chhattisgarh for an additional 1,000MW of Power, which didn't materialise. The Commercial Operation Dates (COD) of Marwa TPS unit-1 & 2 were declared during May 2016 and July 2016 respectively. However, the Long Term open Access (LTA) could be operationalized on 04.05.2017 after commissioning of 765kV Warda-Nizamabad DC line on 24.04.2017. The power scheduling started from 06.05.2017. Due to the delay in operationalization of Captive Coal block of Marwa Thermal Power Station, the coal supply was less when compared to

requirement. Due to this, the average PLF of Chhattisgarh power supplied to Telangana as shown below:

Year	PLF in %
2017-18	72.51
2018-19	64.39
2019-20	27.33
2020-21	39.76
2021-22	19.71

Chhattisgarh has stopped power supply from April, 2022 onwards.

In anticipation of materialization of entire 2,000MW of power requested, Telangana Government directed DISCOMs to apply to Power Grid Corporation of India Limited (PGCIL) for 2,000MW transmission corridor. As brought out above, the first 1,000MW of power was also not fully available leaving considerable corridor unused. However corridor charges had to be paid for the full 1,000 MW. Details of the sum paid for unused corridor is shown below:

Period	Charges paid for contracted capacity of Chhattisgarh power (Rs. Cr)	Charges for used corridor for Chhattisgarh power (Rs. Cr)	Amount paid for unused corridor (Rs. Cr)
May 2017-March 2018	306.576	231.323	75.253
April 2018- March 2019	373.420	245.106	128.314
April 2019- March 2020	428.262	131.367	296.895
April2020-October 2020	254.166	116.127	138.039
Total	1,362.424	723.923	638.501

2.7 TS TRANSCO Capacity Addition

To keep pace with growth in demand of power including various lift irrigation schemes, augmentation of transmission network was taken up as shown below:

EHT SUBSTATIONS	As on 02.06.2014	As on 01.12.2023	Commissioned after 02.06.2014
400 kV	6	28	22
220 kV	51	103	52
132 kV	176	252	76
Total Sub Stations (in Nos)	223	383	150
Transformation at Distribution	14,973	40,978	26,005
in MVA			
LINE LENGTH (CKM)			
400 kV	1,683	6,583	4,900
220 kV	5,559	9,515	3,956
132 kV	9,137	12,347	3,210
Total Line Length	16,379	28,445	12,066

Further capacity enhancement will have to be taken up to address arising needs from time to time.

2.8 **TS Distribution Companies Capacity Addition**

As in the case of transmission, distribution network also required strengthening to cater to the demand. The details are shown below:

Parameter	02.06.2014	01.12.2023
33/11 kV Substations (No.)	2,138	3,221
Distribution Transformers (No.)	4.67 L	8.79 L
33 kV Line Length (Km)	19,756	27,984
11 kV Line Length (Km)	1.46 L	2.18 L
LT kV Line Length (Km)	3.22 L	4.33 L

Further capacity enhancement will have to be taken up to address arising needs from time to time.

3 POWER SUPPLY POSITION

3.1 Base load vs demand of last nine years

There is a wide gap between base load and peak demand which also varies vastly from season to season and within a day as well. Accordingly, the capacity planning has to be done to ensure reliable power supply to the consumers in the state.

The details of peak demand and tied up capacity are indicated below:

	Peak demand and tied up capacity since formation of the state										
		Figs in MW									
S.No	Parameters	2014- 15	2015- 16	2016- 17	2017- 18	2018- 19	2019- 20	2020- 21	2021- 22	2022- 23	as on 01.12. 2023
1	Contracted Capacity	7,872	8,854	12,006	15,321	16,203	15,864	16,564	17,228	18,528	19,475
2	Base Contracted Capacity	4,495	5,171	7,024	8,281	8,958	8,569	9,458	9,578	9,583	10,269
3	Peak Demand Met	6,755	6,849	9,191	10,284	10,818	13,168	13,688	14,160	15,497	15,370

3.2 Peak demand

There is a variation of 5,000 to 6,000 MW from off-peak to peak demand in a day due to incidence of agriculture load which is requiring high ramping (500 MW per 15 min) of generation.

As seen from the graph below there is a sharp rise in demand in the morning which is reflection of addition of agricultural load. At the same time there is steep fall in connected load in the evening which is a reflection of regulation of agricultural load.



The peak demand pattern of last ten years is as indicated below:

3.3 Special Provisions in Andhra Pradesh Re-Organization Act 2014 (APRA 2014)

As per the APRA 2014, the assets and liabilities of State Government Undertakings have to be apportioned between two successor states in the population ratio of 58.32% for AP and 41.68% for Telangana.

The total installed capacity of combined Andhra Pradesh was 15,248.3 MW (excluding RE). As per geographical location, installed capacity available in AP region was 8,997MW and in Telangana region was 6,251.3MW. However, consumption of energy was higher in Telangana. To ensure adequate availability of power during the early days of the new state, Central Government made special provisions in the APRA 2014 for apportionment of power on the basis of past 5 years consumption. As a result of this, the power has been apportioned in the ratio of 53.89% for Telangana and 46.11% for Andhra Pradesh. Thus, installed capacity allocated to Telangana was 8,217MW. Had it been based on population ratio, the installed capacity to Telangana would be 6,355MW. As a result of this provision Telangana got about 1,800MW of additional power.

3.4 Sector–wise Consumption

The table below shows comparison of sector wise energy consumption in 2014-15 and 2022-23:

TSDISCOMs

Sector wise consumption with percentage of Total input from 2014-15 & 2022-23 Energy Sales Data (MUs)

SI. No.	Category	2014-15	% of Total Input	2022-23	% of Total Input
1	Domestic Low Tension	8601.56	19%	13843.96	19%
2	Total Industrial Consumption	11178.31	25%	17489.02	24%
	-Low Tension	1025.73	2%	1170.08	2%
	-High Tension	10152.58	23%	16318.94	23%
3	Total Commercial Consumption	4322.60	10%	7345.17	10%
	-Low Tension	2395.48	5%	3952.10	5%
	-High Tension	1927.12	4%	3393.06	5%
4	Agricultural Consumption	11671.24	26%	19995.24	28%
5	Lift Irrigation Schemes	781.33	2%	4221.35	6%
6	Others	2628.15	6%	3809.09	5%
	Losses		13%		8%
	Total Sales	39183.19		66703.83	
	Net power purchase (Actuals)	45047.04	100%	72441.84	100%

3.5 Supply to agriculture

As on 02.06.2014, there were 19.03 Lakh agricultural connections in the state. As on date there are 27.99 Lakh agricultural connections in Telangana. The energy consumption of agriculture sector has also grown by 1.7 times during this period. During the same period the energy consumption of lift irrigation has also increased 5.66 times as seen in previous section. The details are as follows:

SI.No	Item	2014-15	2023-24
1	No. of connections (in Lakhs)	19.03 *	27.99
2	Annual Agricultural consumption in MU	11,671	19,995**
3	Agricultural peak demand (in MW)	3,500	6,003
4	Average supply hours	6 hours	19:22#

* at the beginning of the year.

** FY 2022-23

April – November 2023

4 FINANCIAL POSITION

4.1 TSGENCO

The details of the financial position of TSGENCO are shown below:

Amount (Rs. in Cr)

SI.No	Particulars	As on 2 nd June 2014	FY 2014-15	FY 2022-23
1	Income		5,430	15,922
2	Expenditure		5,359	15,449
3	Profit		71	473
4	Cost Per Unit (in Rs.)		3.52	5.07
5	Fixed Assets (incl. CWIP)	12,783	13,076	40,454
6	Other Assets	her Assets 3,852 6,531		13,509
7	Total Assets	16,635	19,607	53,963
8	Net worth	3,866	4,291	6,535
9.	Project Loans	6,978	7,483	28,993
	Working Capital Loans	684	1,906	3,805
	Total Borrowings	7,662	9,389	32,797
10.	Other Liabilities	5,107	5,927	14,631
11.	Total Liabilities	16,635	19,607	53,963

The fixed assets of TSGENCO have increased from Rs.12, 783 Cr to Rs.40,454 Cr, i.e. by a factor of 3.16 times. At the same time the borrowings of TSGENCO have increased from Rs. 7,662 Cr to Rs. 32,797 Cr i.e. by a factor of 4.28 times.

The other assets of TSGENCO mainly include receivables from Discoms of Rs. 9,743 Cr. There is corresponding amount due to SCCL of Rs.4,553 Cr. In addition, working capital loans have gone up to Rs.3,805 Cr.

4.2 TSTRANSCO

The financial position of TSTRANSCO is as shown below:

Amount (Rs in Cr)

SI.No	Particulars	As on 02.06.2014	FY 2014-15	FY 2022-23
1	Income		703.23	3,535
2	Expenditure		633.65	3,121.43
3	Profit Before Tax (PBT)		69.58	413.57
4	Fixed Assets (incl. CWIP)	4,356.5	5,429.25	19,062.38
5	Other Assets (*)	1,921.14	2,037.88	5,414.02
6	Total Assets	6,277.64	7,467.13	24,476.40
7	Net worth	968.76	1,007.90	2,330.29
8	Project Loans	2,411.12	2,724.41	9,929.88
9	Working Capital Loans	0	0	600.04
10	Total Borrowings	2,411.12	2,724.41	10,529.92
11	Other Liabilities (*)	2,897.76	3,734.82	11,616.19
12	Total Liabilities	6,277.64	7,467.13	24,476.40

Other assets mainly include borrowing made on behalf of Discoms totalling Rs.4,028 Cr.

4.3 TSDISCOMs

The financial position of TS Discoms is as follows:

		Amount (Rs in Cr)				
SI.NO	Particulars	As on 02.06.2014	FY 2014-15	FY 2022-23		
1	Income		22,873	50,135		
2	Expenditure		25,392	61,238		
3	Profit/Loss before Tax		-2,519	-11,103		
4	Fixed Assets (incl.CWIP)	6,680	7,468	16,575		
5	Other Assets	7,489	9,896	42,557		
6	Total Assets	14,169	17,364	59,132		
7	Net worth	-7,995	-8,872	-34,879		
8	Project Loans/ Capex	3,749	2,559	6,113		
9	Working Capital Loans	7,034	9,188	29,114		
10	Total Borrowings	10,783	11,746	35,227		
11	Other Liabilities	11,382	14,490	58,783		
12	Total Liabilities	14,169	17,364	59,132		

As seen from the table above, TSDiscoms have incurred a loss of Rs. 11,103 Cr in 2022-23. The accumulated losses of discoms are Rs. 62,461 Cr. The borrowings of discoms for working capital stood at Rs. 29,114 Cr in 2022-23.

As per the Power Finance Corporation (PFC) reports, the ranking of TS Discoms was downgraded from B+ in 2015-16 to C- in 2021-22. As per these reports, the Net Worth of the two DISCOMs in 2021-22 was (–) Rs. 30,876 Cr.

5 FINANCIAL DIFFICULTIES OF TS DISCOMS

5.1 Accumulated losses of discoms

The accumulated losses incurred by TS Discoms have increased from Rs.12,186 Cr as on 02.06.2014 to Rs.62,461Cr as on 31.03. 2023.The details are as follows:

	(Rs. in Crs					
FY	TSS	PDCL	TSNF	PDCL	TOTAL	
	Losses for the year	Cumulative losses	Losses for the year	Cumulative losses	Losses for the year	Cumulativ e losses
Opening balance		8,641		3,545		12,186
2014-15	1,171	9,812	1,343	4,888	2,513	14,699
2015-16	2,369	12,181	1,010	5,898	3,380	18,079
2016-17	4,700	16,881	1,502	7,400	6,202	24,281
2017-18	3,925	20,806	1,561	8,960	5,485	29,767
2018-19	4,967	25,773	3,051	12,012	8,019	37,785
2019-20	4,940	30,713	1,116	13,128	6,056	43,841
2020-21	4,246	34,959	2,440	15,568	6,686	50,528
2021-22	627	35,586	204	15,772	831	51,358
2022-23	8,147	43,733	2,956	18,728	11,103	62,461
TOTAL	35,092		15,183		50,275	

5.2 Reasons for the financial difficulties

(a) Difference in estimation of Agriculture Supply

The estimate adopted by TSERC for agricultural power is lesser than the estimate submitted by discoms. Therefore, lesser subsidy for agriculture is being provisioned as per Tariff Order. The difference is resulting in financial burden on Discoms as shown below:

Year	Approv ed agri sales by TSERC (MU)	Estimated agri sales by Discoms (MU)	Excess agri sales (MU)	Excess agri sales grossed up with approved losses (MU)	Actual average power Cost (Rs./ unit)	Additional Cost due to excess sale of power to Agl (Rs. in Crs)
	1	2	3=2-1	4	5	6=(4*5)/10
2014-15	10,621	11,671	1,051	1,265	3.89	492
2015-16	10,658	11,190	532	645	4.46	288
2016-17	11,535	14,374	2,839	3,379	4.63	1,564
2017-18	11,765	18,240	6,476	7,680	4.5	3,456
2018-19	14,262	20,839	6,577	7,769	4.74	3,683
2019-20	14,262	17,958	3,696	4,329	4.61	1,996
2020-21	14,262	19,649	5,387	6,297	4.65	2,928
2021-22	14,262	19,144	4,882	5,691	4.87	2,771
2022-23	17,629	19,995	2,366	2,744	5.64	1,547
Total	1,19,256	1,53,061	33,806	39,798	4.60	18,725

As on 31.03.2023, the additional cumulative financial burden on Discoms due to difference in estimate of agricultural power was Rs.18,725 Crores.

(b) Short Term Purchases

Due to the variability imposed on account of renewables and to cater to intraday fluctuations in demand as well as forced outages of plants, Discoms have purchased power from short term markets as shown below:

Year	Energy Purchased (MU)	Amount Spent (Rs Cr)	Average Rate (Rs/kWh)	Min.Rate (Rs./kWh)	Max.Rate (Rs./kWh)
2014-15	7,767	4,174	5.37	1.70	15.10
2015-16	13,984	7,745	5.54	1.10	16.00
2016-17	6,187	2,893	4.68	0.70	7.51
2017-18	5,563	2,259	4.06	0.50	9.91
2018-19	6,434	3,318	5.16	1.50	20.00
2019-20	6,756	2,509	3.71	0.90	11.85
2020-21	7,609	2,476	3.25	0.70	9.88
2021-22	5,907	2,793	4.73	1.00	20.00
2022-23	9,553	6,163	6.45	1.20	20.00
2023-24	0.200	5 202	5.96	1.00	15.00
(upto Nov 23)	9,209	5,392	5.00	1.00	15.00
Total	78,970	39,722	5.03		

(c) True ups and Fuel Cost Adjustments

Regulations provide for Genco/ NTPC (the tariffs of which are on cost plus basis) to pass on cost escalation of coal etc., to the Discoms through "true up" orders of TSERC/CERC. In addition, Discoms can also seek true up for unavoidable purchases of expensive power. Discoms have to pay these enhanced costs by recovering the same from consumers in the form of Fuel Cost Adjustment (FCA) in future bills. TSERC has approved power purchase true up of Rs. 12,550 Cr for the years from 2016-17 to 2022-23. In order to avoid recovery of this amount from consumers, Government had assured that this amount will be reimbursed to TSDISCOMs. The same is yet to be released. Apart from this, there is a subsequent amount of Rs. 2,378 Cr towards FCA which is not recovered from the consumers. Discoms have addressed the Government for reimbursement of the same.

5.3 Government Dues

Over the years Governments Departments have not been paying their power consumption charges regularly and backlog has been growing as shown in Table below:

	(Rs in Crores)				
		TSDISCOMS			
S.No	Name of the HOD	Arrears as on 02.06.2014	Arrears as on 31.10.2023		
1	LIS and Other Projects	150.28	14193		
2	Irrigation Department (office services)	3.75	92.04		
3	Mission Bhagiratha (LT+HT)	35.40	3558.83		
4	Panchayat Raj Dept(Major & Minor)	769.99	4393.99		
5	HMWS & SB	362.04	3932.47		
6	Muncipalities	131.37	1657.81		
7	Corporations	7.40	53.68		
8	GHMC & HMDA	0.00	4.51		
9	Home Dept	15.65	27.69		
10	Health Medical & Family welfare Dept	12.06	48.42		
11	Revenue Dept	10.25	21.03		
12	School Education Dept	4.77	48.37		
13	Higher Education Dept	1.01	40.43		
14	Social welfare Dept	0.09	0.50		
15	B.C Welfare	3.24	-1.27		
16	Tribal welfare Dept	0.85	6.55		
17	Animal Husbandry Dept	0.08	0.42		
18	Tourism Dept	-0.20	2.45		
19	Central Govt	82.55	720.34		
20	Other State Govt. departments	4.78	62.62		
21	Other Departments (Market Committee)	0.00	0.20		
	Grand Total	1595.37	28842.72		

Statement showing HOD wise Govt. Departments dues

5.4 Working Capital Loans

For the reasons of revenue gap of Discoms discussed above, they have had to borrow from banks/financial institutions to pay generators. In the process interest cost has to be borne by Discoms. The details of working capital loans taken by Discoms are as shown below:

SI.No	Power Utility	Outstanding Amount as on 01.10.2023 (in Rs. Cr)	
1	TSSPDCL	17,437	
2	TSNPDCL	12,145	
TS E	Discoms Total	29,582	
3	TS TRANSCO*	824	
G	rand Total	30,406	

* Taken on behalf of Discoms.

5.5 Average Collection & Expenditure of TS DISCOMs per month

Discoms have been facing cash deficits each month due to various reasons discussed above. From April to November 2023, the average cash deficit each month has been about Rs.1,386 Cr as shown below:

(Rs. in Cr.)

Revenue	Amount	Expenditure	Amount
Collections	2,726	TSGENCO	1,228
Subsidy	958	TSTRANSCO	339
		CGS& Others	1,587
		Exchange	651
		Sub- Total	3,805
		Debt Service - Principal	558
		- Interest	246
		Salaries	461
TOTAL	3,684	TOTAL	5,070
	1,386		

Due to this cash deficit, discoms face difficulties in making payments to generators due to which they have been taking working capital loans to meet these obligations.

5.6 Payables to SCCL for purchase of power

Despite the aforesaid working capital loans having been taken by Discoms, there is still a shortfall in payment to SCCL for purchase of power. The outstanding amount payable to SCCL is Rs.19,431 Cr for the power supply.

6. SUMMARY

Power sector plays a crucial role in driving economic growth and development. The reliable power supply is backbone of service sector, industry and agriculture. It is vital for providing essential services such as health care, transport, communication etc. It is a critical determinant of the quality of life enjoyed by the people of the state. Therefore, operational and financial health of power sector is of paramount importance for the state.

At the time of formation of the state the installed generation capacity of TSGENCO was 4365.26 MW. Prior to the formation of the state itself, generation projects have been conceived/ initiated with a capacity of 2,960 MW. The commissioning of these projects after the formation of the state has been critical in providing reliable power supply. In addition, special provisions in the A.P. Reorganisation Act 2014 regarding power sector enabled the state to get over 1,800 MW power beyond the installed capacity in the state at that time. After formation of the state, only one power project of 1,080 MW capacity was conceived and commissioned at Bhadradri Thermal Power Stations (BTPS) with inordinate time and cost overrun using subcritical technology. Another power project of 4,000 MW in Nalgonda District (Yadadri Thermal Power Station) was taken up at a location far removed from the coal mines leading to avoidable coal transport costs of over Rs. 800 Cr/annum which are liable to further escalate with time and will be applicable over entire life time of the project.

As seen from the preceding sections, financial health of the power sector is precarious and is a matter of grave concern.

The accumulated losses of discoms as on 31.03.2023 stand at Rs. 62,461 Cr. Discoms have a debt of Rs. 81,516 Cr (as on 31.10.2023). Of this, an amount of Rs. 30,406 Cr has been borrowed as working capital primarily to pay power charges to

28

the generators. Despite this, an amount of Rs. 28,673 Cr of generation and transmission dues remain to be paid by discoms.

The difficulty faced by discoms in paying power purchase bills has been aggravated by the default of Government in paying the power bills of its own departments which have now mounted to Rs. 28,842 Cr. Of this, the amount due from lift irrigation projects alone is Rs. 14,193 Cr. Government's default in paying committed true up charges of Rs. 14,928 Cr has further contributed to the further deterioration of discom finances.

In these circumstances, merely to keep the power supply going, discoms are resorting to borrowings on a regular basis which have reached unsustainable proportions. There is very limited scope to continue to fund the purchase of power through these means. Discoms are now finding themselves in debt trap due to failure of government in paying its dues and commitments to the sector.

Despite the above legacy of financial imprudence, Government is committed to providing quality and reliable power to the people of the state by overcoming the challenges faced by the sector with a responsible and transparent approach.

BHATTI VIKRAMARKA MALLU DEPUTY CHIEF MINISTER (FINANCE, PLANNING AND ENERGY)