

Chapter - 2

Functioning of Power Sector PSUs

2.1 Introduction

Power Sector PSUs play an important role in the economy of the State by providing critical infrastructure required for growth and development of the State. The PSUs in this sector also add significantly to the GSDP of the Telangana State as can be seen from the ratio of these PSUs turnover to GSDP. The table below provides the details of turnover of the Power Sector PSUs and GSDP of Telangana for the five-year period ending March 2019:

Table 2.1: Turnover of Power Sector PSUs vis-à-vis GSDP of Telangana

Particulars	(₹ in crore)				
	2014-15	2015-16	2016-17	2017-18	2018-19
No. of Working PSUs	8	8	8	8	8
Turnover	40,240.47	45,294.17	48,835.21	56,557.55	66,979.90
Percentage change of turnover compared to previous year	*	12.56	7.82	15.81	18.43
GSDP of Telangana	5,05,849	5,77,902	6,58,325	7,53,127	8,61,031
Percentage change in GSDP compared to previous year	12.02	14.24	13.92	14.40	14.33
Percentage of Turnover to GSDP of Telangana	*	7.84	7.42	7.51	7.78

*Telangana State was formed with effect from 2 June 2014

Source: Turnover figures as per accounts/ information furnished by the PSUs and GSDP figures as per latest data (March.2020) of Ministry of Statistics and Program Implementation, Government of India.

The percentage of turnover of Power Sector PSUs relative to GSDP hovered between 7.42 and 7.84 *per cent* during the four-year period 2015-19. The compounded average annual growth rate of GSDP of Telangana was 14.22 *per cent* during the years 2014-19, while the turnover of Power Sector PSUs recorded lower compounded average annual growth rate¹ of 13.58 *per cent* during the same period.

2.1.1 Formation of Power Sector PSUs

The erstwhile Andhra Pradesh State Electricity Board (APSEB) was set up as a Statutory Corporation in April 1959 under Section 5(1) of the Electricity (Supply) Act, 1948 (the Act) with the objective of promoting coordinated development of generation, transmission and distribution of electricity in an efficient and economic manner. Based on the recommendations (April 1995) of the High Level Committee (Committee), the State Government enacted (October 1998) Andhra Pradesh Electricity Reforms Act, 1998 (Reforms Act). In pursuance of this Act, the Andhra Pradesh Electricity Regulatory Commission (APERC) was established on 31 March 1999 and started functioning with effect from 3 April 1999.

¹ Rate of Compounded Annual Growth $((\text{value of 2018-19}/\text{value of 2014-15})^{(1/4\text{years}) - 1}) * 100$ where turnover and GSDP for the year 2014-15 was ₹40,240.47 crore and ₹5,05,849 crore respectively

2.1.2 Unbundling of APSEB

As part of reforms of the Power Sector, the APSEB was functionally unbundled into two distinct Companies² namely, Andhra Pradesh Power Generation Corporation Limited (APGENCO) for generation of power and Transmission Corporation of Andhra Pradesh Limited (APTRANSCO) for transmission and distribution of power. The Distribution business was further disaggregated from APTRANSCO by creating four distribution companies (DISCOMs) namely, Eastern Power Distribution Company of Andhra Pradesh Limited (EPDCL), Southern Power Distribution Company of Andhra Pradesh Limited (SPDCL), Northern Power Distribution Company of Andhra Pradesh Limited (NPDCL) and Central Power Distribution Company of Andhra Pradesh Limited (CPDCL).

2.1.3 Other Power Sector PSUs

The Government of composite State of AP incorporated the Non-Conventional Energy Development Corporation of Andhra Pradesh Limited (NEDCAP) in October 1969 and the Andhra Pradesh Power Finance Corporation Limited (APPFCL) in July 2000 as wholly owned Government Companies under the Companies Act, 1956 for promoting generation of electricity through non-conventional sources and for investment in the shares of Andhra Pradesh Power Generation Corporation Limited, Transmission Corporation of Andhra Pradesh Limited and Distribution Companies (DISCOMs) respectively.

2.1.4 Reorganisation of State

Telangana State was formed on 2 June 2014, following bifurcation of the erstwhile composite State of AP. As per the provisions of the AP Reorganisation Act, 2014, a PSU was allocated to the State where it is exclusively located in, or where its operations are exclusively confined to. Assets and liabilities of PSUs with interstate operations were to be apportioned between the two States as under:

- The operational units on location basis; and
- The headquarters on the basis of population ratio.

As on the date of bifurcation of the erstwhile composite AP State, APGENCO, APTRANSCO, APPFCL and NEDCAP had inter-state operations. Therefore, these entities were bifurcated into AP and Telangana units. Four separate Companies viz. Telangana State Power Generation Corporation Limited (TSGENCO), Transmission Corporation of Telangana Limited (TSTRANSCO), Telangana Power Finance Corporation Limited (TPFCL) and Telangana State Renewable Energy Development Corporation Limited (TSREDCL) were incorporated in Telangana State³ under the Companies Act, 2013. The transfer of assets and liabilities of these demerged PSUs was however, yet to be completed as of September 2020.

² Incorporated on 29 December 1998 under the Companies Act, 1956 and started functioning from 1 February 1999

³ TSGENCO (19 May 2014), TSTRANSCO (29 May 2014), TPFCL (31 July 2014) and TSREDCL (8 August 2014)

Of the four DISCOMs, two DISCOMs (EPDCL and SPDCL) were retained exclusively with AP and other two DISCOMs were allotted exclusively to Telangana and renamed as Southern Power Distribution Company of Telangana Limited (TSSPDCL) and Northern Power Distribution Company of Telangana Limited (TSNPDCL).

As the operations of SCCL were confined to coal mine areas located in Telangana, it was treated as a PSU exclusive to Telangana. Further, Andhra Pradesh Tribal Power Company Limited (APTPCL), which was set up (July 2002) by composite AP State Government to promote mini-hydel power projects in tribal areas was yet to have a separate unit for Telangana State (although the de-merger Plan was approved in August 2017 by the Expert Committee⁴). In 2016-17, Singareni Collieries Company Limited (SCCL), a Government Company established under the Companies Act of 1956, had set up the Singareni Thermal Power Plant at Jaipur in Mancherial District of Telangana. Thus, as on 31 March 2019, there were eight Power Sector PSUs⁵ which are functioning under the administrative control of the Energy Department of Government of Telangana.

2.2 Restructuring, Disinvestment and Privatisation of Power Sector PSUs

During the year 2018-19, there was no disinvestment of any Power Sector PSU in Telangana State nor was any of these PSUs privatised.

2.3 Investment in Power Sector PSUs

The activity-wise investment of Central and State Governments and Others (capital and long-term loans) in the Power Sector PSUs as on 31 March 2019 is detailed in **Table 2.2**.

Table 2.2: Activity-wise total investment in Power Sector PSUs

(₹ in crore)

Activity	Number of PSUs	Equity ^{\$}	Long term loans*	Total
Generation of Power	3 ⁶	2,603.09	22,422.38	25,025.47
Transmission of Power	1 ⁷	0.05	8,270.73	8,270.78
Distribution of Power	2 ⁸	15,887.13	11,308.97	27,196.10
Others	2 ⁹	0.19	3,512.06	3,512.25
Total	8	18,490.46	45,514.14	64,004.60

\$ Equity includes share application money

** The long-term loans include loans from Central and State Governments, Public Financial Institutions and Commercial Banks*

Source: Accounts/ information furnished by PSUs

⁴ Sheela Bhide Committee was appointed (May/June 2014) by the State Government of erstwhile AP to review and approve the demerger proposals of all the Government Companies, Corporations and Entities notified under Schedule 9 of the AP Reorganisation Act, 2014

⁵ Three PSUs exclusive to Telangana, four PSUs formed due to demerger and one PSU under demerger

⁶ TSGENCO, SCCL and APTPCL

⁷ TSTRANSCO

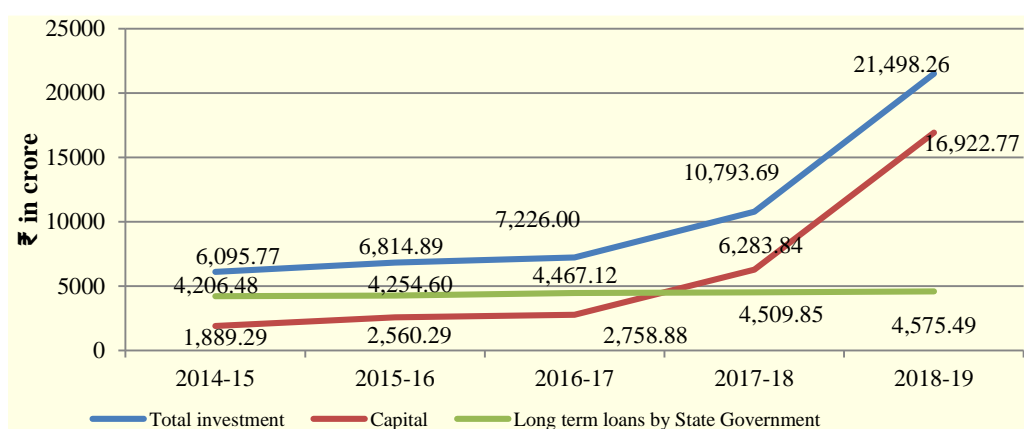
⁸ TSSPDCL and TSNPDCL

⁹ TPFCL and TSREDCL

As on 31 March 2019, and out of the total investment in Power Sector PSUs, 28.89 per cent comprised equity capital and 71.11 per cent comprised long-term loans. The long-term loans in Power Sector PSUs consisted of ₹4,575.49 crore (10.05 per cent) advanced by the State Government and ₹40,938.65 crore (89.95 per cent) raised from other sources. During 2016-17 and 2017-18, the State Government had taken over ₹8,922.81 crore (75 per cent) of the outstanding debts (₹11,897.08 crore) of the DISCOMs as on 30 September 2015 and released ₹7,723.00 crore (as on 31 March 2019) as equity contribution under Ujwal DISCOM Assurance Yojana¹⁰ (UDAY) scheme. During 2018-19, TSSPDCL allotted shares worth ₹4,876.83 crore against share application money pending allotment under UDAY scheme.

The year-wise details of investment made by the State Government in the form of equity and long term loans in the Power Sector PSUs during the period 2014-15 to 2018-19 are given in **Chart 2.1**:

Chart 2.1: State Government investment in Power Sector PSUs



Source: Accounts/ information furnished by PSUs

2.4 Budgetary Support to Power Sector PSUs

State Government provides financial support to Power Sector PSUs in various forms through its annual budget. The summarised details of budgetary outgo towards equity, loans, grants/ subsidies, loans converted into equity, interest written off and guarantees issued/ outstanding in respect of Power Sector PSUs for the last five years ending March 2019 are given in **Table 2.3**.

Table 2.3: Details relating to budgetary support to Power Sector PSUs

(₹ in crore)

Sl. No.	Particulars	2014-15		2015-16		2016-17		2017-18		2018-19	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
1	Equity capital infusion	4	346.20	1	523.59	2	2,262.62	2	2,498.29	2	2,399.99
2	Loans given	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

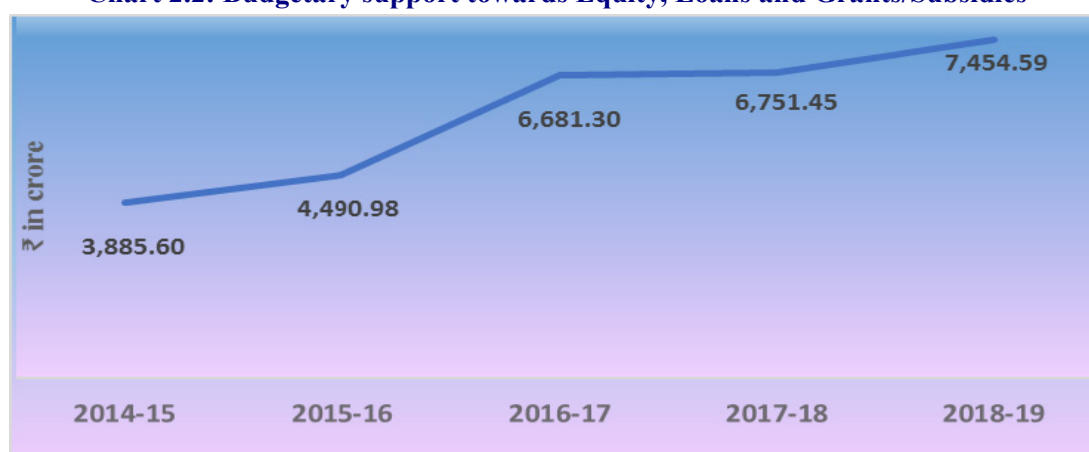
¹⁰ Scheme launched by Ministry of Power and GoI for financial and operational turnaround of DISCOMs

Sl. No.	Particulars	2014-15		2015-16		2016-17		2017-18		2018-19	
		No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
3	Grants/ Subsidy	4	3,539.40	4	3,967.39	4	4,418.68	4	4,253.16	4	5,054.60
4	Total¹¹	5	3,885.60	6	4,490.98	5	6,681.30	4	6,751.45	4	7,454.59
5	Loans converted into equity	0	0.00	0	0.00	0	0.00	1	2,846.17	1	4,876.83
6	Loans, Interest/Penal interest written off	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Guarantees issued	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Guarantee Commitment ¹²	4	11,316.16	4	9,495.06	4	6,760.80	5	7,989.69	5	7,788.62

Source: Information furnished by PSUs

The extent of budgetary support provided by the State Government towards equity, loans and grants/subsidies for the last five years ending March 2019 is given in the chart below.

Chart 2.2: Budgetary support towards Equity, Loans and Grants/Subsidies



Source: Information furnished by PSUs

As can be seen from the table above, budgetary assistance received by the Power Sector PSUs increased from ₹3,885.60 crore in 2014-15 to ₹7,454.59 crore during 2018-19. During the year 2018-19, it comprised ₹2,399.99 crore in the form of equity and ₹5,054.60 crore in the form of subsidies/ grants.

Further, the Union Ministry of Power (MoP) launched UDAY Scheme in November 2015 for operational and financial turnaround of the DISCOMs. The provisions of UDAY and status of implementation of the scheme by the DISCOMs are discussed under **Paragraph 2.8** of this Chapter.

The addition of ₹2,399.99 crore in equity of Power Sector PSUs during 2018-19 was through cash induction while outstanding loans amounting to ₹4,876.83 crore were converted into equity during 2018-19 under UDAY scheme. The addition in equity of the DISCOMs was towards payment of power purchase dues. The increase in the subsidy/

¹¹ The figure of total outgo represents the number of PSUs which have received allocation from the State Government's budget under one or more heads i.e., equity, loans, grants/subsidy

¹² Closing balance of Government guarantees in respect of PSUs at the end of a particular year

grants provided by the State Government during the year 2018-19 (₹5,054.60 crore) in comparison to the previous year (₹4,253.16 crore) was primarily on account of tariff subsidy to DISCOMs¹³ (₹5,043.14 crore).

2.4.1 Guarantee fee

The State Government helps the Power Sector PSUs to raise loans from banks and Public Financial Institutions by providing guarantee for repayment of principal and interest. For this purpose, it charges guarantee commission of 0.50 *per cent* per annum or two *per cent* consolidated for the entire guarantee period depending upon the loanees. The outstanding guarantee commitment given for the Power Sector PSUs decreased by 2.52 *per cent* from ₹7,989.69 crore in 2017-18 to ₹7,788.62 crore in 2018-19. The Power Sector PSUs have, however, not furnished to audit the details of outstanding guarantee fee payable by them to the State Government.

2.5 Reconciliation with Finance Accounts

The figures in respect of equity, loans and guarantees outstanding as per the records of the Power Sector PSUs should agree with the figures appearing in the Finance Accounts of the State. In case the figures do not tally, the PSUs concerned and the Finance Department should carry out reconciliation of differences. The position in this regard as at 31 March 2019 was as follows:

**Table 2.4: Equity, loans and guarantees outstanding as per Finance Accounts
vis-à-vis records of Power Sector PSUs**

(₹ in crore)

Outstanding in respect of	No. of PSUs	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
(A)	(B)	(C)	(D)	(E) = (C) - (D)
Equity ^{\$}	3	16,503.97	16,052.73	451.24
Loans ^{\$}	3	520.92	3,985.22	-3,464.30
Guarantees	5	1,355.33	4,427.92	-3,072.59

\$ Information in respect of only those PSUs whose equity and loans were bifurcated on demerger as per Finance Accounts is considered

Source: Finance Accounts and accounts/ information furnished by PSUs

It was observed that the differences in the figures of equity, loans and guarantees were pending reconciliation since long. The matter was taken up (February 2020) with the State Government and replies are awaited. The State Government and the Power Sector PSUs should take concrete steps to reconcile the differences in a time bound manner.

¹³ TSNPDCL: ₹3,500.68 crore and TSSPDCL: ₹1,542.46 crore

2.6 Submission of Accounts by Power Sector PSUs

2.6.1 Timeliness in finalisation of Accounts of Power Sector PSUs

Section 96 (1) of the Companies Act, 2013 requires that the PSUs finalise their accounts within six months from the end of the relevant financial year, i.e., by September end. Failure to do so may attract penal provisions under Section 99 of the Companies Act, 2013. The following Table provides details of progress made by the Power Sector PSUs in finalisation of their accounts as on 30 September 2019:

Table 2.5: Position relating to finalisation of accounts of Power Sector PSUs

Sl.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1	Number of Power Sector PSUs	8	8	8	8	8
2	Number of Accounts Submitted during the year	7	5	7	9	13
3	Number of PSUs whose accounts are current	1	2	2	3	5
4	Number of previous year's accounts finalised during current year	6	3	5	6	8
5	Number of Power Sector PSUs with accounts in arrears	7	6	6	5	3
6	Number of accounts in arrears	13	16	17	16	5*
7	Extent of arrears	1 to 7 years	1 to 8 years	1 to 9 years	1 to 10 years	1 to 2 years

*. *Of arrears of accounts of 11 years in respect of APTPCL, which was under demerger process, furnishing of accounts was waived for six years (2008-09 to 2013-14).*

Source: Accounts finalised by PSUs as on 30 September of the relevant years

It was seen that as on 30 September 2019, five accounts of three Power Sector PSUs (TSREDCL, APTPCL & TSTRANSCO) were in arrears ranging from one to two years. During the year 2018-19, the State Government gave grants/ subsidies of ₹11.46 crore to the Power Sector PSUs whose accounts were in arrears as on 31 March 2019 as detailed in *Appendix I*.

Energy Department of the Government of Telangana as the Administrative Department of the Power Sector PSUs, has the responsibility to oversee the activities of these entities. Therefore, it has to ensure that the accounts are finalised by these PSUs and adopted by their respective Boards within the stipulated period.

2.6.2 Impact of non-finalisation of Accounts

Delay in finalisation of accounts carries the risk of fraud and leakage of public money going undetected apart from violating the provisions of the relevant Statutes. It is therefore, recommended that the State Government should take appropriate steps expeditiously to liquidate the arrears in finalisation of accounts.

2.7 Performance of Power Sector PSUs

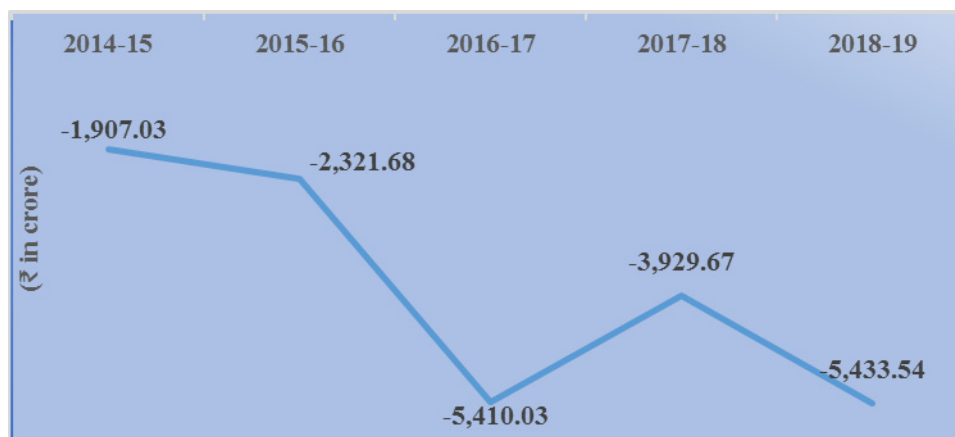
Financial position and working results of Power Sector PSUs as on 31 March 2019 are detailed in *Appendix 2*.

Public Sector Undertakings are expected to yield reasonable return on investment made by the Governments. The profitability of a Company is traditionally assessed through return on investment, return on equity and return on capital employed. Rate of Real Return on Investment is the percentage of profit or loss to the Present Value (PV) of total investment. The Rate of Real Return measures the profitability and efficiency with which equity and similar non-interest bearing capital have been employed, after adjusting them for their time value. It assumes significance when compared with the conventional Rate of Return (RoR), which is calculated by dividing the Profit After Tax (PAT) by the sum of all such investments counted on historical cost basis. Investment for this purpose included equity, interest free loans, subsidies and grants for operational and management expenses. Return on capital employed is a financial ratio that measures the company's profitability and the efficiency with which its capital is used and is calculated by dividing company's earnings before interest and taxes by capital employed. Return on Equity is a measure of performance calculated by dividing net PAT by the shareholders' fund.

2.7.1 Rate of Real Return on Investment

Rate of Real Return on Investment is the percentage of profit or loss to the total investment. The overall position of profit earned/ losses incurred by the Power Sector PSUs during 2014-15 to 2018-19 is depicted in the chart below.

Chart 2.3: Profit earned/Losses incurred by Power Sector PSUs



Source: Accounts and information furnished by PSUs

The total loss incurred by the eight Power Sector PSUs was ₹5,433.54 crore in 2018-19 as against the total loss of ₹1,907.03 crore incurred in 2014-15. Out of the eight Power Sector PSUs during 2018-19, three PSUs (SCCL, TSGENCO & TSTRANSCO) earned a profit of ₹2,587.60 crore and two PSUs (TSSPDCL & TSNPDCL) incurred a loss of ₹8,018.70 crore. Two PSUs (TSREDCL & APTPCL) earned a marginal loss (₹2.44 crore) while one PSU (TPFCL) had break-even status. Out of the total profit of ₹2,587.60 crore, SCCL alone earned a profit of ₹1,766.66 crore, which constituted 68.27 per cent of the total profits of

Profit-making PSUs while TSSPDCL (₹4,967.27 crore) and TSNPDCL (₹3,051.43 crore) contributed substantially (99.97 per cent) to the total loss of ₹8,021.14 crore.

The number of Power Sector PSUs that earned profit/ incurred loss during the five-year period 2014-19 is given in **Table 2.6**.

Table 2.6: Number of Power Sector PSUs which earned profit/incurred loss

Financial year	Total No. of PSUs	No. of PSUs which reported profits during the year	No. of PSUs which reported loss during the year	No. of PSUs which reported Nil profit/ loss during the year
2014-15	8	4	3	1
2015-16	8	4	3	1
2016-17	8	3	4	1
2017-18	8	4	3	1
2018-19	8	3	4	1

Source: Accounts and information furnished by PSUs

2.7.1.1 Rate of Real Return on the basis of historical cost of investment

State Government infused funds in the form of equity, loans and subsidies/ grants for operational and management expenses in all the eight Power Sector PSUs. The Rate of Real Return on Investment (RoRR) from the Power Sector PSUs has been calculated on the total investment (i.e., investments made by State, Central Governments & Others) in the form of equity, loans and subsidies/ grants for operational and management expenses. In the case of loans, only interest free loans are to be considered as investment, since the State Government does not receive any interest on such loans and are therefore of the nature of equity investment, except to the extent that the loans are liable to be repaid as per the terms and conditions of repayment. Out of the long term loans given by the State Government, however, there were no interest free loans and loans converted into equity. Hence only the equity, subsidies and grants for operational and management expenses are considered as investment of the State Government.

Further, apportionment of assets and liabilities between the successor demerged PSUs (as discussed in **Paragraph 2.1.4** of this Chapter) resulted in a Reorganisation/ Demerger Adjustment Reserve (surplus/ deficit), which is considered as investment of the State Government since it represented the difference between the balance sheet figures of assets and liabilities as on the date of bifurcation of the erstwhile composite State of AP and included *inter-alia* the share of equity received by the Power Sector PSUs of Telangana State. Thus, the investment (initial equity net of Re-organisation/ Demerger Adjustment Reserve) of State Government in the Power Sector PSUs as on the date of bifurcation of the erstwhile State of AP has been considered as the initial investment made by the State Government.

As on 31 March 2019, the investment of Government of Telangana in these eight Power Sector PSUs was ₹44,418.46 crore; the investment of Central Government in the form of equity (₹847.56 crore) and subsidies/ grants (₹509.15 crore) amounted to ₹1,356.71 crore, while the investment of Others consisted of equity (₹0.13 crore) and subsidies/ grants (₹490.81 crore) totaling ₹490.94 crore.

The RoRR of eight Power Sector PSUs on historical cost basis for the period 2014-15 to 2018-19 is given below.

Table 2.7: Rate of Real Return on Investment on historical cost basis

(₹ in crore)

Financial year	Investment on historical cost basis in the form of Equity and Grants and Subsidies				Total Earnings/ Losses for the year	Rate of Real Return on Investment (in per cent)
	State	Central	Others	Total		
2014-15	11,317.16	858.73	81.85	12,257.74	-1,907.03	-15.56
2015-16	15,808.14	900.52	175.85	16,884.51	-2,321.68	-13.75
2016-17	29,479.43	933.07	263.12	30,675.62	-5,410.03	-17.64
2017-18	36,963.87	997.62	440.49	38,401.98	-3,929.67	-10.23
2018-19	44,418.46	1,356.71	490.94	46,266.11	-5,433.54	-11.74

Source: Accounts and information furnished by PSUs

During the years 2014-15 to 2018-19, the Rate of Real Return on Investment in Power Sector PSUs was negative and ranged between (-) 10.23 per cent and (-) 17.64 per cent. Huge losses of the two DISCOMS (TSSPDCL and TSNPDCL) during the above period contributed to the overall losses of the Power Sector PSUs.

2.7.1.2 On the basis of Present Value of Investment

In view of the significant investment made by the Governments in the Power Sector PSUs, Rate of Real Return on such Investment is essential. Traditional calculation of return based only on historical cost of investment may not be a correct indicator of the adequacy of the Rate of Real Return on the Investment since such calculations ignore the present value of money. The Present Value (PV) of the investments has been computed to assess the Rate of Real Return on the PV of Investments in the Power Sector PSUs as compared to historical value of investments. In order to bring the historical cost of investments to its present value at the end of each year up to 31 March 2019, the past investments/ year-wise funds infused in the State PSUs have been compounded at the year-wise average rate of interest on Government borrowings which is considered as the minimum cost of funds for the concerned year. Therefore, PV of the investment was computed on funds infused by the State Government, Central Government and Others in the shape of equity, interest free loans, grants/ subsidies for operational and management expenses existing as on the date of bifurcation/ formation of the Telangana State/ date of incorporation of the Power Sector PSUs and the funds infused thereafter in the form of equity, interest free loans and grants/ subsidies for operational and management expenses till 31 March 2019.

The PV of the investment in Power Sector PSUs was computed on the basis of the following assumptions:

- The investment (initial equity net of Re-organisation/ Demerger Adjustment Reserve) of State Government in the Power Sector PSUs as on the date of bifurcation of the erstwhile State of AP has been considered as the initial investment made by the State Government.

- As per the information furnished by the Power Sector PSUs, there were no interest free loans, hence, no interest free loans were converted into equity. The funds made available in the form of subsidies/ grants for operational and management expenses have however, been reckoned as investment.
- The funds given under UDAY scheme are considered as investment as referred in **Paragraph 2.8** below.
- The average rate of interest on Government borrowings for the concerned financial year was adopted as compounded rate for arriving at PV since it represent the cost incurred by the Government towards investment of funds for the year and therefore considered as the minimum expected rate of return on investments made by the State Government.

The Company-wise position of State Government investment in the Power Sector PSUs in the form of equity, interest free loans, grants and subsidies for operational and management expenses since the formation of the State of Telangana up to 31 March 2019 is given in **Appendix 3**.

The total investment of the State, Central Governments and Others in these eight Power Sector PSUs at the end of the year 2018-19 was ₹46,266.11 crore consisting of equity of ₹24,032.92 crore and subsidies/ grants of ₹22,233.19 crore. The PV of investments of the Governments and Others up to 31 March, 2019 worked out to ₹57,943.70 crore. The Rate of Real Return on the PV of the Government investment could not be calculated as the Power Sector PSUs incurred losses during all the five Financial Years from 2014-15 to 2018-19.

2.7.2 Erosion of Net worth

Net worth means the sum total of the Paid-up Capital and Free Reserves and Surplus minus accumulated losses and deferred revenue expenditure. Essentially it is a measure of what an entity is worth to the owners. A negative net worth indicates that the entire investment of the owners has been wiped out by accumulated losses and deferred revenue expenditure. The overall accumulated losses of the Power Sector PSUs were ₹28,426.43 crore as against the paid up capital of ₹17,770.46 crore, resulting in a negative net worth of ₹10,655.97 crore. Details of paid up capital, free reserves and surplus, accumulated losses and Net worth are given in **Table 2.8**.

Table 2.8: Net worth of Power Sector PSUs during 2014-15 to 2018-19

(₹ in crore)

Year	Number of PSUs	Paid up Capital at end of the year	Free Reserves and Surplus	Accumulated Loss (-) at end of the year	Net worth
2014-15	8	2,736.98	2,255.53	-13,143.09	-8,150.58
2015-16	8	3,407.98	3,697.56	-16,526.61	-9,421.07
2016-17	8	3,606.57	4,211.40	-22,589.48	-14,771.51
2017-18	8	7,131.53	5,537.34	-28,237.29	-15,568.42
2018-19	8	17,770.46	7,820.42	-36,246.85	-10,655.97

Source: Accounts and information furnished by PSUs

Of the eight Power Sector PSUs during 2014-15 to 2018-19, four PSUs (SCCL, TSGENCO, TSTRANSCO and TPFCL) showed positive net worth while the net worth of four PSUs (TSSPDCL, TSNPDCL, TSREDCL and APTPCL) was in the negative. The erosion of net worth in these four PSUs ranged from 2.29 times to 52.84 times and was mainly in TSSPDCL (₹13,744.37 crore) and TSNPDCL (₹7,319.97 crore). The State Government provided financial support to the Power Sector PSUs by infusing equity (paid up capital of ₹15,033.48 crore) during the period 2014-15 to 2018-19. Despite infusion of substantial equity capital, the accumulated losses of the Power Sector PSUs increased from ₹10,887.56 crore in 2014-15 to ₹28,426.43 crore in 2018-19. The Net Worth increased during 2018-19 as compared to 2017-18 due to infusion of additional equity of ₹9,889.45 crore (including ₹4,876.83 crore under UDAY scheme) in TSSPDCL and ₹749.48 crore in TSNPDCL. Against this, the Accumulated Losses increased by ₹5,726.48 crore, resulting in an improvement of the combined Net Worth of Power Sector PSUs of the State.

2.7.3 Dividend Payout

As per the guidelines issued by the Public Enterprises Department of the State Government, a PSU shall declare or pay dividend for any financial year out of the profits for that year arrived at after providing for depreciation in accordance with the Companies Act. A minimum rate of dividend on the paid up share capital or the profits for the year was, however, not prescribed. Dividend Payout by the Power Sector PSUs during the period 2014-15 to 2018-19 is shown in **Table 2.9** below.

Table 2.9: Dividend Pay out by Power Sector PSUs during 2014-15 to 2018-19

(₹ in crore)

Year	PSUs where equity is infused by State Government		PSUs which earned profit during the year		PSUs which declared/ paid dividend during the year		Dividend Payout Ratio	
	No. of PSUs	Total Paid-up Capital	No. of PSUs	Total Paid-up Capital	No. of PSUs	Amount of Dividend	As % of Total Paid-up Capital	As % of Paid-up Capital of Profit Making PSUs
1	2	3	4	5	6	7	8 (7/3*100)	9 (7/5*100)
2014-15	8	2,736.98	4	1,733.44	1	129.99	4.75	7.50
2015-16	8	3,407.98	4	2,404.44	1	156.45	4.59	6.51
2016-17	8	3,606.57	3	2,602.89	1	156.45	4.34	6.01
2017-18	8	7,131.53	4	2,603.03	1	156.45	2.19	6.01
2018-19	8	17,770.46	3	2,602.89	1	208.95	1.18	8.03

Source: Accounts and information furnished by PSUs

During the period 2014-15 to 2018-19, the number of working Power Sector PSUs which earned profits ranged between three and four, of which, only one PSU (SCCL) declared/ paid dividend.

The Dividend Payout Ratio (DPR) during 2014-15 to 2018-19 ranged between 1.18 per cent and 4.75 per cent of the total paid up capital of all the Power Sector PSUs and the paid up capital infused by the State Government in the working Power Sector PSUs. The DPR ranged between 6.01 per cent and 8.03 per cent of the profit making PSUs. The DPR

reduced from 4.75 per cent in 2014-15 to 1.18 per cent in 2018-19, as the State Government infused substantial equity in the working Power Sector PSUs during 2015-19.

2.7.4 Return on Equity

Return on Equity (RoE) is a measure of financial performance to assess how effectively the management is using company's assets to create profits. It is calculated by dividing net income (i.e., net profit after taxes) by shareholders' fund. It is expressed as a percentage and can be calculated for any company if net income and shareholders' fund are both positive numbers.

Shareholders' fund of a Company is calculated by adding paid up capital and free reserves net of accumulated losses and deferred revenue expenditure and reveals how much would be left for a company's stakeholders if all assets were sold and all debts repaid. A positive Shareholders' fund reveals that the Company has enough assets to cover its liabilities, while negative Shareholders' funds means that liabilities exceed assets.

The details of Shareholders' fund and RoE of Power Sector PSUs during the period from 2014-15 to 2018-19 are given in **Table 2.10**.

Table 2.10: Shareholders' fund and RoE of Power Sector PSUs

(₹ in crore)

Details	Year	Number of PSUs	Net Profit/ Loss	Shareholders' Fund	RoE (in per cent)
1	2	3	4	5	6=(4/5)*100
Profit Earning	2014-15	4	608.07	3,988.97	15.24
	2015-16	4	1,059.74	6,102.00	17.37
	2016-17	3	799.87	6,814.29	11.74
	2017-18	4	1,558.45	8,137.20	19.15
	2018-19	3	2,587.60	10,423.31	24.83
Loss Incurring	2014-15	3	-2,515.10	-12,139.60	-
	2015-16	3	-3,381.42	-15,523.11	-
	2016-17	4	-6,209.90	-21,585.85	-
	2017-18	3	-5,488.12	-23,705.67	-
	2018-19	4	-8,021.14	-21,079.33	-
No Profit/ Loss	2014-15	1	0.00	0.05	-
	2015-16	1	0.00	0.05	-
	2016-17	1	0.00	0.05	-
	2017-18	1	0.00	0.05	-
	2018-19	1	0.00	0.05	-
Total	2014-15	8	-1,907.03	-8,150.58	-
	2015-16	8	-2,321.68	-9,421.07	-
	2016-17	8	-5,410.03	-14,771.51	-
	2017-18	8	-3,929.67	-15,568.42	-
	2018-19	8	-5,433.54	-10,655.97	-

Source: Accounts and information furnished by PSUs

As can be seen from the above table, both the Shareholders' fund and the Net income was negative during all the five years ending March 2019. Hence, the RoE could not be worked out. Negative shareholders' fund indicates that the liabilities of the Power Sector PSUs have exceeded the assets and instead of the Power Sector PSUs paying returns to the shareholders, the shareholders owe money to the creditors of the working Power Sector PSUs.

2.7.5 Return on Capital Employed

Return on Capital Employed (RoCE) is a profitability metric that measures the long-term profitability and efficiency with which the total capital is employed by a company. RoCE is an important decision metric for long term lenders. The significance of RoCE become obvious when it is juxtaposed against RoE, which measures the efficiency with which a company's assets have been used to create profits for its shareholders.

The RoCE is calculated by dividing a company's profit/ earnings before interest and taxes (EBIT) by the capital employed¹⁴. The details of RoCE of eight Power Sector PSUs during 2014-15 to 2018-19 are given in **Table 2.11**.

Table 2.11: RoCE of Power Sector PSUs

(₹ in crore)					
Details	Year	Number of Power Sector PSUs	EBIT	Capital Employed	RoCE (in per cent)
1	2	3	4	5	6=(4/5)*100
Profit Earning	2014-15	4	1,953.84	18,425.17	10.60
	2015-16	4	3,330.04	25,820.13	12.90
	2016-17	3	4,519.84	29,730.66	15.20
	2017-18	4	5,852.52	33,402.54	17.52
	2018-19	3	6,993.85	41,116.42	17.01
Loss Incurring	2014-15	3	-1,204.74	-1,693.83	-
	2015-16	3	-2,162.36	-3,974.38	-
	2016-17	4	-5,035.79	-17,468.26	-
	2017-18	3	-4,723.35	-15,750.84	-
	2018-19	4	-6,508.23	-9,770.36	-
No Profit/ Loss	2014-15	1	0.00	3,513.32	-
	2015-16	1	0.00	3,512.80	-
	2016-17	1	0.00	3,513.13	-
	2017-18	1	0.00	3,512.62	-
	2018-19	1	0.00	3,512.11	-
Total	2014-15	8	749.10	20,244.66	3.70
	2015-16	8	1,167.68	25,358.55	4.60
	2016-17	8	-515.95	15,775.53	-3.27
	2017-18	8	1,129.17	21,164.32	5.34
	2018-19	8	485.62	34,858.17	1.39

Source: Accounts and information furnished by PSUs

¹⁴ Capital employed = Paid up share capital + free reserves and surplus + long term loans – accumulated losses - deferred revenue expenditure

The RoCE of the Power Sector PSUs ranged between (-) 3.27 per cent and 5.34 per cent during the period 2014-15 to 2018-19. The RoCE decreased during 2016-17 on account of two to three times increase in the losses of DISCOMs as compared to increase of 30 per cent to 50 per cent in the profit of other PSUs. The RoCE substantially decreased during the year 2018-19 in comparison to the previous year mainly due to increase in capital employed on account of equity infusion by the State Government and decrease in EBIT of Power Sector PSUs by 57 per cent in 2018-19 as compared to 2017-18. EBIT of Power Sector PSUs decreased in 2018-19 due to increase in losses of TSNPDCL by 110.97 per cent as compared to the previous year which was mainly due to steep rise in its Employee Benefits Cost (144.58 per cent).

2.7.6 Analysis of Long term loans of the Power Sector PSUs

The ability of the Power Sector PSUs to service the debt owed by them to the Government, banks and other financial institutions is assessed through the Interest Coverage Ratio (ICR) and the Debt Turnover Ratio (DTR).

2.7.7 Interest Coverage Ratio

The ICR is used to determine the ability of a company to pay interest on outstanding debt and is calculated by dividing the profit/ earnings before interest and taxes (EBIT) by the interest expenses of the same period. The lower the ratio, the lesser the ability of the company to pay interest on debt. An ICR of below one indicates that the company was not generating sufficient revenues to meet its expenses on interest. The details of ICR of Power Sector PSUs from 2014-15 to 2018-19 are given in **Table 2.12**.

Table 2.12: Details of ICR of Power Sector PSUs

(₹ in crore)						
Year	EBIT	Interest	ICR	Number of PSUs having interest burden	Number of PSUs having ICR more than 1	Number of PSUs having ICR less than 1
2014-15	749.10	2,238.39	0.33 : 1	8	4	4
2015-16	1,167.68	3,470.81	0.34 : 1	8	4	4
2016-17	-515.95	4,435.51	-0.12 : 1	8	3	5
2017-18	1,129.17	4,532.73	0.25 : 1	8	4	4
2018-19	485.62	5,515.94	0.09 : 1	7	4 ¹⁵	3 ¹⁶

Source: Accounts and information furnished by PSUs

It was observed that the overall ICR of Power Sector PSUs ranged between (-) 0.12 and 0.34 during 2014-15 to 2018-19. The ICR decreased during the year 2018-19 in comparison with the previous year mainly due to increase in the interest burden of DISCOMs and decrease in EBIT.

During the year 2018-19, interest expenditure on State Government Loans in respect of four (out of seven) Power Sector PSUs was ₹59.86 crore. However, interest was not paid

¹⁵ SCCL, TSGENCO, TSTRANSCO & TSREDCL

¹⁶ TSSPDCL, TSNPDCL & TPFCL

to the State Government. Outstanding interest payable to State Government by these four PSUs amounted to ₹62.66 crore as on 31 March 2019.

2.7.8 Debt-Turnover Ratio

During the last five years, the Power Sector PSUs recorded a compounded annual growth rate of turnover of 13.58 *per cent* and a compounded annual growth rate of debt of 12.52 *per cent* due to which the DTR improved from 0.71 in 2014-15 to 0.68 in 2018-19 as given in the table below.

Table 2.13: DTR of Power Sector PSUs

Particulars	(₹ in crore)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Debt from Government/Banks and Financial Institutions	28,395.24	34,779.61	30,547.04	36,728.11	45,514.14
Turnover	40,240.47	45,294.17	48,835.21	56,557.55	66,979.90
Debt-Turnover Ratio	0.71:1	0.77:1	0.63:1	0.65:1	0.68:1

Source: Accounts and information furnished by PSUs

2.8 Assistance under Ujwal DISCOM Assurance Yojana (UDAY)

Government of India (GoI) launched Ujwal DISCOM Assurance Yojana on 20 November 2015 for operational and financial turnaround of DISCOMs. As per the provisions of UDAY Scheme, the participating States were required to undertake the following measures for operational and financial turnaround of DISCOMs.

2.8.1 Scheme for improving operational efficiency

The participating States were required to undertake various targeted activities like compulsory feeder and distribution transformer (DT) metering, consumer indexing and Geographic Information System mapping of losses, upgrading or changing transformers and meters, smart metering of all consumers consuming above 200 units per month, Demand Side Management through energy efficient equipment, quarterly revision of tariff, comprehensive Information Education Communication campaign to check theft of power, etc.. Further, the States were to ensure increased power supply in areas where the Aggregate Technical & Commercial (AT&C) losses have been reduced for improving the operational efficiencies. The timelines prescribed for these targeted activities were also required to be followed, so as to ensure achievement of the targeted benefits *viz.*, ability to track losses at feeder and DT level, identification of loss making areas, reduce technical losses and minimise outages, reduce power theft and enhance public participation for reducing the theft, reduce peak load and energy consumption, etc. The outcomes of operational improvements were to be measured through indicators *viz.*, reduction of AT&C loss to 15 *per cent* in 2018-19 as per loss reduction trajectory finalised by the Union Ministry of Power and States, reduction in gap between average cost of supply and average revenue realised to zero by 2018-19.

2.8.2 Scheme for financial turnaround

The participating States were required to take over 75 per cent of DISCOMs debt outstanding as on 30 September 2015 i.e., 50 per cent in 2015-16 and 25 per cent in 2016-17. The scheme for financial turnaround *inter alia* provided that:

- State will issue 'Non-Statutory Liquidity Ratio (Non-SLR) bonds' and the proceeds realised from issue of such bonds shall be transferred to the DISCOMs which in turn shall discharge the corresponding amount of Banks/ FIs debt. The bonds so issued will have a maturity period of 10 to 15 years with a moratorium on repayment of principal up to 5 years.
- Debt of DISCOMs will be taken over in the priority of debt already due, followed by debt with higher cost.
- The transfer to the DISCOMs by the State in 2015-16 and 2016-17 will be as a mix of grant (50 per cent), loan (25 per cent to be taken over in 2017-18) or equity (25 per cent).

2.8.3 Implementation of the UDAY Scheme

The status of implementation of UDAY Scheme is detailed below:

(a) Achievement of operational parameters

Achievements *vis-à-vis* targets of various operational parameters under UDAY Scheme by the two State DISCOMs are given in **Table 2.14**.

Table 2.14: Parameter-wise achievements *vis-à-vis* targets of operational performance as of 30 September 2019

Parameter of UDAY Scheme	Target	Progress	Achievement (in %)
Feeder metering (in Nos.)	0	0	0
Metering at Distribution Transformers (in Nos.)	2,44,330	3,35,070	137
Urban	52,682	92,960	176
Rural	1,91,648	2,42,110	126
Feeder Segregation (in Nos.)	4,139	330	8
Rural Feeder Audit (in Nos.)	6,247	3,595	58
Electricity to unconnected households (in lakh Nos.)	6.05	10.99	182
Smart metering (in Nos.)	12,59,697	34,230	3
Distribution of LED UJALA (in lakh Nos.)	12.43	17.72	143
AT&C Losses (in %)	2.66	10.2	-
TSSPDCL	9.90	9.35	-
TSNPDCL	10.00	11.9	-
ACS-ARR Gap (₹ per unit)	0	0.32	-
Net Income or Profit/Loss including subsidy (₹ in crore) as on 31 March 2019	412.77	(-) 991.91	-

Source: State Health Card under UDAY Scheme as per website of MoP, GoI.

The TSDISCOMs have performed poorly in areas of feeder segregation and smart metering, whereas the performance has been excellent in terms of metering of DTs, providing electricity to unconnected households and distribution of LEDs.

2.8.4 Implementation of Financial Turnaround

The State Government conveyed its 'in principle' consent to the MoP, GoI to take benefit of the UDAY Scheme. Thereafter, tripartite Memoranda of Understanding (MoUs) was signed (4 January 2017) between the MoP, the State Government and respective DISCOMs (i.e., TSSPDCL and TSNPDCL). As per the provisions of the UDAY Scheme and tripartite MoU, out of total outstanding debt (₹11,897.24 crore) as on 30 September 2015, the State Government took over total debt of ₹8,923.00 crore up to 2018-19 and released ₹7,723.00 crore (as on 31 March 2019) as equity contribution for which equity shares were issued. The balance of ₹1,200.00 crore was yet to be released by the State Government. The details of the amount released under UDAY are as detailed in **Table 2.15**.

Table 2.15: Implementation of UDAY Scheme

(₹ in crore)				
Year	Equity Investment	Loan	Subsidy	Total
2016-17	6,990.00	-	-	6,990.00
2017-18	733.00	-	-	733.00
2018-19	0.00	-	-	0.00
Position as on 30 September 2019	7,723.00	-	-	7,723.00

Source: Information furnished by DISCOMs

2.9 Comments on Accounts of Power Sector PSUs

Eight Power Sector PSUs forwarded 13 audited accounts to Office of the AG (Audit), Telangana during 1 October 2018 to 30 September 2019. All the 13 accounts were selected for supplementary audit. Audit Reports of Statutory Auditors and supplementary audit conducted by the CAG indicated that the quality of accounts needs to be improved substantially. The details of aggregate money value of the comments of Statutory Auditors and the CAG on the accounts for the year 2014-15 to 2018-19 are as follows:

Table 2.16: Impact of audit comments on Power Sector PSUs

Particulars	2014-15		2015-16		2016-17		2017-18		2018-19	
	No. of Accounts	Amount	No. of Accounts	Amount	No. of Accounts	Amount	No. of Accounts	Amount	No. of Accounts	Amount
Decrease in profit	1	12.24	1	266.06	1	826.62	-	-	2	970.11
Increase in profit	1	95.95	-	-	-	-	1	139.26	1	14.65
Increase in loss	-	-	2	479.78	1	5.65	1	9.68	7	16,904.26
Decrease in loss	-	-	-	-	-	-	-	-	4	77.27
Non-disclosure of material facts	-	-	4	3,269.38	1	6.07	1	2,543.88	5	1,718.88
Errors of classification	-	-	4	1,424.78	1	1,246.26	1	295.55	4	127.19

Source: Compiled from comments of the Statutory Auditors/CAG in respect of working Power Sector PSUs

During the year 2018-19, the Statutory Auditors had issued six qualified, five unqualified and two adverse certificates on 13 accounts. Compliance to the Accounting Standards by the Power Sector PSUs remained poor, as the Statutory Auditors pointed out 18 instances of non-compliance to the Accounting Standards in five accounts.