

# Chapter IV

---

## **Functioning of Power Sector PSUs**

---



## Chapter IV – Functioning of Power Sector PSUs

### 4.1 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 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 Andhra Pradesh for the five-year period ending March 2019.

**Table 4.1: Turnover of Power Sector PSUs vis-à-vis GSDP of Andhra Pradesh**

Particulars	₹ in crore)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Turnover	29,655	32,457	47,174	37,795	42,801
Percentage change of turnover compared to previous year	--*	9.45	45.35	(-) 19.68	13.25
GSDP of Andhra Pradesh for the year	5,24,976	6,04,229	6,97,508	8,09,547	9,33,402
Percentage change of GSDP compared to previous year	--*	15.10	15.44	16.06	15.30
Percentage of Turnover to GSDP	5.65	5.37	6.76	4.67	4.59

*Source: GSDP figures are as per Economic Survey Review 2018-19 of GoAP and turnover as per Accounts of Power Sector PSUs*

\* Residual AP was formed with effect from 2 June 2014

The percentage of turnover of Power Sector PSUs relative to GSDP hovered between 4.59 per cent and 6.76 per cent during the five-year period 2014-19. The compounded average annual growth rate (CAGR) of GSDP of AP was 15.47<sup>161</sup> per cent while the turnover of Power Sector PSUs recorded lower CAGR of 9.61<sup>162</sup> per cent during the same period.

#### 4.1.1 Unbundling of APSEB

State Government enacted (January 2000) the Andhra Pradesh Electricity Reform Act, 1998 (APER 1999) which *inter alia*, provided for reorganisation of electricity industry and preparation of a scheme for transferring the powers, duties and functions of Andhra Pradesh State Electricity Board (APSEB) to one or more Power Sector PSUs of the State Government. The State Government accordingly formulated (19 July 2000) the Andhra Pradesh Power Sector Reforms Transfer Scheme 2000 (APPSRT Scheme 2000) for unbundling of APSEB and transfer of assets, properties, liabilities, obligations, proceedings and personnel of APSEB in the first transfer scheme to two Power Sector PSUs *viz.*, Andhra Pradesh Power Generation Corporation Limited (APGENCO) and Transmission Corporation of Andhra Pradesh Limited (APTRANSCO). These two Power Sector PSUs

<sup>161</sup> CAGR = [(Value of 2018-19/Value of 2014-15)<sup>1/4 years</sup> - 1]\*100 = [(₹9,33,402/ ₹ 5,24,976)<sup>1/4 years</sup> - 1]\*100

<sup>162</sup> CAGR of Turnover = {(₹ 42,800.97/₹ 29,654.56)<sup>1/4</sup> - 1}\*100

came into existence on 28 December 1998 and all the assets and liabilities of APSEB (including equity of ₹2,647.40 crore<sup>163</sup>) were distributed to these two Undertakings according to the provisions of the APPSRT Scheme, 2000.

In the second transfer scheme, the assets and liabilities of APTRANSCO were distributed between APTRANSCO and four Power Distribution Companies (DISCOMs) viz., Eastern Power Distribution Company of Andhra Pradesh Limited (APEPDCL) and Southern Power Distribution Company of Andhra Pradesh Limited (APSPDCL), Central Power Distribution Company of Andhra Pradesh Limited (APCPDCL) and Northern Power Distribution Company of Andhra Pradesh Limited (APNPDCL). These four Power Sector PSUs came into existence with effect from 30 March 2000.

#### **4.1.2 Formation of Power Sector PSUs**

Apart from formation of above mentioned Power Sector PSUs upon unbundling of APSEB, the State Government had also incorporated (between 1969 and 2016) four other Power Sector PSUs i.e., New and Renewable Energy Development Corporation of Andhra Pradesh Limited (NREDCAP), Andhra Pradesh Tribal Power Corporation Limited (APTRIPCO), Andhra Pradesh State Energy Efficiency Development Corporation Limited (APSEEDCO) and Energy University of Andhra Pradesh (EUAP) by infusing a total equity of ₹0.42 crore as at the end of March 2019. Besides, one more Power Sector PSU viz., Andhra Pradesh Power Development Company Limited (APPDCL) was incorporated (3 January 2006) as a subsidiary company of APGENCO.

#### **4.1.3 Reorganisation of State**

Consequent upon bifurcation of erstwhile composite AP State on 2 June 2014, APGENCO and APTRANSCO were demerged. Further, two out of four DISCOMs viz., APEPDCL and APSPDCL remained with residual AP State and other two DISCOMs viz., APCPDCL and APNPDCL were exclusively allocated to Telangana State as per the provisions of AP Reorganisation Act, 2014. Thus, there were nine<sup>164</sup> Power Sector PSUs in the State as on 31 March 2019.

### **4.2 Restructuring, Disinvestment and Privatisation of Power Sector PSUs**

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

### **4.3 Investment in Power Sector PSUs**

The Power Sector PSUs can be classified into four categories, activity-wise, namely, Generation, Transmission, Distribution and Others. The activity-wise investment of Central and State Government and Others (Capital and long term loans) in the Power Sector PSUs as on 31 March 2019 is detailed in **Table 4.2**.

<sup>163</sup> Andhra Pradesh Power Generation Corporation Limited (₹ 2,106.80 crore) and Transmission Corporation of Andhra Pradesh Limited (₹540.60 crore)

<sup>164</sup> APPDCL, NREDCAP, APGENCO, APTRANSCO, APEPDCL, APSPDCL, APSEEDCO, APTPCL and EUAP

Table 4.2: Activity-wise total investment in Power Sector PSUs

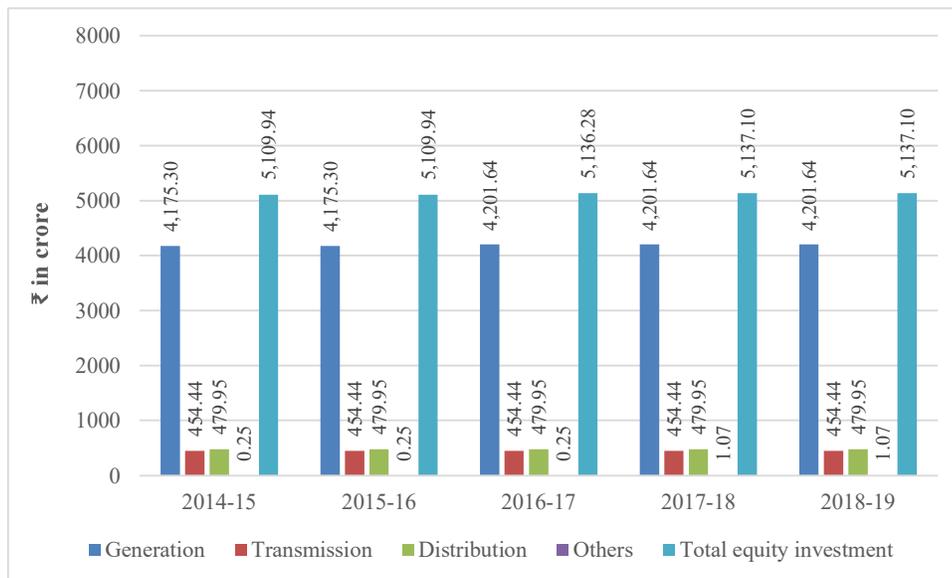
(₹ in crore)				
Activity	Number of Power Sector PSUs	Equity	Long term loans	Total
Generation of Power <sup>165</sup>	3	4,201.64	30,906.34	35,107.98
Transmission of Power <sup>166</sup>	1	454.44	5,342.99	5,797.43
Distribution of Power <sup>167</sup>	2	479.95	11,784.54	12,264.49
Other <sup>168</sup>	2	1.07	4.63	5.70
<b>Total</b>	<b>8</b>	<b>5,137.10</b>	<b>48,038.50</b>	<b>53,175.60</b>

Source: Annual Accounts of Power Sector PSUs

As on 31 March 2019, the total equity investment in Power Sector PSUs was ₹5,137.10 crore. Of this, the equity investment of the State Government was ₹3,141.56 crore. The long-term loans of Power Sector PSUs were ₹48,038.50 crore. The long-term loans advanced by the State Government constituted 2.56 per cent (₹1,229.33 crore), whereas long-term loans availed from other financial institutions constituted 97.44 per cent (₹46,809.17 crore) of the total long term loans (₹48,038.50 crore).

The year-wise details of investment made by the State Government in the form of equity in the Power Sector PSUs during the five-year period 2014-19 are given in the **Chart 4.1**.

Chart 4.1: Activity-wise investment in Power Sector PSUs



<sup>165</sup> Andhra Pradesh Power Generation Corporation Limited, Andhra Pradesh Power Development Company Limited and New and Renewable Energy Development Corporation of Andhra Pradesh Limited

<sup>166</sup> Transmission Corporation of Andhra Pradesh Limited

<sup>167</sup> Eastern Power Distribution Company of Andhra Pradesh Limited and Southern Power Distribution Company of Andhra Pradesh Limited

<sup>168</sup> Andhra Pradesh Tribal Power Company Limited, Andhra Pradesh State Energy Efficiency Development Corporation Limited and Energy University of Andhra Pradesh

#### 4.4 Budgetary support to Power Sector PSUs

State Government provides financial support to Power Sector PSUs in various forms through the annual budget. The summarised details of budgetary outgo towards equity, loans, grants/subsidy, loans written off and loans converted into equity in respect of Power Sector PSUs for the last three years ended 31 March 2019 are given in **Table 4.3**.

**Table 4.3: Details of budgetary support to Power Sector PSUs**

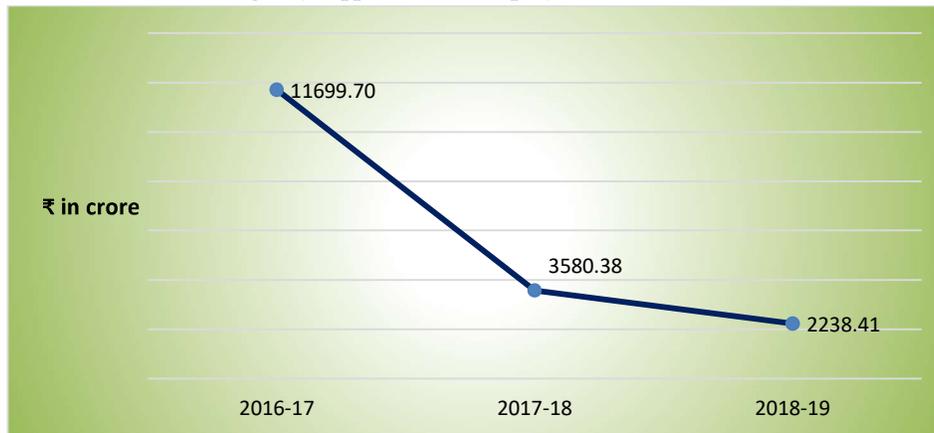
(₹ in crore)

Particulars <sup>169</sup>	2016-17		2017-18		2018-19	
	No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
(i) Equity Capital	0	0	0	0	0	0
(ii) Loans given	0	0	3	463.15	1	119.46
(iii) Grants/Subsidy	5	11,699.70	6	3,117.23	3	2,118.95
<b>Total Outgo (i+ii+iii)</b>	<b>5</b>	<b>11,699.70</b>	<b>7</b>	<b>3,580.38</b>	<b>4</b>	<b>2,238.41</b>
Loan repayment written off	0	0	0	0	0	0
Loans converted into equity	0	0	0	0	0	0
Guarantees issued <sup>170</sup>	0	0	0	0	1	50.60
Guarantee Commitment <sup>171</sup>	3	2,126.30	3	1,723.46	3	1,679.10

Source: Information furnished by Power Sector PSUs

The extent of budgetary support provided by the State Government towards equity, loans and grants/subsidy for the last three years ended 31 March 2019 are given in **Chart 4.2**.

**Chart 4.2: Budgetary support towards Equity, Loans and Grants/Subsidies**



As can be seen from the Table above, budgetary assistance received by the Power Sector PSUs decreased from ₹11,699.70 crore in 2016-17 to ₹2,238.41 crore during 2018-19. During the year 2018-19, it comprised of ₹119.46 crore in the form of loan and ₹2,118.95 crore in the form of grants/subsidy.

Further, the Union Ministry of Power (MoP) launched UDAY Scheme in November 2015 for operational and financial turnaround of State DISCOMs. The provisions of UDAY and status of implementation of the scheme by two DISCOMs are detailed in **Paragraph 4.8** of

<sup>169</sup> amount represents outgo from State Budget only

<sup>170</sup> Government guarantee issued to the PSUs during the year

<sup>171</sup> Guarantee Commitment is the balance of the loans remaining to be repaid by the PSUs for which the State Government has given guarantee

this Chapter. Out of outstanding loans of ₹8,892.46 crore to be taken over by GoAP, ₹8,256.01 crore was taken over during 2016-17 under UDAY scheme and grants to that extent were given to the DISCOMs by GoAP. On account of this, the grants received in 2016-17 were comparatively more than the subsequent two years.

#### 4.4.1 Guarantee fee

State Government helps the Power Sector PSUs to raise loans from banks and Public Financial Institutions by giving guarantees 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 without any exception. The outstanding guarantee commitments given for the Power Sector PSUs decreased by 18.95 *per cent* from ₹1,723.46 crore in 2017-18 to ₹1,679.10 crore in 2018-19. The Guarantee register for the year 2018-19 has not been furnished by the State Government. Hence, the amount of guarantee fee paid/payable by the Power Sector PSUs could not be ascertained.

### 4.5 Reconciliation with Finance Accounts

The figures in respect of equity, loans and guarantees outstanding as per records of 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 of differences in equity, loans and guarantees as on 31 March 2019 is given in **Table 4.4**. Details are given in **Appendix-4.1**.

**Table 4.4 - 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 with difference	Amount as per Finance Accounts	Amount as per records of PSUs	Difference
(A)	(B)	(C)	(D)	(E)=(C-D)
Equity	4	2,262.39	934.39	1,328.40
Loans	3	1,854.00	1,229.33	624.67
Guarantees	2	1,659.08	1,673.90	14.82

*Source: Finance Accounts of AP and information furnished by PSUs*

It was observed that the differences in the figures of equity, loans and guarantees were pending for reconciliation since long. The matter was taken up (July 2020) with the Power Sector PSUs 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.

### 4.6 Submission of Accounts by Power Sector PSUs

#### 4.6.1 Timeliness in finalisation of Accounts of Power Sector PSUs

Section 96 (1) read with Section 129 (2) of the Companies Act, 2013 requires that 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 Act. The following Table provides details of progress made by Power Sector PSUs in finalisation of their accounts on 30 September 2019.

**Table 4.5 : Position relating to submission of accounts of Power Sector PSUs**

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Number of Power Sector PSUs	7	7	7	8	9
Number of Accounts submitted during current year	2	6	9	8	6
Number of PSUs whose accounts are current	1	3	4	5	2
Number of previous years' accounts finalised during current year	1	3	5	3	4
Number of PSUs with accounts in arrears	6	4	3	3	7
Number of accounts in arrears	6	7	13	8	12
Extent of arrears	1 year	1 to 2 years	1 to 9 years	1 to 4 years	1 to 3 years

Source: Annual Accounts of Power Sector PSUs received as on 30 September 2019 of the relevant years

As on 31 March 2019, out of nine Power Sector PSUs under the audit purview of CAG, only two Power Sector PSUs<sup>172</sup> furnished their accounts for the year 2018-19 by 30 September 2019 as per statutory requirement. However, four Power Sector PSUs have submitted annual accounts for the year 2018-19 by August 2020. During 2018-19, the State Government gave budgetary support to four Power sector PSUs<sup>173</sup>, whose accounts are in arrears.

Energy Department of the GoAP 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. The arrears of accounts continue to exist though the PSUs concerned were being informed regularly.

#### **4.6.2 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.

<sup>172</sup> Andhra Pradesh Power Development Company Limited and Andhra Pradesh State Energy Efficiency Development Corporation Limited

<sup>173</sup> APTRANSCO (Loan: ₹119.46 crore), APTRIPCO (Grants: ₹2.38 crore), APEPDCL (Subsidy: ₹1,093.17 crore) and APSPDCL (Subsidy: ₹1,023.40 crore)

## 4.7 Performance of Power Sector PSUs

Financial position and working results of these eight<sup>174</sup> Power Sector PSUs as on 31 March 2019 as per their latest finalised accounts are detailed in *Appendix-4.2* as the financial statements of one PSU<sup>175</sup> were in arrears for three years since its incorporation.

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.

### 4.7.1 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 losses incurred by the Power Sector PSUs during 2014-15 to 2018-19 are depicted in **Chart 4.3**.

*Chart 4.3 : Losses incurred by Power Sector PSUs during 2014-19*



The total losses incurred by the eight Power Sector PSUs as per their last annual accounts was ₹12,841.88 crore in 2018-19 as against the loss of ₹2,124.27 crore incurred in 2014-15.

<sup>174</sup> Accounts of one PSU are in arrears since the incorporation of the PSU

<sup>175</sup> Accounts of Energy University of Andhra Pradesh are in arrears since inception from 2016-17 to 2018-19

Out of the eight Power Sector PSUs, two PSUs (APTRANSCO and New and Renewable Energy Development Corporation of Andhra Pradesh Limited) earned profit of ₹69.68 crore, six PSUs<sup>176</sup> had incurred loss of ₹12,911.56 crore. During 2018-19, APTRANSCO was the highest profitmaking unit (₹69.61 crore) while APSPDCL (₹7,680.87 crore) incurred the highest loss. The substantial losses reported by the DISCOMs were attributable to increased power purchase cost.

#### 4.7.1.1 Rate of Real Return on the basis of historical cost of investment

The Rate of Real Return on investment in the Power Sector PSUs has been calculated on the investment made by GoAP, GoI and others in these PSUs in the form of equity minus disinvestments. Loans are not considered as investment for calculation of Rate of Real Return as they are liable to be repaid as per terms and conditions of repayment. As on 31 March 2019, the equity investment of GoAP, GoI and Others in the Power Sector PSUs was ₹5,137.10 crore.

The Rate of Real Return on Investment on historical cost basis for the period 2014-15 to 2018-19 is given in **Table 4.6**.

**Table 4.6 : Rate of Real Return on Investment on historical cost basis**

(₹ in crore)

Financial year	Total Earnings/ Losses <sup>177</sup> for the year	Investment on historic cost basis in the form of Equity			Rate of Real RoI (in per cent)
		State	Central Government and Others	Total	
2014-15	(-) 2,124.27	3,141.54	1,968.40	5,109.94	(-) 41.57
2015-16	(-) 3,891.52	3,141.54	1,968.40	5,109.94	(-) 76.16
2016-17	(-) 1,613.88	3,141.54	1,994.74	5,136.28	(-) 31.42
2017-18	(-) 3.99	3,141.56	1,995.54	5,137.10	(-) 0.08
2018-19	(-) 12,841.88	3,141.56	1,995.54	5,137.10	(-) 249.98

During the years 2014-15 to 2018-19, the Rate of Real Return on investment of the Power Sector PSUs was negative and ranged between (-) 0.08 per cent and (-) 249.98 per cent. Huge losses incurred by two DISCOMs (APSPDCL and APEPDCL) during the above period contributed to the overall losses of the Power Sector PSUs, even after the Government took over their debt under UDAY scheme and reducing the interest burden.

#### 4.7.1.2 Rate of Real Return on the basis of Present Value of Investment

In view of the significant investment by the Government 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

<sup>176</sup> APGENCO (₹135.25 crore), Andhra Pradesh Power Development Company Limited (₹840.82 crore), APSPDCL (₹7,680.87 crore), APEPDCL (₹4,252.98 crore), Andhra Pradesh State Energy Efficiency Development Corporation Limited ((-)₹0.01 crore) and Andhra Pradesh Tribal Power Company Limited (₹1.63 crore)

<sup>177</sup> as per Annual Accounts of the respective years

of Real Return on the investment since such calculations ignore the present value of money. The present value of the investments has been computed to assess the Rate of Real Return on the present value of investments in the State 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 these 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, Present value (PV) of the investment was computed where funds had been infused by the State Government, Central Government and others in the shape of equity since inception of these companies till 31 March 2019.

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

- The equity infused minus disinvestment has been reckoned as investment for calculating the Rate of Real Return on Investments.
- The average rate of interest on Government borrowings for the concerned financial year<sup>178</sup> was adopted as compounded rate for arriving at Present Value, since they represent the cost incurred towards investment of funds for the year and, therefore, considered as the minimum expected Rate of Real Return on Investments.

**Table 4.7: Rate of Real Return on Investment on Present Value basis**

(₹ in crore and RoI in per cent)

Financial year	PV of the total investment at the beginning of the year	Investment by GoAP in the form of Equity	Investment by GoI & Others in the form of Equity	Investment during the year	Total Investment in the form of Equity	Average Rate of Interest (percent age)	PV of the total investment at the end of the year	Minimum Expected Return	Total Earnings / Losses for the Year	Rate of Real RoI on Historical basis	Rate of Real RoI considering PV of the investment
2014-15	-	3,141.54	1,968.40	0.00	5,109.94	5.91	5,411.94	319.85	(-) 2,124.27	(-) 41.57	(-) 39.25
2015-16	5,411.94	3,141.54	1,968.40	0.00	5,109.94	6.11	5,742.61	350.87	(-) 3,891.52	(-) 76.16	(-) 67.77
2016-17	5,742.61	3,141.54	1,994.74	26.34	5,136.28	6.31	6,132.97	386.99	(-) 1,613.88	(-) 31.42	(-) 26.31
2017-18	6,132.97	3,141.56	1,995.54	0.82	5,137.10	6.52	6,533.71	426.00	(-) 3.99	(-) 0.08	(-) 0.06
2018-19	6,533.71	3,141.56	1,995.54	0.00	5,137.10	6.37	6,949.91	442.71	(-)12,841.88	(-) 249.98	(-) 184.78

During the period 2014-15 to 2018-19, the Power Sector PSUs had a negative Rate of Real Return on Investment on the basis of PV as the PSUs had reported overall losses.

#### 4.7.2 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 completely due to accumulated losses. The overall

<sup>178</sup> the average rate of interest on Government borrowings was adopted from the Reports of the CAG of India on State Finances (Government of Andhra Pradesh) for the concerned year wherein the average rate for interest paid = Interest Payment / [(Amount of previous year's Fiscal Liabilities + Current year's Fiscal Liabilities)/2]\*100

accumulated losses of the five Power Sector PSUs during 2018-19 was ₹30,288.40 crore as against the capital investment of ₹5,137.10 crore resulting in negative net worth of ₹21,075.32 crore (*Appendix-4.2*). Details of paid up capital, accumulated Surplus/Losses and net worth of the Power Sector PSUs during the period 2014-15 to 2018-19 are given in **Table 4.8**.

**Table 4.8 : Net worth of Power Sector PSUs during 2014-15 to 2018-19**

(₹ in crore)

Year	No. of Power Sector PSUs	Paid up Capital at end of the year	Free Reserves	Accumulated Surplus	Accumulated Losses (-)	Net worth
(1)	(2)	(3)	(4)	(5)	(6)	(7)=(3+4+5-6)
2014-15	7	5,109.94	372.13	1,625.88	(-) 9,030.25	(-) 1,922.30
2015-16	7	5,109.94	377.73	1,935.59	(-) 11,049.28	(-) 3,626.02
2016-17	7	5,136.28	79.68	3,213.15	(-) 17,120.44	(-) 8,691.33
2017-18	8	5,137.10	1,715.54	2,902.11	(-) 17,472.88	(-) 7,718.13
2018-19	8	5,137.10	405.76	3,670.22	(-) 30,288.40	(-) 21,075.32

Source: Annual Accounts of the Power Sector PSUs

The total equity investment was ₹5,137.10 crore in the Power Sector PSUs. However, due to huge accumulated losses of these PSUs, the entire capital infused in these PSUs had been eroded.

During 2018-19, net worth of three Power Sector PSUs, viz., APEPDCL (₹7,420.76 crore), APSPDCL (₹20,814.29 crore) and APTRIPCO (₹7.96 crore) was negative. Though the other five PSUs had a positive net worth, the negative net worth of the two DISCOMs contributed to the overall negative net worth of the Power Sector PSUs.

### 4.7.3 Dividend Pay-out

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.

During the period 2014-15 to 2018-19, the number of profitmaking Power Sector PSUs, in which equity is infused by GoAP ranged between two and four. None of these PSUs, however, declared/paid dividend to GoAP.

### 4.7.4 Return on Equity

Return on Equity (RoE) is a measure of financial performance to assess how effectively management is using company's assets to create profits and 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.

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 paid. A positive Shareholders' fund reveals that the company has enough assets to cover its liabilities while negative Shareholders' fund 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 4.9**.

**Table 4.9: Shareholders' fund and RoE of Power Sector PSUs**

	Year	Number of PSUs	Net Profit/Loss	Shareholders' fund	RoE (per cent)
	(1)	(2)	(3)	(4)	(5) = (3)/(4)*100
Amount (₹ in crore)					
<b>Profit Earning</b>	2014-15	4	277.09	6,627.75	4.18
	2015-16	3	298.51	4,874.78	6.12
	2016-17	3	730.96	5,854.29	12.49
	2017-18	4	431.74	4,052.17	10.65
	2018-19	2	69.68	1,962.88	3.55
<b>Loss incurring</b>	2014-15	3	(-) 2,401.36	(-) 8,550.05	-
	2015-16	4	(-) 4,190.03	(-) 8,500.80	-
	2016-17	4	(-) 2,344.84	(-) 14,545.62	-
	2017-18	4	(-) 435.73	(-) 11,770.30	-
	2018-19	6	(-) 12,911.56	(-) 23,038.20	-
<b>Total</b>	2014-15	7	(-) 2,124.27	(-) 1,922.30	-
	2015-16	7	(-) 3,891.52	(-) 3,626.02	-
	2016-17	7	(-) 1,613.88	(-) 8,691.33	-
	2017-18	8	(-) 3.99	(-) 7,718.13	-
	2018-19	8	(-) 12,841.88	(-) 21,075.32	-

Source: Annual Accounts of the Power Sector PSUs

During 2018-19, six out of eight Power Sector PSUs had incurred losses. Since the overall net income and the overall Shareholders' fund of these six PSUs was negative during 2018-19, their RoE could not be worked out. The negative Shareholders' fund indicates that the public money invested in these PSUs had eroded completely.

#### 4.7.5 Return on Capital Employed

Return on Capital Employed (RoCE) is a ratio that measures a company's profitability and efficiency with which the total capital is employed by a company. RoCE is calculated by dividing a company's earnings before interest and taxes (EBIT) by the capital employed<sup>179</sup>. The details of RoCE of the Power Sector PSUs during the period from 2014-15 to 2018-19 are given in **Table 4.10**.

<sup>179</sup> Capital employed=Paid up share capital + free reserves and surplus + long term loans - accumulated losses - deferred revenue expenditure

**Table 4.10 : RoCE in respect of Power Sector PSUs**

	Year	No. of Power Sector PSUs	EBIT	Capital employed	RoCE (per cent)
(1)	(2)	(3)	(4)	(5)	(6) = (4)/(5)*100
			Amount ( ₹ in crore)		
<b>Profit Earning</b>	2014-15	4	1,291.45	22,453.95	5.75
	2015-16	3	1,673.31	15,178.45	11.02
	2016-17	3	3,425.16	28,176.71	12.16
	2017-18	4	2,601.83	22,609.25	11.51
	2018-19	2	442.08	7,305.87	6.05
<b>Loss incurring</b>	2014-15	3	(-) 1,800.46	4,133.84	(-) 43.55
	2015-16	4	(-) 1,693.10	12,615.33	(-) 13.42
	2016-17	4	53.11	7,569.24	0.70
	2017-18	4	1,895.03	12,275.38	15.44
	2018-19	6	(-) 9,125.21	19,657.31	(-) 46.42
<b>Total</b>	2014-15	7	(-) 509.01	26,587.79	(-) 1.91
	2015-16	7	(-) 19.79	27,793.78	(-) 0.07
	2016-17	7	3,478.27	35,745.95	9.73
	2017-18	8	4,496.86	34,884.63	12.89
	2018-19	8	(-) 8,683.13	26,963.18	(-) 32.20

Source: Annual Accounts of Power Sector PSUs

During 2018-19, RoCE was negative since six of the eight Power Sector PSUs had incurred losses. Further, the overall EBIT of all the Power Sector PSUs was negative for the year 2014-15 and 2015-16. One of the factors for the positive RoCE during 2016-17 and 2017-18 was attributable to the Government's taking over of the debts of DISCOMs under UDAY scheme (₹8,256.01 crore in 2016-17) reducing the interest burden.

#### 4.7.6 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 Government, banks and other financial institutions is assessed through the Interest Coverage Ratio (ICR) and Debt-Turnover Ratio (DTR).

##### 4.7.6.1 Interest Coverage Ratio

Interest Coverage Ratio (ICR) is used to determine the ability of a company to pay interest on outstanding debt and is calculated by dividing a company's EBIT by 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 is not generating sufficient revenues to meet its interest payment obligations. Details of ICR in those Power Sector PSUs, which had interest burden during the period 2014-15 to 2018-19 are given in **Table 4.11**.

**Table 4.11: Details of ICR of Power Sector PSUs**

Year	Interest (₹ in crore)	EBIT (₹ in crore)	Number of PSUs having interest burden	No. of PSUs having ICR more than 1	No. of PSUs having ICR less than 1
2014-15	1,740.21	(-) 534.53	5	2	3
2015-16	3,574.17	(-) 19.68	5	2	3
2016-17	5,135.43	3,437.64	5	2	3
2017-18	4,146.68	4,456.28	5	3	2
2018-19	4,600.75	(-) 8,682.29	5	1	4

Source: Annual Accounts of Power Sector PSUs

It was observed that four out of five Power Sector PSUs could not generate sufficient revenues even to meet their interest liabilities during 2018-19.

#### 4.7.6.2 Debt-Turnover Ratio

During the last five years, the turnover of Power Sector PSUs recorded a compounded annual growth rate (CAGR) of 9.61 *per cent* and CAGR of debt was 13.93 *per cent*, due to which, the Debt-Turnover Ratio increased from 0.96 in 2014-15 to 1.12 in 2018-19 as given in **Table 4.12**.

**Table 4.12: Debt Turnover Ratio relating to Power Sector PSUs**

Particulars	(₹ in crore)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Debt from Government / Banks and / or Financial Institutions	28,510.09	31,419.80	44,437.28	42,602.76	48,038.50
Turnover	29,654.56	32,456.76	47,174.42	37,794.80	42,800.97
Debt-Turnover Ratio	0.96:1	0.97:1	0.94:1	1.13:1	1.12:1

Source: Annual Accounts of the Power Sector PSUs

## 4.8 Assistance under Ujwal DISCOM Assurance Yojana

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

### 4.8.1 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 GIS mapping of losses, upgrading or changing transformers and meters, smart metering of all consumers consuming above 200 units per month, Demand Side Management (DSM) through energy efficient equipment, quarterly revision of tariff, comprehensive International Electrotechnical Commission (IEC) campaign to check theft of power, assure increased power supply in areas where the 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 losses to 5.44 per cent (APEPDCL) and 10.89 per cent (APSPDCL) in 2018-19 as per loss reduction trajectory finalised by the MoP and States and reduction in gap between average cost of supply and average revenue realised to zero by 2018-19.

#### 4.8.2 Scheme for financial turnaround

The participating States were required to take over 75 per cent of DISCOMs debt by 30 September 2018, 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 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 10-15 years with a moratorium on repayment of principal up to five years.
- Debt of DISCOM will be taken over in the priority of debt already due, followed by debt with higher cost.
- The transfer to the DISCOM by the State in 2016-17 will be as a grant to DISCOMs.

#### 4.8.3 Implementation of the UDAY Scheme

The status of implementation of the UDAY Scheme is detailed below;

##### A. Achievement of operational parameters

The achievements *vis-à-vis* targets under UDAY Scheme regarding different operational parameters relating to the two State DISCOMs as of 31 March 2019 were as under;

Parameter of UDAY Scheme	Target under UDAY Scheme	Progress under UDAY Scheme	Achievement (per cent)	Position as on
Feeder metering (in Nos.)	11,728	11,728	100.00	March 2019
Metering at Distribution Transformers (in Nos.)				
Urban	26,341	31,098	118.06	
Rural	4,66,657	95,293	20.42	December 2018
Feeder Segregation (in Nos.)	5,559	5,878	105.74	March 2019
Rural Feeder Audit (in Nos.)				
APEPDCL	1,683	1,683	100.00	
APSPDCL	5,978	6,784	113.48	March 2019
Electricity to unconnected households (in lakh Nos.)	5.37	5.81	108.19	March 2019
Smart metering (in Nos.)	10,58,043	2,583	0.24	March 2019
Distribution of LED UJALA (in lakh Nos.)				
APEPDCL	74.73	75.41	100.91	
APSPDCL	109.20	126.27	115.63	March 2019
AT&C Losses (in per cent) for 2018-19				
APEPDCL	5.44	18.31	---	
APSPDCL	10.89	11.30	---	February 2019
ACS-ARR Gap (₹ per unit) for 2018-19				
APEPDCL	0.02	2.61	---	March 2019
APSPDCL	0.03	0.29	---	December 2018
Net Income or Profit/(-)Loss including subsidy (₹ in crore) for 2018-19				
APEPDCL	34.15	(-) 4,252.98	---	
APSPDCL	123.79	(-) 7,680.87	---	2018-19

Source: Information furnished by the PSUs

The State has performed poorly in metering at DTs in rural areas and smart metering, whereas the performance has been good in terms of feeder metering, feeder segregation, metering at DTs in urban areas, electricity to unconnected households and distribution of LEDs. Further, the State has not achieved the most important target of reduction of AT&C losses by 2018-19 since APEPDCL has significant AT&C losses. Further, the DISCOMs also could not achieve projected net income during the year 2018-19.

According to the Union Ministry of Power, Andhra Pradesh stood 2<sup>nd</sup> amongst all the States on the basis of overall achievements made by the two State DISCOMs under UDAY Scheme up to September 2020.

## B. Implementation of Financial Turnaround

A tripartite Memorandum of Understanding (MoU) was signed (24 June 2016) among the MoP, the GoAP and Andhra Pradesh DISCOMs. As per provisions of the UDAY Scheme and tripartite MoU, out of total outstanding debt (₹14,720.50 crore) pertaining to DISCOMs as on 30 September 2015, GoAP was to take over ₹8,892.46 crore. Against this, GoAP took over total debt of ₹8,256.01 crore (during 2016-17) by providing grant to that extent as on 31 March 2019.

## 4.9 Comments on Accounts of Power Sector PSUs

Four Power Sector PSUs forwarded six<sup>180</sup> audited annual accounts to the Principal Accountant General during 1 October 2018 to 30 September 2019, of which, five were selected for supplementary audit. The Audit Reports of Statutory Auditors and supplementary audit conducted by the CAG indicated the need for improving the quality of accounts. The details of aggregate money value of the comments of Statutory Auditors and the CAG on the annual accounts of Power Sector PSUs are as follows;

*Table 4.13: Impact of audit comments on Power Sector PSUs*

(₹ in crore)

Particulars	2016-17		2017-18		2018-19	
	No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
Decrease in profit	2	96.55	3	6,751.94	0	0.00
Increase in profit	2	25.10	2	24.41	0	0.00
Increase in loss	3	3,520.47	2	11,492.30	4	2,159.73
Decrease in loss	1	5,261.08	1	26.61	0	0.00
Non-disclosure of material facts	6	1,839.61	4	1,419.22	1	1,127.41
Errors of classification	1	5,257.02	2	150.94	0	0.00

*Source: Comments of the Statutory Auditors/ CAG in respect of Power Sector PSUs*

During the year 2018-19, the Statutory Auditors had issued qualified certificates in respect of annual accounts of NREDCAP (2015-16).

<sup>180</sup> APPDCL (2018-19), APSEEDCO (2018-19), APTRIPCO (2014-15, 2015-16 & 2016-17) and NREDCAP (2015-16)