

PART I

Chapter I

Functioning of Power Sector Undertakings

Introduction

1.1 The Power Sector Undertakings play an important role in the economy of the State. Apart from providing a critical infrastructure required for development of the State's economy, the sector also adds significantly to the GDP of the State. A ratio of Power Sector PSUs' turnover to Gross State Domestic Product (GSDP) shows the extent of activities of PSUs in the State economy. The Table 1.1 below provides the details of turnover of the Power Sector Undertakings and GSDP of Uttar Pradesh for a period of four years ending March 2018¹:

Table 1.1: Details of turnover of Power Sector Undertakings vis-a-vis GSDP of Uttar Pradesh

Particulars	₹ in crore)			
	2014-15	2015-16	2016-17	2017-18
Turnover	40235.18	46976.70	54132.11	52291.64
Percentage change in turnover as compared to turnover of preceding year	-	16.76	15.23	-3.40
GSDP of Uttar Pradesh	1011790	1137210	1250213	1375607
Percentage change in GSDP as compared to GSDP of preceding year	-	12.40	9.94	10.03
Percentage of Turnover to GSDP of Uttar Pradesh	3.98	4.13	4.33	3.80

Source: Compiled based on Turnover figures of power sector PSUs and GSDP figures issued by Ministry of Statistics and Programme Implementation, Government of India.

The turnover of Power Sector Undertakings has increased in the years 2015-16 and 2016-17 but decreased in the year 2017-18 from the turnover of its previous year. The increase/decrease ranged between (-) 3.40 per cent and 16.76 per cent during the period 2015-18, whereas GSDP of Uttar Pradesh has recorded continuous increase during the same period ranging between 9.94 per cent and 12.40 per cent. The compounded annual growth² of GSDP was 10.78 per cent during the last three years. The compounded annual growth is a useful method to measure growth rate over multiple time periods. Against the compounded annual growth of 10.78 per cent of the GSDP, the turnover of Power Sector Undertakings recorded lower compounded annual growth of 9.13 per cent during last three years. This resulted in decrease in share of turnover of these power sector undertakings to the GSDP from 3.98 per cent in the year 2014-15 to 3.80 per cent in the year 2017-18.

¹ As per latest finalised accounts till of 30 September 2018.

² Rate of Compounded Annual Growth $[(\text{Value of 2017-18}/\text{Value of 2014-15})^{(1/3 \text{ years})} - 1] * 100$.

Formation of Power Sector Undertakings

1.2 To make energy sector commercially viable, Government of Uttar Pradesh (GoUP) restructured (January 2000) erstwhile Uttar Pradesh State Electricity Board (UPSEB) and formed Uttar Pradesh Power Corporation Limited (UPPCL) under the Companies Act, 1956 and the distribution business of Kanpur Electricity Supply Authority (KESA) zone was transferred to Kanpur Electricity Supply Company Limited (KESCO), as wholly owned subsidiary company of UPPCL. Thermal and hydro generation functions were vested to the existing PSUs namely, Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited (UPRVUNL) and Uttar Pradesh Jal Vidyut Nigam Limited (UPJVNL). Transmission and distribution functions of UPSEB were transferred to the newly created PSUs namely, UPPCL and KESCO and all the assets and liabilities of UPSEB (including equity of ₹ 5,554.96 crore³ and loan of ₹ 2,709.78 crore) were distributed among these four PSUs. Further in August 2003 the distribution business of UPPCL was transferred to subsidiary companies viz. Madhyanchal Vidyut Vitran Nigam Limited, Lucknow (MVVNL), Paschimanchal Vidyut Vitran Nigam Limited, Meerut (PVVNL), Purvanchal Vidyut Vitran Nigam Limited, Varanasi (PuVVNL) and Dakshinanchal Vidyut Vitran Nigam Limited, Agra (DVVNL) (known as DISCOMs-subsidiaries of UPPCL).

Further, Uttar Pradesh Power Transmission Corporation Limited (UPPTCL) was incorporated in July, 2006. Subsequently, in December, 2010, the GoUP notified the Uttar Pradesh Electricity Reforms (Transfer of Transmission and related activities including the assets, liabilities) Scheme, 2010, for the purpose of transfer of the transmission activities from UPPCL to UPPTCL with effect from April 2007. From this date UPPCL and UPPTCL started working as separate entities for purchase/sale of bulk power and transmission work respectively.

In addition to above, four PSUs namely UPSIDC Power Company Limited, subsidiary of Uttar Pradesh State Industrial Development Corporation (UPSIDC)⁴ (incorporated with effect from 11.04.2000), Sonebhadra Power Generation Company Limited (SPGCL), subsidiary of UPPCL (incorporated with effect from 14.02.2007), Jawaharpur Vidyut Utpadan Nigam Limited (JVUNL), subsidiary of UPRVUNL (incorporated with effect from 04.09.2009), Yamuna Power Generation Company Limited (YPGCL), associate of UPPCL (incorporated with effect from 20.04.2010) were formed for the purpose of generation of power.

Similarly, Southern UP Power Transmission Company Limited (SUPPTCL) (incorporated with effect from 08.08.2013), subsidiary of UPPCL was formed to carry out business of transmission. Besides, one more company namely UCM Coal Company Limited (incorporated with effect from 16.10.2008), joint venture of UPRVUNL was formed for the purpose of extraction of coal and sale of coal to State Power Utilities.

Thus, there were 15 Power Sector Undertakings in the State as on 31 March 2018. Of these 15 Power Sector Undertakings, three PSUs⁵ were

³ Accumulated losses was nil at the time of unbundling of UPSEB.

⁴ A non-power company established for the purpose of industrial development

⁵ Sonebhadra Power Generation Company Limited, Yamuna Power Generation Company Limited, Southern UP Power Transmission Company Limited,

non-functional and three PSUs⁶ did not commence commercial activities till 2017-18⁷.

Disinvestment, restructuring and privatisation of Power Sector Undertakings

1.3 Two PSUs namely Western Uttar Pradesh Power Transmission Company Limited and South East UP Power Transmission Company Limited have been placed under private ownership with effect from 22 September 2011 and 16 December 2011 respectively through share purchase agreements.

Investment in Power Sector Undertakings

1.4 The activity-wise summary of investment in the Power Sector Undertakings as on 31 March 2018 is given in Table 1.2 below:

Table 1.2: Activity-wise investment in Power Sector Undertakings as on 31 March 2018

Activity	Number of Power Sector Undertakings	Investment (₹ in crore)		
		Equity	Long Terms Loans	Total
Generation of Power	6	11232.29	10493.34	21725.63
Transmission of Power	2	12494.47	10764.46	23258.93
Distribution of Power	6 ⁸	82991.57	55225.45	138217.02
Others	1	0.16	1.19	1.35
Total	15	106718.49	76484.44	183202.93

Source: Compiled figures based on Annual Accounts and Government orders.

As on 31 March 2018, the total investment (equity and long term loans) in 15 Power Sector Undertakings was ₹ 1,83,202.93 crore. The investment consisted of 58.25 per cent towards equity and 41.75 per cent in long terms loans.

The long term loans advanced by the State Government constituted 12.88 per cent (₹ 9,848.09 crore) of the total long-term loans whereas 87.12 per cent (₹ 66,636.35 crore) of the total long term loans was availed from other financial institutions. Besides, during the years 2015-16 and 2016-17, the State Government has taken over ₹ 44,403.96 crore⁹ (75 per cent) of the outstanding debts (₹ 59,205.19 crore¹⁰) of the DISCOMs due to banks and financial institutions under Financial Restructuring Plan/Ujwal DISCOM Assurance Yojana (UDAY¹¹) scheme.

⁶ Jawaharpur Vidyut Utpadan Nigam Limited, UCM Coal Company Limited and UPSIDC Power Generation Company Limited.

⁷ As per latest finalised accounts till 30 September 2018.

⁸ Including UPPCL (Holding Company).

⁹ It includes ₹ 39,133.77 crore taken over by State Government in 2015-16 and 2016-17 and ₹ 5,270.19 crore which has already been taken over by State Government under Financial Restructuring Plan (FRP)-2012 during 2015-16.

¹⁰ Total debts of DISCOMs ₹ 59,205.19 crore which includes ₹ 53,935.06 crore outstanding as on 30.09.15 and bond of ₹ 5,270.19 crore already taken over under Financial Restructuring Plan (FRP)-2012 by State Government during 2015-16.

¹¹ Scheme launched by Ministry of Power (MoP), Government of India (GoI) for financial and operational turnaround of DISCOMs.

Budgetary Support to Power Sector Undertakings

1.5 The Government of Uttar Pradesh (GoUP) provides financial support to Power Sector undertakings in various forms through annual budget. The summarised details of budgetary outgo towards equity, loans, grants/subsidies, loans written off and loans converted into equity during the year in respect of Power Sector Undertakings for the last three years ending March 2018 are given in Table 1.3 below:

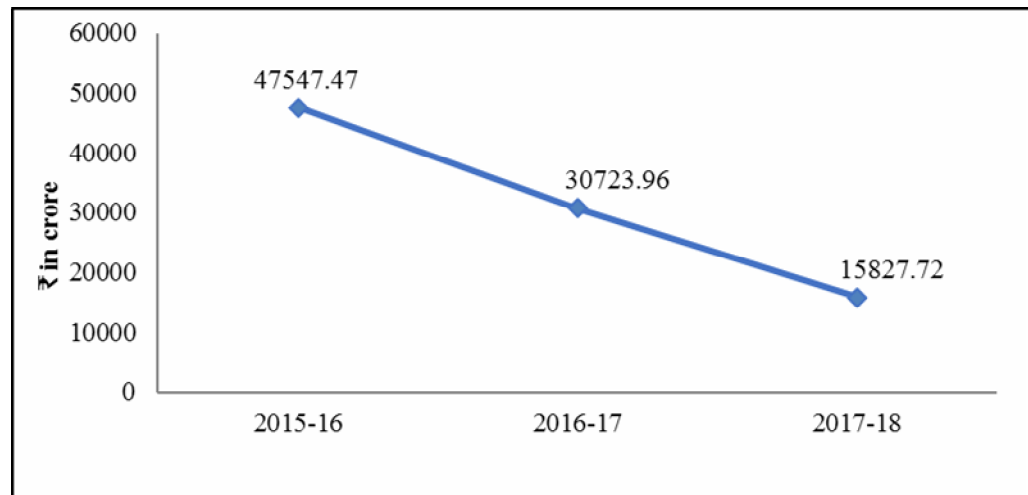
Table 1.3: Details of budgetary support to Power Sector Undertakings during last three years ending March 2018

Particulars ¹²	2015-16		2016-17		2017-18	
	No of PSUs ¹³	Amount (₹ in crore)	No of PSU ¹³	Amount (₹ in crore)	No of PSUs ¹³	Amount (₹ in crore)
Equity Capital outgo (i)	3	19078.43	3	12205.98	4	8234.53
Loans given (ii)	1	6083.12	1	3700.32	-	0.00
Grants/Subsidies provided (iii)	1	22385.92	1	14817.66	2	7593.19
Total Outgo (i+ii+iii)	3¹⁴	47547.47	3¹⁴	30723.96	4¹⁴	15827.72
Loan repayment/ written off	-	-	-	-	-	-
Loans converted into equity	-	-	-	-	-	-
Guarantees Outstanding	3	35216.59	3	52791.17	3	57912.93
Guarantee Commitment	2	22489.05	2	62518.98	2	31488.20

Source: Compiled figures based on Annual Accounts, Government orders and information received from PSUs.

The chart depicting details of budgetary outgo towards equity, loans and grants/subsidies for the last three years ending March 2018 is given in chart 1.1:

Chart 1.1: Budgetary support towards Equity, Loans and Grants/Subsidies



¹² Amount represents outgo from the State Budget only.

¹³ GoUP release equity to the UPPCL and UPRVUNL directly on behalf of their subsidiaries. Therefore, for the purpose of infusion of Government's fund, only holding companies on behalf of their subsidiaries have been considered. Remaining two Power Sector PSUs are UPPTCL and UPJVNL.

¹⁴ The figure represents number of PSUs which have received outgo from budget under one or more heads *i.e.* equity, loans, grants/subsidy.

The budgetary assistance received by these PSUs during the year ranged between ₹ 15,827.72 crore and ₹ 47,547.47 crore during the period 2015-16 to 2017-18. The budgetary assistance of ₹ 15,827.72 crore received during the year 2017-18 included ₹ 8,234.53 crore and ₹ 7,593.19 crore in the form of equity and grants/subsidy respectively.

Besides, the Ministry of Power (MoP), Government of India also launched (20 November 2015) UDAY Scheme for operational and financial turnaround of State owned Power Distribution Companies (DISCOMs). The provisions of UDAY and status of implementation of the scheme by five DISCOMs are discussed under **Paragraph 1.20** of this Chapter.

In order to enable PSUs to obtain financial assistance from Banks and Financial Institutions, Government of Uttar Pradesh (GoUP) gives guarantee for which the guarantee commission is being charged at the rate of 0.25 per cent to one per cent as decided by the GoUP (15 September 2000) depending upon the loanees. Outstanding guarantee stood at ₹ 57, 912.93 crore in 2017-18. During the year 2017-18, guarantee commission of ₹ 10.14 crore was paid by the PSUs.

Reconciliation with Finance Accounts of Government of Uttar Pradesh

1.6 The figures in respect of equity, loans and guarantees outstanding as per records of State PSUs should agree with that of the figures appearing in the Finance Accounts of the Government of Uttar Pradesh. In case the figures do not agree, the concerned PSUs and the Finance Department should carry out reconciliation of the differences. The position in this regard as on 31 March 2018 is given in Table 1.4:

Table 1.4: Equity, Loans and Guarantee outstanding as per Finance Accounts vis-à-vis records of Power Sector Undertakings

Name of Power Sector Undertakings	Equity		Difference	Loan		Difference	Guarantees		Difference
	As per Finance Accounts	As per records of PSUs		As per Finance Accounts	As per records of PSUs		As per Finance Accounts	As per records of PSUs	
	Kanpur Electricity Supply Company Limited	0.07	0.00	0.07	-	-	-	-	-
Uttar Pradesh Jal Vidyut Nigam Limited	-	-	-	0.00	64.65	64.65	-	-	-
Uttar Pradesh Power Corporation Limited	-	-	-	-	-	-	40757.70	47557.65	6799.95
Total Difference			0.07			64.65			6799.95

Source: Compiled based on information received from PSUs and Finance Accounts.

Audit observed that out of Power Sector PSUs, such differences occurred in respect of three PSUs as shown in Table above. The differences between the figures are persisting since last many years. The issue of reconciliation of differences was also taken up with the PSUs and the Department from time to time. We, therefore, recommend that the State Government and the respective PSUs should reconcile the differences in a time-bound manner.

Submission of accounts by Power Sector Undertakings

Timeliness in preparation of accounts by Power Sector Undertakings

1.7 There were 15 Power Sector Undertakings under the audit purview of CAG as of 31 March 2018. Accounts for the year 2017-18 were submitted by only two working PSUs by 30 September 2018. Details of arrears in submission of accounts of Power Sector Undertakings as on 30 September of each financial year for the last three years ending 31 March 2018 are given in Table 1.5 below:

Table 1.5: Status of submission of accounts of Power Sector Undertakings

Sl. No.	Particulars	2015-16	2016-17	2017-18
1.	Number of PSUs	15	15	15
2.	Number of accounts due	42	48	43
3.	Number of accounts submitted during current year	9	20	21
4.	Number of PSUs which finalised accounts for the current year	0	1	2
5.	Number of previous year accounts finalised during current year	9	19	19
6.	Number of PSUs with arrears in accounts	15	14	13
7.	Number of accounts in arrears	33	28	22
8.	Extent of arrears	One to Five Years	One to Three Years	One to Four Years

Source: Compiled based on accounts of PSUs received during the period October 2015 to September 2018

Of these 15 Power Sector PSUs, 14 PSUs had finalised 21 annual accounts during the period 1 October 2017 to 30 September 2018 which included two annual accounts for the year 2017-18 and 19 annual accounts for previous years. Further, 22 annual accounts of 13 PSUs were in arrears.

The GoUP had provided ₹ 45,077.29 crore (Equity: ₹ 18,966.12 crore, Loan: ₹ 3,700.32 crore, Grant: ₹ 9,801.82 crore and Subsidy: ₹ 12,609.03 crore) during 2016-17 and 2017-18 to eight of the 13 Power Sector PSUs accounts of which were in arrears by 30 September 2018, whereas no investment was made by GoUP in the remaining five PSUs during the period for which accounts were in arrears as detailed in *Appendix-1.3*.

The administrative departments have the responsibility to oversee the activities of these PSUs and to ensure that the accounts are finalised and adopted by these PSUs within the stipulated period. The concerned departments were informed regularly regarding arrears in accounts.

Impact of non-finalisation of accounts of State Power Sector PSUs

1.8 Delay in finalisation of accounts may also result in risk of fraud and leakage of public money apart from violation of the provisions of the Companies Act, 2013. In view of the above status of arrears of accounts, the actual performance including loss incurred/profit earned and contribution of these 13 State Power Sector PSUs to State GDP during the period of arrear of accounts could not be ascertained/reported to the State Legislature. In the absence of finalisation of accounts by these PSUs and their subsequent audit, it

could not be ensured whether the investments made and expenditure incurred had been properly accounted for and the funds were utilised for the purpose for which these were provided by the State Government.

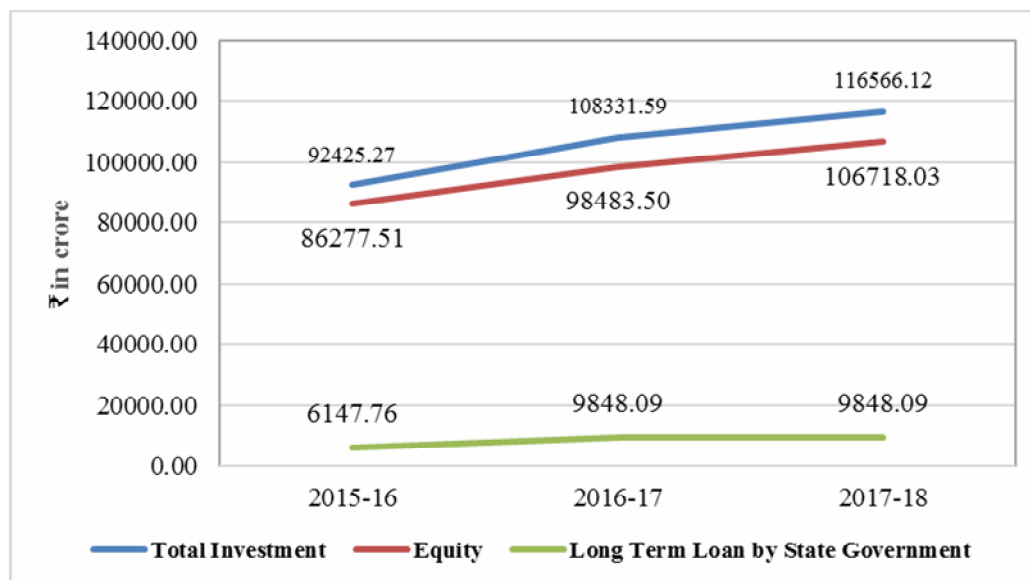
It is, therefore, recommended that the administrative departments should strictly monitor and issue necessary directions to liquidate the arrears in accounts. The Government may also look into the constraints in preparing the accounts of the PSUs and take necessary steps to liquidate the arrears in accounts.

Performance of Power Sector Undertakings

1.9 The financial position and working results of 15 Power Sector Undertakings as per their latest finalised accounts as of 30 September 2018 are detailed in *Appendix-1.1*.

The Public Sector Undertakings are expected to yield reasonable return on investment made by Government in the undertakings. The total investment of State Government and others in the Power Sector PSUs as on 31 March 2018 was ₹ 1,83,202.93 crore consisting of ₹ 1,06,718.49 crore as equity and ₹ 76,484.44 crore as long term loans as detailed in *Appendix-1.2*. Out of this, Government of Uttar Pradesh has investment of ₹ 1,16,566.12 crore in four Power Sector PSUs¹⁵ consisting of equity of ₹ 1,06,718.03 crore and long term loans of ₹ 9,848.09 crore. The year wise status of investment of GoUP in the form of equity and long term loans in the Power Sector PSUs during the period 2015-16 to 2017-18 is depicted in chart-1.2 as below:

Chart 1.2: Total investment of GoUP in Power Sector Undertakings



The profitability of a company is traditionally assessed through return on investment, return on equity and return on capital employed. Return on investment measures the profit or loss made in a fixed year relating to the amount of money invested in the form of equity and long term loans and is

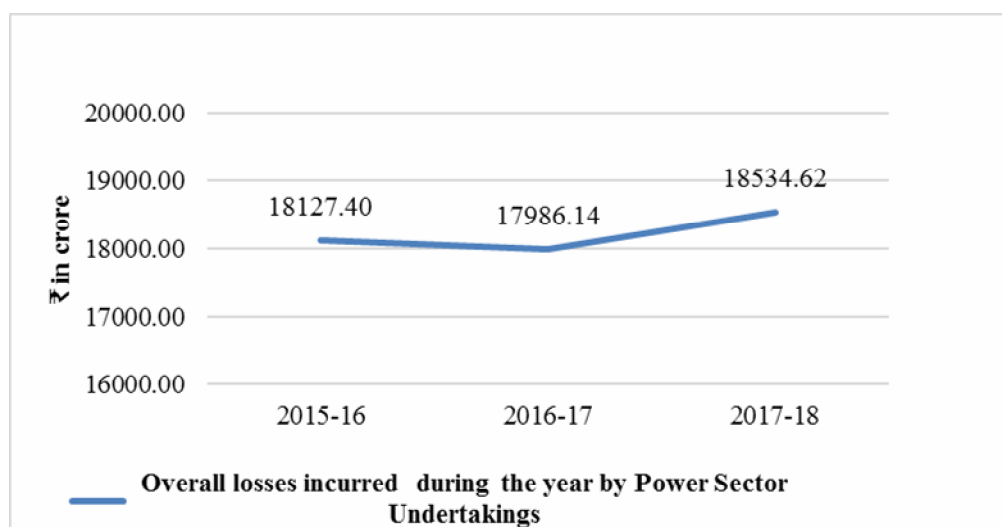
¹⁵ GoUP released equity to the UPPCL and UPRVUNL directly on behalf of their subsidiaries. Therefore, for the purpose of infusion of Government's fund, only holding companies on behalf of their subsidiaries have been considered. Remaining two Power Sector PSUs are UPPTCL and UPJVNL.

expressed as a percentage of profit to total investment. Return on Equity is a measure of performance calculated by dividing net profit after tax by shareholders' fund. 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 Investment

1.10 Return on investment is the percentage of profit or loss to the total investment. The overall position of loss¹⁶ incurred by all the Power Sector Undertakings during 2015-16 to 2017-18 is depicted below in chart 1.3.

Chart 1.3: Loss incurred by Power Sector Undertakings



The loss incurred by these 15 Power Sector PSUs was ₹ 18,534.62 crore (*Appendix-1.1*) in the year 2017-18 against losses of ₹ 18,127.40 crore incurred in the year 2015-16. According to the latest finalised accounts¹⁷ of PSUs, three PSUs earned profit of ₹ 449.01 crore, 10 PSUs incurred loss of ₹ 18,983.63 crore and two PSUs had marginal profit/loss¹⁸ as detailed in *Appendix-1.4*. Position of Power Sector Undertakings which earned/incurred profit/loss during the period 2015-16 to 2017-18 is given in Table 1.6 below:

Table 1.6: Power Sector Undertakings which earned profit /incurred loss

During the year	Total PSUs in Power Sector	Number of PSUs which earned profits during the year	Number of PSUs which incurred loss during the year	Number of PSUs which had Marginal profit/ loss during the year
2015-16	15	2	9	4
2016-17	15	2	10	3
2017-18	15	3	10	2

¹⁶ Figures are as per the latest finalised accounts till 30 September 2018.

¹⁷ Compiled based on latest finalised accounts of PSUs till 30 September 2018.

¹⁸ Marginal profit/loss is considered below ₹ 1.00 lakh.

Real Return on the basis of Present Value of Investment

1.11 In view of the significant investment by Government in all Power Sector Undertakings, return on such investment is essential from the perspective of State Government. The return on investment has been calculated after considering the Present Value of money to arrive at real return on investment made by GoUP in the 15 Power Sector Undertakings. PV of the State Government investment was computed where funds had been infused by the State Government in the form of equity, interest free/defaulted long term loans and Capital grants since finalisation of the balance sheets of these Power Sector Undertakings after unbundling of erstwhile Electricity Board (2000-01) till 31 March 2018.

The Present value (PV) of the State Government investment in Power Sector Undertakings was computed on the basis of following assumptions:

- Interest free/defaulted long term loans and Capital Grants have been considered as investment infusion by the State Government. Further, in those cases where interest free loans given to the PSUs were later converted into equity, the amount of loan converted into equity has been deducted from the amount of interest free loans and added to the equity of that year. The funds made available in the form of revenue grants and subsidies have not been reckoned as investment. However, the effect of grant received under UDAY Scheme, has been shown separately.
- The average rate of interest on government borrowings for the concerned financial year¹⁹ was adopted as discount rate for arriving at Present Value since they represent the cost incurred by the government towards investment of funds for the year.

For the period 2015-16 to 2017-18 when the nine to 10 PSUs incurred losses, a more appropriate measure of performance is the erosion of net worth due to the losses. The erosion of net worth of the company is commented upon in **Paragraph 1.13**.

1.12 The position of State Government investment in the Power Sector Undertakings in the form of equity, loans and capital grants since inception of these PSUs till 31 March 2018 is indicated in **Appendix-1.5** and the consolidated position of the PV of the State Government investment relating to them since 2000-01 till 31 March 2018 is indicated in Table 1.7.

¹⁹ The average rate of interest on government borrowings was adopted from the Reports of the C&AG of India on State Finances (Government of Uttar Pradesh) for the concerned year wherein the calculation for the average rate for interest paid = Interest Payment/ [(Amount of previous year's Fiscal Liabilities + Current year's Fiscal Liabilities)/2]*100.

Table 1.7: Year wise details of investment by the State Government and present value (PV) of the Government funds from 2000-01 to 2017-18

(₹ in crore)

Financial year	Present value of total investment at the beginning of the year	Equity infused by the State Government during the year	Total of Interest free/ defaulted Loans and capital grants given by the State Government during the year	Total investment during the year	Average rate of interest on Government borrowings (in per cent)	Total investment at the end of the year	Present value of total investment at the end of the year	Minimum expected return to recover cost of funds for the year	Total Earnings for the year as per Profit & Loss Statement
i	ii	iii	iv	v = iii+iv	vi	vii = ii+v	viii = vii* (1+vi/100)	ix =vii * vi/100	x
up to 2000-01		6336.47	1842.26	8178.73	9.58	8178.73	8962.25	783.52	
2001-02	8962.25	315.03	377.96	692.99	9.49	9655.24	10571.52	916.28	-1562.66
2002-03	10571.52	225.90	432.97	658.87	7.22	11230.39	12041.23	810.83	-1453.67
2003-04	12041.23	6051.30	-1532.61	4518.69	9.13	16559.92	18071.84	1511.92	-1420.28
2004-05	18071.84	906.80	381.33	1288.13	9.47	19359.97	21193.36	1833.39	-2404.25
2005-06	21193.36	794.60	157.73	952.33	6.49	22145.69	23582.94	1437.26	-3146.92
2006-07	23582.94	3113.53	25.00	3138.53	6.74	26721.47	28522.50	1801.03	-4288.59
2007-08	28522.50	7260.25	99.48	7359.73	6.43	35882.23	38189.46	2307.23	-7931.01
2008-09	38189.46	6222.34	315.94	6538.28	6.29	44727.74	47541.11	2813.37	-10585.24
2009-10	47541.11	5322.37	0.00	5322.37	6.16	52863.48	56119.87	3256.39	-8916.25
2010-11	56119.87	4383.52	-100.00	4283.52	6.67	60403.39	64432.30	4028.91	-8682.32
2011-12	64432.30	4314.36	-219.09	4095.27	6.62	68527.57	73064.10	4536.53	-11914.56
2012-13	73064.10	3825.53	17.00	3842.53	6.73	76906.63	82082.44	5175.82	-13151.15
2013-14	82082.44	6580.95	-352.48	6228.47	6.43	88310.91	93989.30	5678.39	-17719.95
2014-15	93989.30	11546.16	-16.69	11529.47	6.40	105518.77	112271.98	6753.20	-19110.96
2015-16	112271.98	19078.43	6083.12	25161.55	6.35	137433.53	146160.55	8727.03	-18127.40
2016-17	146160.55	12205.97	3775.32	15981.29	6.82	162141.84	173199.92	11058.07	-17986.14
2017-18	173199.92	8234.52	83.40	8317.92	6.54	181517.84	193389.10	11871.27	-18534.62
Total		106718.03	11370.64	118088.67					

The balance of investment of the State Government in these 15 PSUs at the end of the year increased to ₹ 1,18,088.67 crore in 2017-18 from ₹ 8,178.73 crore (up to 2000-01) as the State Government made further investments in shape of equity (₹ 1,00,381.56 crore) and Interest free/defaulted Loans and capital grants (₹ 9,528.38 crore). The PV of investments of the State Government upto 31 March 2018 worked out to ₹ 1,93,389.10 crore.

It could be seen that total earnings for the year relating to these PSUs remained negative during the period 2000-01 to 2017-18 which indicates that these PSUs did not recover the cost of funds to the Government.

In case the defaulted Interest Bearing Loan (IBL) is not considered as investment, the balance of investment by the State Government in these PSUs at the end of the year will be ₹ 1,18,027.57 crore in 2017-2018 against ₹ 6,367.04 crore in 2000-01 as the State Government made further investments in form of equity (₹1,00,381.56 crore) and interest free loans/capital grant (₹ 11,278.97 crore) during the period 2000-01 to 2017-2018. The PV of funds infused by the State Government up to 31 March 2018 will amount to ₹ 1,90,696.62 crore (*Appendix-1.6*).

Further, the Government has also given grant of ₹ 12,166.24 crore in 2015-16 and ₹ 7,400.64 crore in 2016-17 to the DISCOMs under UDAY scheme for taking over the debts of these DISCOMs due to banks and financial institutions. If we consider this grant as investment of the State government, the return on investment would further get reduced.

Erosion of Net Worth

1.13 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 by the owners has been wiped out by accumulated losses and deferred revenue expenditure.

As on 31 March 2018 there were 15 PSUs with accumulated losses of ₹ 1,33,638.98 crore. Of the 15 PSUs, 10 PSUs incurred losses in the year 2017-18 amounting to ₹ 18,983.63 crore. Further, three PSUs had not incurred loss in the year 2017-18, even though, out of these, two PSUs had accumulated loss of ₹ 3,181.73 crore and one PSU had accumulated profit of ₹ 1,049.92 crore. Further, rest two PSUs out of 15 had marginal profit/loss during the year 2017-18.

Net Worth of 11 out of 15 PSUs had been completely eroded by accumulated loss and their Net Worth was negative. The Net Worth of these 11 PSUs was ₹-60,616.92 crore against equity investment of ₹ 72,834.76 crore in these PSUs as on 31 March 2018. However, out of 11 PSUs whose Net Worth had been eroded, one PSU namely KESCO had earned profit of ₹ 319.55 crore during the year 2017-18. (*Appendix-1.1*)

Net Worth was less than half of their paid up capital in respect of one²⁰ out of four²¹ PSUs, whose net worth was positive at the end 31 March 2018, indicating their potential financial sickness.

The following Table 1.8 indicates paid up capital, accumulated profit/loss and net worth of the 15 Power Sector Undertakings (where funds were infused²² by GoUP) during the period 2015-16 to 2017-18 as per latest finalised accounts till 30 September 2018:

Table 1.8: Net worth of Power Sector Undertakings during 2015-16 to 2017-18

(₹ in crore)				
During the year	Paid up Capital at end of the year	Accumulated Loss at end of the year	Deferred revenue Expenditure ²³	Net worth
2015-16	83883.82	131389.90	35.18	-47541.26
2016-17	93470.81	133768.43	35.18	-40332.80
2017-18	94157.20	133638.98	35.18	-39516.96

²⁰ UPJVNL.

²¹ UPPTCL, UPRVUNL, JVUNL and UPJVNL.

²² In case of subsidiary companies (Sl. No. 3 to 7 and 9 to 14 of the *Appendix-1.1*) equity was infused through their respective holding companies.

²³ It pertains to UPPTCL only and their latest finalised account is for the F.Y. 2015-16. Hence, same figure of ₹ 35.18 crore is taken during the period from 2015-16 to 2017-18.

Dividend Payout

1.14 The State Government had formulated (October 2002) a dividend policy under which PSUs running in profit are required to pay a minimum dividend of five *per cent* on the share capital contributed by the State Government.

Dividend Payout relating to Power Sector Undertakings where equity was infused by GoUP during the period is shown in Table 1.9 below:

Table 1.9: Dividend Payout of Power Sector Undertakings during 2015-16 to 2017-18

During the year	Total PSUs where equity infused by GoUP		PSUs running in profit during the year		PSUs which declared/paid dividend during the year		Dividend Payout Ratio (in per cent)
	Number of PSUs	Equity infused by GoUP (₹ in crore)	Number of PSUs	Equity infused by GoUP (₹ in crore)	Number of PSUs	Dividend declared/paid by PSUs (₹ in crore)	
1	2	3	4	5	6	7	8 (7/5*100)
2015-16	4	86277.51	1	9322.40	-	-	-
2016-17	4	98483.50	1	10110.40	-	-	-
2017-18	4	106718.03	1	10796.79	-	-	-

Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited has earned a profit of ₹ 128.95 crore in 2017-18 and also had accumulated profits of ₹ 1,049.92 crore as of 31 March 2018. However, the Company neither paid any dividend to the Government nor made any provision in the Accounts for the same which is contrary to the State Government's Policy regarding payment of minimum dividend.

Return on Equity

1.15 Return on Equity (ROE)²⁴ is a measure of financial performance of companies 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.

RoE has been computed in respect of 15 Power Sector undertakings where funds have been infused by the State Government either directly or through holding Company (UPPCL, UPRVUNL and UPSIDC in case of their Subsidiaries). The details of Shareholders' fund and ROE relating to these 15 Power Sector undertakings during the period from 2015-16 to 2017-18 are given in Table 1.10 below:

Table-1.10: Return on Equity relating to 15 Power Sector undertakings

Year	Net Income/ total Earnings for the year ²⁵ (₹ in crore)	Shareholders' Fund (₹ in crore)	ROE (per cent)
2015-16	-18127.40	-47541.26	-
2016-17	-17986.14	-40332.80	-
2017-18	-18534.62	-39,516.96	-

Source: Figures compiled based on latest finalised accounts during the respective years

²⁴ Return on Equity = (Net Profit after Tax and preference Dividend/Equity)*100 where Equity = Paid up Capital + Free Reserves – Accumulated Loss – Deferred Revenue Expenditure.

²⁵ Figures are as per the latest finalised accounts during the respective years.

As can be seen from the above Table, during the last three years period ending March 2018, the Net Income and shareholders' fund were negative throughout the period. RoE in respect of 2015-16 to 2017-18 could not be worked out as shareholders' fund was negative which indicates that the liabilities of these PSUs have exceeded the assets and instead of paying returns on the share capital, the accumulated losses have wiped out the entire share capital.

Return on Capital Employed

1.16 Return on Capital Employed (ROCE) is a ratio that measures a company's profitability and the efficiency with which its capital is employed.

ROCE is calculated by dividing a company's earnings before interest and taxes (EBIT) by the capital employed²⁶. The details of ROCE of 15 Power Sector PSUs during the period from 2015-16 to 2017-18 are given in Table 1.11 below:

Table 1.11: Return on Capital Employed

During the year	EBIT (₹ in crore)	Capital Employed (₹ in crore)	ROCE (per cent)
2015-16	-10994.77	-10154.38	-
2016-17	-14909.94	18042.73	-82.64
2017-18	-15382.30	19064.81	-80.68

Source: Figures compiled based on latest finalised accounts till 30 September 2018

The ROCE of the Power Sector Undertakings ranged between -80.68 *per cent* and -82.64 *per cent* during the period 2016-17 to 2017-18. Further, ROCE was negative and unworkable during 2015-16 as both EBIT and Capital Employed were negative.

Analysis of Long term loans of the Power Sector Undertakings

1.17 The analysis of the long term loans of the companies which had leverage during 2015-16 to 2017-18 was carried out to assess the ability of the companies to service the debt owed by the companies to Government, banks and other financial institutions. This is assessed through the Interest Coverage Ratio.

Interest Coverage Ratio

1.18 Interest coverage ratio is used to determine the ability of a company to pay interest on outstanding debt and is calculated by dividing a company's earnings before interest and taxes (EBIT) by interest expenses of the same period. The lower the ratio, the lessor is the ability of the company to pay interest on debt. An interest coverage ratio of below one indicates that the company was not generating sufficient revenues to meet its expenses on interest. The details of interest coverage ratio of PSUs which had outstanding loans during the period from 2015-16 to 2017-18 are given in Table 1.12.

²⁶ Capital employed = Paid up share capital + free reserves and surplus + long term loans – accumulated losses - deferred revenue expenditure. Figures are as per the latest year for which accounts of the PSUs are finalised.

Table 1.12: Interest coverage ratio of the Power Sector PSUs having liability of interest on Long Term Loan

During the year	Interest (₹ in crore)	Earnings before interest and tax (₹ in crore)	Number of PSUs having liability of interest on loans from Government and Banks and other financial institutions	Number of PSUs having interest coverage ratio more than 1	Number of PSUs having interest coverage ratio less than 1
2015-16	7132.63	4451.41	8	2	6
2016-17	3076.20	536.48	8	2	6
2017-18	3152.32	63.61	8	2	6

It was observed that of the eight PSUs having liability of interest bearing loan during the period 2015-16 to 2017-18, two PSUs²⁷ had interest coverage ratio of more than one whereas remaining six PSUs had negative/less than one interest coverage ratio. This indicates that these PSUs could not generate sufficient revenues to meet their expenses on interest during the period.

Age wise analysis of interest outstanding on State Government Loans

1.19 As on 31 March 2018, interest amounting to ₹ 204.18 crore in respect of one PSU was outstanding on the long term loans provided by GoUP. The age wise analysis of interest outstanding is depicted in Table 1.13 below:

Table No. 1.13: Age wise analysis of interest outstanding on State Government Loans

Name of PSU	(₹ in crore)			
	Outstanding interest on loans	Outstanding for less than 1 year	Outstanding for 1 to 3 years	Outstanding for more than 3 years
UP Jal Vidyut Nigam Limited	204.18	10.60	21.19	172.39

Assistance under Ujwal DISCOM Assurance Yojana (UDAY)

1.20 The MoP, Government of India launched (20 November 2015) Ujwal DISCOM Assurance Yojana (UDAY Scheme) for operational and financial turnaround of State owned Power Distribution Companies (DISCOMs). As per provisions of UDAY Scheme, the participating States were required to undertake following measures for operational and financial turnaround of DISCOMs:

Scheme for improving operational efficiency

1.20.1 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 Information, Education and Communication (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 timeline 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

²⁷ KESCO and UPRVUNL.

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 in gap between average cost of supply and average revenue realised to zero by 2018-19, reduction of AT&C losses to 15 *per cent* in 2018-19 as per loss reduction trajectory finalised by the MoP and States. Further, In Tripartite Memorandum of Understanding which was executed (30 January 2016) amongst MoP, Government of India, GoUP and UPPCL, target for reduction of AT&C losses to 19.36 *per cent* by Financial Year 2018-19 was fixed.

Scheme for financial turnaround

1.20.2 The participating States were required to take over 75 *per cent* of DISCOMs debt as on 30 September 2015 over two years *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 10-15 years with a moratorium on repayment of principal upto five 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 grant which can be spread over three years with the remaining transfer through State loan to DISCOMs. In exceptional cases, 25 *per cent* of grant can be given as equity.

Implementation of the UDAY Scheme

1.20.3 The status of implementation of the UDAY scheme is detailed below:

A. Achievement of operational parameters

The achievements *vis-a-vis* targets under UDAY scheme regarding different operational parameters relating to the five State DISCOMs are given in Table 1.14:

Table-1.14: Parameter wise achievements *vis-a-vis* targets of operational performance upto March 2019

Parameter of UDAY Scheme	Target under UDAY Scheme	Status under UDAY Scheme	Achievement (in <i>per cent</i>)
Feeder metering (in Nos.)	16072	19238	119.70
Metering at Distribution Transformers (in Nos.)	382460	111959	29.27
Feeder Segregation (in Nos.)	10564	1751	16.58
Rural Feeder Audit (in Nos.)	9722	19322	198.75
Electricity to unconnected household (in lakh Nos.)	184.56	64.90	35.16
Smart metering above 200 and up to 500kWH (Nos. in lakh)	9.37	1.22	13.02
Distribution of LED UJALA (in lakh Nos.)	264.53	266.11	100.60

Parameter of UDAY Scheme	Target under UDAY Scheme	Status under UDAY Scheme	Achievement (in per cent)
AT&C Losses (in per cent)	19.36	24.64	Not achieved
ACS-ARR Gap (₹ per unit)	0.22	0.22	100.00
Net Income or Profit/Loss including subsidy (₹ in crore)	-2613.70	-2575.87	100.00

Source: Information provided by the PSUs.

On the basis of above data, it is evident that the performance of DISCOMs was not up to the mark in areas of metering at distribution transformers, feeder segregation, electricity to unconnected households, smart metering and AT&C losses. According to the Ministry of Power, Government of India, the State of Uttar Pradesh stood at seventh position²⁸ amongst all the States on the basis of overall achievements made by State DISCOMs under UDAY Scheme upto 30 June 2019.

B. Implementation of Financial Turnaround

1.20.4 Memorandum of Understanding (MoU) was signed (30 January 2016) among the MoP, the GoUP and UPPCL on behalf of DISCOMs. As per provisions of the UDAY Scheme and MoU, out of total outstanding debt (₹ 53,935.06 crore) pertaining to DISCOMs as on 30 September 2015, the GoUP took over total debt of ₹ 39,133.76 crore during the period 2015-16 and 2016-17 by providing equity of ₹ 9,783.44 crore, grant of ₹ 19,566.88 crore and loan of ₹ 9,783.44 crore as detailed in Table 1.15 below:

Table-1.15: Implementation of UDAY Scheme

Year	(₹ in crore)			
	Equity Investment	Grant	Loan	Total
2015-16	6083.12	12166.24	6083.12	24332.48
2016-17	3700.32	7400.64	3700.32	14801.28
Total	9783.44	19566.88	9783.44	39133.76

Source: Information provided by the PSUs.

Besides, the GoUP provided subsidy of ₹ 409.93 crore during the year 2017-18 for meeting out the future financial losses.

Comments on Accounts of Power Sector Undertakings

1.21 Fourteen Power Sector Undertakings²⁹ forwarded their 21 audited accounts to the Accountant General during 1 October 2017 to 30 September 2018. Of these, 18 accounts were selected for Supplementary Audit. The Audit Reports of Statutory Auditors and Supplementary Audit conducted by the CAG indicated that the qualities of accounts need to be improved substantially. The details of aggregate money value of the comments of Statutory Auditors and the CAG for the accounts of 2015-18 are given in Table 1.16.

²⁸ As per latest quarterly ranking of States depicted at website of UDAY for the quarter ended 30 June 2019.

²⁹ One PSU namely UPSIDC Power Company Limited has not submitted its annual accounts after 2013-14.

Table-1.16: Impact of audit comments on Power Sector undertakings

Sl. No.	Particulars	2015-16		2016-17		2017-18	
		No. of accounts	Amount (₹ in crore)	No. of accounts	Amount (₹ in crore)	No. of accounts	Amount (₹ in crore)
1.	Decrease in profit	2	3.02	2	4.21	1	3.99
2.	Increase in profit	-	-	-	-	-	-
3.	Increase in loss	-	-	5	292.89	4	956.51
4.	Decrease in loss	-	-	2	13.37	1	2.97
5.	Non-disclosure of material facts	2	45.33	2	693.34	3	9.65
6.	Errors of classification	1	10.67	6	256.52	4	37.47

Source: Compiled from comments of the Statutory Auditors and the C&AG in respect of Government PSUs.

During the year 2017-18, the Statutory Auditors had issued qualified opinion on three³⁰ accounts. Compliance to the Accounting Standards by the PSUs remained poor as the Statutory Auditors pointed out 15 instances of non-compliance to the Accounting Standards in three Accounts.

Audit of “Construction of new sub-stations and augmentation of capacity of the existing sub-stations by the UPPTCL” and Compliance Audit Paragraphs

1.22 For Part-I of the Report of the Comptroller and Auditor General of India for the year ended 31 March 2018, Audit of “Construction of new sub-stations and augmentation of capacity of the existing sub-stations by Uttar Pradesh Power Transmission Corporation Limited” and four compliance audit paragraphs relating to Power Sector Undertakings were issued to the Principal Secretary of Energy Department, GoUP with request to furnish replies within two weeks. Replies of Audit of “Construction of new sub-stations and augmentation of capacity of the existing sub-stations by the Uttar Pradesh Power Transmission Corporation Limited” and three compliance audit paragraphs have been received from the State Government and suitably incorporated in the respective audit observations/paragraphs in succeeding chapter II and chapter III of this Report. Out of four compliance audit paragraphs valuing ₹ 13.26 crore, recovery of ₹ 10 crore has been made. The total financial impact of the Audit of “Construction of new sub-stations and augmentation of capacity of the existing sub-stations by the Uttar Pradesh Power Transmission Corporation Limited” is ₹ 549.42 crore.

Follow-up action on Audit Reports

Replies outstanding

1.23 The Report of the Comptroller and Auditor General of India represents the culmination of the process of audit scrutiny. It is, therefore, necessary that they elicit appropriate and timely response from the Executive. The Finance Department, Government of Uttar Pradesh issued (June 1987) instructions to all Administrative Departments to submit replies/explanatory notes to Paragraphs/Performance Audits included in the Audit Reports of the CAG of India within a period of two to three months of their presentation to the State Legislature, in the prescribed format without waiting for any questionnaires

³⁰ MVVNL 2014-15, UPJVNL 2014-15 and UPPCL 2014-15.

from the Committee on Public Undertakings (COPU). The position of explanatory notes not received is given in Table 1.17 below:

Table-1.17: Explanatory notes not received (as on 30 September 2019)

Year of the Audit Report (Commercial/PSUs)	Date of placement of Audit Report in the State Legislature	Total Performance Audits (PAs) and Paragraphs in the Audit Report		Number of PAs/ Paragraphs for which explanatory notes were not received	
		PA	Paragraphs	PA	Paragraphs
2011-12	16 September 2013	1	8	1	2
2012-13	20 June 2014	0	8	0	1
2013-14	17 August 2015	1	6	1	3
2014-15	8 March 2016	4	8	0	4
2015-16	18 May 2017	2	5	1	1
2016-17	7 February 2019	1	4	1	4
Total		9	39	4	15

Source: Information compiled by Audit

From the above, it could be seen that, out of 39 Paragraphs and nine Performance Audits, explanatory notes to 15 Paragraphs and four Performance Audits in respect of Energy Department, which were commented upon, were awaited (September 2019).

Discussion of Audit Reports by COPU

1.24 The status as on 30 September 2019 of Performance Audits and Paragraphs that appeared in Audit Reports (Commercial/PSUs) and on which discussion was completed by the COPU as on 30 September 2019 is given in Table 1.18 below:

Table-1.18: Performance Audits/Paragraphs appeared in Audit Reports vis-a-vis discussed as on 30 September 2019

Period of Audit Report	Number of Performance Audits (PAs)/Paragraphs			
	Appeared in Audit Report		PAs and Paragraphs on which discussion completed	
	PAs	Paragraphs	PAs	Paragraphs
1982-83 to 2010-11	62	439	25	210
2011-12	1	8	0	3
2012-13	0	8	0	2
2013-14	1	6	0	1
2014-15	4	8	1	3
2015-16	2	5	0	2
2016-17	1	4	0	0
Total	71	478	26	221

Source: Information compiled by Audit

Compliance to Reports of the Committee on Public Undertakings

1.25 The internal working rules of COPU do not provide for vetting of Action Taken Notes (ATNs) by the Principal Accountant General. Hence, the ATNs on the recommendations of COPU are furnished by the Departments to the Principal Accountant General, only at the time of discussion of ATNs by COPU. Therefore, the status of ATNs is not discussed here.

Recoveries at the instance of Audit

1.26 During the course of audit, recoveries of ₹ 55.14 crore pointed out in 17 cases in various public sector undertakings, were accepted. Against this, recoveries of ₹ 31.73 crore in 16 cases were effected during 1 April 2017 to 30 September 2019 as per the details given in Table 1.19.

Table-1.19: Recoveries pointed out by audit and accepted/recovered by the public sector undertakings

Department	Particulars of recoveries	Recoveries pointed out in Audit and accepted by the Department during 1 April 2017 to 30 September 2019		Recoveries effected during 1 April 2017 to 30 September 2019	
		Number of cases	Amount involved (₹ in crore)	Number of cases	Amount involved (₹ in crore)
Energy Department	Madhyanchal Vidyut Vitran Nigam Limited	4	7.21	4	7.21
	Purvanchal Vidyut Vitran Nigam Limited	5	3.43	5	3.46
	Paschimanchal Vidyut Vitran Nigam Limited	2	7.61	2	7.61
	Dakshinanchal Vidyut Vitran Nigam Limited	2	0.57	2	0.50
	Uttar Pradesh Power Transmission Corporation Limited	4	36.32	3	12.95
Total		17	55.14	16	31.73

Source: Information compiled by Audit