

PART - I

Chapter - I Functioning of Power Sector Undertakings

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1. Introduction

1.1 The Power Sector Undertakings play an important role in the economy of the State. Apart from providing critical infrastructure required for development of the State's economy, the sector also adds significantly to the Gross Domestic Product (GDP) of the State. There are five¹ undertakings working in power sector in the State and all of them are active. Of these two² are yet to commence commercial activities. Out of five, three PSUs (GPL, PGL and PTGL) have been incorporated for carrying out the activity of Generation of power, one PSU (PSPCL) undertakes both generation as well as distribution activities and one PSU (PSTCL) undertakes transmission activity. The State Government has contributed funds to only two³ of the undertakings, while the funds in other three have been contributed by their holding PSU/ Government organisation. The table below provides the details of turnover of the Power Sector Undertakings and GSDP of Punjab for a period of five years ending March 2019.

Table 1.1: Details of turnover of Power Sector Undertakings vis-à-vis GSDP of Punjab

	(₹ in crore)				
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Turnover	22,270.15	23,589.08	24,763.66	29,880.88	32,040.21
GSDP of Punjab (at current prices and advance estimates)	3,49,826.00	4,08,815.00	4,27,297.00	4,77,482.00	5,21,861.00
Percentage of Turnover to GSDP of Punjab	6.37	5.77	5.80	6.26	6.14

Source: Turnover figures as per latest finalised accounts as of 30 September of respective years and GSDP figures as per Economic and Statistical Organisation, Government of Punjab.

The turnover of Power Sector Undertakings recorded continuous increase from 2014-15 to 2018-19 and it ranged between 4.98 per cent and 20.66 per cent during the period 2014-19 whereas increase in GSDP of Punjab ranged between 4.52 per cent and 16.86 per cent during the same period. The compounded annual growth is a useful method to measure growth rate over multiple time periods. Against the compounded annual growth of

¹ Gidderbaha Power Limited (GPL), Punjab Genco Limited (PGL), Punjab State Power Corporation Limited (PSPCL), Punjab State Transmission Corporation Limited (PSTCL) and Punjab Thermal Generation Limited (PTGL).

² GPL and PTGL

³ PSPCL and PSTCL

10.45 *per cent* of the GSDP, the turnover of Power Sector Undertakings recorded lower compounded annual growth of 9.78 *per cent* during last five years. There was decrease in the share of turnover of the Power Sector Undertakings to the GSDP. It was 6.37 *per cent* in 2014-15 and stood at 6.14 *per cent* in 2018-19.

The State power generation and distribution utility (PSPCL) was burdened by accumulated losses of ₹ 1,501.05 crore at the end of the financial year 31 March 2016 and had debts of ₹ 11,594.85 crore as on that date from banks, financial institutions and Government. The Ministry of Power (MoP), Government of India (GoI) launched (20 November 2015) Ujwal Discom Assurance Yojna (UDAY), a 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 PSPCL - the state power distribution company (DISCOM) are also discussed in this Chapter.

1.2 Power demand, availability and supply position in the State

The peak demand for power, its availability and share through State's own power generating utility, PSPCL, during 2014-15 to 2018-19 is given in the table below:

Table 1.2: Details of Power Generation by PSPCL

Year	Installed Capacity of PSPCL (in MW)	Peak demand (in MW)	Availability of Power (in MW)	Percentage of excess power tied up above peak demand	Total power Supply (in MUs)	Power Supplied by PSPCL (in MUs)	PSPCL's own share in total supply (in <i>per cent</i>)
2014-15	11,018	10,155	10,155	0	48,380	18,874	39.01
2015-16	11,996	10,852	10,852	0	50,353	16,155	32.08
2016-17	13,961	11,408	11,408	0	53,167	13,277	24.97
2017-18	13,391	11,705	11,705	0	55,012	13,441	24.43
2018-19	13,466	12,638	12,638	0	55,262	11,343	20.53

Source: Information provided by PSPCL.

During the period 2014-19, PSPCL was able to meet its peak demand. PSPCL has entered into long term Power Purchase Agreements with other power generators. It was observed that the share of the Company's own generated power in total power supplied has been consistently declining due to backing/shutting down of its own units after evaluating commercial aspects including deterioration of operating parameters of its own generating units.

1.3 Formation of Power Sector Undertakings

The Government of Punjab (GoP) framed (April 2010) the Punjab Power Sector Reforms Transfer Scheme, 2010 (Scheme) for unbundling of Punjab State Electricity Board (PSEB) and transfer of functions, undertakings, assets, properties, rights, liabilities, proceedings and personnel of PSEB to its two successor Power Sector Undertakings (Punjab State Power Corporation Limited (PSPCL) and Punjab State Transmission Corporation Limited (PSTCL)). These two Power Sector Undertakings came into existence *w.e.f.* 16 April 2010 and all the assets and liabilities of PSEB (including equity of

₹ 6,687.26 crore⁴ and capital reserve of ₹ 10,620.49 crore⁵ created out of setting off accumulated losses of PSEB of ₹ 10,180.35 crore against reserve created on land revaluation) were distributed among these companies according to the provisions of the Scheme. Besides these, two companies were incorporated as wholly owned subsidiaries of PSPCL i.e. Gidderbaha Power Limited (GPL) in the year 2008 as special purpose vehicle by PSEB (now PSPCL) and Punjab Thermal Generation Limited (PTGL) in 2013-14⁶. However, the State Government did not infuse any equity in these companies. Another power sector company namely Punjab Genco Limited was incorporated in 1998 with the entire shareholding held by Punjab Energy Development Agency (PEDA), a Government of Punjab organisation. Thus, there were five Power Sector Companies in the State as on 31 March 2019.

Disinvestment, restructuring and privatisation of Power Sector Undertakings

1.4 The State Government established (July 2002) the Directorate of Disinvestment under the Department of Finance with the objective of disinvestment of State Government equity held in PSUs and their subsidiaries/promoted companies and restructuring/privatisation of PSUs. During the year 2018-19, no disinvestment in power sector PSUs was done.

Investment in Power Sector Undertakings

1.5 The activity-wise summary of investment in the Power Sector Undertakings as on 31 March 2019 is given below:

Table 1.3: Activity-wise investment in Power Sector Undertakings

Activity	Number of undertakings	Investment (₹ in crore)							Total
		Equity of GoP	Equity of Others	Long term loans of GoP	Long term loans of others	Equity and Long term loans of GoP	Equity and Long term loans of others	Grants/Subsidies (GoP)	
Generation & distribution of power	4	6,081.47	23.00	15,662.13	8,362.42	21,743.60	8,385.42	38,211.76	68,340.78
Transmission of Power	1	605.88	--	--	4,766.03	605.88	4,766.03	--	5,371.91
Total	5	6,687.35	23.00	15,662.13	13,128.45	22,349.48	13,151.45	38,211.76	73,712.69

Source: Compiled based on information received from PSUs.

As on 31 March 2019, the total investment (equity, long term loans and grants/subsidies) in five Power Sector Undertakings was ₹ 73,712.69 crore. The investment consisted of 9.10 per cent towards equity, 39.06 per cent in long term loans and 51.84 per cent towards grants/ subsidies. The funds made available in the form of grants/ subsidies to PSPCL were on account of tariff

⁴ PSPCL (₹ 6,081.43 crore) and PSTCL (₹ 605.83 crore).

⁵ PSPCL (₹ 8,772.66 crore) and PSTCL (₹ 1,847.83 crore).

⁶ Intimation for incorporation of the Company was received during 2014-15.

compensation from GoP during the period 2011-12 to 2018-19 for subsidised supply of power to the consumers.

The long term loans advanced by the State Government constituted 54.40 *per cent* (₹ 15,662.13 crore) of the total long term loans of ₹ 28,790.58 crore, whereas 45.60 *per cent* (₹ 13,128.45 crore) of the total long term loans were availed by loans from Central Government and other financial institutions. During the period 2015-16 and 2016-17, the State Government has taken over ₹ 15,628.26 crore (75 *per cent*) out of the total outstanding debt (₹ 20,837.68 crore) pertaining to PSPCL as on 30 September 2015, under UDAY scheme.

Budgetary Support to Power Sector Undertakings

1.6 The GoP 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 five years ending March 2019 are as follows:

Table 1.4: Details of budgetary support to Power Sector Undertakings during the years

Particulars ⁷	2014-15		2015-16		2016-17		2017-18		2018-19	
	Number of PSUs	Amount	Number of PSUs	Amount	Number of PSUs	Amount	Number of PSUs	Amount	Number of PSUs	Amount
(i) Equity Capital	0	0	0	0	0	0	0	0	0	0
(ii) Loans given (Interest bearing ⁸)	0	0	1	9,859.72	1	5,768.54	0	0	0	0
(iii) Grants/ Subsidies provided	1	2,650.00	1	4,847.00	1	5,600.70	1	6,577.57	1	9,036.42
Total Outgo (i+ii+iii)		2,650.00		14,706.72		11,369.24		6,577.57		9,036.42
Loan repayment written off	0	0	0	0	0	0	0	0	0	0
Loans converted into equity	0	0	0	0	0	0	0	0	0	0
Guarantees issued	2	4,461.31	2	6,248.28	2	1,993.26	2	1,879.00	2	2,833.89
Guarantee Commitment	2	14,569.61	2	9,408.00	2	8,519.08	2	9,345.14	2	10,494.85

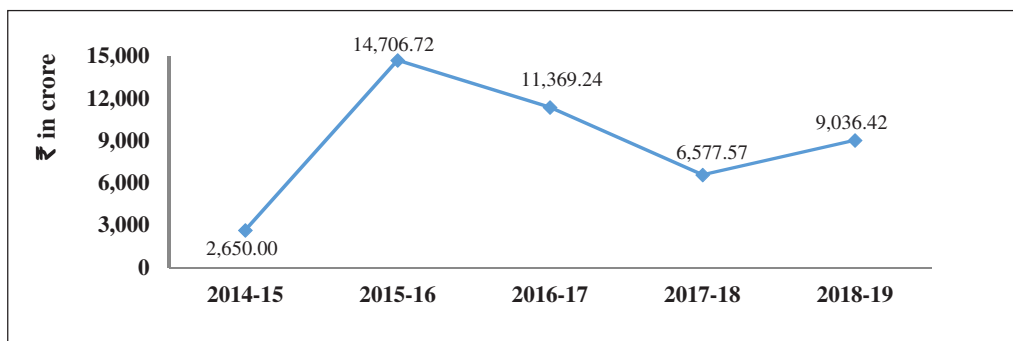
Source: Compiled based on information received from PSUs.

⁷ Amount represents outgo from State budget only.

⁸ PSPCL was given interest bearing loans at the rate of interest of 7.21 *per cent* to 8.72 *per cent per annum*.

The details of budgetary support towards equity, loans and grants/subsidies for the last five years ending March 2019 are given in a chart below:

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



The budgetary assistance received by these PSUs during the year ranged between ₹ 2,650.00 crore and ₹ 14,706.72 crore during 2014-15 to 2018-19. The budgetary assistance received during 2017-18 to 2018-19 is solely on account of subsidy for free supply to scheduled castes households/ agricultural power/ large scale/ medium supply consumers. The Ministry of Power (MoP), Government of India (GoI) launched (20 November 2015) Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of DISCOMs. The provisions of UDAY and status of implementation of the scheme by the DISCOM are discussed under paragraph 1.21 of this Chapter.

In order to enable PSUs to obtain financial assistance from banks and financial institutions, the State Government gives guarantee under Punjab Fiscal Responsibility and Budget Management Act, 2003 subject to the limits prescribed by the Constitution of India, for which a guarantee fee is charged. The State Government charged guarantee fee at the rate of 0.50 *per cent* to two *per cent* from these PSUs. During the year, two PSUs⁹ paid guarantee fee of ₹ 41.00 crore (including ₹ 0.53 crore pertaining to previous years) out of ₹ 49.00 crore payable. ₹ 8.00 crore was outstanding to be paid as on 31 March 2019 (PSPCL: ₹ 2.00 crore and PSTCL: ₹ 6.00 crore).

Reconciliation with the Finance Accounts of the Government of Punjab

1.7 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 GoP. In case the figures do not agree, the concerned PSU and the Finance Department should carry out reconciliation of the differences. Though the figures in respect of guarantee outstanding agrees with that in the Finance Accounts, there were differences in the position of Equity and Loans as on 31 March 2019 as given in table 1.5:

⁹ PSPCL and PSTCL

Table 1.5: Equity, loans and guarantees outstanding as per Finance Accounts vis-à-vis records of Power Sector Undertakings

(₹ in crore)

Outstanding in respect of	Outstanding as on 31 March 2019		Difference
	As per Finance Accounts	As per records of Power Sector Undertaking	
Equity			
PSPCL	2,772.79	6,081.47	(-)3,308.68
PSTCL	0.00	605.88	(-)605.88
Loans			
PSPCL	16,395.80	15,662.13	733.67
PSTCL	0.00	0.00	0.00
Guarantee			
PSPCL	9,215.71	9,215.71	0.00
PSTCL	1,279.14	1,279.14	0.00
Total Difference			4,648.23

Source: Compiled based on information received from PSUs and Statement No. 18, 19 and 20 of Finance Accounts – Government of Punjab for the year 2018-19.

The differences between the figures are persisting for the last many years. The issue of reconciliation of differences was also taken up with the PSUs/ Departments from time to time. We, therefore, recommend that the State Government and the PSUs should reconcile the differences in a time-bound manner.

Submission of Accounts by Power Sector Undertakings

1.8 Timeliness in preparation of Accounts by Power Sector Undertakings

There were five Power Sector Undertakings under the audit purview of the Comptroller and Auditor General of India (CAG) as of 31 March 2019. Accounts for the year 2018-19 were submitted by four PSUs by 30 September 2019 as per statutory requirement. Details of arrears in submission of accounts of Power Sector Undertakings as on 30 September 2019 of each financial year for the last five years ending 31 March 2019 are given below:

Table 1.6: Position relating to submission of accounts of Power Sector Undertakings

Sl. No.	Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
1.	Number of PSUs	5	5	5	5	5
2.	Number of accounts submitted during current year	4	5	5	9	5
3.	Number of PSUs which finalised accounts for the current year	0	0	0	4	4
4.	Number of previous year accounts finalised during current year	4	5	5	5	1
5.	Number of PSUs with arrears in accounts	5	5	5	1	1
6.	Number of accounts in arrears	5	5	5	1	1
7.	Extent of arrears	1 year	1 year	1 year	1 year	1 year

Source: Compiled based on accounts of working PSUs received during the period October 2018 to September 2019.

Only one Company (Punjab Genco Limited) had arrear in preparation of accounts for one year i.e. 2018-19.

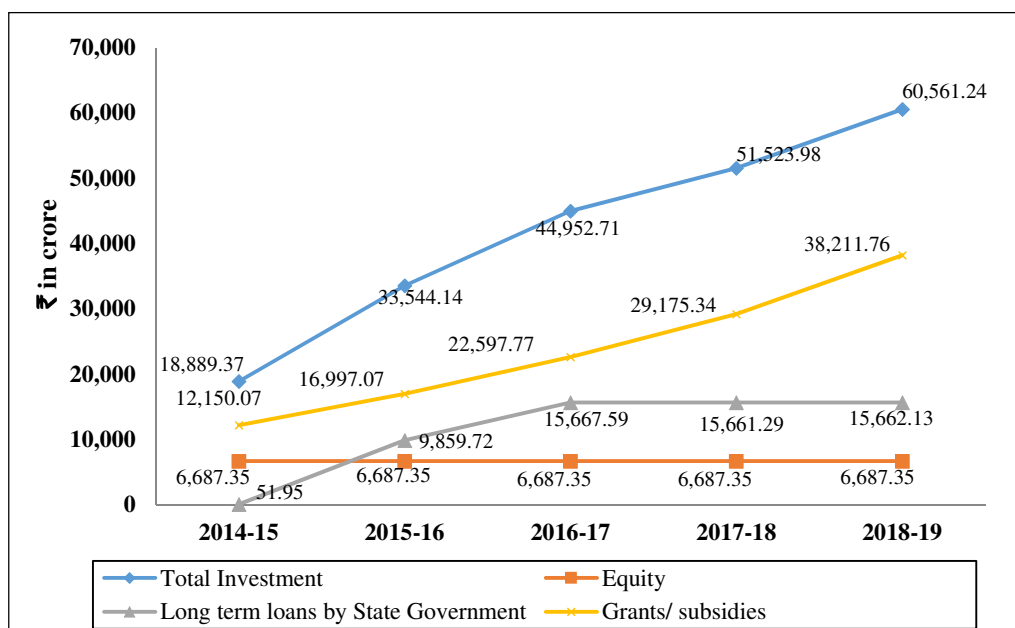
Performance of Power Sector Undertakings

1.9 The financial position and working results of five Power Sector Undertakings as per their latest finalised accounts as of 30 September 2019 are detailed in *Annexure 1*.

The PSUs are expected to yield reasonable return on investment made by the Government in the undertakings. The amount of total investment (equity, long term loans and grants/subsidies) in Power Sector Undertakings as on 31 March 2019 was ₹ 73,712.69 crore consisting of ₹ 6,710.35 crore as equity, ₹ 28,790.58 crore as long term loans and ₹ 38,211.76 crore as grants/ subsidies given by GoP for tariff compensation for subsidised supply of power to the consumers. Out of this, GoP had investment of ₹ 60,561.24 crore in two¹⁰ Power Sector Undertakings consisting of equity of ₹ 6,687.35 crore, long term loans of ₹ 15,662.13 crore and ₹ 38,211.76 crore as grants/ subsidies.

The year wise status of investment of GoP in the form of equity, long term loans and grants/subsidies in the Power Sector Undertakings during the period 2014-15 to 2018-19 is as follows:

Chart 1.2: Total investment of GoP in Power Sector Undertakings



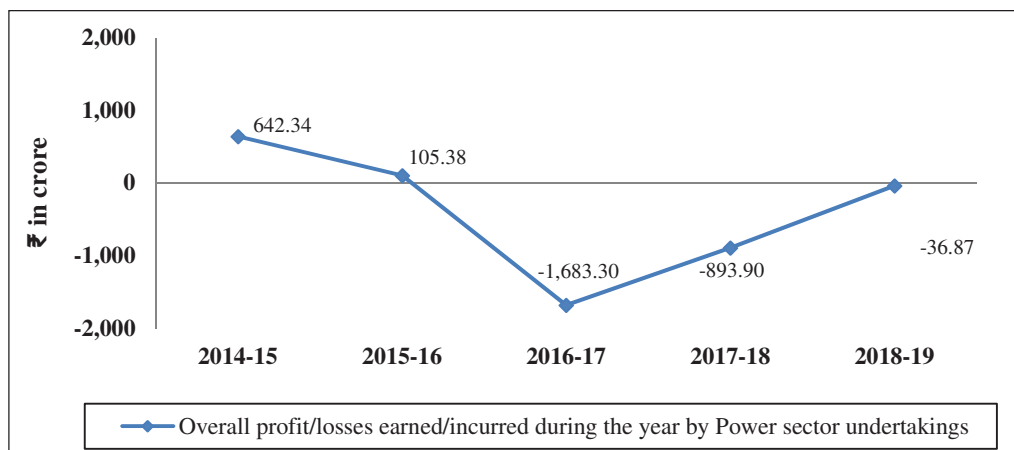
The profitability of a Company is traditionally assessed through Return on Investment, Return on Equity and Return on Capital Employed as discussed in the following paragraphs:

¹⁰ PSPCL and PSTCL

Return on Investment

1.10 Return on Investment is the percentage of profit or loss to the total investment. The overall position of Profit/losses¹¹ earned/incurred by all the Power Sector Undertakings during 2014-15 to 2018-19 is depicted below in the chart:

Chart 1.3: Profit/Losses earned/incurred by Power Sector Undertakings



The loss incurred by these five power sector undertakings was ₹ 36.87 crore in 2018-19 against profit of ₹ 642.34 crore earned in 2014-15. As per latest finalised accounts for the year 2018-19, out of five Power Sector Undertakings, one¹² PSU earned profit of ₹ 7.82 crore, two¹³ PSUs incurred loss of ₹ 44.69 crore and two PSUs were yet to start commercial activities (*Annexure 1*). During 2017-18 and 2018-19, the reduction in losses were primarily attributable to PSPCL as there was an increase in tariff compensation (on account of subsidised supply of power) and interest on its delayed payment by GoP to PSPCL.

Position of Power Sector Undertakings which earned/incurred profit/loss during 2014-15 to 2018-19 is given below:

Table 1.7: Power Sector Undertakings which earned/incurred profit/loss

Financial year	Total PSUs in power sector	Number of PSUs which earned profit during the year	Number of PSUs which incurred loss during the year	Number of PSUs which had marginal ¹⁴ profit/loss during the year
2014-15	5	3	-	2
2015-16	5	2	1	2
2016-17	5	2	1	2
2017-18	5	2	1	2
2018-19	5	1	2	2

¹¹ Figures are as per the latest finalised accounts during the respective years.

¹² Punjab Genco Limited

¹³ PSPCL and PSTCL

¹⁴ It includes the Companies that are yet to start commercial activities.

(a) Return on the basis of historical cost of investment

1.11 Out of five Power Sector Undertakings of the State, the State Government infused funds in the form of equity, loans and grants/subsidies in two¹⁵ Power Sector Undertakings only. Funds in two¹⁶ Companies were contributed by their holding company (PSPCL) and the entire shareholding of one¹⁷ Company was held by Punjab Energy Development Agency (PEDA).

The Return on Investment from the two¹⁸ PSUs has been calculated on the investment made by the GoP in the PSUs in the form of equity and loans. In the case of loans, only interest free loans are considered as investment since the Government does not receive any interest on such loans and are therefore of the nature of equity investment by the Government except to the extent that the loans are liable to be repaid as per terms and conditions of repayment. The funds made available in the form of grants/ subsidies to PSPCL have not been included in investments as the same is tariff compensation from GoP for subsidised supply of power to the consumers and not for operational and management expenses.

The investment of the State Government in these two Power Sector Undertakings has been arrived at by considering the equity (initial equity net of accumulated losses plus the equity infused during the later years), adding interest free loans and deducting interest free loans which were later converted into equity for each year.

The investment of the State Government as on 31 March 2019 in these two Power Sector Undertakings was ₹ 22,349.48 crore consisting of equity of ₹ 6,687.35 crore and long term loans of ₹ 15,662.13 crore. All the loans released by the State Government were interest bearing loans, therefore investment of the State Government in these two power sector PSUs, on the basis of historical cost stood at ₹ 6,687.35 crore.

The Return on Investment on historical cost basis for the period 2014-15 to 2018-19 is as given below:

Table 1.8: Return on the State Government Investment on historical cost basis

Financial year	Investment by the GoP at the end of the year in form of Equity and Interest Free Loans on historical cost basis (₹ in crore)	Total Earnings/ Losses ¹⁹ for the year (₹ in crore)	Return on Investment (in per cent)
2014-15	6,687.35	103.20	1.54
2015-16	6,687.35	(-) 1,692.83	(-) 25.31
2016-17	6,687.35	(-) 2,831.23	(-) 42.34
2017-18	6,687.35	(-) 901.92	(-) 13.49
2018-19	6,687.35	(-) 44.69	(-) 0.67

¹⁵ PSPCL and PSTCL

¹⁶ Gidderbaha Power Limited and Punjab Thermal Generation Limited

¹⁷ Punjab Genco Limited

¹⁸ PSPCL and PSTCL

¹⁹ As per annual accounts of the respective years.

The overall Return on Investment of the two power sector undertakings was 1.54 *per cent* during 2014-15. The Return on Investment was negative in 2015-16 to 2018-19 which was primarily attributed to losses incurred by PSPCL due to its operational inefficiencies. The return on investment improved in 2017-18 over the previous year due to increase in revenue from sale of power and in 2018-19 interest on delayed payment of tariff compensation received from GoP contributed to further improvement in rate of return.

(b) Present Value of Investment

1.12 In view of the significant investment by the State Government in the two Power Sector Undertakings, rate of real return on such investment is essential from the perspective of the State Government. Traditional calculation of return based only on historical cost of investment may not be a correct indicator of the adequacy of the return on the investment since such calculations ignore the present value (PV) of money. The PV of the Government investment has been computed to assess the real rate of return (RORR) on the present value of investment of GoP in the State PSUs.

In order to bring the historical cost of investment to its present value at the end of each year upto 31 March 2019, the past investments/year-wise funds infused by the GoP 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 to the Government for the concerned year. Therefore, the PV of the State Government investment was computed where funds had been infused by the State Government in the shape of equity, interest free loans and grants/subsidies for operational and management expenses, if any *less*: disinvestments, since inception of these companies till 31 March 2019. However, the two PSUs had a positive Return on Investment on historical cost basis only during the year 2014-15. Therefore, only for the year 2014-15, the real return on investment has been calculated and depicted on the basis of the PV.

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

- Interest free loans have been considered as investment infusion by the State Government as no amount of interest free loans have been repaid by the Power Sector Undertakings. 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 average rate of interest on Government borrowings for the concerned financial year²⁰ was adopted as compounded rate for

²⁰ The average rate of interest on Government borrowings was adopted from the Reports of the CAG on State Finances (GoP) 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.

arriving at PV since they 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 Government.

For the period 2015-16 to 2018-19, when the two companies incurred combined losses, a more appropriate measure of performance is the erosion of net worth due to the losses. The erosion of net worth of the companies is commented upon in paragraph 1.14.

1.13 The Company wise position of the State Government investment in the two Power Sector Undertakings in the form of equity and interest free loans since inception of these companies till 31 March 2019 is indicated in *Annexure 2*. The consolidated position of the PV of the State Government investment and the total earnings relating to the two Power Sector Undertakings since inception of these companies till 31 March 2019 is indicated in table below:

Table 1.9: Year wise details of investment by the State Government and its present value (PV)

(₹ in crore)

Financial year	Present value of total investment at the beginning of the year	Equity infused by the State Government during the year	Grants/subsidies given by the State Government during the year for operational and management expenses	Disinvestment by the State Government	Total investment during the year	Total investment at the end of the year	Average rate of interest on Government borrowings (in per cent)	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 ²¹
i	ii	iii	iv	v	vi= iii + iv - v	vii = ii + vi	viii	ix={vii*(1+viii/100)}	x={vii*viii/100}	xi
2010-11	-	6,687.35 ²²	-	-	6,687.35	6,687.35	7.73	7,204.28	516.93	(-)1,696.24
2011-12	7,204.28	-	-	-	0.00	7,204.28	7.96	7,777.74	573.46	(-)559.34
2012-13	7,777.74	-	-	-	0.00	7,777.74	7.79	8,383.63	605.89	419.21
2013-14	8,383.63	-	-	-	0.00	8,383.63	8.04	9,057.67	674.04	629.83
2014-15	9,057.67	-	-	-	0.00	9,057.67	8.35	9,813.99	756.32	103.20
2015-16	9,813.99	-	-	-	0.00	9,813.99	8.09	10,607.94	793.95	(-)1,692.83
2016-17	10,607.94	-	-	-	0.00	10,607.94	7.48	11,401.41	793.47	(-)2,831.23
2017-18	11,401.41	-	-	-	0.00	11,401.41	8.12	12,327.21	925.79	(-)901.92
2018-19	12,327.21	-	-	-	0.00	12,327.21	8.00	13,313.39	986.18	(-)44.69
Total		6,687.35	-	-	6,687.35					

Note: There was no interest free loan given by the State Government and converted into equity during these years.

The PV of investment by way of equity of the State Government upto 31 March 2019 worked out to ₹ 13,313.39 crore. The State Government had not extended any interest free loan or infused fresh equity or extended grant to the PSPCL.

It could be seen that total earnings for the year in these companies remained negative during the years 2010-11, 2011-12 and 2015-16 to 2018-19. This indicates that instead of generating returns on the invested funds, the Government could not recover its cost of funds invested. Further, the positive

²¹ Total Earnings for the year depict total of net earnings (profit/loss) for the concerned year relating to two Power Sector PSUs where funds were infused by State Government.

²² No accumulated losses were transferred to Power Sector Companies at the time of unbundling as accumulated losses of erstwhile PSEB of ₹ 10,180.35 crore were set off against capital reserve created on land revaluation.

total earnings during the remaining years also remained substantially below the minimum expected return towards the investment made in these power sector undertakings.

A comparison of Return on Investment as per Historical Cost and Present Value of such investment during 2014-15 when there were positive earnings is given below:

Table 1.10: Return on State Government Funds

(₹ in crore)

Year	Total Earnings for the year	Investment by the GoP in form of Equity and Interest free Loans	Return on State Government investment on the basis of historical cost (in per cent)	Present value of the State Government investment at end of the year	Real Return on State Government investment considering the present value of the investment (in per cent)
2014-15	103.20	6,687.35	1.54	9,813.99	1.05

The return based on present value was less than the return based on historical cost during 2014-15.

Erosion of Net worth

1.14 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. The overall accumulated losses of the five power sector undertakings were ₹ 6,492.40 crore as against the capital investment of ₹ 6,710.35 crore resulting in net worth of ₹ 240.03 crore (*Annexure I*). Of the five power sector undertakings, the net worth of PSPCL (₹ -899.62 crore) had been entirely eroded.

The following table indicates paid up capital, free reserves, accumulated loss and net worth of the two²³ Power sector undertakings during the period 2014-15 to 2018-19:

²³ PSPCL and PSTCL (both having State Government investment) as per the latest finalised accounts during the respective years.

Table 1.11: Net worth of two Power Sector Undertakings during 2014-15 to 2018-19

(₹ in crore)

Year	Paid up Capital at end of the year	Free Reserves (PSPCL & PSTCL)	Accumulated Profits (PSTCL)	Accumulated Losses (-) (PSPCL)	Net worth
2014-15	6,687.35	22.12	460.42	(-)1,666.96	5,502.93
2015-16	6,687.35	22.12	397.71	(-)1,501.05	5,606.13
2016-17	6,687.35	22.08	399.73	(-)3,195.90	3,913.26
2017-18	6,687.35	22.08	394.82	(-)6,963.37	140.88
2018-19	6,687.35	22.08	384.25	(-)7,001.17	92.51

Note: During the above period, there were no accumulated losses in case of PSTCL and no accumulated profits in case of PSPCL.

The combined net worth of both the PSUs was positive during 2014-15 to 2018-19. However, entire capital infused in PSPCL eroded in 2017-18 due to accumulated losses which increased from ₹ 1,666.96 crore in 2014-15 to ₹ 7,001.17 crore in 2018-19.

Dividend Payout

1.15 Thirteenth Finance Commission recommended (December 2009) that a minimum dividend of 5 per cent on Government equity should be paid by all enterprises. The State Government adopted the recommendations and formulated (July 2011) a dividend policy under which all PSUs are required to pay a minimum return of five per cent on the funds invested by the State Government. Dividend Payout relating to two Power Sector Undertakings where equity was infused by GoP during the period is shown in table below:

Table 1.12: Dividend Payout of two Power Sector Undertakings during 2014-15 to 2018-19

(₹ in crore)

Year	Total PSUs where equity infused by GoP		PSUs which earned profit during the year		PSUs which declared/paid dividend during the year		Dividend Payout Ratio (in per cent)
	Number of PSUs	Equity by GoP	Number of PSUs	Equity by GoP	Number of PSUs	Dividend declared/paid by PSUs	
1	2	3	4	5	6	7	8 = 7/5*100
2014-15	2	6,687.35	2	6,687.35	-	-	-
2015-16	2	6,687.35	1	6,081.47	-	-	-
2016-17	2	6,687.35	1	605.88	-	-	-
2017-18	2	6,687.35	1	605.88	-	-	-
2018-19	2	6,687.35	-	-	-	-	-

During the year 2014-15, both PSPCL and PSTCL earned profits whereas during 2015-16 to 2017-18, only PSTCL earned profit. But no PSU declared/paid dividend during the period. Further, during 2018-19 both PSUs incurred losses.

Return on Equity

1.16 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 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 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.

ROE has been computed in respect of two power sector undertakings where funds had been infused by the State Government. The details of shareholders' fund and ROE relating to these two power sector undertakings during the period from 2014-15 to 2018-19 are given in table below:

Table 1.13: Return on Equity relating to two Power Sector Undertakings where funds were infused by the GoP

Year	Net Income/ Total Earnings for the year ²⁴ (₹ in crore)	Shareholders' Fund (₹ in crore)	Return on Equity (in per cent)
2014-15	103.20	5,502.93	1.88
2015-16	(-) 1,692.83	5,606.13	-
2016-17	(-) 2,831.23	3,913.26	-
2017-18	(-) 901.92	140.88	-
2018-19	(-) 44.69	92.51	-

As can be seen from the above table, during the last five years ending 31 March 2019, the Net Income was negative during 2015-16 to 2018-19 which was attributed to increase in cost of power purchase, employee cost and finance cost of PSPCL. However, shareholders' funds were positive during all the five years. Return on equity was 1.88 per cent during 2014-15.

Return on Capital Employed

1.17 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 employed²⁵. The details of ROCE of all the five Power Sector Undertakings during the period from 2014-15 to 2018-19 are given in table below:

²⁴ As per annual accounts of the respective years.

²⁵ 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 1.14: Return on Capital Employed

Year	EBIT (₹ in crore)	Capital Employed (₹ in crore)	ROCE (in per cent)
2014-15	3,405.70	36,702.66	9.28
2015-16	2,904.45	38,673.18	7.51
2016-17	1,673.14	26,929.15	6.21
2017-18	2,567.06	30,697.68	8.36
2018-19	3,257.61	15,957.13	20.41

The ROCE of the power sector undertakings ranged between 6.21 *per cent* and 20.41 *per cent* during the period 2014-15 to 2018-19. Capital employed has reduced in the year 2018-19 mainly due to treatment of the loan taken over by GoP under UDAY scheme as short term liability by PSPCL as the same is to be converted into Grant and Equity in the year 2019-20 as discussed under paragraph 1.21.4.

Analysis of Long term loans of the Companies

1.18 The analysis of the long term loans of the companies which had leverage during 2014-15 to 2018-19 was carried out to assess the ability of the companies to service the debt owed by the Companies to the Government, Banks and other financial institutions. This is assessed through the Interest Coverage Ratio and Debt Turnover Ratio.

Interest Coverage Ratio

1.19 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 lesser 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 in Power Sector Companies during the period from 2014-15 to 2018-19 are given in following table:

Table 1.15: Interest Coverage Ratio

Year	Interest (₹ in crore)	Earnings before interest and tax (EBIT) (₹ in crore)	Number of PSUs having liability of loans from the Government, Banks and other financial institutions ²⁶	Number of companies having interest coverage ratio more than 1	Number of companies having interest coverage ratio less than 1
2014-15	2,650.65	3,405.70	3	2	0
2015-16	2,797.82	2,904.45	3	1	1
2016-17	3,350.56	1,673.14	3	1	1
2017-18	3,456.20	2,567.06	3	1	1
2018-19	3,291.66	3,257.61	3	0	2

²⁶ Gidderbaha Power Limited, though had the loan liability, had not paid interest as per its Board's decision.

The above interest includes interest of ₹ 1,192.17 crore, ₹ 1,306.95 crore and ₹ 1,306.95 crore charged by the GoP during 2016-17, 2017-18 and 2018-19 respectively from PSPCL on the loans given to it under UDAY Scheme to discharge its loan liability to other financial institutions and Banks.

It was observed that two power sector undertakings had interest coverage ratio of more than one in 2014-15. However, the interest coverage ratio of more than one decreased from two companies to one company from 2015-16 onwards and no company had interest coverage ratio of more than one in 2018-19.

Debt-Turnover Ratio

1.20 During the last five years, the turnover of the five power sector undertakings recorded compounded annual growth of 9.78 per cent and compounded annual growth of debt was 20.04 per cent due to which the Debt-Turnover Ratio deteriorated from 0.57 in 2014-15 to 0.90 in 2018-19 as given in table below:

Table 1.16: Debt Turnover Ratio relating to the Power Sector Undertakings

(₹ in crore)					
Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Debt from Government, Banks and Financial Institutions	12,653.30	16,073.01	27,643.19	28,548.19	28,790.58
Turnover	22,270.15	23,589.08	24,763.66	29,880.88	32,040.21
Debt-Turnover Ratio	0.57:1	0.68:1	1.12:1	0.96:1	0.90:1

Source: Compiled based on Information received from PSUs.

Assistance under Ujwal DISCOM Assurance Yojana (UDAY)

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

Scheme for improving operational efficiency

1.21.1 The participating States were required to undertake various targeted activities like compulsory feeder and Distribution Transformer (DT) metering, consumer indexing and Geographic Information System (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 equipments, quarterly revision of tariff, comprehensive Information Education and Communication (IEC) campaign to check theft of power, assure increased power supply in areas where the Aggregate Technical and Commercial (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

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 15 *per cent* in 2018-19 as per loss reduction trajectory finalised by the MoP and the States, reduction in gap between average cost of supply and average revenue realised to zero by 2018-19.

Scheme for financial turnaround

1.21.2 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:

- The 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/ financial institutions debt. The bonds so issued will have a maturity period of 10-15 years with a moratorium on repayment of principal upto five years.
- The Debt of a DISCOM will be taken over by the State Government in the priority of debt already due, followed by debt with higher cost.
- The transfer of the proceeds 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.
- The State shall take over the future losses of DISCOMs in a graded manner by funding the previous year losses at a prescribed percentage.

Implementation of the UDAY Scheme

1.21.3 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 only State DISCOM (PSPCL) were as under:

Table 1.17: Parameter wise achievements vis-à-vis targets of operational performance upto 31 March 2019

Parameter of UDAY Scheme	Target under UDAY Scheme (2018-19)	Progress under UDAY Scheme upto 31 March 2019	Achievement (in per cent)
Feeder metering (in Nos.)	11,234	11,234	100
Metering at Distribution Transformers (in Nos.)	1,96,092	47,062	24
Feeder Segregation (in Nos.)	6,208	5,932	95.55
Rural Feeder Audit (in Nos.)	7,726	7,726	100
Electricity to unconnected household (in lakh Nos.)	67.62	67.62	100
Smart metering (in Nos.) above 500 Kwh	6,97,711	0	0
Smart metering (in Nos.) above 200 Kwh upto 500 Kwh	9,34,394	0	0
Distribution of LED UJALA (in lakh Nos.)	25 .00	12.32	49.28
AT&C Losses (in per cent)	14.30	12.04	-
ACS-ARR Gap (₹ per unit)	0.05	0.05	-
Net Income or Profit/Loss including subsidy (₹ in crore)	467	(-)287.65	-

Source: Information provided by PSPCL and State Health Card under UDAY Scheme as per website of the MoP, GoI.

The State has not initiated action for smart metering of energy consumption. It has performed poorly in case of metering of DTs, whereas the targets have been fully achieved in feeder metering, rural feeder audit, providing electricity to unconnected households and reduction of AT&C losses below 14.30 per cent. According to the Ministry of Power, Government of India, the State of Punjab stood 9th amongst all the States on the basis of overall achievements made by the State DISCOM under UDAY Scheme upto 30 June 2019.

B. Implementation of Financial Turnaround

1.21.4 A tripartite Memorandum of Understanding (MoU) was signed (04 March 2016) between the MoP (GoI), the GoP and PSPCL. As per provisions of the UDAY Scheme and tripartite MoU, out of the total outstanding debt (₹ 20,837.68 crore) pertaining to PSPCL as on 30 September 2015, the GoP was to take over total debt of ₹ 15,628.26 crore during the period 2015-16 (₹ 10,418.84 crore) and 2016-17 (₹ 5,209.42 crore) by giving loan. The actual loan taken over by the GoP in respective years is as detailed below:

Table 1.18: Implementation of the UDAY Scheme

(₹ in crore)

Year	Equity Investment	Loan	Revenue Grant	Total
2015-16	-	9,859.72	-	9,859.72
2016-17	-	5,768.54	-	5,768.54
2017-18	-	-	141.81	141.81
2018-19	-	-	90.69	90.69
Total	-	15,628.26	232.50	15,860.76
Position as on 31 March 2019	-	15,628.26	232.50	15,860.76

It was observed that as per the provisions of the UDAY scheme for financial turnaround, the debt of the DISCOM was to be taken over by the State Government in the form of grant whereas the MoU provided for takeover of debt in the form of loan as explained above. Further, it was observed that against ₹ 10,418.84 crore due for takeover in 2015-16, as provided in the MoU, loans of ₹ 9,859.72 crore were taken over during the year. The balance amount of ₹ 559.12 crore, pertaining to the year 2015-16, was taken over in the year 2016-17 along with the amount stipulated (₹ 5,209.42 crore) for the year. The amount of ₹ 15,628.26 crore which was provided by way of loans under the UDAY Scheme, is to be converted into equity ₹ 3,900 crore and grant ₹ 11,728.26 crore during 2019-20 in terms of the MoU.

The GoP charged interest of ₹ 3,806.07 crore (at rates ranging between 7.21 and 8.72 *per cent per annum*) for the period October 2015 to March 2019 on the loans given to PSPCL under the UDAY Scheme to discharge the loan liability due to other financial institutions and Banks.

As per the MoU, GoP was to fund a specified percentage of losses of DISCOM during 2017-18 to 2020-21. Accordingly, 5 *per cent* of losses of the year 2016-17 were to be funded in 2017-18 and 10 *per cent* of losses of the year 2017-18 in 2018-19 which was duly adhered by the GoP by providing revenue grants to PSPCL as shown in the table 1.18 above.

Comments on the Accounts of Power Sector Undertakings

1.22 All five Power Sector Undertakings forwarded their five audited accounts to the Principal Accountant General (Audit) during 1 October 2018 to 30 September 2019. Out of these, three were selected for supplementary audit. The Audit Reports of Statutory Auditors and supplementary audit conducted by the CAG indicated that the quality of accounts needed to be improved substantially. The details of aggregate money value of the comments of Statutory Auditors and the CAG for the accounts received during 2016-19 are as follows:

Table 1.19: Impact of audit comments on Accounts of Power Sector Companies

(₹ in crore)

Sl. No.	Particulars	2016-17		2017-18		2018-19	
		No. of accounts	Amount	No. of accounts	Amount	No. of accounts	Amount
1.	Decrease in profit	2	3.39	1	0.59	2	8.07
2.	Increase in profit	0	0	1	5.39	1	95.11
3.	Increase in loss	1	3,515.86	2	3,816.19	2	2,512.89
4.	Decrease in loss	0	0	1	8.75	1	535.59
5.	Non-disclosure of material facts	0	0	1	19,367.06	0	0
6.	Errors of classification	0	0	4	26,805.44	4	28,172.96

Source: Compiled from comments of the Statutory Auditors/CAG in respect of Power Sector Companies.

During the year 2018-19, the Statutory Auditors had issued qualified certificates on three accounts. Compliance to the Accounting Standards by the PSUs remained poor as there were 13 instances of non-compliance to the Accounting Standards in four accounts.

Compliance Audit Paragraphs

1.23 For Part-I of the Report of the Comptroller and Auditor General (CAG) of India for the year ended 31 March 2019, nine compliance audit paragraphs relating to Power Sector Undertakings were issued to the Principal Secretary of Energy Department, GoP with a request to furnish replies within six weeks. Replies on six compliance audit paragraphs have not been received from the State Government. The total financial impact of the compliance audit paragraphs is ₹ 529.64 crore.

Follow up action on Audit Reports

1.24 The Report of the Comptroller and Auditor General of India is the product of audit scrutiny. It is, therefore, necessary that these elicit appropriate and timely response from the Executive. The State Finance Department, Government of Punjab issued (August 1992) instructions to all administrative departments to submit replies/explanatory notes to paragraphs/Performance Audits (PAs) included in the Audit Reports of the CAG of India within a period of three months of their presentation to the Legislature without waiting for any questionnaires from the Committee on Public Undertakings (COPU). However, explanatory notes were not received in 25 per cent of the Performance Audits and over 19 per cent of the Audit Paragraphs as on 30 September 2019 as depicted in table 1.20:

Table 1.20: Explanatory notes not received (as on 30 September 2019)

Year of the Audit Report (PSUs)	Month of the Placement of Audit Report in the State Legislature	Total PAs/Paragraphs in the Audit Report		Number of PAs/Paragraphs for which explanatory notes were not received	
		PAs	Paragraphs	PAs	Paragraphs
2012-13	July 2014	1	6	Nil	6
2013-14	March 2015	1	7	1	Nil
2014-15	March 2016	1	6	Nil	Nil
2015-16	March 2017	1	6	Nil	Nil
2016-17	March 2018	-	6	-	Nil
Total		4	31	1	6

Discussion of Audit Reports by the Committee on Public Undertakings (COPU)

1.25 The status of discussion of PAs and Paragraphs that appeared in Audit Reports (PSUs) by the COPU as on 30 September 2019 was as under:

Table 1.21: Performance Audits/Paragraphs appeared in Audit Reports vis-à-vis discussed as on 30 September 2019

Period of Audit Report (PSUs)	Number of PAs/Paragraphs			
	Appeared in Audit Report		Paras discussed	
	PAs	Paragraphs	PAs	Paragraphs
2012-13	1	6	Nil	Nil
2013-14	1	7	Nil	7
2014-15	1	6	Nil	Nil
2015-16	1	6	Nil	2
2016-17	-	6	-	1
Total	4	31	Nil	10

Source: Compiled based on the discussions of COPU on the Audit Reports.

The discussion on Audit Reports (PSUs) up to 2011-12²⁷ has been completed.

Compliance to the Reports of COPU by the State Government

1.26 Action Taken Notes (ATNs) on one report of the COPU presented to the State Legislature in 2017-18 had not been received upto 30 September 2019 relating to the State Power Sector Undertakings as indicated in the following table:

²⁷ Audit Reports upto 2011-12 have been transferred to concerned Administrative Secretaries as per decision of COPU dated 19 September 2017.

Table 1.22: Compliance by the State Government to COPU Reports

Year of the COPU Report	Total number of Reports of COPU	Total number of recommendation in COPU Reports	Number of recommendations where ATNs not received
2017-18	1	27	27

Source: Compiled based on ATNs received on recommendations of COPU from the Department of Power, GoP.

The above mentioned Report of COPU contained recommendations in respect of paragraphs which appeared in the Report of the CAG for the year 2013-14.