Part-I
Power Sector

Chapter-I

Functioning of Power Sector Undertakings

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Functioning of Power Sector Undertakings

1. Introduction

1.1 The Power Sector Companies 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 Gross Domestic Product (GDP) of the State. There are five power sector undertakings in the State. Of these five PSUs, one[1] PSU is inactive. A ratio of Power Sector Undertakings (PSUs) turnover to Gross State Domestic Product (GSDP) shows the extent of activities of PSUs in the State economy. The table below provides the details of turnover of the Power Sector Undertakings and GSDP of Haryana for a period of five years ending March 2019:

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

(₹ in crore)

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19
Turnover	27,716.88	29,475.63	32,169.09	34,370.70	36,818.34
GSDP of Haryana	4,41,864.26	4,92,656.90	4,34,607.93	6,08,470.73	7,07,126.33
Percentage of Turnover to GSDP of Haryana	6.27	5.98	7.40	5.65	5.21

GSDP of Haryana for 2013-14: ₹ 3,95,747.73 crore , Turnover for 2013-14 : ₹ 22,256.12 crore

Source: Compilation based on Turnover figures of power sector PSUs and GSDP figures as per Information supplied by Department of Economic and Statistical Analysis, Government of Haryana at current prices of respective years (Advanced Estimates) for year to year comparison.

The turnover of power sector undertakings has recorded increasing trend during last five years and it ranged between 6.35 *per cent* and 24.54 *per cent* during the period 2014-19, whereas increase in GSDP of Haryana ranged between -11.78 *per cent* and 40 *per cent* during the same period. The compounded annual growth of GSDP was 12.31 *per cent* during last five years. The compounded annual growth is a useful method to measure growth rate over multiple time periods. Against the compounded annual growth of 12.31 *per cent* of the GSDP, the turnover of power sector undertakings recorded lower compounded annual growth of 10.59 *per cent* during last five years. This resulted in decrease in share of turnover of the power sector undertakings to the GSDP from 6.27 *per cent* in 2014-15 to 5.21 *per cent* in 2018-19.

The State owned power distribution utilities including that of Haryana State were incurring continuous losses in their operations since their inception. The

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[1] Saur Urja Nigam Haryana Limited. The Company's Board of Directors have decided (29 March 2019) to wind up the Company.

power distribution utilities were burdened by accumulated losses of ₹ 29,063.67 crore at the end of the financial year 31 March 2016. They also had debts of ₹ 24,836.31 crore as on that date. The Ministry of Power (MoP), Government of India (GoI) launched (20 November 2015) Ujwal Discom Assurance Yojana (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 two power DISCOMs are also discussed in this Chapter.

Power demand, availability and supply position in the State

1.2 The peak demand for power, its availability and share through State's own power generating utility, the Haryana Power Generation Corporation Limited (HPGCL), during 2014-15 to 2018-19 is given in the table below:

Table 1.2: Details of Power Generation by HPGCL

Year	Installed Capacity of HPGCL (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 HPGCL (in MUs)	HPGCL's share in total supply (in *per cent*)
2014-15	3,230.20	9,152	11,271.47	23.16	51,107	12,675	24.80
2015-16	2,782.40	9,113	11,294.47	23.94	50,900	9,796	19.25
2016-17	2,792.40	9,262	11,332.42	22.35	51,264	8,885	17.33
2017-18	2,792.40	9,671	11,442.42	18.32	54,735	10,084	18.42
2018-19	2,792.40	10,270	12,181.42	18.61	56,994	9,983	17.52

Source**:** Load Generation Balance Reports of CEA, Annual Accounts of HPGCL and data supplied by the Haryana Power Purchase Centre.

The State has tied up (entered into Power Purchase Agreements) for more power than its peak demand, meaning Haryana is a power surplus State. Also, HPGCL's share in total power supply in the State has been consistently decreasing due to its higher variable cost in comparison to that from other power producers such as National Thermal Power Corporation, National Hydroelectric Power Corporation, Bhakra Beas Management Board and Private power producers.

Formation of Power Sector Undertakings

1.3 The erstwhile Haryana State Electricity Board (Board) was constituted on 3 May 1967 under Section 5(1) of the Electricity (Supply) Act, 1948. The Board was responsible for generation, transmission and distribution of power in the State. The Board was not profitable in its operations and its accumulated losses stood at ₹ 1,358.67 crore as on 31 March 1993.The Board incurred losses mainly on account of a tariff structure which was not remunerative, high transmission and distribution losses, subsidised power supply to agriculture sector, and low plant load factor in its thermal power stations.

These losses had adversely affected the development activities. To overcome the bottlenecks, the State Government restructured (1998) the Board and the business of power generation was transferred to Haryana Power Generation

Corporation Limited (HPGCL), transmission and distribution function were transferred to Haryana Vidyut Prasaran Nigam Limited (HVPNL). The power distribution function was subsequently transferred (1999) to two distribution Companies *i.e.,* Uttar Haryana Bijli Vitran Nigam Limited (UHBVNL) and Dakshin Haryana Bijli Vitran Nigam Limited (DHBVNL).

Besides above, the State had two other PSUs during the current year - Yamuna Coal Company Private Limited (wound up during 2018-19) and Saur Urja Nigam Haryana Limited, decided to be wound up in March 2019 as the Panchayat department did not grant sub-leasing permission to the entity to carry out their business.

Disinvestment, Restructuring and Privatisation of Power Sector Undertakings

1.4 During the year 2018-19, no disinvestment, restructuring or privatisation exercise was undertaken by the State Government in State's Power Sector PSUs.

Investment in Power Sector Undertakings

1.5 The activity-wise summary of investment [2] 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 PSUs	Investment (₹ in crore)						
		Equity of GoH	Equity of others	Long term loans of GoH	Loans from others	Grants* from GoH	Total	
							GoH	Others
1	2	3	4	5	6	7	8 = 3+5+7	9=4+6
Generation of Power	1	2,906.33	145.00	0	1,210.04	0.86	2,907.19	1,355.04
Transmission of Power	1	3,520.66	0	0	4,589.85	18,967.65	22,488.31	4,589.85
Distribution of Power	2	22,876.49	984.27	11.36	5,333.28	59,808.52	82,696.37	6,317.55
Total	**4**	**29,303.48**	**1,129.27**	**11.36**	**11,133.17**	**78,777.03**	**1,08,091.87**	**12,262.44**

Source: Compiled based on accounts finalised by PSUs.

*Grants only provided by GoH.

As on 31 March 2019, the total investment (equity, long term loans and grants/subsidy) in four power sector undertakings was ₹ 1,20,354.31 crore. The investment consisted of 25.29 *per cent* of equity, 9.26 *per cent* of long term loans and 65.45 *per cent* of grant/subsidy. Component-wise analysis of grant/subsidy received by Power sector PSUs during last five years (₹ 26,612.17 crore) showed that grants/subsidies were given for operational and administrative expenses, out of which, 99.93 *per cent* (₹ 26,593.61 crore) was released towards Rural Electrification subsidy (for supply of power at concessional rates to farmers).

[2] Investment includes paid-up capital, long term loans and grants extended by Government of Haryana and others.

The Long term loans advanced by the State Government constituted 0.10 *per cent* (₹ 11.36 crore) of the total long term loans whereas 99.90 *per cent* (₹ 11,133.17 crore) of the total long term loans were availed from other financial institutions. However, during 2015-16 and 2016-17, the State Government has taken over ₹ 25,950 crore (75 *per cent*) of the outstanding debts (₹ 34,600 crore including ₹ 1,149 crore on account of liabilities of DISCOMs towards composite pension trust and PF trust) of the DISCOMs as on 30 September 2015 under UDAY[3] scheme.

Budgetary Support to Power Sector Undertakings

1.6 The Government of Haryana (GoH) 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 last three years ending March 2019 are as follows:

Table 1.4: Details of budgetary support to power sector undertakings during last three years

(₹ in crore)

Particulars	2016-17		2017-18		2018-19	
	No. of PSUs	Amount	No. of PSUs	Amount	No. of PSUs	Amount
Equity Capital [4] (i)	4	3,225.49	4	10,644.44	4	13,302.48[5]
Loans given (ii)[6]	3	1,974.67	3	550.70	2	52.84
Grants/ Subsidy provided[7] (iii)	3	10,501.35	2	4,864.00	3	7,370.28
Total Outgo (i+ii+iii)		**15,701.51**		**16,059.14**		**20,725.60**
Loan repayment written off	-	-	-	-	4	5,494.92[8]
Loans converted into equity	-	-	-	-	3	5,531.99
Guarantees issued	3	87.39	3	263.18	3	1,120.59
Guarantee Commitment	4	5,563.18	4	4,204.17	3	1,758.09

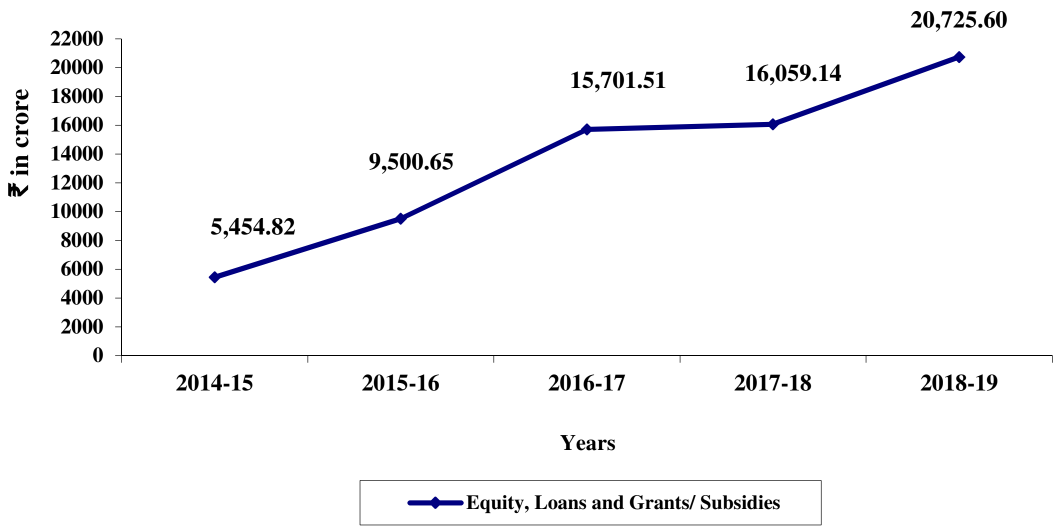
Source: Compiled based on information received from PSUs.

The details of budgetary support towards equity, loans and grants/ subsidies for

3 Scheme launched by MoP, GoI for financial and operational turnaround of DISCOMs.
4 This includes equity received under UDAY scheme *i.e.,* ₹ 1,297.50 crore for 2016-17 and ₹ 5,190.00 crore for the year 2017-18.
5 This also includes grant amounting to ₹ 7,785 crore which was converted into Equity during the year 2018-19
6 This excludes interest bearing loans given under UDAY of ₹ 3,460 crore during 2016-17.
7 This includes grant of ₹ 3,892.50 crore received under UDAY scheme during 2016-17.
8 This is the total repayment of loan and loan written off is nil.

the last five years ending March 2019 are given in a graph below:

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



Out of total outstanding loan of ₹ 15,570 crore, loans amounting to ₹ 5,190 crore were repaid by the Power Sector DISCOMs during 2017-18 under UDAY scheme and fresh subscription (₹ 5,190 crore) in equity of the Power Sector Companies were made by the GoH during 2017-18 in the two State DISCOMs under UDAY Scheme. The additional equity was given for execution of various capital projects. Further, GoH had also released equity amounting ₹ 12,975 crore to both the DISCOMs and HVPNL during the year 2018-19 to set off the loan amounting to ₹ 5,190 crore and conversion of grant amounting to ₹ 7,785 crore into equity.

In order to enable PSUs to obtain financial assistance from banks and financial institutions, State Government gives guarantee subject to limits prescribed by the Constitution of India and charges guarantee fee at the rate of two *per cent*. The guarantee commitment decreased to ₹ 1,758.09 crore during 2018-19 from ₹ 5,563.18 crore in 2016-17. During the year 2018-19 guarantee fee amounting to ₹ seven crore was paid to the State Government.

Reconciliation with Finance Accounts of Government of Haryana

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 GoH. In case the figures do not agree, the concerned PSUs and the Finance Department should carry out reconciliation of the differences. There were differences in figures of equity, loan and guarantee as per the Finance Accounts and as per Company accounts as on 31 March 2019 as stated below:

Table 1.5 Equity, Loans and Guarantee outstanding as per Finance Accounts *vis-à-vis* records of Power Sector Undertakings

(₹ in crore)

Sl. No.	Name of Company	As per Finance Accounts	As per Company Accounts	Difference
1	**2**	**3**	**4**	**5=3-4**
Equity				
1	HPGCL	3,301.00	2,906.33	394.67
2	HVPNL	3,169.47	3,520.66	-351.19
3	UHBVNL	8,104.00	12,134.99	-4,030.99
4	DHBVNL	6,866.67	10,741.50	-3,874.83
Loans				
1	HPGCL	57.61	0.00	57.61
2	HVPNL	6,413.61	11.36	6,402.25
3	UHBVNL			
4	DHBVNL			
Guarantee				
1	HPGCL	47.47	47.47	0.00
2	HVPNL	1,549.00	1,549.00	0.00
3	UHBVNL	1,251.36	1,084.67	166.69
4	DHBVNL	373.42	373.42	0.00

Source: Compiled based on accounts of PSUs and Finance Accounts.

The issue of reconciliation of differences was also taken up with the PSUs/ Departments from time to time.

It is recommended that the State Government and the 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

1.8 There were five power sector undertakings under the audit purview of the Comptroller and Auditor General of India as of 31 March 2019. Accounts for the year 2018-19 were submitted by all four working PSUs by 30 September 2019 as per statutory requirement. Details of arrears in submission of accounts of Power Sector Undertakings as on 30 September 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	4	5	5	4
2.	Number of accounts submitted during current year	5	2	6	8	4
3.	Number of PSUs which finalised accounts for the current year	3	0	2	5	4
4.	Number of previous year accounts finalised during current year	2	2	4	3	0
5.	Number of PSUs with arrears in accounts	2	4	3	0	0
6.	Number of accounts in arrears	2	4	3	0	0
7.	Extent of arrears	One year	One year	One year	-	-

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

There is now no arrear in finalisation of accounts of power sector companies.

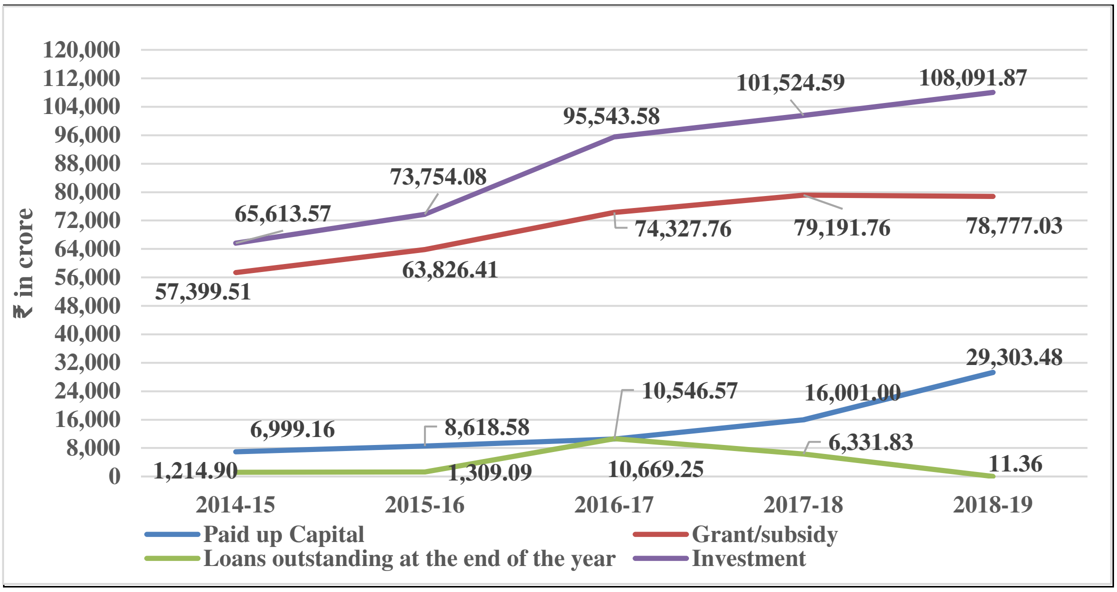
Performance of Power Sector Undertakings

1.9 The financial position and working results of four power sector Companies as per their latest finalised accounts as of 30 September 2019 are detailed in ***Appendix-1***.

The Public Sector Undertakings are expected to yield reasonable return on investment made by Government in the undertakings. The amount of total investment in the power sector PSUs as on 31 March 2019 was ₹ 1,20,354.31 crore consisting of ₹ 30,432.75 crore as equity, ₹ 11,144.53 crore as long term loans and ₹ 78,777.03 crore as grant/subsidy. Out of this, GoH has investment of ₹ 1,08,091.87 crore in the four Power Sector public sector undertakings consisting of equity ₹ 29,303.48 crore and long term loans of ₹ 11.36 crore and grant/subsidy of ₹ 78,777.03 crore.

The year-wise status of investment of GoH in the form of equity, long term loans and grants/subsidy in the power sector PSUs during the period 2014-15 to 2018-19 is as follows:

Chart 1.2: Total investment of GoH in power sector undertakings



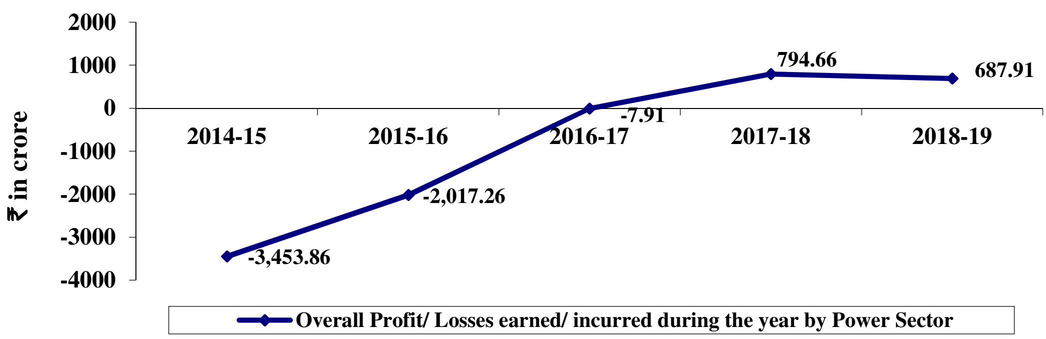
The total investment of GoH in the power sector increased 1.65 times during the period from 2014-15 to 2018-19 as shown in the chart 1.2.

Financial performance and profitability of a company is traditionally assessed through Return on Investment (ROI), Return on Equity (ROE) and Return on Capital Employed (ROCE) as discussed below.

Return on Investment (ROI)

1.10 Return on investment is the percentage of profit or loss to the total investment. The overall position of Profit/losses[9] earned/incurred by all the working power sector undertakings during 2014-15 to 2018-19 is depicted in the following Chart:

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



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

All the four power sector PSUs earned profit in the year 2018-19 - cumulatively ₹ 687.91 crore wherein HPGCL contributed ₹ 209.99 crore and HVPNL ₹ 196.98 crore.

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 profits	Number of PSUs which incurred loss	Number of PSUs which had marginal profit/ loss
2014-15	4	1	2	1
2015-16	4	1	2	1
2016-17	4	3	1	0
2017-18	4	4	0	0
2018-19	4	4	0	0

Return on the basis of historical cost of investment

1.11 The State Government infused funds in the form of equity, loans and grants/subsidies in all four Power Sector Undertakings.

The ROI from the four PSUs has been calculated on the investment made by the GoH in the PSUs in the form of equity, long term loans and grants/subsidies. In the case of loans, only interest free loans have been considered as investment since the Government does not receive any interest on such loans and are, therefore, of the nature of equity investment by Government except to the extent that the loans are liable to be repaid as per terms and conditions of repayment.

The investment of State Government as on 31 March 2019 in these four power sector PSUs was ₹ 1,07,848.61 crore (₹ 1,08,080.51 crore minus ₹ 231.90 crore and not taking into account loans as all loans were interest bearing loans) at the end of 2018-19 on historical cost basis after adjustment of initial residual accumulated losses of ₹ 231.90 crore.

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

Table 1.8: Return on State Government investment on historical cost basis

Financial year	Investment made by the GoH in form of Equity and grants/subsidies (₹ in crore)	Total Earnings/ Losses for the year (₹ in crore)	ROI (in *per cent*)
(1)	**(2)**	**(3)**	**(4)=(3)/(2)*100**
2014-15	64,166.76	-3,453.86	-5.38
2015-16	72,213.08	-2,017.26	-2.79
2016-17	84,642.42	-7.91	-0.04
2017-18	94,960.85	794.66	0.84
2018-19	1,07,848.61	687.91	0.64

The ROI in the four power sector PSUs improved from (-) 5.38 *per cent* in 2014-15 to 0.84 *per cent* in 2017-18 but decreased to 0.64 *per cent* in 2018-19 due to infusion of more equity and grant/subsidy coupled with decrease in profit. The ROI has improved over the years due to infusion of funds by the GoH under UDAY and reduction in AT&C losses.

Present Value of Investment

1.12 In view of the significant investment by Government in the four Power Sector companies, Rate of Real Return (RORR) on such investment is essential from the perspective of State Government. Traditional calculation of ROI is based on historical cost of investment, which 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. Therefore, in addition, RORR is calculated considering the PV of historical cost of investment.

In order to bring the historical cost of investments to its PV at the end of each year up to 31 March 2019, the past investments/ year-wise funds infused by the GoH 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, PV of the State Government investment in the shape of equity, grants and subsidy for operational and administrative expenditure and interest free loan since inception of these companies till 31 March 2019 was computed. However, the four PSUs had a positive ROI from the year 2017-18 onwards. Therefore, only for the year 2017-18 and 2018-19, the ROI has been calculated and depicted on the basis of PV.

In calculating the PV of the State Government investment in power sector undertakings the following assumptions were made:

- Where interest free loans was given to the PSUs and 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 year[10] was adopted as compounded rate for 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 ROI made by the government.

- The grants and subsidies given by the State Government less disinvestment had traditionally been considered for arriving at rate of real return.

For the period 2014-15 (three companies), 2015-16 (three companies), 2016-17 (only one company) when these Companies had incurred losses, a more

[10] The average rate of interest on Government borrowings was adopted form the Reports of the CAG of India on State Finances (Government of Haryana) 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.

appropriate measure of performance is the erosion of net worth due to the losses which has been commented upon in Para 1.14.

Rate of Real Return (RORR) on the basis of Present Value of Investment

1.13.1 The consolidated position of the PV (real return) of the State Government investment relating to the four power sector companies since inception of these companies till 31 March 2019 is indicated in table below:

Table 1.9: Present value (Real Return) of Government Investment from 1999-2000 to 2018-19

(₹ 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 State Government for operational and administrative Expenditure	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	Total earnings for the year
1	**2**	**3**	**4**	**5=(3+4)**	**6=2+5**	**7**	**8=(6x7/100)+6**	**9=6x7/100**	**10**
1999-2000	-	448.11*	412.00	860.11	860.11	12.05	963.75	103.64	-445.55
2000-01	963.75	265	769.30	1,034.30	1,998.05	11.40	2,225.83	227.78	-221.63
2001-02	2,225.83	38.71	850.05	888.76	3,114.59	10.50	3,441.63	327.03	-182.55
2002-03	3,441.63	97.36	839.72	937.08	4,378.71	10.74	4,848.98	470.27	26.48
2003-04	4,848.98	112.27	988.12	1,100.39	5,949.38	10.20	6,556.21	606.84	239.68
2004-05	6,556.21	162.93	1,164.79	1,327.72	7,883.94	8.49	8,553.28	669.35	-371.08
2005-06	8,553.28	359.29	1,284.51	1,643.80	10,197.08	8.95	11,109.72	912.64	-377.65
2006-07	11,109.72	777.80	3,755.42	4,533.22	15,642.94	9.20	17,082.09	1,439.15	-416.21
2007-08	17,082.09	930.16	2,560.17	3,490.33	20,572.42	7.43	22,100.95	1,528.53	-649.1
2008-09	22,100.95	855.72	2,908.30	3,764.02	25,864.97	7.82	27,887.61	2,022.64	-1,246.5
2009-10	27,887.61	898.82	2,771.09	3,669.91	31,557.52	9.29	34,489.22	2,931.69	-1,460.84
2010-11	34,489.22	882.18	5,905.77	6,787.95	41,277.17	9.22	45,082.92	3,805.75	-592.08
2011-12	45,082.92	573.35	7,153.15	7,726.50	52,809.42	9.73	57,947.78	5,138.36	-10,194.3
2012-13	57,947.78	198.62	10,258.26	10,456.88	68,404.66	9.86	75,149.36	6,744.70	-3,833.76
2013-14	75,149.36	100	10,544.22	10,644.22	85,793.58	9.83	94,227.09	8,433.51	-3,849.89
2014-15	94,227.09	66.94	5,234.63	5,301.57	99,528.66	9.33	1,08,814.68	9,286.02	-3,453.86
2015-16	1,08,814.68	1,619.42	6,426.90	8,046.32	1,16,861.00	8.64	1,26,957.79	10,096.79	-2,017.26
2016-17	1,26,957.79	1,927.99	10,501.35	12,429.34	1,39,387.13	8.00	1,50,538.10	11,150.97	-7.91
2017-18	1,50,538.10	5,454.43	4,864.00	10,318.43	1,60,856.53	8.10	1,73,885.91	13,029.38	794.66
2018-19	1,66,100.91[11]	13,302.48	7,370.28	20,672.76	1,86,773.67	8.81	2,03,228.43	16,454.76	687.91
Total		**29,071.58**	**78,777.03#**	**1,07,848.61#**					

*Equity infused amounting to ₹ 680.01 crore less initial accumulated residual losses of ₹ 231.90 crore transferred to PSUs. Information in respect of column no. 3, 4 and 10 is compiled from printed Audit Reports of respective years.

Total grants excludes ₹ 7785 crore converted into equity as mentioned in footnote 11.

11 The difference of ₹ 7,785 crore in opening balance was due to Grant received under UDAY scheme (₹ 3,892.50 crore during 2015-16 and 2016-17 in each year) which was converted into Equity during the year 2018-19 as its impact had already been taken in the grant of respective years.

The balance of investment of the State Government in these four companies at the end of 2018-19 increased to ₹ 1,07,848.61 crore from ₹ 860.11 crore (equity infused ₹ 680.01 crore and grant/subsidy ₹ 412 crore by State Government and minus initial residual accumulated losses of ₹ 231.90 crore) in 1999-2000 as the State Government made further investments in the shape of equity and grant and subsidy ₹ 1,06,988.50 crore. The PV of investments of the State Government up to 31 March 2019 worked out to ₹ 2,03,228.43 crore.

The total earnings for the years 1999-2000 to 2001-02 and 2004-05 to 2016-17 for these companies were negative which indicates that Government could not recover its cost of funds. There were positive total earning during 2017-18 and 2018-19 but they were substantially below the minimum expected returns.

Rate of Return on historical cost and present value

1.13.2 A comparison of returns on investment on historical cost basis and PV basis during 2017-18 and 2018-19, when there were positive earnings, is given in following table:

Table 1.10: Return on State Government Investment

(₹ in crore)

Year	Total Earnings	At historical cost		At Present Value (PV)	
		Investment by GoH in form of Equity and grant at the year end	Return on Investment (in *per cent*)	Investment by GoH in form of Equity and grant at the year end	Rate of Real Return on Investment (*in per* cent)
1	2	3	4=(2/3)×100	5	6=(2/5)×100
2017-18	794.66	94,960.85	0.84	1,73,885.91	0.46
2018-19	687.91	1,07,848.61	0.64	2,03,228.43	0.34

The returns based on PV were less than the returns based on historic cost as indicated by the comparison of returns during last two years. During 2017-18 and 2018-19, returns based on historic cost were 0.84 and 0.64 *per cent* whereas Rate of Real Return based on PV were 0.46 and 0.34 *per cent* respectively.

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. As on 31 March 2019, the overall accumulated losses of the four Power Sector Undertakings were ₹ 28,657.21 crore as against the capital investment of ₹ 30,432.75 crore resulting in net worth of ₹ 1,775.54 crore (***Appendix 1***). Of the four Power Sector Undertakings, the net worth of UHBVNL was (-) ₹ 2,932.14 crore and DHBVNL (-) ₹ 2,516.38 crore.

The following table indicates paid-up capital, accumulated profit/loss and net worth of the four Power Sector Undertakings during the period 2014-15 to 2018-19:

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

(₹ in crore)

Year	Paid-up capital at the end of the year	Free Reserves and Surplus	Accumulated profit/ loss	Deferred revenue expenditure	Net worth
1	**2**	**3**	**4**	**5**	**6 = 2+3-4-5**
2014-15	8,370.48	-	-29,173.23	0.02	-20,802.77
2015-16	11,322.28	-	-29,122.79	0.01	-17,800.52
2016-17	11,675.82	-	-30,082.91	0.01	-18,407.10
2017-18	17,147.50	-	-29,302.90	0.02	-12,155.42
2018-19	30,432.75	-	-28,657.21	0.00	1,775.54

The State Government continued to provide financial support to the four power sector companies through infusion of equity capital during the period 2014-19. However, despite infusion of capital, the accumulated losses of these power companies marginally decreased from ₹ 29,173.23 crore in 2014-15 to ₹ 28,657.21 crore in 2018-19. The entire capital infused in these companies had been eroded up to 2017-18. During 2017-18, despite the Power sector companies reporting profit of ₹ 794.66 crore, the net worth remained negative (₹ 12,155.42 crore), due to accumulated losses. During 2018-19, net worth turned positive (₹ 1,775.54 crore) due to conversion of grant of ₹ 7,785 crore and loan of ₹ 5,190 crore extended under UDAY scheme into equity capital of ₹ 12,975 crore.

Out of four PSUs, during 2014-15 to 2018-19, the net worth of two[12] PSUs was in negative and two[13] PSUs showed positive net worth. The net worth of two[14] PSUs increased during 2014-15 to 2018-19 whereas it had been improving in respect of two[15] PSUs during the same period.

Dividend Payout

1.15 The State Government had formulated (October 2003) guidelines under which all PSUs are required to pay a minimum return of four *per cent* on the paid-up share capital of the State Government. Further, dividend should be declared in the Annual General Meeting (AGM) based on the recommendations of the Board of Directors. Dividend payout relating to four Power Sector Undertakings where equity was infused by GoH during the period is shown in

12 Uttar Haryana Bijli Vitran Nigam Limited and Dakshin Haryana Bijli Vitran Nigam Limited.
13 Haryana Power Generation Corporation Limited and Haryana Vidyut Prasaran Nigam Limited.
14 Haryana Power Generation Corporation Limited and Haryana Vidyut Prasaran Nigam Limited.
15 Uttar Haryana Bijli Vitran Nigam Limited and Dakshin Haryana Bijli Vitran Nigam Limited.

table below:

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

(₹ in crore)

Year	Total PSUs where equity infused by GoH (without adjustment of initial accumulated losses)		PSUs which earned profit		PSUs which declared/paid dividend		Dividend Payout Ratio (in *per cent*)
	Number of PSUs	Equity by GoH	Number of PSUs	Equity by GoH	Number of PSUs	Dividend declared/paid by PSUs	
1	2	3	4	5	6	7	8=7/5*100
2014-15	4	6,999.16	1	2,900.24	-	-	-
2015-16	4	8,618.58	1	2,949.04	-	-	-
2016-17	4	10,546.57	2	5,617.59	-	-	-
2017-18	4	16,001.00	4	16,001.00	-	-	-
2018-19	4	29,303.48	4	29,303.48	-	-	-

During the period 2014-15 to 2018-19, the number of PSUs which earned profits ranged between one and four and the profit earned was between ₹ 11.96 crore and ₹ 278.24 crore. However, no PSU declared/paid dividend to GoH.

As per their latest finalised accounts, the four power sector PSUs earned aggregate profit of ₹ 687.91 crore (after interest and taxes) during 2018-19 but none of them considered declaring dividend. During the year 2018-19, HVPNL and HPGCL despite having accumulated profit of ₹ 490.61 crore and ₹ 161.46 crore respectively and net profit of ₹ 196.98 crore and ₹ 209.99 crore respectively, did not declare dividend to Government.

It is recommended that State Government may take up the matter through its nominees on the Board of Directors.

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 or the Net worth 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 shareholder equity means that liabilities exceed assets.

ROE has been computed in respect of four power sector undertakings where funds had been infused by the State Government. The details of shareholders' fund and ROE relating to these four 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 four Power Sector Undertakings where funds were infused by the GoH

Year	Net Income/ total Earnings for the year[16] (₹ in crore)	Shareholders' Fund (₹ in crore)	ROE (in *per cent*)
2014-15	-3,453.86	-20,802.73	-
2015-16	-2,017.26	-17,800.50	-
2016-17	-7.91	-18,407.08	-
2017-18	794.66	-12,155.38	-
2018-19	687.91	1,775.54	38.74

As can be seen from the above table, during the last five years period ended March 2019, the Net Income was positive only during 2017-18 and 2018-19, however, shareholders' fund was negative during 2014-15 to 2017-18. Since the net income of these PSUs during 2014-15 to 2017-18 and the shareholders' fund during 2014-15 to 2017-18 were negative, ROE in respect of these PSUs could not be worked out. Negative shareholders' fund indicates that the liabilities of these PSUs in the years 2014-15 to 2017-18 exceeded the assets instead of paying returns to the shareholders.

During 2018-19, Shareholder's funds were recorded in positive at ₹ 1,775.54 crore and the ROE worked out to 38.74 *per cent*. The main reason for positive Shareholder's fund was conversion of grant of ₹ 7,785 crore and loan of ₹ 5,190 crore into equity amounting to ₹ 12,975 crore under UDAY scheme.

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 the Earnings Before Interest and Taxes (EBIT) by the capital employed[17]. The details of ROCE of four power sector undertakings during the period from 2014-15 to 2018-19 are given in table below:

Table 1.14: Return on Capital Employed

Year	Return on capital employed (in *per cent*)		
	Profit making PSUs	Loss making PSUs	Aggregate
2014-15	13.16	5.21	7.56
2015-16	13.09	34.01	26.35
2016-17	11.38	113.23	33.82
2017-18	12.62	-	75.15
2018-19	18.58*	-	27.48

* Except Uttar Haryana Bijli Vitran Nigam Limited whose capital employed was negative for the year

16 As per annual accounts of the respective years.

17 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.

The ROCE substantially increased during the year 2017-18 in comparison to that for the year 2016-17, primarily because of decrease in finance cost due to taking over of loans and providing grant by GoH under UDAY Scheme. It decreased in 2018-19 due to conversion by GoH of grant/loan of ₹ 12,975 crore into equity.

Analysis of Long term loans of the Companies

1.18 The analysis of the long term loans of the companies 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 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 EBIT by interest expenses of the same period. The lower the ratio, the lesser the ability of the company to pay interest on debt. An 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 four power sector companies which had interest burden 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 Government and Banks and other financial institutions	Number of companies having interest coverage ratio more than 1	Number of companies having interest coverage ratio less than 1
2014-15	3,471.80	1,500.43	4	1	3
2015-16	4,531.25	4,125.81	4	2	2
2016-17	3,134.92	1,723.04	4	3	1
2017-18	2,673.69	3,943.18	4	4	-
2018-19	2,061.99	3,550.93	4	4	-

There was only one power sector company (HPGCL) with interest coverage ratio of more than one in the year 2014-15, in 2017-18 and 2018-19 all four companies had interest coverage ratio of more than one.

Debt Turnover Ratio

1.20 During the last five years, the turnover of power sector undertakings recorded compounded annual growth of 10.59 *per cent* and long term loans decreased to ₹ 11,144.53 crore in 2018-19 due to which the Debt Turnover Ratio improved from 0.88 in 2014-15 to 0.30 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
Debts from Government and others (Banks and Financial Institution)	24,339.52	33,459.49	28,956.75	17,402.60	11,144.53
Turnover	27,716.88	29,475.63	32,169.09	34,370.70	36,818.34
Debt-Turnover Ratio	0.88:1	1.14:1	0.90:1	0.51:1	0.30:1

Source: Compiled based on ***Appendix-1***

Assistance under Ujwal Discom Assurance Yojana (UDAY)

1.21 The Ministry of Power (MoP), GoI launched (20 November 2015) 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

1.21.1 The participating States were required to undertake various targeted activities like compulsory feeder and Distribution Transformer (DT) metering, consumer indexing and Geographic Information System mapping of losses, upgrading or changing transformers and meters, smart metering of all consumers consuming above 200 units per month, Demand Side Management through energy efficient equipments, quarterly revision of tariff, comprehensive consumer information, Education and Communication 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 to ensure achievement of the targeted benefits *viz.* ability to track losses at feeder and DT level, identification of loss making areas, reduce technical losses and minimise outages, reduce power theft and enhance public participation for reducing the theft, reduce peak load and energy consumption *etc.* The outcomes of operational improvements were to be measured through indicators *viz.* reduction of AT&C loss to 15 *per cent* by 2018-19 as per loss reduction trajectory finalised by the MoP and States, reduction in gap between average cost of supply and average revenue realised to zero by 2019-20.

Scheme for financial turnaround

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

- State will issue '*Non Statutory Liquidity Ratio'* non-SLR bonds and the proceeds realised from issue of such bonds shall be transferred to the

DISCOMs which in turn shall discharge the corresponding amount of Banks/ Financial Institutions debt. The bonds so issued will have a maturity period of 10-15 years with a moratorium on repayment of principal up to five years.

- Debt of DISCOM will be taken over in the priority of debt already due, followed by debt with higher cost.
- The transfer to the DISCOM by the State in 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 DISCOM.
- In exceptional cases, 25 *per cent* of grant can be given as equity.

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 two State DISCOMs were as follows:

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

Parameter of UDAY Scheme	Target under UDAY Scheme	Progress under UDAY Scheme	Achievement (in *per cent*)
Feeder metering (in Nos.)			
Urban	1,365	1,643	120.37
Rural	1,621	1,451	89.51
Metering at Distribution Transformers (in Nos.)			
Urban	2,79,420	34,300	12.28
Rural	4,78,120	32,195	6.73
Feeder Segregation (in Nos.)	3,536	3,536	100.00
Rural Feeder Audit (in Nos.)	1,621	1,687	104.07
Electricity to unconnected household (in Nos.)	49,18,000	22,13,640	45.01
Smart metering above 500 kWh (in Nos.)	4,31,797	9,081	2.10
Smart metering above 200 and up to 500kWH (in Nos.)	8,22,747	3,857	0.47
Distribution of LED UJALA (in Nos.)	2,14,00,000	1,56,60,654	73.18
AT&C Losses (in *per cent*)	15	14.86 to 21.12	-
ACS-ARR Gap (₹ per unit)	-0.12	-0.03	-
Net Income or Profit/Loss including subsidy (₹ in crore)	-456	280.94	100

Source: Information supplied by both the DISCOMs.

The State's performance in parameter of metering at Distribution Transformers (DTs) in urban and rural areas was not encouraging. The work of smart metering was also poor whereas the State performance had been excellent in areas of Feeder segregation and Feeder metering. The target of restricting Aggregate

Technical and Commercial (AT&C) losses to 15 *per cent* by the year 2018-19 was still to be achieved by UHBVNL. The MoP, GoI, had ranked the State, fifth, amongst all the states on the basis of overall achievements made by the two State DISCOMs under UDAY Scheme up to 31 March 2019.

B. Implementation of Financial Turnaround

1.21.4 A tripartite Memorandum of Understanding (MoU) was signed (11 March 2016) between the MoP, the GoH and State DISCOMs (*i.e.*, UHBVNL and DHBVNL). As per provisions of the UDAY Scheme and tripartite MoU, out of total outstanding debt (₹ 34,600 crore) of the two State DISCOMs as on 30 September 2015, GoH took over total debt of ₹ 25,950 crore during the period 2015-16 and 2016-17.

In terms of the MoU, the loan of ₹ 25,950 crore taken over by the GoH was to be ultimately converted into grant of ₹ 3,892.50 crore and equity of ₹ 1,297.50 crore annually for a period of five years, starting from 2015-16. It was envisaged that at the end of the 2019-20, GoH would have an equity of ₹ 6,487.50 crore, and ₹ 19,462.50 crore would have been given to the DISCOMs by way of grants. In this proportion, as on 31 March 2019, equity of ₹ 5,190 crore and grant of ₹ 15,570 crore should have been converted from the loan overtaken. Further, as per the UDAY scheme guidelines *"In exceptional cases, 25 per cent of grant can be given as equity*".

Actual implementation of the scheme is as detailed below:

Table 1.18: Implementation of UDAY Scheme

(₹ in crore)

Year	Equity Investment	Loan	Grant	Total
2015-16	1,297.50	12,110.00	3,892.50	**17,300.00**
2016-17	1,297.50	3,460.00	3,892.50	**8,650.00**
Total	**2,595.00**	**15,570.00**	**7,785.00**	**25,950.00**
2017-18	5,190.00	-5,190.00	0.00	**0.00**
2018-19	12,975.00	-5,190.00	-7,785.00	**0.00**
As on 31 March 2019	**20,760.00**	**5,190.00**	**0.00**	**25,950.00**

It was observed that the GoH did not follow the provisions of the MoU and the scheme notification. During 2017-18, ₹ 5,190 crore of loan was entirely converted as equity instead of bifurcating between grant and equity. Further, during 2018-19, the GoH converted Loan of ₹ 5,190 crore and ₹ 7,785 crore, provided during 2015-16 and 2016-17 respectively as grant under UDAY Scheme, into equity.

Consequently, GoH has invested ₹ 20,760 crore in equity in excess of the limit of ₹ 6,487.50 crore envisaged under the MoU, and reduced the grant portion to nil by converting 100 *per cent* grant of ₹ 7,785 crore into equity, which was not in line with the UDAY Scheme notification.

The DISCOMs paid interest of ₹ 2,787.24 crore, for the period October 2015 to March 2019, on the loans given by GoH under UDAY Scheme to discharge the loan liability due to other financial institutions and banks. The loans were extended by GoH at rates of interest ranging between 8.06 and 8.21 *per cent per annum.*

Comments on Accounts of Power Sector Undertakings

1.22 Four Power sector Companies forwarded their four audited accounts to the Principal Accountant General (Audit) during the period from 1 October 2018 to 30 September 2019. All of these accounts were selected for supplementary audit. The Audit Reports of Statutory Auditors and supplementary audit conducted by the CAG indicated that the quality of accounts needs to be improved substantially. The details of aggregate money value of the comments of Statutory Auditors and the CAG for the accounts of 2016-19 are as follows:

Table 1.19: Impact of audit comments on 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	1	13.06	-	-	3	144.29
2	Increase in profit	1	79.68	3	714.78	1	219.62
3	Increase in loss	2	127.10	1	3,428.35	-	-
4	Decrease in loss	1	380.23	2	304.46	-	-
5	Non-disclosure of material facts	-	-	-	-	3	93.35
6	Errors of classification	2	652.09	-	-	3	912.43

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

During the year 2018-19, the Statutory Auditors had issued qualified certificates on two[18] accounts and unqualified certificate on two accounts.

Performance Audit and Compliance Audit Paragraphs

1.23 For Part-I of the Report of the Comptroller and Auditor General of India for the year ended 31 March 2019**,** a Performance Audit (PA) on 'Working of Haryana Vidyut Prasaran Nigam Limited' and seven compliance audit paragraphs were issued to the Additional Chief Secretary of Power Department, GoH with request to furnish replies within two weeks. Replies in respect of the PA and five compliance audit paragraphs were awaited from the State Government (August 2020). The total financial impact of the PA and the compliance audit paragraphs is ₹ 793.03 crore.

Follow up action on Audit Reports

Replies outstanding

1.24 The Report of the Comptroller and Auditor General of India is the product of audit scrutiny. It is, therefore, necessary that they elicit appropriate

[18] Haryana Power Generation Corporation Limited and Uttar Haryana Bijli Vitran Nigam Limited.

and timely response from the executive. The Finance Department, Government of Haryana issued (July 2002) instructions to all Administrative Departments to submit replies/explanatory notes to paragraphs/performance audits included in the Reports of the CAG of India within a period of three months after their presentation to the Legislature, in the prescribed format, without waiting for any questionnaires from the Committee on Public Undertakings (COPU).

Table 1.20: Position of explanatory notes on Audit Reports related to Power Sector Undertakings (as on 30 April 2020)

Year of the Audit Report (PSUs)	Date of placement of Audit Report in the State Legislature	Total Performance Audits (PAs) and Paragraphs related to Power Sector in the Audit Report		Number of PAs/ Paragraphs for which explanatory notes were not received	
		PAs	Paragraphs	PAs	Paragraphs
2016-17	14.03.2018	-	13	-	05
2017-18	26.11.2019	01	04	01	04

Source: Compiled based on explanatory notes received from respective Departments of GoH.

The explanatory notes for five paragraphs of 2016-17, one PA and four paragraphs of 2017-18 are yet to be received.

Discussion of Audit Reports by COPU

1.25 The status of discussion of Performance Audits and paragraphs that appeared in Audit Reports (PSUs) by the COPU as on 30 April 2020 was as under:

Table 1.21: Performance Audits/Paragraphs appeared in Audit Reports *vis-à-vis* discussed as on 30 April 2020

Period of Audit Report	Number of Performance Audits/Paragraphs			
	Appeared in Audit Report		Paragraphs discussed	
	Performance Audit	Paragraphs	Performance Audit	Paragraphs
2015-16	01	09	-	09
2016-17	-	13	-	-
2017-18	01	04	-	-

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

The discussion on Power Sector of Audit Reports (PSUs) up to 2014-15 has been completed.

Compliance to Reports of COPU

1.26 Action Taken Notes (ATNs) on four reports of the COPU presented to the State Legislature between March 2016 and March 2019 had not been received (30 April 2020) relating to the State PSUs (Power Sector) as indicated in the following table:

Table 1.22: Compliance to COPU Reports

Year of the COPU Report	Total number of COPU Reports	Total no. of recommendations in COPU Report	Number of recommendations where ATNs not received
2015-16	1	4	1 (14)
2016-17	1	7	5 (1 to 5)
2017-18	1	8	7 (3, 4, 5, 6, 12, 13 and 14)
2018-19	1	5	2 (4, 5)
2019-20	1	4	4 (5,6,7 and 8)
Total	**5**	**28**	**19**

Source: Compiled based on ATNs received on recommendations of COPU from the respective Department of GoH. Figures in bracket represent the recommendation number of the COPU Report.

The above mentioned Reports of COPU contained recommendations in respect of paragraphs which appeared in the Reports of the CAG of India for the period 2011-12 to 2015-16.