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Comparative performance of Punjab with Selected Power Utilities in India, Pre. and Post Reforms

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Present paper analyze comparative performance of Punjab with some common Performing states which have insatiate some new ideas after reforms period they are as follows

(i) Maharashtra . ii) AP iii) Karnataka iv) West Bengal,(v)Punjab

As these Utilities made appreciable efforts improve their power utilities. As electricity is necessary to all sectors of the economy hence all selected States Govt provide adequate funds for that below table prove that

Table 1.1:Share of Expenditure Provided

(in %)

Planning Period	Punjab	Andhra Pradesh	Karnataka	West Bengal	Maharashtra
Seventh	Approx half	Above20%	Above22%	Above30%	Above28%
Eight	More than35%	Above28%	Approx one forth	Approx one third	Above14%
Nineth	Approx one forth	Above22%	Above15%	Approx one third	Above14%
Tenth	Above22%	Above23%	Above20%	Above31%	Above16%

Source; i Annual Report of Planning Commission
ii) Statistical Abstracts of India

Above table presents that according to of plan expenditure on power sector was Punjab Utilities on top in 7th & 8th Plan and 9th & 10th Plan, West Bengal, was on the top . As the share of private sector increase then share of Govt, expenditure has declined .

Status of Installed capacity of these selected states are as follows

Table 1.2 Installed Capacity of All (MW)

	Thermal		Hydropower		Total		Growth
Time Period	Mid96-97	Mid09-10	Mid96-97	Mid09-10	Mid96-97	Mid09-10	Rate@
Punjab	1709.9(49)	2620 (53)	1799 (51)	2341 (47)	3509	4961	2.70%
Andhra Pradesh	2801 (51)	3833 (51)	2657 (48)	3699(49)	5458	7532	2.51%
Karnataka	968 (29)	2078 (36)	2392 (71)	3637(64)	3360	5715	4.17%
Maharashtra	6417 (83)	6800 (73)	1359 (17)	2469 (27)	7776	9269	1.36%
West Bengal	2778 (97)	3580 (77)	97 (03)	1069(23)	2875	4649	3.77%

Source: CEA Report and PFC Reports
@: Overall growth rate in total installed capacity
() shows relative share of respective fuel source

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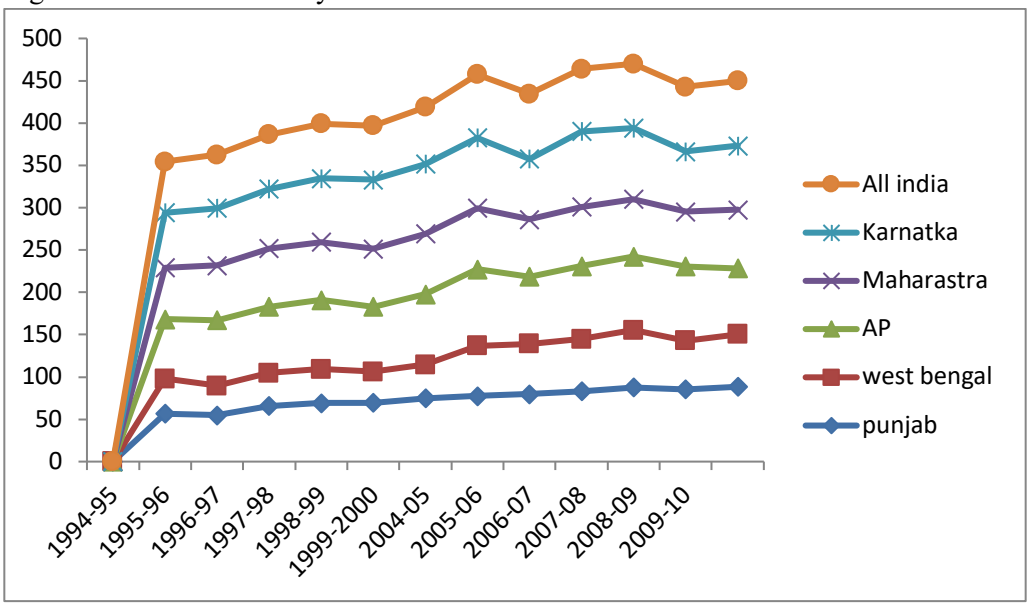
Above Table present that Karnataka is on top with 4.17%growth rate,and Punjab was on third with 2.7% after Karnataka and West Bengal. The share of hydropower in total installed generation capacity is 47% in Punjab. The share of hydropower was reported 64% and 49% in Karnataka and Andhra Pradesh respectively in the FY 2009-10.

Performance at the Generation Level

At generation part performance measured in Plant Efficiency parameter of these selected states is as under shown by the diagram

Diagram1.1 Plant Efficiency Factor



Source: Statistical abstracts of selected states, CEA Report, Annual Report of Planning Commission

Plant Efficiency tells how efficiently the plant work .In 1994-96 Plant Efficiency Factor of utility of Punjab was lower than India . However after 1995-96 it was above national average and was increasing continuously. All selecting states are presenting the best .Hence conclusion is that Punjab has done significant progress

Auxiliary consumption

Auxiliary consumption is the status the electricity consumption of electricity by plant

Diagram 1.2: Auxiliary Consumption (In%)

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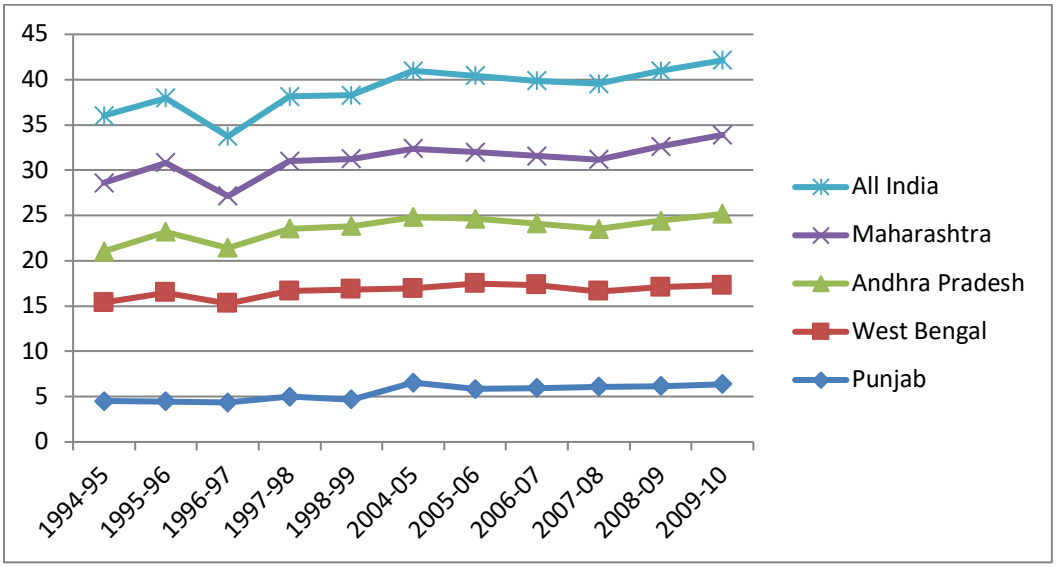
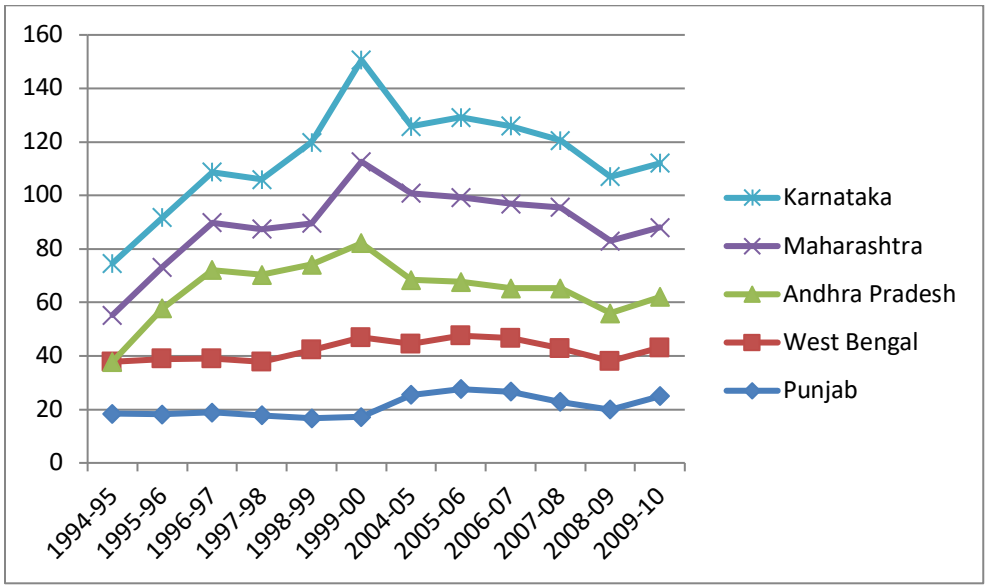


Source: Statistical abstracts
CEA Reports
Planning Commission Reports
Annual Report on the working of State electricity Board Above graph shows that electricity used by plants of Punjab is on the lower than all others that a good signal for the Utility performance .

Distribution Level Performance

High energy losses is also a signal of worse financial health .Losses of various states are as shown .



Source: Statistical abstracts of respective state
CEA Reports
Annual Report of Planning Commission

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Above graph that energy losses made comparable with Maharashtra and Karnataka. But Status of West Bengal and Andhra Pradesh are reported higher than Punjab.

Net Energy Losses (AT&C)

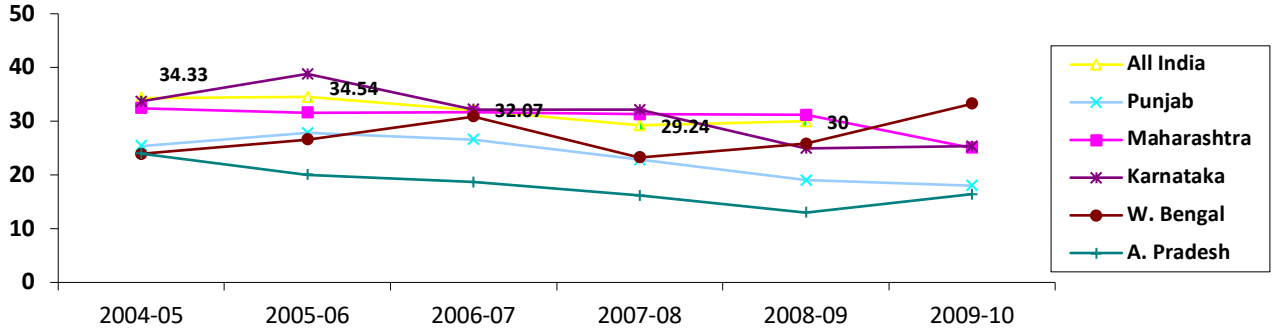
Net energy Losses includes the recovery of electricity dues from consumers. After the initiation of power sector reforms, net energy losses focused Which states is as under

Table 1.3: Net Energy losses of Selected States (in %)

Year	Punjab	West Bengal	Andhra Pradesh	Maharashtra	Karnataka
2004-05	25.42	23.91	23.96	32.40	33.67
2005-06	27.56	26.59	20.06	31.60	38.81
2006-07	26.61	30.90	18.65	31.64	32.16
2007-08	22.82	23.24	16.19	31.32	32.13
2008-09	18.96	25.81	12.99	31.19	24.94
2009-10	17.73	33.24	16.43	25.02	25.34

Source PFC reports

Figure 5.1: AT&C Loss Levens in the Selected States



Above figure present Punjab have done appreciable progress in reducing net energy losses and reported losses reduced from 25.42 % in 2004-05 to 17.73 % in 2009-10. But net Energy losses of Punjab is higher than Andhra Pradesh losses of Bengal showed increasing trend and Karnataka showed decreasing trend and equal to all India average.

Collection Efficiency

Collection efficiency in all the states has increased in the recent years (Table 1.4). but100% collection efficiency does not mean that nothing is pending but that simply represents the amount collection in the year under consideration.

Table 1.4: Collection Efficiency of various States

Year	Punjab	West Bengal	Andhra Pradesh	Maharashtra	Karnataka
2004-05	99.61	108.92	96.49	109.10	90.16
2005-06	98.01	103.69	100.22	80.74	85.03
2006-07	97.66	98.72	97.19	92.91	91.93
2007-08	100.44	99.57	98.11	90.47	86.58
2008-09	93.63	99.12	98.49	88.19	93.16
2009-10	99.03	93.57	97.58	94.42	90.54

Source Report of Public finance commission of various years

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Above table present that the recovery of dues was 100% and selected states has better performed but Punjab is highest. Hence financial health of the distribution companies is very good .But power supply for agriculture sector in still un-metered. Actual financial performance depends upon how much of the total cost is recovered from the consumers. Cost recovery ratios in the selected states are presented in the Table 1.8. Table 1.5: Cost Recovery Ratio in the Selected States

(in Percentage)

Year	Punjab	West Bengal	Andhra Pradesh	Maharashtra	Karnataka
1994-95	66.70	73.70	72.10	99.40	86.80
1995-96	69.70	78.50	62.20	91.20	74.90
1996-97	73.16	72.07	73.07	96.21	75.06
1997-98	68.09	73.17	69.53	96.86	83.98
1998-99	66.64	61.2	57.45	96.57	72.36
2004-05	83	94	91	95	102
2005-06	71	95	95	91	101
2006-07	70	59	91	99	95
2007-08	72	102	85	100	97
2008-09	67	101	68	95	91
2009-10	67	101	79	96	100

Source; PFC Reports
Annual Report
Planning commission

Above table presents that cost recovery ratio of state Punjab is lowest among all the states. State showed better performance in the year 1996-97 but after that it goes decreasing. Maharashtra showed better position in all the states and have above than 90%. But not efficiently achieved in Punajb

Comparison of major cost items

Here an attempted is made to compare power purchase cost and employee cost various across the selected states.

Purchase of Power Cost (PPC)

Purchase cost is a major cost item. It is above than 70% of the total cost of supply per units power purchase cost in the selected states is presented in the Table 1.9.

Table 1.9: Purchase of Power Cost

(Paise/Kwh)

Year	Punjab	West Bengal	Andhra Pradesh	Maharashtra	Karnataka
1994-95	114	105	103	111	59
1995-96	107	117	113	156	81
1996-97	123	119	123	177	96
1997-98	141	155	158	175	91
1998-99	144	169	151	183	100
2004-05	74	168	205	68	104
2005-06	71	186	212	216	204

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2006-07	119	185	205	241	241
2007-08	147	220	235	216	210
2008-09	129	240	299	250	240
2009-10	114	251	274	279	244

Source; PFC Reports
Annual Report of Planning commission

Above table shows that purchase of power cost has no control over it. Given that high shortages of power in selected states, and companies had to purchase the energy even at the very high cost. Per unit power purchase of power cost Punjab is lowest in the selected states. .

Per Unit Employee Cost

Per unit employee cost is the second major cost component. 1.10.

Table 1.10: Employee Cost per unit in the Selected States

(Paise/Kwh)

Year	Punjab	West Bengal	Andhra Pradesh	Maharashtra	Karnataka
2004-05	50	20	15	28	08
2005-06	48	30	15	35	24
2006-07	48	28	19	25	23
2007-08	50	22	23	21	29
2008-09	55	26	21	30	28
2009-10	61	36	23	22	37

Report of Public Finance Commission

Above analysis that employee cost in Punjab is highest and two to three times of the rest of the states.

Conclusion

Comparative analysis conclude all the state governments (Punjab, Andhra Pradesh, Maharashtra, west Bengal & Karnataka) had provided major budgetary support for power sector. About one third of the total plan expenditure was spent on the development of power sector. Consequently, the generation and distribution networks were grown rapidly. Due to sustain efforts made by utilities the power sector showed a appreciable growth in generation capacity and per capita consumption of power.

Like other states, the Punjab State Electricity Board (PSEB) showed significant performance in improving plant efficiency and reducing the cost of energy Auxiliary consumption also less in Punjab except Karnataka. The auxiliary consumption of West Bengal is highest

After the initiation of reforms process, very significant progress in reducing energy losses

AT&C losses were reported higher in Punjab in comparison to Andhra Pradesh. All States had improved the revenue collection efficiency and it was about 100%.

Cost recovery ratio in Maharashtra was reported more than 90%. So, it is concluded that the utility of Punjab was unable to recover its average cost. Hence it would have to take measures to improve its cost recovery by cutting downs the unnecessary expenditure.

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