



POWER SECTOR IN PUNJAB : STUDY OF FINANCIAL POSITION

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Abstract

The Govt. of Punjab vide its notification dated 16.4.2010 issued the Punjab Power Sector Reforms and Transfer Scheme, 2010 and has notified two successor entities of the erstwhile PSEB. The Punjab State Power Corporation Limited (PSPCL) is one of the successor entities and is entrusted with the functions of generation, distribution, wheeling and retail supply of electricity in the state. The other successor entity, the Punjab State Transmission Corporation Limited (PSTCL) is assigned with the functions of transmission of electricity in the State, including functions of State Load Dispatch Centre (SLDC). The present paper is an attempt to examine the financial performance of PSEB/PSPCL during the last six years. i.e. from 2007-08 to 2012-13.

Introduction

The power sector in India has undergone significant progress after Independence from time to time. In nineties Government of India has promulgated Electricity Regulatory Commission Act, 1998 for setting up of Independent Regulatory bodies both at the Central level and at the State level viz. The Central Electricity Regulatory Commission (CERC) and the State Electricity Regulatory Commission (SERCs) at the Central and the State levels respectively. The main function of the CERC are to regulate the tariff of generating companies owned or controlled by the Central Government, to regulate the tariff of generating companies. The main functions of the SERC would be to determine the tariff for electricity wholesale bulk, grid or retail, to determine the tariff payable for use by the transmission facilities to regulate power purchase and procurement process of transmission utilities and distribution utilities, to promote competition, efficiency and economy in the activities of the electricity industries etc. Subsequently, as and when each State Government notifies, other regulatory functions would also be assigned to SERCs.

The Punjab State Electricity Board was constituted as an integrated power utility under the Electricity (Supply) Act 1948. It continued discharging the generation, transmission and



distribution functions up to April 2010. The government of Punjab was required to unbundle the Punjab State Electricity Board (PSEB) under the provisions of the Electricity Act 2003. However, under the pressure from certain political interests and employees' unions, it deferred the restructuring process of PSEB for many years. Ultimately, the state government had to unbundle the PSEB into separate generation, transmission and distribution companies. The Govt. of Punjab vide its notification dated 16.4.2010 issued the Punjab Power Sector Reforms and Transfer Scheme, 2010 and has notified two successor entities of the erstwhile PSEB. The Punjab State Power Corporation Limited (PSPCL) is one of the successor entities and is entrusted with the functions of generation, distribution, wheeling and retail supply of electricity in the state. The other successor entity, the Punjab State Transmission Corporation Limited (PSTCL) is assigned with the functions of transmission of electricity in the State, including functions of State Load Dispatch Centre (SLDC). It may be noted that reform process was initiated with formation of the regulatory commission in 1999. However, the generation, transmission and distribution functions continued to be vested in the Punjab State Electricity Board, a single entity. The PSEB was reorganized quite recently on 16.04.2010 in to two separate companies, one for generation and distribution functions and the other for transmission and load dispatch centre which was a statutory requirement. Therefore, Punjab study is an exercise in examining the changes in performance of the under the direction of the regulatory commission (PSERC) during the last 6 years i.e. from 2007-08 to 2012-13. In this paper we analysed the performance of the utility taking into consideration some performance parameters such as plant load factor, energy losses, commercial losses etc.

In the view of these developments, the present paper is an attempt to examine The financial performance of PSEB/PSPCL during the last six years.

Financial Performance of PSEB/PSPCL

1. Power Sold

In Punjab the consumers of power are divided in various categories such as Domestic, Commercial, Industrial, agricultural, Public lighting and Railways etc. The share of various categories in total power sold in Punjab over the period of last ten years is shown in Table no. 1 as follows:



Table 1

ENERGY SOLD WITHIN STATE (In MU's)												
Sr. No.	Description	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	EGR
1	Domestic	5138.9 (23.03)	5063.6 (22.23)	5285.7 (21.60)	5662.3 (21.27)	6348.8 (20.99)	6458.7 (21.67)	7007.5 (21.94)	7915.2 (24.18)	8635.9 (25.18)	9284.9 (25.62)	7.37
2	Commercial(NRS)	1234.9 (5.54)	1275.1 (5.60)	1409.7 (5.76)	1591.3 (5.98)	1826.7 (6.04)	1868.2 (6.27)	2013.0 (6.30)	2360.7 (7.21)	2591.7 (7.56)	2688.8 (7.42)	9.70
3	Small Power	652.3 (2.92)	621.5 (2.73)	611.2 (2.50)	627.2 (2.36)	641.9 (2.12)	631.4 (2.12)	657.3 (2.06)	717.0 (2.19)	749.0 (2.18)	753.2 (2.08)	2.16
4	Medium Supply	1311.8 (5.88)	1272.2 (5.58)	1278.9 (5.23)	1307.4 (4.91)	1374.6 (4.55)	1331.8 (4.47)	1405.8 (4.40)	1545.3 (4.72)	1620.0 (4.72)	1598.3 (4.41)	2.83
5	Large Supply	6561.4 (29.41)	6757.6 (29.67)	7308.0 (29.87)	7863.3 (29.54)	8514.8 (28.15)	8448.2 (28.34)	8544.5 (26.76)	8409.9 (25.69)	8759.4 (25.54)	9362.9 (25.83)	3.68
6	Agricultural Supply	6242.9 (27.98)	6468.3 (28.40)	7313.9 (29.89)	8229.5 (30.92)	10022.2 (33.14)	9325.4 (31.28)	10469.3 (32.78)	10116.9 (30.90)	10248.6 (29.88)	10779.0 (29.74)	6.51
7	Public Lighting	252.0 (1.13)	286.1 (1.26)	298.3 (1.22)	317.7 (1.19)	333.5 (1.10)	329.0 (1.10)	340.0 (1.06)	358.3 (1.09)	369.0 (1.08)	405.0 (1.12)	4.43
8	Bulk & Grid Supply	441.2 (1.98)	544.8 (2.39)	551.2 (2.25)	561.7 (2.11)	585.4 (1.94)	588.3 (1.97)	626.7 (1.96)	659.1 (2.01)	675.5 (1.97)	700.5 (1.93)	4.27
9	Others	475.2 (2.13)	490.2 (2.15)	413.6 (1.69)	456.8 (1.72)	595.1 (1.97)	828.6 (2.78)	869.9 (2.72)	657.9 (2.01)	646.0 (1.88)	668.8 (1.85)	5.99
10	Total	22310 (100)	22779 (100)	24470 (100)	26617 (100)	30243 (100)	29810 (100)	31934 (100)	32740 (100)	34295 (100)	36242 (100)	5.75

Source: Electricity Statistics of Punjab.

2. Revenue From Sale of Power:

The revenue from sale of power in Punjab is split into various categories such as Domestic, Commercial, Industrial, agricultural, Public lighting and Railways etc. The share of various categories in sale of power in Punjab over the period of last ten years is shown in Table no. 2 as follows:



Table No 2

REVENUE FROM SALE OF POWER (Rs. In Crores)												
Sr No	Description	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	EGR
1	Domestic	1385.9 (24.14)	1326.9 (23.23)	1511.2 (24.36)	1562.4 (24.50)	1628.2 (24.03)	1758.4 (24.35)	2107.5 (25.61)	2604.2 (27.53)	3030.1 (30.24)	3611.6 (29.65)	11.59
2	Commercial (NRS)	578 (10.07)	569.3 (9.97)	656.2 (10.58)	733.7 (11.51)	818 (12.07)	884.5 (12.25)	1040.2 (12.64)	1258.4 (12.64)	1430.9 (13.30)	1639 (14.28)	13.03
3	Small Power	234.9 (4.09)	226.4 (3.96)	238.7 (3.85)	248.5 (3.90)	255 (3.76)	270.5 (3.75)	305.3 (3.71)	338.9 (3.58)	379.3 (3.79)	433.6 (3.56)	7.26
4	Medium Supply	536.1 (9.34)	507.2 (8.88)	563.7 (9.09)	572.7 (8.98)	589.1 (8.69)	625.8 (8.67)	710.7 (8.64)	802.2 (8.48)	869.5 (8.68)	959 (7.87)	7.21
5	Large Supply	2436.3 (42.44)	2436.3 (42.65)	2762 (44.52)	2957.5 (46.38)	3178.8 (46.91)	3372 (46.69)	3712.7 (45.12)	3541.6 (37.43)	3898.5 (38.91)	5060.1 (41.54)	7.45
6	Agricultural Supply	329.2 (5.78)	391.8 (6.86)	203.2 (3.28)	24.1 (0.38)	18 (0.27)	0 (0.00)	0 (0.00)	520.6 (5.50)	1.6 (0.02)	3.1 (0.03)	(49.6)
7	Public Lighting	46.2 (0.80)	46.8 (0.82)	52 (0.84)	57 (0.89)	60.4 (0.89)	72.2 (1.00)	69.1 (0.84)	84 (0.89)	81.8 (0.82)	97.8 (0.80)	8.73
8	Bulk & Grid Supply	160.8 (2.80)	158.8 (2.78)	167.6 (2.70)	173.2 (2.72)	180.2 (2.66)	180.9 (2.50)	210.8 (2.56)	236.9 (2.50)	260.7 (2.60)	298.5 (2.45)	7.13
9	Railway Traction	32.3 (0.56)	49 (0.86)	49.7 (0.80)	46.7 (0.73)	49.3 (0.73)	58 (0.80)	72.9 (0.89)	74.5 (0.79)	67 (0.67)	78.5 (0.64)	8.66
10	Others	181.46 (3.16)	141.3 (2.47)	251.6 (4.06)	420.4 (6.59)	889.7 (13.13)	1495.9 (20.71)	109.98 (1.34)	203.41 (2.15)	178.45 (1.78)	143.25 (1.18)	(3.02)
11	Total	5740 (100.00)	5712 (100.00)	6204 (100.00)	6376 (100.00)	6777 (100.00)	7222 (100.00)	8229 (100.00)	9461 (100.00)	10019 (100.00)	12181 (100.00)	8.62

Table 2 indicates that industrial category consumers are major source of revenue from Sale of Power as it contributed on an average of 55.79% towards total revenue from Sale of Power in Punjab during the period of study. The percentage share of Revenue from Sale of Power was least at 49.49% during 2010-11 and maximum at 59.35% during 2007-08. Further the analysis of above table showed that percentage share in Revenue from Domestic Consumer was increased from 24.14 (2003-04) to 29.65 (2012-13). The analysis also showed that revenue from Sale of Power to Agricultural consumers was very low during the years 2003-04, 2004-05, 2005-06 and 2010-11. During the rest of the years the share of revenue from agricultural consumers was very less than 1 percent due to free supply of power to Agriculture Sector. The



analysis of above table showed that revenue from Sale of Power in Punjab has increased at an EGR of 8.62. The revenue from domestic and commercial consumer category has increased at EGR of 11.59 and 13.03 during the period of study. Further revenue from industrial category has increased at an EGR of 7.40.

3. Average Cost and Revenue Per unit Sold:

The current tariff structure of PSEB/PSPCL is built on principles of cross subsidization with certain categories of consumers (commercial and large industry) subsidizing other categories (agricultural pump sets, domestic). The average cost of supply and average realization over the last ten years as reported by the Board is given in Table 3 as follows:

Table: 3

Average Cost and Revenue Per Unit Sold BY PSEB/PSPCL During Period April 2003-March 2013			
Year	Revenue Per Unit Sold (in Paise)	Cost Per Unit Sold (in Paise)	Margin Per Unit Sold (in Paise)
2003-04	267	296	-30
2004-05	266	337	-71
2005-06	274	328	-55
2006-07	255	375	-121
2007-08	246	395	-149
2008-09	276	397	-121
2009-10	255	412	-157
2010-11	279	469	-190
2011-12	293	473	-180
2012-13	341	536	-195

Source: Electricity Statistics of Punjab.

Table 3 indicates that PSEB (PSPCL consistently suffered a loss of on an average 127 paise per unit). The revenue per unit realised increased from 267 paise (2003-04) to 341 paise (2012-13). Further the cost per unit sold had increase significantly from 296 paise (2003-04) to 536 paise (2012-13). Consequently the loss per unit sold has continuously increasing over the period of study from 30 paise (2003-04) to 195 paise per unit.



4. Connections Released

PSEB/PSPCL released connections in Punjab to various categories such as Domestic, Commercial, Industrial, agricultural, Public lighting and Railways etc. The share of various categories over the period of last ten years is shown in Table No. 4 as follows:

Table No. 4

Category wise Number of Connections Released by PSEB/PSPCL During the Period April 2003-March 2013					
Year	General	Industrial	Agricultural	Others	Total
2003-04	174019	3525	22886	121	174140
2004-05	201415	3387	31212	145	201560
2005-06	166977	3468	17422	135	167112
2006-07	197794	4194	38523	204	197998
2007-08	170588	4088	11058	174	170762
2008-09	235974	3096	50791	168	236142
2009-10	249148	4443	72670	239	249387
2010-11	409153	4960	36087	195	409348
2011-12	315404	5524	15201	226	315630
2012-13	321291	4289	21981	246	321537
EGR	8.96	4.25	1.02	7.39	8.96

Source: Electricity Statistics of Punjab.

Table 4 indicates that total number of connections released during a year increased from 174140 (2003-04) to 321537 (2012-13) with an EGR of 8.96. The number of connection released to general category (Domestic and commercial) had increased from 174019 connections (2003-04) to 321291 connections (2012-13) at an EGR of 8.96. Further, the number of connection released to industrial units and Agricultural unit has also increased at an EGR of has also increased at an EGR of 4.25 and 1.02 respectively.

5. Revenue Receipt and Revenue Expenditure

PSEB/PSPCL keeps their accounts on cash basis. The cash basis of accounting recognizes transactions and events only when cash (including cash equivalents) is received or paid by the entity. The Revenue Receipts, Revenue expenditures and Profit/Loss after adjusting interest, Depreciation & subsidy during the last ten years are shown in Table No. 5



Table No. 5

Revenue Receipt and Revenue Expenditure (In Rs Crores)							
Year	Revenue Receipts	Revenue Expenditure	Gross operating Surplus/Deficit	Depreciation	Interest	Prior Period Items	Profit/Loss
2003-04	7121.24	5071.04	2050.20	562.50	1130.38	-182.40	174.92
2004-05	7167.56	6231.75	935.81	574.73	1000.00	47.74	-591.18
2005-06	8335.46	6726.16	1609.30	583.40	941.60	-50.64	33.66
2006-07	8706.68	8858.23	-151.55	604.52	884.62	16.45	-1624.24
2007-08	11082.06	11194.19	-112.13	665.77	713.61	111.38	-1380.13
2008-09	11915.19	11035.05	880.14	693.73	1119.90	-107.60	-1041.09
2009-10	12191.47	11238.02	953.45	796.85	1301.20	-74.74	-1219.34
2010-11	12532.20	11764.52	767.68	665.38	1767.37	-192.59	-1857.66
2011-12	16210.64	13553.95	2656.69	705.24	2163.33	-241.35	-453.23
2012-13	19874.13	16476.79	3397.34	762.26	2379.04	-32.52	223.52

Source: Management Information Report of PSPCL.

Table 5 indicates that PSEB/PSPCL has continuously incurred losses except during the financial year 2003-04, 2005-06 and 2012-13. The financial results of PSEB/PSPCL had shown an improvement after the unbundling as loss in 2011-12 was significantly decline to Rs.453.23 crores and then resulting into profit of Rs.223.52 crores during the F/Y 2012-13.

Conclusion

Punjab was observed as one of the states initiating power sector reforms relatively late. Punjab State Electricity Regulatory Commission (PSERC) was constituted to regulate the power sector in the state. However, unbundling of PSEB which was due under the provisions of the Electricity Act 2003 was deferred for many years. It was only in 2010 when PSEB was unbundled. The transmission business is separated from the generation as well as distribution business. The overall objective of power sector reform is to restore financial viability of the electricity utilities improving the quality of service at the consumer ends. The Punjab is among a very few states in the country providing free power supply to agriculture. Agriculture sector consumes about 30% of the total energy in the states. Consequently, the dependency of the utility on state government has been increasing. The state government is not providing adequate subsidy in the form of cash. The committed subsidy is adjusted by converting the past loan taken by PSEB into grants. This



practice does not provide any financial liquidity to the company. Another important issue is un-metered power supply to agriculture. The poor metering is a major barrier in the accurate estimation of energy consumption by agriculture sector and the overall T&D losses in the state. Therefore, it is suggested that sincere efforts should be made comply various provisions of the Electricity Act 2003 as well as National Electricity Policy. The power supply to all consumers should be fully metered so that the accountability is fixed in the system. The government should pay full compensation in cash on account of free power supply provided to agricultural sector.

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