Power Generation and Consumption in Himachal Pradesh

1. The year wise data on power generation and power purchase by the HPSEB from outside w.e.f. 1980-81 has been depicted in the following table:-

Power Generated/Purchased

Generation Year	Generation MU	Electricity Purchased MU
1.	**2.**	**3.**
1980-81	245.07	265.41
1985-86	596.83	392.12
1989-90	935.51	887.58
1990-91	1262.40	1058.69
1991-92	1050.37	1200.72
1992-93	1087.38	1256.16
1993-94	976.60	1338.98
1994-95	1131.69	1685.43
1995-96	1285.42	1926.35
1996-97	1251.93	2065.58
1997-98	1306.008	2287.61
1998-99	1484.493	2333.831
1999-2k	1201.319	2520.149
2000-01	1153.321	2539.338
2001-02	1149.501	2588.836
2002-03	1277.929	2882.881
2003-04	1356.953	3936.958
2004-05	1295.410	4296.838
2005-06	1332.375	4918.951
2006-07	1432.375	5056.951
2007-08	1864.943	5433.371
2008-09	2075.138	6047.497

2 It would be seen that power generation, which was 245.07 MU in 1980-81, touched the level of 1262.40 MU in 1990-91. The electricity generation process got a set back in the year 1993-94, when it dipped to a level of 976.60 MU due to the blockage in the Satluj river at Bhaba which brought the generation process to a halt. Thereafter, the generation went up so rapidly that it touched the highest level in the year 2008-09. The shortfall in over-all generation during 1999-2000 to 2006-07 is mainly due to less water availability at power stations. During the year 2008-09, total electricity generation from own projects was 2075.138 MU.

Sale of Power

(Million KWH)

Year	Sale within the State	Sale Outside the State	Total
1.	**2.**	**3.**	**4.**
1980-81	264.73	147.13	411.86
1984-85	470.02	217.28	687.30
1985-86	563.32	223.93	787.25
1989-90	897.10	359.487	1256.587
1990-91	1008.74	717.715	1726.455
1991-92	1022.02	581.866	1603.886
1992-93	1083.28	581.749	1665.029
1993-94	1155.63	511.047	1666.677
1994-95	1339.68	752.721	2092.401
1995-96	1597.68	802.400	2400.08
1996-97	1757.61	732.453	2490.063
1997-98	1946.52	721.458	2667.978
1998-99	2083.42	713.289	2796.709
1999-2k	2181.741	681.985	2863.726
2000-01	2205.866	615.618	2821.484
2001-02	2331.860	548.837	2880.697
2002-03	2519.002	688.026	3207.028
2003-04	2726.324	1692.889	4419.213
2004-05	2954.156	1658.997	4613.153
2005-06	3568.689	1722.532	5291.221
2006-07	4300.439	1255.280	5555.719
2007-08	5028.655	1198.620	6227.275
2008-09	5460.507	1498.210	6958.717

3 It would be seen that sale of power within the State is on an increase and registered an increase of 77.55 percent during 1984-85 over 1980-81 period. During 1989-90, the sale within the State was 897.10 Million kwh and registered an increase of 90.86 percent over 1984-85 period. During 1994-95 the sale within the State was 1339.68 Million kwh and registered an increase of 49.33% over 1989-90 period. During 1999-2000, the sale within the State was 2181.741 Million kwh and registered an increase of 62.86% over 1994-95 period and during the last financial year 2007-08 the sale within the State was 5028.655 Million kwh and registered an increase of 16.93% over previous financial year 2006-07. The power sale within and outside the State during 2008-09 was of the order of 6958.717 Million kwh. The aggregate availability being 8014.502 Million units, the transmission and distribution losses come to 1055.785 Million units, which accounted for 13.17% of the total energy availability. However, it needs to be underlined that the aggregate figures of T&D losses do not reflect the reality since a large volume of energy is also wheeled through the system.

The trend in power consumption in the state among different end uses is given below:-

Power Consumption

(Million kwh)

Sr. No.	End Users	Year 1991-92	At the end of 8th Plan 1996-97	At the end of 9th Plan 1997-02	At the end of 10th Plan 2002-07	Year 2007-08	Year 2008-09
1.	2.	3.	4.	5.	6.	7.	8.
1.	Domestic	253.1 (24.7)	426.771 (24.28)	664.419 (28.49)	948.307 (22.05)	1058.812 (21.06)	1089.118 (19.95)
2.	Commercial	83.7 (8.2)	120.549 (6.86)	174.963 (7.52)	225.776 (5.25)	248.252 (4.94)	274.663 (5.03)
3.	Industrial	467.7 (47.2)	910.622 (51.81)	1122.544 (48.14)	2553.520 (59.38)	3100.095 (61.65)	3385.303 (62.00)
4.	Govt. Irrigation & WSS	94.8 (9.3)	149.334 (8.50)	202.258 (8.67)	324.881 (7.56)	334.973 (6.66)	389.331 (7.13)
5.	Agriculture	29.8 (2.92)	11.375 (0.65)	18.048 (0.77)	26.404 (0.61)	26.653 (0.53)	28.738 (0.53)
6.	Public Lighting	3.2 (0.31)	6.158 (0.35)	9.135 (6.39)	11.355 (0.26)	12.609 (0.25)	13.013 (0.24)
7.	Non Domestic/ Non Commercial *				63.386 (1.47)	77.349 (1.54)	80.585 (1.48)
8.	Temporary *				19.370 (0.45)	23.407 (0.47)	22.705 (0.42)
9.	Bulk/Misc.	70.2 (6.87)	132.797 (7.55)	140.493 (6.02)	127.461 (2.96)	146.505 (2.90)	177.050 (3.24)
Total		1002.00	1757.606	2331.860	4300.439	5028.656	5460.50

Note: Figure in parentheses are percent shares of various end uses of energy for each year.
*** Commercial category consumption up to FY 2001-02 is including Non domestic Non-Commercial / temporary category consumption.**

4 The above data indicates that industrial consumption has increased to 3385.303 Million Kwh at the end of the year 2008-09, which is 9.20% more than the consumption recorded during the year 2007-08 which is the first year of the 11th Plan. It is interesting to note down that industrial consumption alone account for about 62% of the total consumption which signifies the high rate of industrialization in the State.

5 The other interesting feature to note down is that as compared to the year 2007-08 to 2008-09 there is slight increase in commercial consumption whereas marginal decrease in domestic consumption of power. In agriculture the power consumption remained same during the year 2007-08 & 2008-09, while in Govt. irrigation and water supply percentage consumption has slightly increased as compared to the year 2007-08 to 2008-09.