

CONTENTS

A) Summary Report	Page No.
I. Grid Overview during the Month	1
2. Commissioning of New Units/Lines/Transformers	1
3. Frequency Profile	2
4. Power Supply Position in Northern Region	2
5. Schedule Vs Actual Drawal of Constituents	3
6. Inter Regional Exchanges	3
 B) Detailed Report	
I Details of Installed/Effective Capacity	4-8
II. Breakup of Hydro Capacity	9
III. Frequency Profile	10
IV. Voltage Profile	11
V. Regional Power Supply Position	12
VI. Daily Peak/Off Peak Demand Met By Constituents	13-14
VII. Daily Consumption By Constituents	15
VIII. Schedule vs Actual Drawal of Constituents on daily basis	16-17
IX. Schedule vs Actual Injection of ISGS day wise	18-21
X. Daily Generation Details of State Sector Stations	22
XI. Performance of Generating Stations(Central /Joint / state sector)	23-25
XII. Energy details of Bilateral Agreements (Intra-Regional)	26
XIII. Energy details of Bilateral Agreements (Inter-Regional)	27
XIV Inter Regional Exchanges daily basis	28-31
XV Status of Installation of Shunt Capacitors	32
XVI Hydraulic Data for Reservoirs	33
 C) Annexures	
1. Load Duration Curve of Northern Region	
2. Frequency Duration Curve of Northern Region	
3. Load Curve Of Northern Region for the Maximum Demand Met Day	
4. Load Curve Of Northern Region for the Minimum Demand Met Day	
5. Demand Met and Requirement of Northern Region (MU)	
6. Grid incident	
7. 400 KV Grid Diagram of Northern Region	

NORTHERN REGION GRID REPORT FOR THE MONTH OF NOVEMBER 2004

A) Summary Report

Grid Overview during the Month

1.

In the month of November 2004 the Power supply in the region was satisfactory . The average energy and peak MW shortages were 6.54% and 9.44%. The average system frequency was 49.70 Hz and frequency remained in normal band i.e. between 49.00 & 50.50 for 92.63 % of time . The average frequency variation index during the month was 2.68 and standard deviation was 0.42 . The maximum regional availability during the month was 22823 MW . The average demand met was 18463 MW and 409.01 MU in terms of energy . The maximum requirement was 24421 MW and average requirement was 456.53 MU in terms of energy.

There was a considerable improvement in voltage profile on most of the 400 KV/220KV buses during this month .

During this month there was no major grid incident except few trippings in J&K and Punjab system.

2. Commissioning of new Units/Lines/Transformers during the month

Panipat unit 7 (210 MW) first time synchronised on 13-12-2004 for testing purpose

3. Monthly Frequency Profile :

Maximum frequency	50.77	Hz	at	23.45	hours on	19.11.2004
Minimum frequency	48.52	Hz	at	17.37	hours on	22.11.2004
Average frequency	49.70	Hz				

Frequency distribution in %

Hz	< 48.50	<49.00	49.00-50.50	> 50.50
% of time	0.00	7.30	92.63	0.07

Monthly Frequency Variation Index	2.68
Maximum	6.57
Minimum	0.51

4. Power Supply Position :

a. Average Energy/day (Net)

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	67.48	71.04	3.56	5.01
Haryana	50.53	56.13	5.60	9.98
Rajasthan	86.59	86.79	0.20	0.23
U.P.	110.90	141.51	30.61	21.63
Uttanchal	12.03	12.30	0.27	2.20
Delhi	46.65	47.20	0.55	1.17
H.P.	10.52	10.56	0.04	0.38
J & K *	19.89	21.68	1.79	8.26
Chandigarh	2.65	2.65	0.00	0.00
N.F.F./Rail	1.78	1.78	0.00	0.00
Total	409.01	451.63	42.62	9.44

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	3782	4554	772	16.95
Haryana	3206	3466	260	7.50
Rajasthan	4430	4430	0	0.00
U.P.	5759	7403	1644	22.21
Uttanchal	796	836	40	4.78
Delhi	2840	2843	3	0.11
H.P.	597	678	81	11.95
J & K *	1151	1300	149	11.46
Chandigarh	163	163	0	0.00
N.F.F./Rail	70	70	0	0.00
Region	22823	24421	1598	6.54
Diversity Factor = 1.04				

* Approximate and Estimated

5. **Schedule Vs Drawal By the Constituents :**

(All figs in M.U)

State / U.T.	Schedule	Actual	OD(+)/UD(-)
Punjab	1061.52	1022.33	-39.19
Haryana	729.70	708.21	-21.49
Rajasthan	813.05	872.75	59.70
U.P.	1623.29	1652.86	29.57
Uttranchal	177.56	178.28	0.72
Delhi	748.09	605.36	-142.73
H.P.	231.53	208.40	-23.13
J & K	474.74	561.40	86.66
Chandigarh	100.54	79.66	-20.88
N.F.F./Rail	50.15	53.54	3.39

6. **Inter Regional Exchanges**

	Energy M.U.	Peak MW
<u>Import</u>		
a) From WR over HVDC Vindhyachal B/B	83.79	400
b) From WR over 220 kV Ujjain-Kota	0.00	0
c) From ER over HVDC Sasaram B/B	255.31	500
d) From ER over 220 kV Pusauli-Sahupuri	91.90	186
<u>Export</u>		
e) To WR over HVDC Vindhyachal B/B	0.10	205
f) To WR (MP) over 220 kV Auraiya-Malanpur	0.00	0
g) To WR(MP) over 220 kV Kota-Ujjain	0.00	0
h) To ER over 220 kV/132kV lines	0.15	30
i) To ER over HVDC Sasaram B/B	0.00	0
j) To Nepal over 132 kV Tanakpur-Mahendernagar	0.14	30

B). Detailed Report**I. Details of Installed/Effective Capacity at the end of November 2004**

	<u>STATION</u>	<u>INSTALLED CAPACITY</u>	<u>EFFECTIVE CAPACITY</u>
		(MW)	
A	NTPC		
(a)	Badarpur TPS	3x100+2x210 720.00	3x95+2x210 705.00
(b)	Singrauli STPS	5x200+2x500 2000.00	5x200+2x500 2000.00
(c)	Rihand STPS	2x500 1000.00	2x500 1000.00
(d)	Dadri NCTPS	4x210 840.00	4x210 840.00
(e)	Unchahar TPS	2x210 + 2x210 840.00	2x210 + 2x210 840.00
(f)	Tanda TPS	4x110 440.00	4x110 440.00
(g)	Anta GPS	3x88.71+1x153.20 419.33	3x88.71+1x153.20 419.33
(h)	Auraiya GPS	4x111.19+2x109.30 663.36	4x111.19+2x109.30 663.36
(i)	Dadri GPS	4x130.19+2x154.51 829.78	4x130.19+2x154.51 829.78
(j)	Faridabad GPS	2x137.75 +1x156.07 431.57	2x137.75 +1x156.07 431.57
	Sub-Total	8184.04	8169.04
B	NHPC		
(a)	Bairasiul	3x60 180.00	3x60 180.00
(b)	Salal Stage - I	3x115 345.00	3x115 345.00
(c)	Salal Stage - II	3x115 345.00	3x115 345.00
(d)	Tanakpur HPS	3x40 120.00	3x31.4 94.20
(e)	Chamera HPS-I	3x180 540.00	3x180 540.00
(f)	Chamera HPS-II	3x100 300.00	3x100 300.00
(g)	URI	4x120 480.00	4x120 480.00
	Sub-Total	2310.00	2284.20
C.	NPC		
(a)	RAPS -A	2x220 440.00	1x100+1x200 300.00
(b)	RAPS -B	2x220 440.00	2x220 440.00
(c)	NAPS	2x235 470.00	2x220 440.00
	Sub-Total	1350.00	1180.00
D.	Nathpa-Jhakri	6x250 1500.00	6x250 1500.00
Total Central Sector (A + B + C +D)		13344.04	13133.24
2	BBMB		
(a)	Bhakra Complex		
(i)	Bhakra (L)	5x108 540.00	5x108 540.00
(ii)	Bhakra (R)	5x157 785.00	5x157 785.00
(iii)	Ganguwal	1x29.25+1x24.20+1X24.20 77.65	1x29.25+1x24.20+1X24.20 77.65
(iv)	Kotla	1x29.25+1x24.20+1X24.20 77.65	1x29.25+1x24.20+1X24.20 77.65
	Sub-Total	1480.30	1480.30
(b)	Dehar	6x165 990.00	6x165 990.00
(c)	Pong	6x66 396.00	6x66 396.00
	Total BBMB	2866.30	2866.30

contd/-

3	CHANDIGARH				
(a)	Diesel Gen Sets		2.00		1.40
4	DELHI				
	THERMAL				
(a)	Indra Prastha	3x62.5+1x60	247.50	3x62.5+1x60	247.50
(b)	Rajghat	1x15+2x67.5	150.00	2x67.5	135.00
(c)	Gas Turbines	6x30+3x34	282.00	6x30+3x34	282.00
(d)	Pragati Gas Turbines	2x104.6+1x121.2	330.00	2x104.6+1x121.2	330.00
	Total DELHI		1009.50		994.50
5	HARYANA				
	HYDRO				
(a)	Western Yamuna-I & II Canal (WYC)	6x8+2x7.2	62.40	6x8+2x7.2	62.40
	Total Hydro		62.40		62.40
	THERMAL				
(b)	Faridabad (New)	3x60	180.00	3x55	165.00
(c)	Panipat	4x110+2x210	860.00	4x110+2x210	860.00
	Total Thermal		1040.00		1025.00
(d)	Magnum Diesel (IPP)	4x6.3	25.20	4x6.3	25.20
	Total Haryana		1127.60		1112.60
6	HIMACHAL PRADESH				
	HYDRO				
(a)	Giri	2x30.00	60.00	2x30.00	60.00
(b)	Bassi	4x15.00	60.00	4x15.00	60.00
(c)	Binwa	2x 3.00	6.00	2x 3.00	6.00
(d)	Rongtong	4x 0.50	2.00	4x 0.50	2.00
(e)	Andhra	3x 5.65	16.95	3x 5.65	16.95
(f)	Micro Hydel+Killar+Thirot		8.75	8.75	8.75
(g)	Nogli	2x 0.25+4x0.50	2.50	2x 0.25+4x0.50	2.50
(h)	Bhabha (H)	3x40.00	120.00	3x40.00	120.00
(i)	Baner (H)	3x 4.00	12.00	3x 4.00	12.00
(j)	Gaj (H)	3x 3.50	10.50	3x 3.50	10.50
(k)	Sal -2	1x 2	2.00	1x 2	2.00
(l)	Gumma	.	3.00	3.00	3.00
(m)	Ghanvi	2x11.25	22.50	2x11.25	22.50
(n)	Diesel Gen. Sets		0.00	0.00	0.00
(o)	Malana (IPP)	2x43	86.00	2x43	86.00
(p)	Baspa (IPP)	3x100	300.00	3x100	300.00
	Total HP		712.20		712.20
7	J & K				
	HYDRO				
(a)	Lower Jhelum	3x35.0	105.00	3x35.0	105.00
(b)	Upper Sindh	2x11.30+3x35.0	127.60	2x11.30+3x35.0	127.60
(c)	Ganderbal	2x3+2x4.5	15.00	2x3+2x4.5	15.00
(d)	Mohra	2x4.5	9.00	2x4.5	9.00
(e)	Chenani	5x4.66 +2X1.0 +3x2.5	32.80	5x4.66 +2X1.0+3x2.5	32.80
(f)	Stakna	2x2.0 +3x1.25 +2.0	9.75	2x2.0 +3x1.25 +2.0	9.75
(g)	Small Hydel		3.54	3.54	3.54
(h)	Sewa	3x3.0	9.00	3x3.0	9.00
	Total Hydro		311.69		311.69

contd/-

J & K (Contd.)					
	GAS TURBINES				
(h)	Pampore GT St - I	3x25.0	75.00	3x25.0	75.00
	Pampore GT St - II	4x25.0	100.00	4x25.0	100.00
9h)	Total Gas		175.00		175.00
(I)	Diesel Gen. Sets		8.94		7.18
	Total J & K		495.63		493.87
8	PUNJAB				
	HYDRO				
(a)	Jogindernagar/ Shanan	4x15+1x50	110.00	4x15+1x50	110.00
(b)	Upper Behari Doab Canal (UBDC)	3x15+3x15	90.00	3x15+3x15	90.00
(c)	Mukerian	6x15+6x19.5	207.00	6x15+6x19.5	207.00
(d)	Anandpur Sahib (APS)	4x33.5	134.00	4x33.5	134.00
(e)	Ranjit Sagar HPS	4x150	600.00	4x150	600.00
(f)	Small Hydel		4.10	4.10	4.10
	Total Hydro		1145.10		1145.10
	THERMAL				
(g)	Guru Nanak Dev TPS (Bhatinda)	4x110	440.00	4x110	440.00
(h)	Guru Gobind Singh TPS (Ropar)	6x210	1260.00	6x210	1260.00
(i)	Lehra Mohabbat TPS	2x210	420.00	2x210	420.00
(j)	Jhalkei Rice Straw Fired	1x10	10.00	1x10	10.00
	Total Thermal		2130.00		2130.00
	Total Punjab		3275.10		3275.10
9	RAJASTHAN				
	HYDRO				
(a)	Mahi Bajaj Sagar	2x25+2x45	140.00	2x25+2x45	140.00
(b)	Rana Pratap Sagar (RPS)	4x43	172.00	4x43	172.00
(c)	Jawahar Sagar (JS)	3x33	99.00	3x33	99.00
(d)	Anoopgarh	6x1.5	9.00	6x1.5	9.00
(e)	Small Hydro		14.85	14.85	14.85
(f)	Gandhi Sagar	5x23	115.00	5x23	115.00
	Total Hydro		434.85		434.85
	THERMAL				
(g)	Kota TPS	2x110+3x210 +1x195	1045.00	2x110+3x210 +1x195	1045.00
(h)	Suratgarh TPS	5x250	1250.00	5x250	1250.00
(i)	Ramgarh GT	1x3	3.00	1x3	3.00
(j)	Ramgarh GT EXT.	1x35.5	35.50	1x35.5	35.50
	Total Thermal		2333.50		2333.50
(J)	Wind farm		14.01	14.01	14.01
	Total Rajasthan		2782.36		2782.36

contd/-

10	UP				
	HYDRO				
(a)	Rihand	6x50.0	300.00	6x50.0	300.00
(b)	Obra	3x33.0	99.00	3x33.0	99.00
(c)	Matatilla	3x10.0	30.00	3x10.0	30.00
(d)	Khara	3x24.0	72.00		72.00
	Total Hydro		501.00		501.00
	THERMAL				
(g)	Obra	5x50	250.00	4x40	160.00
(h)	Obra Extn. - I	3x100	300.00	3x94	282.00
(i)	Obra Extn. - II	5x200	1000.00	5x200	1000.00
(j)	Panki	1x32	32.00	1x32	32.00
(k)	Panki Extn.	2x110	220.00	2x105	210.00
(l)	Harduaganj - A	3x30	90.00	0	0.00
(m)	Harduaganj - B	2x50+2x60	220.00	1x40+2x55	150.00
(n)	Harduaganj - C	2x60+1x110	230.00	2x60+1x105	225.00
(o)	Paricha	2x110	220.00	2x110	220.00
(p)	Anpara - A	3x210	630.00	3x210	630.00
(q)	Anpara - B	2x500	1000.00	2x500	1000.00
	Total Thermal		4192.00		3909.00
	Total UP		4693.00		4410.00
11	UTTRANCHAL				
	HYDRO				
(a)	Khatima	3x13.8	41.40	3x13.8	41.40
(b)	Ramganga	3x66.0	198.00	3x66.0	198.00
(c)	Ganga Canal				
	Chitwa	2x1.5+		2x1.5+	
	Mohamedpur	3x3.1+		3x3.1+	
	Pathri	3x6.8	32.70	3x6.8	32.70
(d)	Yamuna (I & IV)				
	- Dhalipur	3x17.00+		3x17.00+	
	- Dhakrani	3x11.25+		3x11.25+	
	- Kulhal	3x10.00	114.75	3x10.00	114.75
(e)	Chibro	4x60.0	240.00	4x60.0	240.00
(f)	Khodri	4x30.0	120.00	4x30.0	120.00
(g)	Chilla	4x36.0	144.00	4x36.0	144.00
(h)	Maneri Bhali	3x30.0	90.00	3x30.0	90.00
(l)	Sibla+Small hydel		18.20		18.20
	Total Hydro		999.05		999.05
	Total Region (1 to 11)		31306.78		30780.62

SUMMARY OF THE EFFECTIVE GENERATING CAPACITY (MW)

Agency / Source	Hydro	Thermal	Gas/Diesel/Wind	Nuclear	Total	% of Total
NTPC	0.00	5825.00	2344.04	0.00	8169.04	26.54%
NHPC	2284.20	0.00	0.00	0.00	2284.20	7.42%
SJVNL	1500.00	0.00	0.00	0.00	1500.00	4.87%
NPC	0.00	0.00	0.00	1180.00	1180.00	3.83%
BBMB	2866.30	0.00	0.00	0.00	2866.30	9.31%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	382.50	612.00	0.00	994.50	3.23%
HARYANA	62.40	1025.00	25.20	0.00	1112.60	3.61%
HIMACHAL	712.20	0.00	0.00	0.00	712.20	2.31%
J&K	311.69	0.00	182.18	0.00	493.87	1.60%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	10.64%
RAJASTHAN	434.85	2295.00	52.51	0.00	2782.36	9.04%
UP	501.00	3909.00	0.00	0.00	4410.00	14.33%
UTTRANCHAL	999.05	0.00	0.00	0.00	999.05	3.25%
Total	10816.79	15566.50	3217.33	1180.00	30780.62	100.00%
% of TOTAL	35.14%	50.57%	10.45%	3.83%	100.00%	

Notes The above table does not take into account the shares of a state in Generating stations located in the neighbouring states. Such details are :

- (i) Haryana has one-third share in unit Nos. 2, 3, 4 at Indraprastha power stations of Delhi viz. 62.5 MW.
- (ii) HP has 25 % share in the Dhalipur, Dhakrani, Chibro and Khodri power houses of Uttranchal viz. 111.20 MW and 20 % share in the Kulhal and Khara hydro power houses viz. 20.40 MW. However, these shares are limited to actual physical drawals over designated transmission lines.
- (iii) HP has a fixed energy share (royalty) every month in the Shanan Power House of PSEB.
0.38 LU/Day to 2.22 LU/Day.
- (iv) HP has 4.6 % share in Ranjit Sagar Dam project of PSEB viz. 27.60 MW
- (iv) The shares of Rajasthan in Chambal and Satpura projects are as under :

CHAMBAL

PROJECT	LOCATED	INSTALLED CAPACITY (MW)
Gandhi Sagar	M.P.	5 x 23 = 115
Rana Pratap Sagar	Rajasthan	4 x 43 = 172
Jawahar Sagar	Rajasthan	3 x 33 = 99
	Total	386

Rajasthan has 50 % share in the Chambal Projects viz. 193 MW.

SATPURA

PROJECTS	LOCATED	INSTALLED CAPACITY (MW)
Satpura TPS	M.P.	5x62.5+200.0+3x210.0 = 1142.50

Rajasthan has 40 % share in the first five units of Satpura TPS viz 125 MW.

II. BREAKUP OF HYDRO CAPACITY (MW) IN NORTHERN REGION AS ON 30.11.2004

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1264.00	1020.00	2284.00
BBMB	1145.30	1721.00	2866.30
SJVNL	0.00	1500.00	1500.00
DELHI	0.00	0.00	0.00
HARYANA	62.40	0.00	62.40
HP *	712.20	0.00	712.20
J&K	311.69	0.00	311.69
PUNJAB	545.10	600.00	1145.10
RAJASTHAN	262.85	172.00	434.85
UP	201.00	300.00	501.00
UTTRANCHAL	801.05	198.00	999.05
TOTAL	5305.59	5511.00	10816.59
PERCENTAGE	49.05%	50.95%	100%

*** Includes Malana IPP (86 MW) & Baspa IPP (300 MW)**

III.

Frequency Profile

Date	% of Time Frequency in various frequency bands								
	< 48.00	< 48.50	< 49.00	<49.50	49.0-50.5	> 50.00	> 50.50	> 51.00	>51.50
01	0.00	0.00	1.27	7.70	98.73	51.23	0.00	0.00	0.00
02	0.00	0.00	0.76	13.85	99.24	33.26	0.00	0.00	0.00
03	0.00	0.00	3.99	26.46	96.01	29.51	0.00	0.00	0.00
04	0.00	0.00	1.18	9.03	98.82	41.32	0.00	0.00	0.00
05	0.00	0.00	5.83	34.26	94.17	13.22	0.00	0.00	0.00
06	0.00	0.00	1.32	18.78	98.68	36.22	0.00	0.00	0.00
07	0.00	0.00	0.00	3.51	100.00	52.81	0.00	0.00	0.00
08	0.00	0.00	0.28	7.26	99.72	60.68	0.00	0.00	0.00
09	0.00	0.00	0.24	5.62	99.65	53.25	0.10	0.00	0.00
10	0.00	0.00	2.32	16.39	97.68	38.69	0.00	0.00	0.00
11	0.00	0.00	0.00	15.99	100.00	40.32	0.00	0.00	0.00
12	0.00	0.00	0.76	10.62	98.30	44.60	0.94	0.00	0.00
13	0.00	0.00	0.00	5.39	99.37	54.43	0.63	0.00	0.00
14	0.00	0.00	0.17	1.46	99.83	81.64	0.00	0.00	0.00
15	0.00	0.00	0.24	7.61	99.72	57.97	0.03	0.00	0.00
16	0.00	0.00	0.07	14.61	99.93	45.64	0.00	0.00	0.00
17	0.00	0.00	7.87	45.27	92.13	22.92	0.00	0.00	0.00
18	0.00	0.00	4.46	38.15	95.54	10.74	0.00	0.00	0.00
19	0.00	0.00	7.83	50.85	91.76	5.88	0.42	0.00	0.00
20	0.00	0.00	13.81	61.40	85.87	6.94	0.31	0.00	0.00
21	0.00	0.00	7.40	57.72	92.39	6.46	0.21	0.00	0.00
22	0.00	0.00	16.56	66.47	83.44	3.73	0.00	0.00	0.00
23	0.00	0.00	20.06	63.14	79.94	7.81	0.00	0.00	0.00
24	0.00	0.00	25.37	63.82	74.63	5.62	0.00	0.00	0.00
25	0.00	0.00	27.23	72.18	72.77	4.27	0.00	0.00	0.00
26	0.00	0.00	14.30	57.20	85.70	6.87	0.00	0.00	0.00
27	0.00	0.00	21.47	65.93	78.53	10.28	0.00	0.00	0.00
28	0.00	0.00	10.93	59.53	89.07	10.48	0.00	0.00	0.00
29	0.00	0.00	13.09	59.34	86.91	9.55	0.00	0.00	0.00
30	0.00	0.00	16.81	59.72	83.19	9.65	0.00	0.00	0.00
Max	0.00	0.00	27.23	72.18	100.00	81.64	0.94	0.00	0.00
Min	0.00	0.00	0.00	1.46	72.77	3.73	0.00	0.00	0.00
Average	0.00	0.00	7.30	32.50	92.63	29.82	0.07	0.00	0.00

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
50.44	05.03	48.73	17.39	49.95	0.83
50.40	13.10	48.87	18.25	49.85	1.06
50.49	04.32	48.56	17.56	49.74	1.99
50.42	23.11	48.66	08.04	49.91	0.81
50.34	0.00	48.65	16.39	49.63	2.61
50.30	2.05	48.57	16.57	49.81	1.41
50.45	21.53	49.16	11.28	49.97	0.52
50.48	17.02	48.55	20.23	49.99	0.74
50.51	12.07	48.80	8.17	49.97	0.67
50.50	6.04	48.55	18.12	49.85	1.40
50.40	17.05	49.04	17.44	49.86	1.11
50.74	17.01	48.59	0.11	49.93	1.06
50.76	17.04	49.01	22.16	50.02	0.67
50.49	0:57	48.88	9.03	50.14	0.51
50.51	14:09	48.91	10.06	49.98	0.69
50.42	0.43	48.95	16.50	49.90	1.02
50.33	0:57	48.55	17.42	49.60	3.28
50.32	5:01	48.56	17.46	49.60	2.77
50.77	23:45	48.58	10:05	49.50	3.68
50.70	17:53	48.55	17:40	49.42	4.78
50.62	17:03	48.58	12:11	49.46	4.07
50.32	5:04	48.52	17:37	49.36	5.48
50.23	1:43	48.56	6:52	49.37	5.61
50.37	17:06	48.54	8:16	49.34	6.09
50.28	5:35	48.54	18:06	49.29	6.57
50.31	21:58	48.56	9:05	49.45	4.40
50.40	5:15	48.55	16:31	49.37	5.81
50.34	7:06	48.57	8:35	49.46	4.28
50.25	21:57	48.54	18:07	49.45	4.51
50.27	3:07	48.53	17:22	49.42	5.08
50.77		49.16		50.14	6.57
50.23		48.52		49.29	0.51
50.44		48.67		49.70	2.68

IV.

Voltage Profile

Date	400 KV Dadri Voltage (kV)				400 KV Kanpur Voltage (kV)				220 KV BTPS Voltage (kV)				400 KV Moga Voltage (kV)			
	Maximum		Minimum		Maximum		Minimum		Maximum		Minimum		Maximum		Minimum	
	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time
01	420	02.08	388	18.45	413	02.08	387	18.43	218	02.27	201	18.25	414	01.13	392	05.49
02	416	02.05	387	18.24	412	02.19	386	18.25	216	00.14	203	18.16	416	02.04	387	18.27
03	414	21.56	390	18.16	410	08.13	389	18.15	215	00.00	202	18.16	417	22.16	392	16.43
04	417	22.59	388	18.20	413	23.58	384	17.42	215	02.07	201	18.24	415	20.59	385	16.40
05	419	21.40	395	11.31	417	0.33	396	18.20	215	00.00	203	18.35	414	02.02	391	11.31
06	417	1.39	394	11.11	412	01.54	395	18.22	216	01.21	204	18.23	418	04.45	390	16.44
07	420	21.52	400	18.14	410	21.44	395	09.00	216	21.53	208	11.10	416	01.30	394	11.17
08	419	04.05	390	18.24	412	21.56	389	18.26	217	01.59	205	18.24	417	21.48	388	11.08
09	416	03.30	394	06.56	408	01.07	391	05.48	218	23.48	207	18.13	415	22.56	382	11.13
10	414	13.02	390	17.43	406	13.21	386	17.44	219	21.37	210	11.03	415	21.00	386	11.01
11	414	01.50	394	11.08	416	01.51	403	07.31	220	01.49	211	11.08	412	01.50	392	14.12
12	414	01.50	394	11.08	416	01.51	403	07.31	220	01.49	211	11.08	412	01.50	392	14.12
13	418	17.03	398	17.51	411	17.03	392	00.11	221	15.34	213	17.51	415	23.25	395	17.49
14	414	01.50	393	09.04	407	01.50	388	11.46	221	01.30	213	09.02	416	01.08	390	09.18
15	414	21.49	389	07.30	409	21.52	383	07.28	221	02.26	212	06.41	414	02.27	392	06.32
16	416	02.05	389	11.53	410	00.33	389	11.02	221	02.05	210	11.54	414	22.55	389	05.50
17	416	02.30	393	16.48	408	02.30	389	09.01	220	03.00	210	18.00	416	23.00	388	16.48
18	416	00.00	390	13.44	410	08.06	391	12.09	220	00.00	209	17.46	415	00.00	387	13.34
19	415	23.44	383	10.05	412	23.43	394	10.04	219	00.16	209	10.05	422	23.45	386	23.23
20	411	21.51	387	10.32	407	00.00	395	23.28	218	22.00	204	11.00	416	00.08	386	04.55
21	410	17.02	393	10.57	407	16.07	395	06.25	221	21.47	213	18.38	417	08.01	395	17.37
22	412	08.00	390	05.44	408	07.39	390	05.44	221	01.28	211	17.57	417	08.01	393	17.14
23	413	08.57	391	10.10	410	08.54	392	11.05	221	00.52	210	17.56	417	08.56	392	11.06
24	414	21.51	392	12.23	405	05.05	394	16.19	221	00.56	210	18.05	413	16.04	386	18.06
25	411	01.36	392	11.02	405	21.47	394	14.48	220	01.27	211	18.01	414	14.01	387	11.51
26	412	21.50	395	05.45	406	13.05	396	04.39	220	01.27	211	18.01	416	23.45	394	06.40
27	413	20.27	394	06.27	409	16.42	393	22.09	222	21.49	212	11.04	416	00.00	390	05.53
28	412	20.57	391	13.31	408	07.06	393	13.31	221	01.45	213	18.14	414	03.49	393	13.33
29	414	23.20	386	12.07	410	20.01	387	14.22	222	03.09	212	10.53	421	21.51	394	18.06
30	416	21.49	389	13.42	411	21.49	392	13.41	223	21.45	213	10.59	414	23.59	390	13.41
Max	420		400		417		403		223		213		422		395	
Min	410		383		405		383		215		201		412		382	

V. Regional Power Supply Position

(All Figs In MUs)

Date	Availability (Gross)	Peak Hrs. Requirement	Shortage/ Restriction	Availability (Gross)	Off Peak Hrs. Requirement	Shortage/ Restriction*	Regional Availability
	MW	MW	MW	MW	MW	MW	MU
01	20724	23042	2318	15743	16543	800	403.50
02	21029	23052	2023	15902	16532	630	406.44
03	20941	23368	2427	16235	17065	830	406.12
04	21084	23414	2330	16283	17113	830	412.35
05	20935	23498	2563	16322	17152	830	413.68
06	20936	23263	2327	16620	17450	830	416.62
07	21035	23013	1978	16540	17170	630	411.55
08	21534	23252	1718	16206	16836	630	418.38
09	22024	23858	1834	16673	17503	830	422.00
10	22677	25015	2338	17036	17866	830	400.81
11	22592	24432	1840	17163	17993	830	434.40
12	22890	24678	1788	17438	18078	640	431.75
13	21706	23299	1593	17707	18785	1078	415.15
14	21692	23282	1590	16598	17428	830	420.25
15	22309	23649	1340	17354	17954	600	432.81
16	21680	23419	1739	17036	17906	870	430.56
17	21839	24064	2225	17047	17880	833	424.23
18	21328	24087	2759	16984	17814	830	422.66
19	21908	24117	2209	17107	17937	830	417.68
20	20804	22965	2161	17129	17759	630	415.37
21	21172	23388	2216	17198	18303	1105	415.03
22	21304	23917	2613	16936	17941	1005	420.95
23	21147	23778	2631	17185	18068	883	419.07
24	21984	24418	2434	17248	17838	590	420.40
25	21416	24015	2599	17205	18460	1255	419.38
26	21661	24011	2350	17327	18808	1481	426.41
27	21088	24109	3021	17500	18674	1174	417.55
28	21319	23870	2551	17543	18935	1392	416.75
29	21218	24111	2893	17451	18530	1079	422.13
30	20860	23819	2959	17278	18200	922	418.06
Maximum	22890	25015	3021	17707	18935	1481	434.40
Minimum	20724	22965	1340	15743	16532	590	400.81
Average	21495	23740	2246	16933	17817	884	418.40

Note: * Shortage / Restriction figures are as given by the constituents.

VI. Daily Peak/Off-Peak Demand Met By Constituents (Sheet 1 of 2) (figures in MW)

State	Punjab		Haryana		Rajasthan		Delhi		Uttar Pradesh	
Date	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	3182	2357	2812	1920	3655	3269	2606	1277	5018	4639
02	3477	2468	2774	1832	3797	3406	2669	1297	4994	4839
03	3503	2462	2693	1946	3873	3401	2635	1236	3934	5060
04	3460	2498	2654	1959	4013	3401	2699	1305	4941	4908
05	3517	2421	2607	1960	3841	3401	2728	1278	4793	5065
06	3551	2459	2718	1940	3752	3421	2616	1293	5024	4993
07	3432	2563	2815	1976	3914	3462	2555	1286	4982	5115
08	3489	2462	2823	1892	4007	3381	2671	1259	5226	5108
09	3546	2484	2884	1957	4088	3518	2742	1276	5141	5135
10	3560	2493	2849	1912	4192	3569	2840	1264	5202	5220
11	3602	2512	2973	1845	4214	3719	2732	1355	5267	5191
12	3701	2573	2905	2065	4123	3680	2400	1407	5491	5360
13	3504	2226	2788	2094	3712	3818	2548	1598	5324	5579
14	3337	2149	2829	1814	4008	3498	2470	1373	5360	5247
15	3569	2510	3047	2018	4058	3479	2646	1322	5239	5347
16	3541	2640	2908	2039	4059	3492	2639	1286	5201	5070
17	3612	2674	2904	2072	4091	3520	2677	1307	4814	5112
18	3567	2631	2776	1944	4030	3524	2421	1317	4770	5042
19	3751	2732	2949	2039	4165	3614	2708	1243	4538	5170
20	3095	2706	3103	2053	4210	3579	2684	1294	4727	5244
21	3536	2851	2949	2161	4082	3564	2537	1263	4717	5034
22	3540	2690	2857	2081	4089	3471	2519	1200	4800	4918
23	3570	2730	2815	2201	4050	3567	2577	1261	4784	4863
24	3639	2781	2788	2202	4192	3598	2537	1313	4800	4695
25	3616	2784	2839	2130	4059	3604	2622	1323	4905	4795
26	3677	2848	2961	2224	4078	3670	2561	1364	4695	4917
27	3535	3037	2814	2208	4096	3569	2334	1325	4743	4788
28	3486	2792	2856	2191	4203	3536	2420	1333	4730	4946
29	3700	2773	2444	2148	4139	3530	2578	1142	4747	5100
30	3682	2872	2202	2192	4158	3531	2581	1262	4696	5188
Maximum	3751	3037	3103	2224	4214	3818	2840	1598	5491	5579
Minimum	3095	2149	2202	1814	3655	3269	2334	1142	3934	4639
Average	3533	2606	2811	2034	4032	3526	2598	1302	4917	5056

Remarks: Peak - 1900 hrs offpeak - 0300 hrs

VI. Daily Peak/Off-Peak demand Met By Constituents (Sheet 2 of 2) (Figures in MW)

State Date	Uttaranchal		Chandigarh		Himachal Pradesh		Jammu & Kashmir	
	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	709	378	150	71	518	312	820	741
02	649	358	147	73	548	343	850	667
03	712	359	154	65	529	333	949	691
04	693	343	152	74	541	329	925	698
05	635	336	156	74	540	332	948	733
06	634	394	153	73	541	311	859	779
07	620	392	136	75	518	334	914	684
08	741	383	152	75	534	330	798	790
09	721	418	157	76	506	319	1023	776
10	780	443	163	81	549	323	945	660
11	791	404	153	79	518	300	986	835
12	758	412	132	72	540	305	780	736
13	744	459	128	70	532	234	912	711
14	769	429	138	64	529	290	845	774
15	723	432	141	71	544	296	918	615
16	728	408	154	69	554	335	947	805
17	948	386	156	74	689	396	845	818
18	700	382	155	71	578	325	962	790
19	733	400	156	73	550	346	852	638
20	683	412	150	72	502	327	364	762
21	601	385	138	71	542	349	1027	761
22	670	368	155	71	541	321	1142	786
23	652	451	151	69	540	334	863	780
24	693	395	152	69	524	341	968	800
25	613	387	158	73	553	331	1050	822
26	904	375	152	74	554	361	1096	799
27	657	352	156	73	357	355	1016	700
28	651	356	136	75	545	352	1041	814
29	643	387	153	71	572	333	1151	746
30	696	390	152	72	574	367	988	535
Maximum	948	459	163	81	689	396	1151	835
Minimum	601	336	128	64	357	234	364	535
Average	708	392	150	72	539	329	926	742

Remarks: Peak - 1900 hrs offpeak - 0300 hrs

VII Daily Energy Consumption By Constituents

(All Figs In MUs)

Date	Punjab	Haryana	Rajasthan	Delhi	UP	Uttaranchal	Chandigarh	HP	J & K	NFF/RAIL	Total
01	66.898	48.961	81.059	47.240	107.542	11.135	2.633	10.222	18.223	1.856	395.769
02	66.299	49.451	82.040	47.385	109.340	11.274	2.693	10.519	18.238	1.841	399.079
03	66.868	49.144	82.236	48.076	107.371	11.400	2.701	10.472	19.168	1.836	399.272
04	68.104	49.794	83.021	47.565	110.618	11.475	2.711	10.426	19.050	1.728	404.492
05	68.714	49.190	82.999	49.495	110.474	11.258	2.728	10.275	18.980	1.746	405.858
06	68.830	48.772	84.974	48.247	112.205	11.459	2.612	10.553	19.389	1.824	408.865
07	66.841	48.811	85.852	46.359	111.440	11.824	2.426	10.483	19.147	1.746	404.929
08	67.792	49.432	85.567	48.340	113.155	11.819	2.692	10.621	18.784	1.744	409.945
09	68.132	50.296	84.458	49.047	116.212	12.195	2.724	10.588	19.259	1.687	414.597
10	68.653	51.322	89.361	50.711	113.358	12.535	2.763	10.646	19.998	1.893	421.241
11	69.400	54.700	90.000	52.200	115.800	12.900	2.736	9.771	20.500	1.950	429.957
12	64.926	53.663	88.720	52.385	115.504	12.731	2.457	9.595	21.388	1.844	423.212
13	57.792	49.834	86.432	46.617	119.212	12.453	2.295	8.784	20.890	1.846	406.154
14	63.458	50.062	84.927	44.678	118.901	12.619	2.277	9.810	21.387	1.841	409.960
15	68.752	51.077	86.520	46.943	120.262	12.144	2.567	10.334	21.136	1.838	421.572
16	69.676	51.711	88.364	47.236	115.991	12.318	2.706	10.567	20.497	1.855	420.921
17	69.090	49.923	87.549	46.339	111.538	13.144	2.758	10.850	20.920	1.712	413.822
18	68.795	49.713	88.722	47.057	108.435	12.007	2.726	10.885	20.687	1.789	410.815
19	68.918	51.405	87.933	48.115	106.932	12.520	2.726	10.894	20.050	1.871	411.363
20	67.275	51.145	88.277	47.338	106.238	12.488	2.694	10.354	18.315	1.750	405.873
21	67.312	51.687	88.009	46.157	107.467	11.333	2.483	10.720	20.248	1.793	407.209
22	66.230	52.281	89.064	46.451	109.023	11.635	2.721	10.883	20.685	1.763	410.736
23	65.174	51.562	87.898	48.219	106.510	12.117	2.747	10.924	20.321	1.811	407.284
24	67.595	51.010	89.210	47.872	105.906	12.041	2.785	10.949	20.678	1.455	409.501
25	67.166	49.413	87.716	48.820	107.814	12.006	2.787	11.006	20.486	1.633	408.848
26	70.664	53.595	87.820	47.841	108.134	13.057	2.715	11.061	21.471	1.708	418.065
27	68.935	51.951	87.153	47.060	104.228	11.482	2.738	11.171	20.164	1.832	406.714
28	67.146	52.283	86.697	45.820	106.607	11.996	2.500	10.468	20.927	1.858	406.303
29	68.896	47.897	87.438	47.105	111.601	11.991	2.747	10.714	19.412	1.822	409.622
30	70.162	46.036	87.762	48.069	109.413	11.823	2.808	10.945	16.285	1.771	405.074
Maximum	70.664	54.700	90.000	52.385	120.262	13.144	2.808	11.171	21.471	1.950	429.957
Minimum	57.792	46.036	81.059	44.678	104.228	11.135	2.277	8.784	16.285	1.455	395.769
Average	67.483	50.537	86.593	47.826	110.908	12.039	2.655	10.516	19.889	1.788	410.235
Month Total	2024.491	1516.123	2597.776	1434.785	3327.229	361.179	79.656	315.486	596.683	53.643	12307.052

VIII. Schedule VS Actual Drawals of Northern Regional Constituents (Sheet 1 of 2)

Date	Punjab		Haryana		Rajasthan		Delhi		Uttar Pradesh		Uttaranchal	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Nov-2004	28570	27136	25942	24296	26540	30773	25915	20472	45533	47765	5247	4457
2-Nov-2004	27900	28018	25842	25338	25845	30421	25418	20399	47270	48870	5314	4839
3-Nov-2004	27996	26779	25749	25228	25872	29658	26103	19970	47014	50423	5215	4775
4-Nov-2004	28628	27180	25583	24242	26802	30431	26837	20243	49843	50701	5370	5118
5-Nov-2004	27613	25053	24905	24792	25934	29635	26044	21009	46527	50797	4887	5211
6-Nov-2004	24257	23924	24059	23418	26771	31014	26028	19612	48204	50051	5002	5179
7-Nov-2004	23920	24260	24386	23268	26906	30249	24817	18399	46994	47992	5103	5792
8-Nov-2004	24707	26334	24700	24301	27449	29386	26565	20021	50012	50067	5342	5753
9-Nov-2004	24933	26856	24033	23490	26653	30939	25692	20038	53971	53121	5782	5946
10-Nov-2004	25115	25978	23986	23647	27236	29582	26066	21813	54278	55537	5910	6293
11-Nov-2004	25766	26411	25564	22770	27450	30158	27161	22203	54763	56903	5808	6613
12-Nov-2004	25735	25072	25419	22144	27645	30102	25780	18139	56246	63478	5826	6512
13-Nov-2004	24285	22789	24702	24982	26690	30950	24245	17616	55977	58296	5671	6554
14-Nov-2004	25228	26606	24349	22509	27590	27231	24126	18032	57616	57590	5928	6464
15-Nov-2004	25786	27022	24212	23083	27151	26867	24732	19484	57653	58314	6033	6177
16-Nov-2004	24824	27301	24702	22939	27011	28092	23026	22063	56903	53346	6780	6120
17-Nov-2004	24688	25020	23981	23219	26756	27232	24122	21781	56599	55535	6744	6286
18-Nov-2004	24956	24499	24035	24265	27461	28006	23774	21802	56488	57831	6802	6262
19-Nov-2004	25011	24716	23869	24747	27398	28029	24506	22888	56621	56037	6857	6473
20-Nov-2004	24630	23518	22948	25657	27515	29464	25069	21827	57029	58303	6807	6493
21-Nov-2004	25982	27845	26416	23895	28144	29331	24693	21922	57252	59308	6202	5687
22-Nov-2004	26106	27260	24214	22311	27406	27834	25703	22303	56998	58595	6016	6153
23-Nov-2004	25512	26969	23221	21235	27312	29890	25367	19858	55924	56324	5903	6092
24-Nov-2004	25113	26846	23817	23339	27181	28323	24841	20087	56789	55787	5925	5761
25-Nov-2004	25558	27099	23570	24523	27227	28678	25132	19348	56770	55830	6002	6111
26-Nov-2004	25193	28476	23495	21547	27132	28202	25233	18132	56753	57793	6255	6212
27-Nov-2004	24363	25880	22953	22130	27601	28416	22332	19538	56708	56620	6578	6007
28-Nov-2004	25699	26722	23048	20804	27140	28797	22559	19594	56122	55231	5882	5956
29-Nov-2004	25766	27419	23043	23647	27374	27293	23170	17976	57195	57491	6057	6448
30-Nov-2004	25799	26810	22956	26447	27855	27767	23035	18789	57237	58928	6309	6538
Total MU	769.639	785.798	729.699	708.213	813.047	872.750	748.091	605.358	1623.289	1652.864	177.557	178.282
Max. MWH	28628	28476	26416	26447	28144	31014	27161	22888	57653	63478	6857	6613
Min MWH	23920	22789	22948	20804	25845	26867	22332	17616	45533	47765	4887	4457
Avg. MWH	25655	26193	24323	23607	27102	29092	24936	20179	54110	55095	5919	5943

VIII. Schedule vs Actual Drawals of Northern Regional Constituents (Sheet 2 of 2)

Date	Himachal Pradesh		Jammu & Kashmir		Chandigarh		NFF		Railways	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Nov-2004	6826	6042	15415	16784	3535	2633	144	204	1193	1652
2-Nov-2004	6809	6352	15425	16808	3515	2693	144	166	997	1675
3-Nov-2004	6719	6442	15252	17581	3474	2701	144	190	892	1646
4-Nov-2004	6791	6347	15785	17778	3508	2711	144	208	1448	1520
5-Nov-2004	7119	6208	15674	17558	3413	2728	144	210	1404	1536
6-Nov-2004	7567	6554	15683	17940	3138	2612	144	213	1407	1611
7-Nov-2004	7268	6576	15498	17798	3039	2426	144	208	1498	1538
8-Nov-2004	7862	6798	15946	17464	3190	2692	144	201	1476	1543
9-Nov-2004	7927	6782	16279	18039	3304	2724	144	184	1166	1503
10-Nov-2004	7972	6922	16348	18484	3327	2763	144	183	1236	1710
11-Nov-2004	7928	6161	16557	19006	3291	2736	144	193	1148	1757
12-Nov-2004	8084	5794	16926	20223	3322	2457	144	187	1481	1657
13-Nov-2004	7581	5143	16878	19539	3466	2295	144	190	1196	1656
14-Nov-2004	7806	6288	16917	20001	3310	2277	144	201	1102	1640
15-Nov-2004	7891	6730	16892	20066	3322	2567	144	190	1007	1648
16-Nov-2004	7767	7004	16399	19402	3332	2706	144	188	1080	1667
17-Nov-2004	7876	7241	15128	19837	3299	2758	144	183	1198	1529
18-Nov-2004	8117	7406	16520	19715	3384	2726	144	180	1619	1609
19-Nov-2004	7930	7595	15119	19011	3328	2726	144	177	1843	1694
20-Nov-2004	7963	7113	15664	17391	3376	2694	144	161	1896	1589
21-Nov-2004	8003	7369	15174	19280	3383	2483	144	160	2092	1633
22-Nov-2004	7968	7633	16038	19692	3360	2721	144	163	1977	1600
23-Nov-2004	7940	7720	15702	19302	3324	2747	144	168	1848	1643
24-Nov-2004	7870	7684	15776	19776	3333	2785	144	28	1853	1427
25-Nov-2004	7825	7811	15800	19556	3368	2787	144	0	1929	1633
26-Nov-2004	8038	7871	15876	20517	3368	2715	144	167	1989	1541
27-Nov-2004	7980	7994	15762	19223	3445	2738	144	169	1996	1663
28-Nov-2004	7846	7380	14561	19973	3399	2500	144	175	1957	1683
29-Nov-2004	8189	7607	14701	18480	3372	2747	144	181	2035	1641
30-Nov-2004	8067	7837	15040	15177	3317	2808	144	182	1868	1589
Total MU	231.529	208.404	474.735	561.401	100.542	79.656	4.320	5.210	45.831	48.433
Max. MWH	8189	7994	16926	20517	3535	2808	144	213	2092	1757
Min MWH	6719	5143	14561	15177	3039	2277	144	0	892	1427
Avg. MWH	7718	6947	15825	18713	3351	2655	144	174	1528	1614

IX Schedule vs Actual Injection of ISGS (Sheet 1 of 4)

Figs. In MWH

Date	Singrauli		Rihand		Dadri(T)		Unchahar-I		Unchahar-II		Dadri GPS	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Nov-2004	39674	40113	21699	21885	16796	17239	4564	4621	8920	9069	12072	12072
2-Nov-2004	39679	40262	21820	22124	16389	17699	4557	4630	8976	9226	11055	11071
3-Nov-2004	39864	40439	21916	22146	16806	17847	4588	4672	9108	9298	7610	7692
4-Nov-2004	39864	40255	21960	22258	16771	17627	4608	4660	9173	9282	12842	11958
5-Nov-2004	28918	29227	21870	22204	16756	18479	4602	4679	9147	9296	12823	12334
6-Nov-2004	34263	34729	18946	18814	16521	17743	4560	4622	9173	9295	12825	11804
7-Nov-2004	38956	39448	10350	10470	15566	16550	4556	4602	9173	9269	13081	12114
8-Nov-2004	38496	38549	17885	17751	16522	16973	4801	4773	9118	9204	13208	12469
9-Nov-2004	38586	38984	21883	22133	15703	16515	8814	8906	9030	9182	12458	12165
10-Nov-2004	39864	40429	21960	22312	15659	17127	8983	9106	9035	9256	12656	12184
11-Nov-2004	39864	40416	21953	22271	16990	17911	9137	9269	9129	9282	12656	11638
12-Nov-2004	39655	40231	21727	22011	16358	17377	9125	9193	9076	9163	14401	11849
13-Nov-2004	39848	40129	21897	22159	15723	17083	8928	9103	8709	8994	13178	11056
14-Nov-2004	43270	43652	21531	21824	15356	15253	8929	8976	8661	8647	13340	11006
15-Nov-2004	43645	44132	21536	21936	15725	16299	9089	9228	8988	9179	14198	12552
16-Nov-2004	43269	43678	21722	22084	13014	13311	9123	9270	9058	9207	14842	13902
17-Nov-2004	44280	44734	21960	22521	13060	13617	9163	9296	9148	9311	15265	14905
18-Nov-2004	44055	44967	21806	22445	13040	14036	9140	9302	9102	9296	16313	15838
19-Nov-2004	44280	44842	21960	22492	13084	14090	9173	9286	9173	9290	16723	16038
20-Nov-2004	44280	44969	21945	22436	13446	14150	9173	9293	9154	9282	16804	16592
21-Nov-2004	44280	44909	21960	22480	13027	14111	9173	9309	9154	9298	16958	16735
22-Nov-2004	44280	45001	21960	22463	13776	14030	9173	9315	9173	9295	17108	16962
23-Nov-2004	44280	45021	21960	22466	13776	14127	9173	9317	9173	9302	17405	17189
24-Nov-2004	44280	44775	21960	22440	13426	14081	9173	9299	9173	9296	16855	16625
25-Nov-2004	44280	44859	21960	22419	13920	14193	9173	9305	9173	9295	16579	16558
26-Nov-2004	44280	45049	21960	22351	13920	14157	9173	9307	9121	9242	16900	16655
27-Nov-2004	41679	42291	21960	22300	13356	13577	9173	9313	9088	9200	16887	17003
28-Nov-2004	41856	42626	21855	22114	13920	14151	9173	9297	9173	9299	16655	16440
29-Nov-2004	44280	44994	21750	22055	13920	14090	9173	9298	9037	9176	16914	16716
30-Nov-2004	44280	45027	21960	22282	13920	14057	9173	9304	9027	9164	16668	16672
Total MU	1242.385	1258.737	637.611	647.646	446.246	467.500	237.343	240.551	272.343	276.595	437.279	418.794
Max. MWH	44280	45049	21960	22521	16990	18479	9173	9317	9173	9311	17405	17189
Min MWH	28918	29227	10350	10470	13014	13311	4556	4602	8661	8647	7610	7692
Avg. MWH	41413	41958	21254	21588	14875	15583	7911	8018	9078	9220	14576	13960

IX. Schedule vs Actual Injection of ISGS (Sheet 2 of 4)

Date	Anta GPS		Auraiya GPS		NAPS		RAPS-B		Bairasiul		igs. In MWH	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Nov-2004	9080	9386	3849	3772	7896	7900	8640	8431	1050	1059	3758	3793
2-Nov-2004	8951	9133	4444	4347	7992	7907	8640	8423	990	999	3591	3627
3-Nov-2004	9148	9334	7314	7207	7944	7893	8496	8411	990	997	3565	3599
4-Nov-2004	8560	7970	10550	10170	7896	7877	8448	8482	900	908	3661	3682
5-Nov-2004	8396	8316	10605	10392	7920	7851	8472	8446	975	983	3449	3478
6-Nov-2004	8235	8056	10775	10485	7920	7927	8472	8468	840	848	3425	3450
7-Nov-2004	8255	8006	10882	10256	7872	7969	8472	8493	930	939	3513	3548
8-Nov-2004	8342	8060	11007	10012	7920	7936	8472	8487	930	939	3444	3466
9-Nov-2004	8003	7901	10644	9802	7968	7950	8472	8494	855	863	3378	3408
10-Nov-2004	7541	7716	10449	9993	7920	7897	8472	8462	870	878	3520	3555
11-Nov-2004	7442	7460	10252	9852	7920	7944	8472	8470	840	847	3330	3361
12-Nov-2004	7417	6770	10118	9584	7920	8070	8496	8493	810	818	3330	3361
13-Nov-2004	6967	6265	9493	9291	7944	8072	8520	8520	855	824	3330	3358
14-Nov-2004	6992	6670	9614	9383	7944	8028	8544	8571	795	803	3093	3124
15-Nov-2004	7406	6685	10465	10071	7944	8004	8568	8536	765	770	3235	3261
16-Nov-2004	7714	7621	10400	10057	8040	7910	8328	8513	599	604	3045	3074
17-Nov-2004	7724	7713	10602	10396	8064	7847	8520	8454	840	848	3188	3212
18-Nov-2004	8517	8559	10792	10528	7944	7878	8520	8450	750	757	3045	3066
19-Nov-2004	8394	8864	10854	10668	7872	7919	8520	8565	687	694	3045	2992
20-Nov-2004	9026	9326	11190	10980	7968	7876	8640	8558	702	709	3159	3068
21-Nov-2004	8559	8960	11240	10938	7920	7825	8640	8560	717	723	3045	3076
22-Nov-2004	9193	9372	11524	11274	7896	7807	8640	8544	720	726	3045	3073
23-Nov-2004	9168	9400	8791	8106	7872	7850	8640	8533	780	787	2950	2980
24-Nov-2004	8915	9121	10955	10844	7872	7804	8640	8637	690	696	2998	3028
25-Nov-2004	9134	9214	11191	10997	7872	7801	8520	8598	720	727	2760	2786
26-Nov-2004	9105	9061	11038	10837	7848	7871	8640	8644	720	726	3023	3057
27-Nov-2004	8881	9305	10739	10694	7872	7829	9096	8640	670	676	2760	2786
28-Nov-2004	6264	6325	11272	11074	7872	7899	9144	8697	690	696	2760	2784
29-Nov-2004	6317	6355	11183	11008	7872	7944	9144	8727	690	696	2760	2645
30-Nov-2004	6171	6313	10965	10816	7872	7943	9192	8711	825	832	3551	3585
Total MU	243.817	243.237	303.197	293.834	237.576	237.228	258.480	256.018	24.195	24.372	96.756	97.283
Max. MWH	9193	9400	11524	11274	8064	8072	9192	8727	1050	1059	3758	3793
Min MWH	6171	6265	3849	3772	7848	7801	8328	8411	599	604	2760	2645
Avg. MWH	8127	8108	10107	9794	7919	7908	8616	8534	807	812	3225	3243

IX. Schedule & Actual Injection of ISGS (Sheet 3 of 4)

Figs. In MWH

Date	Tanakpur		Chamera		Uri		Bhakra Complex		Dehar		Pong	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Nov-2004	1398	1412	2581	2608	3388	3420	13226	12367	5468	5213	4404	4581
2-Nov-2004	1418	1436	2804	2862	3672	3717	13226	12243	5480	5291	4030	4046
3-Nov-2004	1391	1401	2937	2960	3569	3636	12569	11356	5521	5376	4014	3819
4-Nov-2004	1320	1337	2937	2963	3144	3229	12569	11498	5521	5285	4014	3952
5-Nov-2004	1283	1303	2937	2962	3312	3341	12598	11520	5413	5169	4176	4279
6-Nov-2004	1224	1236	2537	2562	3223	3148	12317	11332	5269	5167	3900	3843
7-Nov-2004	1232	1249	2581	2603	3145	3217	12204	11055	5130	4723	3900	3828
8-Nov-2004	1283	1294	2581	2604	3065	3038	12204	11277	5045	4758	3705	3616
9-Nov-2004	1289	1295	2225	2269	2871	2982	12204	11117	4723	4617	3361	3339
10-Nov-2004	1241	1253	2982	3015	2838	2948	12752	11397	4506	4312	2943	2948
11-Nov-2004	1283	1293	2937	2956	2674	2733	14111	12758	5038	4539	3032	2878
12-Nov-2004	1227	1238	3827	3851	2544	2665	14111	12850	5578	5112	3048	3030
13-Nov-2004	1238	1243	2181	2197	2679	2758	13905	12715	4449	4041	2876	2741
14-Nov-2004	1207	1218	2136	2144	2553	2583	13750	12406	4536	3317	3103	3074
15-Nov-2004	1174	1185	2181	2196	2421	2485	13750	12500	5378	4881	3103	3191
16-Nov-2004	1175	1186	2537	2554	2258	2417	13912	13538	4656	4178	2859	2973
17-Nov-2004	1152	1163	2848	2868	2360	2455	13811	12765	5033	5015	2670	2752
18-Nov-2004	1128	1139	2537	2554	2290	2390	13912	12783	4556	4589	2670	2710
19-Nov-2004	1109	1117	2804	2825	2231	2313	14206	12921	4455	4633	3287	3363
20-Nov-2004	1080	1090	2537	2552	2357	2115	14095	12975	4086	4062	2861	2806
21-Nov-2004	1092	1103	2537	2555	2296	2375	14285	13356	4086	4034	2464	2494
22-Nov-2004	1081	1092	2359	2377	2211	2320	13957	12741	4660	4446	1885	1909
23-Nov-2004	1057	1069	2359	2377	2133	2213	13900	12886	4086	3843	2454	2427
24-Nov-2004	1050	1060	2359	2377	2167	2239	13900	12954	4078	3962	2064	2051
25-Nov-2004	965	975	2359	2379	2145	2223	13988	13024	4029	3958	2210	2215
26-Nov-2004	987	1002	2359	2377	2114	2202	13964	12837	4029	3957	2389	2403
27-Nov-2004	1060	1070	2359	2378	2083	2152	13964	12903	3980	3948	2616	2572
28-Nov-2004	1048	1058	2359	2372	1992	2190	13996	12986	4064	4068	2799	2844
29-Nov-2004	1018	1027	2359	2378	2055	2102	13964	12990	3953	3804	2811	2910
30-Nov-2004	988	999	2359	2381	2558	2737	13964	12832	3738	3777	2811	2757
Total MU	35.198	35.543	77.395	78.056	78.348	80.343	405.314	372.882	140.544	134.075	92.459	92.351
Max. MWH	1418	1436	3827	3851	3672	3717	14285	13538	5578	5376	4404	4581
Min MWH	965	975	2136	2144	1992	2102	12204	11055	3738	3317	1885	1909
Avg. MWH	1173	1185	2580	2602	2612	2678	13510	12429	4685	4469	3082	3078

IX. Schedule & Actual Injection of ISGS (Sheet 4 of 4)

igs. In MWH

Date	Nathpa-Jhakri HEP		Chamera stage-II	
	Schedule	Actual	Schedule	Actual
1-Nov-2004	7000	7004	2117	2135
2-Nov-2004	7100	7164	1814	1829
3-Nov-2004	6963	7019	1931	1948
4-Nov-2004	6875	6903	1634	1648
5-Nov-2004	7313	7377	2117	2135
6-Nov-2004	6913	6965	1931	1946
7-Nov-2004	6925	6941	1931	1946
8-Nov-2004	7400	7459	1931	1946
9-Nov-2004	7025	7083	1931	1949
10-Nov-2004	7038	7092	1782	1799
11-Nov-2004	7263	7326	1733	1750
12-Nov-2004	7200	7241	1733	1748
13-Nov-2004	6750	6787	1733	1749
14-Nov-2004	7025	7041	1733	1747
15-Nov-2004	7025	7062	1733	1747
16-Nov-2004	6700	6751	1584	1594
17-Nov-2004	6600	6652	1733	1747
18-Nov-2004	7163	6968	1535	1547
19-Nov-2004	6713	6751	1436	1448
20-Nov-2004	6775	6826	1213	1223
21-Nov-2004	6688	6734	1833	1847
22-Nov-2004	6675	6673	1634	1644
23-Nov-2004	7075	7130	1188	1194
24-Nov-2004	6274	6323	1737	1751
25-Nov-2004	6500	6557	1510	1523
26-Nov-2004	6655	6695	1361	1374
27-Nov-2004	6398	6458	1551	1563
28-Nov-2004	6526	6566	1436	1446
29-Nov-2004	7167	7226	1757	1756
30-Nov-2004	7037	7059	1559	1571
Total MU	206.761	207.833	50.851	51.250
Max. MWH	7400	7459	2117	2135
Min MWH	6274	6323	1188	1194
Avg. MWH	6892	6928	1695	1708

X. Daily Generation Details of State Sector Stations

(All Figs In MUs)

Date	Punjab(T)	Punjab(H)	Haryana(T)	Haryana(H)	Rajasthan(T)	Rajasthan(H)	UP (T)	UP (H)	Uttaranchal(H)	Delhi(T)	HP+B'PA(H)	J & K(H+GT)	Total
01	30.008	9.440	14.073	0.828	45.209	0.525	51.283	1.660	7.126	13.879	4.222	1.44	179.69
02	28.382	9.548	12.934	0.792	46.185	1.290	50.383	1.733	6.684	13.964	4.209	1.43	177.53
03	30.161	9.642	12.708	0.796	46.401	2.096	48.981	1.837	6.978	14.677	4.071	1.59	179.93
04	32.123	8.448	14.969	0.799	46.443	2.028	51.572	1.630	6.678	14.981	4.120	1.27	185.06
05	33.826	9.561	14.600	0.740	45.889	3.226	52.098	1.657	6.681	14.941	4.108	1.42	188.75
06	35.022	9.452	15.626	0.739	45.853	3.880	53.025	1.841	6.464	15.123	4.039	1.45	192.51
07	33.686	8.508	15.679	0.736	48.294	3.445	52.938	1.525	6.215	15.105	3.946	1.35	191.42
08	33.807	7.238	15.312	0.747	48.959	3.730	54.093	1.752	6.253	15.413	3.862	1.32	192.49
09	33.346	7.638	16.640	0.807	47.444	4.817	54.031	1.525	6.175	15.845	3.844	1.22	193.33
10	34.883	7.423	17.435	0.762	50.567	5.027	49.403	2.119	6.339	15.469	3.762	1.51	194.70
11	34.900	7.800	20.200	0.800	50.500	5.200	51.300	2.100	6.600	15.100	3.646	1.49	199.64
12	30.202	7.987	19.549	0.663	49.745	4.677	50.680	2.287	6.393	15.718	3.839	1.17	192.90
13	27.477	7.256	16.939	0.664	47.040	3.922	52.054	2.049	6.191	14.753	3.678	1.35	183.37
14	29.058	7.695	18.669	0.683	49.119	4.409	51.975	1.307	6.235	14.595	3.558	1.39	188.69
15	33.086	8.303	18.618	0.668	49.937	5.600	53.515	2.228	6.303	14.764	3.640	1.07	197.73
16	33.205	8.763	18.523	0.669	51.103	4.739	51.756	1.257	6.299	12.501	3.599	1.10	193.51
17	35.324	8.758	17.431	0.722	50.698	5.444	45.273	1.198	6.387	12.548	3.645	1.08	188.51
18	36.308	7.642	16.183	0.699	51.003	5.565	40.819	1.396	6.195	12.014	3.514	0.97	182.31
19	36.234	7.682	15.891	0.693	50.625	5.284	38.185	1.327	6.046	12.019	3.332	1.04	178.36
20	35.224	8.234	15.143	0.650	49.295	5.308	38.315	1.366	6.070	11.721	3.274	0.92	175.52
21	30.743	7.915	17.039	0.810	49.493	5.064	35.935	1.663	5.920	10.451	3.385	0.97	169.39
22	29.867	8.620	18.706	0.482	55.316	1.199	39.027	1.308	5.657	10.918	3.283	0.99	175.38
23	27.544	10.044	19.119	0.634	49.100	4.798	40.479	1.495	6.268	15.056	3.236	1.02	178.79
24	30.728	9.245	17.203	0.622	50.828	5.078	39.666	1.372	6.503	14.766	3.298	0.90	180.21
25	29.795	9.509	14.532	0.670	50.062	4.946	40.991	1.362	5.993	15.400	3.227	0.93	177.42
26	33.150	8.637	21.485	0.592	50.596	4.919	38.194	1.453	5.839	15.623	3.222	0.95	184.66
27	34.850	7.828	19.106	0.652	49.206	5.416	39.634	1.575	5.752	14.790	3.209	0.94	182.96
28	31.845	7.798	20.189	0.620	48.784	4.964	43.233	1.368	6.179	12.320	3.119	0.95	181.37
29	32.341	8.358	13.081	0.716	50.820	5.084	42.860	1.376	5.911	15.682	3.138	0.93	180.30
30	35.205	7.587	9.038	0.639	50.661	5.236	39.332	1.525	5.862	15.730	3.139	1.11	175.06
Maximum	36.31	10.04	21.49	0.83	55.32	5.60	54.09	2.29	7.13	15.84	4.22	1.59	199.64
Minimum	27.48	7.24	9.04	0.48	45.21	0.52	35.93	1.20	5.66	10.45	3.12	0.90	169.39
Average	32.41	8.42	16.55	0.70	49.17	4.23	46.37	1.61	6.27	14.20	3.61	1.18	184.72
Month Total	972.33	252.56	496.62	21.09	1475.17	126.92	1391.02	48.29	188.20	425.86	108.16	35.28	5541.51

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during November, 2004 (Ex Bus MU)	Cummulative from 01.04.2004 (Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	381.60	3347.43
(b)	Singrauli STPS	2000.00	1258.87	9480.84
(c)	Rihand STPS	1000.00	647.71	4708.70
(d)	Dadri NCTPS	840.00	457.57	4052.90
(e)	Unchahar-I TPS	420.00	239.13	1955.23
(f)	Unchahar-II TPS	420.00	276.00	1999.67
(g)	Tanda TPS	440.00	235.70	1848.10
(h)	Anta GPS	419.33	241.36	1825.51
(i)	Auraiya GPS	663.36	290.95	2790.64
(j)	Dadri GPS	829.78	487.74	3596.30
(k)	Faridabad GPS	431.57	269.72	2062.52
	Total NTPC	8169.04	4786.34	37667.84
B	NHPC			
(a)	Bairasiul	180.00	24.37	447.56
(b)	Salal	690.00	97.26	2714.79
(c)	Tanakpur HPS	94.20	35.54	391.17
(d)	Chamera HPS	540.00	78.06	1607.55
(e)	Uri HPS	480.00	80.39	1616.54
(f)	Chamera2 HPS	300.00	51.23	1116.12
	Total NHPC	2284.20	366.85	7893.73
C	Nathpa-Jhakri	1500.00	207.84	4323.12
D	NPC			
(a)	RAPS -A	300.00	118.02	820.26
(b)	RAPS -B	440.00	256.06	1562.20
(c)	NAPS	440.00	237.26	1483.95
	Total NPC	1180.00	611.34	3866.42
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	404.71	3305.21
(b)	Dehar	990.00	134.09	2485.79
(c)	Pong	396.00	91.31	658.59
	Total BBMB	2876.15	630.11	6449.59
3	DELHI			
(a)	Indra Prastha	247.50	78.46	572.16
(b)	Rajghat	135.00	25.87	413.23
(c)	Gas Turbines	282.00	128.02	998.88
(d)	Pragati Gas	330.00	194.45	1650.55
	Total DELHI	994.50	426.81	3634.82
4	HARYANA			
(a)	WYC	62.40	20.23	209.46
(b)	Faridabad (New)	165.00	59.07	492.18
(c)	Panipat	860.00	445.19	3269.78
(d)	Magnum Diesel(IPP)	25.20	4.21	53.47
	Total Haryana	1112.60	528.70	4024.88

contd/-

5	HP			
(a)	Giri	60.00	8.58	105.64
(b)	Bassi	60.00	14.09	221.89
(c)	Binwa	6.00	1.73	21.97
(d)	Rongtong (+Nogli+Micro+Thirot+Sal-2)	15.25	5.98	23.27
(e)	Andhra	16.95	6.98	44.52
(f)	Bhabha (H)	120.00	25.19	513.94
(g)	Baner (H)	12.00	1.74	30.81
(h)	Gaj (H)	10.50	2.19	36.20
(i)	Gumma	3.00	0.00	3.02
(j)	Ghanvi	22.50	4.26	59.07
(k)	Malana (IPP)	86.00	9.50	233.62
(l)	Baspa (IPP)	300.00	39.50	1083.23
	Total HP	712.20	119.74	2377.19
6	J & K			
(a)	Lower Jhelum	105.00	15.10	307.54
(b)	Upper Sindh	127.60	13.05	139.39
(c)	Ganderbal	15.00	1.54	16.76
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	4.02	66.07
(f)	Stakna	9.75	0.00	0.00
(g)	Small Hydel	3.54	0.60	4.40
(h)	Sewa	9.00	0.82	0.00
(i)	Diesel gen set	7.18	1.62	0.00
(j)	Pampore GT St - I	75.00	0.82	2.25
(k)	Pampore GT St - II	100.00	1.62	4.56
	Total J & K	493.87	39.19	540.97
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	26.25	419.81
(b)	UBDC	90.00	30.46	296.38
(c)	Mukerian	207.00	68.31	650.55
(d)	Anandpur Sahib (APS)	134.00	24.46	362.12
(e)	Ranjit Sagar HPS	600.00	72.16	861.93
(f)	Small Hydel	4.10	0.30	0.50
(g)	GNDTPS (Bhatinda)	440.00	97.88	1184.78
(h)	GGSTPS (Ropar)	1260.00	599.12	5755.47
(i)	Jhalkeri	10.00	0.00	0.85
	Peda & Sugarmill		10.00	32.39
(j)	Lehra Mohabbat TPS	420.00	268.76	1953.76
	Total Punjab	3275.10	1197.69	11518.52
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	24.67	143.06
(b)	Rana Pratap Sagar (RPS)	172.00	64.18	141.93
(c)	Jawahar Sagar (JS)	99.00	42.55	120.68
(d)	Gandhi sagar	115.00		
(d)	ACW	9.00	0.94	6.46
(e)	MMH	14.85	1.62	2.69
(f)	Kota TPS	1045.00	644.26	4260.63
(g)	RAMGARH GT	3.00		
(h)	RAMGARH GT EXT	35.50	32.42	185.22
(i)	Suratgarh TPS	1250.00	804.73	5524.47
(j)	Wind Farm	14.01	7.48	270.04
(k)	Others		3.82	22.84
	Total Rajasthan	2782.36	1626.66	10678.02

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	6.23	434.68
(b)	Obra	99.00	2.21	183.34
(c)	Matatilla	30.00	19.16	90.44
(d)	Khara	72.00	20.74	227.81
	Total U.P. (Hydro)	501.00	48.34	936.27
	<u>THERMAL</u>			
(e)	Obra	1442.00	443.40	3099.56
(f)	Panki	242.00	41.80	580.36
(g)	Harduaganj	375.00	47.81	398.46
(h)	Paricha	220.00	69.83	610.27
(i)	Anpara	1630.00	790.93	6578.76
	Total U.P. (Thermal)	3909.00	1393.77	11267.40
	Total U.P.	4410.00	1442.11	12203.67
10	UTTRANCHAL			
(a)	Khatima	41.40	13.64	137.12
(b)	Ramganga	198.00	5.29	57.87
(c)	Ganga Canal	32.70	6.76	98.70
(d)	Yamuna (I & IV)	114.75	66.65	705.02
(e)	Chibro	240.00	27.64	469.86
(f)	Khodri	120.00	13.49	220.61
(g)	Chilla	144.00	53.51	597.18
(h)	Maneri Bhali	90.00	0.00	0.00
(i)	Sibla+Small hydel	18.20		
	Total Uttranchal	999.05	186.98	2286.37
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	30790.47	12170.35	107465.14

Notes : 1. The ex-bus generations are either actual values or based on the following assumptions in respect of auxiliary consumption

-----Hydro and diesel/gas power stations in open cycle-----1.0%	Nuclear stations-----12.5%
-----Gas power stations in combined cycle-----3.0%	
-----Coal fired power stations	
IP---12%	Faridabad---13.5%
Rajghat---11%	Panipat---12.0%
	Suratgarh---10.0%
	KTPS---10.0%
UP---12.5%	Lehra Mohabat---10.5%
Tanda---12.5%	RTP---7.5%
	GNDTP---10.5%

XII. DETAILS OF ENERGY EXCHANGES THROUGH BILATERAL AGREEMENTS (INTRA-REGIONAL) DURING NOVEMBER 2004**(ALL FIGS IN MUs)**

FROM / TO	PUNJAB	HARYANA	RAJASTHAN	DELHI	UP	UTTRANCHAL	HP	J & K	CHANDIGARH	MALANA
PUNJAB	-		-		-				-	-
HARYANA	-	-	-	20.256***		-	7.804*	-	-	
RAJASTHAN		-	-		-	-	-	-		
DELHI	-		-		-	-		-	-	-
UP	-	-	-	-	-	-		-	-	-
UTTRANCHAL	33.950****	-	-	-	-	-		-	-	-
HP	5.94***	-	-		3.960***	16.429***	-	-	-	-
J & K		-	-		-	-	-	-	-	-
CHANDIGARH	-	-	-	-	-	-	-	-	-	-

* Through PTC

** Through NVVN

*** Shared projects



**** Through Banking/ Agreement

REMARKS : Figures are provisional and indicative only.

XIII. DETAILS OF ENERGY EXCHANGES THROUGH BILATERAL AGREEMENTS (INTER-REGIONAL) DURING NOVEMBER 2004

(ALL FIGS IN MUs)

FROM / TO	GRIDCO	BSEB	WBPCL	MPEB	APTRANSCO	DVC	ASSAM	Meghalaya	TRIPURA
PUNJAB	23.175***WR		.700*					-	
HARYANA	19.106***WR+90.555*						13.758***WR		
RAJASTHAN	-		16.689*WR			20.431*WR	-	5.461***WR	
DELHI					8.65**	--			
UP		16.920*	51.750*						
UTTRANCHAL	-			-	-	-	-	-	
J & K	125.594*				-	-	-	-	
CHANDIGARH									

* Through PTC

(+ Import by NR constituents

** Through Tata

(- Export by NR constituents

*** Throgh NVVN

**** Through ADANI

REMARKS : are provisional and indicative only

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Smmary of inter regional exchanges for October 2004

Date	Vindhyachal HVDC B/B							Auraiya - Malanpur						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	50	0	400	100	2.07	0.85	1.22	0	0	0	0	0.00	0.00	0.00
02	200	100	243	0	1.69	0.00	1.69	0	0	0	0	0.00	0.00	0.00
03	200	200	200	150	2.97	0.20	2.77	0	0	0	0	0.00	0.00	0.00
04	150	-150	200	150	1.15	1.25	-0.10	0	0	0	0	0.00	0.00	0.00
05	200	200	300	0	5.26	0.00	5.26	0	0	0	0	0.00	0.00	0.00
06	100	221	288	0	4.99	0.00	4.99	0	0	0	0	0.00	0.00	0.00
07	200	243	250	0	4.82	0.00	4.82	0	0	0	0	0.00	0.00	0.00
08	155	100	250	200	4.04	0.12	3.92	0	0	0	0	0.00	0.00	0.00
09	155	100	221	205	4.11	0.03	4.08	0	0	0	0	0.00	0.00	0.00
10	177	150	275	0	4.44	0.00	4.44	0	0	0	0	0.00	0.00	0.00
11	199	198	350	0	5.62	0.00	5.62	0	0	0	0	0.00	0.00	0.00
12	199	198	350	0	5.62	0.00	5.62	0	0	0	0	0.00	0.00	0.00
13	199	243	350	98	5.03	0.00	5.03	0	0	0	0	0.00	0.00	0.00
14	0	243	250	0	4.41	0.00	4.41	0	0	0	0	0.00	0.00	0.00
15	154	158	242	200	2.41	0.31	2.10	0	0	0	0	0.00	0.00	0.00
16	63	0	270	0	2.13	0.00	2.13	0	0	0	0	0.00	0.00	0.00
17	65	150	198	100	1.75	0.07	1.68	0	0	0	0	0.00	0.00	0.00
18	63	136	250	100	2.42	0.04	2.39	0	0	0	0	0.00	0.00	0.00
19	136	92	158	0	1.85	0.00	1.85	0	0	0	0	0.00	0.00	0.00
20	0	132	167	0	1.21	0.00	1.21	0	0	0	0	0.00	0.00	0.00
21	108	167	226	0	3.80	0.00	3.80	0	0	0	0	0.00	0.00	0.00
22	64	242	244	50	2.35	0.01	2.34	0	0	0	0	0.00	0.00	0.00
23	108	100	155	0	1.80	0.00	1.80	0	0	0	0	0.00	0.00	0.00
24	0	105	173	0	1.50	0.00	1.50	0	0	0	0	0.00	0.00	0.00
25	64	173	173	0	1.81	0.00	1.81	0	0	0	0	0.00	0.00	0.00
26	0	128	178	0	1.38	0.00	1.38	0	0	0	0	0.00	0.00	0.00
27	64	100	175	0	1.43	0.00	1.43	0	0	0	0	0.00	0.00	0.00
28	64	150	275	0	2.68	0.00	2.68	0	0	0	0	0.00	0.00	0.00
29	64	110	275	0	3.24	0.00	3.24	0	0	0	0	0.00	0.00	0.00
30	64	200	200	50	2.11	0.02	2.09	0	0	0	0	0.00	0.00	0.00
Maximum	200	243	400	205	5.62	1.25	5.62	0	0	0	0	0.00	0.00	0.00
Minimum	0	-150	155	0	1.15	0.00	-0.10	0	0	0	0	0.00	0.00	0.00
Average	109	140	243	47	3.00	0.10	2.91	0	0	0	0	0.00	0.00	0.00
Month Total					86.78	2.89	83.89					0.00	0.00	0.00

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Smmary of inter regional exchanges for October 2004

Date	Ujjain - Kota							Sasaram HVDC B/B						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	0	0	0	0	0.00	0.00	0.00	350	375	500	0	9.73	0.00	9.73
02	0	0	0	0	0.00	0.00	0.00	329	371	468	0	9.81	0.00	9.81
03	0	0	0	0	0.00	0.00	0.00	388	327	424	0	9.59	0.00	9.59
04	0	0	0	0	0.00	0.00	0.00	339	325	419	0	9.04	0.00	9.04
05	0	0	0	0	0.00	0.00	0.00	315	325	451	0	9.23	0.00	9.23
06	0	0	0	0	0.00	0.00	0.00	365	403	459	0	8.58	0.00	8.58
07	0	0	0	0	0.00	0.00	0.00	339	410	457	0	10.07	0.00	10.07
08	0	0	0	0	0.00	0.00	0.00	291	398	462	0	10.01	0.00	10.01
09	0	0	0	0	0.00	0.00	0.00	291	398	456	0	8.65	0.00	8.65
10	0	0	0	0	0.00	0.00	0.00	291	361	458	0	8.65	0.00	8.65
11	0	0	0	0	0.00	0.00	0.00	350	450	450	0	9.95	0.00	9.95
12	0	0	0	0	0.00	0.00	0.00	350	450	450	0	9.95	0.00	9.95
13	0	0	0	0	0.00	0.00	0.00	362	459	459	0	9.89	0.00	9.89
14	0	0	0	0	0.00	0.00	0.00	388	362	459	0	9.52	0.00	9.52
15	0	0	0	0	0.00	0.00	0.00	315	364	461	0	8.66	0.00	8.66
16	0	0	0	0	0.00	0.00	0.00	242	360	457	0	8.88	0.00	8.88
17	0	0	0	0	0.00	0.00	0.00	266	276	316	0	5.58	0.00	5.58
18	0	0	0	0	0.00	0.00	0.00	266	302	450	0	7.86	0.00	7.86
19	0	0	0	0	0.00	0.00	0.00	266	224	297	0	5.51	0.00	5.51
20	0	0	0	0	0.00	0.00	0.00	276	225	350	0	6.12	0.00	6.12
21	0	0	0	0	0.00	0.00	0.00	388	300	450	0	8.33	0.00	8.33
22	0	0	0	0	0.00	0.00	0.00	350	381	500	0	8.80	0.00	8.80
23	0	0	0	0	0.00	0.00	0.00	350	318	500	0	8.80	0.00	8.80
24	0	0	0	0	0.00	0.00	0.00	291	318	463	0	8.04	0.00	8.04
25	0	0	0	0	0.00	0.00	0.00	291	366	450	0	8.46	0.00	8.46
26	0	0	0	0	0.00	0.00	0.00	291	366	500	0	8.57	0.00	8.57
27	0	0	0	0	0.00	0.00	0.00	350	391	450	0	8.68	0.00	8.68
28	0	0	0	0	0.00	0.00	0.00	282	367	416	0	8.11	0.00	8.11
29	0	0	0	0	0.00	0.00	0.00	322	308	450	0	7.63	0.00	7.63
30	0	0	0	0	0.00	0.00	0.00	214	301	425	0	9.87	0.00	9.87
Maximum	0	0	0	0	0.00	0.00	0.00	388	459	500	0	10.07	0.00	10.07
Minimum	0	0	0	0	0.00	0.00	0.00	214	224	297	0	5.51	0.00	5.51
Average	0	0	0	0	0.00	0.00	0.00	317	353	444	0	8.69	0.00	8.69
Month Total					0.00	0.00	0.00					255.31	0.00	255.31

Smmary of inter regional exchanges for October 2004

Date	Sahupuri - Karamnasa							Rihand-Son Nagar						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
02	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
03	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
04	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
05	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
06	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
07	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
08	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
09	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
10	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
11	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
12	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
13	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
14	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
15	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
16	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
17	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
18	0	0	0	0	0.00	0.00	0.00	0	0	0	30	0.00	0.09	0.09
19	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
20	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
21	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
22	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
23	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
24	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
25	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
26	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
27	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
28	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
29	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
30	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
Maximum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30.00	0.00	0.09	0.09
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00
Month Tota					0.00	0.00	0.00					0.00	0.09	0.09

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Smmary of inter regional exchanges for October 2004

Date	Shahupuri-Pussauli							Rihand- Garvha						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	135	0	135	0	0.79	0.00	0.79	0	0	0	0	0.00	0.00	0.00
02	155	124	157	0	3.11	0.00	3.11	0	0	0	0	0.00	0.00	0.00
03	115	125	151	0	3.11	0.00	3.11	0	0	0	0	0.00	0.00	0.00
04	120	130	146	0	3.11	0.00	3.11	0	0	0	0	0.00	0.00	0.00
05	130	115	180	0	3.18	0.00	3.18	0	0	0	0	0.00	0.00	0.00
06	120	125	155	0	3.16	0.00	3.16	0	0	0	0	0.00	0.00	0.00
07	157	148	157	0	3.22	0.00	3.22	0	0	0	0	0.00	0.00	0.00
08	120	130	150	0	3.30	0.00	3.30	0	0	0	0	0.00	0.00	0.00
09	142	156	156	0	3.41	0.00	3.41	0	0	0	0	0.00	0.00	0.00
10	137	156	162	0	3.30	0.00	3.30	0	0	0	0	0.00	0.00	0.00
11	162	160	165	0	3.40	0.00	3.40	0	0	0	0	0.00	0.00	0.00
12	162	160	165	0	3.40	0.00	3.40	0	0	0	0	0.00	0.00	0.00
13	140	170	170	0	3.40	0.00	3.40	0	0	0	0	0.00	0.00	0.00
14	130	135	185	0	3.43	0.00	3.43	0	0	0	0	0.00	0.00	0.00
15	121	135	180	0	3.41	0.00	3.41	0	0	0	0	0.00	0.00	0.00
16	125	123	148	0	3.23	0.00	3.23	0	0	0	0	0.00	0.00	0.00
17	130	130	156	0	3.12	0.00	3.12	0	0	0	0	0.00	0.00	0.00
18	135	130	150	0	3.07	0.00	3.07	0	0	0	0	0.00	0.00	0.00
19	152	150	150	0	3.15	0.00	3.15	0	0	0	0	0.00	0.00	0.00
20	122	115	160	0	3.18	0.00	3.18	0	0	0	0	0.00	0.00	0.00
21	120	110	175	0	3.08	0.00	3.08	0	0	0	0	0.00	0.00	0.00
22	132	91	176	0	3.12	0.00	3.12	0	0	0	0	0.00	0.00	0.00
23	128	92	167	0	3.02	0.00	3.02	0	0	0	0	0.00	0.00	0.00
24	126	87	160	0	2.72	0.00	2.72	0	0	0	0	0.00	0.00	0.00
25	136	85	165	0	3.18	0.00	3.18	0	0	0	0	0.00	0.00	0.00
26	127	93	162	0	3.05	0.00	3.05	0	0	0	0	0.00	0.00	0.00
27	132	123	150	0	3.05	0.00	3.05	0	0	0	0	0.00	0.00	0.00
28	130	135	145	0	3.09	0.00	3.09	0	0	0	0	0.00	0.00	0.00
29	120	157	186	0	3.24	0.00	3.24	0	0	0	0	0.00	0.00	0.00
30	127	140	175	0	3.07	0.00	3.07	0	0	0	0	0.00	0.00	0.00
Maximum	162	170	186	0	3.43	0.00	3.43	0	0	0	0	0.00	0.00	0.00
Minimum	115	0	135	0	0.79	0.00	0.79	0	0	0	0	0.00	0.00	0.00
Average	133	124	161	0	3.10	0.00	3.10	0	0	0	0	0.00	0.00	0.00
Month Total					91.90	0.00	91.90					0.00	0.00	0.00

XV. Status Of Installation Of Shunt Capacitors As On 30.11.2004**(All fig. In MVARs)**

STATE/UT	Requirement by 31.03.2005	Installed as on 31.03.2004	Additional Requirement for 2004-2005	Programme as furnished by SEB's	Installed during 2003-04 upto 30.11.2004	Balance not installed during 2004-05	Capacitors installed as on 30.11.2004
DELHI	3135	** 3021	567	-	178	389	3199
HARYANA	2920	3269	141	500	81	60	3350
PUNJAB	4564	4721	551	500	64	487	4785
RAJASTHAN	2650	2895	189	500	168	21	3063
UP	4890	5192	477	700	0	477	5192
UTTRANCHAL	350	125	244	45	55	189	180
HP	305	311	41	-	0	41	311
J&K	915	147	790	500	0	790	147
BBMB	381	381	0	-	0	0	381
CHANDIGARH	140	100	55	-	0	55	100
TOTAL	20250	20162	3055	2745	546	2509	20708

NOTE: However the effective installed capacitors are assumed to be 85% of column II** i.e 17195

XVI. Hydraulic Data For Reservoirs During November 2004

Item	Bhakra	Pong	Rihand	R.P.S.	Gandhi Sagar (M.P.)
Full Reservoir Level (m) (FRL) (ft)	514.50 1688.00	433.12 1421.00	268.22 880.00	352.65 1157.00	402.64 1321.00
Min. Draw Down Level (m) (MDDL) (ft)	445.62 1462.00	384.05 1260.00	252.98 830.00	342.90 1125.00	381.00 1250.00
Level on last day of NOVEMBER 2004 (m)	486.74 1596.92	408.75 1341.04	257.16 843.70	349.21 1145.71	394.12 1293.06
Level on last day of NOVEMBER 2003 (m)	501.17 1644.26	410.97 1348.32	264.26 867.00	348.58 1143.62	384.69 1262.11
Live Capacity as on (mhmt) last day of NOVEMBER 2004 (maft)	0.32 2.62	0.29 2.34	0.12 0.97	0.09 0.74	0.36 2.90
Live Capacity as on (mhmt) last day of NOVEMBER 2003 (maft)	0.50 4.07	0.36 2.90	0.39 3.17	0.05 0.42	0.06 0.50
Energy content as on last day of NOVEMBER 2004 (MU)	1200.00	450.00	175.00	165.00	975.00
Energy content as on last day of NOVEMBER 2003 (MU)	2000.00	515.00	770.00	150.00	170.00
Maximum level (m) (ft) (date)	486.74 1596.92 01.11.2004	408.75 1341.04 01.11.2004	257.16 843.70 01.11.2004	349.21 1145.71 30.11.2004	394.12 1293.06 01.11.2004
Minimum level (m) (ft) (date)	481.89 1581.01 30.11.2004	406.69 1334.27 30.10.2004	256.98 843.10 30.11.2004	349.03 1145.12 01.11.2004	392.62 1288.12 30.11.2004

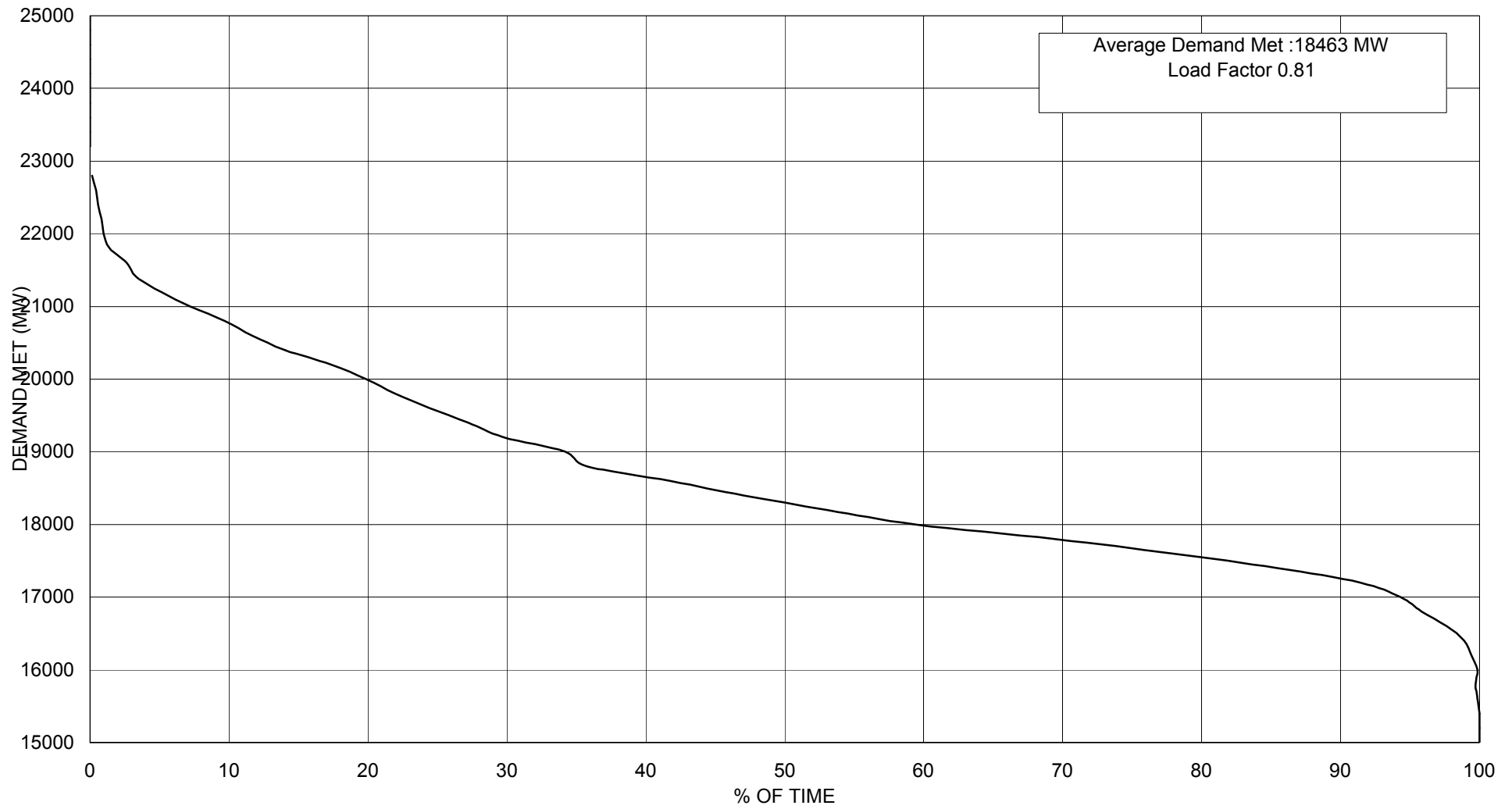
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

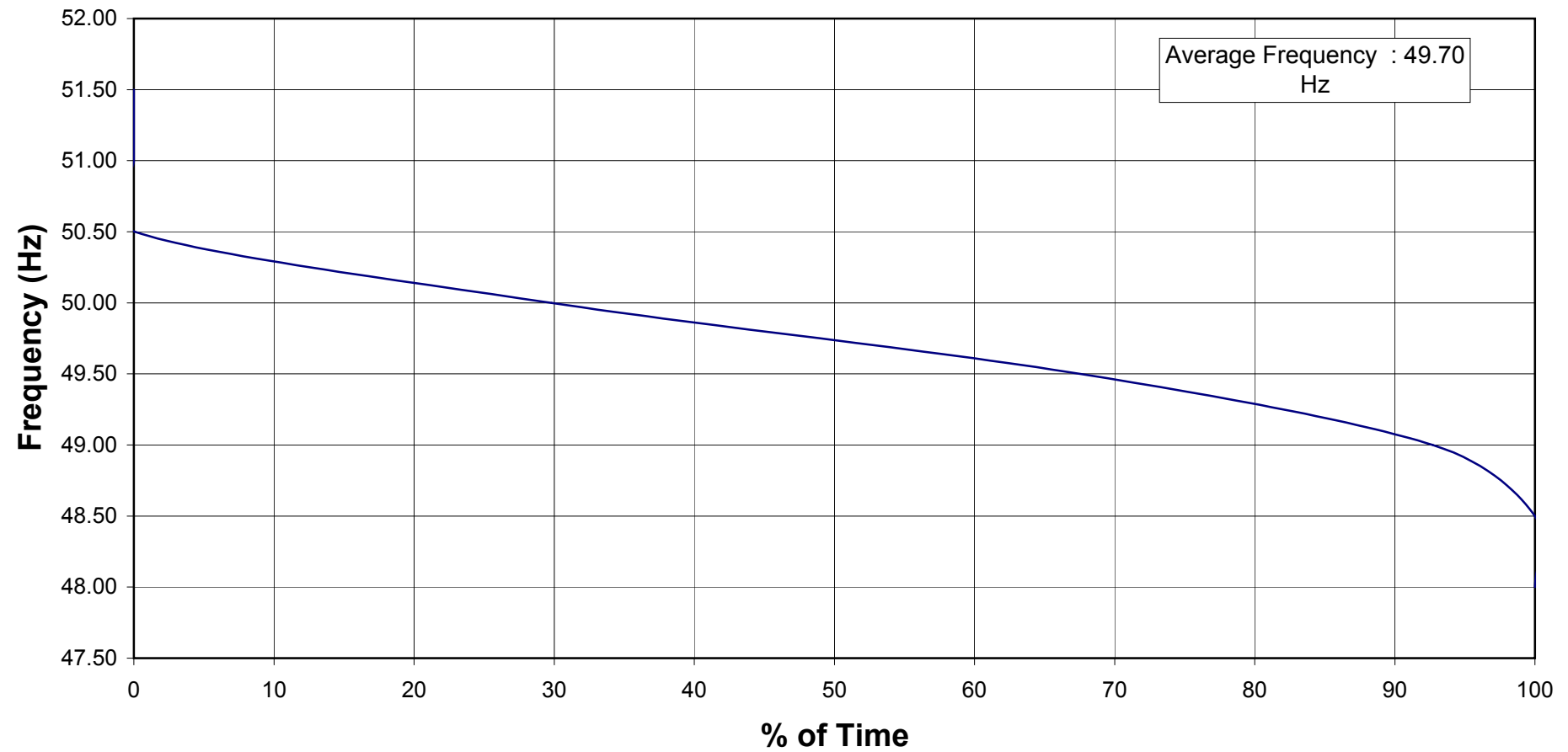
Energy content of Rihand : Total Energy content at Rihand & Obra power stations

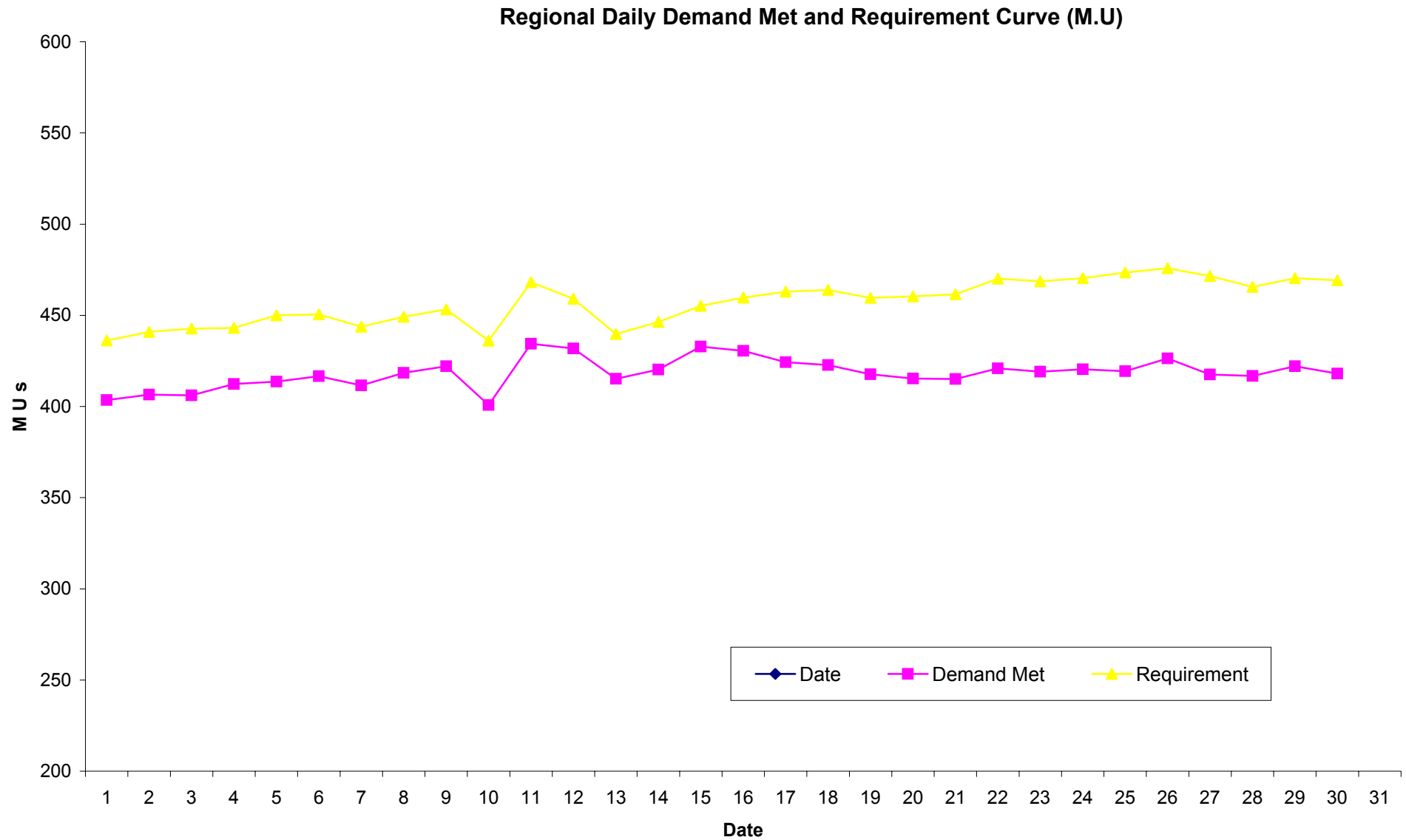
Energy content of RPS : Total Energy content of Rana Pratap Sagar and Jawahar Sagar Power Stations.

Energy Content of G. Sagar : Total Energy content at Gandhi Sagar, RP Sagar and Jawahar Sagar Power Stations.

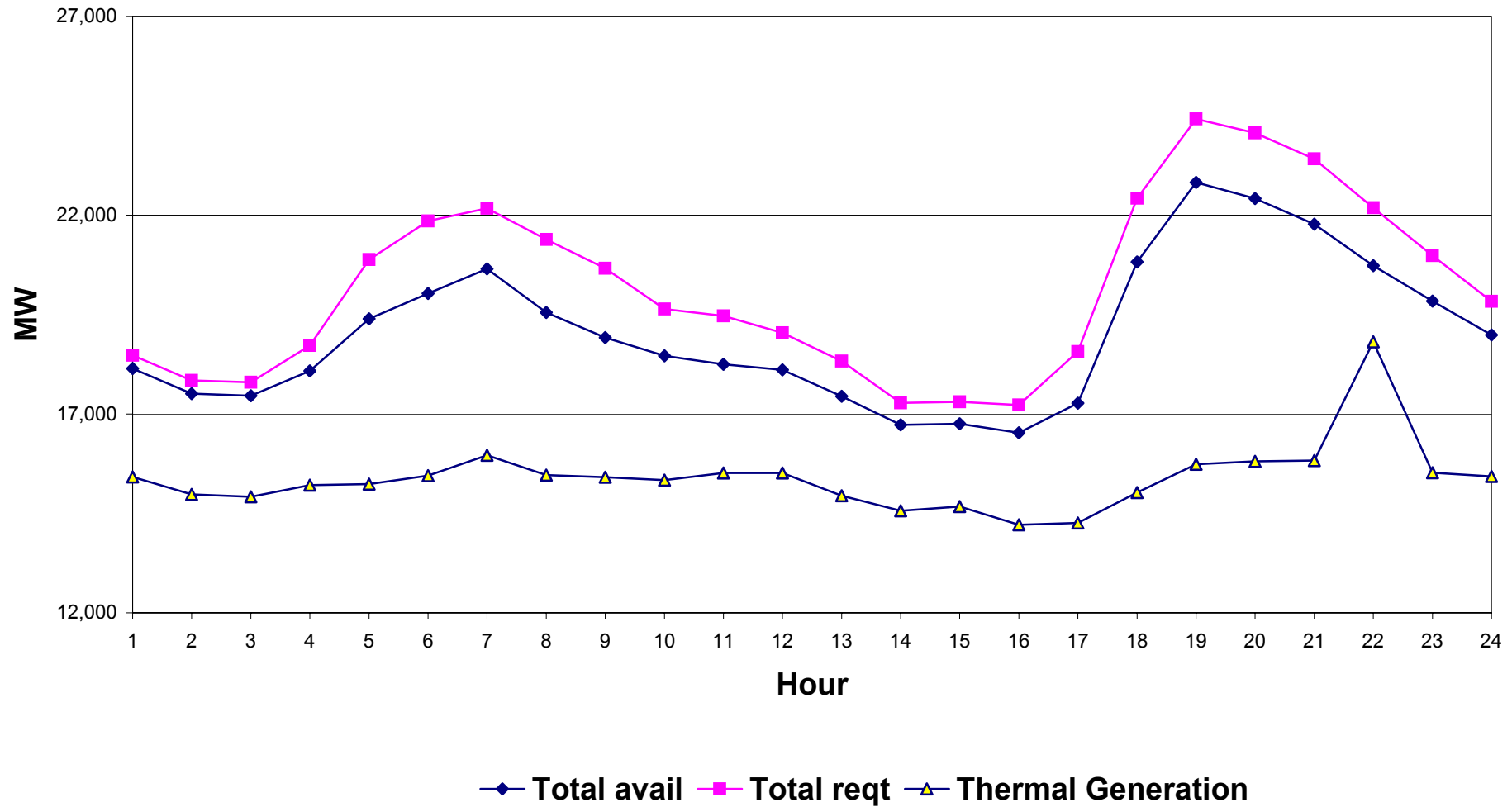
Load Duration Curve For Northern Region For NOVEMBER



Frequency Duration Curve For Northern Region For November 2004



Load Curve Of Northern Region For Maximum Demand Met Day (12th November 2004)



Load Curve Of Northern Region For Minimum Demand Met Day (1st November 2004)

