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NORTHERN REGION GRID REPORT FOR THE MONTH OF MARCH 2004

A) Summary Report

1.

Grid Overview during the Month

During the month of March 2004, there was an increase in demand due to sudden change in weather conditions, outage of various machines, less gas availability and less inflow of water. However, overall power supply position in the region was satisfactory. The average energy and peak demand met were 425.91 MU/day and 21251 MW as compared to 382.63 MU/day and 20622 MW during March 2003. The average energy and peak shortages were 5.72% & 5.78% respectively for March 2004 as compared to 2.66% and 2.80% during March 2003. The average frequency variation index was 5.39 in comparison to 1.91 for March 2003. The average system frequency was 49.40 Hz as compared to 50.13 Hz during March 2003. In spite of all these constraints, the frequency was maintained in the normal range i.e. between 49.0 & 50.5 Hz for 81.05% during this month as compared to 80.31% of the time during March 2003.

Overall voltage profile in the grid on most of the 400 kV buses during the month was satisfactory.

During March 2004 the grid remained incident free, except for some trippings in J&K valley and machines at URI HEP for short duration.

2. Commissioning of New Units/Lines/Transformers During the Month :

- 1 Unit no 4 at SJVNL power house put on commercial operation w.e.f 30.03.2004.
- 2 Unit no 3 at SJVNL power house put on commercial operation w.e.f 31.03.2004.
- 3 Unit no 3 at Chamera HEP stage-II put on commercial operation w.e.f 31.03.2004.

3. Frequency Profile :

Maximum frequency	50.58	Hz	at	18.16	hours on	07.03.2004
Minimum frequency	48.48	Hz	at	15.11	hours on	24.03.2004
Average frequency	49.40	Hz				

Frequency distribution in %

Hz	< 48.50	<49.00	49.00-50.50	> 50.50
% of time	0.02	18.94	81.04	0.02

Frequency Variation Index

Monthly Average	5.39
Maximum	11.46
Minimum	1.21

4. Power Supply Position :**a. Average Energy/day (Net)**

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	76.00	78.57	2.57	3.27
Haryana	54.90	56.15	1.25	2.23
Rajasthan	84.45	84.45	0.00	0.00
U.P.	116.07	136.43	20.36	14.92
Uttanchal	11.29	11.49	0.20	1.74
Delhi	48.57	48.93	0.36	0.74
H.P.	9.72	9.22	-0.50	-5.42
J & K *	20.68	20.68	0.00	0.00
Chandigarh	2.58	2.58	0.00	0.00
N.F.F./Rail	1.65	1.65	0.00	0.00
Total	425.91	450.15	24.24	5.38

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	4320	4320	0	0.00
Haryana	3042	3042	0	0.00
Rajasthan	4132	4132	0	0.00
U.P.	6029	7419	1390	18.74
Uttanchal	722	762	40	5.25
Delhi	2856	2944	88	2.99
H.P.	574	574	0	0.00
J & K *	1194	1250	56	4.48
Chandigarh	158	158	0	0.00
N.F.F./Rail	74	74	0	0.00
Region	21831	23754	1923	8.10

Diversity Factor = **1.11**

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual	OD/UD
Punjab	871.56	823.30	-48.26
Haryana	777.55	871.79	94.24
Rajasthan	902.10	954.23	52.13
U.P.	1445.66	1695.99	250.33
Uttranchal	165.47	144.41	-21.06
Delhi	867.74	664.92	-202.82
H.P.	213.50	193.31	-20.19
J & K	496.04	554.32	58.28
Chandigarh	108.49	84.66	-23.83
N.F.F./Rail	55.43	51.05	-4.38

6. **Inter Regional Exchanges**Energy
M.U.Peak
MWImport

a)	From WR over HVDC Vindhyachal B/B	28.57	350
b)	From WR over 220 kV Ujjain-Kota	0.00	0
c)	From ER over HVDC Sasaram B/B	90.48	500
d)	From ER over 220 kV Dehri-Sahupuri	0.00	0

Export

e)	To WR over HVDC Vindhyachal B/B	49.45	450
f)	To WR (MP) over 220 kV Auraiya-Malanpur	38.51	80
g)	To WR(MP) over 220 kV Kota-Ujjain	65.45	102
h)	To ER (Bihar) over 220 kV/132kV lines	3.41	55
i)	To ER over HVDC Sasaram B/B	0.00	0
j)	To Nepal over 132 kV Tanakpur-Mahendernagar	7.75	21

B). Detailed Report

I. Details of Installed/Effective Capacity at the end of January 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	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)	URI	4x120 480.00	4x120 480.00
(g)	Chamera HPS-II	3x100 300.00	3x100 300.00
	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	4x250 1000.00	4x247 988.00
Total Central Sector (A + B + C +D)		12844.04	12621.20
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+1x27.63+1x26.7 83.58	1x29.25+1x27.63+1x26.7 83.58
(iv)	Kotla	1x29.25+1x24.2+1x28.12 81.57	1x29.25+1x24.2+1x28.12 81.57
	Sub-Total	1490.15	1490.15
(b)	Dehar	6x165 990.00	6x165 990.00
(c)	Pong	6x66 396.00	6x66 396.00
	Total BBMB	2876.15	2876.15

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	1x14+2x67.5	149.00
(c)	Gas Turbines	6x30+3x34	282.00	6x30+3x34	282.00
(d)	Pragati Gas Turbines	2x108+1x114	330.00	2x108 +1x114	330.00
	Total DELHI		1009.50		1008.50
5	HARYANA				
	HYDRO				
(a)	Western Yamuna Canal (WYC)	6x8	48.00	6x8	48.00
	Total Hydro		48.00		48.00
	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		1113.20		1098.20
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
(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	3.00
(m)	Ghanvi	2x11.25	22.50	2x11.25	22.50
(n)	Diesel Gen. Sets		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
(h)	Sewa	3x3.0	9.00	3x3.0	9.00
	Total Hydro		311.69		311.69

J & K (Contd.)				
	GAS TURBINES			
(h)	Pampore GT St - I	3x25.0	75.00	3x25.0
	Pampore GT St - II	4x25.0	100.00	4x25.0
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
(b)	Upper Behari Doab Canal (UBDC)	3x15+3x15	90.00	3x15+3x15
(c)	Mukerian	6x15+6x19.5	207.00	6x15+6x19.5
(d)	Anandpur Sahib (APS)	4x33.5	134.00	4x33.5
(e)	Ranjit Sagar HPS	4x150	600.00	4x150
(f)	Small Hydel		4.10	4.10
	Total Hydro		1145.10	1145.10
	THERMAL			
(g)	Guru Nanak Dev TPS (Bhatinda)	4x110	440.00	4x110
(h)	Guru Gobind Singh TPS (Ropar)	6x210	1260.00	6x210
(i)	Lehra Mohabbat TPS	2x210	420.00	2x210
(j)	Jhalkeri Rice Straw Fired	1x10	10.00	1x10
	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
(b)	Rana Pratap Sagar (RPS)	4x43	172.00	4x43
(c)	Jawahar Sagar (JS)	3x33	99.00	3x33
(d)	Anoopgarh	6x1.5	9.00	6x1.5
(e)	Small Hydro		14.85	14.85
	Total Hydro		434.85	434.85
	THERMAL			
(f)	Kota TPS	2x110+3x210 +1x195	1045.00	2x110+3x210 +1x195
(g)	Suratgarh TPS	5x250	1250.00	5x250
(g)	Ramgarh GT	1x3	3.00	1x3
(i)	Ramgarh GT EXT.	1x35.5	35.50	1x35.5
	Total Thermal		2333.50	2333.50
(J)	Wind farm		14.01	14.01
	Total Rajasthan		2782.36	2782.36

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)	Ganga Canal				
	Bhola	4x.375+2x.6+		4x.375+2x.6+	
	Salara	2x1.5+		2x1.5+	
	Nirgazni	2x2.5	10.70	2x2.5	10.70
(e)	Khara	3x24.0	72.00	3x24.0	72.00
(f)	Sobla & small hydro	6 +12.2	18.20	6 +12.2	18.20
	Total Hydro		529.90		529.90
	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		4721.90		4438.90
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
	Total Hydro		980.85		980.85
	Total Region (1 to 11)		30812.93		30288.73

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	26.96%
NHPC	2284.20	0.00	0.00	0.00	2284.20	7.54%
SJVNL	1000.00	0.00	0.00	0.00	1000.00	3.30%
NPC	0.00	0.00	0.00	1180.00	1180.00	3.89%
BBMB	2876.15	0.00	0.00	0.00	2876.15	9.49%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	396.50	612.00	0.00	1008.50	3.33%
HARYANA	48.00	1025.00	25.20	0.00	1098.20	3.62%
HIMACHAL	712.20	0.00	0.00	0.00	712.20	2.35%
J&K	311.69	0.00	182.18	0.00	493.87	1.63%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	10.81%
RAJASTHAN	434.85	2295.00	52.51	0.00	2782.36	9.18%
UP	529.90	3909.00	0.00	0.00	4438.90	14.65%
UTTRANCHAL	980.85	0.00	0.00	0.00	980.85	3.24%
Total	10322.94	15580.50	3217.33	1180.00	30300.77	100.00%
% of TOTAL	34.07%	51.42%	10.62%	3.89%	100.00%	

Notes The above table does not take into account the shares of a state in power stations located in the neighbouring state. 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

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 31.01.2004

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1644.20	640.00	2284.20
BBMB	1155.15	1721.00	2876.15
SJVNL	0.00	1000.00	1000.00
DELHI	0.00	0.00	0.00
HARYANA	48.00	0.00	48.00
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	229.90	300.00	529.90
UTTRANCHAL	782.85	198.00	980.85
TOTAL	5691.94	4631.00	10322.94
PERCENTAGE	55.14%	44.86%	100%

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

III.

Frequency Profile

Date	% of Time Frequency								
	< 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	4.51	39.44	95.49	28.02	0.00	0.00	0.00
02	0.00	0.00	6.70	50.92	93.30	11.60	0.00	0.00	0.00
03	0.00	0.00	13.92	52.92	86.08	17.71	0.00	0.00	0.00
04	0.00	0.00	16.49	72.06	83.51	3.33	0.00	0.00	0.00
05	0.00	0.00	13.65	72.08	86.35	5.28	0.00	0.00	0.00
06	0.00	0.00	2.95	51.37	97.05	14.94	0.00	0.00	0.00
07	0.00	0.00	1.21	16.31	98.44	52.72	0.35	0.00	0.00
08	0.00	0.00	0.00	15.45	100.00	53.19	0.00	0.00	0.00
09	0.00	0.00	3.54	40.76	96.46	17.08	0.00	0.00	0.00
10	0.00	0.00	11.18	58.23	88.82	5.35	0.00	0.00	0.00
11	0.00	0.00	8.72	49.50	91.28	7.75	0.00	0.00	0.00
12	0.00	0.00	26.66	84.45	73.34	0.97	0.00	0.00	0.00
13	0.00	0.00	23.03	83.74	76.97	0.14	0.00	0.00	0.00
14	0.00	0.00	9.06	60.57	90.94	14.44	0.00	0.00	0.00
15	0.00	0.00	14.48	76.04	85.52	5.14	0.00	0.00	0.00
16	0.00	0.00	24.14	83.50	75.86	1.63	0.00	0.00	0.00
17	0.00	0.00	21.22	68.72	78.78	4.44	0.00	0.00	0.00
18	0.00	0.00	36.69	86.64	63.31	1.57	0.00	0.00	0.00
19	0.00	0.00	45.61	93.45	54.39	0.00	0.00	0.00	0.00
20	0.00	0.00	26.61	61.27	73.39	3.58	0.00	0.00	0.00
21	0.00	0.00	10.76	43.08	89.13	20.82	0.10	0.00	0.00
22	0.00	0.00	37.28	78.31	62.72	6.04	0.00	0.00	0.00
23	0.00	0.17	52.00	94.52	48.00	0.00	0.00	0.00	0.00
24	0.00	0.52	63.45	91.49	36.55	1.70	0.00	0.00	0.00
25	0.00	0.07	41.93	84.73	58.07	2.43	0.00	0.00	0.00
26	0.00	0.00	28.69	76.24	71.31	2.74	0.00	0.00	0.00
27	0.00	0.00	13.02	56.51	86.98	5.83	0.00	0.00	0.00
28	0.00	0.07	3.13	23.16	96.88	28.58	0.00	0.00	0.00
29	0.00	0.00	5.80	32.68	94.20	24.49	0.00	0.00	0.00
30	0.00	0.00	14.82	64.87	85.18	9.23	0.00	0.00	0.00
31	0.00	0.00	17.99	61.17	82.01	7.57	0.00	0.00	0.00
Max	0.00	0.52	63.45	94.52	100.00	53.19	0.35	0.00	0.00
Min	0.00	0.00	0.00	15.45	36.55	0.00	0.00	0.00	0.00
Average	0.00	0.02	18.94	61.65	81.04	11.88	0.02	0.00	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
50.37	18.02	48.61	18.59	49.67	2.61
50.34	18.01	48.60	6.23	49.51	3.69
50.35	21.58	48.54	0.05	49.49	4.56
50.28	18.05	48.62	19.32	49.32	5.73
50.22	21.53	48.56	2.06	49.35	5.39
50.33	18.02	48.83	4.50	49.54	3.32
50.58	18.16	48.82	0.05	49.91	1.38
50.47	2.00	49.03	12.36	49.94	1.21
50.26	18.04	48.65	19.32	49.61	2.67
50.21	18.18	48.66	19.33	49.44	4.28
50.24	6.02	48.60	16.25	49.52	3.51
50.21	8.09	48.57	9.18	49.20	7.23
50.07	8.03	48.53	19.05	49.23	6.79
50.48	18.18	48.60	4.23	49.47	4.35
50.26	7.06	48.52	19.11	49.33	5.62
50.16	18.13	48.53	19.09	49.21	7.16
50.23	18.39	48.53	19.48	49.33	5.84
50.17	22.56	48.53	19.26	49.14	8.41
49.88	15.06	48.51	18.44	49.05	9.66
50.16	18.15	48.53	19.21	49.35	5.81
50.52	18.22	48.62	22.24	49.58	3.54
50.18	4.03	48.52	20.19	49.19	8.15
49.91	8.06	48.48	16.04	49.01	10.57
50.18	18.05	48.48	15.11	48.99	11.46
50.23	10.21	48.48	19.06	49.13	8.87
50.22	7.00	48.51	0.28	49.23	7.45
50.17	18.46	48.52	10.06	49.42	4.66
50.33	18.18	48.50	19.42	49.75	1.74
50.30	18.16	48.57	20.27	49.66	2.63
50.33	8.19	48.53	5.38	49.39	5.29
50.27	9.17	48.53	21.05	49.38	5.45
50.58		49.03		49.94	11.46
49.88		48.48		48.99	1.21
50.26		48.58		49.40	5.39

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	415	03:00	393	11:20	407	18:00	397	06:26	208	03:00	196	18:53	411	03:00	388	18:56
02	414	03:10	393	19:07	411	05:02	399	19:08	207	00:45	197	19:03	409	03:02	385	18:57
03	412	03:05	386	10:43	409	05:05	394	11:06	207	02:59	194	10:43	409	00:55	388	19:32
04	411	03:09	383	10:40	404	03:00	393	10:37	207	03:09	193	10:38	412	03:00	387	16:43
05	411	21:52	384	10:58	405	03:40	386	15:54	206	03:35	194	11:39	410	03:34	388	17:31
06	414	13:53	390	10:46	408	13:53	386	12:45	208	23:00	196	10:36	411	13:52	392	19:16
07	418	02:23	401	05:53	410	18:01	394	06:22	210	02:55	204	05:53	412	02:23	389	17:53
08	419	03:17	398	10:32	409	03:17	394	06:22	211	02:26	198	10:37	412	01:01	391	19:37
09	417	02:22	389	19:15	408	02:20	388	16:18	208	02:11	191	19:32	411	02:20	387	19:15
10	412	03:29	386	11:54	406	03:26	387	14:14	206	03:25	193	11:41	410	03:29	388	11:51
11	413	02:50	387	11:26	409	18:11	390	11:34	207	02:50	194	11:13	412	03:02	390	11:21
12	414	02:02	386	11:03	407	01:00	387	11:01	206	02:00	192	19:32	412	02:02	388	19:01
13	410	01:02	387	10:33	406	03:14	384	14:31	205	03:14	192	10:33	411	01:00	390	11:05
14	416	18:01	387	12:12	411	18:02	387	11:49	205	18:01	194	11:32	413	01:00	390	19:17
15	414	03:42	386	12:09	409	05:03	386	12:10	206	03:00	190	11:04	412	03:07	388	12:10
16	412	04:02	389	18:58	407	04:03	390	18:59	204	04:04	191	11:23	409	00:26	387	18:58
17	413	03:41	386	11:07	407	05:04	388	11:07	204	04:04	191	11:23	413	01:56	388	19:20
18	416	08:01	387	19:09	409	08:50	380	19:40	205	00:47	190	19:08	412	13:07	389	19:08
19	412	03:05	380	11:10	402	03:02	381	11:24	205	03:05	188	11:10	410	03:06	387	11:10
20	414	04:08	390	19:11	404	04:00	394	13:00	206	04:09	192	19:12	412	04:08	392	19:02
21	414	02:30	389	19:06	409	18:12	388	10:06	206	02:30	195	19:05	414	14:08	390	19:07
22	416	04:00	385	10:49	410	04:01	389	15:58	206	04:05	189	10:28	414	03:59	394	19:02
23	411	01:42	389	18:56	408	07:28	393	18:56	204	01:41	192	18:57	413	02:38	389	18:57
24	414	04:32	387	14:38	409	18:25	388	14:38	206	04:31	192	16:21	411	03:57	389	19:10
25	417	04:28	391	10:35	416	04:25	387	11:14	208	04:26	193	19:03	413	12:54	393	19:15
26	417	06:57	389	10:19	411	06:57	391	10:17	206	22:45	191	10:17	412	03:33	388	19:24
27	417	06:57	389	10:19	409	21:59	389	12:04	207	03:11	197	11:19	411	03:04	391	19:19
28	422	13:23	400	05:49	411	13:24	394	05:42	208	08:05	200	19:23	416	15:07	395	05:46
29	416	22:33	398	19:11	407	00:00	387	05:46	208	01:56	195	11:24	414	01:47	389	19:26
30	416	08:06	398	11:20	411	07:46	392	11:22	207	02:42	198	19:13	413	01:23	392	19:12
31	421	22:48	392	11:18	414	18:24	390	16:25	210	04:03	198	09:54	416	22:05	390	19:15
Max	422		401		416		399		211		204		416		395	
Min	410		380		402		380		204		188		409		385	

V. Regional Power Supply Position

(All Figs In MUs)

Date	Availability (Gross) MW	Peak Hrs. Requirement MW	Shortage/ Restriction MW	Availability (Gross) MW	Off Peak Hrs. Requirement MW	Shortage/ Restriction*	Regional Availability MU
01	20705	21770	1065	17923	18358	435	424.64
02	20635	22424	1789	17547	18132	585	422.47
03	21251	22555	1304	17102	18187	1085	429.98
04	21104	22372	1268	17931	19199	1268	431.97
05	21154	22229	1075	17605	18220	615	437.63
06	20755	21773	1018	18079	18592	513	435.22
07	20002	20960	958	17704	18242	538	419.99
08	20231	21312	1081	16522	17112	590	425.40
09	20747	21821	1074	17269	17866	597	428.15
10	20766	22160	1394	17853	18490	637	433.60
11	20463	22193	1730	18133	18863	730	439.05
12	20762	22052	1290	18007	18397	390	434.98
13	20690	22042	1352	17940	18455	515	437.73
14	20704	21725	1021	18028	18543	515	438.28
15	20733	21895	1162	18399	18859	460	443.28
16	20917	21967	1050	18252	19357	1105	442.14
17	20988	22156	1168	18341	19236	895	443.46
18	21000	22326	1326	18486	20351	1865	439.30
19	20186	21920	1734	17788	18583	795	440.60
20	20537	21879	1342	18418	18939	521	433.70
21	21113	22171	1058	18536	19026	490	428.33
22	20205	21765	1560	18337	19119	782	432.20
23	20013	21690	1677	17824	19189	1365	435.65
24	19948	21591	1643	18006	19450	1444	413.23
25	19556	21186	1630	18108	19625	1517	411.32
26	19545	21329	1784	17785	19143	1358	413.41
27	20108	21325	1217	18055	19048	993	418.81
28	18933	20502	1569	18183	18638	455	418.58
29	19492	20716	1224	17953	18233	280	421.38
30	19071	20255	1184	17891	18333	442	416.88
31	19684	20840	1156	17860	18340	480	415.05
Maximum	21251	22555	1789	18536	20351	1865	443.46
Minimum	18933	20255	958	16522	17112	280	411.32
Average	20387	21706	1319	17931	18714	783	429.24

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

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

State	Punjab		Haryana		Rajasthan		Delhi		Uttar Pradesh	
Date	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	3601	2940	2423	2095	3149	3698	2528	1339	5257	5469
02	3632	2979	2312	2170	2938	3708	2480	1281	4769	5169
03	3835	2940	2510	2172	3086	3633	2542	1250	5191	4621
04	3753	3083	2562	2227	3117	3665	2493	1273	5081	5149
05	3759	3058	2648	2303	3027	3558	2559	1303	5454	5154
06	3610	3061	2519	2397	2800	3681	2430	1347	5024	5454
07	4143	2919	2255	2276	2504	3561	2128	1323	4790	5144
08	3348	2872	2387	2119	2729	3375	2374	1157	5234	5041
09	3469	3023	2368	2184	2860	3594	2500	1302	5066	5107
10	3532	2906	2472	2295	2894	3639	2545	1443	5211	5246
11	3585	3099	2475	2258	2884	3736	2637	1449	5068	5339
12	3539	3168	2541	2346	2884	3736	2672	1489	5212	5625
13	3592	3047	2334	2194	2884	3736	2693	1482	5350	5223
14	3384	3196	2483	2235	2847	3533	2602	1530	5139	5521
15	3485	3185	2449	2202	2892	3617	2537	1557	5169	5812
16	3483	3205	2529	2256	3048	3561	2759	1596	5347	5563
17	3676	3268	2474	2212	2942	3521	2669	1632	5220	5534
18	3536	3383	2319	2212	3026	3634	2633	1776	5667	5155
19	3570	3514	2069	2228	3048	2533	2693	1781	5045	5473
20	3446	3493	2431	2159	2962	3399	2726	1722	5139	5607
21	3640	3262	2393	2291	3020	3408	2721	1733	5417	5627
22	3150	3248	2283	2302	2968	3412	2697	1818	5202	5501
23	3252	2903	2304	2130	2919	3453	2766	1827	4875	4939
24	3382	2962	2422	2292	3022	3423	2497	1888	5081	5039
25	3325	3231	2129	2225	3107	3373	2821	1822	4855	5165
26	3385	3135	2372	2260	2731	3348	2768	1783	4654	5035
27	3338	3147	2270	2258	2636	3297	2757	1757	5063	5607
28	3008	3340	2149	2234	2554	3266	2555	1735	5063	5267
29	3145	2990	2310	2183	2651	3212	2653	1776	5718	5931
30	3118	3095	2323	2210	2521	2135	2639	1789	4985	5535
31	3107	3054	2310	2169	2542	3253	2700	1834	4923	5785
Maximum	4143	3514	2648	2397	3149	3736	2821	1888	5718	5931
Minimum	3008	2872	2069	2095	2504	2135	2128	1157	4654	4621
Average	3478	3120	2381	2229	2877	3442	2606	1574	5134	5350

Remarks: Peak - 2000 hrs offpeak - 0300 hrs

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

State	Uttaranchal		Chandigarh		Himachal Pradesh		Jammu & Kashmir	
Date	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	619	340	140	67	470	281	976	805
02	603	356	138	65	488	280	904	768
03	590	377	143	67	485	270	942	764
04	649	358	143	65	509	291	955	835
05	661	353	137	65	486	284	934	753
06	636	366	131	66	467	250	928	734
07	571	342	119	66	456	267	894	649
08	589	297	139	57	463	250	931	737
09	636	314	143	64	488	300	931	702
10	624	321	146	67	416	291	862	743
11	568	360	146	69	527	294	843	666
12	597	332	142	67	496	288	822	588
13	657	383	143	69	521	287	1019	749
14	671	343	126	73	429	297	981	793
15	652	373	149	68	438	285	967	771
16	642	415	148	69	414	311	1028	858
17	618	424	150	74	407	307	907	646
18	661	410	157	72	416	313	911	630
19	600	402	151	73	409	296	940	695
20	627	391	139	78	466	387	974	740
21	682	410	136	73	441	316	1000	813
22	691	422	153	73	437	302	983	708
23	603	445	155	83	468	304	931	809
24	690	419	154	76	406	312	955	909
25	655	445	147	83	402	297	953	736
26	651	440	145	78	405	301	949	672
27	656	377	141	84	420	307	979	751
28	666	450	131	76	341	311	946	726
29	602	439	140	76	392	298	1020	746
30	690	398	151	82	393	307	1043	742
31	644	436	151	85	368	305	985	726
Maximum	691	450	157	85	527	387	1043	909
Minimum	568	297	119	57	341	250	822	588
Average	636	385	143	72	443	296	948	741

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	74.519	52.077	90.137	46.922	110.078	10.869	2.479	9.919	21.494	1.657	420.152
02	73.842	52.104	89.155	45.852	107.633	11.267	2.462	9.791	21.630	1.675	415.411
03	75.534	54.822	88.732	46.242	112.149	10.920	2.511	9.997	21.498	1.623	424.028
04	76.414	54.924	88.656	46.697	114.466	10.805	2.541	9.757	21.501	1.439	427.201
05	76.731	61.411	87.653	46.992	113.281	11.542	2.486	9.961	21.734	1.502	433.292
06	75.147	59.102	85.542	45.929	117.501	11.213	2.362	9.184	21.698	1.690	429.368
07	79.317	56.192	80.267	39.783	116.314	10.210	2.088	8.654	20.419	1.773	415.017
08	76.866	56.317	83.318	43.705	117.812	10.488	2.382	9.444	20.689	1.658	422.679
09	75.111	57.678	84.671	45.736	114.494	10.538	2.503	9.874	20.846	1.570	423.021
10	74.811	56.845	87.170	46.251	118.048	10.451	2.545	9.600	20.382	1.579	427.682
11	78.162	59.231	87.485	48.306	118.830	10.823	2.568	9.694	19.825	1.668	436.592
12	78.562	56.659	82.878	49.466	117.523	11.024	2.577	9.734	20.025	1.650	430.099
13	77.638	55.148	83.385	48.722	121.420	11.381	2.543	9.853	21.490	1.584	433.164
14	77.194	56.578	85.977	47.291	122.154	10.808	2.210	9.653	20.622	1.692	434.179
15	76.113	57.852	85.665	50.179	121.664	11.443	2.671	9.746	19.813	1.706	436.852
16	79.075	54.328	85.053	51.941	121.862	11.902	2.725	9.851	21.053	1.710	439.500
17	80.816	55.509	85.603	51.169	121.206	11.383	2.748	9.712	20.006	1.732	439.883
18	80.428	54.851	81.043	52.847	124.472	11.287	2.779	9.815	19.700	1.617	438.839
19	83.068	53.468	79.743	54.707	118.460	11.202	2.895	9.715	21.146	1.744	436.148
20	79.534	53.593	83.151	51.699	117.132	11.444	2.581	9.565	20.234	1.760	430.693
21	76.622	58.127	85.286	50.906	113.108	11.657	2.322	9.559	20.816	1.678	430.081
22	72.803	52.548	83.176	53.789	117.468	11.857	2.805	9.787	19.425	1.764	425.423
23	71.745	50.335	80.929	54.279	109.147	12.174	2.813	9.635	18.974	1.658	411.688
24	74.637	52.875	80.560	54.128	105.345	11.909	2.877	9.930	20.368	1.769	414.398
25	73.446	52.168	79.358	53.473	107.795	11.971	2.754	9.760	20.014	1.483	412.222
26	72.885	52.346	79.356	52.890	111.701	11.308	2.679	9.946	20.497	1.532	415.139
27	73.931	54.922	78.610	51.730	114.459	11.346	2.530	9.965	20.365	1.566	419.424
28	74.803	52.418	78.437	49.256	114.488	12.141	2.318	9.658	20.428	1.665	415.612
29	73.548	54.184	78.742	52.774	125.692	11.772	2.623	9.837	20.739	1.596	431.507
30	71.564	51.262	80.744	51.386	116.562	11.603	2.710	9.818	21.327	1.638	418.614
31	71.110	52.154	76.363	53.611	116.045	11.200	2.839	9.954	20.329	1.672	415.277
Maximum	83.068	61.411	90.137	54.707	125.692	12.174	2.895	9.997	21.734	1.773	439.883
Minimum	71.110	50.335	76.363	39.783	105.345	10.210	2.088	8.654	18.974	1.439	411.688
Average	75.999	54.904	83.447	49.634	116.074	11.288	2.578	9.722	20.616	1.647	425.909
Month Total	2355.976	1702.028	2586.845	1538.658	3598.309	349.938	79.926	301.367	639.088	51.050	13203.184

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-Mar-2004	26439	28525	28296	27070	31781	35863	25132	14186	45826	52894	6116	4892
2-Mar-2004	26997	26814	26411	26013	31050	34529	24554	14828	45673	53190	6196	5221
3-Mar-2004	27646	27007	26508	28154	31494	34410	23378	14529	46723	51999	6341	5495
4-Mar-2004	28231	26604	26764	31005	31753	34930	24699	14554	47776	53498	6075	5447
5-Mar-2004	28723	27617	28929	32861	31534	32918	23032	15650	47783	53575	5728	5009
6-Mar-2004	28466	25641	29879	32317	31601	33760	22778	14329	46035	53795	5197	4489
7-Mar-2004	27483	31249	30070	30036	26455	25603	20851	9849	44284	55131	4848	4151
8-Mar-2004	27998	28994	30069	31060	27826	27514	23091	15322	47735	56045	5254	4332
9-Mar-2004	28243	27485	28565	33402	29962	29018	23058	17266	47275	54662	5725	4606
10-Mar-2004	27658	27458	27447	32788	30206	29917	20461	18696	47010	51600	5648	4959
11-Mar-2004	28966	27326	25654	31423	31631	32893	25290	19631	47903	54440	5578	4717
12-Mar-2004	28547	26962	24631	29513	31542	35073	27208	20981	48646	54825	5423	4372
13-Mar-2004	28979	27749	24665	29401	31353	35414	27461	20368	48411	53535	5397	4569
14-Mar-2004	28077	26248	24604	29809	29790	35141	27004	17689	48621	55595	5424	4839
15-Mar-2004	27381	24115	24492	29429	29130	31828	26862	20383	48190	54657	5322	4501
16-Mar-2004	27781	25149	24861	27738	29078	29458	27240	21814	48162	55061	5322	4580
17-Mar-2004	29100	26563	23506	29150	29424	30448	29914	24979	48108	54557	5255	3634
18-Mar-2004	29601	23999	23318	25825	29596	30689	27938	25927	46829	54294	5145	3827
19-Mar-2004	20724	24756	24583	27154	31775	37234	31311	28348	48394	52558	5274	3131
20-Mar-2004	30338	26661	24615	30239	31899	34677	31439	26000	48310	51901	5190	3808
21-Mar-2004	29667	27626	23749	29166	30369	32070	32229	24792	48707	56935	5301	3985
22-Mar-2004	29207	26206	22422	26740	28506	29426	32493	27460	44880	53505	4889	4049
23-Mar-2004	28528	23760	22437	26409	28464	29359	33107	30412	44999	51357	4926	4274
24-Mar-2004	27914	23610	23997	25097	28143	28264	32896	29685	44626	53046	4892	4928
25-Mar-2004	26881	23614	22520	23845	26597	28440	30331	27590	43377	52339	4918	5002
26-Mar-2004	26573	24521	22606	23200	26750	29025	31192	26728	43950	54620	4887	4854
27-Mar-2004	26036	25127	22133	23944	26094	26225	32407	26028	44839	60282	5040	5039
28-Mar-2004	27812	27929	24234	25137	25265	23530	33334	23049	45495	63547	5114	5660
29-Mar-2004	27670	28063	22810	26847	24204	23714	32889	26639	45746	57792	5063	5377
30-Mar-2004	26335	28669	20767	24146	24140	26643	31982	20535	45495	58444	5028	5450
31-Mar-2004	27556	28253	22004	22870	24692	26215	32174	26670	45874	56314	4952	5217
Total MU	861.557	824.300	777.546	871.788	902.104	954.228	867.735	664.917	1445.682	1695.993	165.468	144.414
Max. MWH	30338	31249	30070	33402	31899	37234	33334	30412	48707	63547	6341	5660
Min MWH	20724	23610	20767	22870	24140	23530	20461	9849	43377	51357	4848	3131
Avg. MWH	27792	26590	25082	28122	29100	30782	27991	21449	46635	54709	5338	4659

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

Figs. In MWH

Date	Himachal Pradesh		Jammu & Kashmir		Chandigarh		NFF		Railways	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Mar-2004	7398	7384	15083	19455	3391	2594	456	83	1205	1574
2-Mar-2004	7318	7072	14728	19588	3338	2593	456	94	1186	1581
3-Mar-2004	7583	7388	15251	19237	3447	2641	456	86	1172	1537
4-Mar-2004	7608	7021	15379	19152	3492	2594	456	0	1380	1439
5-Mar-2004	7732	7245	15541	19220	3533	2583	456	15	1389	1487
6-Mar-2004	7432	6540	15397	18911	3513	2479	456	82	1486	1608
7-Mar-2004	6898	5571	15334	17514	3495	2170	456	87	1243	1686
8-Mar-2004	7095	6109	15754	17809	3588	2496	456	85	1061	1573
9-Mar-2004	6743	6469	16191	17819	3542	2623	456	80	1058	1490
10-Mar-2004	6817	6007	16483	17234	3335	2694	456	84	1250	1495
11-Mar-2004	6866	6173	16976	16730	3533	2689	456	102	1366	1566
12-Mar-2004	7102	6112	16853	16900	3585	2719	456	89	1339	1561
13-Mar-2004	7309	6381	16807	18371	3579	2696	456	0	1459	1584
14-Mar-2004	7011	6304	16549	17468	3571	2316	456	85	1379	1607
15-Mar-2004	6835	5963	16777	17173	3542	2809	456	90	1060	1616
16-Mar-2004	6849	5870	16476	18369	3545	2908	456	92	1004	1618
17-Mar-2004	7167	5604	16424	17285	3530	2967	456	102	1113	1630
18-Mar-2004	6391	5682	16570	16993	3521	2999	456	83	1094	1534
19-Mar-2004	6740	5350	16130	18633	3587	3055	456	85	1042	1659
20-Mar-2004	6401	5104	15782	17447	3547	2816	456	93	1083	1667
21-Mar-2004	6838	4955	17055	18072	3560	2592	456	99	1355	1579
22-Mar-2004	6624	5264	16648	16676	3566	3020	456	95	1533	1669
23-Mar-2004	6612	5739	16617	16271	3517	2998	456	78	1380	1580
24-Mar-2004	6232	6488	16252	17517	3500	3118	456	90	1655	1679
25-Mar-2004	6631	6451	15487	17067	3454	2935	456	86	1614	1397
26-Mar-2004	6491	6643	15528	17682	3488	2810	456	45	1779	1487
27-Mar-2004	6561	6712	15548	17659	3427	2655	456	20	1814	1546
28-Mar-2004	6585	6430	15652	17655	3426	2435	456	32	1838	1633
29-Mar-2004	6878	6477	15579	18077	3409	2818	456	36	1589	1560
30-Mar-2004	6558	6541	15435	18629	3468	2849	456	17	1042	1621
31-Mar-2004	6194	6264	15751	17704	3456	2989	456	15	1325	1657
Total MU	213.499	193.313	496.037	554.317	108.485	84.660	14.136	2.130	41.293	48.920
Max. MWH	7732	7388	17055	19588	3588	3118	456	102	1838	1686
Min MWH	6194	4955	14728	16271	3335	2170	456	0	1004	1397
Avg. MWH	6887	6236	16001	17881	3500	2731	456	69	1332	1578

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

Date	Singrauli		Rihand		Dadri(T)		Unchahar-I		Unchahar-II		Dadri GPS	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Mar-2004	44551	44695	21840	21948	18264	18037	9144	9187	9144	9184	8969	8913
2-Mar-2004	44640	44811	19663	19678	17651	17558	9144	9189	9144	9177	8961	8852
3-Mar-2004	44640	44810	21840	21961	16813	16712	9144	9190	9144	9187	10313	10019
4-Mar-2004	44640	44787	21840	22119	18264	18267	9144	9196	9144	9190	12436	12614
5-Mar-2004	44640	44772	21840	22192	18264	18238	9144	9189	9122	9172	12365	12431
6-Mar-2004	39484	39682	21840	22091	18264	18155	9144	9188	9144	9193	12453	12523
7-Mar-2004	33245	33427	21840	21988	18264	17603	9144	9121	9144	9136	12820	12924
8-Mar-2004	41504	41680	21770	21939	18264	17518	9127	9118	9060	9036	13508	13739
9-Mar-2004	40196	40345	21840	22001	18264	18158	9120	9195	9069	9146	14759	14991
10-Mar-2004	40248	40363	21840	22022	13756	13716	9144	9205	9144	9187	14558	14622
11-Mar-2004	43288	43450	21840	21879	13704	13687	9144	9185	8107	8000	14116	14212
12-Mar-2004	44640	44817	21840	21942	13704	13698	8640	8610	9083	9120	14053	14342
13-Mar-2004	44505	44636	21840	21972	13704	13710	8360	8412	8979	9025	15017	15270
14-Mar-2004	44400	44530	21840	22009	13704	13589	9144	9182	9144	9188	13988	14031
15-Mar-2004	44400	44525	21840	21870	13704	13680	9144	9201	9077	9138	11196	11137
16-Mar-2004	44400	44548	21840	21976	13704	13697	9144	9200	9144	9195	11097	11141
17-Mar-2004	44400	44552	21840	21994	13704	13600	9144	9209	9144	9197	11488	11403
18-Mar-2004	41156	41005	21840	22049	9853	9506	9188	9216	9155	9239	11224	11357
19-Mar-2004	44400	44537	21840	22083	13704	13701	9240	9283	9069	9158	11847	11964
20-Mar-2004	44332	44497	21732	22083	13704	13701	9240	9316	9151	9239	12256	12330
21-Mar-2004	43948	43841	21840	22099	13776	13703	9240	9293	9042	9080	14234	14320
22-Mar-2004	33403	33588	21840	22256	13776	13756	9240	9298	8891	8978	15920	16002
23-Mar-2004	33525	33769	21840	22333	13772	13774	9240	9299	9110	9185	16544	16688
24-Mar-2004	33600	33730	21840	22276	13704	13711	9240	9301	9168	9240	16892	16944
25-Mar-2004	33600	33720	21840	22185	13704	13698	9240	9286	9003	9085	13907	13794
26-Mar-2004	33600	33729	21840	22189	15904	15874	7753	7142	9026	9095	18212	18042
27-Mar-2004	33600	33743	21840	22130	17580	17396	9240	9294	8970	9034	17634	17805
28-Mar-2004	33600	33728	21840	22121	18265	18005	9240	9291	8970	9040	16611	16504
29-Mar-2004	33600	33740	21840	22038	18264	18001	9240	9281	8960	9005	16564	16643
30-Mar-2004	33740	33925	21840	22148	18264	18206	9240	9302	9168	9207	14559	14690
31-Mar-2004	33725	33794	21675	21864	18264	18206	9240	9301	9168	9235	13800	14305
Total MU	1237.650	1241.776	674.520	681.435	484.530	480.861	281.940	282.680	280.788	282.291	422.301	424.552
Max. MWH	44640	44817	21840	22333	18265	18267	9240	9316	9168	9240	18212	18042
Min MWH	33245	33427	19663	19678	9853	9506	7753	7142	8107	8000	8961	8852
Avg. MWH	39924	40057	21759	21982	15630	15512	9095	9119	9058	9106	13623	13695

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

Date	Anta GPS		Auraiya GPS		NAPS		RAPS-B		Bairasiul		Salal	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Mar-2004	7010	7395	11293	10995	7608	7752	8712	8203	1335	1369	5085	5204
2-Mar-2004	7951	8618	12220	12103	7608	7809	8160	8204	1425	1457	4641	4771
3-Mar-2004	8326	8738	11815	11719	7848	7815	8232	8198	1530	1563	5010	5141
4-Mar-2004	8782	8865	11795	11740	7848	7810	8232	8132	1470	1507	5040	5175
5-Mar-2004	8797	8957	11801	11733	7848	7800	8208	8128	1710	1750	5213	5339
6-Mar-2004	8833	8945	12589	12424	7872	7805	8136	8156	1425	1458	5220	5354
7-Mar-2004	7873	8222	9228	8865	7896	7880	8136	8215	1620	1653	5280	5400
8-Mar-2004	6784	7969	9231	9221	7872	7800	8136	8219	1650	1687	5396	5512
9-Mar-2004	6889	8486	9407	9764	7872	7763	8136	8112	2307	2357	6305	6470
10-Mar-2004	6754	8379	9848	9991	7872	7839	8136	8097	2214	2270	6702	6875
11-Mar-2004	7089	8187	10273	10799	7872	7785	8136	8072	2102	2143	7563	7748
12-Mar-2004	7600	8470	10339	10778	7872	7620	8136	7996	1822	1871	6373	6543
13-Mar-2004	7451	8317	10092	10798	7872	7708	8136	7967	1738	1781	6440	6593
14-Mar-2004	7479	8155	9620	10447	7776	7800	8136	7994	1906	1949	6325	6498
15-Mar-2004	6716	7473	8829	8882	7752	7652	7992	7996	2130	2182	6653	6808
16-Mar-2004	6541	6814	9030	8981	7704	7617	8040	7922	2228	2282	7166	7324
17-Mar-2004	6703	7044	9353	9184	7776	7710	8016	7972	2270	2316	7369	7541
18-Mar-2004	6479	7145	9620	9590	7824	7706	7944	7932	2326	2372	7594	7741
19-Mar-2004	7811	8031	9127	8933	7800	7592	7992	7946	2214	2270	7408	7562
20-Mar-2004	7945	8063	9483	9313	7824	7739	7968	7989	2102	2142	6783	6934
21-Mar-2004	8098	8162	10240	10036	7656	7771	7968	8028	2158	2211	6990	7174
22-Mar-2004	8082	8118	10787	10338	7848	7621	8040	7932	1990	2038	6938	7094
23-Mar-2004	8388	8417	10859	10634	7872	7700	8088	7925	1822	1871	6600	6766
24-Mar-2004	8717	8643	10604	10432	7680	7742	7968	7960	1794	1836	6230	6381
25-Mar-2004	8794	8728	11259	11080	7776	7758	8400	8006	1620	1658	5625	5755
26-Mar-2004	8745	8796	11028	10864	7776	7837	7992	8070	1500	1539	5350	5484
27-Mar-2004	8423	8733	11421	11481	7800	7821	8400	8047	1500	1539	5175	5297
28-Mar-2004	8055	8586	12690	13353	7944	7868	4320	3953	1528	1568	5216	5355
29-Mar-2004	7301	8124	12237	13199	7896	7776	4128	4004	1485	1523	5310	5436
30-Mar-2004	7230	7803	11711	12460	7944	7723	4551	4118	1440	1476	5358	5471
31-Mar-2004	7085	8064	12155	12199	7944	7695	7878	7615	1584	1624	6035	6206
Total MU	238.731	254.447	329.984	332.336	242.352	240.314	240.453	237.108	55.945	57.262	188.393	192.952
Max. MWH	8833	8957	12690	13353	7944	7880	8712	8219	2326	2372	7594	7748
Min MWH	6479	6814	8829	8865	7608	7592	4128	3953	1335	1369	4641	4771
Avg. MWH	7701	8208	10645	10721	7818	7752	7757	7649	1805	1847	6077	6224

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

Date	Tanakpur		Chamera		Uri		Bhakra Complex		Dehar		Pong	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Mar-2004	22	504	3471	3564	9187	9336	15897	16514	4400	3830	4538	4925
2-Mar-2004	552	559	3471	3567	9183	9348	16930	17025	3883	3563	4962	5122
3-Mar-2004	552	557	3471	3560	9225	9294	17001	17070	3698	3702	5155	5218
4-Mar-2004	552	556	3471	3560	8994	9097	17282	16984	3698	3694	5128	5061
5-Mar-2004	544	554	3026	3099	8960	9013	17118	16875	3855	4126	5100	5108
6-Mar-2004	520	528	3026	3097	9058	9153	17118	16972	4239	3921	5292	5262
7-Mar-2004	538	546	3516	3556	9027	9144	17118	16583	4239	3638	5292	5290
8-Mar-2004	528	535	4005	4108	9188	9304	17118	16371	4239	3573	5238	5288
9-Mar-2004	521	512	3026	3110	9712	9945	16359	16060	4239	4447	5238	5163
10-Mar-2004	523	539	3026	3162	10134	10420	16359	16649	4631	4727	5238	5181
11-Mar-2004	462	468	2537	2652	10885	11082	16959	16825	6236	6268	4956	4907
12-Mar-2004	484	496	4050	4278	11113	11255	16953	16986	5516	4882	5065	5114
13-Mar-2004	523	529	4806	5073	11017	11195	16963	16639	5006	4749	5073	5004
14-Mar-2004	480	485	3916	4062	11141	11287	16963	16510	4418	4243	5073	4579
15-Mar-2004	512	514	3916	4072	11279	11387	16963	16645	4923	4607	4765	5000
16-Mar-2004	495	506	4450	4651	10647	10899	16072	15694	5681	5734	5013	4956
17-Mar-2004	505	507	3916	4023	10042	10259	15730	15815	6430	6267	4868	4968
18-Mar-2004	546	563	4139	4246	11316	11378	15909	15476	6741	6682	5012	5037
19-Mar-2004	615	615	5853	6010	11347	11384	16024	16042	6741	6754	5125	5078
20-Mar-2004	603	634	4450	4563	11355	11400	16003	15613	6741	5715	5093	4479
21-Mar-2004	640	654	4984	5035	11201	11262	14220	14627	6554	6324	4203	4224
22-Mar-2004	608	619	4539	4664	10889	10996	14849	14629	6216	6201	4161	4068
23-Mar-2004	638	627	4450	4572	11192	10504	15123	14681	5316	5241	3818	3945
24-Mar-2004	600	615	5073	5213	10945	11080	14819	14629	5145	4971	3849	3888
25-Mar-2004	600	610	4450	4570	10938	11097	14547	13888	4520	4303	3849	3802
26-Mar-2004	537	543	4450	4574	10696	10717	14847	14324	4495	4317	4050	3915
27-Mar-2004	471	479	3026	3107	10359	10553	14599	14371	4345	3998	4065	4157
28-Mar-2004	480	493	3026	3103	10210	10246	14599	14264	3970	4011	4227	4254
29-Mar-2004	578	589	3026	3107	9890	10014	14364	14075	4925	4724	4293	4209
30-Mar-2004	528	536	3026	3109	9529	9740	14475	14109	4036	4173	4293	4384
31-Mar-2004	528	542	3026	3113	9467	9536	14471	14111	4261	4088	3527	3450
Total MU	16.285	17.014	118.618	122.180	318.126	321.325	493.752	487.056	153.337	147.473	145.559	145.036
Max. MWH	640	654	5853	6010	11355	11400	17282	17070	6741	6754	5292	5290
Min MWH	22	468	2537	2652	8960	9013	14220	13888	3698	3563	3527	3450
Avg. MWH	525	549	3826	3941	10262	10365	15927	15711	4946	4757	4695	4679

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

Date	Nathpa-Jhakri HEP		Chamera stage-II	
	Schedule	Actual	Schedule	Actual
1-Mar-2004	6793	6959	1640	1703
2-Mar-2004	6731	6981	1343	1565
3-Mar-2004	6546	6711	1495	1678
4-Mar-2004	6299	6539	1548	1598
5-Mar-2004	6916	7116	1818	1856
6-Mar-2004	6669	6814	1927	1949
7-Mar-2004	6916	7022	1845	1870
8-Mar-2004	7040	7177	1806	1845
9-Mar-2004	7163	7492	2430	2490
10-Mar-2004	8398	8740	2738	2805
11-Mar-2004	8583	8845	2646	2658
12-Mar-1900	8213	8662	2322	2386
13-Mar-2004	8460	8941	2448	2614
14-Mar-2004	8028	8232	1386	2503
15-Mar-2004	8645	8861	891	1001
16-Mar-2004	8769	9156	644	734
17-Mar-2004	9448	9691	2617	2715
18-Mar-2004	9880	10364	3375	3390
19-Mar-2004	9448	9713	3372	3445
20-Mar-2004	9881	10124	3240	3303
21-Mar-2004	10080	10340	2972	2975
22-Mar-2004	9818	10331	3017	3127
23-Mar-2004	9263	9537	2493	2564
24-Mar-2004	8363	8625	2705	2782
25-Mar-2004	4446	8038	2313	2348
26-Mar-2004	1914	8376	2106	2170
27-Mar-2004	1791	7841	2144	2293
28-Mar-2004	3643	8112	2243	2318
29-Mar-2004	2594	8628	2322	2370
30-Mar-2004	2964	8401	2322	2375
31-Mar-2004	4952	9216	2468	2496
Total MU	218.654	261.585	68.636	71.926
Max. MWH	10080	10364	3375	3445
Min MWH	1791	6539	644	734
Avg. MWH	7053	8438	2214	2320

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	HP+BASPA	J & K	Total
01	38.68	5.17	17.64	0.00	48.61	1.05	44.45	5.13	6.02	16.67	2.56	2.04	188.01
02	38.64	6.08	18.35	0.00	48.80	1.05	41.35	5.66	6.02	15.41	2.75	2.04	186.16
03	40.33	6.05	17.58	0.00	48.32	1.09	45.84	5.36	5.86	16.40	2.64	2.26	191.70
04	40.76	6.12	14.52	0.00	48.06	1.13	48.58	5.69	5.90	16.68	2.76	2.35	192.56
05	40.68	5.96	17.10	0.00	47.86	2.12	49.81	5.55	6.44	16.53	2.74	2.51	197.29
06	40.35	6.83	17.82	0.00	43.93	2.39	51.57	6.08	6.75	16.28	2.67	2.79	197.46
07	37.83	9.20	20.15	0.00	47.64	1.02	50.80	4.85	6.32	14.84	3.11	2.90	198.67
08	36.33	9.05	20.21	0.00	47.20	2.24	50.14	4.37	6.44	13.72	3.37	2.88	195.95
09	35.33	9.30	19.10	0.00	48.01	1.95	49.31	5.45	6.10	13.78	3.44	3.03	194.80
10	33.99	9.80	16.16	0.00	48.38	2.57	54.14	4.77	5.94	13.85	3.63	3.15	196.37
11	36.83	10.87	19.81	0.00	46.20	2.17	52.20	5.90	6.43	13.77	3.56	3.09	200.82
12	37.06	10.78	19.69	0.00	42.14	2.25	49.70	5.06	7.03	13.89	3.66	3.13	194.38
13	34.02	11.37	16.17	0.00	42.43	2.15	51.99	6.34	7.04	14.07	3.51	3.12	192.19
14	37.88	10.56	17.46	0.00	42.77	1.99	53.03	4.89	6.63	14.67	3.38	3.15	196.42
15	37.76	11.23	19.33	0.00	45.71	2.38	54.14	4.83	7.10	15.37	3.82	2.64	204.31
16	38.49	11.64	16.99	0.00	47.41	2.35	53.38	5.46	7.13	15.77	4.02	2.68	205.33
17	39.39	11.22	17.39	0.00	47.61	1.84	55.11	4.85	7.59	15.62	4.15	2.72	207.48
18	42.05	11.25	19.41	0.00	42.70	2.03	55.09	5.46	7.66	16.20	4.18	2.71	208.73
19	43.36	11.70	16.32	0.00	34.59	1.73	54.47	5.08	7.93	15.47	4.41	2.51	197.55
20	39.35	10.70	14.06	0.00	42.04	0.64	53.44	4.53	7.78	14.93	4.51	2.79	194.75
21	37.23	9.45	18.82	0.00	46.39	1.18	45.43	4.57	7.88	15.21	4.65	2.74	193.55
22	34.43	9.97	15.58	0.00	46.84	0.78	52.99	4.70	7.77	16.10	4.57	2.75	196.47
23	36.34	9.46	13.59	0.00	45.10	0.88	48.63	5.69	7.57	13.42	3.94	2.70	187.32
24	38.60	9.20	17.12	0.00	45.98	0.78	42.52	5.20	7.22	13.58	3.48	2.85	186.53
25	38.21	8.30	17.56	0.00	46.95	0.89	42.52	5.20	6.87	14.72	3.34	2.95	187.51
26	38.22	8.04	17.89	0.12	47.61	0.65	47.11	4.93	6.83	15.53	3.34	2.81	193.08
27	38.75	8.04	19.57	0.38	47.85	0.75	43.01	4.23	6.81	15.58	3.29	2.71	190.96
28	37.45	7.50	15.73	0.41	47.77	0.78	41.61	3.19	6.31	15.86	3.26	2.77	182.64
29	35.62	7.55	16.16	0.42	47.40	0.91	49.78	3.44	6.65	15.31	3.39	2.66	189.31
30	33.58	7.84	16.11	0.40	47.13	1.01	49.00	2.33	6.43	15.88	3.31	2.70	185.71
31	33.65	7.12	19.20	0.46	44.74	0.85	50.00	2.51	6.28	15.92	3.73	2.63	187.07
Maximum	43.36	11.70	20.21	0.46	48.80	2.57	55.11	6.34	7.93	16.68	4.65	3.15	208.73
Minimum	33.58	5.17	13.59	0.00	34.59	0.64	41.35	2.33	5.86	13.42	2.56	2.04	182.64
Average	37.78	8.95	17.50	0.07	45.94	1.47	49.39	4.88	6.80	15.19	3.52	2.73	194.23
Month Total	1171.19	277.33	542.59	2.19	1424.15	45.59	1531.14	151.27	210.71	471.03	109.15	84.77	6021.10

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during	Cummulative from 01.04.2003
			MARCH, 2004 (Ex Bus MU)	(Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	401.75	4940.36
(b)	Singrauli STPS	2000.00	1240.33	14557.85
(c)	Rihand STPS	1000.00	682.58	7320.19
(d)	Dadri NCTPS	840.00	482.79	5683.23
(e)	Unchahar-I TPS	420.00	282.68	2918.30
(f)	Unchahar-II TPS	420.00	282.29	2956.71
(g)	Tanda TPS	440.00	203.00	2542.94
(h)	Anta GPS	419.33	256.78	2698.10
(i)	Auraiya GPS	663.36	390.47	4225.91
(j)	Dadri GPS	829.78	425.07	4913.21
(k)	Faridabad GPS	431.57	267.84	2731.14
	Total NTPC	8169.04	4915.58	55487.93
B	NHPC			
(a)	Bairasiul	180.00	57.31	674.35
(b)	Salal	690.00	193.09	3480.47
(c)	Tanakpur HPS	94.20	17.03	507.27
(d)	Chamera HPS	540.00	122.30	2456.83
(e)	Uri HPS	480.00	320.91	2852.81
(f)	Chamera2 HPS	300.00	71.84	184.04
	Total NHPC	2284.20	782.48	10155.77
C	Nathpa-Jhakri	500.00	228.11	1181.34
D	NPC			
(a)	RAPS -A	300.00	166.44	1167.32
(b)	RAPS -B	440.00	238.85	2632.00
(c)	NAPS	440.00	240.36	2691.71
	Total NPC	1180.00	645.65	6491.03
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	592.14	7003.98
(b)	Dehar	990.00	185.25	3220.24
(c)	Pong	390.00	70.83	1078.51
	Total BBMB	2870.15	848.22	11302.73
3	DELHI			
(a)	Indra Prastha	247.50	72.29	668.09
(b)	Rajghat	149.00	75.61	688.34
(c)	Gas Turbines	282.00	103.59	1188.44
(d)	Pragati Gas	330.00	222.01	2345.15
	Total DELHI	1008.50	473.50	4890.02
4	HARYANA			
(a)	WYC	48.00	2.22	250.58
(b)	Faridabad (New)	165.00	79.21	688.80
(c)	Panipat	860.00	512.80	5349.46
(d)	Magnum Diesel(IPP)	25.20	1.13	27.45
	Total Haryana	1098.20	595.37	6316.29

contd/-

5	HP			
(a)	Giri	60.00	6.05	167.10
(b)	Bassi	60.00	21.33	315.18
(c)	Binwa	6.00	3.29	34.13
(d)	Rongtong	15.25	1.44	22.44
	(+Nogli+Micro+Thirot+Sal-2)			
(e)	Andhra	16.95	3.19	69.36
(f)	Bhabha (H)	120.00	26.73	577.84
(g)	Baner (H)	12.00	3.22	40.10
(h)	Gaj (H)	10.50	3.94	47.97
(i)	Gumma	3.00	0.49	14.71
(j)	Ghanvi	22.50	4.03	66.14
(k)	Malana (IPP)	86.00	10.89	362.30
(l)	Baspa (IPP)	300.00	342.91	2259.89
	Total HP	712.20	427.51	3977.17
6	J & K			
(a)	Lower Jhelum	105.00	58.04	507.75
(b)	Upper Sindh	127.60	19.48	253.59
(c)	Ganderbal	15.00	1.30	23.15
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	7.82	70.22
(f)	Stakna	9.75	0.00	0.00
(g)	Small Hydel	3.54	1.37	1.37
(h)	Sewa	9.00	0.00	0.00
(i)	Diesel gen set	7.18	0.00	0.00
(j)	Pampore GT St - I	75.00	0.00	1.77
(k)	Pampore GT St - II	100.00	0.00	15.12
	Total J & K	493.87	88.01	872.96
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	42.06	563.81
(b)	UBDC	90.00	17.87	372.81
(c)	Mukerian	207.00	107.93	1025.84
(d)	Anandpur Sahib (APS)	134.00	67.59	815.39
(e)	Ranjit Sagar HPS	600.00	41.28	1544.86
(f)	Small Hydel	4.10	1.11	5.60
(g)	GNDTPS (Bhatinda)	440.00	197.36	2307.88
(h)	GGSTPS (Ropar)	1260.00	700.94	7611.52
(i)	Jhalkeri	10.00	14.63	23.63
	Peda & Sugarmill		0.00	0.00
(j)	Lehra Mohabbat TPS	420.00	272.12	3079.32
	Total Punjab	3275.10	1462.89	17350.65
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	29.97	188.24
(b)	Rana Pratap Sagar (RPS)	172.00	9.13	239.49
(c)	Jawahar Sagar (JS)	99.00	6.53	203.11
(d)	ACW	9.00	1.54	8.54
(e)	MMH	14.85	0.13	11.44
(f)	Kota TPS	1045.00	604.09	6283.81
(g)	RAMGARH GT	3.00		
(h)	RAMGARH GT EXT	35.50	21.59	221.80
(i)	Suratgarh TPS	1250.00	807.47	7524.32
(j)	Wind Farm	14.01	6.83	104.67
(k)	Others (KPTL bio-mass)		1.55	17.72
	Total Rajasthan	2782.36	1488.82	14803.13

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	85.85	1101.03
(b)	Obra	99.00	34.76	438.09
(c)	Matatilla	30.00	16.11	125.66
(d)	Ganga Canal	10.70	0.00	0.00
(e)	Small hydro	18.20	0.00	0.00
(f)	Khara	72.00	14.72	385.97
	Total U.P. (Hydro)	529.90	151.44	2050.76
	<u>THERMAL</u>			
(e)	Obra	1442.00	378.87	5550.44
(f)	Panki	242.00	84.85	931.94
(g)	Harduaganj	375.00	68.47	639.30
(h)	Paricha	220.00	83.35	572.02
(i)	Anpara	1630.00	920.15	10482.10
	Total U.P. (Thermal)	3909.00	1535.69	18175.79
	Total U.P.	4438.90	1687.13	20226.55
10	UTTRANCHAL			
(a)	Khatima	41.40	9.02	172.10
(b)	Ramganga	198.00	65.34	208.38
(c)	Ganga Canal	32.70	9.66	128.83
(d)	Yamuna (I & IV)	114.75	48.12	570.62
(e)	Chibro	240.00	34.13	822.78
(f)	Khodri	120.00	16.88	387.02
(g)	Chilla	144.00	25.15	688.79
(h)	Maneri Bhali	90.00	0.00	458.83
	Total Uttranchal	980.85	208.31	3437.35
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	29794.77	13851.56	156492.90

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%

-----Gas power stations in combined cycle-----3.0%

-----Coal fired power stations

IP ----12% Rajghat---11% Faridabad---13.5% Suratgarh----10.0%

Panipat---12.0% RTP---7.5% GNDTP---10.5% Tanda---12.5%

Lehra Mohabbat---10.5% KTPS---10% UP---12.5%

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

FROM / TO	PUNJAB	HARYANA	RAJASTHAN	DELHI	UP	UTTRANCHAL	HP	J & K	CHANDIGARH
PUNJAB	-	-	-	9625* 9100**	-	-	-	2800****	-
HARYANA	-	-	-	82838***	-	-	1920***	-	-
RAJASTHAN	-	-	-	18225**	-	-	-	-	240***
DELHI	-	-	-	-	-	-	-	-	-
UP	-	-	-	-	-	-	-	-	-
UTTRANCHAL	4355****	-	-	-	-	-	-	-	-
HP	4050****	-	-	10820**	-	-	-	-	-
J & K	-	-	-	-	-	-	-	-	-
CHANDIGARH	-	-	-	-	-	-	-	-	-

* Through PTC

** Through NVVN

*** Through Mutual

**** Through Banking

REMARKS : Figures are provisional and indicative only.

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

(ALL FIGS IN MWH)

FROM / TO	GRIDCO	MP	WBPCL	DVC	APTRCO	CSEB	GEB	GOA	JSEB
PUNJAB	-	-	2300*	3600*	-		-	-	
HARYANA	-	-	350*	-			-	-	
RAJASTHAN	-	-	4400*	250*			-	-	
DELHI		-40301*	4188*			--	-12425 *	10621**	-9010***
UTTRANCHAL	-	-	-	-	-	-	-	-	
J & K	-	-			-	-	-	-	
CHANDIGARH									

* Through PTC

(+) Import by NR constituents

(-) Export by NR constituents

** Through Global Energy Limited

*** Throgh NVVN

REMARKS : provisional and indicative only

XIV. Inter Regional Exchanges During February 2004 (Sheet 1 of 2)

1 OF 2

Date	With WR Over Vindhyachal HVDC B/B {Export (-)/Import(+)}							With WR Over Auraiya - Malanpur {Export(-)/Import(+)}						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net (MU)	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net (MU)
01	0	-407	0	417	0.00	2.99	-2.99	-52	-51	0	52	0.00	1.51	-1.51
02	0	-400	100	400	0.35	2.42	-2.07	-52	-48	0	70	0.00	1.34	-1.34
03	0	-400	50	400	0.33	2.37	-2.04	-55	-57	0	70	0.00	1.40	-1.40
04	50	-400	100	400	0.44	2.26	-1.82	-55	-57	0	70	0.00	1.33	-1.33
05	-50	-400	250	400	0.74	2.26	-1.52	-55	-57	0	70	0.00	1.44	-1.44
06	0	-400	50	400	0.37	2.33	-1.96	-37	-48	0	57	0.00	1.43	-1.43
07	0	-400	100	400	0.38	2.72	-2.34	-37	-52	0	53	0.00	1.31	-1.31
08	-50	-300	100	300	0.32	2.65	-2.33	-45	-50	0	55	0.00	1.30	-1.30
09	0	-400	50	400	0.30	2.89	-2.59	-55	-50	0	55	0.00	1.26	-1.26
10	0	-400	200	400	2.41	0.82	1.59	-52	-60	0	65	0.00	1.45	-1.45
11	0	-300	100	300	0.43	1.83	-1.40	-48	-54	0	65	0.00	1.51	-1.51
12	100	-400	250	400	0.75	2.11	-1.36	-48	-54	0	65	0.00	1.40	-1.40
13	0	-400	100	400	0.45	2.14	-1.69	-48	-54	0	65	0.00	1.34	-1.34
14	0	-400	200	400	1.40	2.16	-0.76	-50	-53	0	63	0.00	1.37	-1.37
15	50	-350	50	400	0.51	1.88	-1.37	-40	-55	0	58	0.00	1.52	-1.52
16	0	-450	172	450	0.76	2.41	-1.65	-45	-53	0	59	0.00	1.32	-1.32
17	0	-400	50	400	0.33	2.19	-1.86	-54	-52	0	55	0.00	1.26	-1.26
18	73	-400	150	400	1.68	2.25	-0.57	-52	-46	0	55	0.00	1.42	-1.42
19	0	-327	300	327	1.77	1.46	0.31	-51	-48	0	55	0.00	1.37	-1.37
20	0	-400	400	400	1.17	2.16	-0.99	-51	-48	0	55	0.00	1.37	-1.37
21	0	-350	100	400	0.47	1.79	-1.32	-51	-48	0	55	0.00	1.45	-1.45
22	0	-150	100	250	0.81	0.93	-0.12	-45	-51	0	60	0.00	1.34	-1.34
23	0	-100	100	100	0.46	0.53	-0.07	-51	-45	0	53	0.00	1.31	-1.31
24	0	0	150	0	0.69	0.00	0.69	-55	-50	0	55	0.00	1.35	-1.35
25	0	100	200	0	0.92	0.00	0.92	-55	-50	0	55	0.00	1.24	-1.24
26	0	100	200	0	0.92	0.00	0.92	-45	-48	0	50	0.00	0.98	-0.98
27	0	0	150	0	0.78	0.00	0.78	-49	-48	0	50	0.00	0.78	-0.78
28	250	0	250	0	2.43	0.01	2.42	-17	-22	0	24	0.00	0.68	-0.68
29	125	125	250	0	3.70	0.01	3.69	-20	-16	0	27	0.00	0.68	-0.68
30	175	-25	250	25	3.41	0.12	3.29	-16	-21	0	29	0.00	0.75	-0.75
31	0	0	200	50	1.52	0.05	1.47	-24	-25	0	29	0.00	0.76	-0.76
Maximum	250	125	400	450	3.70	2.99	3.69	-16	-16	0	70	0.00	1.52	-0.68
Minimum	-50	-450	0	0	0.00	0.00	-2.99	-55	-60	0	24	0.00	0.68	-1.52
Average	23	-259	152	278	1.00	1.54	-0.54	-45	-47	0	55	0.00	1.26	-1.26
Total					28.57	49.45	-20.88					0.00	38.97	-38.97

XIV. Inter Regional Exchanges During February 2004 (Sheet 2 of 2)

2 of 2

Date	With WR Over Ujjain - Kota {Export(-)/Import(+)}							With ER {Export(-)/Import(+)}						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	-80	-70	0	85	0.00	1.61	-1.61	129	449	500	0	7.82	0.00	7.82
02	-90	-70	0	100	0.00	1.92	-1.92	123	223	226	0	3.67	0.00	3.67
03	-110	-90	0	110	0.00	2.26	-2.26	127	123	276	0	2.67	0.00	2.67
04	-110	-90	0	110	0.00	2.37	-2.37	75	125	175	0	2.58	0.00	2.58
05	-110	-100	0	110	0.00	2.36	-2.36	80	129	500	0	3.53	0.00	3.53
06	-110	-100	0	110	0.00	2.37	-2.37	130	230	230	0	4.08	0.00	4.08
07	-110	-80	0	110	0.00	2.24	-2.24	76	126	226	0	2.97	0.00	2.97
08	-110	-90	0	110	0.00	2.01	-2.01	77	76	127	0	1.98	0.00	1.98
09	-110	-90	0	110	0.00	2.16	-2.16	77	77	77	69	1.78	0.12	1.66
10	-110	-90	0	110	0.00	2.15	-2.15	110	-50	110	69	0.66	0.19	0.47
11	-105	-100	0	110	0.00	2.26	-2.26	108	61	110	0	1.68	0.00	1.68
12	-110	-100	0	110	0.00	2.20	-2.20	110	0	50	210	2.13	0.16	1.97
13	-110	-100	0	110	0.00	2.22	-2.22	107	108	155	0	2.48	0.00	2.48
14	-100	-110	0	110	0.00	2.83	-2.83	112	0	160	0	2.26	0.00	2.26
15	-105	-110	0	110	0.00	1.96	-1.96	108	100	128	0	2.30	0.00	2.30
16	-115	-110	0	115	0.00	2.22	-2.22	79	79	79	0	1.87	0.00	1.87
17	-100	-90	0	110	0.00	1.82	-1.82	80	79	279	0	2.98	0.00	2.98
18	-110	-94	0	110	0.00	2.17	-2.17	80	79	80	0	0.77	0.00	0.77
19	-105	-100	0	115	0.00	2.22	-2.22	80	0	130	0	0.87	0.00	0.87
20	-115	-110	0	115	0.00	2.21	-2.21	81	80	150	0	2.00	0.00	2.00
21	-120	-100	0	120	0.00	2.23	-2.23	81	81	81	0	1.98	0.00	1.98
22	-105	-100	0	115	0.00	1.98	-1.98	81	80	181	0	2.13	0.00	2.13
23	-115	-100	0	120	0.00	1.33	-1.33	76	80	180	0	2.21	0.00	2.21
24	-110	-110	0	110	0.00	2.18	-2.18	76	76	176	0	2.51	0.00	2.51
25	-115	-110	0	115	0.00	2.23	-2.23	80	127	400	0	3.71	0.00	3.71
26	-120	-100	0	120	0.00	2.21	-2.21	78	79	130	0	2.10	0.00	2.10
27	-65	-100	0	115	0.00	2.07	-2.07	80	130	430	0	3.68	0.00	3.68
28	-110	-95	0	115	0.00	2.07	-2.07	76	430	430	0	6.74	0.00	6.74
29	-110	-100	0	110	0.00	1.78	-1.78	76	326	326	0	5.56	0.00	5.56
30	-70	-100	0	110	0.00	1.98	-1.98	130	229	380	0	4.61	0.00	4.61
31	-65	-95	0	110	0.00	1.66	-1.66	81	0	279	0	4.51	0.00	4.51
Maximum	-65	-70	0	120	0.00	2.83	-1.33	130	449	500	210	7.82	0.19	7.82
Minimum	-120	-110	0	85	0.00	1.33	-2.83	75	-50	50	0	0.66	0.00	0.47
Average	-104	-97	0	111	0.00	2.11	-2.11	92	120	218	11	2.93	0.02	2.91
Total					0.00	65.28	-65.28					90.80	0.47	90.33

XV. Progress Of Installation Of Shunt Capacitors As On 31.03.2004

(ALL FIGS IN MVARs)

CONSTITUENT	REQUIREMENT AT THE END OF Mar-04	CAPACITORS AS ON 31.03.2003	CAPACITORS ADDITION DURING		BALANCE TO BE INSTALLED DURING 2003-04	CAPACITORS INSTALLED AS ON 29.02.2004
		INSTALLED	2002-03	2003 - 04		
Chandigarh	150	92	0	0	58	92
Delhi	3364	2755	122	222	387	2977
Haryana	3435	2685	333	566	184	3251
H.P.	347	278	73	17	52	295
J & K	892	147	0	0	745	147
Punjab	4874	4706	76	15	153	4721
Rajasthan	2863	2698	221	213	-48	2911
U.P.	5495	4965	274	106	424	5071
Uttaranchal	344	123	0	2	219	125
BBMB	381	381	0	0	0	381
TOTAL	22145	18830	1099	1141	2174	19971

SOURCE: Minutes of 350th OCC meeting of NREB held on 19th March, 2004.

XVI. Hydraulic Data For Reservoirs During February 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 March 2004 (m)	463.86 1521.86	399.60 1311.01	257.01 843.20	345.11 1132.24	379.59 1245.36
Level on last day of March 2003 (m)	460.86 1512.00	399.28 1309.97	258.50 848.10	346.97 1138.36	379.18 1244.02
Live Capacity as on (mhmt) last day of March 2004 (maft)	0.11 0.92	0.13 1.06	0.12 0.95	0.02 0.20	0.00 0.00
Live Capacity as on (mhmt) last day of March 2003(maft)	0.10 0.82	0.18 1.48	0.17 1.35	0.06 0.45	0.00 0.00
Energy content as on last day of March 2004 (MU)	400.00	170.00	175.00	48.00	10.00
Energy content as on last day of March 2003 (MU)	250.00	130.00	350.00	60.00	0.00
Maximum level (m) (ft) (date)	476.66 1563.84 01.03.2004	404.46 1326.96 01.03.2004	259.02 849.80 01.03.2004	345.11 1132.24 31.03.2004	381.07 1250.23 01.03.2004
Minimum level (m) (ft) (date)	463.86 1521.86 31.03.2004	399.60 1311.01 31.03.2004	257.01 843.20 31.03.2004	344.88 1131.50 01.03.2004	379.59 1245.36 31.03.2004

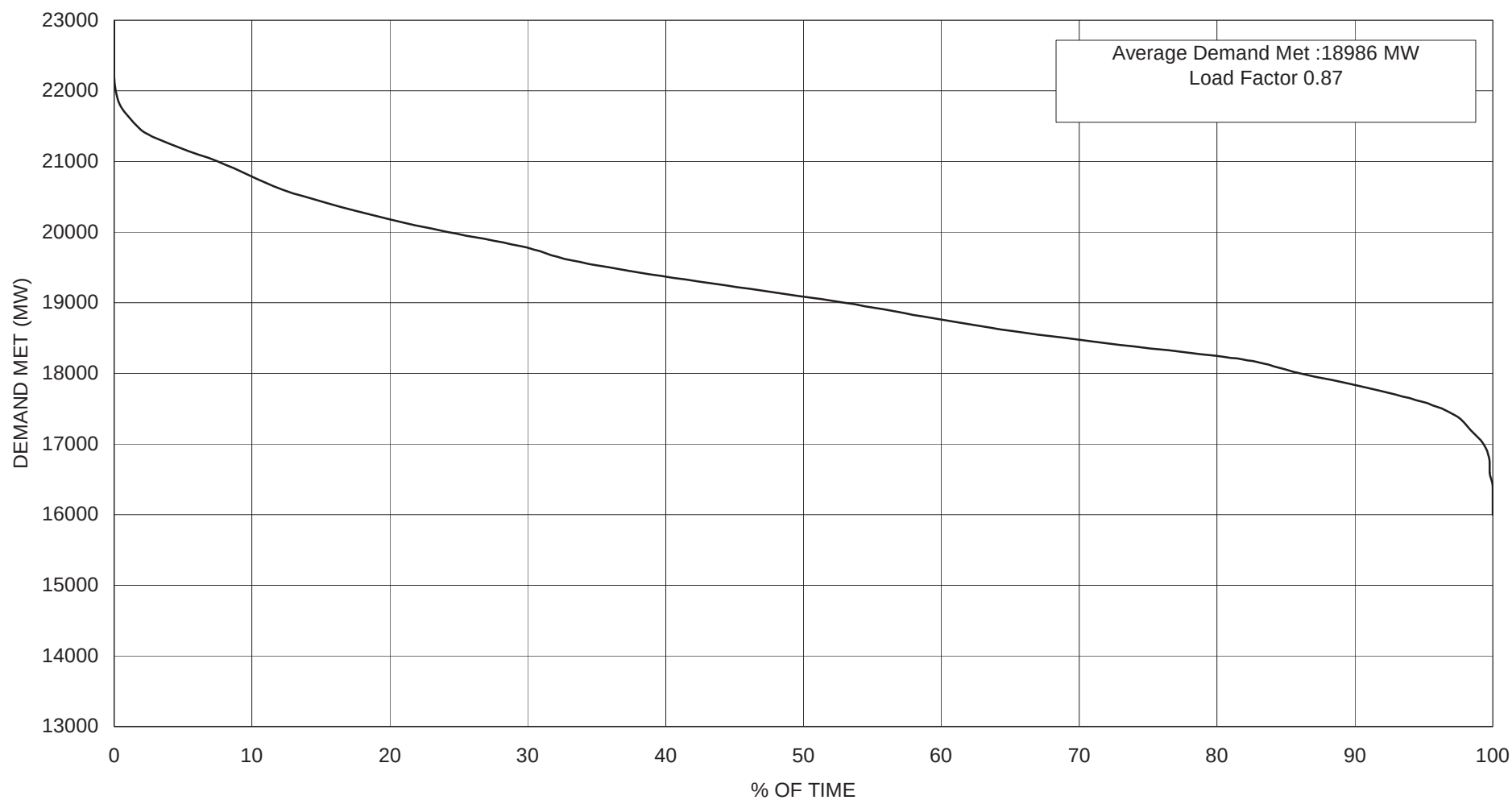
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

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

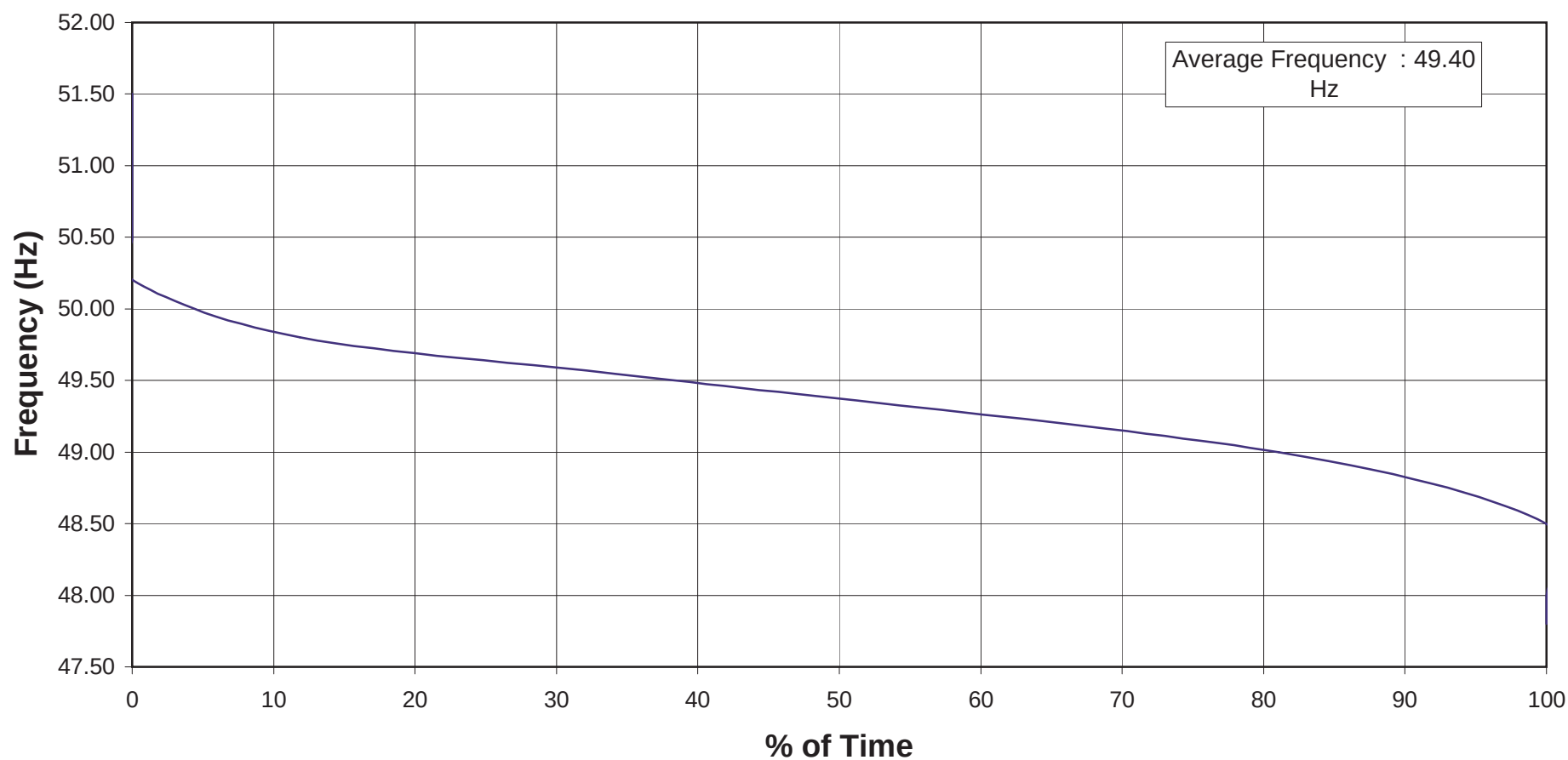
Energy content of RPS : Total Energy content of Rana Pratap Sagar and Jawahar Sagar Power Stations.

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

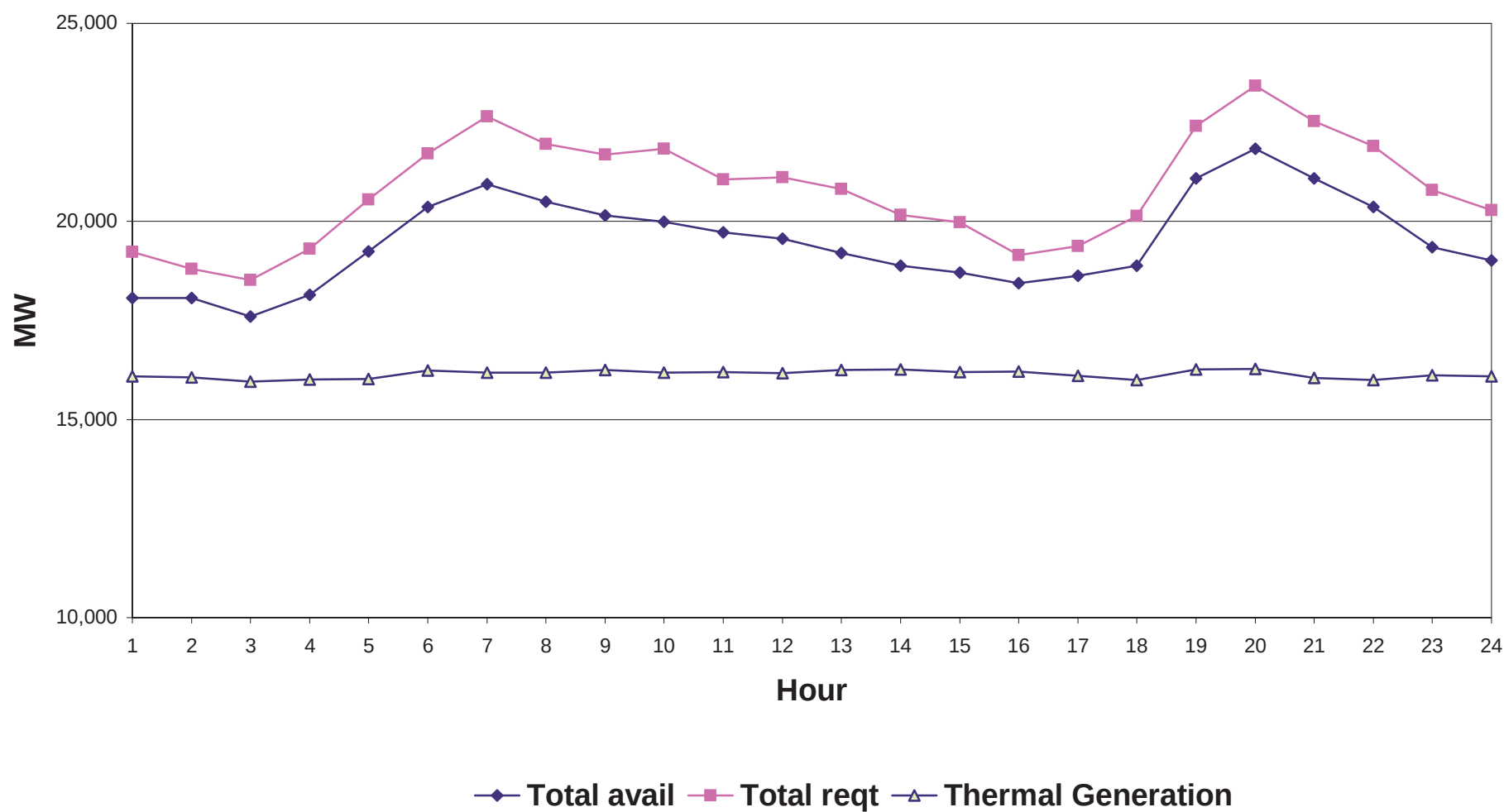
Load Duration Curve For Northern Region For March 2004



Frequency Duration Curve For Northern Region For March 2004



Load Curve Of Northern Region For Maximum Demand Met Day (5th March 2004)



Load Curve Of Northern Region For Minimum Demand Met Day (8th March 2004)

