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NORTHERN REGION GRID REPORT FOR THE MONTH OF MARCH 2003

A) Summary Report

1. Grid Overview during the Month

During the month of March 2003 the average system frequency was 50.13 Hz and frequency remained in the normal range i.e. between 49.0 & 50.5 Hz for 80.31% of the time. The regional availability during March 2003 was better as compared to February 2003 due to increased inflows in hydro stations. With the change in weather conditions there was considerable reduction in demand also and frequency for most of the time persisted in normal band. Frequency variation index during the month was below 2.0 for most of the times. However, large gap between maximum and minimum frequencies and fluctuation in frequency from low to high and vice-versa reminds the need of implementation of free governor operation on all generating units in the region.

Overall voltage profile in the grid during the month has been satisfactory on most of the 400 kV buses except on few days when high voltages were experienced due to low demand .

During the first week of the month crash in demand was observed and number of coal fired/gas fired units were closed down on account of low system demand.

There was no major transmission line outage except for planned shut downs. 400 kV Sarnath-Allahabad line remained out from 18.02.2003 to 14.03.2003 due to breaker problem at Sarnath S/S of UPPCL. 400 kV Agra-Muradnagar line was taken for planned shut down for insulator replacement and maintenance work from 20.03.2003 for a period of around 25 days.

During March 2003 the system was incident free except some tripping in J&K valley for short duration.

On 2nd March a historical event took place in the Indian Power System with the synchronization of Eastern and Western grids through 400 kV and 220 kV AC lines across Raipur (WR)-Rourkela (ER). In order to control the overloading of AC lines wheeling of power from Eastern region to Western region was carried out through Northern Grid using HVDC back to back stations at Sasaram (ER-NR) and Vindhyachal (NR-WR).

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

- i) 400 kV Mandola-Meerut-II and 315 MVA 400/220 kV ICT-II at Meerut were commissioned on 29.03.2003
- ii) On 30.03.2003 LILO work of 220 kV Anta-Dausa -I at Swai Madhopur was completed.

3. Frequency Profile :

Maximum frequency	51.36	Hz	at	18.03	hours on	18.03.2003
Minimum frequency	48.44	Hz	at	19.03	hours on	17.03.2003
Average frequency	50.13	Hz				

Frequency distribution in %

Hz	< 48.5	<49.0	49.0-50.5	> 50.5
% of time	0.01	1.24	80.31	18.45

Frequency Variation Index

Monthly Average	1.91
Maximum	3.81
Minimum	0.75

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

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	64.13	66.00	1.87	2.83
Haryana	52.40	53.50	1.10	2.06
Rajasthan	73.18	73.18	0.00	0.00
U.P.	106.12	112.00	5.88	5.25
Uttanchal	10.27	10.50	0.23	2.19
Delhi	45.16	45.52	0.36	0.79
Chandigarh	3.08	3.09	0.01	0.32
H.P.	9.12	9.12	0.00	0.00
J & K	19.02	20.00	0.98	4.90
N.F.F./Rail	1.97	1.97	0.00	0.00
Total	382.63	393.08	10.45	2.66

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	D	(D/B)*100
Punjab	3468	3700	232	6.27
Haryana	2688	2800	112	4.00
Rajasthan	3466	3466	0	0.00
U.P.	4846	6000	1154	19.23
Uttanchal	642	662	20	3.02
Delhi	2605	2656	51	1.92
H.P.	588	588	0	0.00
J & K	1042	1100	58	5.27
Chandigarh	130	130	0	0.00
N.F.F./Rail	67	67	0	0.00
Region	20044	20622	578	2.80

Diversity Factor = **1.03**

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual Drawal	OD/UD
Punjab	829.24	944.29	115.05
Haryana	706.82	833.93	127.11
Rajasthan	939.11	889.92	-49.19
U.P.	1424.38	1488.69	64.31
Uttaranchal	147.06	101.68	-45.38
Delhi	793.53	753.32	-40.21
H.P.	240.79	227.52	-13.27
J & K	620.73	526.36	-94.37
Chandigarh	88.47	78.22	-10.25
N.F.F./Rail	45.04	60.04	15.00

6. **Inter Regional Exchanges**

		Energy M.U.	Peak MW
<u>Import</u>			
a)	From WR over HVDC Vindhyachal B/B	0	0
b)	From WR to over 220 kV Ujjain-Kota	0	0
c)	From ER over HVDC Sasaram B/B	159.83	479
d)	From ER over 220 kV Dehri-Sahupuri	0	0
<u>Export</u>			
d)	To WR over HVDC Vindhyachal B/B	142.23	450
e)	To WR (MP) over 220 kV Auraiya-Malanpur	15.60	45
f)	To ER (Bihar) over 220 kV/132kV lines	0	0
g)	To Nepal over 132 kV Tanakpur-Mahendernagar	3.03	18
h)	To ER over HVDC Sasaram B/B	0	0

B). Detailed Report

I. Details of Installed/Effective Capacity at the end of March 2003

	<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	3x180 540.00	3x180 540.00
(f)	URI	4x120 480.00	4x120 480.00
	Sub-Total	2010.00	1984.20
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
Total Central Sector (A + B + C)		11544.04	11333.24
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+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	2x60 + 4x66 384.00	2x60 + 4x66 384.00
	Total BBMB	2864.15	2864.15

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
	Total HP		412.20		412.20
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.)				
(h)	GAS TURBINES			
	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			
(a)	HYDRO			
	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
(g)	THERMAL			
	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			
(a)	HYDRO			
	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
(f)	THERMAL			
	Kota TPS	2x110+3x210	850.00	2x110+3x210
(g)	Suratgarh TPS	4x250	1000.00	4x250
(g)	Ramgarh GT	1x3	3.00	1x3
(i)	Ramgarh GT EXT.	1x35.5	35.50	1x35.5
	Total Thermal		1888.50	1888.50
(J)	Wind farm		14.01	14.01
	Total Rajasthan		2337.36	2337.36

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)		28755.93		28243.77

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	28.92%
NHPC	1984.20	0.00	0.00	0.00	1984.20	7.03%
NPC	0.00	0.00	0.00	1180.00	1180.00	4.18%
BBMB	2864.15	0.00	0.00	0.00	2864.15	10.14%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	396.50	612.00	0.00	1008.50	3.57%
HARYANA	48.00	1025.00	25.20	0.00	1098.20	3.89%
HIMACHAL	412.20	0.00	0.00	0.00	412.20	1.46%
J&K	311.69	0.00	182.18	0.00	493.87	1.75%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	11.60%
RAJASTHAN	434.85	1850.00	52.51	0.00	2337.36	8.28%
UP	529.90	3909.00	0.00	0.00	4438.90	15.72%
UTTRANCHAL	980.85	0.00	0.00	0.00	980.85	3.47%
Total	8710.94	15135.50	3217.33	1180.00	28243.77	100.00%
% of TOTAL	30.84%	53.59%	11.39%	4.18%	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 DVB 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 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 31.03.2003

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1444.20	540.00	1984.20
BBMB	1155.15	1709.00	2864.15
DELHI	0.00	0.00	0.00
HARYANA	48.00	0.00	48.00
HP	412.20	0.00	412.20
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	5191.94	3519.00	8710.94
PERCENTAGE	59.60%	40.40%	100%

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	0.66	4.20	73.46	41.33	25.88	2.36	0.00
02	0.00	0.00	0.21	1.39	44.85	89.77	54.94	5.36	0.00
03	0.00	0.00	0.32	3.78	60.84	75.80	38.84	3.92	0.00
04	0.00	0.00	0.45	7.22	72.84	40.01	26.71	2.22	0.00
05	0.00	0.07	1.67	14.55	85.31	49.55	13.02	0.17	0.00
06	0.00	0.00	2.47	8.75	89.66	49.08	7.87	0.56	0.00
07	0.00	0.00	1.09	10.10	89.87	39.69	9.04	0.14	0.00
08	0.00	0.00	2.61	19.00	94.72	29.77	2.67	0.00	0.00
09	0.00	0.00	0.00	3.05	86.64	46.27	13.36	1.56	0.00
10	0.00	0.00	0.91	5.43	74.46	58.64	24.63	0.00	0.00
11	0.00	0.00	0.53	17.43	96.26	33.79	3.21	0.24	0.00
12	0.00	0.00	0.00	5.52	92.99	48.28	7.01	0.52	0.00
13	0.00	0.00	0.00	2.85	95.21	61.63	4.79	0.38	0.00
14	0.00	0.00	3.09	26.29	95.73	20.18	1.18	0.00	0.00
15	0.00	0.00	0.59	5.35	94.90	46.23	4.51	0.03	0.00
16	0.00	0.00	0.31	1.04	84.20	52.38	15.49	0.73	0.00
17	0.00	0.14	0.66	1.78	89.80	60.90	9.54	1.29	0.00
18	0.00	0.00	0.15	1.86	72.48	77.60	27.37	2.76	0.00
19	0.00	0.00	0.00	0.03	68.24	88.58	31.76	5.76	0.00
20	0.00	0.00	0.00	4.45	78.36	74.92	21.64	0.00	0.00
21	0.00	0.00	0.80	4.97	93.75	58.85	5.45	0.00	0.00
22	0.00	0.00	1.01	4.86	91.88	55.85	7.11	0.00	0.00
23	0.00	0.00	0.10	4.24	85.96	50.03	13.94	0.52	0.00
24	0.00	0.00	0.04	1.36	78.72	52.61	21.24	0.43	0.00
25	0.00	0.00	0.00	4.83	88.85	64.35	11.15	0.00	0.00
26	0.00	0.00	0.29	6.55	88.30	72.67	11.41	0.25	0.00
27	0.00	0.00	0.00	3.44	80.32	49.05	19.68	0.42	0.00
28	0.00	0.00	0.21	8.41	93.91	46.30	5.88	0.00	0.00
29	0.00	0.00	0.69	2.36	78.59	55.92	20.72	0.03	0.00
30	0.00	0.00	0.28	0.91	51.70	94.76	48.02	0.69	0.00
31	0.00	0.00	0.24	2.69	60.91	85.28	38.85	0.45	0.00
Max	0.00	0.14	3.09	26.29	96.26	94.76	54.94	5.76	0.00
Min	0.00	0.00	0.00	0.03	44.85	20.18	1.18	0.00	0.00
Average	0.00	0.08	1.24	7.87	80.31	61.67	18.45	0.98	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
51.28	23.46	48.96	07.43	50.28	2.42
51.32	17.26	48.96	19.15	50.48	3.81
51.32	22.00	49.04	19.15	50.32	2.88
51.23	13.25	48.75	18.53	50.17	2.57
51.06	18.01	48.37	08.18	50.04	2.06
51.36	18.03	48.72	19.08	50.04	1.71
51.12	18.03	48.68	19.09	49.97	1.55
50.88	18.01	48.88	19.07	49.81	1.75
51.22	18.05	49.07	12.07	50.17	1.34
50.88	01.11	48.89	22.16	50.13	1.94
51.14	17.59	48.92	12.14	49.85	1.46
51.23	18.02	49.01	06.04	50.06	1.09
51.30	18.02	49.15	22.09	50.07	0.75
50.66	21.40	48.65	08.09	49.74	2.08
51.01	18.29	48.79	19.03	50.02	0.88
51.19	17.09	48.85	19.07	50.18	1.39
51.07	17.59	48.44	19.03	50.13	1.29
51.16	17.02	49.28	00.12	50.32	2.11
51.25	18.02	49.46	18.51	50.38	2.46
50.99	11.48	49.03	23.08	50.15	1.75
51.00	16.14	48.88	19.26	50.02	1.04
50.87	18.10	48.67	22.09	50.01	1.08
51.20	17.02	48.96	13.13	50.17	1.36
51.02	06.42	48.97	19.19	50.20	1.52
50.98	06.04	49.14	22.12	50.09	1.14
51.06	18.02	48.67	22.10	50.11	1.50
51.08	18.03	49.22	05.23	50.14	1.55
50.87	11.06	48.99	05.21	49.99	1.11
51.07	22.54	48.89	19.13	50.27	1.88
51.15	08.02	48.63	13.11	50.45	3.10
51.09	11.09	48.87	19.08	50.32	2.73
51.36		49.46		50.48	3.81
50.66		48.44		49.74	0.75
51.10		48.91		50.13	1.91

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	426	04.11	392	18.56	420	04.08	395	07.34	207	04.01	206	18.56	416	04.09	390	18.56
02	424	01.10	396	19.21	420	01.51	399	06.52	207	04.01	206	18.56	407	23.54	386	19.15
03	422	02.30	388	18.57	415	02.30	397	06.16	220	02.00	202	19.00	411	02.20	386	07.38
04	420	04.10	384	18.51	417	13.02	389	18.53	219	01.00	200	19.00	409	04.08	385	18.50
05	420	02.29	386	19.22	413	04.14	397	19.26	216	03.00	197	19.00	410	23.53	385	18.55
06	418	02.00	386	19.38	413	23.58	395	06.29	216	03.00	197	19.00	407	02.07	386	05.55
07	414	02.21	388	08.43	411	00.57	397	16.48	216	03.00	197	19.00	411	02.00	391	20.01
08	416	04.08	388	08.28	410	18.08	400	05.59	215	18.02	197	19.08	406	23.56	388	19.07
09	418	04.06	388	09.27	413	04.05	397	12.29	215	04.06	197	9.26	409	04.07	390	14.51
10	418	01.59	388	07.38	411	00.31	397	06.21	215	03.00	200	19.00	411	02.01	385	19.15
11	412	00.59	378	11.55	408	00.59	393	12.16	212	24.00	199	19.00	406	02.10	382	12.13
12	412	02.50	380	09.30	408	18.03	391	09.29	214	04.00	198	11.00	403	23.56	393	21.48
13	410	03.18	380	08.56	410	18.03	393	08.51	210	02.00	200	11.00	406	03.08	383	19.30
14	410	21.59	378	10.50	406	16.58	388	08.45	212	03.00	198	10.30	406	03.16	384	14.25
15	410	00.59	388	09.13	411	18.05	397	10.36	214	04.00	200	11.00	407	03.00	386	19.09
16	414	04.12	390	08.26	410	17.38	399	08.20	214	03.00	204	20.00	409	04.10	388	19.22
17	412	01.29	390	05.51	410	17.59	395	05.56	212	01.30	203	05.56	410	02.13	384	19.01
18	418	04.11	400	06.30	415	17.05	400	05.49	216	04.00	206	19.00	409	04.03	386	19.25
19	420	01.12	392	09.26	417	18.00	400	08.44	216	03.00	206	07.00	410	01.11	383	12.18
20	416	00.59	392	19.17	410	03.30	400	10.10	214	02.00	200	20.00	414	01.24	386	10.18
21	418	03.29	390	19.11	410	05.05	395	19.09	212	04.00	198	19.00	403	23.38	380	19.50
22	412	04.00	391	19.31	402	10.00	396	20.00	209	24.00	197	19.00	412	04.00	391	19.00
23	420	23.47	392	05.54	408	22.00	397	13.00	212	24.00	203	10.00	412	23.00	393	12.00
24	419	23.47	391	06.01	409	22.01	396	13.05	210	23.48	198	10.50	412	22.48	390	11.10
25	416	04.12	390	19.10	407	18.00	397	19.00	211	03.00	200	20.00	413	02.58	392	11.10
26	410	18.13	384	19.29	410	18.15	397	19.26	211	04.00	197	20.00	407	23.57	383	19.29
27	416	18.04	390	19.22	413	18.02	400	10.27	211	04.00	201	20.00	409	04.07	397	05.27
28	416	18.29	398	10.29	415	18.32	400	10.30	213	24.00	203	12.00	408	02.00	397	20.00
29	420	03.59	392	19.12	411	17.59	399	05.54	213	24.00	201	20.00	414	04.00	393	19.00
30	420	01.06	398	19.29	411	04.28	400	19.25	213	24.00	202	19.50	414	03.20	398	19.23
31	420	01.10	396	19.21	410	04.26	400	19.28	212	23.12	202	19.25	412	03.20	395	19.21
Max	426		400		420		400		220		206		416		398	
Min	410		378		402		388		207		197		403		380	

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* MW	Regional Availability MU
01	18844	20149	1305	14557	14747	190	352
02	17168	18117	949	13953	13953	0	344
03	18236	19366	1130	14027	14027	0	353
04	18608	19675	1067	14421	14581	160	353
05	18735	19823	1088	14450	14810	360	360
06	18416	19585	1169	14535	14895	360	364
07	19240	20140	900	15037	15397	360	370
08	18587	19787	1200	15679	16039	360	370
09	18548	19587	1039	15298	15688	390	365
10	19484	20312	828	15115	15305	190	370
11	19264	20203	939	15553	15743	190	376
12	19730	20330	600	16329	16819	490	387
13	20021	20663	642	16735	17225	490	399
14	20044	20622	578	17090	17180	90	407
15	19428	20575	1147	16492	16682	190	397
16	18585	19758	1173	16760	17120	360	390
17	18802	19825	1023	16411	16771	360	396
18	19006	19726	720	16763	16763	0	388
19	19076	19454	378	14821	14821	0	372
20	19276	20291	1015	16306	16306	0	378
21	19583	20648	1065	17157	17157	0	404
22	19604	20574	970	17609	17609	0	398
23	19461	20446	985	17327	17327	0	411
24	19290	20325	1035	16985	17115	130	399
25	18944	20094	1150	17263	17263	0	398
26	19110	20112	1002	17419	17419	0	408
27	18935	19928	993	17900	17900	0	405
28	18376	20119	1743	17889	17889	0	392
29	18499	19597	1098	17070	17070	0	377
30	17581	18539	958	15899	15910	11	371
31	17833	18242	409	16589	16589	0	376
Maximum	20044	20663	1743	17900	17900	490	411
Minimum	17168	18117	378	13953	13953	0	344
Average	18913	19891	977	16111	16262	151	382

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	2637	1553	2180	1937	3319	3318	2323	1162	4756	4565
02	2441	1552	2211	1421	2974	3153	2312	1196	4464	4567
03	2824	1896	1883	1610	3253	3217	2357	1138	4268	4145
04	2769	1933	2145	1783	3186	2937	2482	1186	4299	4652
05	2688	1924	2252	1691	3306	3209	2389	1174	4573	4452
06	2757	1955	2342	1765	3136	3090	2368	1149	4394	4410
07	2717	2139	2273	1885	2479	2528	2439	1199	4438	4357
08	3076	2297	2266	2041	3466	3147	2164	1196	4403	4657
09	2581	2125	2386	1981	3063	2986	2298	1163	4396	4656
10	2851	2021	2667	1948	3080	3162	2365	1126	4841	4659
11	2867	2315	2547	1996	2327	2546	2378	1147	4622	4703
12	3068	2500	2688	1980	3243	3152	2354	1226	4628	4788
13	3256	2686	2425	2261	3330	3397	2472	1183	4833	4903
14	3276	2952	2526	2177	3396	3239	2360	1273	4521	5135
15	3468	2701	2414	2003	3108	3127	2359	1177	4333	4938
16	2942	2930	2626	2159	2914	3196	2237	1227	4591	4791
17	3041	2516	2368	2117	2880	3088	2267	1260	4693	4686
18	3271	2916	2505	2126	2789	2988	2059	1243	4846	4996
19	3098	2417	2488	2049	2958	2440	2071	1345	4540	4487
20	2968	2977	2570	2065	3036	3070	2360	1267	4464	4746
21	3322	2905	2098	1874	2822	3010	2434	1542	4654	5233
22	3416	3006	2029	1782	2902	2962	2396	1304	4246	5165
23	3022	2895	2532	2196	3224	3119	2293	1498	4839	5407
24	3106	2438	2475	2182	2631	2742	2398	1410	4526	5370
25	2978	2785	2399	2248	2932	3139	2388	1403	4492	5123
26	2989	2844	2203	2150	2665	3087	2373	1429	4672	5627
27	2989	2844	2203	2150	2665	3087	2373	1429	4672	5627
28	2996	2744	2306	2155	2482	2875	2520	1468	4330	5594
29	2784	2396	2285	2076	2552	2970	2413	1504	4345	5393
30	2303	2586	2376	1646	2738	2842	2352	1453	4232	5143
31	2628	2150	2198	1998	2537	2885	2306	1487	4311	5413
Maximum	3468	3006	2688	2261	3466	3397	2520	1542	4846	5627
Minimum	2303	1552	1883	1421	2327	2440	2059	1126	4232	4145
Average	2940	2448	2351	1982	2948	3023	2344	1289	4523	4916

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	608	336	120	95	466	270	1042	576
02	557	263	130	95	453	228	1042	752
03	544	305	130	95	524	257	888	818
04	549	268	130	95	513	286	842	630
05	563	333	130	95	587	310	958	793
06	577	330	130	95	560	280	958	793
07	599	325	130	95	551	297	848	619
08	581	318	130	95	512	253	928	625
09	601	288	130	95	520	295	839	610
10	613	335	130	110	490	270	867	554
11	602	339	130	100	528	311	887	582
12	642	340	130	95	511	277	887	670
13	583	334	130	110	509	282	887	670
14	603	325	130	110	530	280	964	528
15	587	306	130	110	532	285	860	720
16	561	334	130	110	480	286	904	771
17	515	312	130	110	479	270	838	768
18	506	311	130	110	470	272	725	748
19	544	269	130	110	466	241	822	729
20	555	281	130	110	512	234	822	719
21	565	318	130	110	514	287	844	787
22	599	378	130	110	490	272	934	768
23	586	371	130	110	469	275	928	801
24	583	367	130	110	480	271	918	778
25	433	319	130	110	475	287	850	800
26	535	358	125	115	487	261	868	779
27	535	358	125	115	518	261	868	779
28	501	330	125	115	506	288	916	716
29	563	353	125	115	503	278	852	616
30	530	344	125	115	485	287	820	560
31	468	389	125	115	481	272	824	767
Maximum	642	389	130	115	587	311	1042	818
Minimum	433	263	120	95	453	228	864	837
Average	561	327	129	106	503	275	885	704

VII Daily Energy Consumption By Constituents

(All Figs In MUs)

Date	Punjab	Haryana	Rajasthan	Delhi	UP	Uttaranchal	Chandigarh	HP	J & K	Total
01	46.544	43.361	72.650	44.022	105.150	9.914	2.745	8.977	19.042	352.404
02	47.620	43.830	71.744	42.676	100.714	9.115	2.745	8.050	17.940	344.434
03	52.860	45.956	71.360	44.034	102.337	9.436	2.745	8.567	15.616	352.911
04	55.018	45.699	72.615	44.510	95.426	9.794	2.745	9.451	17.395	352.654
05	55.534	48.166	73.514	43.998	94.827	10.110	2.745	9.859	20.958	359.710
06	56.338	49.769	73.286	42.294	97.812	10.666	2.890	9.859	21.090	364.004
07	59.210	51.863	73.393	45.893	97.373	10.147	2.890	9.433	19.767	369.968
08	59.803	52.761	74.229	43.507	99.578	9.726	2.702	9.151	19.016	370.473
09	54.695	53.796	75.140	40.864	100.143	9.950	2.268	9.151	19.016	365.023
10	58.507	53.152	72.898	43.766	100.371	10.303	2.671	9.128	19.455	370.252
11	62.744	54.567	73.259	43.813	99.114	9.723	2.671	10.953	19.281	376.124
12	64.960	57.914	74.854	43.140	104.351	10.136	2.750	8.981	20.005	387.092
13	70.144	58.332	75.726	43.454	109.128	9.823	2.800	9.055	20.377	398.840
14	70.918	56.477	74.867	43.727	118.116	10.003	2.900	9.115	21.055	407.179
15	72.376	53.391	74.082	43.629	111.412	10.212	2.900	9.184	19.382	396.569
16	69.671	55.581	74.168	41.881	108.085	10.188	2.849	8.969	19.067	390.458
17	68.591	55.284	73.198	42.950	114.353	12.639	2.900	8.387	17.824	396.127
18	68.434	54.390	69.025	38.560	115.140	12.934	2.900	8.273	18.417	388.074
19	59.805	49.372	73.628	42.873	101.862	11.586	3.012	8.573	21.526	372.236
20	72.725	55.381	71.400	31.570	106.557	9.466	2.900	8.847	19.215	378.059
21	75.616	54.739	74.469	45.149	112.890	9.953	2.886	8.869	19.141	403.713
22	75.874	56.624	72.856	44.044	108.837	9.767	2.589	8.499	19.226	398.315
23	72.998	56.153	76.800	43.153	120.660	10.419	2.589	8.322	19.560	410.654
24	70.571	55.649	73.218	44.289	114.593	10.794	2.589	8.673	19.111	399.487
25	70.648	53.519	74.326	45.243	112.534	10.004	2.960	8.774	19.665	397.674
26	75.454	54.334	75.640	41.263	120.149	11.598	2.960	8.609	18.429	408.436
27	71.142	55.458	75.809	45.524	116.841	10.004	2.960	8.757	18.429	404.925
28	67.924	53.028	70.489	46.731	112.303	9.846	2.915	9.265	19.227	391.727
29	62.006	49.419	69.487	44.873	112.060	9.971	2.915	9.599	16.797	377.127
30	58.696	46.810	70.731	46.528	109.977	10.225	2.960	8.948	16.592	371.467
31	60.617	49.494	69.791	45.524	111.774	10.007	2.960	7.615	17.885	375.666
Maximum	75.874	58.332	76.800	46.731	120.660	12.934	3.012	10.953	21.526	410.654
Minimum	46.544	43.361	69.025	31.570	94.827	9.115	2.268	7.615	15.616	344.434
Average	64.130	52.396	73.182	43.338	107.563	10.273	2.807	8.964	19.016	381.670
Month Total	1988.044	1624.268	2268.653	1343.483	3334.466	318.459	87.011	277.888	589.507	11831.781

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-2003	23730	23047	21486	21977	30336	32069	27122	24048	47312	49136	5508	5488
2-Mar-2003	22353	28236	18163	23583	29229	27532	24909	22411	40721	43372	4448	2217
3-Mar-2003	24380	31077	20359	25824	30169	26952	20843	22653	40674	42013	3314	2304
4-Mar-2003	29281	33867	25798	25851	32459	28201	22392	23393	42455	42468	3301	2544
5-Mar-2003	25435	32048	22717	24318	29295	28476	22220	24352	41237	40918	3718	3634
6-Mar-2003	25286	28862	22538	23599	28572	27907	22953	25339	41145	41115	4445	4245
7-Mar-2003	25435	28706	22058	24676	28915	29001	22753	25091	40874	41549	4795	4322
8-Mar-2003	24395	26355	20849	25071	28099	30345	22766	20398	40866	41349	4261	4354
9-Mar-2003	23793	24974	20391	26520	27369	29876	24010	18819	41091	41388	4385	3834
10-Mar-2003	23186	25220	20196	27399	28067	29566	23326	20362	43986	43509	4692	3707
11-Mar-2003	24438	25107	21704	31578	29774	29062	26592	25513	45956	45186	5065	3643
12-Mar-2003	23869	26831	21199	29936	29968	28549	27835	22448	45946	47630	5230	4219
13-Mar-2003	24960	28302	22297	32085	30481	29662	27938	24519	45705	45247	5474	3932
14-Mar-2003	25596	25112	22763	30371	31459	33772	26318	26908	46614	47016	5166	3330
15-Mar-2003	25249	27964	22118	27477	31608	33398	25639	25156	45760	44808	5288	3573
16-Mar-2003	26647	29852	23606	27268	31689	33511	27364	23224	45780	48074	5101	3025
17-Mar-2003	27201	32053	24023	27784	31387	31528	27255	23969	49636	52359	5186	2957
18-Mar-2003	27441	33299	24027	26768	30507	23255	24752	19750	51342	60285	5198	3633
19-Mar-2003	27645	38747	23224	27286	30257	24171	22642	18567	49680	49042	5164	3632
20-Mar-2003	27351	31749	22979	27045	30261	27717	25843	23835	49827	49893	4742	3744
21-Mar-2003	28634	33635	23255	26926	32367	28503	24774	25674	48843	50154	5367	3156
22-Mar-2003	28559	32493	23771	31377	31155	28574	27731	25460	45786	46939	5144	2487
23-Mar-2003	29429	31970	24520	31093	32007	30466	27907	25397	48677	50062	5030	2908
24-Mar-2003	28592	31450	23626	27198	30629	27682	28547	27180	48463	51271	4568	2287
25-Mar-2003	28166	31126	23160	26216	29610	28443	27458	27960	43033	43572	4347	1618
26-Mar-2003	29280	34548	24335	25647	31319	28452	29241	29830	45998	47386	4626	1323
27-Mar-2003	29041	33305	24247	26591	31143	28340	28818	25971	48175	54255	4897	3578
28-Mar-2003	28558	30496	23291	25871	29080	27477	27284	26873	46431	52845	4707	4020
29-Mar-2003	29916	33438	23787	24389	29315	26609	27328	26413	48900	59504	4761	2538
30-Mar-2003	30382	34878	24845	25442	31038	25497	22105	23791	51919	59288	4610	2458
31-Mar-2003	31012	35548	25493	26761	31543	25331	26862	28021	51544	57062	4520	2973
Total MU	829.240	944.295	706.825	833.927	939.107	889.924	793.527	753.325	1424.376	1488.695	147.058	101.683
Max. MWH	31012	38747	25798	32085	32459	33772	29241	29830	51919	60285	5508	5488
Min MWH	22353	23047	18163	21977	27369	23255	20843	18567	40674	40918	3301	1323
Avg. MWH	26750	30461	22801	26901	30294	28707	25598	24301	45948	48022	4744	3280

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-Mar-2003	7394	7582	20682	16544	2782	2274	480	599	1015	1348
2-Mar-2003	8739	6188	18297	11464	2678	2249	480	599	1081	1229
3-Mar-2003	8685	7210	18423	14054	2981	2499	480	597	1007	1356
4-Mar-2003	8340	7830	20353	15782	3049	2650	480	599	773	1381
5-Mar-2003	8184	7808	20595	17807	2969	2696	480	599	896	1330
6-Mar-2003	7815	7722	20182	17907	2874	2652	480	600	1260	1497
7-Mar-2003	7499	8004	20423	18338	2676	2668	480	595	1018	1361
8-Mar-2003	7159	7767	19178	17757	2533	2587	480	588	1012	1389
9-Mar-2003	7098	7843	19012	18405	2297	2367	480	593	1109	1310
10-Mar-2003	7765	8171	19283	17808	2567	2597	480	598	1216	1428
11-Mar-2003	7997	7840	19082	17088	2677	2574	480	595	862	1361
12-Mar-2003	7812	7890	19193	17875	2736	2597	480	605	874	1460
13-Mar-2003	7541	7752	19638	17883	2824	2495	480	598	1394	1324
14-Mar-2003	8414	8005	19622	19148	2923	2588	480	595	849	1224
15-Mar-2003	8551	8243	19754	18180	2768	2550	480	607	1335	1451
16-Mar-2003	8619	8227	20171	17408	2863	2272	480	619	1198	1312
17-Mar-2003	8605	7458	20530	16489	2992	2549	480	582	888	1491
18-Mar-2003	8193	6976	20288	18163	3024	2500	480	558	807	1557
19-Mar-2003	6604	6425	20322	17428	3002	2182	480	603	773	1521
20-Mar-2003	7298	7213	20274	17862	2902	2481	480	601	1047	1398
21-Mar-2003	8110	7353	20428	17843	3064	2593	480	604	842	1377
22-Mar-2003	6922	7016	20612	17584	2814	2524	480	575	1124	1375
23-Mar-2003	7486	6889	20719	18381	2885	2308	480	547	821	1336
24-Mar-2003	7283	6669	20291	17259	2812	2583	480	481	739	1519
25-Mar-2003	7287	6929	20230	17440	2909	2649	480	405	858	1542
26-Mar-2003	7794	6584	20451	16826	3006	2631	480	410	988	1444
27-Mar-2003	7456	6762	20738	16309	2958	2678	480	399	922	1445
28-Mar-2003	7388	7016	20441	17322	2915	2730	480	293	914	1517
29-Mar-2003	7480	6902	20574	14172	3023	2675	480	279	993	1522
30-Mar-2003	7633	6838	20081	14194	2984	2269	480	201	772	1452
31-Mar-2003	7644	6405	20864	15640	2981	2555	480	117	774	1542
							480			
Total MU	240.795	227.517	620.731	526.360	88.468	78.222	14.880	16.241	30.161	43.799
Max. MWH	8739	8243	20864	19148	3064	2730	480	619	1394	1557
Min MWH	6604	6188	18297	11464	2297	2182	480	117	739	1224
Avg. MWH	7768	7339	20024	16979	2854	2523	480	524	973	1413

IX Schedule vs Actual Injection of ISGS (Sheet 1 of 3)

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-2003	42517	42194	20216	20353	16358	16248	8100	8202	7922	8048	13990	14517
2-Mar-2003	40718	39989	19612	18928	13125	12870	5513	5565	7373	7346	10158	10410
3-Mar-2003	40977	40783	19452	19333	10676	10635	3571	3636	7259	7171	8903	9027
4-Mar-2003	40259	40177	19197	19383	10941	10881	3894	3922	7510	7680	10231	10699
5-Mar-2003	37120	37992	19344	19847	10903	11078	3978	4116	7488	7856	10238	11036
6-Mar-2003	37933	38791	20381	20885	10991	11083	3803	4021	7854	8135	10331	10550
7-Mar-2003	38161	39381	20212	21001	10791	11066	3897	4250	7496	8127	10782	11362
8-Mar-2003	38355	40124	20928	21570	11096	11522	4258	4406	8434	8679	10428	11604
9-Mar-2003	39079	40341	20820	21201	11358	11338	4447	4557	8452	8574	10490	11405
10-Mar-2003	39198	39870	21052	21095	11595	12224	7828	8002	8578	8601	10663	11191
11-Mar-2003	42780	44410	21073	21367	15062	15488	8909	9070	8691	8838	9906	12100
12-Mar-2003	43654	44452	21569	21792	15061	15258	8933	9089	8689	8865	10483	11413
13-Mar-2003	43687	44296	21590	21833	15290	15349	8287	8497	8676	8952	12739	13916
14-Mar-2003	43687	44389	21604	21922	12492	12856	8643	9149	8679	9022	13602	16291
15-Mar-2003	43974	44284	21780	21902	12389	12333	8772	9141	8911	8988	13497	15221
16-Mar-2003	43823	44136	21840	21877	12507	12351	8583	8710	8922	8865	13445	14183
17-Mar-2003	43701	44092	21840	21858	12507	12235	8591	8777	8836	8838	14334	15132
18-Mar-2003	44003	44041	21840	21673	7953	7817	8879	8848	8655	8582	14789	15149
19-Mar-2003	43359	43591	21310	21138	7589	7389	8358	8466	7789	7815	13540	13578
20-Mar-2003	43162	43601	21522	21451	11392	11312	8557	8584	8581	8423	14301	14965
21-Mar-2003	43718	44104	21605	21741	10855	10729	8347	8548	8559	8607	15259	16056
22-Mar-2003	43603	44160	21462	21758	11385	11282	8285	8540	8416	8548	12176	13548
23-Mar-2003	43890	44174	21638	21687	12430	12359	8477	8558	8558	8574	13121	14928
24-Mar-2003	38956	39140	21638	21724	12981	12815	8714	8720	8618	8586	13677	14119
25-Mar-2003	33320	33578	21540	21833	12465	12430	8318	8510	8550	8560	12241	13291
26-Mar-2003	37596	37654	21606	21796	13081	12970	8328	8444	8576	8507	12985	13539
27-Mar-2003	43772	44020	21349	21563	12440	12365	8359	8447	8580	8520	13891	14424
28-Mar-2003	37086	37413	21476	21756	11460	11628	8321	8630	8563	8556	13369	14607
29-Mar-2003	35113	35446	21476	21664	11590	11425	8852	8852	8861	8780	16260	16976
30-Mar-2003	42346	42378	20699	20878	10712	10224	8613	8512	8450	8302	14996	15821
31-Mar-2003	43172	43465	21294	21450	11068	10843	8631	8545	8488	8307	14018	15832
Total MU	1272.719	1286.466	652.965	658.259	370.543	370.403	229.046	233.314	259.014	261.252	388.843	416.890
Max. MWH	44003	44452	21840	21922	16358	16248	8933	9149	8922	9022	16260	16976
Min MWH	33320	33578	19197	18928	7589	7389	3571	3636	7259	7171	8903	9027
Avg. MWH	41055	41499	21063	21234	11953	11948	7389	7526	8355	8427	12543	13448

IX. Schedule vs Actual Injection of ISGS (Sheet 2 of 3)

Date	Anta GPS		Auraiya GPS		NAPS		RAPS-B		Bairasiul	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Mar-2003	5923	5923	11916	11812	9912	9844	9600	9767	3870	4014
2-Mar-2003	6081	6017	8924	8876	9912	9806	9600	9839	4065	4269
3-Mar-2003	7107	7091	9387	9356	9912	9931	9600	9305	4320	4393
4-Mar-2003	7188	7361	9372	9551	9864	10119	9600	9953	3630	3662
5-Mar-2003	7247	7614	8930	9108	10008	10102	9600	9957	3255	3387
6-Mar-2003	6207	6695	9101	9163	10128	10013	9600	9909	3150	3236
7-Mar-2003	6816	7518	9127	9268	10200	10039	9600	9881	2865	2925
8-Mar-2003	7132	8270	9452	9679	10080	10044	9600	9918	2775	2868
9-Mar-2003	7477	7680	9780	9678	10104	9976	9600	9890	2835	2890
10-Mar-2003	7684	7931	9384	9430	10152	9916	9600	9825	2415	2453
11-Mar-2003	7874	8643	9295	9852	10032	9833	9600	9865	2235	2332
12-Mar-2003	7864	8332	9885	10044	9984	9857	9600	9922	2385	2399
13-Mar-2003	8012	8195	10527	10539	9912	9961	9600	9891	1965	2084
14-Mar-2003	8575	9213	9993	11077	9936	9913	9600	9772	2160	2280
15-Mar-2003	8654	8886	11645	12073	10008	9939	9600	9783	2370	2429
16-Mar-2003	8802	8871	11007	11135	10032	9857	9600	9812	2970	2948
17-Mar-2003	8737	8879	11884	12065	10008	9767	9600	9734	2640	2712
18-Mar-2003	8598	8577	12282	12264	9936	9853	9600	9783	2535	2522
19-Mar-2003	8649	8434	11558	11553	9840	9920	9600	9770	2745	2798
20-Mar-2003	8514	8585	12422	12657	9912	9856	9600	9806	2895	2941
21-Mar-2003	7094	7595	12950	13267	9960	9834	9600	9761	3375	3495
22-Mar-2003	7322	8214	12882	13077	9960	9780	9600	9803	3420	3535
23-Mar-2003	8478	8675	13261	13289	9960	9754	9600	9989	3360	3455
24-Mar-2003	8732	8671	13126	13194	9912	9720	9600	9889	3705	3785
25-Mar-2003	8226	8328	11167	11245	9912	9704	9600	9722	3480	3597
26-Mar-2003	8329	8460	12614	12692	9912	9611	9600	9745	3390	3531
27-Mar-2003	8201	8316	13112	13093	9792	9694	9600	9746	3630	3747
28-Mar-2003	6508	6706	13572	13668	9696	9681	9600	9756	3870	3979
29-Mar-2003	5638	5657	14265	14293	9792	9603	9600	9777	4320	4442
30-Mar-2003	5347	5185	13170	13171	9768	9685	9600	9867	4140	4213
31-Mar-2003	5243	5240	12697	12747	9696	9657	9600	9811	3300	3396
Total MU	232.259	239.762	348.687	352.916	308.232	305.269	297.600	304.248	98.070	100.717
Max. MWH	8802	9213	14265	14293	10200	10119	9600	9989	4320	4442
Min MWH	5243	5185	8924	8876	9696	9603	9600	9305	1965	2084
Avg. MWH	7492	7734	11248	11384	9943	9847	9600	9814	3164	3249

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

Date	Salal		Tanakpur		Chamera		Uri		Bhakra Complex		Dehar	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Mar-2003	10030	10129	783	795	1873	1984	11178	11244	12151	9604	3538	3880
2-Mar-2003	3838	2730	893	903	7521	7684	11520	8977	9847	10652	3988	8505
3-Mar-2003	1248	1295	1275	1307	12816	13103	11520	8688	10020	11592	5943	11509
4-Mar-2003	6665	6662	1091	1100	12816	13048	11520	9898	11510	11369	12100	6823
5-Mar-2003	7644	7708	983	996	12897	12967	11520	11555	11518	11470	6006	5528
6-Mar-2003	7623	7685	860	869	11651	11818	11520	11534	11492	11477	5499	4649
7-Mar-2003	7704	7860	850	862	11971	12154	11520	11543	11492	11609	4836	4539
8-Mar-2003	7065	7114	752	773	6802	7000	11520	11195	11492	11526	4506	4101
9-Mar-2003	6778	6837	816	814	3285	3393	11520	11534	11492	11813	4336	4021
10-Mar-2003	7133	7169	701	716	4207	4331	11520	11536	11492	11937	4336	4412
11-Mar-2003	5983	5998	774	794	4202	4349	11520	11509	12780	12675	5001	3449
12-Mar-2003	5964	6029	702	725	3668	3719	11520	11467	12500	13226	3594	3696
13-Mar-2003	6020	6115	792	830	3841	3927	11520	11511	12874	13315	4202	4517
14-Mar-2003	5940	6034	710	738	5604	5770	11520	11559	13233	13420	4611	4529
15-Mar-2003	5990	6053	697	708	4331	4474	11520	11517	13233	14214	4202	4322
16-Mar-2003	7409	7470	820	820	4616	4703	11010	11020	14204	13978	4619	4753
17-Mar-2003	7362	7419	744	766	6497	6586	11520	11496	14204	13691	4994	4449
18-Mar-2003	6599	6639	816	824	7227	7350	11520	11516	13912	13958	5076	4297
19-Mar-2003	6893	6932	816	757	6342	6330	11520	11516	13912	13867	4643	4158
20-Mar-2003	7035	7058	744	762	3610	3704	11520	11534	13912	13578	4210	4213
21-Mar-2003	7647	7695	744	764	8038	8194	10800	10794	12878	13101	5986	5261
22-Mar-2003	8023	8016	744	753	3369	3488	11520	11499	13509	13548	5987	5658
23-Mar-2003	8040	8062	764	763	5884	5986	11520	11514	13509	13945	6975	6358
24-Mar-2003	7939	7975	851	859	5078	5219	11520	11518	13509	13675	6975	5974
25-Mar-2003	8040	8070	864	874	7334	7466	11520	11445	13514	13468	6975	6507
26-Mar-2003	7976	7947	878	895	9412	9576	11520	11136	14145	13760	6975	5505
27-Mar-2003	8470	8530	894	898	7306	7413	11520	11513	14004	13964	5076	4763
28-Mar-2003	9010	9002	809	817	7528	7796	11520	11530	14026	14147	5791	6145
29-Mar-2003	10315	10630	958	966	8219	8256	11480	11401	14016	13845	6509	8155
30-Mar-2003	7773	8053	1024	1032	8300	8354	11440	11497	13722	13356	9038	9556
31-Mar-2003	9456	9468	888	902	7573	7399	11520	11529	13722	13761	11225	8243
Total MU	223.612	224.384	26.037	26.382	213.818	217.541	355.428	347.725	397.824	399.541	177.752	172.475
Max. MWH	10315	10630	1275	1307	12897	13103	11520	11559	14204	14214	12100	11509
Min MWH	1248	1295	697	708	1873	1984	10800	8688	9847	9604	3538	3449
Avg. MWH	7213	7238	840	851	6897	7017	11465	11217	12833	12888	5734	5564

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	J & K	Total
01	17.90	4.60	11.21	0.56	33.42	0.25	51.15	2.36	5.33	10.33	1.98	1.19	140.44
02	15.03	2.63	10.86	0.79	39.99	0.00	51.59	2.04	7.20	10.72	2.22	1.19	144.43
03	10.47	7.86	9.89	0.96	39.85	0.00	52.15	2.73	7.86	11.83	2.24	1.19	147.18
04	12.14	6.87	10.28	0.88	35.94	0.00	46.46	3.26	7.70	11.71	2.43	1.19	139.02
05	15.71	6.32	13.27	0.80	36.19	0.00	46.55	3.83	6.94	10.08	2.42	1.19	143.44
06	20.32	5.78	13.62	0.67	36.95	0.00	49.70	3.53	6.96	7.13	2.42	1.19	148.42
07	22.39	7.30	16.65	0.65	40.55	0.00	47.99	4.85	6.40	10.97	2.01	1.19	161.11
08	24.66	7.60	16.74	0.61	34.94	0.35	49.36	4.73	6.09	12.33	2.01	1.19	160.77
09	25.80	4.15	16.60	0.56	35.88	0.25	49.81	3.97	6.64	12.09	2.01	1.19	159.11
10	26.82	5.29	14.74	0.53	36.85	0.00	49.78	4.60	7.02	12.26	1.56	1.19	160.86
11	29.10	6.94	12.07	0.53	36.00	0.00	48.06	3.90	6.86	9.99	1.79	1.19	156.65
12	31.36	6.36	16.66	0.63	40.62	0.15	49.14	3.44	6.43	10.74	1.68	1.19	168.62
13	34.63	6.67	15.79	0.51	39.51	0.15	53.63	3.12	6.69	10.45	1.87	1.19	174.44
14	37.24	7.42	15.38	0.60	32.10	0.15	54.16	4.96	7.31	7.58	1.72	1.19	170.04
15	35.74	8.02	15.55	0.63	32.02	0.15	50.82	4.25	7.20	8.53	1.42	1.19	165.75
16	32.01	7.11	15.68	0.60	32.29	0.15	45.19	5.52	7.78	9.68	1.49	1.19	158.89
17	29.52	6.88	15.10	0.62	32.90	0.15	51.44	5.44	7.73	10.01	1.49	1.19	162.69
18	25.95	7.56	16.81	0.54	39.48	0.00	43.33	4.87	6.48	10.21	1.79	1.19	158.44
19	24.01	8.12	16.47	0.46	39.15	0.00	42.70	3.04	6.42	10.41	1.92	1.19	154.11
20	31.03	7.93	17.60	0.55	39.15	0.00	42.70	3.04	6.72	10.41	1.92	1.19	162.46
21	35.59	5.57	16.43	0.49	41.63	0.00	45.52	5.12	7.65	10.31	2.03	1.19	171.80
22	37.46	5.05	12.41	0.52	41.09	0.00	52.84	3.43	7.99	10.53	2.03	1.19	174.80
23	35.73	4.65	13.08	0.56	37.23	0.15	51.92	5.32	7.99	9.62	2.03	1.19	179.74
24	34.49	4.10	17.41	0.55	36.87	0.15	49.83	3.80	8.85	9.28	2.34	1.19	169.22
25	33.91	4.74	15.86	0.64	36.85	0.15	53.74	4.74	9.01	9.26	2.35	1.66	173.25
26	34.60	6.59	16.21	0.56	37.01	0.00	52.04	4.14	8.58	7.65	2.21	1.66	171.66
27	31.74	5.14	17.43	0.57	40.97	0.00	47.76	4.98	6.99	8.11	2.36	1.66	168.11
28	30.30	6.21	15.27	0.57	37.08	0.00	44.13	4.64	6.65	8.82	2.51	1.66	158.24
29	25.06	3.74	14.77	0.59	37.16	0.00	40.69	4.58	8.20	9.04	2.90	1.66	148.79
30	19.68	3.46	12.30	0.69	36.54	0.15	39.78	3.35	8.33	9.88	2.71	1.66	138.92
31	17.17	7.19	12.49	0.58	37.06	0.15	44.44	3.76	7.60	10.48	1.59	1.66	144.59
Maximum	37.46	8.12	17.60	0.96	41.63	0.35	54.16	5.52	9.01	12.33	2.90	1.66	179.74
Minimum	10.47	2.63	9.89	0.46	32.02	0.00	39.78	2.04	5.33	7.13	1.42	1.19	138.92
Average	27.02	6.06	14.66	0.61	37.20	0.08	48.34	4.04	7.28	10.01	2.05	1.30	159.23
Month Total	837.57	187.87	454.61	18.97	1153.27	2.48	1498.39	125.33	225.57	310.45	63.44	40.15	4936.01

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during	Cummulative from 01.04.2002
			Mar, 2003 (Ex Bus MU)	(Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	339.01	4801.20
(b)	Singrauli STPS	2000.00	1286.46	15087.69
(c)	Rihand STPS	1000.00	658.26	7124.15
(d)	Dadri NCTPS	840.00	370.40	5568.71
(e)	Unchahar-I TPS	420.00	233.31	2791.83
(f)	Unchahar-II TPS	420.00	261.25	2832.00
(g)	Tanda TPS	440.00	174.63	1944.64
(h)	Anta GPS	419.33	239.76	2691.31
(i)	Auraiya GPS	663.36	352.92	4198.80
(j)	Dadri GPS	829.78	416.89	5075.77
(k)	Faridabad GPS	431.57	286.67	2634.40
	Total NTPC	8169.04	4619.56	54750.50
B	NHPC			
(a)	Bairasiul	180.00	100.72	668.69
(b)	Salal	690.00	224.38	3131.49
(c)	Tanakpur HPS	94.20	26.38	418.55
(d)	Chamera HPS	540.00	217.54	2249.75
(e)	Uri HPS	480.00	347.72	2427.88
	Total NHPC	1984.20	916.74	8896.35
C	NPC			
(a)	RAPS -A	300.00	130.79	1386.12
(b)	RAPS -B	440.00	304.25	3122.88
(c)	NAPS	440.00	305.27	3222.14
	Total NPC	1180.00	740.31	7731.14
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	399.54	6501.06
(b)	Dehar	990.00	172.47	3243.69
(c)	Pong	384.00	63.00	763.85
	Total BBMB	2864.15	635.01	10508.60
3	DELHI			
(a)	Indra Prastha	247.50	33.88	549.00
(b)	Rajghat	149.00	79.68	753.55
(c)	Gas Turbines	282.00	95.81	1181.96
(d)	Pragati Gas	330.00	106.41	809.87
	Total DELHI	1008.50	315.78	3294.37
4	HARYANA			
(a)	WYC	48.00	19.22	243.31
(b)	Faridabad (New)	165.00	69.22	841.79
(c)	Panipat	860.00	403.61	4389.66
(d)	Magnum Diesel(IPP)	25.20	6.36	80.99
	Total Haryana	1098.20	498.41	5555.76

contd/-

5	HP			
(a)	Giri	60.00	12.40	168.43
(b)	Bassi	60.00	11.76	271.90
(c)	Binwa	6.00	3.82	24.30
(d)	Rongtong (+Nogli+Micro+Thirot+Sal-2)	15.25	1.96	24.14
(e)	Andhra	16.95	3.91	70.31
(f)	Bhabha (H)	120.00	16.64	536.98
(g)	Baner (H)	12.00	4.30	32.91
(h)	Gaj (H)	10.50	5.50	39.91
(i)	Gumma	3.00	0.49	
(j)	Ghanvi	22.50	3.38	80.20
(k)	Malana (IPP)	86.00	9.20	329.51
	Total HP	412.20	73.36	1578.58
6	J & K			
(a)	Lower Jhelum	105.00	6.55	9.88
(b)	Upper Sindh	127.60	17.01	307.45
(c)	Ganderbal	15.00	1.57	22.52
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	3.81	63.17
(f)	Stakna	9.75	0.00	0.00
(g)	Small Hydel	3.54	0.00	0.00
(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	0.39	19.64
(k)	Pampore GT St - II	100.00	0.15	45.60
	Total J & K	493.87	29.48	468.26
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	10.99	459.50
(b)	UBDC	90.00	21.86	392.82
(c)	Mukerian	207.00	33.01	781.76
(d)	Anandpur Sahib (APS)	134.00	15.73	734.70
(e)	Ranjit Sagar HPS	600.00	66.81	1139.51
(f)	Small Hydel	4.10	0.33	8.52
(g)	GNDTPS (Bhatinda)	440.00	181.21	2290.83
(h)	GGSTPS (Ropar)	1260.00	487.32	7578.01
(i)	Jhalkeeri Rice Straw Fired	10.00	0.00	0.00
(j)	Lehra Mohabbat TPS	420.00	153.40	2593.90
	Total Punjab	3275.10	970.66	15979.55
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	0.00	21.87
(b)	Rana Pratap Sagar (RPS)	172.00	0.24	9.51
(c)	Jawahar Sagar (JS)	99.00	0.37	16.60
(d)	Anoopgarh	9.00	0.28	4.98
(e)	Small Hydro	14.85	0.75	7.06
(f)	Kota TPS	850.00	567.20	5914.43
(g)	RAMGARH GT	3.00	0.00	
(h)	RAMGARH GT EXT	35.50	21.21	214.83
(i)	Suratgarh TPS	1000.00	645.89	6619.69
(j)	Wind Farm	14.01	2.60	42.40
	Total Rajasthan	2337.36	1238.54	12851.37

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	71.93	617.50
(b)	Obra	99.00	29.05	254.00
(c)	Matatilla	30.00	0.00	98.53
(d)	Ganga Canal	10.70		
(e)	Small hydro	18.20		
(f)	Khara	72.00	24.95	407.36
	Total U.P. (Hydro)	529.90	125.93	1377.38
	<u>THERMAL</u>			
(e)	Obra	1442.00	512.60	5726.44
(f)	Panki	242.00	92.09	886.65
(g)	Harduaganj	375.00	42.67	672.30
(h)	Paricha	220.00	56.25	783.66
(i)	Anpara	1630.00	794.70	10170.99
	Total U.P. (Thermal)	3909.00	1498.32	18240.03
	Total U.P.	4438.90	1624.25	19617.41
10	UTTRANCHAL			
(a)	Khatima	41.40	12.79	161.51
(b)	Ramganga	198.00	31.15	182.63
(c)	Ganga Canal	32.70	11.09	136.69
(d)	Yamuna (I & IV)	114.75	35.87	591.03
(e)	Chibro	240.00	47.38	863.19
(f)	Khodri	120.00	23.87	404.92
(g)	Chilla	144.00	29.42	602.07
(h)	Maneri Bhali	90.00	33.17	453.77
	Total Uttranchal	980.85	224.74	3395.81
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	28243.77	11886.84	144627.70

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. Inter Regional Exchanges During March 2003 (Sheet 1 of 2)

1 OF 2

Date	Wiith 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	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net
01	0	-500	0	500	0.00	4.41	-4.41	-18	-20	0	25	0.00	0.44	-0.44
02	-450	-250	0	450	0.00	6.83	-6.83	-19	-16	0	25	0.00	0.48	-0.48
03	-50	-300	0	300	0.00	3.82	-3.82	-17	-17	0	23	0.00	0.48	-0.48
04	-150	-450	0	450	0.00	3.79	-3.79	-13	-13	0	23	0.00	0.42	-0.42
05	-150	-450	0	450	0.00	5.46	-5.44	-19	-19	0	23	0.00	0.47	-0.47
06	0	-440	0	450	0.00	4.72	-4.72	-18	-13	0	23	0.00	0.48	-0.48
07	0	-380	0	380	0.00	3.54	-3.54	-13	-19	0	22	0.00	0.52	-0.52
08	0	-300	0	380	0.00	3.44	-3.44	-18	-20	0	22	0.00	0.47	-0.47
09	0	-300	0	450	0.00	3.21	-3.21	-20	-21	0	22	0.00	0.50	-0.50
10	0	-450	0	450	0.00	5.01	-5.01	-20	-21	0	22	0.00	0.38	-0.38
11	0	-400	0	400	0.00	3.86	-3.86	-21	-21	0	22	0.00	0.56	-0.56
12	0	-300	0	400	0.00	3.96	-3.96	-45	0	0	45	0.00	0.54	-0.54
13	-100	-450	0	450	0.00	6.10	-6.10	-29	-29	0	29	0.00	0.53	-0.53
14	0	-445	0	445	0.00	6.22	-6.22	-25	-25	0	25	0.00	0.54	-0.54
15	0	-300	0	400	0.00	3.50	-3.50	-22	-22	0	25	0.00	0.55	-0.55
16	-200	-400	0	400	0.00	5.48	-5.48	-21	-19	0	25	0.00	0.60	-0.60
17	-29	-300	0	400	0.00	4.51	-4.51	-20	-21	0	25	0.00	0.43	-0.43
18	0	-300	0	300	0.00	2.83	-2.83	-12	-17	0	20	0.00	0.28	-0.28
19	0	-300	0	300	0.00	2.51	-2.51	-12	-17	0	20	0.00	0.27	-0.27
20	-200	-300	0	300	0.00	3.73	-3.73	-29	-29	0	20	0.00	0.39	-0.39
21	0	-300	0	300	0.00	2.96	-2.96	-24	-29	0	20	0.00	0.59	-0.59
22	-93	0	0	300	0.00	3.84	-3.84	-24	-23	0	24	0.00	0.56	-0.56
23	-200	-393	0	450	0.00	6.19	-6.19	-22	-22	0	25	0.00	0.55	-0.55
24	-100	-300	0	400	0.00	7.41	-7.41	-19	-18	0	-24	0.00	0.61	-0.61
25	-350	-300	0	450	0.00	6.17	-6.17	-25	-25	0	-25	0.00	0.61	-0.61
26	0	-450	0	450	0.00	5.21	-5.21	-25	-25	0	-25	0.00	0.62	-0.62
27	-150	-300	0	400	0.00	5.24	-5.24	-25	-25	0	-25	0.00	0.55	-0.55
28	-50	-300	0	450	0.00	4.67	-4.67	-25	-25	0	-25	0.00	0.61	-0.61
29	-300	-450	0	450	0.00	6.81	-6.81	-25	-25	0	-25	0.00	0.46	-0.46
30	-200	-450	0	450	0.00	6.17	-6.17	-25	-25	0	25	0.00	0.56	-0.56
31	-100	0	0	400	0.00	2.65	-2.65	-25	-25	0	25	0.00	0.57	-0.57
Maximum	0	0	0	500	0.00	7.41	-2.51	-12	0	0	45	0.00	0.62	-0.27
Minimum	-450	-500	0	300	0.00	2.51	-7.41	-45	-29	0	-25	0.00	0.27	-0.62
Average	-93	-341	0	405	0.00	4.65	-4.65	-22	-21	0	15	0.00	0.50	-0.50
Total					0.00	144.23	-144.22					0.00	15.60	-15.60

XII. Inter Regional Exchanges During March 2003 (Sheet 2 of 2)

2 of 2

Date	With WR Over Ujjain - Kota {Export(-)/Import(+)}							With ER {Export(-)/Import(+)}						
	Peak MW MW	Off Peak MW MW	Max Import MW	Max Export MW	Energy Import MU	Energy Export MU	Net MU	Peak MW MW	Off Peak MW MW	Max Export MW	Max Import MW	Energy Import MU	Energy Export MU	Net MU
01	0	0	0	0	0.00	0.00	0.00	18	420	0	425	4.85	0.00	4.85
02	0	0	0	0	0.00	0.00	0.00	469	266	0	475	7.31	0.00	7.31
03	0	0	0	0	0.00	0.00	0.00	67	317	0	323	4.30	0.00	4.30
04	0	0	0	0	0.00	0.00	0.00	163	463	0	473	4.21	0.00	4.21
05	0	0	0	0	0.00	0.00	0.00	169	469	0	473	5.92	0.00	5.92
06	0	0	0	0	0.00	0.00	0.00	18	453	0	473	5.20	0.00	5.20
07	0	0	0	0	0.00	0.00	0.00	13	399	0	402	4.06	0.00	4.06
08	0	0	0	0	0.00	0.00	0.00	18	320	0	402	3.92	0.00	3.92
09	0	0	0	0	0.00	0.00	0.00	20	321	0	472	3.72	0.00	3.72
10	0	0	0	0	0.00	0.00	0.00	20	471	0	472	5.39	0.00	5.39
11	0	0	0	0	0.00	0.00	0.00	21	421	0	422	4.41	0.00	4.41
12	0	0	0	0	0.00	0.00	0.00	45	300	0	445	4.50	0.00	4.50
13	0	0	0	0	0.00	0.00	0.00	129	479	0	479	6.63	0.00	6.63
14	0	0	0	0	0.00	0.00	0.00	25	470	0	470	6.76	0.00	6.76
15	0	0	0	0	0.00	0.00	0.00	22	322	0	425	4.04	0.00	4.04
16	0	0	0	0	0.00	0.00	0.00	221	419	0	425	6.08	0.00	6.08
17	0	0	0	0	0.00	0.00	0.00	49	321	0	425	4.94	0.00	4.94
18	0	0	0	0	0.00	0.00	0.00	12	317	0	320	3.10	0.00	3.10
19	0	0	0	0	0.00	0.00	0.00	12	317	0	320	2.79	0.00	2.79
20	0	0	0	0	0.00	0.00	0.00	229	329	0	320	4.12	0.00	4.12
21	0	0	0	0	0.00	0.00	0.00	24	329	0	320	3.54	0.00	3.54
22	0	0	0	0	0.00	0.00	0.00	117	23	0	324	4.40	0.00	4.40
23	0	0	0	0	0.00	0.00	0.00	222	415	0	475	6.73	0.00	6.73
24	0	0	0	0	0.00	0.00	0.00	119	318	0	376	8.02	0.00	8.02
25	0	0	0	0	0.00	0.00	0.00	375	325	0	425	6.78	0.00	6.78
26	0	0	0	0	0.00	0.00	0.00	25	475	0	425	5.83	0.00	5.83
27	0	0	0	0	0.00	0.00	0.00	175	325	0	375	5.78	0.00	5.78
28	0	0	0	0	0.00	0.00	0.00	75	325	0	425	5.28	0.00	5.28
29	0	0	0	0	0.00	0.00	0.00	325	475	0	425	7.27	0.00	7.27
30	0	0	0	0	0.00	0.00	0.00	225	475	0	475	6.73	0.00	6.73
31	0	0	0	0	0.00	0.00	0.00	125	25	0	425	3.22	0.00	3.22
Maximum	0	0	0	0	0.00	0.00	0.00	469	479	0	479	8.02	0.00	8.02
Minimum	0	0	0	0	0.00	0.00	0.00	12	23	0	320	2.79	0.00	2.79
Average	0	0	0	0	0.00	0.00	0.00	114	358	0	416	5.16	0.00	5.16
Total					0.00	0.00	0.00					159.83	0.00	159.83

XIII. Progress Of Installation Of Shunt Capacitors As On 31.03.2003

(ALL FIGS IN MVar)

CONSTITUENT	REQUIREMENT AT THE END OF 2002-03	CAPACITORS AS ON 31.03.2003	CAPACITORS ADDITION DURING		ADDITIONAL REQUIRED DURING 2002-03
		INSTALLED	2001-02	2002 - 03	
Chandigarh	116	92	7	0	24
Delhi	2932	2755	397	122	177
Haryana	2797	2489	416	137	308
H.P.	319	278	57	73	41
J & K	924	147	12	0	777
Punjab	5107	4706	199	76	401
Rajasthan	2695	2711	59	234	-16
U.P.	5225	4965	485	274	260
Uttranchal	286		123		163
BBMB	360	381	0	0	0
TOTAL	20761	18524	1755	916	2135

SOURCE: Minutes of 339th OCC meeting of NREB held on 08th April, 2003.

XIV. Hydraulic Data For Reservoirs During March 2003

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 2003 (m)	460.86 1512.00	399.28 1309.97	258.50 848.10	346.97 1138.36	379.18 1244.02
Level on last day of March 2002 (m)	458.86 1505.44	394.77 1295.19	259.48 851.30	345.40 1133.21	380.35 1247.86
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
Live Capacity as on (mhmt) last day of March 2002 (maft)	0.08 0.62	0.11 0.86	0.22 1.80	0.03 0.27	0.00 0.00
Energy content as on last day of March 2003 (MU)	300.00	225.00	325.00	100.00	0.00
Energy content as on last day of March 2002 (MU)	250.00	130.00	350.00	60.00	0.00
Maximum level (m) (ft) (date)	469.76 1541.21 01.03.2003	400.80 1314.95 11.03.2003	259.99 853.00 01.03.2003	347.10 1138.77 01.03.2003	379.41 1244.79 01.03.2003
Minimum level (m) (ft) (date)	460.86 1512.00 31.03.2003	399.28 1309.97 31.03.2003	258.50 848.10 31.03.2003	346.97 1138.36 31.03.2003	379.18 1244.02 31.03.2003

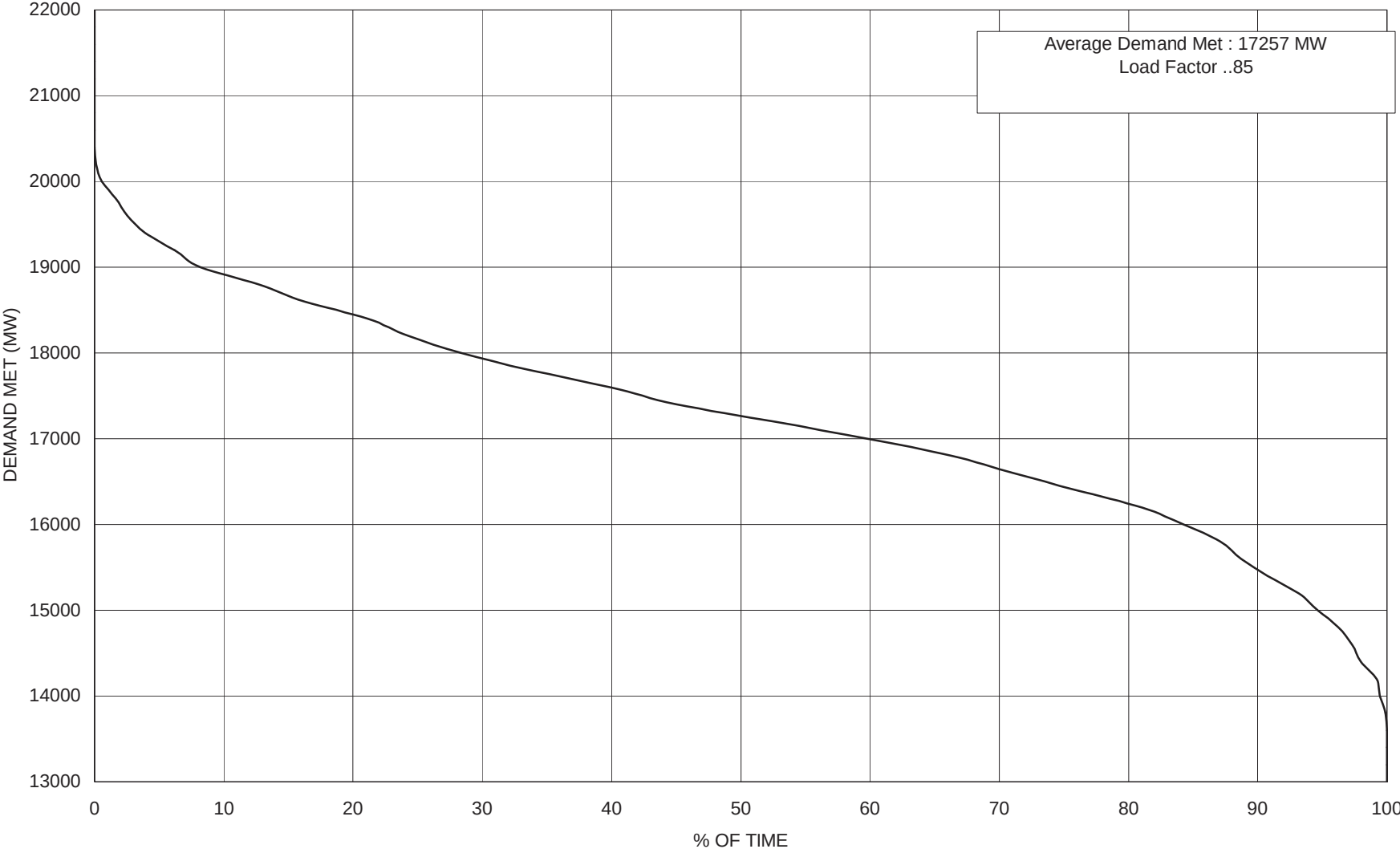
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

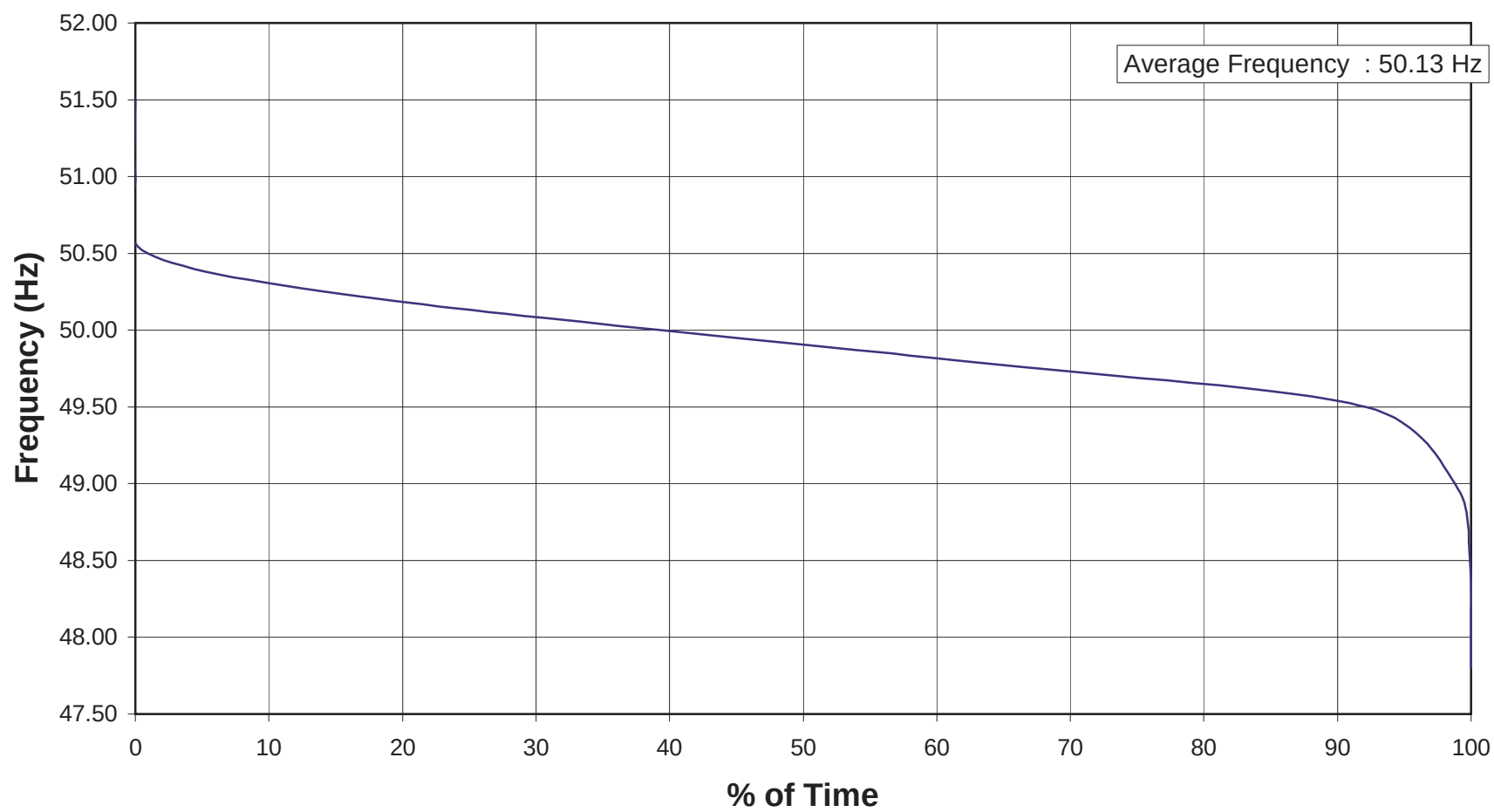
Energy content of Rihand : Total Energy content at Rihand & Obra power stations

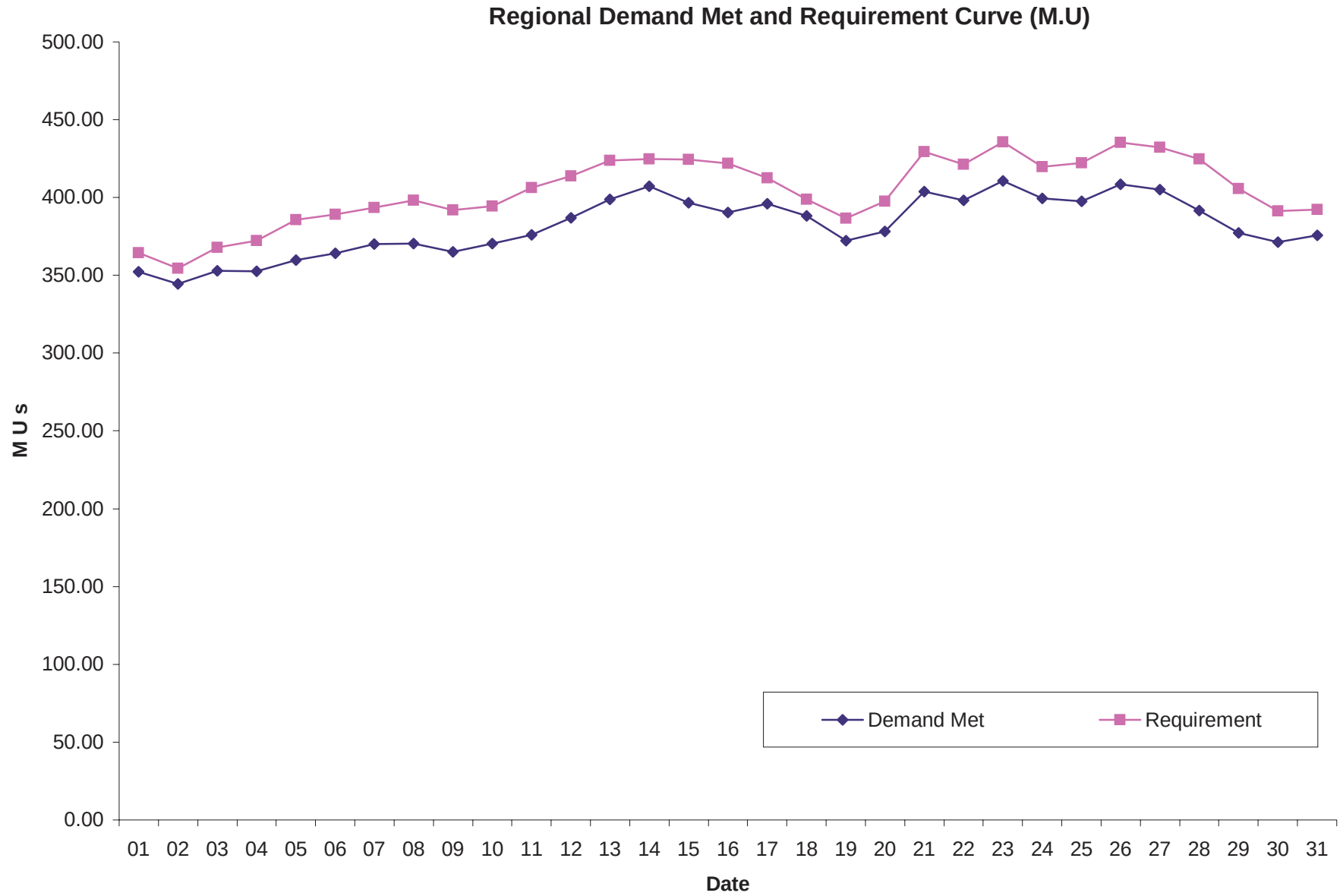
Energy content of RPS : Total Energy content of Rana Pratap Sagar and Jawahar Sagar Power Stations.

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 2003



Frequency Duration Curve For Northern Region For March 2003



GRID INCIDENTS

-----NIL-----