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NORTHERN REGION GRID REPORT FOR THE MONTH OF APRIL 2003

A) Summary Report

1. Grid Overview during the Month

During the month of April 2003 the average system frequency was 50.00 Hz and frequency remained in the normal range i.e. between 49.0 & 50.5 Hz for 85.76% of the time compared to 77.47% during the last year i.e. April 2002. 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 at the earliest.

Overall voltage profile in the grid during the month has been better on most of the 400 kV buses compared to last year. There was no major transmission outage during April 2003. 400 kV Agra-Muradnagar line was under planned shut down from 20.03.2003 to 12.04.2003 for insulator replacement and other maintenance work. However there was no transmission constraint due to this outage. 220 kV Kishanpur-Pampore D/C tripped on 26.04.2003 due to phase to phase fault. The line-II was charged on next day but line-I remained out till 04.05.2003 due to jumper snapping. During this period generation at Uri had to be regulated to control the loading of 220 kV Kishanpur-Pampore-II, which was changing quite frequently due to variation in load of valley area of J&K.

During April 2003 there was no major grid incident. However there were some minor incidences which are reported at annexure-6

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

NIL

3. Frequency Profile :

Maximum frequency	51.38	Hz	at	18.06	hours on	26.04.2003
Minimum frequency	48.25	Hz	at	19.54	hours on	21.04.2003
Average frequency	50.00	Hz				

Frequency distribution in %

Hz	< 48.5	<49.0	49.0-50.5	> 50.5
% of time	0.09	1.72	85.76	12.52

Frequency Variation Index

Monthly Average	1.87
Maximum	3.02
Minimum	1.14

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

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	67.52	70.00	2.48	3.54
Haryana	46.93	46.93	0.00	0.00
Rajasthan	65.81	65.81	0.00	0.00
U.P.	107.03	120.00	12.97	10.81
Uttaranchal	10.22	10.30	0.08	0.78
Delhi	55.50	56.20	0.70	1.25
H.P.	8.76	8.76	0.00	0.00
J & K	17.35	18.85	1.50	7.96
Chandigarh	2.96	2.96	0.00	0.00
N.F.F./Rail	1.76	1.76	0.00	0.00
Total	383.57	401.57	18.00	4.48

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	D	(D/B)*100
Punjab	3564	3764	200	5.31
Haryana	2510	2510	0	0.00
Rajasthan	3711	3711	0	0.00
U.P.	5545	6527	982	15.05
Uttaranchal	640	660	20	3.03
Delhi	2889	2971	82	2.76
H.P.	494	494	0	0.00
J & K	1070	1200	130	10.83
Chandigarh	164	164	0	0.00
N.F.F./Rail	90	90	0	0.00
Region	20224	21887	1663	7.60

Diversity Factor = **1.08**

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual Drawal	OD/UD
Punjab	827.73	868.21	40.48
Haryana	699.18	801.68	102.50
Rajasthan	883.25	871.77	-11.48
U.P.	1330.58	1441.08	110.50
Uttranchal	64.76	66.56	1.80
Delhi	1070.74	877.36	-193.38
H.P.	157.54	152.64	-4.90
J & K	515.40	447.60	-67.80
Chandigarh	101.08	89.72	-11.36
N.F.F./Rail	44.83	52.87	8.04

6. **Inter Regional Exchanges**Energy
M.U.Peak
MW**Import**

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	215.36	494
d)	From ER over 220 kV Dehri-Sahupuri	0	0

Export

d)	To WR over HVDC Vindhyachal B/B	125.35	500
e)	To WR (MP) over 220 kV Auraiya-Malanpur	14.12	35
f)	To ER (Bihar) over 220 kV/132kV lines	0	0
g)	To Nepal over 132 kV Tanakpur-Mahendernagar	4.97	12
h)	To ER over HVDC Sasaram B/B	0	0

B). Detailed Report

I. Details of Installed/Effective Capacity at the end of April 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 drawls 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 30.04.2003

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	1.64	10.37	84.54	67.46	13.81	0.90	0.00
02	0.00	0.17	4.11	22.71	94.39	25.25	1.50	0.00	0.00
03	0.00	0.56	4.14	17.47	91.74	29.62	4.13	0.00	0.00
04	0.00	0.00	0.31	6.14	88.27	40.89	11.42	0.00	0.00
05	0.00	0.00	0.10	5.27	83.99	62.05	15.90	0.00	0.00
06	0.00	0.00	0.03	2.08	83.40	80.31	16.56	0.00	0.00
07	0.00	0.00	1.25	3.33	82.78	58.78	15.97	0.56	0.00
08	0.00	0.00	0.49	6.89	86.52	52.82	12.98	0.27	0.00
09	0.00	0.73	3.92	9.93	87.98	37.57	8.10	0.14	0.00
10	0.00	0.00	1.41	5.77	82.16	36.83	16.43	0.14	0.00
11	0.00	0.03	2.47	13.57	91.25	49.89	6.28	0.00	0.00
12	0.00	0.24	2.33	16.24	85.63	46.58	12.04	0.17	0.00
13	0.00	0.00	0.94	5.80	66.24	36.54	32.82	0.76	0.00
14	0.00	0.00	0.62	7.60	89.03	41.37	10.34	0.14	0.00
15	0.00	0.00	4.88	14.56	85.30	55.03	9.82	0.00	0.00
16	0.00	0.29	7.51	29.54	89.33	30.42	3.16	0.07	0.00
17	0.00	0.00	6.56	23.41	88.07	23.66	5.37	0.46	0.00
18	0.00	0.00	1.01	10.09	89.94	43.95	9.05	0.00	0.00
19	0.00	0.00	0.14	3.99	83.75	57.57	16.11	0.59	0.00
20	0.00	0.00	0.73	2.68	60.31	87.36	38.95	3.80	0.00
21	0.00	0.24	0.73	7.50	83.52	64.35	15.75	0.84	0.00
22	0.00	0.00	0.63	9.43	90.31	51.58	9.07	0.00	0.00
23	0.00	0.00	2.48	22.11	93.92	34.29	3.60	0.00	0.00
24	0.00	0.00	0.73	10.62	95.71	40.46	3.56	0.10	0.00
25	0.00	0.00	0.35	5.10	90.10	45.21	9.55	0.10	0.00
26	0.00	0.24	0.76	3.72	82.19	50.76	17.05	5.38	0.00
27	0.00	0.00	0.31	7.91	74.83	62.50	24.86	6.49	0.00
28	0.00	0.00	0.91	11.85	79.22	37.38	19.87	0.38	0.00
29	0.00	0.00	0.21	16.84	97.95	32.14	1.84	0.00	0.00
30	0.00	0.00	0.00	4.04	90.48	58.02	9.52	0.07	0.00
31									
Max	0.00	0.73	7.51	29.54	97.95	87.36	38.95	6.49	0.00
Min	0.00	0.00	0.00	2.08	60.31	23.66	1.50	0.00	0.00
Average	0.00	0.09	1.72	10.31	85.76	48.25	12.51	0.73	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
51.16	15.00	48.62	19.11	50.05	1.97
50.84	18.32	48.43	19.17	49.71	2.19
50.83	18.06	48.39	19.19	49.82	1.95
50.94	18.04	48.73	19.08	50.04	1.29
50.99	18.10	48.96	22.20	50.14	1.54
51.00	09.10	48.94	19.17	50.23	1.45
51.15	09.07	48.51	19.57	50.16	1.73
51.26	10.14	48.77	19.19	50.09	1.60
51.05	18.31	48.28	19.11	49.92	1.90
51.03	18.01	48.63	05.46	50.05	1.77
50.79	04.06	48.44	19.11	49.90	1.59
51.19	13.24	48.38	21.00	49.89	2.16
51.05	17.06	48.63	20.30	50.17	2.54
51.11	17.36	48.63	19.23	49.98	1.37
50.85	03.00	48.55	22.08	49.90	2.07
51.03	07.06	48.30	11.55	49.68	2.83
51.12	08.01	48.54	05.17	49.70	2.84
50.99	07.34	48.66	20.41	49.94	1.65
51.31	08.03	48.95	20.03	50.12	1.48
51.15	02.51	48.90	20.07	50.38	3.02
51.22	18.04	48.25	19.54	50.07	1.69
50.93	18.08	48.90	20.06	49.97	1.39
50.95	08.09	48.58	19.07	49.81	1.89
51.06	13.59	48.66	20.55	49.90	1.19
51.06	18.31	48.92	19.24	50.01	1.19
51.38	18.06	48.26	22.20	50.13	2.09
51.37	17.22	48.95	5.10	50.18	2.71
51.11	04.03	48.78	21.30	50.00	2.17
50.90	18.08	48.95	00.06	49.81	1.39
51.27	15.52	49.27	06.49	50.07	1.14
51.38		49.27		50.38	3.02
50.79		48.25		49.68	1.14
51.07		48.66		50.00	1.87

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	418	02.05	397	19.39	410	02.22	398	16.15	212	02.28	199	19.34	414	02.48	398	19.23
02	416	02.48	392	19.16	410	01.37	400	12.11	210	02.50	199	18.36	409	02.52	391	05.54
03	416	03.37	386	18.55	408	01.07	395	14.27	210	02.50	199	18.36	409	02.52	391	05.54
04	410	04.20	386	13.55	410	03.08	399	14.40	210	0.3.01	197	18.50	409	02.52	387	15.10
05	415	03.00	393	06.00	406	08.00	397	20.00	212	03.00	203	20.00	414	03.00	392	20.00
06	421	03.42	393	19.17	406	18.00	401	20.00	213	03.00	202	20.00	412	04.00	389	20.00
07	416	01.02	390	19.18	411	08.20	397	19.42	212	03.00	201	21.00	412	04.00	389	20.00
08	414	01.27	386	19.22	410	18.16	395	19.20	212	03.00	201	21.00	412	04.00	389	20.00
09	414	19.12	388	15.20	410	18.16	394	18.10	212	03.00	197	15.40	412	04.00	389	18.30
10	414	01.28	390	19.26	411	08.18	397	19.26	210	01.29	198	19.25	414	07.29	390	19.30
11	414	02.15	382	19.12	408	07.01	393	19.11	208	20.00	188	03.00	410	02.00	390	19.00
12	416	13.27	384	19.12	417	07.13	395	19.10	210	06.00	179	19.00	409	03.00	392	19.00
13	415	16.11	388	19.34	411	17.00	398	20.00	211	09.00	201	19.00	404	03.00	390	20.00
14	416	06.30	388	19.19	409	18.00	396	23.00	209	07.00	200	20.00	409	01.00	392	14.00
15	412	02.59	388	19.10	413	18.07	399	05.52	210	03.00	200	21.00	411	03.00	395	15.00
16	411	03.35	386	18.50	411	03.55	399	18.20	210	04.00	195	15.00	410	03.00	394	19.00
17	414	08.04	384	19.21	413	08.08	397	20.41	210	08.02	197	19.35	411	08.01	385	19.22
18	412	08.06	386	19.01	412	08.12	396	19.04	210	08.02	197	19.35	411	08.01	385	19.22
19	420	08.03	388	19.21	417	08.05	399	12.29	210	05.00	199	19.00	415	08.00	392	20.00
20	420	03.14	388	19.47	410	02.58	395	19.32	213	03.00	201	21.00	411	03.00	391	20.00
21	414	01.58	384	19.22	410	07.27	391	19.53	211	02.00	196	20.00	410	02.00	388	20.00
22	416	07.28	384	19.20	410	07.29	395	19.19	210	08.00	197	20.00	411	02.00	390	20.00
23	414	08.07	387	12.45	402	08.00	396	16.00	209	04.00	195	16.00	407	02.00	391	18.00
24	419	08.00	389	19.30	406	08.00	396	14.00	210	08.00	194	15.00	409	03.00	393	19.00
25	418	07.50	384	19.21	410	07.55	394	19.20	210	08.00	194	15.00	410	07.48	381	19.46
26	420	04.04	384	16.20	412	03.40	394	16.50	210	08.00	194	15.00	410	07.48	381	19.46
27	418	02.59	396	12.26	420	07.59	399	17.34	210	02.00	203	12.00	410	08.00	392	20.00
28	416	07.54	395	19.25	413	07.29	393	19.30	208	01.55	201	19.35	406	01.29	384	19.4
29	406	07.43	383	19.54	401	13.00	393	05.00	206	09.00	194	15.00	412	03.00	395	20.00
30	410	08.04	381	10.44	401	09.00	391	10.00	206	05.00	194	20.00	409	04.00	391	20.00
31																
Max	421		397		420		401		213		203		415		398	
Min	406		381		401		391		206		179		404		381	

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	18511	20501	1990	16636	17136	500	373
02	18925	20415	1490	16336	17216	880	376
03	18492	20192	1700	16406	17126	720	380
04	18971	20348	1377	16676	16946	270	376
05	19306	20440	1134	15928	16228	300	372
06	19142	20148	1006	16506	16806	300	373
07	18811	20040	1229	16214	16214	0	377
08	19372	20416	1044	17151	17151	0	387
09	19269	20499	1230	17190	17190	0	383
10	19356	20586	1230	17481	17481	0	389
11	19087	20694	1607	17768	17777	9	390
12	18681	20749	2068	17755	17955	200	385
13	18936	20397	1461	17702	18002	300	387
14	18716	20132	1416	17604	18034	430	384
15	18779	20160	1381	17736	17836	100	391
16	18767	20242	1475	17254	17799	545	384
17	19156	21012	1856	17269	18359	1090	390
18	19242	21159	1917	18164	18514	350	406
19	19021	20234	1213	17881	18791	910	378
20	18825	20092	1267	16881	17151	270	377
21	18730	20467	1737	17130	17420	290	385
22	19066	20870	1804	17598	17788	190	388
23	18499	20031	1532	17643	18213	570	398
24	19870	21378	1508	17938	18788	850	403
25	20201	21887	1486	18853	18853	0	409
26	19176	20246	1070	18826	19096	270	419
27	17815	18241	426	16467	16893	426	371
28	18745	20005	1260	15981	15981	0	378
29	19559	20972	1413	17086	17371	285	390
30	20224	21352	1021	17733	18024	291	413
Maximum	20224	21887	2068	18853	19096	1090	419
Minimum	17815	18241	426	15928	15981	0	371
Average	19042	20464	1412	17260	17605	345	387

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	3022	2578	2200	2000	2968	2771	2451	1120	4433	5084
02	3279	2597	2331	1902	2954	2810	2527	1430	4411	4962
03	3300	2727	2510	1893	3114	2927	2558	1557	4189	4886
04	3246	2607	2289	1942	3254	2862	2577	1602	4247	5174
05	3530	2546	2243	1888	3317	2997	2516	1617	4845	4536
06	3505	2611	2118	1898	3349	2972	2440	1565	4743	5212
07	3495	2541	2108	1920	3519	2945	2468	1578	4189	4840
08	3564	2765	2410	1998	3298	2924	2440	1590	4427	5545
09	3415	2881	2272	2035	3289	2960	2554	1639	4443	5357
10	3419	2904	2013	1984	3420	2885	2551	1719	4423	5515
11	3247	3016	2475	2153	3107	2848	2581	1882	4578	5188
12	3372	3180	2270	2036	3076	2899	2634	1830	4076	4879
13	3373	3109	2239	1961	3277	2842	2587	2045	4305	5174
14	3285	2985	2085	1998	3276	2842	2568	2004	4024	5185
15	3327	2991	2056	2181	3223	2992	2569	2070	3959	4755
16	3270	2696	2381	2044	3258	2842	2608	2081	4067	4949
17	3357	2792	2229	2077	3177	2936	2630	2096	4704	4776
18	3373	3253	2188	2132	3119	3021	2617	2120	4397	4962
19	3074	3092	2167	2164	3096	2935	2689	2113	4259	5032
20	3061	2439	2266	1840	3265	3020	2607	2018	4485	5358
21	3319	2643	2408	2096	3197	2953	2541	2048	4495	5221
22	3332	2803	2318	2184	3394	2948	2761	2092	4540	5130
23	3321	2808	2274	2157	3317	2997	2661	2127	4148	4877
24	3315	3014	2381	2245	3468	2987	2889	2159	4567	5032
25	3494	3038	2431	2279	3468	2987	2844	2266	4497	5420
26	3378	3191	1949	2334	3378	3059	2786	2318	4446	5319
27	3228	2914	2069	2045	3521	2908	2546	2217	3853	4685
28	3182	2928	2170	1894	3478	2954	2633	1957	3967	4013
29	3373	2926	2452	2203	3126	3063	2745	2015	4123	4321
30	3357	3062	2412	2316	3711	3131	2782	2087	4474	4718
31										
Maximum	3564	3253	2510	2334	3711	3131	2889	2318	4845	5545
Minimum	3022	2439	1949	1840	2954	2771	2440	1120	3853	4013
Average	3327	2855	2257	2060	3280	2941	2612	1899	4344	5004

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	554	385	125	115	366	279	661	744
02	618	338	125	115	475	255	964	754
03	552	355	125	115	494	285	888	818
04	567	299	130	115	430	282	842	767
05	582	334	130	115	479	265	952	767
06	498	381	125	115	479	273	888	579
07	507	359	125	115	483	292	863	619
08	560	362	125	115	494	301	903	625
09	605	375	125	115	456	315	966	610
10	592	374	125	110	484	282	1070	554
11	611	386	125	100	455	312	944	582
12	584	404	125	95	486	314	861	666
13	558	377	125	110	469	310	800	602
14	600	395	125	115	466	342	916	510
15	633	434	125	115	466	311	855	728
16	553	426	125	115	488	315	942	556
17	588	419	125	115	466	304	717	768
18	620	387	125	115	475	319	941	748
19	477	391	125	115	478	306	810	729
20	545	383	125	115	480	265	878	719
21	617	409	125	115	438	297	874	663
22	551	397	125	115	451	296	994	724
23	611	405	125	115	458	303	824	748
24	640	441	125	115	491	310	884	743
25	591	426	157	115	485	318	819	702
26	552	418	127	115	354	344	580	385
27	290	430	123	115	386	293	767	446
28	458	239	146	84	411	286	927	572
29	556	366	154	100	470	272	946	616
30	550	389	164	103	456	321	990	537
31								
Maximum	640	441	164	115	494	344	1070	818
Minimum	290	239	123	84	354	255	580	385
Average	561	383	129	112	459	299	876	653

VII Daily Energy Consumption By Constituents

(All Figs In MUs)

Date	Punjab	Haryana	Rajasthan	Delhi	UP	Uttaranchal	Chandigarh	HP	J & K	Total
01	62.998	46.429	64.768	50.731	110.132	9.575	2.960	7.928	18.230	369.152
02	63.390	47.553	65.933	51.154	108.482	9.790	2.960	8.237	18.342	371.020
03	64.722	47.232	65.342	53.141	108.708	9.714	2.960	9.068	18.341	373.962
04	63.760	45.772	65.427	53.509	105.041	9.484	2.960	8.850	18.341	367.738
05	66.624	45.818	64.631	52.282	106.457	9.695	2.960	8.556	17.904	369.460
06	65.752	42.622	67.375	49.514	110.461	10.031	2.960	8.796	17.522	369.630
07	63.089	43.896	68.108	53.125	109.153	10.157	2.960	8.564	17.802	371.097
08	68.301	46.586	64.648	53.384	114.024	10.221	2.960	8.121	18.792	381.552
09	67.506	44.453	62.829	54.498	113.420	10.337	2.960	8.585	18.005	375.978
10	68.013	46.604	63.624	55.168	113.399	10.870	2.960	8.585	16.800	380.602
11	71.681	46.854	63.939	54.920	110.594	10.468	2.960	9.193	18.189	383.586
12	71.025	45.372	63.033	55.273	102.059	10.658	2.960	9.494	17.980	374.654
13	68.070	46.148	64.769	54.838	105.975	10.065	2.960	9.284	16.122	373.160
14	68.894	44.921	65.662	56.305	103.365	11.066	2.960	8.922	17.639	375.277
15	69.694	47.577	63.865	57.507	103.479	11.042	2.960	8.713	18.152	377.731
16	66.319	46.366	62.292	59.182	103.882	10.479	2.960	9.095	16.585	370.861
17	63.613	47.453	64.657	59.114	110.266	10.784	2.960	8.908	17.683	381.935
18	68.917	47.147	63.629	58.870	106.543	10.506	2.960	9.251	18.183	379.350
19	60.203	45.827	62.252	59.919	105.250	9.949	2.960	8.918	14.662	363.791
20	60.305	45.050	63.751	55.537	108.898	10.357	2.960	8.065	16.586	366.798
21	66.447	46.762	65.247	59.162	104.410	10.684	2.960	8.578	17.756	376.272
22	66.358	45.823	65.616	56.009	101.920	10.860	2.960	8.598	17.919	374.100
23	70.903	47.574	73.710	56.024	104.723	11.024	2.960	8.858	18.091	392.231
24	69.545	49.658	65.850	59.034	110.968	11.302	2.960	9.066	18.182	394.326
25	72.199	51.141	66.801	56.749	114.792	11.158	2.960	9.189	17.729	403.233
26	74.868	51.034	69.880	58.849	114.079	10.619	2.960	8.882	12.822	403.774
27	70.828	45.567	68.051	53.751	95.900	8.179	2.960	8.376	14.385	365.017
28	68.806	47.747	68.477	54.049	92.967	7.845	2.826	8.305	17.048	365.754
29	64.827	50.798	67.708	56.020	101.799	9.305	2.999	8.278	17.424	377.867
30	78.067	52.108	72.468	57.432	109.698	10.351	3.159	9.399	17.366	408.068
31										
Maximum	78.067	52.108	73.710	59.919	114.792	11.302	3.159	9.494	18.792	408.068
Minimum	60.203	42.622	62.252	49.514	92.967	7.845	2.826	7.928	12.822	363.791
Average	67.524	46.930	65.811	55.502	107.028	10.219	2.963	8.755	17.353	377.933
Month Total	2025.723	1407.891	1974.344	1665.050	3210.842	306.575	88.904	262.661	520.582	11337.976

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-Apr-2003	29155	33076	25586	28945	31234	26646	31875	26993	47781	50829	2694	2526
2-Apr-2003	27166	28996	22977	28574	26789	25905	33175	26139	44997	48598	2751	3192
3-Apr-2003	25222	25425	22435	28473	24308	25242	35816	28284	42939	44971	2668	3286
4-Apr-2003	25133	26804	22207	28629	24085	25248	35566	27555	40912	40646	2664	3504
5-Apr-2003	24498	26798	20692	29045	25929	23512	34379	23893	39674	39516	3171	3730
6-Apr-2003	24777	28046	20758	26828	26475	22760	33193	22520	41006	45853	3183	4379
7-Apr-2003	25398	27340	21207	23642	27524	23511	33049	26180	40896	46469	3310	4080
8-Apr-2003	26932	31559	23053	24193	29573	23247	32806	29296	45568	50319	3343	3844
9-Apr-2003	28681	30374	24191	23920	30831	31057	33071	31038	45367	49071	3308	3084
10-Apr-2003	29210	32779	24612	24954	31279	32883	35429	31030	46059	49350	3383	2097
11-Apr-2003	31663	33658	25576	23659	31751	32970	36087	28502	46123	49216	2902	1963
12-Apr-2003	28435	30546	23435	24441	31199	34682	35861	30224	47633	51693	2776	2387
13-Apr-2003	28241	31219	22904	27488	30244	30516	34289	26737	46281	52067	2473	1583
14-Apr-2003	27900	29336	22558	27646	30324	27750	33556	31610	45312	48077	2544	1731
15-Apr-2003	28344	29002	23447	27003	29849	29047	31846	33468	46780	44112	4543	2269
16-Apr-2003	26684	24730	22893	23528	28951	30007	34856	33261	42718	45054	1482	2317
17-Apr-2003	26657	26184	23019	23428	29462	31117	36633	33005	44553	46354	1725	2443
18-Apr-2003	26646	27675	23197	25745	30018	30596	37365	29498	46232	48880	1854	3199
19-Apr-2003	24139	24036	21343	24609	28432	31533	35838	30815	43522	45434	1656	2174
20-Apr-2003	24463	27768	21697	24845	27859	29117	36072	27051	43461	47080	1590	1464
21-Apr-2003	26211	24640	22378	26800	28140	28680	34880	29436	42826	44181	1459	2691
22-Apr-2003	25386	25587	21541	25995	29183	29365	35354	27132	43229	45915	1485	4099
23-Apr-2003	28015	27787	24073	26518	30753	32439	35755	28322	43858	49542	2713	3582
24-Apr-2003	28056	28993	23547	27943	30416	32130	38784	31864	44103	49846	2755	2299
25-Apr-2003	30246	31074	25681	29665	32482	33101	40280	32872	46003	52098	1709	1512
26-Apr-2003	30635	30130	24746	27383	32719	33370	39611	31953	46035	53246	601	1080
27-Apr-2003	31453	29579	25034	25639	31684	28063	38748	26709	45901	61444	164	-2617
28-Apr-2003	28886	31236	23232	29941	29428	27091	37603	29426	41414	48528	-717	-2926
29-Apr-2003	29232	31518	25222	29883	29669	29545	38178	30971	44040	45747	757	-73
30-Apr-2003	30264	32313	25943	32321	32660	30637	40785	31572	45360	46944	-188	1660
Total MU	827.728	868.208	699.184	801.683	883.250	871.767	1070.740	877.356	1330.583	1441.080	64.758	66.559
Max. MWH	31663	33658	25943	32321	32719	34682	40785	33468	47781	61444	4543	4379
Min MWH	24139	24036	20692	23428	24085	22760	31846	22520	39674	39516	-717	-2926
Avg. MWH	27591	28940	23306	26723	29442	29059	35691	29245	44353	48036	2159	2219

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-Apr-2003	6648	6446	18344	15081	3568	2691	480	102	612	1421
2-Apr-2003	6238	6409	18279	16151	3488	2749	480	109	778	1534
3-Apr-2003	5834	6815	17497	15398	3311	2827	480	88	1189	1445
4-Apr-2003	6018	6634	16859	14276	3319	2855	480	103	1245	1362
5-Apr-2003	5833	6436	16623	15509	3175	2697	480	104	1330	1321
6-Apr-2003	5986	6367	17042	15561	3251	2472	480	91	1100	1384
7-Apr-2003	5908	6084	17629	15858	3220	2751	480	107	767	1469
8-Apr-2003	6139	5583	17611	15660	3384	2931	480	128	793	1451
9-Apr-2003	6240	5468	19481	15639	3400	2996	480	158	794	1489
10-Apr-2003	6223	5307	18378	15669	3400	3084	480	164	1089	1506
11-Apr-2003	6409	5494	18298	16082	3424	2959	480	163	1345	1452
12-Apr-2003	6294	5305	18248	15490	3371	3005	480	189	917	1440
13-Apr-2003	6217	4606	19612	15328	3293	2752	480	207	1287	1329
14-Apr-2003	6150	4442	17098	15034	3350	2966	480	208	1019	1437
15-Apr-2003	4645	4490	17490	15146	3310	3058	480	228	1103	1503
16-Apr-2003	4544	4484	15676	14669	3311	3219	480	267	900	1389
17-Apr-2003	4370	5008	17265	15671	3320	3220	480	313	1134	1540
18-Apr-2003	4503	5050	17600	15757	3309	3195	480	366	1226	1420
19-Apr-2003	4256	4820	16285	13047	3247	2941	480	431	976	1440
20-Apr-2003	4305	4201	16328	14213	3265	2464	480	428	959	1461
21-Apr-2003	4315	4652	16849	15287	3259	3014	480	505	822	1469
22-Apr-2003	4551	4805	15908	15660	3285	3095	480	571	846	1228
23-Apr-2003	4585	4435	16256	15974	3439	3165	480	561	1044	1630
24-Apr-2003	4164	4141	16298	15667	3442	3396	480	561	1051	1442
25-Apr-2003	3937	4212	16546	13880	3462	3414	480	573	1246	1467
26-Apr-2003	4809	3931	16282	10226	3433	3265	480	546	857	1466
27-Apr-2003	4682	3261	16191	11140	3459	2699	480	583	1026	1488
28-Apr-2003	4211	4271	17391	14964	3429	3111	480	592	1092	1402
29-Apr-2003	4411	4607	15744	14828	3501	3261	480	590	713	1499
30-Apr-2003	5111	4877	16288	14737	3653	3471	480	599	1172	1351
Total MU	157.536	152.641	515.396	447.602	101.078	89.723	14.400	9.635	30.432	43.235
Max. MWH	6648	6815	19612	16151	3653	3471	480	599	1345	1630
Min MWH	3937	3261	15676	10226	3175	2464	480	88	612	1228
Avg. MWH	5251	5088	17180	14920	3369	2991	480	321	1014	1441

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-Apr-2003	42800	43408	21000	21409	10580	10536	8336	8379	8180	8198	11576	12168
2-Apr-2003	33438	33873	21288	21798	11462	11803	8874	9068	8735	8966	13644	14509
3-Apr-2003	33480	33659	21820	21865	12490	13086	9057	9099	9036	9014	11254	11696
4-Apr-2003	33480	33562	21820	21849	12595	12605	8717	8891	8878	8938	9142	9526
5-Apr-2003	33480	33472	21840	21674	12579	12517	8231	8444	8520	8551	10114	10430
6-Apr-2003	33117	33424	21581	21617	11882	11679	8785	8798	8509	8515	11424	11782
7-Apr-2003	33370	33741	21595	21616	11694	11563	8852	8845	8723	8703	11392	11418
8-Apr-2003	43088	43390	21595	21667	10476	10401	8792	8822	8657	8683	10423	10782
9-Apr-2003	43674	44010	21443	21715	10629	10886	8869	8933	8823	8846	10152	10505
10-Apr-2003	43410	43909	21500	21663	12428	12206	8813	8872	8693	8800	9764	10209
11-Apr-2003	43776	43975	21600	21775	12671	12681	8765	8825	8709	8776	11295	11457
12-Apr-2003	43620	43906	21600	21785	12421	12663	8961	9019	8882	8862	12324	12739
13-Apr-2003	43698	42849	21535	21459	11135	10672	8221	8172	8758	8652	12074	12033
14-Apr-2003	43559	43612	21138	21624	11149	11067	7076	7159	8558	8759	11211	11488
15-Apr-2003	41180	40858	21840	21755	11956	11867	8297	8345	8569	8680	11421	11930
16-Apr-2003	33480	33571	21840	21867	11669	12252	8423	8482	9082	9081	11286	12184
17-Apr-2003	35351	35418	21840	21892	13369	13406	9115	9150	9110	9097	10737	10921
18-Apr-2003	44040	44036	21840	21847	13068	12957	9057	9011	4663	4771	10185	10406
19-Apr-2003	40262	40342	21840	21791	12659	12636	9054	9010	4483	4525	9591	9772
20-Apr-2003	39884	39490	21483	21136	11827	11459	9044	8913	4449	4357	8655	8719
21-Apr-2003	39622	39921	21423	21628	12055	11871	8398	8173	4325	4394	9189	9455
22-Apr-2003	39472	39948	20837	21048	12128	12209	8981	8987	4386	4481	8887	9367
23-Apr-2003	39984	40107	21700	21833	12074	12209	9077	9082	4508	4565	9240	9588
24-Apr-2003	40482	40587	21823	21879	14933	15022	9099	9096	4536	4568	9212	9351
25-Apr-2003	43664	43781	20955	20985	16016	16077	9120	9127	4560	4589	9580	9722
26-Apr-2003	43420	43693	21550	21560	16068	16366	9062	9096	4488	4567	9443	9723
27-Apr-2003	43177	43090	21337	21230	15360	15565	8916	8818	4310	4391	9015	9221
28-Apr-2003	42247	41970	21140	21354	14629	14585	8723	8728	4313	4319	8392	9037
29-Apr-2003	43581	43840	21378	21698	15897	16293	8819	8990	4372	4537	9497	10820
30-Apr-2003	43777	43889	21688	21766	16075	16056	9117	9094	4544	4541	10461	10731
Total MU	1201.613	1205.331	645.869	648.785	383.974	385.195	262.651	263.428	206.359	207.726	310.580	321.689
Max. MWH	44040	44036	21840	21892	16075	16366	9120	9150	9110	9097	13644	14509
Min MWH	33117	33424	20837	20985	10476	10401	7076	7159	4310	4319	8392	8719
Avg. MWH	40054	40178	21529	21626	12799	12840	8755	8781	6879	6924	10353	10723

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

Date	Anta GPS		Auraiya GPS		NAPS		RAPS-B		Bairasiul		Salal	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Apr-2003	4717	4749	10833	11031	9768	9514	9600	9766	3540	3632	7666	7667
2-Apr-2003	5517	5786	12119	12564	9720	9560	6650	6565	3270	3356	8740	7922
3-Apr-2003	5817	5845	12833	13113	9600	9478	4800	4735	2865	2968	7991	8103
4-Apr-2003	5517	5674	12253	12366	9624	9562	4800	4533	3060	3033	8563	8690
5-Apr-2003	5138	5313	12154	12219	9576	9509	8560	8685	3105	3199	7808	7899
6-Apr-2003	5083	5145	12136	12186	9648	9546	9600	9679	3210	3273	7823	7896
7-Apr-2003	5163	5241	10903	11070	9576	9542	9600	9671	3570	3669	8958	9041
8-Apr-2003	5030	5182	10310	10636	9624	9452	9600	9611	4005	4102	10205	10285
9-Apr-2003	5213	5410	10993	11402	9624	9270	9600	9635	4245	4367	11453	11544
10-Apr-2003	5187	5493	10422	10904	9600	8907	9600	9626	4320	4394	12276	12355
11-Apr-2003	4969	5075	10659	11035	9336	8312	9600	9593	4320	4413	12282	12381
12-Apr-2003	5421	5584	12095	12674	8480	8105	9600	9572	4140	4234	12198	12273
13-Apr-2003	5319	5310	12081	11808	8400	8426	9600	9597	4320	4422	11784	11821
14-Apr-2003	5124	5291	11583	11851	8712	8070	9600	9585	4320	4437	8232	8592
15-Apr-2003	5084	5259	11298	11487	8520	8054	9600	9596	4200	4288	9725	9874
16-Apr-2003	5219	5517	11692	12525	8160	7817	9600	9500	3075	3193	9641	9771
17-Apr-2003	5610	5737	12937	13537	8160	8041	9600	9478	3030	3069	9788	10057
18-Apr-2003	5715	5713	12888	13150	8160	7968	9600	9584	2940	3013	11683	11804
19-Apr-2003	5675	5710	12580	12813	5440	5486	9600	9619	2865	2886	8896	9195
20-Apr-2003	5089	5013	11345	11289	4320	4257	9600	9741	2595	2610	12951	13064
21-Apr-2003	5305	5382	12099	12290	4224	4265	9600	9649	2281	2327	11163	11265
22-Apr-2003	6217	6428	12424	12740	4296	4297	9600	9628	3720	3760	10913	10982
23-Apr-2003	7898	8151	13072	13211	4320	4167	9600	9603	2700	2750	11670	11776
24-Apr-2003	6537	6777	12634	12735	4368	4002	9600	9627	2700	2800	12314	12564
25-Apr-2003	8416	8658	12753	12818	4200	4117	9600	9585	2700	2757	12936	13009
26-Apr-2003	7801	7993	12399	12346	3612	3695	9600	9545	2940	3016	12823	12980
27-Apr-2003	7500	7730	11860	11929	2915	2187	9600	9649	4230	4278	12884	12978
28-Apr-2003	7518	7828	9944	10163	0	-182	9600	9629	2445	2531	12559	12551
29-Apr-2003	7373	7936	11561	12174	0	-208	9600	9547	2400	2488	11395	11705
30-Apr-2003	8215	8314	12343	12569	2040	863	9600	9583	3825	3869	12709	12887
Total MU	178.387	183.244	355.203	362.635	204.023	196.079	274.410	274.416	100.936	103.134	320.029	322.931
Max. MWH	8416	8658	13072	13537	9768	9562	9600	9766	4320	4437	12951	13064
Min MWH	4717	4749	9944	10163	0	-208	4800	4533	2281	2327	7666	7667
Avg. MWH	5946	6108	11840	12088	6801	6536	9147	9147	3365	3438	10668	10764

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

Date	Tanakpur		Chamera		Uri		Bhakra Complex		Dehar		Pong	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Apr-2003	856	871	11273	11413	11520	11523	13722	13342	9008	5726	2223	1476
2-Apr-2003	932	944	10805	11011	11520	11490	13254	13031	6019	6068	100	7
3-Apr-2003	880	891	6950	7088	11520	11524	13254	12883	6019	5929	0	-24
4-Apr-2003	895	902	7290	7393	11520	11509	12393	12173	6019	5741	371	298
5-Apr-2003	814	825	5287	5393	11520	11516	10483	10238	5514	5134	1297	1113
6-Apr-2003	843	851	6102	6180	11520	11507	10329	10208	5006	4772	926	1600
7-Apr-2003	800	813	5977	6134	11520	11527	9140	9286	6516	6113	1867	2269
8-Apr-2003	824	842	6912	7078	11520	11529	9088	9122	7019	7295	2237	2263
9-Apr-2003	804	814	7516	7692	11520	11535	9180	9202	9496	9651	2237	1432
10-Apr-2003	965	969	9114	9270	11520	11504	9180	9215	11130	12374	1368	1107
11-Apr-2003	943	952	9337	9489	11520	11519	9180	9175	15101	9509	1097	811
12-Apr-2003	953	955	8932	9027	11520	11525	7200	7332	10248	9351	798	743
13-Apr-2003	1009	1023	8239	8073	11520	11508	7152	7085	10224	11027	770	605
14-Apr-2003	1038	1055	8465	8556	11520	11518	6960	7012	12013	12058	584	727
15-Apr-2003	1013	1016	8598	8736	11520	11526	6960	7015	12631	10826	784	828
16-Apr-2003	959	975	8544	8642	10770	10531	6960	7096	12631	10938	784	763
17-Apr-2003	1014	1023	8544	8673	11520	11517	6960	6948	12631	11149	784	707
18-Apr-2003	958	967	8544	8660	11520	11530	6960	7164	11653	9663	556	542
19-Apr-2003	1025	1045	8544	8667	11520	11504	6960	7677	10034	9433	570	885
20-Apr-2003	1065	1067	8544	8690	11520	11465	7382	7532	10025	11034	884	1378
21-Apr-2003	962	945	8544	8651	11520	11522	7382	7552	12734	9134	1482	2898
22-Apr-2003	930	909	8598	8714	11520	11529	7382	7585	8019	7147	3577	3665
23-Apr-2003	999	979	8598	8702	11520	11529	11501	11455	9590	9972	3377	3038
24-Apr-2003	1157	1162	8656	8767	11520	11528	11903	12127	10209	13500	2480	2142
25-Apr-2003	1271	1243	8656	8794	11520	11049	11917	13099	14295	13615	2109	2050
26-Apr-2003	1304	1260	8167	8150	11520	8389	12338	12515	14975	14144	2266	2219
27-Apr-2003	1403	1352	8652	8750	11520	4167	12338	12811	14975	11685	2266	1680
28-Apr-2003	1278	1288	8652	8792	11520	9985	12580	12799	12507	11736	1682	1793
29-Apr-2003	1214	1221	8652	8813	11520	9654	13943	13524	12507	8658	1682	2577
30-Apr-2003	1116	1119	11800	11988	11520	9214	13943	15293	10066	9452	3634	2957
Total MU	30.224	30.278	252.492	255.986	344.850	327.873	297.924	301.496	308.814	282.834	44.792	44.549
Max. MWH	1403	1352	11800	11988	11520	11535	13943	15293	15101	14144	3634	3665
Min MWH	800	813	5287	5393	10770	4167	6960	6948	5006	4772	0	-24
Avg. MWH	1007	1009	8416	8533	11495	10929	9931	10050	10294	9428	1493	1485

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	18.52	9.36	8.34	0.56	35.00	0.15	43.25	4.11	7.53	11.11	1.98	1.58	141.89
02	24.71	7.77	8.89	0.57	34.82	0.15	44.32	5.26	7.23	11.76	2.57	1.58	150.04
03	32.32	5.81	8.98	0.56	35.29	0.22	50.73	4.46	7.09	10.01	2.69	1.58	160.15
04	31.42	5.34	7.89	0.56	35.00	0.15	51.14	3.57	6.84	11.05	2.67	1.58	157.63
05	32.96	4.57	10.78	0.52	35.05	0.15	53.27	3.64	6.69	12.99	2.61	1.58	165.11
06	30.06	5.89	9.45	0.59	38.56	0.15	52.29	3.81	6.34	12.56	2.81	1.58	164.40
07	29.25	6.05	10.18	0.47	38.51	0.15	48.88	4.06	6.57	12.55	2.81	1.58	161.38
08	25.64	9.73	10.80	0.61	38.52	0.20	51.57	3.46	7.17	11.34	2.81	1.58	163.74
09	27.24	8.03	10.79	0.57	26.86	0.24	52.56	4.27	7.96	9.82	3.47	1.58	153.86
10	27.85	6.16	13.12	0.73	25.69	0.26	50.88	4.46	9.18	10.29	3.47	1.58	154.16
11	29.34	6.33	13.65	0.69	24.24	0.83	51.79	3.78	9.25	11.12	3.86	1.58	157.25
12	31.46	7.06	11.20	0.69	22.57	0.59	43.38	3.72	8.74	9.50	4.19	1.58	145.42
13	30.63	6.02	8.56	0.59	29.39	0.51	48.05	3.91	8.95	12.46	4.76	1.58	156.16
14	30.85	6.19	8.14	0.74	33.01	0.67	50.30	4.54	9.50	9.32	4.63	1.58	160.22
15	32.14	6.36	9.80	0.75	28.61	0.92	52.96	4.04	9.24	7.94	4.38	1.58	159.47
16	32.24	6.76	11.96	0.71	26.43	0.23	51.34	4.79	8.79	9.01	4.23	1.58	158.82
17	30.38	7.48	14.80	0.76	26.93	0.92	49.02	5.39	8.63	10.43	4.23	1.58	161.35
18	32.50	6.57	12.54	0.67	27.08	1.15	54.11	3.95	8.05	12.31	4.31	1.58	165.60
19	29.16	5.47	12.63	0.51	26.42	0.33	52.59	4.26	8.41	12.21	4.14	1.58	158.42
20	27.34	4.82	11.54	0.51	30.14	0.00	53.58	4.24	9.06	12.35	4.17	1.58	160.03
21	28.99	8.47	10.33	0.78	30.29	0.22	54.58	4.35	8.37	12.66	4.13	1.58	165.47
22	28.92	9.46	10.52	0.68	30.20	0.42	52.18	4.19	7.36	13.92	4.08	1.58	164.24
23	30.75	10.59	11.19	0.69	37.55	0.56	51.39	4.19	7.69	13.66	4.61	1.58	175.18
24	28.82	9.96	11.67	0.85	32.18	0.46	52.02	5.24	9.23	13.18	5.02	1.58	170.94
25	29.08	9.72	12.36	0.87	32.15	0.33	53.54	4.92	9.96	12.56	5.02	1.58	172.88
26	31.87	10.32	14.01	0.94	35.52	0.04	53.17	4.86	9.97	13.20	5.02	1.58	181.28
27	28.48	10.67	11.10	0.85	35.09	0.22	29.18	3.15	10.97	13.21	4.98	1.58	150.27
28	24.97	11.35	8.25	0.90	35.69	1.00	37.65	2.30	10.69	12.48	4.22	1.58	151.87
29	27.64	4.32	10.49	0.81	35.35	0.38	48.23	3.45	9.53	12.16	4.20	1.58	159.04
30	29.71	13.76	9.98	0.64	35.76	0.29	52.45	3.35	9.09	12.01	4.58	1.58	173.96
31													
Maximum	32.96	13.76	14.80	0.94	38.56	1.15	54.58	5.39	10.97	13.92	5.02	1.58	181.28
Minimum	18.52	4.32	7.89	0.47	22.57	0.00	29.18	2.30	6.34	7.94	1.98	1.58	141.89
Average	29.17	7.68	10.80	0.68	31.93	0.40	49.68	4.12	8.47	11.64	3.89	1.58	160.67
Month Total	875.22	230.37	323.94	20.38	957.88	11.90	1490.40	123.70	254.05	349.17	116.64	47.52	4820.20

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during	Cummulative from 01.04.2002
			Apr, 2003 (Ex Bus MU)	(Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	387.62	387.62
(b)	Singrauli STPS	2000.00	1205.33	1205.33
(c)	Rihand STPS	1000.00	648.78	648.78
(d)	Dadri NCTPS	840.00	385.20	385.20
(e)	Unchahar-I TPS	420.00	263.43	263.43
(f)	Unchahar-II TPS	420.00	207.73	207.73
(g)	Tanda TPS	440.00	180.71	180.71
(h)	Anta GPS	419.33	183.24	183.24
(i)	Auraiya GPS	663.36	362.63	362.63
(j)	Dadri GPS	829.78	321.69	321.69
(k)	Faridabad GPS	431.57	252.25	252.25
	Total NTPC	8169.04	4398.61	4398.61
B	NHPC			
(a)	Bairasiul	180.00	103.13	103.13
(b)	Salal	690.00	322.93	322.93
(c)	Tanakpur HPS	94.20	30.28	30.28
(d)	Chamera HPS	540.00	255.99	255.99
(e)	Uri HPS	480.00	327.87	327.87
	Total NHPC	1984.20	1040.20	1040.20
C	NPC			
(a)	RAPS -A	300.00	110.48	110.48
(b)	RAPS -B	440.00	274.42	274.42
(c)	NAPS	440.00	196.08	196.08
	Total NPC	1180.00	580.98	580.98
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	301.50	301.50
(b)	Dehar	990.00	282.83	282.83
(c)	Pong	384.00	44.55	44.55
	Total BBMB	2864.15	628.88	628.88
3	DELHI			
(a)	Indra Prastha	247.50	34.93	34.93
(b)	Rajghat	149.00	41.59	41.59
(c)	Gas Turbines	282.00	81.09	81.09
(d)	Pragati Gas	330.00	193.46	193.46
	Total DELHI	1008.50	351.07	351.07
4	HARYANA			
(a)	WYC	48.00	20.78	20.78
(b)	Faridabad (New)	165.00	66.05	66.05
(c)	Panipat	860.00	275.20	275.20
(d)	Magnum Diesel(IPP)	25.20	6.62	6.62
	Total Haryana	1098.20	368.65	368.65

contd/-

5	HP			
(a)	Giri	60.00	7.67	7.67
(b)	Bassi	60.00	35.75	35.75
(c)	Binwa	6.00	4.22	4.22
(d)	Rongtong (+Nogli+Micro+Thirot+Sal-2)	15.25	2.06	2.06
(e)	Andhra	16.95	7.17	7.17
(f)	Bhabha (H)	120.00	43.12	43.12
(g)	Baner (H)	12.00	4.56	4.56
(h)	Gaj (H)	10.50	6.20	6.20
(i)	Gumma	3.00	1.03	1.03
(j)	Ghanvi	22.50	7.52	7.52
(k)	Malana (IPP)	86.00	19.71	19.71
	Total HP	412.20	139.01	139.01
6	J & K			
(a)	Lower Jhelum	105.00	54.06	54.06
(b)	Upper Sindh	127.60	28.60	28.60
(c)	Ganderbal	15.00	0.77	0.77
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	3.41	3.41
(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	0.00	0.00
(k)	Pampore GT St - II	100.00	0.00	0.00
	Total J & K	493.87	86.84	86.84
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	63.42	63.42
(b)	UBDC	90.00	25.78	25.78
(c)	Mukerian	207.00	47.12	47.12
(d)	Anandpur Sahib (APS)	134.00	13.68	13.68
(e)	Ranjit Sagar HPS	600.00	91.84	91.84
(f)	Small Hydel	4.10	0.51	0.51
(g)	GNDTPS (Bhatinda)	440.00	150.02	150.02
(h)	GGSTPS (Ropar)	1260.00	497.80	497.80
(i)	Jhalkeeri Rice Straw Fired	10.00	0.00	0.00
(j)	Lehra Mohabbat TPS	420.00	248.86	248.86
	Total Punjab	3275.10	1139.03	1139.03
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	0.00	0.00
(b)	Rana Pratap Sagar (RPS)	172.00	6.98	6.98
(c)	Jawahar Sagar (JS)	99.00	5.04	5.04
(d)	Anoopgarh	9.00	0.64	0.64
(e)	Small Hydro	14.85	0.69	0.69
(f)	Kota TPS	850.00	526.38	526.38
(g)	RAMGARH GT	3.00	0.00	0.00
(h)	RAMGARH GT EXT	35.50	18.66	18.66
(i)	Suratgarh TPS	1000.00	469.89	469.89
(j)	Wind Farm	14.01	5.38	5.38
	Total Rajasthan	2337.36	1033.66	1033.66

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	65.92	65.92
(b)	Obra	99.00	27.24	27.24
(c)	Matatilla	30.00	0.88	0.88
(d)	Ganga Canal	10.70	0.00	0.00
(e)	Small hydro	18.20	0.00	0.00
(f)	Khara	72.00	29.66	29.66
	Total U.P. (Hydro)	529.90	123.71	123.71
	<u>THERMAL</u>			
(e)	Obra	1442.00	494.06	494.06
(f)	Panki	242.00	65.94	65.94
(g)	Harduaganj	375.00	28.04	28.04
(h)	Paricha	220.00	60.46	60.46
(i)	Anpara	1630.00	841.19	841.19
	Total U.P. (Thermal)	3909.00	1489.69	1489.69
	Total U.P.	4438.90	1613.40	1613.40
10	UTTRANCHAL			
(a)	Khatima	41.40	14.62	14.62
(b)	Ramganga	198.00	3.59	3.59
(c)	Ganga Canal	32.70	5.72	5.72
(d)	Yamuna (I & IV)	114.75	41.85	41.85
(e)	Chibro	240.00	60.67	60.67
(f)	Khodri	120.00	28.78	28.78
(g)	Chilla	144.00	46.02	46.02
(h)	Maneri Bhali	90.00	52.57	52.57
	Total Uttranchal	980.85	253.82	253.82
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	28243.77	11634.15	11634.15

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 April 2003 (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	-50	0	0	150	0.00	0.42	-0.42	-19	-18	0	25	0.00	0.57	-0.57
02	-189	-100	0	200	0.00	3.01	-3.01	-26	-22	0	28	0.00	0.53	-0.53
03	-195	-195	0	489	0.00	4.86	-4.86	-25	-25	0	25	0.00	0.52	-0.52
04	-195	-245	0	250	0.00	5.56	-5.56	-22	-20	0	25	0.00	0.56	-0.56
05	-195	-445	0	445	0.00	8.03	-8.03	-22	-19	0	22	0.00	0.52	-0.52
06	-195	-195	0	500	0.00	7.19	-7.19	-22	-19	0	22	0.00	0.47	-0.47
07	-195	-350	0	500	0.00	7.13	-7.13	-22	-19	0	23	0.00	0.50	-0.50
08	-195	-195	0	500	0.00	7.57	-7.57	-24	-20	0	24	0.00	0.52	-0.52
09	-195	-400	0	450	0.00	7.85	-7.85	-30	-28	0	30	0.00	0.50	-0.50
10	-195	-200	0	400	0.00	4.55	-4.55	-26	-25	0	28	0.00	0.46	-0.46
11	-195	-100	0	300	0.00	3.52	-3.52	-26	-25	0	28	0.00	0.50	-0.50
12	-245	0	0	300	0.00	2.36	-2.36	-26	-25	0	28	0.00	0.42	-0.42
13	-244	-245	0	445	0.00	5.99	-5.99	-26	-25	0	28	0.00	0.48	-0.48
14	-244	0	0	450	0.00	2.59	-2.59	-26	-25	0	28	0.00	0.47	-0.47
15	0	-100	0	300	0.00	1.96	-1.96	-25	-20	0	25	0.00	0.50	-0.50
16	-195	-50	0	245	0.00	2.39	-2.39	-25	-20	0	25	0.00	0.50	-0.50
17	-244	-50	0	244	0.00	2.97	-2.97	-23	-21	0	25	0.00	0.45	-0.45
18	-244	-244	0	345	0.00	2.53	-2.53	-23	-22	0	25	0.00	0.42	-0.42
19	-244	-148	0	409	0.00	4.87	-4.87	-23	-22	0	25	0.00	0.50	-0.50
20	-244	-148	0	500	0.00	6.84	-6.84	-23	-22	0	25	0.00	0.51	-0.51
21	-144	-148	0	344	0.00	5.05	-5.05	-20	-20	0	25	0.00	0.47	-0.47
22	-244	-294	0	494	0.00	7.52	-7.52	-20	-20	0	20	0.00	0.43	-0.43
23	-146	-98	0	248	0.00	1.92	-1.92	-35	-35	0	35	0.00	0.43	-0.43
24	0	0	0	250	0.00	0.44	-0.44	-35	-35	0	35	0.00	0.41	-0.41
25	0	-50	0	150	0.00	1.27	-1.27	-28	-24	0	35	0.00	0.45	-0.45
26	0	-100	0	250	0.00	3.84	-3.84	-26	-24	0	30	0.00	0.39	-0.39
27	-400	-100	0	500	0.00	4.20	-4.20	-16	-15	0	30	0.00	0.39	-0.39
28	0	-100	0	250	0.00	2.77	-2.77	-16	-15	0	29	0.00	0.38	-0.38
29	0	-100	0	200	0.00	1.94	-1.94	-25	-25	0	25	0.00	0.43	-0.43
30	0	-150	0	450	0.00	4.22	-4.22	-25	-25	0	25	0.00	0.46	-0.46
31														
Maximum	0	0	0	500	0.00	8.03	-0.42	-16	-15	0	35	0.00	0.57	-0.38
Minimum	-400	-445	0	150	0.00	0.42	-8.03	-35	-35	0	20	0.00	0.38	-0.57
Average	-161	-153	0	352	0.00	4.18	-4.18	-24	-23	0	27	0.00	0.47	-0.47
Total					0.00	125.34	-125.35					0.00	14.12	-14.12

XII. Inter Regional Exchanges During April 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 Import MW	Max Export MW	Energy Import MU	Energy Export MU	Net MU
01	0	0	0	0	0.00	0.00	0.00	297	157	393	0	6.43	0.00	6.43
02	0	0	0	0	0.00	0.00	0.00	485	153	485	0	9.08	0.00	9.08
03	0	0	0	0	0.00	0.00	0.00	494	200	494	0	12.20	0.00	12.20
04	0	0	0	0	0.00	0.00	0.00	394	494	494	0	14.41	0.00	14.41
05	0	0	0	0	0.00	0.00	0.00	393	393	393	0	9.55	0.00	9.55
06	0	0	0	0	0.00	0.00	0.00	394	394	394	0	9.35	0.00	9.35
07	0	0	0	0	0.00	0.00	0.00	393	384	394	0	9.63	0.00	9.63
08	0	0	0	0	0.00	0.00	0.00	420	402	470	0	9.87	0.00	9.87
09	0	0	0	0	0.00	0.00	0.00	417	470	470	0	10.47	0.00	10.47
10	0	0	0	0	0.00	0.00	0.00	344	219	394	0	6.24	0.00	6.24
11	0	0	0	0	0.00	0.00	0.00	337	144	337	0	4.42	0.00	4.42
12	0	0	0	0	0.00	0.00	0.00	410	158	418	0	6.09	0.00	6.09
13	0	0	0	0	0.00	0.00	0.00	418	418	418	0	9.57	0.00	9.57
14	0	0	0	0	0.00	0.00	0.00	405	162	405	0	5.17	0.00	5.17
15	0	0	0	0	0.00	0.00	0.00	155	155	355	0	4.34	0.00	4.34
16	0	0	0	0	0.00	0.00	0.00	363	155	363	0	5.21	0.00	5.21
17	0	0	0	0	0.00	0.00	0.00	405	155	405	0	5.14	0.00	5.14
18	0	0	0	0	0.00	0.00	0.00	405	354	405	0	8.46	0.00	8.46
19	0	0	0	0	0.00	0.00	0.00	405	354	405	0	7.19	0.00	7.19
20	0	0	0	0	0.00	0.00	0.00	462	312	462	0	9.09	0.00	9.09
21	0	0	0	0	0.00	0.00	0.00	0	312	462	0	9.11	0.00	9.11
22	0	0	0	0	0.00	0.00	0.00	462	462	462	0	11.26	0.00	11.26
23	0	0	0	0	0.00	0.00	0.00	313	313	413	0	6.43	0.00	6.43
24	0	0	0	0	0.00	0.00	0.00	163	163	163	0	3.98	0.00	3.98
25	0	0	0	0	0.00	0.00	0.00	181	155	202	0	2.17	0.00	2.17
26	0	0	0	0	0.00	0.00	0.00	131	131	131	0	3.16	0.00	3.16
27	0	0	0	0	0.00	0.00	0.00	131	131	130	0	3.21	0.00	3.21
28	0	0	0	0	0.00	0.00	0.00	192	209	210	0	4.96	0.00	4.96
29	0	0	0	0	0.00	0.00	0.00	191	190	192	0	4.61	0.00	4.61
30	0	0	0	0	0.00	0.00	0.00	187	187	187	0	4.56	0.00	4.56
31														
Maximum	0	0	0	0	0.00	0.00	0.00	494	494	494	0	14.41	0.00	14.41
Minimum	0	0	0	0	0.00	0.00	0.00	0	131	130	0	2.17	0.00	2.17
Average	0	0	0	0	0.00	0.00	0.00	325	263	364	0	7.18	0.00	7.18
Total					0.00	0.00	0.00					215.36	0.00	215.36

XIII. Progress Of Installation Of Shunt Capacitors As On 30.04.2003

(ALL FIGS IN MVar)

CONSTITUENT	REQUIREMENT AT THE END OF 2002-03	CAPACITORS AS ON 30.04.2003	CAPACITORS ADDITION DURING		ADDITIONAL REQUIRED DURING 2003-04
		INSTALLED	2002 - 03	2003 - 04	
Chandigarh	116	92	0	0	24
Delhi	2932	2633	122	0	299
Haryana	2797	2352	137	0	445
H.P.	319	222	73	17	97
J & K	924	147	0	0	777
Punjab	5107	4630	76	0	477
Rajasthan	2695	2488	234	11	207
U.P.	5225	4691	274	0	534
Uttranchal	286	123	0		163
BBMB	360	381	0	0	0
TOTAL	20761	17759	916	28	3023

SOURCE: Minutes of 340th OCC meeting of NREB held on 13th May, 2003.

XIV. Hydraulic Data For Reservoirs During April 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 April 2003 (m)	462.75 1518.20	398.45 1307.26	256.95 843.00	346.42 1136.56	379.18 1244.02
Level on last day of April 2002 (m)	454.99 1492.74	395.17 1296.48	257.46 844.70	345.14 1132.35	380.16 1247.26
Live Capacity as on (mhmt) last day of April 2003 (maft)	0.11 0.87	0.15 1.22	0.10 0.80	0.05 0.38	0.00 0.00
Live Capacity as on (mhmt) last day of April 2002(maft)	0.05 0.44	0.11 0.86	0.13 1.05	0.03 0.22	0.00 0.00
Energy content as on last day of April 2003 (MU)	370.00	205.00	175.00	85.00	0.00
Energy content as on last day of April 2002 (MU)	180.00	140.00	575.00	55.00	0.00
Maximum level (m) (ft) (date)	462.87 1518.60 29.04.2003	399.30 1310.05 06.04.2003	258.44 847.90 01.04.2003	346.96 1138.32 01.04.2003	379.17 1243.99 01.04.2003
Minimum level (m) (ft) (date)	458.73 1505.02 09.04.2003	398.45 1307.26 30.04.2003	256.95 843.00 30.04.2003	346.42 1136.56 30.04.2003	378.96 1243.30 30.04.2003

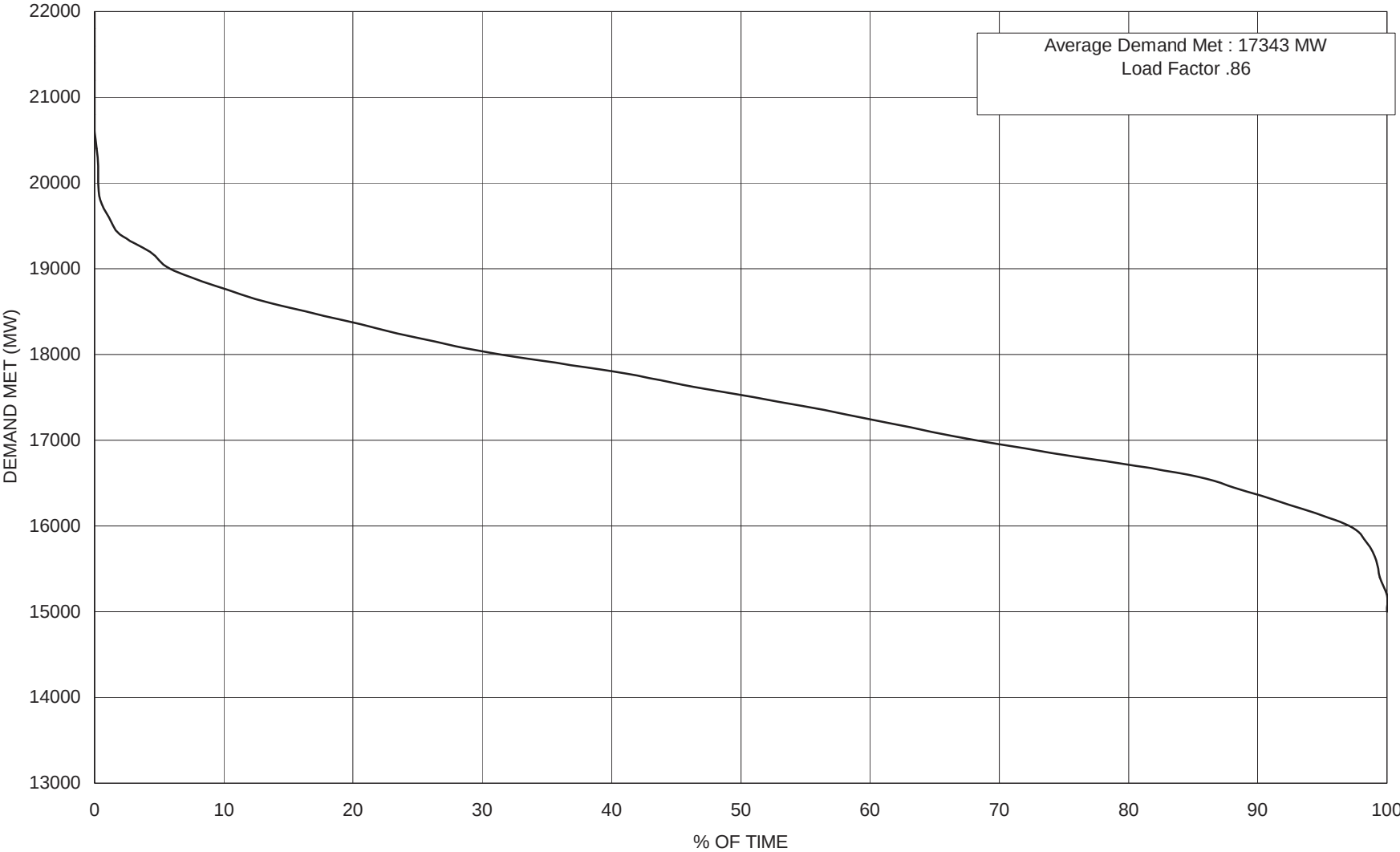
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

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

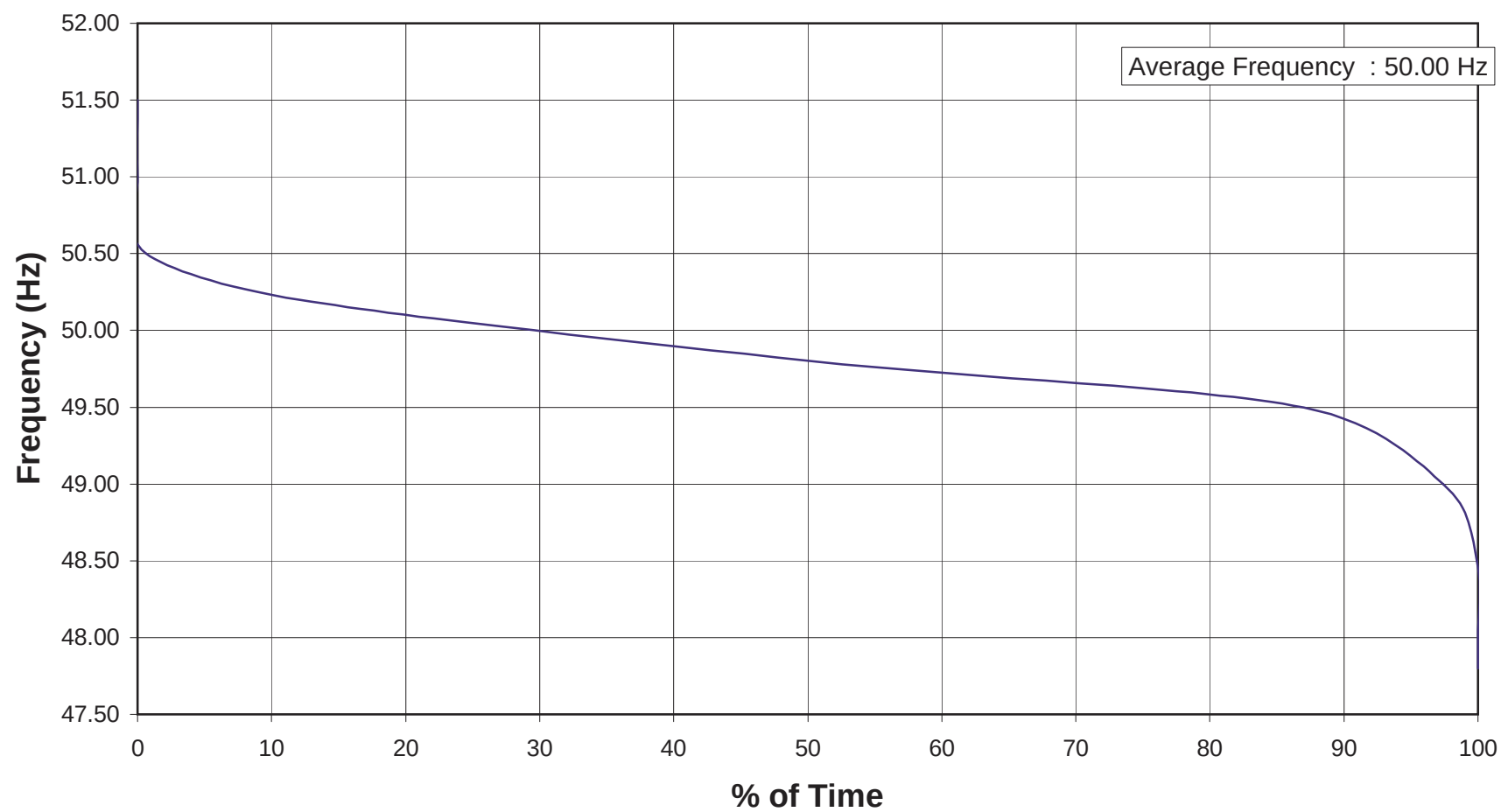
Energy content of RPS : Total Energy content of Rana Pratap Sagar and Jawahar Sagar Power Stations.

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

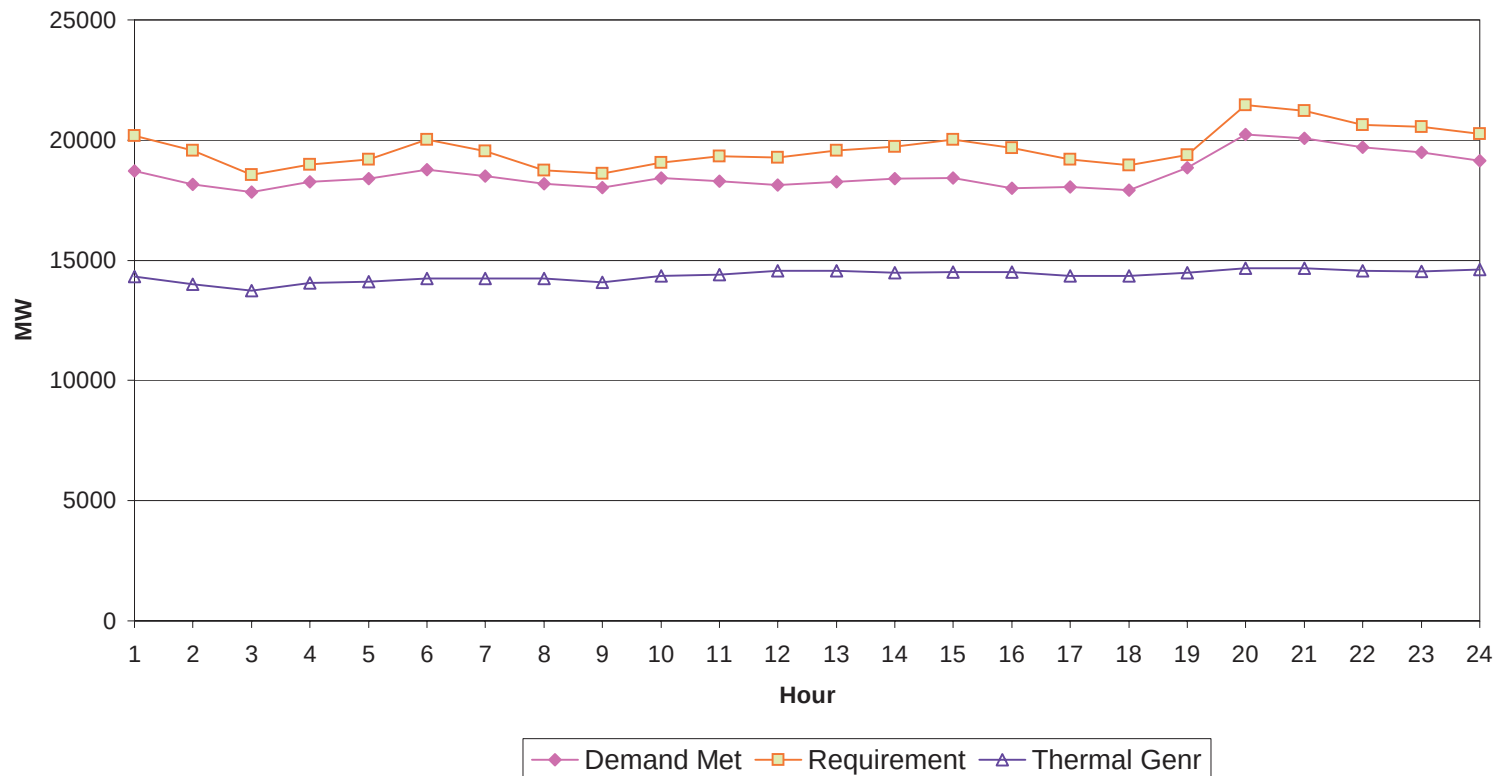
Load Duration Curve For Northern Region For April 2003



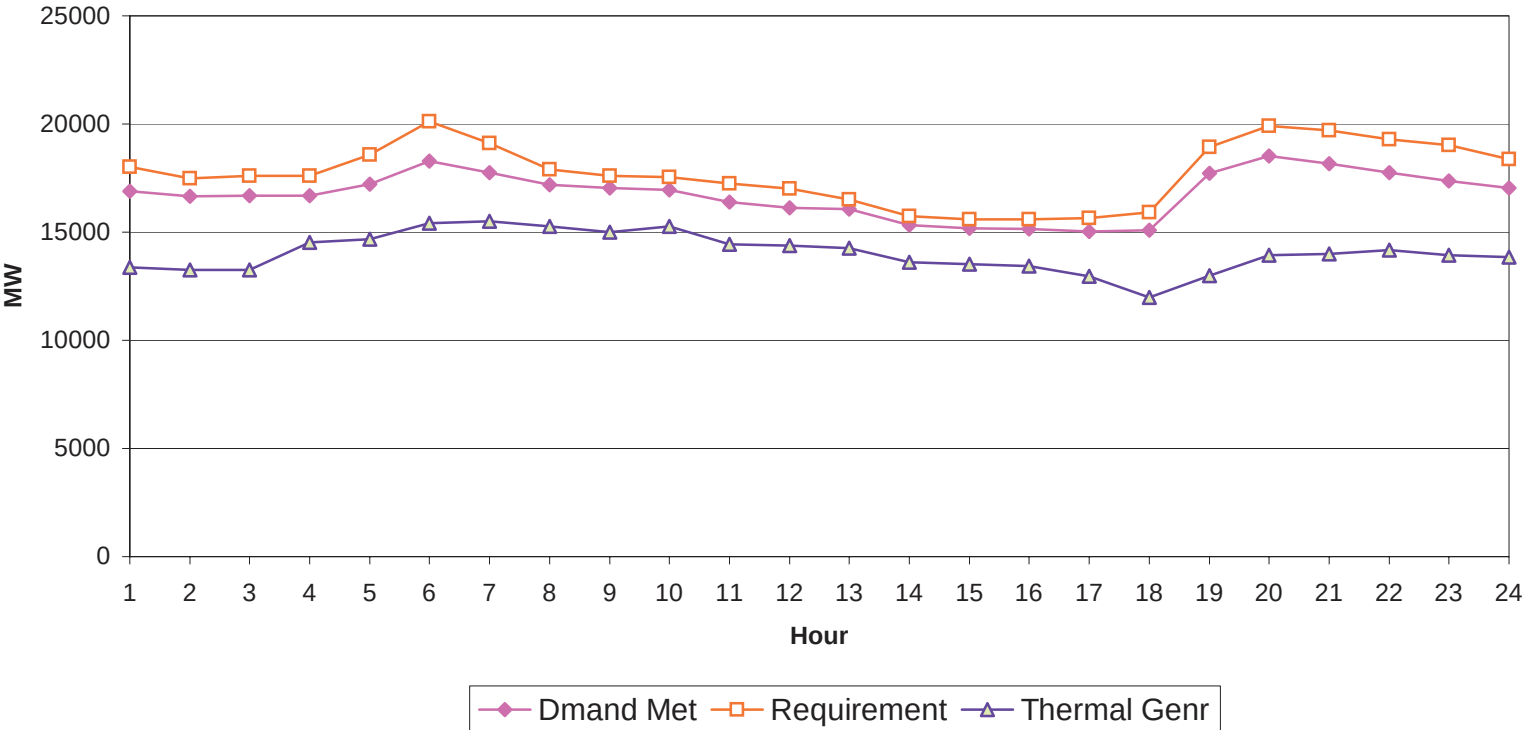
Frequency Duration Curve For Northern Region For April 2003

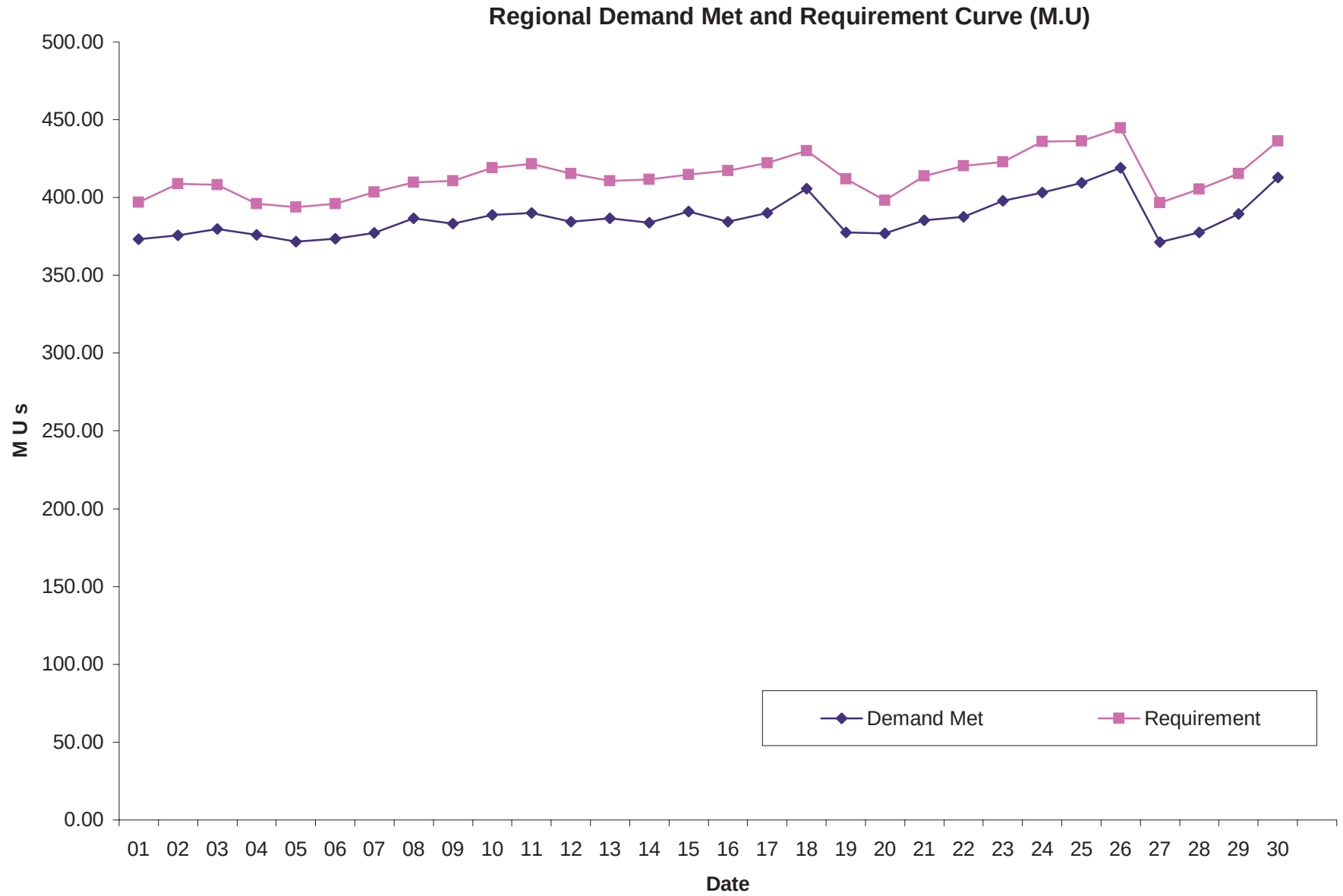


**Load curve Of Northern Region For Maximum Demand Met day
(30.04.2003)**



**Load Curve Of Northern Region For Minimum Demand Met Day
(01.04.2003)**





Grid Incident during April 2003

Date	Time	Incident
01.04.2003	13.54 hrs	Following tripping occurred around Kanpur due to protection failure for a fault on 220 kV Panki-Naubasta line. 240MVA 400/220 kV ICT I & II at Panki 315 MVA 400/220 kV ICT I & II at Kanpur 220 kV Kanpur-Panki line 400 kV Allahabad-Sarnath line - Tripped on O/V 400 kV Allahabad-Sasaram line - Tripped on O/V SVC -II at Kanpur All the lines / ICT's were normalised by 15.40 hrs.
09.04.2003	09.43 hrs	All the four units at Suratgarh Power Station (4x250 MW) tripped due to bus fault at 220 kV Ratangarh S/Stn. Units were brought on bar by evening peak hours on same day.
12.04.2003	13.20 hrs	Incident occurred in Delhi system due to tripping of 220 kV Patparganj - I P ckt.-II on earth fault at Patparganj end with simultaneous tripping of 220 kV I P-I P Extension ckt.-II , and Patparganj-Mandola D/C. These trippings resulted in loss of generation at Rajghat (66 MW) and Pragati STG (54 MW). Loss of load was around 468 MW. System was normalised by 14.50 hrs on the same day.
30.04.2003	15.46 hrs.	All the ICT's (2x 240 & 1x315 MVA) at Muradnagar tripped on overload. 240 MVA ICT - I & II were normalised by 16.20 hrs. and 315 MVA ICT-III was normalised at 19.15 hrs on the same day.