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NORTHERN REGION GRID REPORT FOR THE MONTH OF JUNE 2003

A) Summary Report

1. Grid Overview during the Month

During the month of June 2003 the average system frequency was 49.95 Hz and frequency remained in the normal range i.e. between 49.0 & 50.5 Hz for 88.29% of the time compared to 68.77% during the last year i.e. June 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. For example, the minimum voltages at 400 kV Dadri and 220 kV BTPS were 360 kV and 178 kV compared to last year i.e. 348 kV and 170 kV respectively. There was no major transmission outage during June 2003..

During June 2003 there was no major grid incident. However there were some minor incident which are reported at annexure-IV

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

- i) 400 kV Agra (powergrid)-Agra(UPPCL) interconnectors I & II were charged from Agra (Powergrid) end on 14.06.2003 at 18.07 & 18.03 hrs. respectively for the first time. The circuits were closed from Agra (UPPCL) end and power flow started on 16.06.2003 at 17.025 & 17.28 hrs. respectively.
- ii) 400/220 kV 315 MVA ICT-III at Meerut was charged on 25.06.2003 at 12.22 hrs.
- iii) LILO work of 220 kV Modipuram - Simbholi line at Meerut was completed on 28.06.2003.
- iv) Suratgarh STPS Unit No 5 synchronised on 30.06.2003 at 11.25 hrs.

3. Frequency Profile :

Maximum frequency	51.32	Hz	at	16.32	hours on	29.06.2003
Minimum frequency	48.31	Hz	at	12.38	hours on	03.06.2003
Average frequency	49.95	Hz				

Frequency distribution in %

Hz	< 48.5	<49.0	49.0-50.5	> 50.5
% of time	0.02	1.65	88.29	10.06

Frequency Variation Index

Monthly Average	1.95
Maximum	4.37
Minimum	0.99

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

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	108.09	111.54	3.45	3.09
Haryana	63.45	65.00	1.55	2.38
Rajasthan	64.82	64.82	0.00	0.00
U.P.	111.55	126.00	14.45	11.47
Uttanchal	11.32	11.48	0.16	1.39
Delhi	65.04	66.22	1.18	1.78
H.P.	9.76	9.76	0.00	0.00
J & K	17.68	20.18	2.50	12.39
Chandigarh	3.57	3.57	0.00	0.00
N.F.F./Rail	1.86	1.86	0.00	0.00
Total	455.14	480.43	25.29	5.26

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	5259	5518	259	4.69
Haryana	3167	3267	100	3.06
Rajasthan	3721	3721	0	0.00
U.P.	5953	7098	1145	16.13
Uttanchal	697	737	40	5.43
Delhi	3269	3342	73	2.18
H.P.	541	541	0	0.00
J & K	1001	1216	215	17.68
Chandigarh	207	207	0	0.00
N.F.F./Rail	86	86	0	0.00
Region	23220	24067	847	3.52
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	1532.78	1538.56	5.78
Haryana	987.04	1128.54	141.50
Rajasthan	1017.76	965.79	-51.97
U.P.	1425.93	1630.61	204.68
Uttaranchal	-43.80	-47.20	-3.40
Delhi	1398.68	1192.39	-206.29
H.P.	-39.40	-49.37	-9.97
J & K	435.77	405.22	-30.55
Chandigarh	123.35	118.39	-4.96
N.F.F./Rail	50.71	55.94	5.23

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

a)	From WR over HVDC Vindhyachal B/B	26.34	181
b)	From WR to over 220 kV Ujjain-Kota	0	0
c)	From ER over HVDC Sasaram B/B	174.32	370
d)	From ER over 220 kV Dehri-Sahupuri	0	0

Export

d)	To WR over HVDC Vindhyachal B/B	16.93	117
e)	To WR (MP) over 220 kV Auraiya-Malanpur	14.58	23
f)	To ER (Bihar) over 220 kV/132kV lines	37.11	80
g)	To Nepal over 132 kV Tanakpur-Mahendernagar	1.92	6
h)	To ER over HVDC Sasaram B/B	0	0

B). Detailed Report**I. Details of Installed/Effective Capacity at the end of May 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	1x60 + 5x66 390.00	1x60 + 5x66 390.00
	Total BBMB	2870.15	2870.15

contd/-

3	CHANDIGARH				
(a)	Diesel Gen Sets		2.00		1.40
4	DELHI				
	THERMAL				
(a)	Indra Prastha	3x62.5+1x60	247.50	3x62.5+1x60	247.50
(b)	Rajghat	1x15+2x67.5	150.00	1x14+2x67.5	149.00
(c)	Gas Turbines	6x30+3x34	282.00	6x30+3x34	282.00
(d)	Pragati Gas Turbines	2x108+1x114	330.00	2x108 +1x114	330.00
	Total DELHI		1009.50		1008.50
5	HARYANA				
	HYDRO				
(a)	Western Yamuna Canal (WYC)	6x8	48.00	6x8	48.00
	Total Hydro		48.00		48.00
	THERMAL				
(b)	Faridabad (New)	3x60	180.00	3x55	165.00
(c)	Panipat	4x110+2x210	860.00	4x110+2x210	860.00
	Total Thermal		1040.00		1025.00
(d)	Magnum Diesel (IPP)	4x6.3	25.20	4x6.3	25.20
	Total Haryana		1113.20		1098.20
6	HIMACHAL PRADESH				
	HYDRO				
(a)	Giri	2x30.00	60.00	2x30.00	60.00
(b)	Bassi	4x15.00	60.00	4x15.00	60.00
(c)	Binwa	2x 3.00	6.00	2x 3.00	6.00
(d)	Rongtong	4x 0.50	2.00	4x 0.50	2.00
(e)	Andhra	3x 5.65	16.95	3x 5.65	16.95
(f)	Micro Hydel+Killar+Thirot		8.75		8.75
(g)	Nogli	2x 0.25+4x0.50	2.50	2x 0.25+4x0.50	2.50
(h)	Bhabha (H)	3x40.00	120.00	3x40.00	120.00
(i)	Baner (H)	3x 4.00	12.00	3x 4.00	12.00
(j)	Gaj (H)	3x 3.50	10.50	3x 3.50	10.50
(k)	Sal -2	1x 2	2.00	1x 2	2.00
(l)	Gumma	.	3.00	3	3.00
(m)	Ghanvi	2x11.25	22.50	2x11.25	22.50
(n)	Diesel Gen. Sets		0.00		0.00
(o)	Malana (IPP)	2x43	86.00	2x43	86.00
(p)	Baspa (IPP)	3x100	300.00	3x100	300.00
	Total HP		712.20		712.20
7	J & K				
	HYDRO				
(a)	Lower Jhelum	3x35.0	105.00	3x35.0	105.00
(b)	Upper Sindh	2x11.30+3x35.0	127.60	2x11.30+3x35.0	127.60
(c)	Ganderbal	2x3+2x4.5	15.00	2x3+2x4.5	15.00
(d)	Mohra	2x4.5	9.00	2x4.5	9.00
(e)	Chenani	5x4.66 +2X1.0 +3x2.5	32.80	5x4.66 +2X1.0+3x2.5	32.80
(f)	Stakna	2x2.0 +3x1.25 +2.0	9.75	2x2.0 +3x1.25 +2.0	9.75
(g)	Small Hydel		3.54		3.54
(h)	Sewa	3x3.0	9.00	3x3.0	9.00
	Total Hydro		311.69		311.69

contd/-

J & K (Contd.)				
	GAS TURBINES			
(h)	Pampore GT St - I	3x25.0	75.00	3x25.0
	Pampore GT St - II	4x25.0	100.00	4x25.0
9h)	Total Gas		175.00	175.00
(I)	Diesel Gen. Sets		8.94	7.18
	Total J & K		495.63	493.87
8	PUNJAB			
	HYDRO			
(a)	Jogindernagar/ Shanan	4x15+1x50	110.00	4x15+1x50
(b)	Upper Behari Doab Canal (UBDC)	3x15+3x15	90.00	3x15+3x15
(c)	Mukerian	6x15+6x19.5	207.00	6x15+6x19.5
(d)	Anandpur Sahib (APS)	4x33.5	134.00	4x33.5
(e)	Ranjit Sagar HPS	4x150	600.00	4x150
(f)	Small Hydel		4.10	4.10
	Total Hydro		1145.10	1145.10
	THERMAL			
(g)	Guru Nanak Dev TPS (Bhatinda)	4x110	440.00	4x110
(h)	Guru Gobind Singh TPS (Ropar)	6x210	1260.00	6x210
(i)	Lehra Mohabbat TPS	2x210	420.00	2x210
(j)	Jhalkeri Rice Straw Fired	1x10	10.00	1x10
	Total Thermal		2130.00	2130.00
	Total Punjab		3275.10	3275.10
9	RAJASTHAN			
	HYDRO			
(a)	Mahi Bajaj Sagar	2x25+2x45	140.00	2x25+2x45
(b)	Rana Pratap Sagar (RPS)	4x43	172.00	4x43
(c)	Jawahar Sagar (JS)	3x33	99.00	3x33
(d)	Anoopgarh	6x1.5	9.00	6x1.5
(e)	Small Hydro		14.85	14.85
	Total Hydro		434.85	434.85
	THERMAL			
(f)	Kota TPS	2x110+3x210	850.00	2x110+3x210
(g)	Suratgarh TPS	5x250	1250.00	5x250
(g)	Ramgarh GT	1x3	3.00	1x3
(i)	Ramgarh GT EXT.	1x35.5	35.50	1x35.5
	Total Thermal		2138.50	2138.50
(J)	Wind farm		14.01	14.01
	Total Rajasthan		2587.36	2587.36

contd/-

10	UP				
	HYDRO				
(a)	Rihand	6x50.0	300.00	6x50.0	300.00
(b)	Obra	3x33.0	99.00	3x33.0	99.00
(c)	Matatilla	3x10.0	30.00	3x10.0	30.00
(d)	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)			29311.93		28799.77

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	28.36%
NHPC	1984.20	0.00	0.00	0.00	1984.20	6.89%
NPC	0.00	0.00	0.00	1180.00	1180.00	4.10%
BBMB	2870.15	0.00	0.00	0.00	2870.15	9.97%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	396.50	612.00	0.00	1008.50	3.50%
HARYANA	48.00	1025.00	25.20	0.00	1098.20	3.81%
HIMACHAL	712.20	0.00	0.00	0.00	712.20	2.47%
J&K	311.69	0.00	182.18	0.00	493.87	1.71%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	11.37%
RAJASTHAN	434.85	2100.00	52.51	0.00	2587.36	8.98%
UP	529.90	3909.00	0.00	0.00	4438.90	15.41%
UTTRANCHAL	980.85	0.00	0.00	0.00	980.85	3.41%
Total	9016.94	15385.50	3217.33	1180.00	28799.77	100.00%
% of TOTAL	31.31%	53.42%	11.17%	4.10%	100.00%	

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

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

CHAMBAL

PROJECT	LOCATED	INSTALLED CAPACITY (MW)
Gandhi Sagar	M.P.	5 x 23 = 115
Rana Pratap Sagar	Rajasthan	4 x 43 = 172
Jawahar Sagar	Rajasthan	3 x 33 = <u>99</u>
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 30.06.2003

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1444.20	540.00	1984.20
BBMB	1155.15	1715.00	2870.15
DELHI	0.00	0.00	0.00
HARYANA	48.00	0.00	48.00
HP *	712.20	0.00	712.20
J&K	311.69	0.00	311.69
PUNJAB	545.10	600.00	1145.10
RAJASTHAN	262.85	172.00	434.85
UP	229.90	300.00	529.90
UTTRANCHAL	782.85	198.00	980.85
TOTAL	5491.94	3525.00	9016.94
PERCENTAGE	59.60%	40.40%	100%

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

III.

Frequency Profile

Date	% of Time Frequency								
	< 48.00	< 48.50	< 49.00	<49.50	49.0-50.5	> 50.00	> 50.50	> 51.00	>51.50
01	0.00	0.00	6.60	33.26	88.16	12.74	5.24	0.24	0.00
02	0.00	0.00	10.00	48.47	89.62	8.92	0.38	0.00	0.00
03	0.00	0.35	11.95	44.98	87.46	36.12	0.59	0.10	0.00
04	0.00	0.00	4.06	28.42	89.71	19.76	6.23	0.25	0.00
05	0.00	0.00	1.10	13.58	91.97	44.41	6.93	0.24	0.00
06	0.00	0.00	3.06	30.30	94.06	34.26	2.88	0.00	0.00
07	0.00	0.00	0.10	10.55	85.83	54.34	14.06	1.91	0.00
08	0.00	0.00	0.00	1.04	77.60	77.30	22.40	1.08	0.00
09	0.00	0.00	0.49	16.56	90.52	41.55	8.99	0.80	0.00
10	0.00	0.00	3.92	20.34	89.69	26.49	6.39	1.18	0.00
11	0.00	0.00	0.00	1.54	84.63	79.03	15.37	1.47	0.00
12	0.00	0.00	0.00	3.61	83.85	54.64	16.15	2.71	0.00
13	0.00	0.00	0.00	8.61	93.89	33.89	6.08	0.00	0.00
14	0.00	0.00	0.10	10.17	92.92	37.43	6.98	0.45	0.00
15	0.00	0.00	0.38	10.52	89.75	46.23	9.86	0.59	0.00
16	0.00	0.00	0.07	14.61	98.82	22.53	1.11	0.00	0.00
17	0.00	0.00	0.80	15.24	96.08	25.66	3.13	0.00	0.00
18	0.00	0.00	0.00	2.47	70.51	75.90	29.49	5.42	0.00
19	0.00	0.00	0.21	5.35	85.03	69.07	14.76	1.32	0.00
20	0.00	0.00	0.21	3.82	79.41	42.43	20.38	0.80	0.00
21	0.00	0.00	0.00	6.32	89.75	43.14	10.25	0.14	0.00
22	0.00	0.00	0.00	4.27	89.41	61.16	10.59	1.84	0.00
23	0.00	0.00	0.00	3.13	82.92	65.42	17.08	2.26	0.00
24	0.00	0.00	1.91	17.67	94.40	22.23	3.69	1.22	0.00
25	0.00	0.00	1.06	11.98	94.88	44.70	4.06	1.56	0.00
26	0.00	0.00	0.00	8.26	96.60	32.05	3.40	0.73	0.00
27	0.00	0.00	1.33	14.92	89.37	25.97	9.30	0.00	0.00
28	0.00	0.00	1.77	13.75	90.90	36.42	7.33	0.00	0.00
29	0.00	0.00	0.31	6.84	76.64	33.50	23.05	4.10	0.00
30	0.00	0.00	0.07	14.07	87.32	31.89	12.61	0.10	0.00
31									
Max	0.00	0.35	11.95	48.47	98.82	79.03	29.49	5.42	0.00
Min	0.00	0.00	0.00	1.04	70.51	8.92	0.38	0.00	0.00
Average	0.00	0.02	1.65	14.16	88.29	41.31	10.06	1.01	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
51.06	18.32	48.62	04.33	49.66	3.23
50.62	06.06	48.34	19.16	49.47	4.32
51.01	13.04	48.31	12.38	49.49	4.37
51.09	19.04	48.60	11.49	49.72	2.83
51.08	06.01	48.78	19.45	49.97	1.80
50.87	08.05	48.67	21.03	49.78	2.30
51.21	18.17	48.97	00.04	50.05	1.81
51.17	19.04	49.34	12.38	50.25	1.64
51.22	08.04	48.79	23.09	49.93	1.81
51.23	18.07	48.59	12.39	49.81	2.19
51.24	18.03	49.08	14.59	50.24	1.60
51.30	19.04	49.07	21.15	50.20	1.74
50.96	19.09	49.00	11.52	49.95	1.20
51.30	19.02	48.98	12.08	49.95	1.21
51.13	18.04	48.83	13.49	50.01	1.48
50.74	19.03	48.97	14.40	49.80	1.23
50.90	18.20	48.75	14.14	49.84	1.41
51.31	08.35	49.10	20.58	50.29	2.51
51.31	19.01	48.98	14.17	50.14	1.59
51.18	19.03	48.95	21.19	50.17	1.86
51.16	19.05	49.07	23.30	50.05	1.30
51.15	18.35	49.19	00.05	50.11	1.34
51.25	06.05	49.02	21.20	50.18	1.72
51.17	18.15	48.65	12.05	49.80	1.81
51.19	06.11	48.76	00.13	49.93	1.39
51.20	19.08	49.05	21.37	49.93	0.99
50.87	08.05	48.83	22.13	49.89	1.82
50.81	04.11	48.89	23.25	49.93	1.64
51.32	16.32	48.75	21.06	50.14	2.38
51.03	04.11	49.00	23.16	49.97	1.86
51.32		49.34		50.29	4.37
50.62		48.31		49.47	0.99
51.10		48.86		49.95	1.95

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	413	18.32	387	11.10	410	18.32	394	11.38	210	18.31	199	14.57	407	18.32	386	23.55
02	416	08.29	387	02.06	418	08.30	408	02.08	209	16.00	205	08.00	408	16.00	387	22.50
03	408	13.02	398	16.59	424	13.03	408	12.35	189	17.00	202	04.00	409	13.00	386	04.00
04	409	19.03	366	16.55	400	19.00	376	17.00	203	19.00	187	14.00	396	18.00	381	11.00
05	402	04.03	363	12.20	406	04.00	391	11.00	200	06.00	183	16.00	395	06.00	377	12.00
06	402	06.01	369	16.23	405	00.23	387	16.23	203	00.18	183	16.23	392	19.05	375	16.24
07	401	19.07	364	14.47	406	08.04	390	12.34	200	08.01	181	14.43	394	19.04	371	12.34
08	405	19.04	373	07.11	409	19.04	392	00.19	203	19.02	192	12.33	396	19.04	373	00.33
09	399	03.06	369	11.46	404	02.55	392	11.36	203	03.06	182	15.53	390	08.04	373	23.35
10	395	19.03	360	12.37	402	18.59	387	10.32	193	00.14	191	00.00	387	08.05	363	12.47
11	400	18.03	371	00.51	405	18.25	386	01.42	202	04.09	186	15.07	391	18.04	370	12.42
12	402	04.04	361	12.00	402	19.00	386	12.00	202	04.04	181	15.00	398	18.00	376	15.00
13	419	09.00	363	11.50	401	19.00	384	05.00	201	19.00	185	12.00	394	18.00	376	12.00
14	407	19.05	374	12.03	404	19.02	391	12.06	203	08.02	191	12.12	400	19.06	376	00.07
15	401	18.05	372	11.59	405	19.04	382	13.47	203	08.03	191	15.00	393	18.00	375	00.07
16	403	19.05	365	10.13	406	19.03	381	12.18	202	06.01	183	10.35	401	19.03	373	00.18
17	404	19.08	366	12.51	405	19.01	378	12.55	199	04.06	178	15.32	401	19.00	379	00.18
18	414	06.07	381	00.34	410	09.09	390	00.23	209	09.17	195	00.08	402	03.08	383	18.24
19	410	06.02	383	14.19	409	18.59	395	14.16	207	04.05	195	14.18	399	19.00	384	00.04
20	415	06.00	384	13.01	407	06.00	396	13.02	208	07.02	195	23.58	404	10.02	390	23.59
21	414	19.04	385	17.14	406	08.00	395	00.02	205	19.00	196	15.00	407	19.00	390	01.02
22	412	19.01	389	00.02	410	08.16	398	23.49	209	06.21	198	20.23	405	08.08	385	00.02
23	412	06.05	388	00.09	409	06.05	397	00.03	209	05.59	199	00.06	409	06.00	387	00.08
24	416	18.29	382	12.03	412	18.13	396	11.43	207	18.13	193	15.46	406	19.04	389	23.58
25	410	06.06	382	14.31	408	06.04	393	14.31	207	06.04	190	14.45	403	06.05	386	00.11
26	413	19.02	378	11.46	408	19.03	390	11.45	205	08.01	192	12.18	404	08.03	386	11.54
27	411	05.08	378	11.38	407	05.08	392	16.45	206	04.07	191	14.25	405	06.03	385	00.11
28	409	04.09	379	14.29	406	04.10	386	14.12	208	04.22	192	14.44	405	03.14	384	11.36
29	416	16.25	382	00.13	420	16.28	396	00.18	210	16.34	197	00.07	403	19.06	387	23.34
30	412	06.03	382	12.39	406	04.08	383	16.20	208	04.06	189	16.19	407	19.04	384	12.49
31																
Max	419		398		424		408		210		205		409		390	
Min	395		360		400		376		189		178		387		363	

V. Regional Power Supply Position

(All Figs In MUs)

Date	Availability (Gross) MW	Peak Hrs. Requirement MW	Shortage/ Restriction MW	Availability (Gross) MW	Off Peak Hrs. Requirement MW	Shortage/ Restriction*	Regional Availability MU
						MW	
01	20735	21712	977	19717	21226	1509	446
02	20742	22631	1889	20654	22543	1889	448
03	20848	22428	1580	20221	21761	1540	451
04	21640	22501	861	21051	21807	756	465
05	21257	22676	1419	20276	20446	170	464
06	22072	23245	1173	20941	21442	501	468
07	21768	22607	839	21076	21564	488	477
08	21616	22402	786	21241	21541	300	468
09	22472	23550	1078	20685	21468	783	473
10	22322	23012	690	21461	21942	481	485
11	23220	24067	847	22028	22332	304	491
12	22125	23062	837	21733	22031	298	488
13	22771	23680	909	21631	21924	293	491
14	22215	23129	914	21964	22265	301	490
15	22459	22961	502	22218	22742	524	493
16	22087	23098	1011	22032	22692	660	488
17	22617	23521	904	21994	22618	624	486
18	21467	22371	904	20307	20356	49	447
19	20622	21334	712	20755	20945	190	452
20	21367	22344	977	20621	20921	300	456
21	21212	21953	741	20710	21200	490	464
22	21164	21626	462	20504	20789	285	462
23	21212	22475	1263	20409	20694	285	451
24	20481	21073	592	19677	20207	530	460
25	21303	22253	950	19765	20375	610	453
26	21615	22336	721	21080	21675	595	468
27	21270	22373	1103	20553	21218	665	461
28	21253	22171	918	20105	20696	591	464
29	19922	20374	452	21008	21647	639	447
30	20604	21707	1103	19796	19990	194	452
Maximum	23220	24067	1889	22218	22742	1889	493
Minimum	19922	20374	452	19677	19990	49	446
Average	21549	22489	937	20874	21435	561	467

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	3863	4474	2768	2549	3322	2889	2821	2578	4492	4994
02	4162	4742	2296	2570	3234	2893	2756	2565	4520	5104
03	4073	4647	2499	2506	3546	2920	2961	2613	4293	4663
04	4026	4972	2609	2736	3709	3088	2960	2646	4651	4758
05	4328	5043	2428	2825	3543	3288	3141	2743	4878	4078
06	4673	5126	2600	2598	3547	3068	3057	2781	4824	4840
07	4215	5097	2679	2741	3212	2625	2990	2846	4874	5043
08	4209	5082	2605	2768	2851	2651	2799	2735	4848	4979
09	4852	4820	2786	2640	3159	2468	3071	2579	4883	5084
10	5114	4709	2350	2862	3529	3002	2978	2758	4777	5169
11	5100	4940	2709	2674	3542	2830	3050	2727	5418	5847
12	4464	5130	2556	2613	3522	3214	2991	2723	4933	5500
13	4970	4932	2552	2581	3488	3187	2996	2823	4970	5235
14	4562	5110	2542	2635	3333	3158	2889	2804	4833	5353
15	4565	5210	2705	2941	3222	2962	2931	2807	4884	5547
16	4559	5017	2785	2935	3335	2952	3094	2784	4630	5883
17	4709	5259	2575	2935	3412	2864	3073	2720	4630	5883
18	4757	3387	2679	2962	2807	2980	2819	2835	4588	5953
19	4649	4886	2669	2715	2889	2564	2352	2532	4387	5499
20	4519	4985	2695	2856	3043	2322	2845	2399	4752	5521
21	4509	4859	2782	2915	2861	2468	2818	2384	4712	5296
22	4591	4900	2609	2865	2334	2231	2770	2445	4671	5049
23	4788	5058	2651	2749	2428	1994	2888	2523	4475	4917
24	4685	4638	2689	2876	2493	1811	2316	2460	4564	5032
25	4461	4897	2826	2868	2880	2281	2805	2405	4436	5053
26	4640	4864	2796	3052	2917	2502	2910	2546	4600	5363
27	4549	5042	2740	3004	2512	2234	3021	2640	4558	4925
28	4483	4281	2809	3028	3088	2525	2808	2588	4507	5295
29	3975	4715	2513	2957	3056	2534	2650	2632	4439	5261
30	4105	4321	2807	2930	3268	2853	2926	2531	4438	5015
31										
Maximum	5114	5259	2826	3052	3709	3288	3141	2846	5418	5953
Minimum	3863	3387	2296	2506	2334	1811	2316	2384	4293	4078
Average	4505	4838	2644	2796	3136	2712	2883	2638	4682	5205

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	587	489	149	137	434	349	782	571
02	596	472	175	134	461	327	791	501
03	629	480	174	144	457	378	888	818
04	418	531	160	110	447	374	842	473
05	495	342	174	142	489	379	826	497
06	620	461	178	147	665	615	765	500
07	390	451	175	152	441	414	847	619
08	726	542	142	150	426	394	717	625
09	686	662	176	133	438	383	833	610
10	426	490	125	110	546	393	889	554
11	559	406	125	100	436	346	792	582
12	557	455	160	95	417	366	874	510
13	605	449	173	110	452	384	718	542
14	591	475	171	136	457	388	710	484
15	569	441	151	153	399	381	804	532
16	424	466	173	145	532	343	639	570
17	562	399	163	148	410	361	771	768
18	573	450	166	139	469	325	689	748
19	590	479	172	127	448	374	762	729
20	601	457	172	127	433	374	580	719
21	590	478	154	138	383	394	775	424
22	612	480	147	139	388	377	775	521
23	574	483	156	136	402	373	775	439
24	570	467	164	135	413	376	720	496
25	641	412	165	132	433	377	757	462
26	617	464	172	142	504	368	792	505
27	594	433	161	135	470	349	630	706
28	605	490	162	133	582	362	625	278
29	557	465	134	142	412	380	698	577
30	594	433	162	114	442	364	666	733
Maximum	726	662	178	153	665	615	889	818
Minimum	390	342	125	95	383	325	580	278
Average	572	467	161	133	456	379	758	570

VII Daily Energy Consumption By Constituents

(All Figs In MUs)

Date	Punjab	Haryana	Rajasthan	Delhi	UP	Uttaranchal	Chandigarh	HP	J & K	Total
01	94.694	59.057	70.802	60.268	109.241	10.142	3.282	9.567	17.695	434.748
02	98.191	56.740	68.901	62.762	108.804	11.601	3.803	9.706	16.697	437.205
03	99.175	56.995	71.522	64.456	106.562	11.808	3.902	9.638	17.082	441.141
04	102.148	59.708	75.160	66.149	111.785	10.281	3.349	9.280	17.649	455.508
05	107.872	60.828	74.987	69.452	103.415	9.026	3.930	10.200	19.318	459.029
06	108.417	58.480	70.719	68.780	108.749	11.705	4.044	9.965	19.023	464.882
07	110.464	62.193	65.278	68.357	112.289	10.074	3.969	10.186	17.932	460.740
08	106.797	62.672	61.635	63.361	111.351	13.749	3.258	10.191	17.695	450.708
09	108.335	66.264	63.450	67.168	114.914	15.074	3.875	8.398	15.575	463.052
10	111.503	64.772	70.626	68.186	115.013	10.419	2.960	9.494	17.415	470.388
11	115.239	63.196	70.714	68.644	124.320	10.800	3.349	9.121	17.605	482.989
12	113.420	60.824	76.066	68.453	117.082	11.184	3.349	10.101	18.397	478.876
13	111.268	62.869	73.593	69.458	114.017	11.488	3.870	10.373	18.898	475.833
14	112.501	66.610	73.760	65.835	115.915	11.978	3.622	9.844	17.217	477.284
15	115.829	66.856	69.318	64.358	116.608	11.318	3.307	9.277	18.464	475.335
16	111.596	68.700	72.149	68.212	115.420	10.776	3.977	9.198	17.319	477.346
17	116.505	65.116	67.799	67.831	115.413	10.713	3.915	9.277	18.364	474.934
18	99.069	58.845	65.250	62.467	111.020	11.788	3.391	9.352	15.620	436.802
19	110.308	63.764	55.505	62.213	112.070	10.259	3.604	9.912	17.441	445.075
20	113.220	65.298	55.835	58.031	111.410	11.576	3.604	10.415	16.674	446.063
21	112.342	68.247	59.410	60.921	109.464	11.512	3.580	11.237	16.442	453.156
22	112.501	67.548	51.525	59.974	109.064	11.263	3.197	9.888	17.443	442.402
23	108.291	62.026	48.543	62.478	106.391	11.521	3.435	9.851	17.515	430.053
24	109.384	62.866	46.678	60.710	117.131	11.551	3.692	9.799	18.242	440.054
25	106.738	65.584	56.699	60.171	107.241	11.596	3.683	9.895	17.852	439.458
26	110.388	66.298	60.153	64.592	115.310	11.961	3.871	9.865	18.220	460.659
27	108.266	67.488	52.097	67.264	106.164	11.298	3.505	9.928	17.395	443.406
28	108.086	66.407	64.536	65.313	107.927	11.103	3.489	9.661	17.009	453.532
29	101.841	63.021	62.259	60.231	106.965	10.934	2.842	9.583	18.413	436.090
30	98.408	64.142	69.695	65.606	105.418	11.165	3.326	9.670	19.887	447.317
31										
Maximum	116.505	68.700	76.066	69.458	124.320	15.074	4.044	11.237	19.887	482.989
Minimum	94.694	56.740	46.678	58.031	103.415	9.026	2.842	8.398	15.575	430.053
Average	108.093	63.447	64.822	64.723	111.549	11.322	3.566	9.762	17.683	455.136
Month Total	3242.799	1903.414	1944.664	1941.699	3346.473	339.663	106.980	292.874	530.499	13654.065

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-Jun-2003	42269	36385	28318	31892	30042	29256	39861	34070	39323	48389	-2237	-2558
2-Jun-2003	44094	36902	29268	30793	30273	29360	41320	37340	39684	49631	-2492	-1976
3-Jun-2003	43440	37898	28469	29329	30140	29898	41531	37525	39319	47482	-2083	-1476
4-Jun-2003	44756	42183	30979	31710	31880	31639	41603	38280	43786	51199	-1563	-2873
5-Jun-2003	46325	46245	31974	33204	31537	31402	43950	38791	42177	45167	-2632	-2972
6-Jun-2003	48514	48041	33181	33696	32409	33014	48504	41485	43525	48064	-2180	-1933
7-Jun-2003	49702	51278	32731	37718	33254	33908	49191	43002	45416	46631	-1461	-3474
8-Jun-2003	51967	54926	32589	39869	32687	33424	48000	39649	45671	47616	-2211	-4284
9-Jun-2003	52234	52096	31817	35225	31402	28538	42858	44012	45066	49891	-2737	-2924
10-Jun-2003	54099	53133	33563	36034	33701	30490	44054	43917	47563	53728	-3036	-3951
11-Jun-2003	54142	57998	34846	36168	34838	31425	52961	41878	49477	55985	-2304	-1706
12-Jun-2003	56101	57504	33352	34084	35271	33664	51207	41274	50743	55524	-2056	-208
13-Jun-2003	53612	52839	33927	40860	35226	32947	50096	41691	51364	56872	-548	607
14-Jun-2003	53208	54301	33577	42212	35954	30588	51200	39428	50863	57714	-670	1339
15-Jun-2003	55770	56926	33078	40180	36492	33917	50424	38868	51041	59406	-1005	826
16-Jun-2003	53059	53001	33782	41653	36159	34021	48246	42317	50753	61036	-743	-1486
17-Jun-2003	52481	53495	34096	42916	35859	33997	50964	40616	50301	61776	-894	-2148
18-Jun-2003	51244	51804	33131	38596	34487	28695	45711	38324	47861	60375	-1337	-1060
19-Jun-2003	52353	56056	33560	43771	32632	18834	46871	38134	49563	61622	-1193	-144
20-Jun-2003	52805	57506	33843	42154	32796	22590	44933	35753	49849	60829	-1161	-1801
21-Jun-2003	52748	56440	33546	40053	34810	27952	44922	37045	49498	61242	-946	-742
22-Jun-2003	53379	57958	33533	39329	35544	29000	45055	36878	49559	59812	-1061	-1601
23-Jun-2003	54068	56790	32270	36383	34241	29443	47153	39546	49556	56718	-1712	-1516
24-Jun-2003	51506	51701	33444	38436	34290	31455	45341	38758	49333	58308	-1563	-1009
25-Jun-2003	50852	51445	35594	40788	34325	33404	46096	39709	49515	56992	479	-539
26-Jun-2003	52915	51581	35160	39322	36019	35840	49203	43127	50026	58749	468	-711
27-Jun-2003	50678	48508	33220	37171	35539	41363	49549	42586	48417	50874	-1382	-2873
28-Jun-2003	51325	50233	33694	39087	35167	41094	45737	39525	48198	49716	-1303	-1703
29-Jun-2003	51318	53488	33381	38306	35413	41613	44618	36284	48912	50496	-1460	-1153
30-Jun-2003	51816	49894	33118	37605	35374	43023	47520	42576	49572	48763	-781	-1157
Total MU	1532.780	1538.555	987.041	1128.544	1017.761	965.794	1398.679	1192.388	1425.931	1630.607	-43.804	-47.206
Max. MWH	56101	57998	35594	43771	36492	43023	52961	44012	51364	61776	479	1339
Min MWH	42269	36385	28318	29329	30042	18834	39861	34070	39319	45167	-3036	-4284
Avg. MWH	51093	51285	32901	37618	33925	32193	46623	39746	47531	54354	-1460	-1574

VIII. Schedule vs Actual Drawals of Northern Regional Constituents (Sheet 2 of 2)**Figs. in MWH**

Date	Himachal Pradesh		Jammu & Kashmir		Chandigarh		NFF		Railways	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Jun-2003	4441	4381	11837	15065	3789	3574	480	637	1348	1477
2-Jun-2003	4776	4469	14356	14879	3776	4096	480	644	1561	1351
3-Jun-2003	4104	4801	14124	14081	3821	4229	480	641	1427	1439
4-Jun-2003	4394	4594	13888	13415	3878	4285	480	634	1519	1503
5-Jun-2003	4424	4172	14136	14617	3942	4273	480	641	1417	1384
6-Jun-2003	-838	-26	14580	14684	3970	4360	480	607	992	1358
7-Jun-2003	-981	-1291	13712	14254	4075	4298	480	611	1041	1503
8-Jun-2003	-1258	-2782	15355	13892	4069	3552	480	630	1291	1530
9-Jun-2003	-1159	-1742	14997	10600	4044	4138	480	631	1004	1383
10-Jun-2003	-1022	-2480	14978	12131	4103	4050	480	624	663	1526
11-Jun-2003	-2373	-3749	15240	13484	4158	4036	480	636	1657	1491
12-Jun-2003	-3015	-3087	15541	13793	4204	4229	480	640	1063	1144
13-Jun-2003	-2691	-2651	15773	14462	4256	4212	480	594	647	1286
14-Jun-2003	-3145	-2452	15800	13836	4228	3942	480	604	1219	1286
15-Jun-2003	-3253	-3154	15804	13971	4196	3615	480	612	1445	1427
16-Jun-2003	-3019	-2902	15730	13643	4181	4319	480	191	1471	1459
17-Jun-2003	-3004	-3598	15031	13615	4153	4185	480	187	1062	1377
18-Jun-2003	-2958	-3789	15079	12436	4104	3620	480	196	1653	1416
19-Jun-2003	-2479	-3258	14896	13814	4189	3895	480	199	1123	1490
20-Jun-2003	-2702	-2585	15012	12351	4202	3996	480	205	921	1460
21-Jun-2003	-2581	-2586	14941	11802	4213	3890	480	139	779	1412
22-Jun-2003	-2383	-3039	14593	13668	4230	3513	480	178	1114	1466
23-Jun-2003	-2595	-3368	14582	13518	4242	3745	480	263	1096	1440
24-Jun-2003	-3006	-3166	13907	13680	4190	3989	480	317	696	1586
25-Jun-2003	-3308	-3250	14540	13311	4207	4006	480	355	1410	1477
26-Jun-2003	-3100	-2865	14674	14268	4299	4152	480	356	1294	1479
27-Jun-2003	-2120	-2964	11539	13059	4176	3889	480	15	1178	1511
28-Jun-2003	-2773	-3655	12076	12417	4107	3736	480	83	1281	1490
29-Jun-2003	-2641	-3777	14421	12593	4179	3006	480	316	1358	1453
30-Jun-2003	-3134	-3572	14629	13883	4167	3563	480	352	1580	1600
Total MU	-39.399	-49.371	435.771	405.222	123.348	118.393	14.400	12.738	36.310	43.204
Max. MWH	4776	4801	15804	15065	4299	4360	480	644	1657	1600
Min MWH	-3308	-3789	11539	10600	3776	3006	480	15	647	1144
Avg. MWH	-1313	-1646	14526	13507	4112	3946	480	425	1210	1440

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-Jun-2003	25855	25826	21840	21878	18264	18250	6548	6427	6960	6973	16645	16804
2-Jun-2003	27080	27157	21840	21912	18264	18272	6960	6989	6960	6984	13824	13680
3-Jun-2003	29328	29304	21840	21908	18264	18253	6636	6180	5339	5166	12752	12761
4-Jun-2003	43291	43424	21824	21848	18264	18244	6442	5900	4081	4010	12925	12857
5-Jun-2003	33248	33330	21815	21742	18264	18227	7302	7264	9101	8969	12755	12801
6-Jun-2003	33359	33435	21840	21893	18264	18278	8310	8429	9144	9113	12331	12509
7-Jun-2003	33240	33331	21840	21828	18264	18147	8605	8628	9127	9065	16438	16535
8-Jun-2003	33055	32972	21840	21639	18053	17678	8558	8274	9057	8886	15528	15478
9-Jun-2003	33240	33286	21840	21779	13517	13495	9035	9095	8921	8897	14658	15167
10-Jun-2003	40188	40255	21840	21867	13680	13679	9113	9196	8273	7756	15647	16671
11-Jun-2003	44040	44052	21840	21625	17556	17197	9084	8962	9017	8805	16654	16670
12-Jun-2003	43965	43965	21765	21569	18084	17963	8975	8929	8803	8738	15282	15164
13-Jun-2003	44040	44110	21840	21848	16624	16815	9086	9140	9029	9055	14531	15510
14-Jun-2003	44040	44128	21840	21847	18218	18199	9111	9172	9078	9038	14805	15609
15-Jun-2003	44040	44101	21840	21838	18218	18224	9120	9137	9094	9010	16059	16275
16-Jun-2003	44040	44126	21840	21906	18230	18284	9132	9210	9120	9115	14991	15864
17-Jun-2003	44040	44139	21840	21896	18264	18308	9139	9212	9134	9115	15319	16089
18-Jun-2003	42876	43135	20730	20534	15323	14976	8524	8487	8240	8179	13571	13594
19-Jun-2003	43565	43769	21436	21536	13603	13829	8990	9010	8520	8607	13197	13762
20-Jun-2003	43080	43206	21108	21234	12392	12393	8969	8925	8506	8588	13377	13585
21-Jun-2003	44040	44080	21720	21737	10614	11156	9050	9121	8594	8692	14103	14571
22-Jun-2003	44040	44097	21730	21758	10630	11092	9070	9094	8677	8814	14355	14897
23-Jun-2003	43240	43362	21370	21487	12636	12677	8935	8965	8739	8699	14297	14672
24-Jun-2003	43491	44038	21545	21793	14572	15311	9076	9164	8970	9034	12987	13383
25-Jun-2003	44040	44123	21116	21197	15218	15726	9102	9177	9057	9082	14938	15222
26-Jun-2003	44040	44133	21740	21871	15563	16220	9062	9146	8873	8877	14991	15486
27-Jun-2003	44040	44062	21820	21803	15366	16254	8981	9058	8934	8953	14894	15271
28-Jun-2003	44040	44093	21820	21805	15351	15565	8898	8940	8796	8772	15290	15651
29-Jun-2003	43181	43062	21404	21213	13523	14736	8819	8798	8630	8541	13892	14297
30-Jun-2003	44040	44043	21760	21753	15377	15674	9022	9052	8867	8923	14635	15348
Total MU	1207.802	1210.144	650.463	650.544	478.460	483.122	257.654	257.081	253.641	252.456	435.671	446.183
Max. MWH	44040	44139	21840	21912	18264	18308	9139	9212	9144	9115	16654	16804
Min MWH	25855	25826	20730	20534	10614	11092	6442	5900	4081	4010	12331	12509
Avg. MWH	40260	40338	21682	21685	15949	16104	8588	8569	8455	8415	14522	14873

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-Jun-2003	7993	8318	10041	10222	4368	3997	4800	4228	3015	3110	7669	8053
2-Jun-2003	7865	8608	10172	10242	4368	3843	4800	4175	2940	3020	15792	15926
3-Jun-2003	7865	8499	10038	10167	4272	3703	4800	4188	3300	3365	15727	15873
4-Jun-2003	8572	8562	10003	10106	4080	3626	4800	4203	3045	3141	15086	15478
5-Jun-2003	8465	8481	10085	10114	3912	3839	7440	8015	3360	3414	14415	14814
6-Jun-2003	7689	8098	9787	9856	6080	6130	9600	8804	3390	3462	15159	15397
7-Jun-2003	8516	8442	10205	10167	8344	8279	9600	8756	3330	3401	10953	11888
8-Jun-2003	7779	7833	10005	9985	8352	8899	9600	8811	3240	3268	15813	15989
9-Jun-2003	6055	6087	9854	9955	8352	8586	8880	8948	3240	3306	15668	15875
10-Jun-2003	5597	5628	10188	10224	9024	8239	8880	9217	3060	3126	15154	15437
11-Jun-2003	5523	5466	9694	9273	8640	8412	9600	9357	2685	2733	15792	16063
12-Jun-2003	5799	5781	12619	12604	8352	8444	9600	9494	2535	2553	15840	16068
13-Jun-2003	8233	8532	12275	12667	8544	8583	9600	9530	2280	2339	15840	16048
14-Jun-2003	7545	8250	11775	11866	8520	8621	9600	9540	2265	2330	15821	16079
15-Jun-2003	8077	8236	12558	12594	8736	8543	9600	9496	2490	2575	15792	16084
16-Jun-2003	7177	7825	12139	12485	8712	8463	9600	9405	2535	2600	15825	16174
17-Jun-2003	7980	8248	9757	9986	8640	8580	9600	9509	2445	2518	15834	16156
18-Jun-2003	7114	7242	8444	8451	8544	8870	9600	9542	2505	2583	15861	16137
19-Jun-2003	7175	7053	8858	9117	8688	8860	9600	9518	2415	2471	15888	16129
20-Jun-2003	7557	7634	8958	9093	8952	8888	9600	9601	2250	2307	15840	16059
21-Jun-2003	8181	8300	9076	9349	8952	8920	9600	9545	2235	2275	15785	16051
22-Jun-2003	8355	8494	9207	9474	8976	8871	9600	9594	2175	2219	15888	16080
23-Jun-2003	8328	8316	9322	9388	8976	8907	9600	8907	2130	2202	15840	16071
24-Jun-2003	8164	8885	9759	10170	8952	8730	4800	4296	2130	2222	14905	15333
25-Jun-2003	7898	8700	9695	9916	8952	8920	4800	4434	2190	2257	15905	16110
26-Jun-2003	8113	8567	9725	10238	9000	8630	8760	8795	2295	2451	15905	16165
27-Jun-2003	8129	8224	9835	10295	6192	5768	9600	9433	2775	2877	7541	7684
28-Jun-2003	7956	8296	11456	11955	3533	3101	9600	9354	2430	2515	9315	9723
29-Jun-2003	8180	8111	11614	11733	2640	2343	9600	8900	2175	2299	16320	16535
30-Jun-2003	8335	8283	11910	12334	4752	4463	9600	8907	2025	2059	16320	16572
Total MU	230.215	236.999	309.054	314.026	218.405	214.058	254.760	246.502	78.885	80.998	443.493	452.051
Max. MWH	8572	8885	12619	12667	9024	8920	9600	9601	3390	3462	16320	16572
Min MWH	5523	5466	8444	8451	2640	2343	4800	4175	2025	2059	7541	7684
Avg. MWH	7674	7900	10302	10468	7280	7135	8492	8217	2630	2700	14783	15068

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-Jun-2003	1979	2004	12746	12918	11520	11566	20328	19870	15110	14614	3448	3347
2-Jun-2003	2083	2101	12924	13079	11520	11527	20328	20469	15110	14600	3448	3399
3-Jun-2003	1894	1931	12902	13092	11510	11522	20335	21111	15110	14605	3244	2575
4-Jun-2003	1578	1691	12924	13141	11330	11388	20335	20829	15110	14574	2445	2761
5-Jun-2003	2206	2206	12924	13106	11520	11516	21110	21679	15110	14663	2907	2895
6-Jun-2003	1989	2016	12924	13097	11520	11494	22620	23029	14990	14918	2907	2775
7-Jun-2003	2100	2126	12924	13160	11520	11498	22805	22854	14990	14625	2943	2928
8-Jun-2003	2145	2171	12924	13127	11520	11514	22805	23231	14990	14688	2943	3132
9-Jun-2003	2228	2262	12924	13131	11138	10599	23129	23542	14990	14777	3407	3586
10-Jun-2003	2280	2291	12924	13120	11520	11540	24338	24539	14968	14678	3632	3530
11-Jun-2003	2280	2266	12924	13124	11520	11519	24688	24589	15008	15014	3470	3412
12-Jun-2003	2162	2173	12924	13079	11520	11521	24688	24417	15008	14542	3413	3315
13-Jun-2003	2070	2088	12924	13112	11520	11550	24450	24424	15008	15338	3311	3399
14-Jun-2003	1958	1963	12924	13072	11520	11528	24313	24690	15008	14145	3452	3342
15-Jun-2003	1975	1998	12924	13107	11520	11532	24315	24464	15008	15170	3605	3459
16-Jun-2003	2030	2039	12924	13117	11520	11543	24315	24404	15008	15046	3427	3264
17-Jun-2003	2046	2080	12924	13122	11520	11531	24496	23708	15008	14787	3248	3219
18-Jun-2003	2222	2224	12924	13033	11420	11007	24028	24824	15205	14717	3482	2960
19-Jun-2003	2232	2246	12924	13105	11033	11062	24628	24814	15205	14890	3250	3103
20-Jun-2003	2117	2153	12924	13093	11275	11315	24821	24869	15205	14561	3047	2953
21-Jun-2003	2193	2196	12924	13107	11120	11180	24821	25345	15205	14764	3226	3361
22-Jun-2003	2180	2214	12924	13096	11520	11567	25120	25970	15205	14826	3441	2881
23-Jun-2003	2201	2246	12924	13086	11520	11553	25120	25557	15205	14873	3109	2427
24-Jun-2003	2178	2147	12924	13132	11480	11580	25825	25990	15003	14730	2375	2350
25-Jun-2003	1806	1591	12924	13095	11520	11566	25838	25941	15003	14801	2316	2685
26-Jun-2003	2232	2257	12924	13073	11508	11565	25838	26241	15003	14480	2992	2895
27-Jun-2003	2218	2145	12924	13063	11410	11497	26045	25910	15003	14829	3016	2889
28-Jun-2003	2145	2089	11854	12057	11455	11465	26045	26321	15003	14773	2955	2545
29-Jun-2003	2202	2196	12924	13095	11400	11405	26045	26096	15003	14654	2523	2126
30-Jun-2003	2192	2213	11945	12193	11448	11476	26045	26460	15003	14727	2193	2954
Total MU	63.121	63.323	385.471	390.932	343.367	343.126	719.617	726.187	451.785	442.409	93.175	90.467
Max. MWH	2280	2291	12924	13160	11520	11580	26045	26460	15205	15338	3632	3586
Min MWH	1578	1591	11854	12057	11033	10599	20328	19870	14968	14145	2193	2126
Avg. MWH	2104	2111	12849	13031	11446	11438	23987	24206	15060	14747	3106	3016

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	37.40	17.59	18.27	0.91	38.37	0.78	50.31	6.16	14.64	12.40	5.31	1.67	204.71
02	39.11	19.09	16.05	0.85	38.42	0.88	48.52	6.21	14.05	11.60	5.31	1.67	202.67
03	43.56	17.21	17.33	0.83	38.11	0.86	48.27	5.82	13.76	13.03	5.31	1.67	206.67
04	42.10	17.03	17.78	0.88	37.89	0.85	51.62	5.34	13.76	13.45	4.75	3.56	209.92
05	42.79	18.92	17.52	0.93	37.35	0.84	46.49	5.64	12.36	14.99	5.45	3.56	207.73
06	42.21	18.68	15.46	0.22	31.85	0.73	50.15	5.24	13.41	12.52	10.12	3.56	205.99
07	41.53	17.87	15.14	0.93	32.58	1.77	52.20	5.32	14.15	11.05	11.79	3.56	209.68
08	35.92	16.69	13.25	0.95	33.32	0.71	52.30	5.35	14.91	9.75	12.97	3.56	201.50
09	36.75	19.17	21.52	1.00	37.24	1.71	50.82	5.58	14.94	9.87	10.27	3.56	214.42
10	39.60	19.01	18.95	1.02	38.13	0.20	51.21	6.04	15.12	9.99	11.94	3.56	216.75
11	39.43	18.97	17.22	0.96	37.91	0.62	50.72	5.70	12.88	13.41	13.03	3.56	216.39
12	38.07	19.27	15.08	0.85	36.47	0.48	52.01	4.90	12.04	13.47	13.12	3.56	211.32
13	39.09	18.79	12.75	0.80	37.49	0.03	48.53	4.96	11.51	13.48	13.17	3.56	206.16
14	39.79	18.56	16.97	0.89	38.00	0.00	47.22	5.29	11.27	12.49	12.44	3.56	208.53
15	38.52	20.71	17.17	0.76	33.55	0.14	46.59	6.61	11.34	11.91	12.76	3.56	205.07
16	38.40	20.60	17.31	0.80	32.73	0.10	45.72	5.30	11.86	11.85	12.39	3.56	202.07
17	39.71	20.01	12.94	0.89	31.53	0.00	47.22	3.94	12.43	13.21	13.02	3.56	200.00
18	27.87	19.19	10.33	0.77	31.28	0.00	44.38	4.92	12.43	11.42	13.05	3.56	180.73
19	34.55	20.20	11.32	0.83	30.54	0.15	42.85	3.98	10.03	11.79	13.09	3.56	184.43
20	36.56	20.55	12.69	0.95	29.44	0.06	43.34	2.65	12.56	11.07	13.07	3.56	188.29
21	35.79	20.65	17.39	0.93	27.72	0.00	41.86	2.47	11.70	13.00	13.86	3.56	190.72
22	34.46	20.60	18.28	0.95	26.12	0.00	42.19	2.41	11.93	11.99	12.97	3.56	187.40
23	32.08	19.13	15.46	0.92	23.94	0.01	44.88	1.43	12.42	12.27	13.14	3.56	181.20
24	36.63	20.05	14.57	0.88	21.22	0.59	41.42	14.17	11.96	11.21	13.07	3.56	191.29
25	36.26	19.98	15.33	0.45	20.26	1.26	45.52	1.13	11.48	8.60	13.10	3.56	178.90
26	37.83	20.94	16.64	0.62	20.86	0.01	46.59	1.16	12.09	8.39	13.17	3.52	183.82
27	37.54	20.43	18.72	1.01	16.11	0.04	48.28	2.95	13.48	10.01	13.17	3.52	187.25
28	37.13	19.79	17.93	0.96	20.59	0.15	48.99	4.18	12.27	11.14	13.46	4.55	193.17
29	30.86	18.78	15.28	0.94	19.11	0.15	47.51	2.94	11.71	10.86	13.25	4.55	177.98
30	28.45	19.34	15.77	1.01	21.38	0.00	48.53	3.14	11.67	9.62	13.25	4.55	178.74
31													
Maximum	43.56	20.94	21.52	1.02	38.42	1.77	52.30	14.17	15.12	14.99	13.86	4.55	216.75
Minimum	27.87	16.69	10.33	0.22	16.11	0.00	41.42	1.13	10.03	8.39	4.75	1.67	177.98
Average	37.33	19.26	16.01	0.86	30.65	0.44	47.54	4.70	12.67	11.66	11.49	3.47	197.78
Month Total	1119.99	577.79	480.42	25.70	919.50	13.12	1426.22	140.91	380.15	349.86	344.83	104.12	5933.51

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during	Cummulative from 01.04.2003
			June, 2003 (Ex Bus MU)	(Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	420.90	1242.90
(b)	Singrauli STPS	2000.00	1210.14	3676.08
(c)	Rihand STPS	1000.00	650.54	1959.94
(d)	Dadri NCTPS	840.00	483.12	1339.48
(e)	Unchahar-I TPS	420.00	257.08	792.69
(f)	Unchahar-II TPS	420.00	252.46	612.25
(g)	Tanda TPS	440.00	175.80	550.58
(h)	Anta GPS	419.33	237.00	679.53
(i)	Auraiya GPS	663.36	314.03	1074.61
(j)	Dadri GPS	829.78	446.18	1211.49
(k)	Faridabad GPS	431.57	254.47	664.43
	Total NTPC	8169.04	4701.72	13803.97
B	NHPC			
(a)	Bairasiul	180.00	81.00	286.70
(b)	Salal	690.00	452.05	1208.77
(c)	Tanakpur HPS	94.20	63.23	135.90
(d)	Chamera HPS	540.00	390.93	997.71
(e)	Uri HPS	480.00	343.13	1005.02
	Total NHPC	1984.20	1330.34	3634.10
C	NPC			
(a)	RAPS -A	300.00	116.09	334.15
(b)	RAPS -B	440.00	248.28	694.38
(c)	NAPS	440.00	214.06	628.01
	Total NPC	1180.00	578.43	1656.54
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	726.19	1562.42
(b)	Dehar	990.00	442.41	1118.47
(c)	Pong	384.00	90.47	230.10
	Total BBMB	2864.15	1259.07	2910.99
3	DELHI			
(a)	Indra Prastha	247.50	55.53	128.69
(b)	Rajghat	149.00	52.47	135.10
(c)	Gas Turbines	282.00	83.05	254.17
(d)	Pragati Gas	330.00	157.21	553.52
	Total DELHI	1008.50	348.26	1071.48
4	HARYANA			
(a)	WYC	48.00	26.55	69.90
(b)	Faridabad (New)	165.00	70.55	205.73
(c)	Panipat	860.00	447.82	1072.20
(d)	Magnum Diesel(IPP)	25.20	5.88	18.37
	Total Haryana	1098.20	550.80	1366.20

contd/-

5	HP			
(a)	Giri	60.00	5.15	17.92
(b)	Bassi	60.00	42.40	119.09
(c)	Binwa	6.00	2.02	8.87
(d)	Rongtong	15.25	1.72	5.70
	(+Nogli+Micro+Thirot+Sal-2)			
(e)	Andhra	16.95	5.69	19.66
(f)	Bhabha (H)	120.00	85.50	209.83
(g)	Baner (H)	12.00	4.09	12.01
(h)	Gaj (H)	10.50	3.99	14.20
(i)	Gumma	3.00	0.41	2.40
(j)	Ghanvi	22.50	7.14	22.78
(k)	Malana (IPP)	86.00	58.65	112.30
(l)	Baspa (IPP)	300.00	188.08	208.17
	Total HP	712.20	404.84	544.76
6	J & K			
(a)	Lower Jhelum	105.00	61.34	167.64
(b)	Upper Sindh	127.60	30.25	88.41
(c)	Ganderbal	15.00	0.61	3.46
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	8.05	17.83
(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	100.26	277.33
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	77.96	211.16
(b)	UBDC	90.00	53.37	127.42
(c)	Mukerian	207.00	105.21	256.67
(d)	Anandpur Sahib (APS)	134.00	91.82	199.35
(e)	Ranjit Sagar HPS	600.00	253.32	554.54
(f)	Small Hydel	4.10	0.93	2.32
(g)	GNDTPS (Bhatinda)	440.00	211.68	527.10
(h)	GGSTPS (Ropar)	1260.00	652.47	1584.12
(i)	Jhalkeri Rice Straw Fired	10.00	0.00	0.00
(j)	Lehra Mohabbat TPS	420.00	250.28	707.03
	Total Punjab	3275.10	1697.04	4169.71
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	0.00	0.00
(b)	Rana Pratap Sagar (RPS)	172.00	5.84	24.38
(c)	Jawahar Sagar (JS)	99.00	6.62	20.16
(d)	Anoopgarh	9.00	0.00	0.88
(e)	Small Hydro	14.85	0.80	2.39
(f)	Kota TPS	850.00	446.20	1483.76
(g)	RAMGARH GT	3.00	0.00	
(h)	RAMGARH GT EXT	35.50	17.31	53.23
(i)	Suratgarh TPS	1250.00	457.31	1489.96
(j)	Wind Farm	14.01	19.67	35.61
	Total Rajasthan	2587.36	953.75	3110.37

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	56.96	196.22
(b)	Obra	99.00	25.36	83.87
(c)	Matatilla	30.00	0.10	6.20
(d)	Ganga Canal	10.70	0.00	0.00
(e)	Small hydro	18.20	0.00	0.00
(f)	Khara	72.00	42.79	110.95
	Total U.P. (Hydro)	529.90	125.21	397.23
	<u>THERMAL</u>			
(e)	Obra	1442.00	438.73	1419.24
(f)	Panki	242.00	38.61	160.93
(g)	Harduaganj	375.00	36.80	94.72
(h)	Paricha	220.00	37.33	133.54
(i)	Anpara	1630.00	874.72	2680.82
	Total U.P. (Thermal)	3909.00	1426.18	4489.24
	Total U.P.	4438.90	1551.39	4886.47
10	UTTANCHAL			
(a)	Khatima	41.40	14.80	46.19
(b)	Ranganga	198.00	10.80	21.16
(c)	Ganga Canal	32.70	13.22	29.71
(d)	Yamuna (I & IV)	114.75	60.81	150.87
(e)	Chibro	240.00	96.27	229.98
(f)	Khodri	120.00	46.53	111.42
(g)	Chilla	144.00	74.19	177.95
(h)	Maneri Bhali	90.00	62.09	182.62
	Total Uttranchal	980.85	378.71	949.90
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	28793.77	13854.60	38381.81

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 June 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	0	-150	0	300	0.39	1.82	-1.50	-25	-25	0	25	0.00	0.42	-0.42
02	0	-150	0	350	0.39	1.82	-1.49	-25	-23	0	25	0.00	0.45	-0.45
03	0	-200	0	200	0.00	1.94	-2.06	-25	-24	0	25	0.00	0.48	-0.48
04	0	-200	0	450	0.00	1.94	-2.73	-24	-23	0	26	0.00	0.47	-0.47
05	-125	-200	0	450	0.00	3.70	-3.63	-25	-24	0	26	0.00	0.47	-0.47
06	-146	-250	0	350	0.00	4.24	-4.30	-25	-24	0	26	0.00	0.47	-0.47
07	0	0	150	75	0.70	0.14	0.61	-25	-24	0	26	0.00	0.50	-0.50
08	0	0	0	0	0.00	0.00	0.00	-25	-25	0	25	0.00	0.59	-0.59
09	0	0	0	0	0.00	0.00	0.00	-25	-25	0	25	0.00	0.48	-0.48
10	0	0	0	0	0.00	0.00	0.00	-25	-24	0	25	0.00	0.52	-0.52
11	0	0	0	0	0.00	0.00	0.00	-26	-24	0	25	0.00	0.56	-0.56
12	0	0	0	0	0.00	0.00	0.00	-24	-23	0	25	0.00	0.50	-0.50
13	0	0	0	0	0.00	0.00	0.00	-24	-23	0	25	0.00	0.50	-0.50
14	0	0	0	0	0.00	0.00	0.00	-24	-23	0	25	0.00	0.51	-0.51
15	0	100	150	200	1.16	0.43	0.63	-24	-23	0	25	0.00	0.44	-0.44
16	100	350	350	0	1.16	0.43	2.50	-24	-23	0	25	0.00	0.46	-0.46
17	200	300	350	150	3.26	0.23	2.98	-24	-23	0	25	0.00	0.45	-0.45
18	-100	-100	300	150	0.56	0.83	-0.47	-25	-20	0	25	0.00	0.51	-0.51
19	-250	50	150	250	0.86	1.00	-0.29	-25	-22	0	25	0.00	0.53	-0.53
20	50	-50	400	50	0.89	0.49	0.43	-24	-23	0	25	0.00	0.53	-0.53
21	-50	200	400	150	1.70	0.30	1.27	-24	-22	0	25	0.00	0.53	-0.53
22	-200	-50	450	200	1.27	0.70	0.60	-22	-22	0	25	0.00	0.47	-0.47
23	50	50	350	150	1.23	0.38	0.69	0	-22	0	25	0.00	0.30	-0.30
24	50	50	350	300	3.37	0.47	2.74	-22	-22	0	25	0.00	0.51	-0.51
25	0	300	300	50	2.84	0.01	2.56	-22	-22	0	22	0.00	0.51	-0.51
26	0	200	350	50	2.65	0.01	2.42	-23	-24	0	25	0.00	0.52	-0.52
27	50	100	300	50	1.58	0.56	1.42	-23	-24	0	25	0.00	0.51	-0.51
28	50	250	450	50	3.51	0.00	3.35	-23	-24	0	25	0.00	0.51	-0.51
29	50	250	400	0	2.78	0.00	2.61	-24	-23	0	25	0.00	0.44	-0.44
30	-100	50	300	0	1.34	0.21	1.06	-24	-25	0	25	0.00	0.45	-0.45
31														
Maximum	200	350	450	450	3.51	4.24	3.35	0	-20	0	26	0.00	0.59	-0.30
Minimum	-250	-250	0	0	0.00	0.00	-4.30	-26	-25	0	22	0.00	0.30	-0.59
Average	-12	30	183	133	1.05	0.72	0.31	-23	-23	0	25	0.00	0.49	-0.49
Total					26.34	16.93	9.41					0.00	14.58	-14.58

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

2 of 2

Date	With WR Over Ujjain - Kota {Export(-)/Import(+)}							With ER {Export(-)/Import(+)}						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	0	0	0	0	0.00	0.00	0.00	218	415	465	0	8.88	1.29	7.59
02	0	0	0	0	0.00	0.00	0.00	173	500	500	0	6.64	0.60	6.04
03	0	0	0	0	0.00	0.00	0.00	190	188	340	0	6.40	0.68	5.72
04	0	0	0	0	0.00	0.00	0.00	190	390	450	0	6.56	0.60	5.96
05	0	0	0	0	0.00	0.00	0.00	374	322	470	0	8.20	1.33	6.87
06	0	0	0	0	0.00	0.00	0.00	430	450	491	0	10.80	2.16	8.64
07	0	0	0	0	0.00	0.00	0.00	320	220	491	0	8.04	1.80	6.24
08	0	0	0	0	0.00	0.00	0.00	180	420	420	0	6.17	1.93	4.24
09	0	0	0	0	0.00	0.00	0.00	179	180	180	0	4.11	2.18	1.93
10	0	0	0	0	0.00	0.00	0.00	158	159	159	0	3.65	1.98	1.67
11	0	0	0	0	0.00	0.00	0.00	302	252	302	0	4.82	2.15	2.67
12	0	0	0	0	0.00	0.00	0.00	257	257	257	0	6.03	2.32	3.71
13	0	0	0	0	0.00	0.00	0.00	257	257	257	0	6.03	2.22	3.81
14	0	0	0	0	0.00	0.00	0.00	257	257	257	0	6.13	1.82	4.31
15	0	0	0	0	0.00	0.00	0.00	257	257	257	0	6.35	1.17	5.18
16	0	0	0	0	0.00	0.00	0.00	195	195	345	0	5.11	2.42	2.69
17	0	0	0	0	0.00	0.00	0.00	245	295	445	0	7.75	1.74	6.01
18	0	0	0	0	0.00	0.00	0.00	245	345	345	0	5.13	1.13	4.00
19	0	0	0	0	0.00	0.00	0.00	225	245	245	0	5.91	0.94	4.97
20	0	0	0	0	0.00	0.00	0.00	230	400	400	0	6.08	0.94	5.14
21	0	0	0	0	0.00	0.00	0.00	231	230	331	0	6.29	0.92	5.37
22	0	0	0	0	0.00	0.00	0.00	231	380	380	0	6.54	0.97	5.57
23	0	0	0	0	0.00	0.00	0.00	181	231	231	0	4.61	0.30	4.31
24	0	0	0	0	0.00	0.00	0.00	50	231	286	0	3.76	0.00	3.76
25	0	0	0	0	0.00	0.00	0.00	185	133	333	0	4.70	0.41	4.29
26	0	0	0	0	0.00	0.00	0.00	234	238	334	0	6.16	0.88	5.28
27	0	0	0	0	0.00	0.00	0.00	350	226	326	0	6.07	0.49	5.58
28	0	0	0	0	0.00	0.00	0.00	50	274	336	0	4.13	0.00	4.13
29	0	0	0	0	0.00	0.00	0.00	50	296	296	0	3.69	0.00	3.69
30	0	0	0	0	0.00	0.00	0.00	50	246	246	0	2.13	0.00	2.13
31														
Maximum	0	0	0	0	0.00	0.00	0.00	430	500	500	0	10.80	2.42	8.64
Minimum	0	0	0	0	0.00	0.00	0.00	50	133	159	0	2.13	0.00	1.67
Average	0	0	0	0	0.00	0.00	0.00	216	283	339	0	5.89	1.18	4.72
Total					0.00	0.00	0.00					174.32	37.11	137.21

XIII. Progress Of Installation Of Shunt Capacitors As On 30.06.2003**(ALL FIGS IN MVar)**

CONSTITUENT	REQUIREMENT AT THE END OF 2002-03	CAPACITORS AS ON 31.03.2003	CAPACITORS ADDITION DURING		BALANCE NOT INSTALLED DURING 2002-03
		INSTALLED	2002-03	2003 - 04	
Chandigarh	116	92	0	0	24
Delhi	2932	2755	122	0	177
Haryana	2797	2685	333	8	112
H.P.	319	278	73	17	41
J & K	924	147	0	0	777
Punjab	5107	4706	76	3	401
Rajasthan	2695	2698	221	22	0
U.P.	5225	4965	274	0	260
Uttranchal	286	123	0	0	163
BBMB	360	381	0	0	0
TOTAL	20761	18830	1099	50	1955

SOURCE: Minutes of 342th OCC meeting of NREB held on 11th july, 2003.

XIV. Hydraulic Data For Reservoirs During June 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 june 2003 (m)	486.30 1595.48	393.07 1289.61	253.69 832.30	345.70 1134.20	378.87 1243.00
Level on last day of june 2002 (m)	479.46 1573.04	390.14 1279.99	254.66 835.50	344.76 1131.11	379.72 1245.80
Live Capacity as on (mhmt) last day of june 2003 (maft)	0.35 2.82	0.09 0.76	0.01 0.05	0.03 0.26	0.00 0.00
Live Capacity as on (mhmt) last day of june 2002(maft)	0.26 2.07	0.05 0.38	0.04 0.30	0.03 0.22	0.00 0.00
Energy content as on last day of june 2003 (MU)	1100.00	110.00	0.00	47.00	0.00
Energy content as on last day of may 2002 (MU)	900.00	60.00	25.00	40.00	0.00
Maximum level (m) (ft) (date)	486.30 1595.48 30.06.2003	394.14 1293.10 01.06.2003	254.78 835.90 01.06.2003	345.70 1134.20 30.06.2003	378.87 1243.00 30.06.2003
Minimum level (m) (ft) (date)	471.50 1546.90 01.06.2003	392.78 1288.64 27.06.2003	253.20 830.70 23.06.2003	345.55 1133.71 01.06.2003	378.76 1242.66 01.06.2003

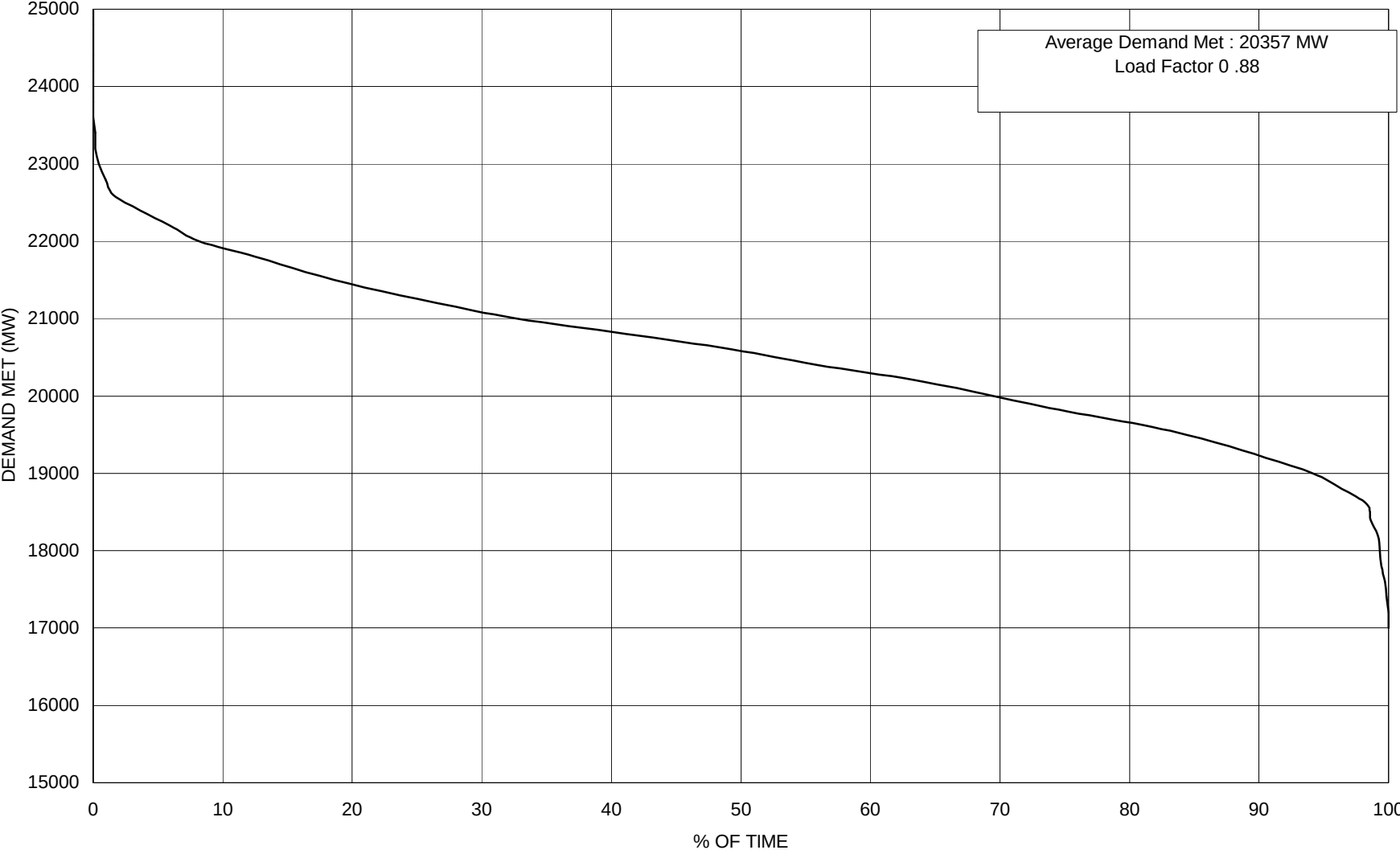
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

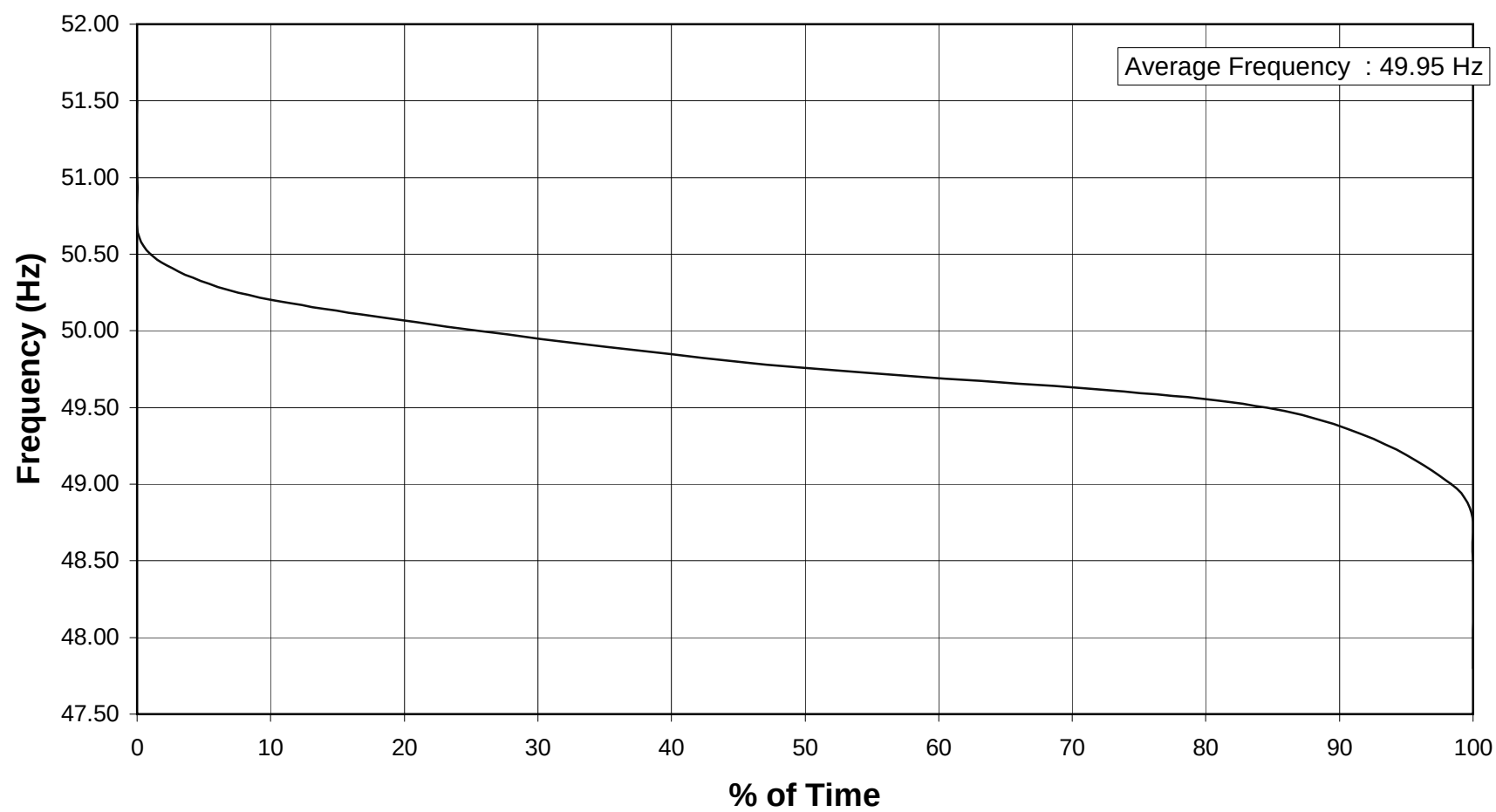
Energy content of Rihand : Total Energy content at Rihand & Obra power stations

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

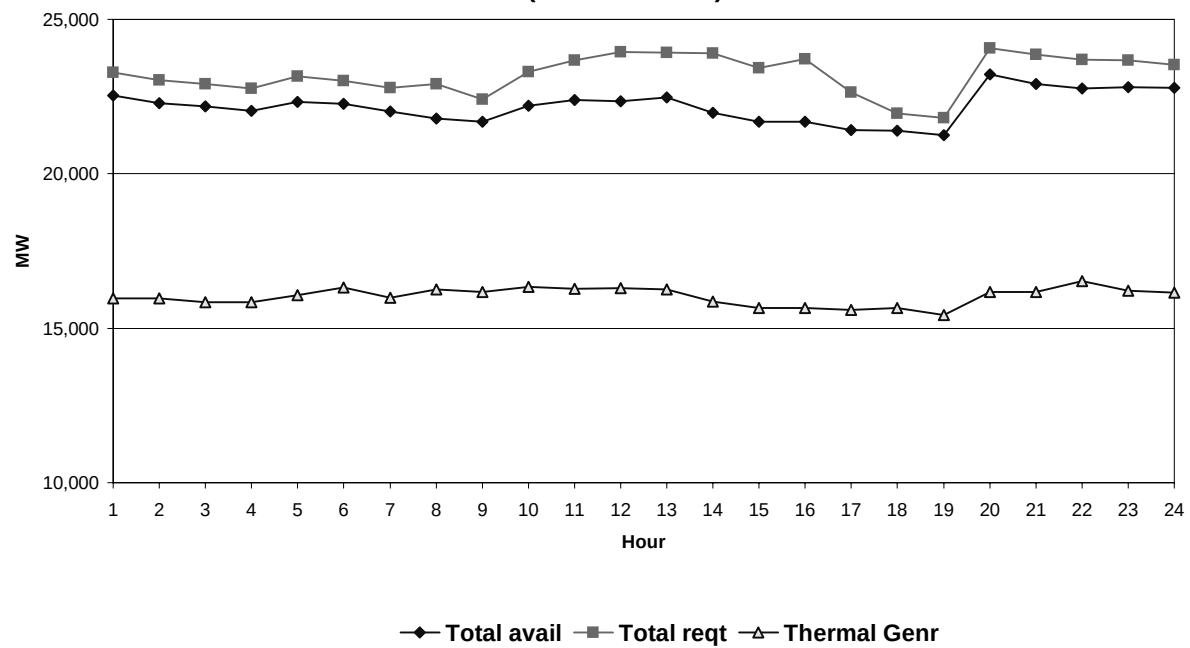
Energy Content of G. Sagar : Total Energy content at Gandhi Sagar, RP Sagar and Jawahar Sagar Power Stations.

Load Duration Curve For Northern Region For June 2003

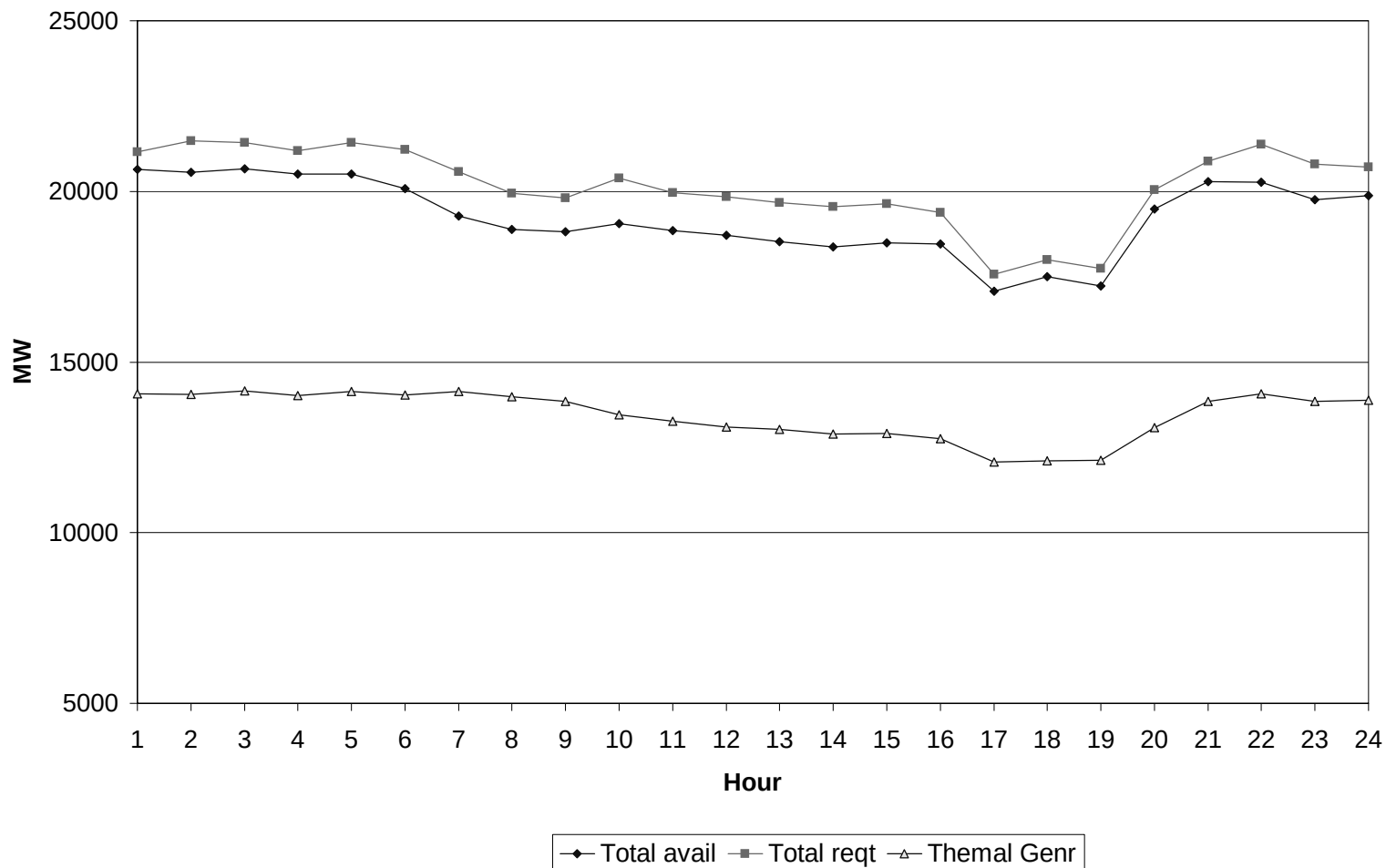


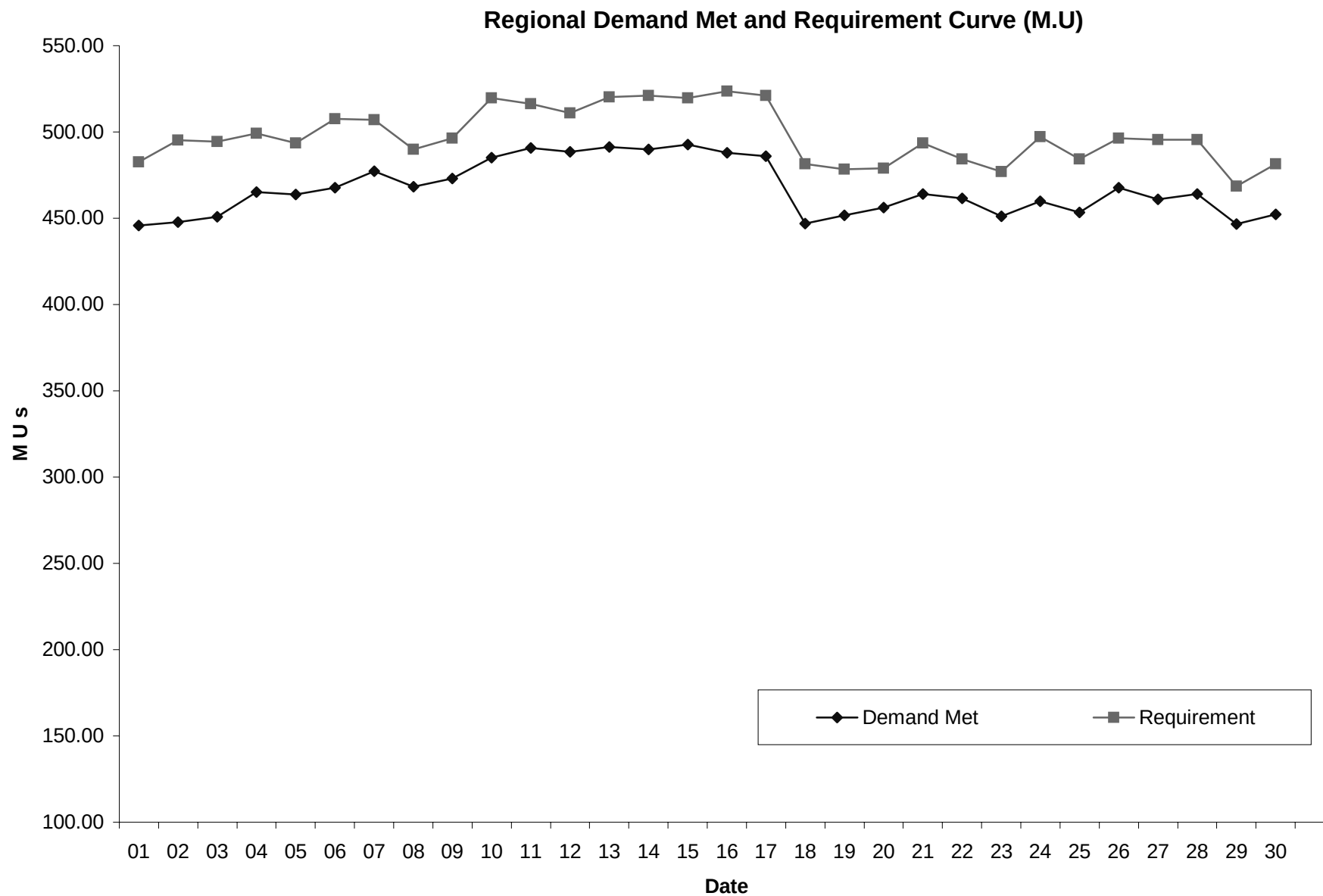
Frequency Duration Curve For Northern Region For June 2003

**Load Curve Of Northern Region For Maximum Demand Met Day
(11th June 2003)**



**Load Curve Of Northern Region For Minimum Demand Met Day
(29.06.2003)**





Grid Incident during June 2003

Date	Time	Incident
18.06.2003	16.31 hrs	All the lines emanating from Charkhi Dadri tripped due to bus fault occurred at 220 kV Charkhi Dadri resulted in disruption of Power Supply around that area of HVPN. The lines were normalised within one hour.