

CONTENTS

A) Summary Report	Page No.
I. Grid Overview during the Month	1
2. Commissioning of New Units/Lines/Transformers	1
3. Frequency Profile	2
4. Power Supply Position in Northern Region	2
5. Schedule Vs Drawal of Constituents	3
6. Inter Regional Exchanges	3
 B) Detailed Report	
I Details of Installed/Effective Capacity	4-8
II. Breakup of Hydro Capacity	9
III. Frequency Profile	10
IV. Voltage Profile	11
V. Regional Power Supply Position	12
VI. Daily Peak/Off Peak Demand Met By Constituents	13-14
VII. Daily Consumption By Constituents	15
VIII. Schedule vs Actual Drawal of Constituents	16-17
IX. Schedule vs Injection of ISGS	18-21
X. Daily Generation Details of State Sector Stations	22
XI. Performance of Generating Stations	23-25
XII. Energy details of Bilateral Agreements (Intra-Regional)	26
XIII. Energy details of Bilateral Agreements (Inter-Regional)	27
XIV Inter Regional Exchanges	28-29
XV Progress of Installation of Shunt Capacitors	30
XVI Hydraulic Data for Reservoirs	31
 C) Annexures	
1. Load Duration Curve of Northern Region	
2. Frequency Duration Curve of Northern Region	
3. Load Curve Of Northern Region for the Maximum Demand Met Day	
4. Load Curve Of Northern Region for the Minimum Demand Met Day	
5. Demand Met and Requirement of Northern Region (MU)	
6. Grid incidents	
7. 400 KV Grid Diagram of Northern Region	

NORTHERN REGION GRID REPORT FOR THE MONTH OF APRIL 2004

A) Summary Report

1. Grid Overview during the Month

During the month of April 2004, the average energy and peak demand met were 421.69 MU/day and 22097 MW as compared to 383.57 MU/day and 20224 MW in April 2003 thereby indicating a growth of 9.93% and 9.16% in terms of both energy and peak demand respectively.. The average energy and peak shortages were 13.84% & 5.47% respectively for April 2004 . The average system frequency was 49.67 HZ.and the frequency remained in the normal range i.e 49.00 to 50.50 HZ for 83.42 % of time as compared to 81.05% for April 2003. The maximum frequency was 51.57 HZ . **This large fluctuation in frequency was thus due to severe load crash of around 10000 MW in the night of 29th/30th April 2004 .Inspite of huge crash in demand ,the grid was kept intact by NRLDC by resorting to prompt and proper action .** However, overall there was increase in demand due to advancement of Summer season during April 2004 .The minimum frequency was 48.44 HZ and the average frequency index was 4.10.Further there was increase in transactions of inter regional exchanges as compared to April 2003.

Overall voltage profile in the grid during the month on 400 KV buses was satisfactory.

During April 2004 there was no major grid incident ,except for some tripping of 220 KV Kisenpur-Pampore lines resulting in disruption of supply in J&K valley and outages of machines at Uri for short durations.

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

220 KV ALLAHABAD-PHOOLPUR line was successfully test charged for the first time on 23.04.04

3. Monthly Frequency Profile :

Maximum frequency	51.57	Hz	at	01.39	hours on	30.04.2004
Minimum frequency	48.44	Hz	at	23.32	hours on	10.04.2004
Average frequency	49.67	Hz				

Frequency distribution in %

Hz	< 48.50	<49.00	49.00-50.50	> 50.50
% of time	0.02	10.66	83.42	5.92

Monthly Frequency Variation Index

Maximum	8.56
Monthly Average	4.10
Minimum	0.64

4. Power Supply Position :

a. Average Energy/day (Net)

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	75.43	81.05	5.62	6.93
Haryana	51.57	55.04	3.47	6.30
Rajasthan	77.58	77.58	0.00	0.00
U.P.	113.78	169.08	55.30	32.71
Uttanchal	11.33	11.89	0.56	4.71
Delhi	58.51	58.89	0.38	0.65
H.P.	9.75	9.75	0.00	0.00
J & K *	19.02	21.42	2.40	11.20
Chandigarh	3.13	3.13	0.00	0.00
N.F.F./Rail	1.59	1.59	0.00	0.00
Total	421.69	489.42	67.73	13.84

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	4309	4309	0	0.00
Haryana	3090	3090	0	0.00
Rajasthan	3902	3902	0	0.00
U.P.	6080	7970	1890	23.71
Uttanchal	678	740	62	8.38
Delhi	3116	3158	42	1.33
H.P.	630	630	0	0.00
J & K *	1194	1250	56	4.48
Chandigarh	183	183	0	0.00
N.F.F./Rail	72	72	0	0.00
Region	22097	23375	1278	5.47
Diversity Factor = 1.10				

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual	OD/UD
Punjab	995.46	1042.51	47.05
Haryana	734.27	785.61	51.34
Rajasthan	805.36	843.95	38.59
U.P.	1456.14	1662.36	206.22
Uttranchal	160.67	145.54	-15.13
Delhi	1153.69	920.09	-233.60
H.P.	143.18	148.48	5.30
J & K	472.17	493.92	21.75
Chandigarh	104.19	99.21	-4.98
N.F.F./Rail	62.81	47.65	-15.16

6. **Inter Regional Exchanges****Import**

	Energy M.U.	Peak MW
a) From WR over HVDC Vindhyachal B/B	33.52	450
b) From WR over 220 kV Ujjain-Kota	0.00	0
c) From ER over HVDC Sasaram B/B	194.7	500
d) From ER over 220 kV Dehri-Sahupuri	0.00	0

Export

e) To WR over HVDC Vindhyachal B/B	11.95	500
f) To WR (MP) over 220 kV Auraiya-Malanpur	20.15	40
g) To WR(MP) over 220 kV Kota-Ujjain	46.97	120
h) To ER (Bihar) over 220 kV/132kV lines	6.55	55
i) To ER over HVDC Sasaram B/B	0.00	0
j) To Nepal over 132 kV Tanakpur-Mahendernagar	31.74	30

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

	STATION	INSTALLED CAPACITY	EFFECTIVE CAPACITY
		(MW)	
A	NTPC		
(a)	Badarpur TPS	3x100+2x210 720.00	3x95+2x210 705.00
(b)	Singrauli STPS	5x200+2x500 2000.00	5x200+2x500 2000.00
(c)	Rihand STPS	2x500 1000.00	2x500 1000.00
(d)	Dadri NCTPS	4x210 840.00	4x210 840.00
(e)	Unchahar TPS	2x210 + 2x210 840.00	2x210 + 2x210 840.00
(f)	Tanda TPS	4x110 440.00	4x110 440.00
(g)	Anta GPS	3x88.71+1x153.20 419.33	3x88.71+1x153.20 419.33
(h)	Auraiya GPS	4x111.19+2x109.30 663.36	4x111.19+2x109.30 663.36
(i)	Dadri GPS	4x130.19+2x154.51 829.78	4x130.19+2x154.51 829.78
(j)	Faridabad GPS	2x137.75 +1x156.07 431.57	2x137.75 +1x156.07 431.57
	Sub-Total	8184.04	8169.04
B	NHPC		
(a)	Bairasiul	3x60 180.00	3x60 180.00
(b)	Salal Stage - I	3x115 345.00	3x115 345.00
(c)	Salal Stage - II	3x115 345.00	3x115 345.00
(d)	Tanakpur HPS	3x40 120.00	3x31.4 94.20
(e)	Chamera HPS-I	3x180 540.00	3x180 540.00
(f)	Chamera HPS-II	3x100 300.00	3x100 300.00
(g)	URI	4x120 480.00	4x120 480.00
	Sub-Total	2310.00	2284.20
C.	NPC		
(a)	RAPS -A	2x220 440.00	1x100+1x200 300.00
(b)	RAPS -B	2x220 440.00	2x220 440.00
(c)	NAPS	2x235 470.00	2x220 440.00
	Sub-Total	1350.00	1180.00
D.	Nathpa-Jhakri	4x250 1000.00	4x250 1000.00
Total Central Sector (A + B + C +D)		12844.04	12633.20
2	BBMB		
(a)	Bhakra Complex		
(i)	Bhakra (L)	5x108 540.00	5x108 540.00
(ii)	Bhakra (R)	5x157 785.00	5x157 785.00
(iii)	Ganguwal	1x29.25+1x27.63+1x26.7 83.58	1x29.25+1x27.63+1x26.7 83.58
(iv)	Kotla	1x29.25+1x24.2+1x28.12 81.57	1x29.25+1x24.2+1x28.12 81.57
	Sub-Total	1490.15	1490.15
(b)	Dehar	6x165 990.00	6x165 990.00
(c)	Pong	6x66 396.00	6x66 396.00
	Total BBMB	2876.15	2876.15

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	8.75
(g)	Nogli	2x 0.25+4x0.50	2.50	2x 0.25+4x0.50	2.50
(h)	Bhabha (H)	3x40.00	120.00	3x40.00	120.00
(i)	Baner (H)	3x 4.00	12.00	3x 4.00	12.00
(j)	Gaj (H)	3x 3.50	10.50	3x 3.50	10.50
(k)	Sal -2	1x 2	2.00	1x 2	2.00
(l)	Gumma	.	3.00	3.00	3.00
(m)	Ghanvi	2x11.25	22.50	2x11.25	22.50
(n)	Diesel Gen. Sets		0.00	0.00	0.00
(o)	Malana (IPP)	2x43	86.00	2x43	86.00
(p)	Baspa (IPP)	3x100	300.00	3x100	300.00
	Total HP		712.20		712.20
7	J & K				
	HYDRO				
(a)	Lower Jhelum	3x35.0	105.00	3x35.0	105.00
(b)	Upper Sindh	2x11.30+3x35.0	127.60	2x11.30+3x35.0	127.60
(c)	Ganderbal	2x3+2x4.5	15.00	2x3+2x4.5	15.00
(d)	Mohra	2x4.5	9.00	2x4.5	9.00
(e)	Chenani	5x4.66 +2X1.0 +3x2.5	32.80	5x4.66 +2X1.0+3x2.5	32.80
(f)	Stakna	2x2.0 +3x1.25 +2.0	9.75	2x2.0 +3x1.25 +2.0	9.75
(g)	Small Hydel		3.54	3.54	3.54
(h)	Sewa	3x3.0	9.00	3x3.0	9.00
	Total Hydro		311.69		311.69

contd/-

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

contd/-

10	UP					
	HYDRO					
(a)	Rihand	6x50.0	300.00	6x50.0	300.00	
(b)	Obra	3x33.0	99.00	3x33.0	99.00	
(c)	Matatilla	3x10.0	30.00	3x10.0	30.00	
(d)	Ganga Canal					
	Bhola	4x.375+2x.6+		4x.375+2x.6+		
	Salara	2x1.5+		2x1.5+		
	Nirgazni	2x2.5	10.70	2x2.5	10.70	
(e)	Khara	3x24.0	72.00	3x24.0	72.00	
(f)	Sobla & small hydro	6 +12.2	18.20	6 +12.2	18.20	
	Total Hydro		529.90		529.90	
	THERMAL					
(g)	Obra	5x50	250.00	4x40	160.00	
(h)	Obra Extn. - I	3x100	300.00	3x94	282.00	
(i)	Obra Extn. - II	5x200	1000.00	5x200	1000.00	
(j)	Panki	1x32	32.00	1x32	32.00	
(k)	Panki Extn.	2x110	220.00	2x105	210.00	
(l)	Harduaganj - A	3x30	90.00	0	0.00	
(m)	Harduaganj - B	2x50+2x60	220.00	1x40+2x55	150.00	
(n)	Harduaganj - C	2x60+1x110	230.00	2x60+1x105	225.00	
(o)	Paricha	2x110	220.00	2x110	220.00	
(p)	Anpara - A	3x210	630.00	3x210	630.00	
(q)	Anpara - B	2x500	1000.00	2x500	1000.00	
	Total Thermal		4192.00		3909.00	
	Total UP		4721.90		4438.90	
11	UTTRANCHAL					
	HYDRO					
(a)	Khatima	3x13.8	41.40	3x13.8	41.40	
(b)	Ramganga	3x66.0	198.00	3x66.0	198.00	
(c)	Ganga Canal					
	Chitwa	2x1.5+		2x1.5+		
	Mohamedpur	3x3.1+		3x3.1+		
	Pathri	3x6.8	32.70	3x6.8	32.70	
(d)	Yamuna (I & IV)					
	- Dhalipur	3x17.00+		3x17.00+		
	- Dhakrani	3x11.25+		3x11.25+		
	- Kulhal	3x10.00	114.75	3x10.00	114.75	
(e)	Chibro	4x60.0	240.00	4x60.0	240.00	
(f)	Khodri	4x30.0	120.00	4x30.0	120.00	
(g)	Chilla	4x36.0	144.00	4x36.0	144.00	
(h)	Maneri Bhali	3x30.0	90.00	3x30.0	90.00	
	Total Hydro		980.85		980.85	
	Total Region (1 to 11)		30812.93		30300.73	

SUMMARY OF THE EFFECTIVE GENERATING CAPACITY (MW)

Agency / Source	Hydro	Thermal	Gas/Diesel/Wind	Nuclear	Total	% of Total
NTPC	0.00	5825.00	2344.04	0.00	8169.04	26.96%
NHPC	2284.20	0.00	0.00	0.00	2284.20	7.54%
SJVNL	1000.00	0.00	0.00	0.00	1000.00	3.30%
NPC	0.00	0.00	0.00	1180.00	1180.00	3.89%
BBMB	2876.15	0.00	0.00	0.00	2876.15	9.49%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	396.50	612.00	0.00	1008.50	3.33%
HARYANA	48.00	1025.00	25.20	0.00	1098.20	3.62%
HIMACHAL	712.20	0.00	0.00	0.00	712.20	2.35%
J&K	311.69	0.00	182.18	0.00	493.87	1.63%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	10.81%
RAJASTHAN	434.85	2295.00	52.51	0.00	2782.36	9.18%
UP	529.90	3909.00	0.00	0.00	4438.90	14.65%
UTTRANCHAL	980.85	0.00	0.00	0.00	980.85	3.24%
Total	10322.94	15580.50	3217.33	1180.00	30300.77	100.00%
% of TOTAL	34.07%	51.42%	10.62%	3.89%	100.00%	

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

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

CHAMBAL

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

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

SATPURA

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

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

II. BREAKUP OF HYDRO CAPACITY (MW) IN NORTHERN REGION AS ON 30.04.2004

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1644.20	640.00	2284.20
BBMB	1155.15	1721.00	2876.15
SJVNL	0.00	1000.00	1000.00
DELHI	0.00	0.00	0.00
HARYANA	48.00	0.00	48.00
HP *	712.20	0.00	712.20
J&K	311.69	0.00	311.69
PUNJAB	545.10	600.00	1145.10
RAJASTHAN	262.85	172.00	434.85
UP	229.90	300.00	529.90
UTTRANCHAL	782.85	198.00	980.85
TOTAL	5691.94	4631.00	10322.94
PERCENTAGE	55.14%	44.86%	100%

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

III.

Frequency Profile

Date	% of Time Frequency								
	< 48.00	< 48.50	< 49.00	<49.50	49.0-50.5	> 50.00	> 50.50	> 51.00	>51.50
01	0.00	0.00	14.99	62.37	85.01	6.53	0.00	0.00	00.00
02	0.00	0.00	8.23	43.23	91.77	9.10	0.00	0.00	00.00
03	0.00	0.00	11.04	49.51	88.96	12.05	0.00	0.00	00.00
04	0.00	0.00	9.76	55.97	90.24	8.06	0.00	0.00	00.00
05	0.00	0.00	16.53	55.76	83.47	12.05	0.00	0.00	00.00
06	0.00	0.00	5.04	32.13	94.96	30.74	0.00	0.00	00.00
07	0.00	0.00	6.47	33.01	93.53	22.52	0.00	0.00	00.00
08	0.00	0.21	16.92	48.08	83.08	30.70	0.00	0.00	00.00
09	0.00	0.00	21.67	74.83	78.33	6.56	0.00	0.00	00.00
10	0.00	1.15	39.83	77.29	60.17	6.77	0.00	0.00	00.00
11	0.00	0.00	20.81	54.08	79.19	10.52	0.00	0.00	00.00
12	0.00	0.00	11.04	51.75	88.96	5.52	0.00	0.00	00.00
13	0.00	0.00	15.93	61.96	84.07	7.43	0.00	0.00	00.00
14	0.00	0.00	13.41	55.09	86.59	11.29	0.00	0.00	00.00
15	0.00	0.00	26.63	72.57	73.37	7.60	0.00	0.00	00.00
16	0.00	0.00	21.89	67.17	78.11	9.48	0.00	0.00	00.00
17	0.00	0.00	16.35	55.69	83.65	11.94	0.00	0.00	00.00
18	0.00	0.00	8.23	67.36	91.77	5.45	0.00	0.00	00.00
19	0.00	0.07	25.49	69.51	74.51	8.92	0.00	0.00	00.00
20	0.00	0.00	10.39	54.15	89.61	10.11	0.00	0.00	00.00
21	0.00	0.00	11.77	56.40	88.20	20.31	0.03	0.00	00.00
22	0.00	0.00	1.22	10.00	92.36	70.61	6.43	0.00	00.00
23	0.00	0.00	0.00	2.21	80.60	74.23	19.40	0.00	00.00
24	0.00	0.00	0.35	5.52	99.44	44.06	0.21	0.00	00.00
25	0.00	0.00	0.45	6.98	99.55	42.15	0.00	0.00	00.00
26	0.00	0.00	14.82	59.25	85.18	8.62	0.00	0.00	00.00
27	0.00	0.10	7.81	52.62	92.19	11.87	0.00	0.00	00.00
28	0.00	0.10	0.42	17.29	99.03	39.10	0.55	0.00	00.00
29	0.00	0.00	0.05	9.27	98.47	60.86	1.47	0.00	00.00
30	0.00	0.00	0.00	0.00	24.98	99.91	75.02	26.37	00.00
Max	0.00	1.15	39.83	77.29	99.55	99.91	75.02	26.37	0.00
Min	0.00	0.00	0.00	0.00	24.98	5.45	0.00	0.00	0.00
Average	0.00	0.05	10.67	41.73	83.42	28.11	5.91	1.74	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
50.17	08.57	48.51	20.36	49.39	5.16
50.23	09.45	48.53	21.02	49.54	3.34
50.22	18.34	48.51	19.09	49.49	4.11
50.15	08.08	48.58	01.03	49.47	3.99
50.15	8.06	48.53	19.37	49.46	4.76
50.36	3.51	48.51	19.09	49.70	2.42
50.44	08.09	48.54	22.35	49.65	2.73
50.37	06.59	48.48	19.12	49.55	4.59
50.23	18.53	48.52	00.06	49.29	6.43
50.18	06.59	48.44	23.32	49.19	8.56
50.30	18.03	48.48	0.09	49.44	5.12
50.18	19.02	48.52	15.05	49.47	4.12
50.19	18.08	48.54	17.23	49.41	5.02
50.22	13.02	48.53	23.17	49.46	4.47
50.25	07.08	48.53	19.26	49.29	6.67
50.18	07.45	48.53	17.32	49.36	5.89
50.25	4.19	48.51	23.16	49.45	4.73
50.50	18.05	48.57	04.06	49.39	4.80
50.27	7.03	48.49	15.53	49.30	6.68
50.26	8.10	48.52	4.56	49.48	4.03
50.52	18.10	48.57	14.44	49.51	4.47
50.98	18.00	48.55	12.46	50.07	1.48
50.96	04.02	49.36	15.39	50.21	1.46
50.54	07.05	48.85	00.14	49.94	0.64
50.45	18.08	48.74	10.07	49.93	0.72
50.26	07.00	48.54	19.13	49.44	4.56
50.40	07.01	48.48	16.13	49.51	3.82
50.54	04.06	48.82	20.23	49.87	1.40
50.84	23.53	48.95	15.35	50.01	1.16
51.57	01.39	49.77	21.25	50.78	7.36
51.57		49.77		50.78	8.56
50.15		48.44		49.19	0.64
50.41		48.63		49.67	4.10

IV.

Voltage Profile

Date	400 KV Dadri Voltage (kV)				400 KV Kanpur Voltage (kV)				220 KV BTPS Voltage (kV)				400 KV Moga Voltage (kV)			
	Maximum		Minimum		Maximum		Minimum		Maximum		Minimum		Maximum		Minimum	
	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time	Voltage	Time
01	420	21.52	387	14.18	412	05.19	394	14.18	207	03.19	195	19.35	416	04.28	391	19.09
02	419	00.04	391	19.44	410	00.01	387	19.44	207	00.04	194	19.48	415	00.04	387	19.00
03	417	01.55	391	10.35	411	08.02	394	05.51	209	02.34	196	10.35	416	01.34	392	19.54
04	419	03.30	395	18.10	412	06.51	389	18.08	206	02.05	198	19.12	413	00.17	387	20.21
05	417	00.30	395	12.14	413	08.08	394	12.13	207	01.14	195	11.39	412	23.58	387	19.06
06	417	03.53	391	19.08	413	00.01	397	12.21	207	03.39	192	19.07	413	00.01	384	19.08
07	416	02.11	376	08.50	410	23.01	378	14.24	207	03.39	192	19.07	413	00.24	382	19.35
08	415	08.07	391	18.51	412	08.07	390	12.40	207	03.39	192	19.07	411	00.00	386	19.52
09	415	08.03	392	14.35	415	18.52	397	12.18	207	03.39	192	19.07	413	01.02	386	18.39
10	416	02.39	392	19.22	412	04.34	388	19.21	210	00.15	208	00.05	414	02.39	387	19.45
11	414	18.07	396	20.20	412	18.27	393	23.34	210	00.15	208	00.05	409	16.11	387	19.45
12	413	03.35	384	15.03	408	18.05	390	23.19	211	04.00	192	16.00	411	03.34	390	19.13
13	405	04.02	380	14.29	405	08.29	382	14.22	205	02.57	194	14.20	413	18.08	394	19.12
14	408	06.03	387	12.44	407	06.04	387	12.35	207	03.05	196	11.49	415	03.31	392	19.32
15	412	08.03	384	15.53	413	08.03	384	14.48	206	07.49	193	15.44	415	08.02	393	19.20
16	411	23.59	380	15.23	406	08.01	378	17.13	206	07.49	193	15.44	412	08.04	394	15.25
17	413	03.57	387	14.39	406	04.18	378	15.13	208	03.11	196	14.52	416	03.08	389	20.02
18	415	18.33	393	05.36	409	18.28	383	16.39	210	07.22	199	00.09	407	10.09	390	19.37
19	416	3.09	386	16.36	401	3.04	380	14.33	209	3.07	192	15.53	411	3.11	385	19.46
20	412	8.00	384	16.51	405	9.00	384	13.00	205	5.00	191	15.00	409	3.00	394	20.00
21	412	18.23	383	14.42	409	18.23	379	14.44	205	03.27	188	15.01	405	04.19	387	19.41
22	421	18.00	394	12.34	419	18.01	388	12.39	214	18.10	198	11.57	411	03.02	388	19.33
23	421	03.57	388	15.39	416	03.58	382	15.03	216	03.59	199	15.37	412	02.27	386	19.27
24	414	03.06	395	17.05	411	03.03	386	17.09	216	03.59	199	15.37	410	03.06	387	07.43
25	414	3.11	394	10.05	407	3.12	390	10.07	211	3.04	204	10.05	409	1.36	391	7.22
26	412	04.15	386	14.5	409	04.21	387	13.38	213	03.23	200	14.41	408	18.16	393	17.17
27	412	06.01	385	10.42	412	06.02	389	15.19	212	03.17	198	14.36	408	06.03	384	07.24
28	420	04.02	389	14.53	416	06.28	393	00.05	213	03.32	199	15.33	413	01.20	386	19.39
29	423	23.52	398	12.33	415	23.52	397	0.02	214	23.57	202	14.45	412	23.52	393	19.38
30	436	01.49	409	16.2	426	03.33	397	21.25	221	01.53	208	19.16	423	03.33	393	19.41
Max	436		409		426		397		221		208		423		394	
Min	405		376		401		378		205		188		405		382	

V. Regional Power Supply Position

(All Figs In MUs)

Date	Availability (Gross)	Peak Hrs. Requirement	Shortage/ Restriction	Availability (Gross)	Off Peak Hrs. Requirement	Shortage/ Restriction*	Regional Availability
	MW	MW	MW	MW	MW	MW	MU
01	20059	21696	1637	17510	18340	830	404.97
02	20908	21927	1019	17742	18248	506	416.07
03	20228	22316	2088	17854	18789	935	414.23
04	20048	21595	1547	17371	18946	1575	403.85
05	20278	21667	1389	17709	18039	330	415.58
06	20884	22710	1826	18125	18663	538	425.13
07	21472	22912	1440	18354	19192	838	432.22
08	20673	21656	983	17863	18401	538	417.71
09	20592	21969	1377	17454	18682	1228	410.62
10	21072	22834	1762	17615	18656	1041	409.51
11	21390	22539	1149	18142	19152	1010	424.64
12	21898	23170	1272	18722	19077	355	431.65
13	21309	22721	1412	18900	19698	798	437.87
14	21324	22604	1280	19286	20131	845	441.84
15	21716	23112	1396	19115	19668	553	443.98
16	21532	23011	1479	19388	20191	803	447.19
17	21358	22495	1137	19624	20067	443	447.54
18	21613	22798	1185	19861	20994	1133	447.27
19	21742	23101	1359	20389	20932	543	451.90
20	22014	23195	1181	20531	20834	303	463.56
21	21840	23200	1360	20650	21183	533	462.72
22	18396	19496	1100	19751	20054	303	433.03
23	21337	22246	909	16191	16191	0	435.65
24	21366	22268	902	18207	18797	590	431.33
25	21610	21988	378	19339	19482	143	442.93
26	21843	23371	1623	19111	19541	430	446.51
27	21531	23279	1748	19883	20138	255	450.83
28	21931	23035	1104	18942	19246	304	441.78
29	21523	22418	895	18891	19146	255	428.69
30	14989	15137	148	12549	12574	25	313.34
Maximum	22014	23371	2088	20650	21183	1575	463.56
Minimum	14989	15137	148	12549	12574	0	313.34
Average	20949	22216	1270	18502	19102	599	429.14

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	3390	2814	2665	2145	3322	3110	2849	1843	4813	5348
02	3640	2788	2710	2042	3426	3025	2905	1841	4944	5561
03	3487	2966	2555	2209	3382	3011	2684	2009	4838	5487
04	3546	2735	2539	2113	3202	2978	2760	2008	4856	4900
05	3578	2991	2632	2192	3255	2745	2802	1999	4933	5251
06	3717	3083	2714	2277	3413	2914	2990	2090	4706	5502
07	3836	3176	2675	2399	3356	2967	2962	2154	5098	5536
08	3549	3099	2552	2296	3299	2615	2884	2188	4895	5049
09	3767	3034	2617	1991	3445	2884	2802	2243	4594	5095
10	3758	3068	2519	2037	3401	3005	2829	2012	4980	4934
11	3663	3117	2733	2161	3390	2995	2783	2246	5045	5323
12	3897	3228	2864	2186	3533	3008	2930	2228	4824	5599
13	3797	3301	2642	2307	3439	3070	2915	2272	4949	5337
14	3821	3329	2723	2315	3485	3133	2928	2367	4848	5603
15	3808	3265	2749	2388	3780	3629	3043	2288	4928	5577
16	3646	3336	2681	2380	3762	3271	2953	2399	5114	5690
17	3626	3187	2647	2434	3748	3320	2985	2531	5368	5801
18	3853	3318	2752	2418	3534	3293	2883	2459	4910	6045
19	3937	3430	2776	2417	3546	3182	3022	2441	4749	5752
20	3701	3605	2871	2542	3552	3379	3099	2477	5022	5617
21	4287	3568	2501	2536	3625	3395	2965	2571	4833	5765
22	3881	3406	1964	2287	3061	3525	2439	2455	3314	5771
23	3781	3112	2845	2002	3498	3037	2956	2073	4267	3791
24	3894	3542	2823	2336	3474	3425	2698	2237	4785	4465
25	3711	3694	2719	2372	3474	3379	2727	2009	4806	4978
26	3879	3756	2792	2357	3520	3291	2826	2103	4909	4852
27	3811	3688	2809	2508	3467	3447	2932	2281	4635	5349
28	3806	3357	2870	1909	3521	3546	2817	2169	5157	5059
29	3567	3144	2676	2313	3437	3509	2996	2356	5278	5055
30	1988	2481	1302	567	2913	2329	2371	1452	3947	3843
Maximum	4287	3756	2871	2542	3780	3629	3099	2571	5368	6045
Minimum	1988	2481	1302	567	2913	2329	2371	1452	3314	3791
Average	3687	3221	2631	2215	3442	3147	2858	2193	4811	5265

Remarks: Peak - 2000 hrs offpeak - 0300 hrs

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

State Date	Uttaranchal		Chandigarh		Himachal Pradesh		Jammu & Kashmir	
	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	642	436	149	90	463	304	944	676
02	647	436	160	94	494	301	942	617
03	649	449	159	89	487	318	967	634
04	666	434	137	89	495	288	928	630
05	637	469	160	93	504	327	999	705
06	618	460	159	97	531	309	1019	707
07	609	414	165	96	524	321	973	705
08	631	483	163	93	514	315	995	699
09	528	424	152	100	499	346	1003	561
10	629	299	160	91	515	315	945	732
11	660	445	139	103	501	311	1013	765
12	617	456	162	94	526	318	966	795
13	622	472	156	105	516	327	1082	782
14	602	467	165	103	500	338	1080	796
15	635	425	166	107	520	261	915	785
16	608	451	176	102	484	330	931	761
17	628	457	162	109	490	350	926	600
18	642	425	153	121	502	354	962	701
19	659	468	183	112	515	339	1015	763
20	619	506	179	131	521	342	1046	821
21	509	442	167	122	481	372	974	746
22	402	380	150	115	438	360	1023	753
23	677	280	163	98	488	301	1006	537
24	600	404	159	101	490	299	980	750
25	701	439	123	109	504	322	945	861
26	655	445	172	106	532	308	978	705
27	694	422	172	115	521	315	829	784
28	705	432	167	109	474	282	989	714
29	650	399	165	110	498	283	1020	698
30	428	261	139	99	448	307	624	281
Maximum	705	506	183	131	532	372	1082	861
Minimum	402	261	123	89	438	261	624	281
Average	619	426	159	103	499	319	967	702

Remarks: Peak - 2000 hrs offpeak - 0300 hrs

VII Daily Energy Consumption By Constituents

(All Figs In MUs)

Date	Punjab	Haryana	Rajasthan	Delhi	UP	Uttaranchal	Chandigarh	HP	J & K	NFF/RAIL	Total
01	64.433	48.710	73.941	54.872	110.690	11.412	2.826	9.682	20.627	1.586	398.777
02	68.633	51.057	75.334	56.215	115.214	11.739	2.892	9.875	20.423	1.582	412.964
03	68.862	49.943	75.474	54.748	113.707	11.656	2.904	9.768	19.922	1.669	408.652
04	65.536	47.729	72.834	53.481	110.135	11.641	2.527	9.564	19.689	1.600	394.736
05	70.059	51.899	71.507	57.071	114.374	11.478	3.060	9.839	19.375	1.639	410.301
06	73.579	52.731	74.122	58.790	115.151	11.475	3.103	9.737	19.567	1.531	419.787
07	75.934	53.821	75.448	58.473	115.225	11.672	3.165	10.018	18.717	1.686	424.159
08	71.852	51.524	72.400	59.860	109.307	11.616	3.112	9.729	19.013	1.502	409.914
09	71.609	49.345	74.594	57.623	109.774	10.431	3.002	9.581	16.433	1.669	404.061
10	71.607	46.777	74.772	57.199	109.201	9.793	3.034	9.687	19.434	1.610	403.114
11	73.034	48.881	77.126	56.073	117.586	11.672	2.727	9.728	20.535	1.443	418.805
12	74.018	52.142	77.076	59.650	116.275	11.536	3.143	9.853	19.999	1.519	425.211
13	75.346	51.390	77.330	60.116	118.235	11.891	3.107	9.933	21.038	1.681	430.067
14	77.030	55.472	79.321	60.663	114.967	11.342	3.126	9.758	21.293	1.695	434.667
15	76.344	54.613	79.407	62.147	118.000	11.454	3.289	9.315	20.285	1.611	436.466
16	76.996	53.373	81.244	62.637	120.805	11.628	3.377	10.037	20.088	1.717	441.903
17	75.789	54.340	81.107	62.884	124.071	11.877	3.278	10.030	18.473	1.547	443.396
18	76.708	52.971	81.097	59.363	122.485	11.780	2.994	10.068	20.276	1.656	439.397
19	80.037	53.600	80.330	61.447	123.164	11.642	3.550	10.104	19.296	1.505	444.675
20	81.448	56.525	82.866	64.611	123.129	12.024	3.648	10.234	19.207	1.430	455.122
21	81.342	53.868	82.133	63.802	126.031	11.604	3.526	10.127	18.777	1.618	452.827
22	79.550	51.096	79.398	60.297	110.737	10.101	3.231	9.723	19.758	1.452	425.343
23	79.783	51.956	78.240	57.883	91.161	10.033	3.149	9.554	17.779	1.439	400.976
24	84.270	54.678	81.358	54.178	102.942	11.124	3.066	9.924	19.838	1.651	423.031
25	85.315	56.524	80.507	54.249	110.886	11.714	2.778	9.760	19.980	1.652	433.366
26	83.561	56.527	81.561	57.699	111.560	11.690	3.328	9.920	20.281	1.584	437.711
27	84.797	58.322	81.594	60.127	114.560	11.756	3.479	9.901	15.371	1.566	441.472
28	80.809	51.584	83.660	59.237	114.625	11.296	3.410	8.756	17.414	1.598	432.389
29	76.643	50.266	78.437	61.342	114.980	12.983	3.146	9.119	17.477	1.592	425.986
30	54.615	23.190	63.303	46.103	88.107	7.552	2.728	9.278	10.123	1.618	306.617
Maximum	85.315	58.322	83.660	64.611	126.031	12.983	3.648	10.234	21.293	1.717	455.122
Minimum	54.615	23.190	63.303	46.103	88.107	7.552	2.527	8.756	10.123	1.430	306.617
Average	75.318	51.495	77.584	58.428	113.569	11.320	3.124	9.753	19.016	1.588	421.196
Month Total	2259.538	1544.853	2327.523	1752.841	3407.084	339.612	93.705	292.604	570.486	47.648	12635.893

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-2004	26173	25818	21259	22755	23590	24880	34985	27753	44589	52988	4807	5043
2-Apr-2004	28504	30032	22240	23142	24883	24610	35398	29496	44329	51106	4840	5329
3-Apr-2004	29060	29979	22573	22524	24797	23828	35674	31192	44180	51118	4816	5268
4-Apr-2004	29118	30418	21806	22980	23083	22255	35698	29794	44456	53846	4780	5200
5-Apr-2004	31841	33047	22117	23814	24098	20417	36616	30359	44614	56423	4860	5283
6-Apr-2004	30635	32192	22813	25910	25143	21718	38230	31963	47575	56300	5220	5528
7-Apr-2004	33829	33366	24167	26778	25344	26800	38452	31397	47710	57189	5190	5125
8-Apr-2004	33555	34500	24670	29431	26338	26967	38981	33106	48192	51236	5471	4716
9-Apr-2004	30172	32292	22689	26379	25129	30722	37843	30136	44579	48254	5049	4255
10-Apr-2004	30565	31603	22847	24059	25957	29384	37724	29804	46600	52211	5238	3450
11-Apr-2004	31010	31916	23205	24258	27324	30092	38239	28418	51329	58933	5694	5351
12-Apr-2004	32132	31701	23501	24818	26424	28985	38182	32576	51666	56550	5982	5427
13-Apr-2004	31948	30176	23549	25074	26358	28778	38514	33905	51209	55557	6013	5924
14-Apr-2004	30498	31341	23374	25583	26939	26886	37554	29786	49400	55740	5840	5863
15-Apr-2004	31308	32421	23378	24682	26600	26530	38815	31066	50019	58176	6054	6093
16-Apr-2004	32679	33718	24173	25460	27145	25691	38673	32992	49500	57426	5993	5756
17-Apr-2004	33661	34378	25437	26487	27201	25919	39960	36636	50431	61155	6089	5870
18-Apr-2004	35254	35374	25539	26547	27068	26603	40345	33236	50621	62671	5970	5989
19-Apr-2004	36655	36190	25551	28987	27760	25805	40901	32547	52112	65699	5827	5503
20-Apr-2004	39321	36461	27904	29243	30121	30249	43147	34271	52320	68837	6192	4478
21-Apr-2004	38728	37291	28055	27142	29999	31232	41762	34466	51876	63833	5769	4271
22-Apr-2004	36286	38713	25349	25011	29706	29623	40975	31088	50531	53060	5352	3500
23-Apr-2004	32962	40058	24969	32777	28521	31183	38969	31982	42178	31647	4825	2099
24-Apr-2004	35219	43425	26203	29349	28629	33764	37109	26121	44624	44197	5366	3902
25-Apr-2004	36867	42572	25008	28151	28194	34813	37090	23690	51175	47214	4475	4967
26-Apr-2004	37030	39362	27246	30277	28779	31881	39382	28335	51944	59620	5049	5420
27-Apr-2004	38814	43046	28662	30966	29382	33852	41612	29378	54115	64108	5531	5620
28-Apr-2004	36170	39122	27599	29114	29453	37093	40918	29060	54489	63209	5565	4405
29-Apr-2004	35829	40055	27502	27346	27937	29983	40628	30766	52563	60701	5244	4718
30-Apr-2004	29638	31942	20880	16568	23461	23410	31311	24767	37213	43352	3565	1185
Total MU	995.461	1042.509	734.265	785.612	805.363	843.953	1153.687	920.086	1456.139	1662.356	160.666	145.538
Max. MWH	39321	43425	28662	32777	30121	37093	43147	36636	54489	68837	6192	6093
Min MWH	26173	25818	20880	16568	23083	20417	31311	23690	37213	31647	3565	1185
Avg. MWH	33182	34750	24476	26187	26845	28132	38456	30670	48538	55412	5356	4851

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-Apr-2004	6445	6096	15550	18026	3331	2906	456	16	1138	1570
2-Apr-2004	6539	6352	15396	17747	3368	3044	456	25	1290	1557
3-Apr-2004	6582	6106	15197	17347	3385	3025	456	33	1375	1636
4-Apr-2004	6443	5902	15869	16999	3330	2750	456	21	1195	1579
5-Apr-2004	6321	5490	16235	16654	3389	3216	456	26	1362	1613
6-Apr-2004	5172	5004	15084	16825	3351	3311	456	17	1698	1514
7-Apr-2004	5075	5121	15240	16753	3407	3414	456	11	1569	1675
8-Apr-2004	5290	5070	15519	17035	3506	3321	456	50	1735	1452
9-Apr-2004	5171	5171	15367	14423	3446	3194	456	86	1390	1583
10-Apr-2004	5523	5739	15404	17149	3488	3202	456	73	2143	1537
11-Apr-2004	5448	5931	15454	17934	3493	2920	456	0	1890	1443
12-Apr-2004	5613	5999	15415	17480	3485	3370	456	80	2139	1439
13-Apr-2004	5475	5948	15281	18373	3433	3275	456	104	1722	1577
14-Apr-2004	5255	5894	14860	18669	3335	3309	456	105	1686	1590
15-Apr-2004	4306	5062	14753	17631	3435	3538	456	101	1678	1510
16-Apr-2004	4724	5225	15071	17374	3401	3577	456	102	1728	1615
17-Apr-2004	4954	4829	15734	15793	3477	3492	456	103	1962	1444
18-Apr-2004	4756	4990	16095	17506	3458	3113	456	52	1882	1604
19-Apr-2004	4817	3849	16007	16654	3488	3656	456	21	2056	1484
20-Apr-2004	3883	3080	16655	16515	3586	3837	456	108	1963	1322
21-Apr-2004	3700	3431	16425	16068	3632	3846	456	112	2048	1506
22-Apr-2004	3666	4505	16278	17035	3521	3465	456	125	2029	1327
23-Apr-2004	3107	4331	16370	15064	3442	3334	456	123	1423	1316
24-Apr-2004	3675	4793	16195	17103	3578	3249	456	121	898	1530
25-Apr-2004	4120	5730	15858	17335	3573	2955	456	121	1296	1531
26-Apr-2004	4281	4912	16503	17818	3646	3508	456	117	1824	1467
27-Apr-2004	3529	3156	17014	12846	3592	3655	456	101	1656	1465
28-Apr-2004	3326	2641	17038	15029	3763	3612	456	116	2009	1482
29-Apr-2004	3609	3425	16714	15050	3651	3281	456	117	1585	1475
30-Apr-2004	2376	4702	13586	7686	3202	2839	456	58	763	1560
Total MU	143.181	148.484	472.167	493.921	104.192	99.214	13.680	2.245	49.132	45.403
Max. MWH	6582	6352	17038	18669	3763	3846	456	125	2143	1675
Min MWH	2376	2641	13586	7686	3202	2750	456	0	763	1316
Avg. MWH	4773	4949	15739	16464	3473	3307	456	75	1638	1513

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

Date	Singrauli		Rihand		Dadri(T)		Unchahar-I		Unchahar-II		Dadri GPS	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Apr-2004	33255	33465	21960	22187	18360	18428	9240	9313	9192	9294	14775	15089
2-Apr-2004	33285	33518	21960	22191	18360	18409	9240	9309	9192	9219	16300	16255
3-Apr-2004	33360	33623	21623	21910	18360	18433	9093	9185	9192	9280	17017	16942
4-Apr-2004	33360	33643	21710	21973	18360	18515	8417	8452	9192	9284	15584	15837
5-Apr-2004	30350	30587	21960	22156	18360	18523	9240	9320	9192	9284	15893	15975
6-Apr-2004	32505	32770	21960	22119	18360	18495	9240	9291	9192	9272	15807	15974
7-Apr-2004	33360	33627	21960	22189	18360	18450	8950	8991	9192	9254	14956	15249
8-Apr-2004	33188	33433	21960	22232	18360	18446	8799	8659	9192	9142	15432	16095
9-Apr-2004	29204	29424	21960	22298	18360	18528	4569	4645	9192	9249	15792	17124
10-Apr-2004	34924	35150	21960	22290	18360	18531	4560	4595	8902	8771	16895	17117
11-Apr-2004	41380	41548	21960	22206	18360	18525	8496	8489	9192	9243	17143	17350
12-Apr-2004	41398	41681	21960	22091	18360	18529	9240	9269	9192	9270	16508	16826
13-Apr-2004	41461	41641	21646	21775	18360	18529	9240	9300	9192	9275	16270	16508
14-Apr-2004	41228	41485	20254	20399	18360	18528	9240	9307	8648	8578	13830	13764
15-Apr-2004	41818	42052	21595	21778	18360	18527	9240	9311	9018	9070	13086	12913
16-Apr-2004	41020	41258	20365	20566	18360	18530	9240	9261	9192	9244	13868	13840
17-Apr-2004	39480	39658	21579	21779	18360	18528	9240	9293	9192	9268	17400	17425
18-Apr-2004	39543	39830	21656	21859	18360	18530	9240	9291	9192	9249	16871	17325
19-Apr-2004	42455	42713	21960	22250	18360	18530	9240	9298	9192	9268	16721	16964
20-Apr-2004	42480	42703	21778	22002	18360	18529	9240	9304	9192	9279	16780	17180
21-Apr-2004	42480	42777	20541	20699	17600	17595	9240	9260	9182	9181	15982	15984
22-Apr-2004	42079	42204	21472	21248	17360	16668	8994	8822	7781	7534	15118	14973
23-Apr-2004	42480	42003	20464	20181	15742	15516	7664	7877	8108	8262	11662	11593
24-Apr-2004	41993	42320	21384	21533	14246	16045	8068	9180	8594	9130	12069	12745
25-Apr-2004	41280	41611	21680	21821	15460	17038	9240	9215	7335	7280	15007	14740
26-Apr-2004	41280	41612	21960	22248	17279	18275	9240	9306	9192	9283	15285	15816
27-Apr-2004	41280	41646	21960	22252	18360	18531	9240	9281	9192	9276	15946	16568
28-Apr-2004	40872	41420	21799	21938	17769	17568	9162	9110	9052	9096	14997	15452
29-Apr-2004	36368	36826	21906	22055	17933	17533	9232	9154	9172	9142	14310	14301
30-Apr-2004	30136	29163	19735	17603	10827	10147	5495	4924	6482	6426	5440	3545
Total MU	1139.302	1145.391	646.667	649.828	529.776	534.959	258.579	260.012	266.922	268.403	452.744	457.469
Max. MWH	42480	42777	21960	22298	18360	18531	9240	9320	9192	9294	17400	17425
Min MWH	29204	29163	19735	17603	10827	10147	4560	4595	6482	6426	5440	3545
Avg. MWH	37977	38180	21556	21661	17659	17832	8619	8667	8897	8947	15091	15249

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

Date	Anta GPS		Auraiya GPS		NAPS		RAPS-B		Bairasiul		Salal	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Apr-2004	8127	8287	10294	10305	7800	7736	7968	7865	1616	1629	6530	6576
2-Apr-2004	8167	8484	9929	9910	7752	7687	7800	8143	1620	1634	6624	6668
3-Apr-2004	8489	8562	10360	10182	7752	7625	8160	8117	1708	1572	6150	6204
4-Apr-2004	8063	8462	11982	11934	7776	7659	8160	8108	1662	1676	6624	6671
5-Apr-2004	8549	8578	14014	13820	7704	7694	8160	8128	2007	2025	7264	7328
6-Apr-2004	8555	8515	14183	14040	7704	7688	8160	8052	2157	2177	8324	8396
7-Apr-2004	8282	8406	13622	13559	7704	7607	8160	8018	1947	1966	9110	9188
8-Apr-2004	8540	8555	13972	13729	7704	7578	8160	7983	1947	1966	8810	8893
9-Apr-2004	8581	8522	13522	13702	7704	7585	8064	7904	1782	1799	8049	8122
10-Apr-2004	8507	8478	14226	14005	7656	7608	8040	7932	1677	1693	7811	7883
11-Apr-2004	8494	8503	14330	14068	7632	7583	8040	7960	1572	1586	7165	7225
12-Apr-2004	8362	8445	14132	13990	7632	7629	7920	7950	1602	1618	7174	7236
13-Apr-2004	8480	8446	14148	13958	7680	7553	7992	7916	1572	1587	6978	7029
14-Apr-2004	8424	8488	14055	13956	7728	7648	7768	7793	1512	1526	7274	7335
15-Apr-2004	8472	8419	14116	13927	7632	7561	7184	7137	1632	1648	6842	6903
16-Apr-2004	8427	8372	14144	13931	7704	7590	7561	7353	1857	1875	7655	7724
17-Apr-2004	8369	8429	14100	13946	7704	7586	7416	7966	1917	1928	8155	8206
18-Apr-2004	8437	8503	14015	13962	7656	7612	8352	7943	1677	1693	8590	8668
19-Apr-2004	8465	8471	14049	13913	7632	7569	7992	7938	2187	2207	8415	8492
20-Apr-2004	8464	8511	13995	13941	7681	7522	7992	7887	2172	2193	10655	10755
21-Apr-2004	8321	8331	13855	13776	7656	7526	7992	7893	1872	1888	10308	10400
22-Apr-2004	7928	7939	12337	12134	7608	7699	7992	8087	1887	1900	9555	9605
23-Apr-2004	6215	6937	8875	9170	7632	7811	7992	8119	2187	2206	9840	9913
24-Apr-2004	6842	7283	10041	10321	7776	7772	7992	8073	1902	1920	9063	9138
25-Apr-2004	8217	8280	11974	11449	7872	7776	8232	8131	1767	1784	8425	8493
26-Apr-2004	8367	8535	12734	13067	7824	7724	8616	8040	1902	1920	9638	9726
27-Apr-2004	7209	7202	14286	14120	7824	7722	8664	8043	2007	2026	11777	11874
28-Apr-2004	7812	7888	12867	12407	7824	7737	8088	8086	2157	2178	11311	11394
29-Apr-2004	6904	7089	11723	11422	7776	7742	8088	8108	3196	3223	11208	11310
30-Apr-2004	4973	4607	5450	5170	7800	7899	8136	8137	4089	4004	13043	13092
Total MU	241.042	243.527	381.330	377.814	231.529	229.728	240.841	238.810	58.789	59.047	258.367	260.447
Max. MWH	8581	8578	14330	14120	7872	7899	8664	8143	4089	4004	13043	13092
Min MWH	4973	4607	5450	5170	7608	7522	7184	7137	1512	1526	6150	6204
Avg. MWH	8035	8118	12711	12594	7718	7658	8028	7960	1960	1968	8612	8682

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

Date	Tanakpur		Chamera		Uri		Bhakra Complex		Dehar		Pong	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Apr-2004	528	536	3026	3055	9254	9296	11394	11482	4270	4246	1750	1721
2-Apr-2004	480	484	3026	3051	9103	9147	13535	12906	5020	4964	2240	2233
3-Apr-2004	480	481	3026	3050	8951	9037	13516	13148	5346	5004	2109	1477
4-Apr-2004	442	446	3516	3549	8877	8948	11392	11086	4720	4722	1049	890
5-Apr-2004	586	591	3516	3543	9020	9088	11318	11400	4954	5242	1675	1910
6-Apr-2004	567	572	3516	3434	9236	9279	10056	10377	5216	6065	1921	1913
7-Apr-2004	576	582	3605	3716	8863	8781	10056	9991	7061	6866	1556	1548
8-Apr-2004	644	650	5941	6069	9707	9794	10104	10285	7495	7168	1556	1571
9-Apr-2004	716	724	6364	6618	11158	11203	10345	10366	5811	5670	1556	1526
10-Apr-2004	594	595	5919	6049	11353	11436	10340	10282	5324	5390	1947	1991
11-Apr-2004	665	673	5207	5390	11520	11553	9948	9836	4429	3931	2005	1991
12-Apr-2004	582	586	5563	5737	11503	11366	10059	9978	4804	4710	2253	2233
13-Apr-2004	608	612	4183	4369	11503	11580	10051	9735	4804	4732	1962	1985
14-Apr-2004	633	638	3961	4115	11490	11590	10051	9900	4908	4820	2335	2321
15-Apr-2004	571	578	4717	4865	11472	11565	10049	9801	4908	4853	2349	2370
16-Apr-2004	578	580	3961	4127	11424	11495	10049	9855	5825	5836	2557	2557
17-Apr-2004	576	581	4094	4215	11424	11481	9955	9842	5653	5447	2655	2691
18-Apr-2004	660	666	4139	4267	11424	11498	9913	9826	6264	6380	2655	2514
19-Apr-2004	605	607	4917	5070	11424	10670	9913	9903	6538	6661	2655	2643
20-Apr-2004	652	654	5741	5786	10898	10656	10108	10450	10268	9798	2992	2970
21-Apr-2004	767	775	6230	6278	10725	10294	12670	12113	8849	7866	3166	3139
22-Apr-2004	822	822	3916	3936	11424	11482	12464	11382	8450	6315	3166	2811
23-Apr-2004	788	796	2715	2717	11424	11478	12464	12328	7963	6495	3469	3442
24-Apr-2004	809	819	5563	5608	11424	11520	12266	12134	7075	6829	3454	3509
25-Apr-2004	768	762	5563	5592	11424	11513	12441	12365	6513	5950	3109	2866
26-Apr-2004	655	662	5563	5618	11424	11498	12361	11919	6513	6334	3184	3243
27-Apr-2004	588	593	4404	4539	11424	11314	12361	12268	7900	7621	3066	3065
28-Apr-2004	876	886	4851	5050	11424	11462	12361	12171	7713	8452	3066	3102
29-Apr-2004	840	849	5118	5235	11424	11491	12330	12035	7675	7246	3073	2983
30-Apr-2004	810	808	2537	2431	7488	4996	12330	12264	7038	10165	3073	3350
Total MU	19.466	19.608	134.398	137.079	319.209	316.511	336.200	331.428	189.307	185.778	73.603	72.565
Max. MWH	876	886	6364	6618	11520	11590	13535	13148	10268	10165	3469	3509
Min MWH	442	446	2537	2431	7488	4996	9913	9735	4270	3931	1049	890
Avg. MWH	649	654	4480	4569	10640	10550	11207	11048	6310	6193	2453	2419

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

Date	Nathpa-Jhakri HEP		Chamera stage-II	
	Schedule	Actual	Schedule	Actual
1-Apr-2004	8769	8824	2565	2589
2-Apr-2004	9324	9558	2768	2766
3-Apr-2004	8954	9011	2817	2752
4-Apr-2004	9263	9321	2891	2909
5-Apr-2004	9633	9717	3472	3457
6-Apr-2004	11177	11264	3834	3869
7-Apr-2004	11918	11881	4455	4479
8-Apr-2004	12565	11773	3757	3778
9-Apr-2004	10806	10891	3267	3289
10-Apr-2004	10065	10211	2995	2975
11-Apr-2004	9818	9892	2524	2544
12-Apr-2004	9571	9652	3035	3013
13-Apr-2004	9695	9847	3356	3188
14-Apr-2004	9757	9868	2867	2724
15-Apr-2004	9448	9527	3122	3086
16-Apr-2004	9757	9840	3525	3557
17-Apr-2004	11053	11164	3963	3997
18-Apr-2004	10806	10893	3762	3796
19-Apr-2004	11300	11389	4406	4311
20-Apr-2004	14635	14745	4752	4793
21-Apr-2004	14635	14690	4208	4193
22-Apr-2004	13338	13246	4752	4713
23-Apr-2004	11856	11890	3878	3896
24-Apr-2004	11980	12072	3408	3433
25-Apr-2004	10436	10491	3397	3399
26-Apr-2004	11362	11470	4128	4146
27-Apr-2004	14697	15040	4712	4744
28-Apr-2004	15376	15662	5196	5233
29-Apr-2004	14635	14742	4961	4962
30-Apr-2004	11235	11103	6348	5253
Total MU	337.864	339.674	113.121	111.844
Max. MWH	15376	15662	6348	5253
Min MWH	8769	8824	2524	2544
Avg. MWH	11262	11322	3771	3728

X. Daily Generation Details of State Sector Stations

(All Figs in MUs)

Date	Punjab(T)	Punjab(H)	Haryana(T)	Haryana(H)	Rajasthan(T)	Rajasthan(H)	UP (T)	UP (H)	Uttaranchal(H)	Delhi(T)	HP+B'PA(H)	J & K(H+GT)	Total
01	32.15	4.47	14.49	0.49	44.39	1.05	48.96	3.26	6.62	16.55	3.62	2.60	178.65
02	32.09	4.55	16.75	0.45	45.57	0.86	53.15	3.79	6.39	15.86	3.56	2.68	185.68
03	32.04	4.86	16.56	0.46	46.70	0.95	53.15	3.79	6.44	12.73	3.70	2.57	183.95
04	30.61	3.01	13.87	0.46	43.72	0.84	48.01	3.65	6.35	12.76	3.70	2.69	169.67
05	32.21	3.64	15.23	0.40	44.60	0.97	47.80	4.35	6.46	15.89	4.39	2.72	178.66
06	35.19	5.19	16.35	0.42	45.70	0.92	48.31	3.72	6.10	16.18	4.78	2.74	185.60
07	36.22	5.35	16.34	0.44	42.14	0.95	49.74	3.13	6.38	16.39	4.95	1.96	183.99
08	31.15	5.16	15.77	0.45	42.49	0.89	49.26	3.02	6.75	16.69	4.71	1.98	178.32
09	32.94	5.65	16.78	0.38	40.83	1.20	51.94	3.49	6.34	16.55	4.46	2.01	182.59
10	33.73	5.43	16.61	0.39	42.45	0.87	45.81	4.08	6.44	16.92	3.99	2.28	179.01
11	34.15	5.79	17.34	0.45	42.57	0.93	48.08	3.22	6.27	16.74	3.84	2.60	181.98
12	34.96	6.23	16.99	0.38	42.02	0.75	49.67	2.83	5.90	14.12	3.89	2.52	180.26
13	36.86	6.79	16.13	0.37	41.53	1.00	52.62	3.26	5.56	15.70	4.03	2.67	186.50
14	37.76	6.47	19.50	0.44	45.12	0.93	49.42	4.65	5.64	16.07	3.90	2.62	192.53
15	36.63	6.12	19.59	0.40	46.18	0.98	47.89	4.27	5.59	16.09	4.30	2.65	190.70
16	36.02	6.58	17.59	0.39	47.17	0.85	50.25	4.19	6.09	15.98	4.86	2.71	192.68
17	33.61	6.85	17.50	0.41	46.85	0.99	50.16	3.67	6.12	14.93	5.25	2.68	189.03
18	33.59	6.75	17.10	0.62	47.29	0.71	47.47	4.03	5.99	14.18	5.13	2.77	185.62
19	36.35	6.44	15.66	0.57	43.01	1.02	46.50	3.95	6.31	14.95	6.32	2.64	183.72
20	37.26	6.74	17.39	0.60	46.62	0.76	45.24	3.47	7.63	15.11	7.23	2.69	190.73
21	36.57	6.32	17.07	0.63	46.39	0.97	50.87	3.82	7.49	15.17	6.76	2.71	194.77
22	34.30	5.66	17.56	0.59	45.82	0.59	49.47	2.38	6.73	14.99	5.27	2.72	186.09
23	33.27	6.17	11.84	0.48	42.70	1.12	50.69	1.73	7.83	13.56	5.28	2.71	177.37
24	34.69	6.07	15.81	0.45	43.03	0.92	48.61	2.42	7.19	15.71	5.18	2.74	182.82
25	35.70	5.99	18.96	0.49	41.58	0.85	55.71	2.70	6.63	17.02	4.07	2.65	192.34
26	36.62	6.57	16.77	0.43	45.21	0.78	42.89	3.89	6.63	15.96	5.06	2.46	183.26
27	35.45	6.24	16.84	0.41	43.53	0.92	39.45	4.25	6.57	15.99	6.81	2.52	178.98
28	34.85	6.47	13.29	0.43	42.29	0.84	41.80	2.49	6.90	15.88	6.18	2.38	173.80
29	29.21	6.38	14.27	0.41	41.92	0.93	42.49	2.38	6.37	15.66	5.75	2.43	168.20
30	17.87	5.58	5.46	0.51	33.45	0.71	36.25	1.88	6.25	10.47	4.62	2.44	125.49
Maximum	37.76	6.85	19.59	0.63	47.29	1.20	55.71	4.65	7.83	17.02	7.23	2.77	194.77
Minimum	17.87	3.01	5.46	0.37	33.45	0.59	36.25	1.73	5.56	10.47	3.56	1.96	125.49
Average	33.80	5.78	16.05	0.46	43.76	0.90	48.06	3.39	6.46	15.36	4.85	2.55	181.43
Month Total	1014.04	173.52	481.41	13.81	1312.87	27.02	1441.67	101.75	193.94	460.80	145.58	76.56	5442.98

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during MARCH, 2004 (Ex Bus MU)	Cummulative from 01.04.2003 (Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	368.28	368.28
(b)	Singrauli STPS	2000.00	1148.58	1148.58
(c)	Rihand STPS	1000.00	648.78	648.78
(d)	Dadri NCTPS	840.00	529.64	529.64
(e)	Unchahar-I TPS	420.00	256.56	256.56
(f)	Unchahar-II TPS	420.00	262.99	262.99
(g)	Tanda TPS	440.00	180.71	180.71
(h)	Anta GPS	419.33	243.80	243.80
(i)	Auraiya GPS	663.36	378.05	378.05
(j)	Dadri GPS	829.78	455.07	455.07
(k)	Faridabad GPS	431.57	241.05	241.05
	Total NTPC	8169.04	4713.50	4713.50
B	NHPC			
(a)	Bairasiul	180.00	58.44	58.44
(b)	Salal	690.00	261.06	261.06
(c)	Tanakpur HPS	94.20	19.63	19.63
(d)	Chamera HPS	540.00	137.15	137.15
(e)	Uri HPS	480.00	314.67	314.67
(f)	Chamera2 HPS	300.00	111.76	111.76
	Total NHPC	2284.20	902.71	902.71
C	Nathpa-Jhakri	500.00	338.66	338.66
D	NPC			
(a)	RAPS -A	300.00	35.88	35.88
(b)	RAPS -B	440.00	87.01	87.01
(c)	NAPS	440.00	229.77	229.77
	Total NPC	1180.00	352.66	352.66
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	333.79	333.79
(b)	Dehar	990.00	185.83	185.83
(c)	Pong	390.00	72.52	72.52
	Total BBMB	2870.15	592.14	592.14
3	DELHI			
(a)	Indra Prastha	247.50	51.90	51.90
(b)	Rajghat	149.00	78.32	78.32
(c)	Gas Turbines	282.00	122.31	122.31
(d)	Pragati Gas	330.00	211.83	211.83
	Total DELHI	1008.50	464.37	464.37
4	HARYANA			
(a)	WYC	48.00	13.92	13.92
(b)	Faridabad (New)	165.00	68.66	68.66
(c)	Panipat	860.00	456.11	456.11
(d)	Magnum Diesel(IPP)	25.20	7.52	7.52
	Total Haryana	1098.20	546.21	546.21

contd/-

5	HP			
(a)	Giri	60.00	4.60	4.60
(b)	Bassi	60.00	26.23	26.23
(c)	Binwa	6.00	1.93	1.93
(d)	Rongtong (+Nogli+Micro+Thirot+Sal-2)	15.25	1.19	1.19
(e)	Andhra	16.95	2.79	2.79
(f)	Bhabha (H)	120.00	46.45	46.45
(g)	Baner (H)	12.00	2.59	2.59
(h)	Gaj (H)	10.50	2.69	2.69
(i)	Gumma	3.00	0.58	0.58
(j)	Ghanvi	22.50	4.46	4.46
(k)	Malana (IPP)	86.00	14.60	14.60
(l)	Baspa (IPP)	300.00	50.44	50.44
	Total HP	712.20	158.53	158.53
6	J & K			
(a)	Lower Jhelum	105.00	56.09	56.09
(b)	Upper Sindh	127.60	12.95	12.95
(c)	Ganderbal	15.00	1.41	1.41
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	5.96	5.96
(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	76.41	76.41
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	46.62	46.62
(b)	UBDC	90.00	5.06	5.06
(c)	Mukerian	207.00	75.80	75.80
(d)	Anandpur Sahib (APS)	134.00	32.57	32.57
(e)	Ranjit Sagar HPS	600.00	14.48	14.48
(f)	Small Hydel	4.10	0.00	0.00
(g)	GNDTPS (Bhatinda)	440.00	111.71	111.71
(h)	GGSTPS (Ropar)	1260.00	699.20	699.20
(i)	Jhalkeri	10.00	0.00	0.00
	Peda & Sugarmill		0.00	0.00
(j)	Lehra Mohabbat TPS	420.00	195.85	195.85
	Total Punjab	3275.10	1181.30	1181.30
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	26.24	26.24
(b)	Rana Pratap Sagar (RPS)	172.00	0.08	0.08
(c)	Jawahar Sagar (JS)	99.00	0.81	0.81
(d)	ACW	9.00	1.07	1.07
(e)	MMH	14.85	-0.01	-0.01
(f)	Kota TPS	1045.00	552.30	552.30
(g)	RAMGARH GT	3.00		
(h)	RAMGARH GT EXT	35.50	16.41	16.41
(i)	Suratgarh TPS	1250.00	748.76	748.76
(j)	Wind Farm	14.01	19.68	19.68
(k)	Others (KPTL bio-mass)		0.50	0.50
	Total Rajasthan	2782.36	1365.84	1365.84

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	50.96	50.96
(b)	Obra	99.00	20.37	20.37
(c)	Matatilla	30.00	14.18	14.18
(d)	Ganga Canal	10.70	0.00	0.00
(e)	Small hydro	18.20	0.00	0.00
(f)	Khara	72.00	15.97	15.97
	Total U.P. (Hydro)	529.90	101.48	101.48
	<u>THERMAL</u>			
(e)	Obra	1442.00	350.40	350.40
(f)	Panki	242.00	85.57	85.57
(g)	Harduaganj	375.00	60.54	60.54
(h)	Paricha	220.00	79.07	79.07
(i)	Anpara	1630.00	867.31	867.31
	Total U.P. (Thermal)	3909.00	1442.90	1442.90
	Total U.P.	4438.90	1544.38	1544.38
10	UTTRANCHAL			
(a)	Khatima	41.40	8.73	8.73
(b)	Ramganga	198.00	33.03	33.03
(c)	Ganga Canal	32.70	9.87	9.87
(d)	Yamuna (I & IV)	114.75	59.04	59.04
(e)	Chibro	240.00	35.61	35.61
(f)	Khodri	120.00	17.36	17.36
(g)	Chilla	144.00	29.55	29.55
(h)	Maneri Bhali	90.00	0.00	0.00
	Total Uttranchal	980.85	193.19	193.19
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	29794.77	12429.89	12429.89

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% Panipat----12.0%

Suratgarh----10.0% KTPS----10% UP----12.5% Tanda----12.5%

Lehra Mohabbat----10.5% RTP----7.5% GNDTP----10.5%

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

FROM / TO	PUNJAB	HARYANA	RAJASTHAN	DELHI	UP	UTTRANCHAL	HP	J & K	CHANDIGARH
PUNJAB	-	-	-		-	1730***	-	3450****	-
HARYANA	-	-	-		-	-	2310****	-	-
RAJASTHAN		-	-		-	-	-	-	
DELHI	-		-		-	-	45253****	-	-
UP	-	-	-	-	-	-	-	-	-
UTTRANCHAL		-	-	-	-	-	-	-	-
HP		-	-		-	-	-	-	-
J & K		-	-		-	-	-	-	-
CHANDIGARH	-	-	-	-	-	-	-	-	-

* Through PTC

** Through NVVN

*** Through Mutual

**** Through Banking

**REMARKS :** Figures are provisional and indicative only.

XIII. DETAILS OF ENERGY EXCHANGES THROUGH BILATERAL AGREEMENTS (INTER-REGIONAL) DURING APRIL 2004**(ALL FIGS IN MWH)**

FROM / TO	GRIDCO	MP	WBPCL	DVC	APTRCO	CSEB	GEB	GOA	JSEB
PUNJAB	9599***	-	10840*** 29210*	11977*	-		-	-	
HARYANA	3238***	-	6266* 1729***	16387*			-	8232**	
RAJASTHAN	-	-					-	-	
DELHI						--			
UTTRANCHAL	-	-	6371***	-	-	-	-	-	
J & K	-	-			-	-	-	-	
CHANDIGARH			397*						

* Through PTC

(+ Import by NR constituents

(- Export by NR constituents

** Through Global Energy Limited

*** Throgh NVVN

REMARKS : provisional and indicative only

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

1 OF 2

Date	Wiith WR Over Vindhyachal HVDC B/B {Export (-)/Import(+)}							With WR Over Auraiya - Malanpur {Export(-)/Import(+)}						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net (MU)	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net (MU)
01	50	50	150	0	1.15	0.00	1.15	-29	-27	0	29	0.00	0.71	-0.71
02	0	50	250	0	1.03	0.00	1.03	-28	-25	0	29	0.00	0.73	-0.73
03	50	50	200	0	0.72	0.00	0.72	-36	-35	0	40	0.00	0.72	-0.72
04	100	50	350	0	2.37	0.00	2.37	0	-23	0	25	0.00	0.54	-0.54
05	50	50	150	0	0.85	0.00	0.85	0	0	0	0	0.00	0.00	0.00
06	-109	50	100	109	0.44	1.01	-0.57	-35	-30	0	-35	0.00	0.58	-0.58
07	100	-100	100	450	3.65	0.62	3.03	-17	-19	0	-35	0.00	0.74	-0.74
08	0	40	150	0	0.54	0.00	0.54	-7	-24	0	27	0.00	0.70	-0.70
09	-109	-59	200	109	0.50	1.27	-0.77	-20	-24	0	24	0.00	0.70	-0.70
10	-109	-59	0	209	0.00	2.21	-2.21	-28	-25	0	28	0.00	0.74	-0.74
11	0	0	250	50	0.74	0.14	0.61	-32	-31	0	35	0.00	0.73	-0.73
12	0	50	100	0	0.59	0.00	0.59	0	-31	0	35	0.00	0.51	-0.51
13	0	50	200	0	0.91	0.00	0.91	-21	-22	0	25	0.00	0.76	-0.76
14	0	50	350	0	2.65	0.01	2.64	-21	-22	0	25	0.00	0.76	-0.76
15	250	100	400	0	2.90	0.00	2.90	-27	-20	0	27	0.00	0.77	-0.77
16	0	200	350	0	2.96	0.00	2.96	-24	-20	0	28	0.00	0.76	-0.76
17	100	50	450	0	4.00	0.00	4.00	-24	-20	0	28	0.00	0.74	-0.74
18	0	150	450	50	3.64	0.04	3.60	-27	-25	0	27	0.00	0.68	-0.68
19	0	50	200	100	1.52	0.03	1.49	-28	-30	0	35	0.00	0.70	-0.70
20	0	50	150	0	0.58	0.00	0.58	-28	-28	0	35	0.00	0.71	-0.71
21	0	50	150	50	0.83	0.01	0.81	-21	-23	0	27	0.00	0.73	-0.73
22	-250	50	50	250	0.20	1.93	-1.73	-21	-23	0	27	0.00	0.74	-0.74
23	0	-250	50	250	0.32	2.60	-2.27	-10	-19	0	27	0.00	0.77	-0.77
24	0	-200	200	250	0.26	1.23	-0.97	-16	-19	0	24	0.00	0.67	-0.67
25	0	50	200	100	0.44	0.03	0.40	-28	-30	0	40	0.00	0.68	-0.68
26	0	50	250	50	1.06	0.00	1.06	-32	-29	0	35	0.00	0.67	-0.67
27	0	50	300	50	0.87	0.02	0.85	-14	-14	0	24	0.00	0.67	-0.67
28	0	50	50	150	0.24	0.07	0.17	-18	-11	0	25	0.00	0.72	-0.72
29	0	50	350	100	0.60	0.96	-0.36	-20	-18	0	24	0.00	0.70	-0.70
30	-50	-300	0	500	0.00	3.11	-3.11	-20	-15	0	20	0.00	0.64	-0.64
Maximum	250	200	450	500	4.00	3.11	4.00	0	0	0	40	0.00	0.77	0.00
Minimum	-250	-300	0	0	0.00	0.00	-3.11	-36	-35	0	-35	0.00	0.00	-0.77
Average	2	16	205	94	1.22	0.51	0.71	-21	-23	0	24	0.00	0.68	-0.68
Total					33.52	11.95	21.57					0.00	20.27	-20.27

XIV. Inter Regional Exchanges During APRIL2004 (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	-116	-95	0	116	0.00	1.96	-1.96	180	181	230	0	3.21	0.00	3.21
02	-75	-120	0	120	0.00	2.19	-2.19	230	80	380	0	4.00	0.00	4.00
03	-100	-110	0	115	0.00	2.21	-2.21	79	79	329	0	4.09	0.00	4.09
04	-120	-110	0	120	0.00	2.23	-2.23	57	279	329	0	4.37	0.00	4.37
05	-100	-110	0	110	0.00	1.84	-1.84	58	258	308	0	5.15	0.00	5.15
06	0	-100	0	100	0.00	0.65	-0.65	106	156	456	0	4.43	0.00	4.43
07	-65	0	0	100	0.00	1.16	-1.16	406	129	459	0	8.36	0.00	8.36
08	-65	-110	0	110	0.00	2.17	-2.17	78	429	429	0	7.19	0.00	7.19
09	0	0	0	110	0.00	0.21	-0.21	78	203	353	0	4.62	0.00	4.62
10	0	0	0	0	0.00	0.00	0.00	78	203	253	0	3.67	0.00	3.67
11	65	0	0	110	0.00	1.00	-1.00	78	203	303	0	3.99	0.00	3.99
12	-100	-100	0	100	0.00	1.82	-1.82	200	254	354	0	4.48	0.00	4.48
13	-90	-90	0	100	0.00	1.87	-1.87	180	350	450	0	7.61	0.00	7.61
14	-90	-90	0	100	0.00	1.71	-1.71	180	330	450	0	6.93	0.00	6.93
15	-68	-90	0	100	0.00	1.86	-1.86	80	380	380	0	7.89	0.00	7.89
16	-80	-90	0	100	0.00	1.85	-1.85	130	450	480	0	8.49	0.00	8.49
17	-85	-90	0	100	0.00	1.70	-1.70	130	430	450	0	8.35	0.00	8.35
18	-92	-88	0	-95	0.00	1.87	-1.87	176	450	480	0	9.73	0.00	9.73
19	-50	-90	0	100	0.00	1.76	-1.76	177	450	450	0	7.81	0.00	7.81
20	-85	-85	0	100	0.00	1.89	-1.89	177	450	450	0	7.81	0.00	7.81
21	-65	-90	0	100	0.00	1.67	-1.67	127	377	427	0	7.54	0.00	7.54
22	-65	-90	0	100	0.00	1.80	-1.80	122	252	427	0	5.98	0.00	5.98
23	-70	-80	0	100	0.00	1.83	-1.83	171	197	450	0	3.64	0.00	3.64
24	-80	-55	0	100	0.00	1.59	-1.59	171	197	450	0	7.64	0.00	7.64
25	-100	-70	0	100	0.00	1.82	-1.82	155	463	463	0	7.98	0.00	7.98
26	-105	-80	0	110	0.00	1.90	-1.90	200	486	500	0	10.85	0.00	10.85
27	-80	-70	0	90	0.00	1.69	-1.69	156	476	476	0	9.74	0.00	9.74
28	-50	-85	0	95	0.00	1.58	-1.58	256	464	464	0	7.84	0.00	7.84
29	-80	-89	0	90	0.00	1.76	-1.76	276	426	476	0	9.32	0.00	9.32
30	-70	-90	0	90	0.00	1.57	-1.57	0	150	375	0	2.82	0.09	2.73
31														
Maximum	65	0	0	120	0.00	2.23	0.00	406	486	500	210	10.85	0.09	10.85
Minimum	-120	-120	0	-95	0.00	0.00	-2.23	0	79	230	0	2.82	0.00	2.73
Average	-69	-79	0	93	0.00	1.64	-1.64	150	308	409	11	6.52	0.00	6.51
Total					0.00	46.97	-46.97					194.79	0.09	194.70

XV. Progress Of Installation Of Shunt Capacitors As On 30.04.2004**(ALL FIGS IN MVARs)**

CONSTITUENT	REQUIREMENT AT THE END OF Mar-04	CAPACITORS AS ON 31.03.2003	CAPACITORS ADDITION DURING		BALANCE NOT INSTALLED DURING 2003-04	CAPACITORS NSTALLED AS ON 30.04.2004
		INSTALLED	2003-04	2004 - 05		
Chandigarh	150	92	0	0	74	92
Delhi	3364	2755	266	0	343	3021
Haryana	3435	2685	584	0	166	3269
H.P.	347	278	33	0	36	311
J & K	892	147	0	0	745	147
Punjab	4874	4706	15	0	153	4721
Rajasthan	2863	2698	251	10.86	0	2959.86
U.P.	5495	4965	227	0	303	5192
Uttranchal	344	123	2	0	219	125
BBMB	381	381	0	0	31	381
TOTAL	22145	18830	1378	10.86	2070	20218.86

XVI. Hydraulic Data For Reservoirs During APRIL 2004

Item	Bhakra	Pong	Rihand	R.P.S.	Gandhi Sagar (M.P.)
Full Reservoir Level (m) (FRL) (ft)	514.50 1688.00	433.12 1421.00	268.22 880.00	352.65 1157.00	402.64 1321.00
Min. Draw Down Level (m) (MDDL) (ft)	445.62 1462.00	384.05 1260.00	252.98 830.00	342.90 1125.00	381.00 1250.00
Level on last day of April 2004 (m)	455.99 1496.02	396.72 1301.58	255.97 839.80	344.88 1131.49	379.49 1245.05
Level on last day of April 2003 (m)	462.69 1518.00	398.45 1307.26	256.95 843.00	346.42 1136.56	379.18 1244.02
Live Capacity as on (mhmt) last day of April 2004 (maft)	0.07 0.54	0.13 1.02	0.09 0.75	0.02 0.17	0.00 0.00
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
Energy content as on last day of April 2004 (MU)	230.00	165.00	165.00	45.00	0.00
Energy content as on last day of April 2003 (MU)	370.00	205.00	175.00	85.00	0.00
Maximum level (m) (ft) (date)	463.47 1520.56 01.04.2004	399.48 1310.62 01.04.2004	257.19 843.80 01.04.2004	345.10 1132.21 01.04.2004	379.58 1245.34 01.04.2004
Minimum level (m) (ft) (date)	455.99 1496.02 30.04.2004	396.72 1301.58 30.04.2004	255.97 839.80 30.04.2004	344.88 1131.49 30.04.2004	379.49 1245.05 30.04.2004

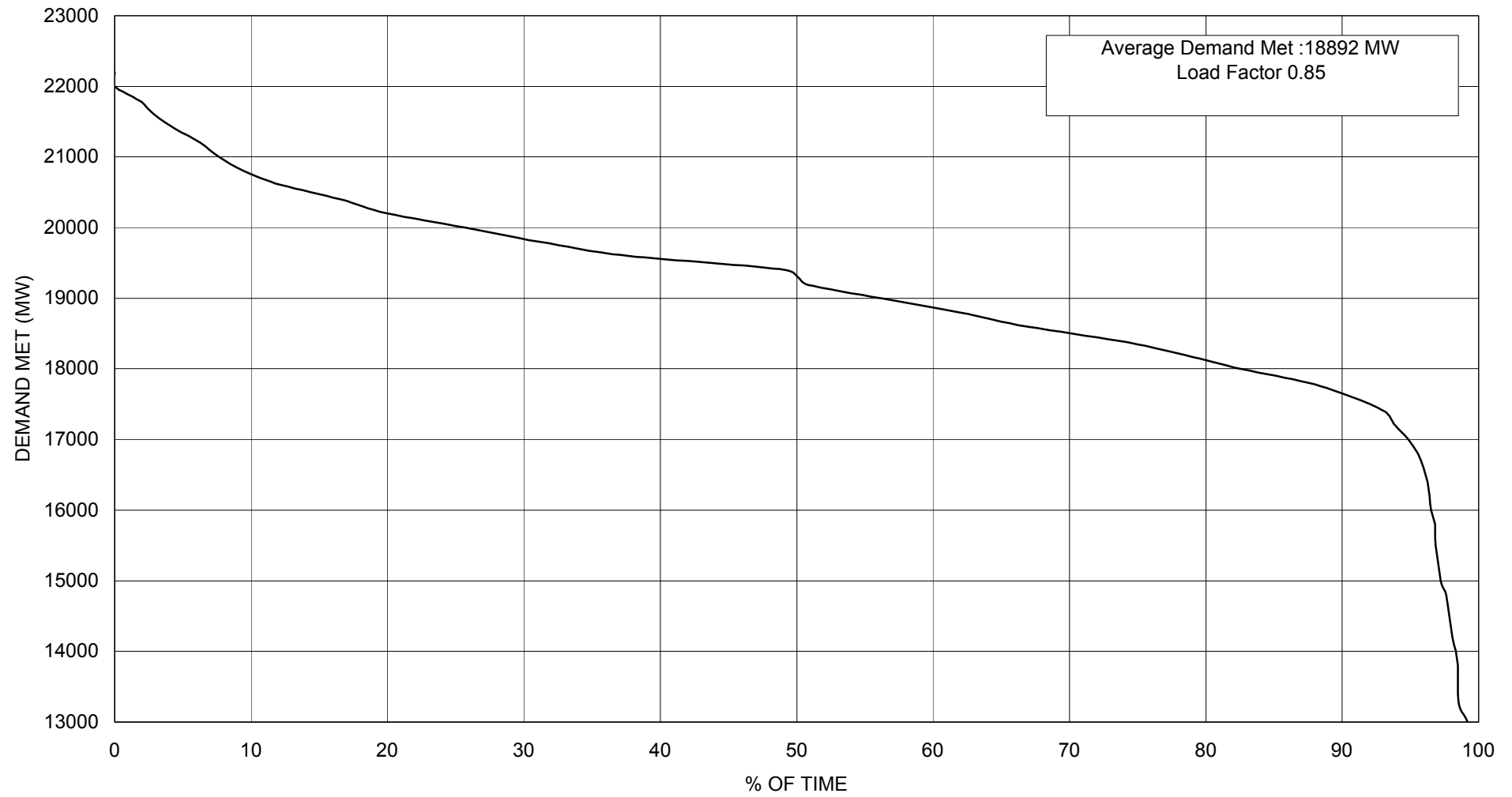
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

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

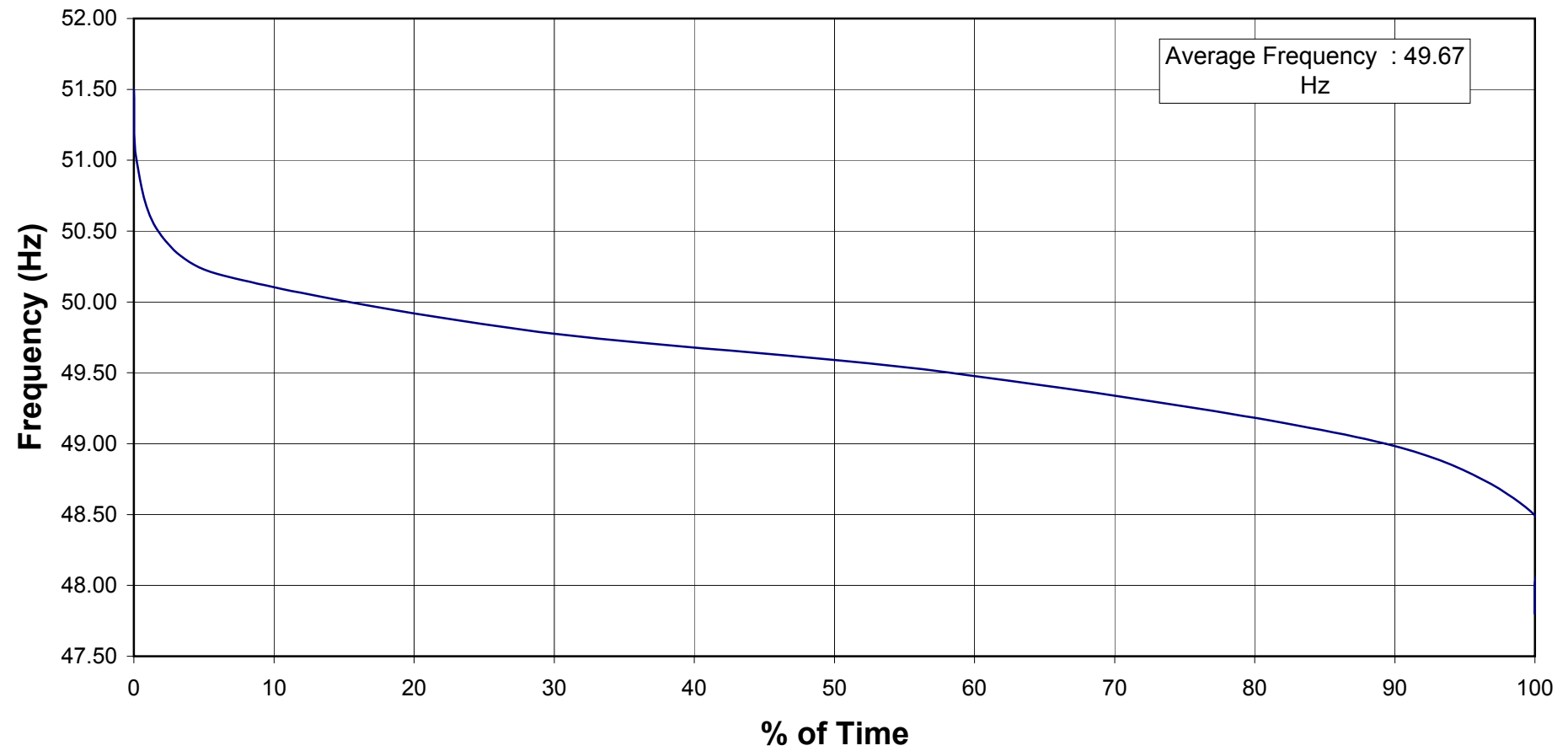
Energy content of RPS : Total Energy content of Rana Pratap Sagar and Jawahar Sagar Power Stations.

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

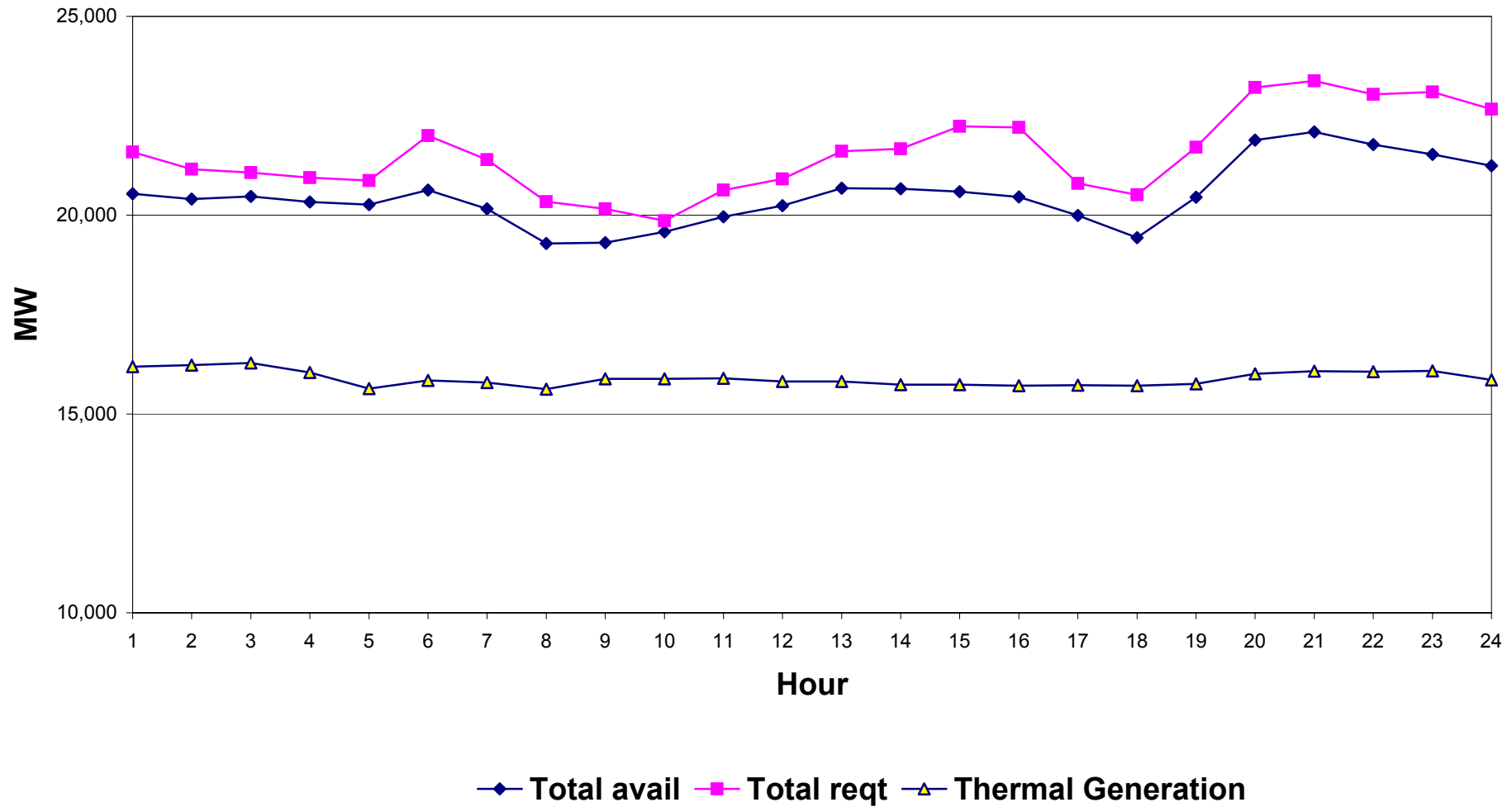
Load Duration Curve For Northern Region For April 2004



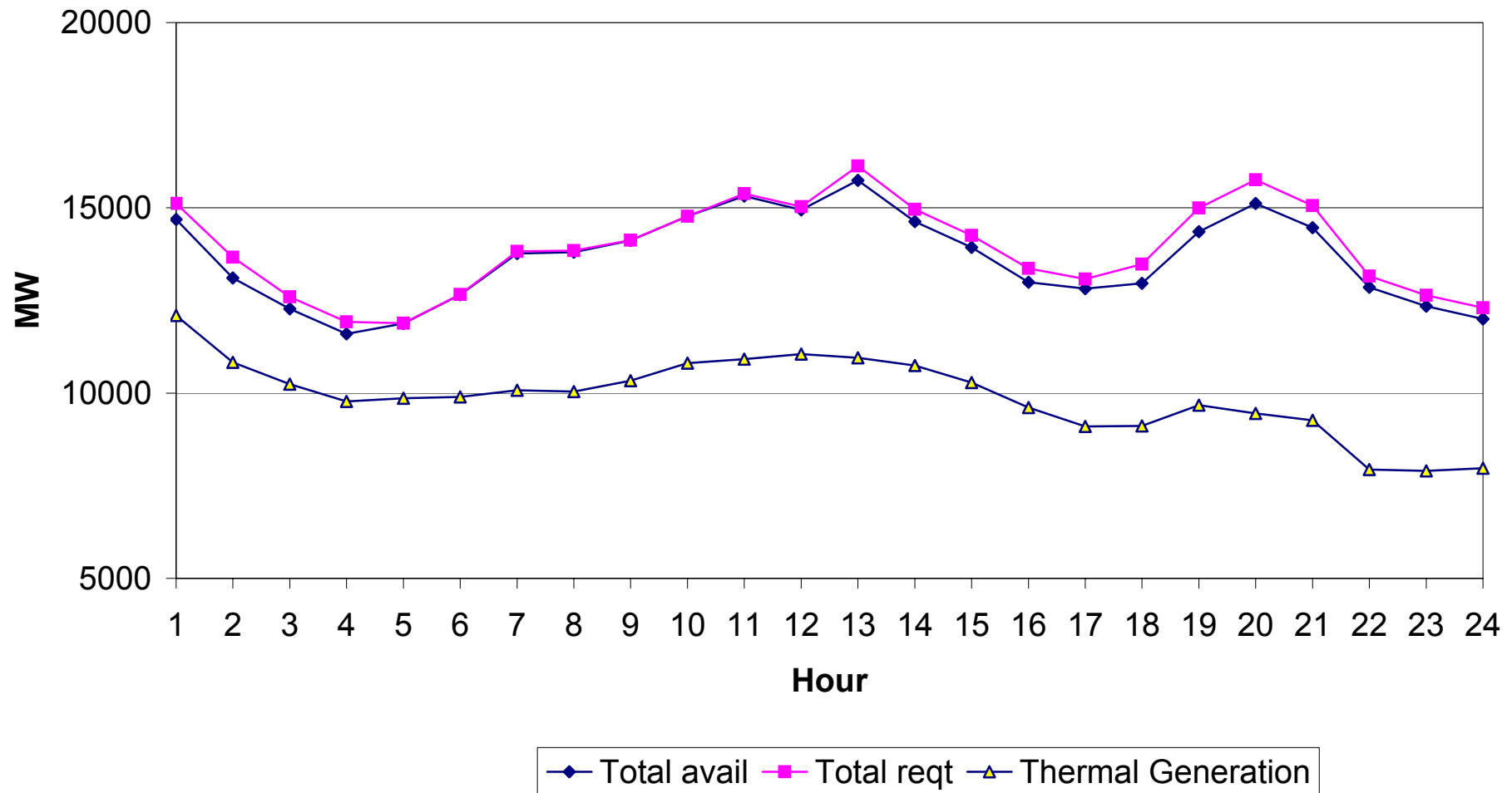
Frequency Duration Curve For Northern Region For April 2004

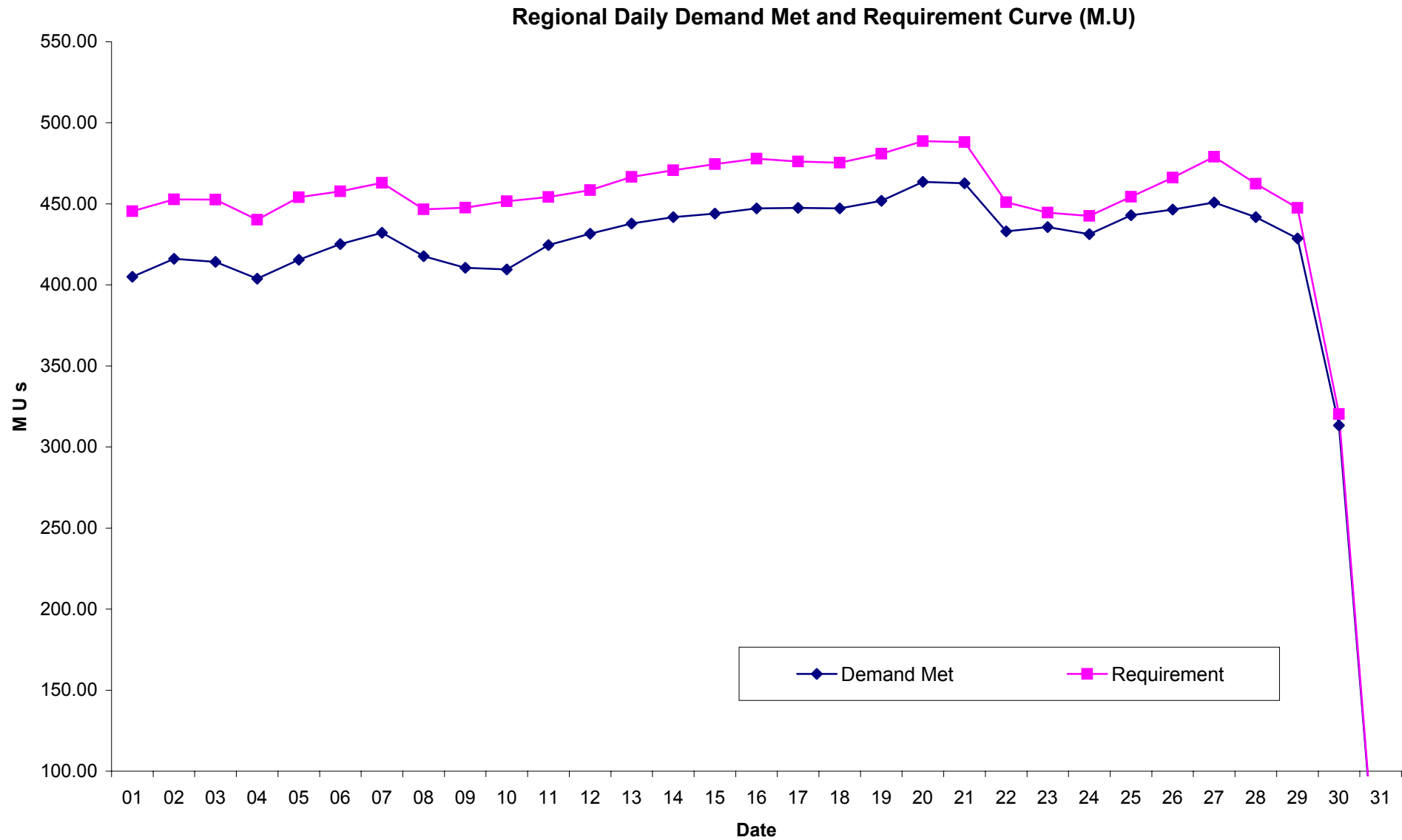


Load Curve Of Northern Region For Maximum Demand Met Day (20th April 2004)



Load Curve Of Northern Region For Minimum Demand Met Day (30th April 2004)





Grid Incident during APRIL 2004

DATE	INCIDENT
29/30.04.2004	On the midnight of 29th-30th April, 2004 there was unprecedentedly high load crash of 1000 MW in the region due to widespread thunderstorm and rains throughout the region. Due to sudden and quantitative load crash, the frequency and voltages at supergrid level in the system also increased to dangerously high values due to low loadings of lines. The situation however could be controlled by prompt action by NRLDC control room of POWERGRID with the cooperation of all the state constituents and generating stations, by closing down a large number of thermal and hydro generating units, backing down on all the running units and exporting power to maximum possible extent to the neighbouring regions viz ER and WR. To control the high voltages all possible measures were taken including taking the reactors into service switching off the lightly loaded redundant lines including HVDC Rihand-dadri pole. Thus by taking all above mentioned actions, the grid integrity was maintained.