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NORTHERN REGION GRID REPORT FOR THE MONTH OF AUGUST 2004

A) Summary Report

Grid Overview during the Month

1. During the month of August 2004 the average system frequency was 49.71 Hz and frequency remained in normal range i.e. between 49.00 & 50.50 for 91.50 % of time . The average frequency variation index during the month was 2.93 . However , large gap between maximum and minimum frequencies and fluctuation in frequency from low to high and vice-versa decreased considerably due to participation of many generating agencies in free governor mode of operation. The maximum and minimum regional availability was 24012 MW and 18497 MW . The average demand met was 461.88 MU/day . There was a shortage of 10.26% in terms of energy and 6.10 % in terms of peak MW.

Overall voltage profile during the month was satisfactory over 400 kv buses.

During this month there was no major grid incident However there were some minor incident which are reported in Annexutire-VI

2. Commissioning of new Units/Lines/Transformers during the month

- a) 400 KV Ballabhgarh-Bamnauli ckt-I charged on 20.08.2004.
- b) 400 KV Tehri-Merrut ckt-I was ideally charged on 18.8.2004.
- c) FACTS (Stage-II) Of 400 kv Kanpur-Ballabhgarh commissioned on 21.08.2004.

3. Monthly Frequency Profile :

Maximum frequency 50.76 Hz at 03.03 hours on 03.08.2004
 Minimum frequency 48.50 Hz at 19.50 hours on 06.08.2004
 Average frequency 49.71 Hz

Frequency distribution in %

Hz	< 48.50	<49.00	49.00-50.50	> 50.50
% of time	0.00	7.64	91.50	0.87

Monthly Frequency Variation Index

Maximum 10.03
 Minimum 0.37
 Average 2.93

4. Power Supply Position :

a. Average Energy/day (Net)

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	113.14	120.65	7.51	6.23
Haryana	62.81	71.18	8.37	11.76
Rajasthan	61.34	61.40	0.06	0.10
U.P.	117.26	147.21	29.95	20.35
Uttanchal	12.96	13.21	0.25	1.90
Delhi	62.67	62.68	0.01	0.02
H.P.	8.16	8.20	0.04	0.51
J & K *	18.42	25.03	6.61	26.41
Chandigarh	3.53	3.53	0.00	0.00
N.F.F./Rail	1.60	1.60	0.00	0.00
Total	461.88	514.69	52.81	10.26

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	5499	6438	939	14.59
Haryana	3375	3375	0	0.00
Rajasthan	3493	3493	0	0.00
U.P.	6129	7730	1601	20.71
Uttanchal	795	835	40	4.79
Delhi	3269	3280	11	0.34
H.P.	607	607	0	0.00
J & K *	1180	1280	100	7.81
Chandigarh	194	194	0	0.00
N.F.F./Rail	74	74	0	0.00
Region	24012	25572	1560	6.10
Diversity Factor = 1.07				

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual	OD/UD
Punjab	1645.94	1781.67	135.72
Haryana	1108.07	1255.82	147.75
Rajasthan	864.07	651.39	-212.68
U.P.	1566.38	1905.43	339.05
Uttranchal	51.29	10.29	-41.00
Delhi	1318.34	1064.37	-253.97
H.P.	-156.15	-169.95	-13.80
J & K	423.87	498.45	74.58
Chandigarh	104.89	116.71	11.82
N.F.F./Rail	64.07	49.73	-14.35

6. **Inter Regional Exchanges**

	Energy M.U.	Peak MW
<u>Import</u>		
a) From WR over HVDC Vindhyachal B/B	228.49	500
b) From WR over 220 kV Ujjain-Kota	0.00	0
c) From ER over HVDC Sasaram B/B	262.702	500
d) From ER over 220 kV Pusauli-Sahupuri	102.53	180
<u>Export</u>		
e) To WR over HVDC Vindhyachal B/B	0.57	300
f) To WR (MP) over 220 kV Auraiya-Malanpur	0.00	0
g) To WR(MP) over 220 kV Kota-Ujjain	18.69	105
h) To ER over 220 kV/132kV lines	1.05	35
i) To ER over HVDC Sasaram B/B	0.08	62
j) To Nepal over 132 kV Tanakpur-Mahendernagar	0.00	0

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

	<u>STATION</u>	<u>INSTALLED CAPACITY</u>	<u>EFFECTIVE CAPACITY</u>
		(MW)	
A	NTPC		
(a)	Badarpur TPS	3x100+2x210 720.00	3x95+2x210 705.00
(b)	Singrauli STPS	5x200+2x500 2000.00	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	6x250 1500.00	6x250 1500.00
Total Central Sector (A + B + C +D)		13344.04	13133.24
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+1x24.20+1X24.20 77.65	1x29.25+1x24.20+1X24.20 77.65
(iv)	Kotla	1x29.25+1x24.20+1X24.20 77.65	1x29.25+1x24.20+1X24.20 77.65
	Sub-Total	1480.30	1480.30
(b)	Dehar	6x165 990.00	6x165 990.00
(c)	Pong	6x66 396.00	6x66 396.00
	Total BBMB	2866.30	2866.30

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	2x67.5	135.00
(c)	Gas Turbines	6x30+3x34	282.00	6x30+3x34	282.00
(d)	Pragati Gas Turbines	2x104.6+1x121.2	330.00	2x104.6+1x121.2	330.00
	Total DELHI		1009.50		994.50
5 HARYANA					
	HYDRO				
(a)	Western Yamuna-I & II Canal (WYC)	6x8+2x7.2	62.40	6x8+2.7.2	62.40
	Total Hydro		62.40		62.40
	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		1127.60		1112.60
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.)					
	GAS TURBINES				
(h)	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)	Jhalkei 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
(f)	Gandhi Sagar	5x23	115.00	5x23	115.00
	Total Hydro		434.85		434.85
	THERMAL				
(g)	Kota TPS	2x110+3x210 +1x195	1045.00	2x110+3x210 +1x195	1045.00
(h)	Suratgarh TPS	5x250	1250.00	5x250	1250.00
(i)	Ramgarh GT	1x3	3.00	1x3	3.00
(j)	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)	Khara	3x24.0	72.00		72.00
	Total Hydro		501.00		501.00
	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		4693.00		4410.00
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
(l)	Sibla+Small hydel		18.20		18.20
	Total Hydro		999.05		999.05
Total Region (1 to 11)			31306.78		30780.62

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	26.54%
NHPC	2284.20	0.00	0.00	0.00	2284.20	7.42%
SJVNL	1500.00	0.00	0.00	0.00	1500.00	4.87%
NPC	0.00	0.00	0.00	1180.00	1180.00	3.83%
BBMB	2866.30	0.00	0.00	0.00	2866.30	9.31%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	382.50	612.00	0.00	994.50	3.23%
HARYANA	62.40	1025.00	25.20	0.00	1112.60	3.61%
HIMACHAL	712.20	0.00	0.00	0.00	712.20	2.31%
J&K	311.69	0.00	182.18	0.00	493.87	1.60%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	10.64%
RAJASTHAN	434.85	2295.00	52.51	0.00	2782.36	9.04%
UP	501.00	3909.00	0.00	0.00	4410.00	14.33%
UTTRANCHAL	999.05	0.00	0.00	0.00	999.05	3.25%
Total	10816.79	15566.50	3217.33	1180.00	30780.62	100.00%
% of TOTAL	35.14%	50.57%	10.45%	3.83%	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 31.07.2004

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1264.00	1020.00	2284.00
BBMB	1145.30	1721.00	2866.30
SJVNL	0.00	1500.00	1500.00
DELHI	0.00	0.00	0.00
HARYANA	62.40	0.00	62.40
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	201.00	300.00	501.00
UTTRANCHAL	801.05	198.00	999.05
TOTAL	5305.59	5511.00	10816.59
PERCENTAGE	49.05%	50.95%	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	5.35	55.73	94.65	14.20	0.00	0.00	0.00
02	0.00	0.00	0.00	0.42	100.00	78.61	0.00	0.00	0.00
03	0.00	0.00	0.07	14.20	91.73	51.77	8.20	0.00	0.00
04	0.00	0.00	5.80	34.03	94.20	18.78	0.00	0.00	0.00
05	0.00	0.00	21.29	69.47	78.71	8.06	0.00	0.00	0.00
06	0.00	0.07	44.91	91.07	55.09	0.00	0.00	0.00	0.00
07	0.00	0.00	49.57	94.41	50.43	0.00	0.00	0.00	0.00
08	0.00	0.00	8.96	65.61	91.04	11.43	0.00	0.00	0.00
09	0.00	0.00	7.05	50.23	92.95	8.68	0.00	0.00	0.00
10	0.00	0.00	4.10	30.21	95.90	34.06	0.00	0.00	0.00
11	0.00	0.00	2.51	39.73	97.49	7.66	0.00	0.00	0.00
12	0.00	0.00	5.52	43.10	94.48	5.28	0.00	0.00	0.00
13	0.00	0.00	14.38	64.99	85.62	3.58	0.00	0.00	0.00
14	0.00	0.00	9.25	53.49	90.75	19.16	0.00	0.00	0.00
15	0.00	0.00	6.25	44.58	93.75	13.19	0.00	0.00	0.00
16	0.00	0.00	20.69	77.92	79.31	0.56	0.00	0.00	0.00
17	0.00	0.00	1.96	25.81	98.04	29.17	0.00	0.00	0.00
18	0.00	0.00	0.49	10.73	99.44	44.79	0.07	0.00	0.00
19	0.00	0.00	0.38	11.32	99.17	53.28	0.45	0.00	0.00
20	0.00	0.00	0.00	9.17	99.76	53.06	0.24	0.00	0.00
21	0.00	0.00	0.03	7.88	99.20	62.26	0.76	0.00	0.00
22	0.00	0.00	0.00	0.45	97.54	82.85	2.46	0.00	0.00
23	0.00	0.00	0.00	0.00	93.85	93.02	6.15	0.00	0.00
24	0.00	0.00	0.07	0.52	97.95	89.58	1.98	0.00	0.00
25	0.00	0.00	0.50	5.25	97.84	65.79	1.67	0.00	0.00
26	0.00	0.00	0.94	8.72	95.00	58.68	4.06	0.00	0.00
27	0.00	0.00	3.33	19.16	96.46	38.56	0.21	0.00	0.00
28	0.00	0.00	5.94	36.98	94.06	14.44	0.00	0.00	0.00
29	0.00	0.00	15.80	61.62	84.20	11.11	0.00	0.00	0.00
30	0.00	0.00	4.82	34.68	95.14	12.08	0.03	0.00	0.00
31	0.00	0.00	8.09	45.76	91.91	13.54	0.00	0.00	0.00
Max	0.00	0.07	49.57	94.41	100.00	93.02	8.20	0.00	0.00
Min	0.00	0.00	0.00	0.00	50.43	0.00	0.00	0.00	0.00
Average	0.00	0.00	7.64	34.45	91.50	32.91	0.87	0.00	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
50.36	18.08	48.66	20.19	49.51	3.71
50.44	18.09	49.43	8.34	50.11	0.37
50.76	03.03	48.97	21.13	49.98	1.47
50.28	07.02	48.53	19.45	49.65	2.49
50.35	07.10	48.51	20.29	49.35	5.93
49.99	11.09	48.50	19.50	49.07	9.70
49.90	17.07	48.53	19.05	49.04	10.03
50.37	0.75	48.66	0.85	49.44	4.46
50.22	16.11	48.53	19.44	49.51	3.54
50.36	0.25	48.57	0.82	49.73	2.28
50.27	0.79	48.78	0.81	49.59	2.57
50.41	0.76	48.65	0.58	49.54	3.04
50.15	06.06	48.55	19.49	49.37	5.04
50.40	18.04	48.54	19.22	49.52	3.95
50.42	19.01	48.59	05.24	49.58	3.07
50.15	0.84	48.56	0.22	49.27	6.18
50.41	0.63	48.60	0.22	49.73	1.88
50.52	0.37	48.92	0.82	49.91	0.96
50.53	0.75	48.85	0.56	49.96	0.99
50.52	0.30	49.04	0.52	49.97	0.85
50.54	0.32	49.00	0.80	50.04	0.99
50.67	6.03	49.45	0.25	50.17	0.76
50.69	0.69	49.72	0.80	50.27	1.01
50.60	0.40	48.94	0.80	50.25	1.00
50.60	0.12	48.85	0.82	50.06	0.87
50.56	0.13	48.83	0.80	50.03	1.25
50.54	0.33	48.56	0.80	49.83	1.66
50.38	0.75	48.55	0.92	49.60	2.89
50.45	0.75	48.56	0.96	49.43	5.00
50.52	0.75	48.59	0.20	49.61	2.68
50.35	7.55	48.54	19.10	49.58	3.11
50.76		49.72		50.27	10.03
49.90		48.50		49.04	0.37
50.41		48.76		49.70	2.93

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	412	18.05	386	10.37	407	18.15	384	10.09	206	17.59	199	21.49	405	0.33	390	5.39
02	413	18.59	396	9.50	408	18.33	388	23.51	209	3.23	201	11.18	404	1.17	392	14.44
03	418	03.05	395	14.29	405	03.04	379	12.47	211	03.04	199	12.41	403	11.25	390	14.25
04	414	07.02	386	23.20	408	07.01	378	12.43	210	03.03	193	14.53	408	19.03	383	11.54
05	406	18.14	373	23.22	402	05.59	378	23.17	202	05.56	188	11.21	409	18.06	380	23.22
06	415	19.05	389	11.40	411	19.02	382	11.38	204	07.55	193	15.22	410	19.05	390	16.10
07	411	20.42	385	16.47	407	18.50	379	10.26	207	06.02	197	10.28	404	18.56	385	15.05
08	416	18.37	385	05.31	411	18.10	382	00.16	209	18.37	200	00.42	404	19.02	383	04.38
09	412	01.55	393	14.55	407	19.00	388	23.12	209	04.09	197	14.54	403	06.04	388	14.51
10	413	04.06	386	14.11	406	21.53	385	13.39	209	04.02	192	12.14	403	19.03	382	14.19
11	413	03.58	389	12.14	406	03.58	387	12.14	210	03.55	195	12.43	402	06.02	382	14.19
12	407	18.20	385	10.52	406	18.29	385	14.45	211	03.45	193	11.20	402	18.22	385	13.48
13	411	04.01	375	11.47	409	12.21	380	11.45	210	03.59	191	11.46	404	06.07	379	16.10
14	411	03.41	389	13.42	407	03.43	389	11.02	211	06.16	199	19.23	404	06.16	380	13.43
15	412	15.22	390	23.15	410	15.22	386	22.23	212	18.04	190	00.02	406	19.03	382	09.19
16	410	20.06	382	12.23	407	20.06	380	12.21	209	06.14	195	14.53	410	18.05	374	12.21
17	415	05.58	391	09.39	407	05.58	390	04.50	213	5.56	201	10.18	408	05.58	384	09.38
18	417	03.31	397	19.42	412	06.48	389	13.58	214	03.00	202	19.38	405	17.26	384	09.43
19	419	07.45	395	19.43	417	07.30	391	19.28	212	02.32	202	19.39	404	08.02	391	11.47
20	414	07.40	387	11.54	413	08.02	384	12.25	213	03.38	198	12.17	403	00.06	382	11.31
21	416	03.52	398	00.08	411	18.26	392	23.23	213	03.00	203	19.34	403	04.06	384	10.01
22	413	3.15	389	17.34	405	7.17	387	19.36	211	2.48	205	17.24	401	8.23	367	17.35
23	410	20.06	382	12.23	407	20.06	380	12.21	209	06.14	195	14.53	410	18.05	374	12.21
24	417	04.20	397	19.12	409	21.59	394	19.12	214	02.05	201	19.10	404	21.52	391	19.40
25	418	00.05	391	14.27	408	03.11	390	09.06	214	01.50	198	14.27	408	03.03	385	09.41
26	418	03.41	392	19.52	407	03.26	386	17.42	214	03.25	199	19.46	405	03.15	388	14.54
27	412	02.57	389	14.30	406	07.15	384	14.26	211	02.31	198	19.28	402	03.57	375	10.50
28	412	07.27	384	11.39	409	07.35	382	11.38	211	07.18	198	12.00	407	23.55	379	11.05
29	416	18.01	393	23.07	412	18.03	386	23.10	212	07.40	203	20.14	413	08.08	387	10.36
30	414	18.06	393	23.11	413	18.06	386	00.11	211	07.31	203	19.39	405	09.05	389	11.55
31	411	7.52	381	14.18	408	7.52	373	13.27	211	7.41	197	13.45	405	17.19	370	12.56
Max	419		398		417		394		214		205		413		392	
Min	406		373		402		373		202		188		401		367	

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	22181	24757	2576	21628	23553	1925	480.62
02	22161	23724	1563	20785	21589	804	477.47
03	21616	23089	1473	20780	21580	800	461.31
04	21879	23399	1520	19947	20622	675	474.63
05	22618	24338	1720	21835	22535	700	491.18
06	21383	23103	1720	21346	22540	1194	474.28
07	21025	22745	1720	20401	22726	2325	466.38
08	22084	23695	1611	21048	23110	2062	477.07
09	21813	24040	2227	20219	21767	1548	468.19
10	22037	24171	2134	20591	21539	948	474.63
11	22268	23827	1559	20819	21889	1070	481.24
12	22157	23897	1740	21306	22056	750	481.63
13	21885	24249	2364	20839	21884	1045	474.18
14	21836	24364	2528	20950	22049	1099	479.33
15	21862	24107	2245	21450	22250	800	482.29
16	20590	23338	2748	20828	21893	1065	463.07
17	22372	24649	2277	20935	22000	1065	475.64
18	21948	23946	1998	20724	21324	600	478.80
19	22650	23990	1340	21061	21661	600	474.35
20	22570	24263	1693	20790	21390	600	479.85
21	22799	25393	2594	21110	21710	600	490.91
22	22733	24073	1340	21837	22962	1125	491.50
23	22451	23802	1351	21138	22163	1025	477.75
24	21948	23292	1344	19692	20292	600	453.12
25	21577	23122	1545	18944	19544	600	450.57
26	22205	23795	1590	19219	19819	600	458.71
27	22124	24143	2019	19976	20576	600	478.11
28	22539	24148	1609	21014	21739	725	479.65
29	22003	23604	1601	20642	22914	2272	470.90
30	22975	24374	1399	21161	22603	1442	485.04
31	24002	25587	1585	21263	21882	619	491.80
Maximum	24002	25587	2748	21837	23553	2325	491.80
Minimum	20590	22745	1340	18944	19544	600	450.57
Average	22138	23969	1830	20783	21812	1028	475.62

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	4516	4896	3113	3099	2696	2530	3167	2805	4521	5525
02	4957	4961	2820	2692	2859	2153	2713	2460	4957	5746
03	4285	4973	2364	2676	2861	2462	2995	2244	4969	5701
04	4437	3730	2688	2158	2816	2561	3225	2356	4841	5988
05	4660	4861	2817	2559	3017	2731	3250	2660	4974	5893
06	4575	4841	2747	2666	2890	2922	3050	2681	4419	5573
07	4610	4902	2612	2451	2910	2677	2739	2708	4605	5035
08	4544	5067	3084	2935	2740	2601	2965	2679	5057	5307
09	4674	4904	2902	2859	2805	2266	3171	2545	4660	4921
10	4713	5013	2966	2710	2772	2368	3158	2393	4764	5529
11	4848	5023	2908	2934	2695	2244	3129	2392	5001	5442
12	4733	5203	2843	2969	2709	2208	3232	2409	4792	5852
13	4789	4944	2956	2805	2799	2191	3236	2467	4764	5677
14	4532	5024	2997	2862	2904	2253	2941	2512	4627	5410
15	4771	5100	3136	2941	2689	2412	2785	2504	4582	5808
16	4444	5156	2961	2944	2678	2121	2729	2519	4653	5464
17	4895	4821	3100	3013	2822	2094	3103	2498	4806	5439
18	4705	4930	3016	2845	2852	2293	3096	2480	4856	5804
19	4977	5214	3016	3003	2927	2341	3150	2373	4745	5576
20	4801	4756	2885	2930	3029	2439	3216	2433	4907	5590
21	4853	5244	3193	2849	3156	2643	3127	2416	4654	5442
22	5098	5313	3298	2969	2861	2736	2872	2515	5158	5757
23	5031	5204	3064	2953	3046	2372	2898	2265	4766	5587
24	4858	5258	2731	2449	2965	2454	2777	1861	4971	5120
25	4766	4574	2694	2148	2924	2430	2746	1969	4658	5284
26	4862	4919	2830	2255	3065	2449	2994	1870	4895	5283
27	4730	4792	2988	2624	2968	2573	3071	2197	4771	5454
28	4831	5010	3083	2725	3169	2695	3153	2377	5102	5642
29	4774	4830	2953	2764	3065	2754	3118	2506	5063	5516
30	4990	4942	3198	2812	2922	2766	2906	2517	5122	5596
31	5082	5031	3214	2859	3269	2781	3171	2403	5208	5892
Maximum	5098	5313	3298	3099	3269	2922	3250	2805	5208	5988
Minimum	4285	3730	2364	2148	2678	2094	2713	1861	4419	4921
Average	4753	4950	2941	2757	2899	2468	3028	2420	4845	5544

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	795	532	157	141	524	416	1034	657
02	723	535	166	124	534	310	863	657
03	699	466	132	94	503	325	1093	590
04	727	535	173	87	418	338	953	696
05	778	567	176	118	547	316	957	706
06	758	516	187	129	403	407	927	639
07	705	548	183	133	535	340	884	591
08	570	542	158	137	558	407	1027	664
09	659	505	175	126	549	381	911	659
10	758	505	182	122	549	339	1020	626
11	663	513	191	124	540	389	1041	681
12	741	522	186	137	546	384	1067	633
13	489	542	180	133	524	394	1043	684
14	773	479	179	135	558	400	950	622
15	757	561	163	133	534	407	1036	671
16	758	461	187	134	742	389	998	645
17	735	560	167	135	507	381	998	607
18	531	536	186	111	517	412	1043	579
19	738	479	170	127	542	416	1041	629
20	757	484	180	121	567	419	1041	667
21	763	494	185	131	551	400	654	596
22	710	561	160	133	495	422	852	511
23	751	508	171	133	545	411	957	636
24	587	571	160	104	555	416	1007	627
25	657	376	177	98	548	410	924	652
26	687	396	183	109	470	401	1077	564
27	696	466	189	120	529	389	1021	566
28	739	511	182	123	570	408	1011	604
29	696	485	167	132	557	429	1125	665
30	719	525	179	137	548	427	1056	602
31	720	525	194	131	607	346	891	579
Maximum	795	571	194	141	742	429	1125	706
Minimum	489	376	132	87	403	310	654	511
Average	704	510	175	124	538	388	984	629

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	110.745	70.833	59.046	68.040	116.709	13.039	3.189	8.099	18.784	1.691	470.175
02	114.803	61.769	59.389	60.761	124.367	12.111	3.250	8.218	17.891	1.704	464.263
03	106.291	53.777	61.595	61.558	122.323	12.973	2.551	7.496	17.525	1.658	447.747
04	101.948	55.163	63.097	65.429	124.287	13.442	3.252	7.712	19.359	1.426	455.114
05	111.603	61.850	67.688	68.901	123.196	13.446	3.603	8.191	19.286	1.476	479.240
06	108.844	59.340	67.787	67.339	114.130	13.608	3.870	6.848	17.698	1.435	460.898
07	110.792	58.120	65.439	64.285	109.412	13.652	3.835	8.003	17.664	1.595	452.797
08	112.769	66.860	61.990	64.000	115.023	13.118	3.192	7.809	18.422	1.640	464.822
09	110.571	64.676	59.084	65.706	112.286	12.721	3.585	7.770	17.534	1.544	455.476
10	114.106	64.921	59.457	63.366	114.040	12.933	3.664	7.974	18.225	1.561	460.248
11	114.801	67.407	58.332	64.653	115.271	13.173	3.853	7.663	19.317	1.595	466.065
12	113.971	66.263	57.390	65.514	119.474	13.575	3.743	8.050	19.065	1.642	468.686
13	112.572	64.257	56.570	65.944	114.579	12.785	3.864	8.059	19.355	1.512	459.497
14	114.022	67.344	55.398	64.822	117.067	13.333	3.656	8.213	18.955	1.580	464.390
15	116.036	68.149	57.881	58.258	124.739	13.951	3.302	7.911	20.253	1.574	472.052
16	108.753	67.863	51.372	66.123	110.708	13.769	3.892	8.094	18.019	1.524	450.117
17	110.814	67.656	54.912	65.446	119.130	14.183	3.643	7.921	17.339	1.484	462.528
18	112.624	64.297	57.791	65.434	121.070	12.917	3.624	7.797	18.402	1.545	465.501
19	113.461	63.544	59.813	66.336	114.343	13.119	3.652	8.473	19.070	1.466	463.277
20	113.845	63.284	62.778	66.251	118.077	13.387	3.716	8.316	17.300	1.551	468.505
21	118.348	64.125	69.033	63.070	117.503	13.602	3.616	8.648	17.737	1.531	477.213
22	120.751	67.649	64.119	61.100	119.406	13.562	3.203	8.361	17.923	1.712	477.786
23	117.929	63.332	61.281	61.242	117.635	12.873	3.456	8.527	18.693	1.726	466.695
24	117.217	54.008	60.584	56.582	113.888	11.203	3.194	8.665	18.351	1.707	445.398
25	112.733	53.499	60.326	57.337	112.693	10.855	3.272	8.371	17.388	1.667	438.141
26	115.087	57.604	60.922	58.684	112.084	10.625	3.465	8.130	18.517	1.644	446.764
27	115.077	62.230	62.689	63.647	116.562	12.282	3.701	8.548	18.993	1.733	465.463
28	113.166	60.423	66.311	63.688	117.906	12.680	3.543	8.724	19.081	1.696	467.219
29	109.125	61.532	67.021	62.740	119.299	12.661	3.332	8.856	19.119	1.671	465.357
30	117.008	61.987	64.739	62.212	118.635	12.986	3.804	8.673	18.164	1.781	469.988
31	117.434	63.343	67.595	64.861	119.228	13.179	3.886	8.763	17.578	1.654	477.521
Maximum	120.751	70.833	69.033	68.901	124.739	14.183	3.892	8.856	20.253	1.781	479.240
Minimum	101.948	53.499	51.372	56.582	109.412	10.625	2.551	6.848	17.300	1.426	438.141
Average	113.137	62.810	61.336	63.656	117.260	12.959	3.529	8.158	18.420	1.604	461.880
Month Total	3507.245	1947.104	1901.429	1973.330	3635.068	401.743	109.408	252.885	571.007	49.725	14348.943

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-Aug-2004	49917	51574	34565	44976	26080	12158	40962	36068	46584	60540	2353	558
2-Aug-2004	50733	58014	35231	36800	27499	15568	40438	30024	49116	66887	2374	-456
3-Aug-2004	51903	53389	37448	38277	27195	21144	40553	31076	50017	67891	1186	-990
4-Aug-2004	47669	51943	34098	37307	25786	21645	43680	34274	53007	68360	1548	24
5-Aug-2004	55192	54011	37257	40358	28716	29488	47406	38105	53314	65979	1220	776
6-Aug-2004	53455	52793	34714	38479	27223	30190	41133	35901	48736	54791	874	1010
7-Aug-2004	52429	51064	33999	36018	26936	28128	35101	34492	47538	54156	993	1276
8-Aug-2004	52585	54651	34248	42132	27251	21621	41949	33722	47604	57860	2306	3222
9-Aug-2004	51098	53378	34065	40775	24908	17982	40107	34445	45418	56472	2527	3645
10-Aug-2004	52289	57114	35514	41782	26194	17783	40576	32349	47424	60761	2701	1603
11-Aug-2004	53053	57130	35446	44073	26020	15748	38836	31683	47474	61513	2367	1693
12-Aug-2004	52113	56571	34998	41458	25980	14633	38330	33769	46935	62114	2457	395
13-Aug-2004	50830	54987	34143	38669	25436	15648	38439	33738	45999	58021	3908	3376
14-Aug-2004	53098	58061	35750	41955	26601	17779	41317	33851	48867	63066	2631	1104
15-Aug-2004	52688	58344	34886	44748	25604	9992	37624	31617	48732	66149	2520	229
16-Aug-2004	49586	53764	33034	41973	24346	6842	38982	36164	46485	60233	2389	-680
17-Aug-2004	52849	59324	36749	43062	26644	10774	43885	34025	48763	68329	2334	-230
18-Aug-2004	53208	59167	38280	42313	27943	14896	45869	35852	49331	68527	2036	-941
19-Aug-2004	51395	56264	34208	39690	28888	15985	45991	36550	51320	67534	1201	-1490
20-Aug-2004	55247	57555	34623	42991	30759	21668	46563	37761	55714	68091	1737	-775
21-Aug-2004	55818	61540	36619	43288	31740	25452	46591	34718	58890	68038	1006	-248
22-Aug-2004	54655	64324	38702	42901	31309	23704	44271	32917	58492	59896	942	-218
23-Aug-2004	56549	61179	37860	40223	31201	20585	44888	35573	57276	63340	1121	1907
24-Aug-2004	56949	65970	33907	40329	31190	24860	44385	34200	55125	56917	1770	-1202
25-Aug-2004	57015	61831	35383	38746	29611	26753	44815	36638	51892	56849	530	-1536
26-Aug-2004	57224	62380	37707	39976	30705	29071	44572	35636	53114	57457	538	-1060
27-Aug-2004	57242	61488	38594	42617	31062	30275	45704	35766	53673	61175	659	-1033
28-Aug-2004	53256	60347	38834	38761	28298	29533	45160	34762	51574	56843	360	-558
29-Aug-2004	51106	55061	35669	36714	26554	27059	43820	32183	47543	56360	54	407
30-Aug-2004	52456	58866	36133	36664	27387	25502	42410	32278	48454	54583	1022	665
31-Aug-2004	52337	59584	35409	37768	29003	28925	43987	34237	52327	56695	1629	-183
Total MU	1645.944	1781.668	1108.073	1255.823	864.069	651.391	1318.344	1064.374	1566.738	1905.427	51.293	10.290
Max. MWH	57242	65970	38834	44976	31740	30275	47406	38105	58890	68527	3908	3645
Min MWH	47669	51064	33034	36018	24346	6842	35101	30024	45418	54156	54	-1536
Avg. MWH	53095	57473	35744	40510	27873	21013	42527	34335	50540	61465	1655	332

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-Aug-2004	-5506	-5844	14377	17499	3417	3479	456	83	1997	1608
2-Aug-2004	-5700	-6100	14218	16296	3479	3465	456	112	1993	1592
3-Aug-2004	-5637	-6233	12827	15331	3341	2580	456	91	1592	1567
4-Aug-2004	-6178	-7234	12067	16799	3544	3361	456	63	813	1363
5-Aug-2004	-6085	-6724	12751	17030	3565	3857	456	31	1693	1445
6-Aug-2004	-4052	-3597	13319	15604	3246	4101	456	52	1940	1383
7-Aug-2004	1998	515	14279	15675	3319	4044	456	66	2021	1529
8-Aug-2004	-5931	-6297	13957	16335	3320	3476	456	84	2052	1556
9-Aug-2004	-5764	-6594	13695	15574	3237	3806	456	36	2048	1508
10-Aug-2004	-5880	-6655	14363	15930	3413	3944	456	0	1948	1561
11-Aug-2004	-6057	-6468	14908	16598	3382	4080	456	2	1945	1593
12-Aug-2004	-4301	-4425	14440	16781	3383	3979	456	0	1863	1642
13-Aug-2004	-3702	-4037	14637	16846	3283	4059	456	28	1982	1484
14-Aug-2004	-4893	-6431	14831	16471	3374	3860	456	71	2011	1509
15-Aug-2004	-5441	-6469	14879	17665	3326	3562	456	67	2049	1507
16-Aug-2004	-3997	-4710	13305	15700	3172	4153	456	27	1524	1497
17-Aug-2004	-4964	-5641	13835	14981	3331	3870	456	0	1628	1484
18-Aug-2004	-5004	-6421	13603	16200	3468	3863	456	0	1575	1545
19-Aug-2004	-5174	-6264	14078	16782	3516	3953	456	0	1834	1466
20-Aug-2004	-5642	-6119	14176	14684	3623	3914	456	0	1436	1551
21-Aug-2004	-5684	-5798	14815	15350	3714	3948	456	34	1476	1497
22-Aug-2004	-5961	-6202	11227	15478	3669	3477	456	110	1195	1602
23-Aug-2004	-6345	-6065	12850	16164	3489	3777	456	124	1085	1602
24-Aug-2004	-5844	-6102	13797	15869	3461	3520	456	105	786	1602
25-Aug-2004	-6049	-6548	12812	14951	3345	3492	456	113	737	1554
26-Aug-2004	-6218	-6501	13143	16006	3365	3649	456	59	885	1585
27-Aug-2004	-5785	-6053	13247	16382	3458	3923	456	61	1122	1672
28-Aug-2004	-6103	-4813	13221	16646	3215	3840	456	79	1498	1617
29-Aug-2004	-4422	-3574	13233	16418	3082	3513	456	34	1656	1637
30-Aug-2004	-2733	-3238	13395	15562	3130	4066	456	110	1865	1671
31-Aug-2004	-3099	-3306	13585	14843	3220	4095	456	117	1687	1537
Total MU	-156.153	-169.948	423.870	498.450	104.887	116.706	14.136	1.759	49.936	47.966
Max. MWH	1998	515	14908	17665	3714	4153	456	124	2052	1672
Min MWH	-6345	-7234	11227	14684	3082	2580	456	0	737	1363
Avg. MWH	-5037	-5482	13673	16079	3383	3765	456	57	1611	1547

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-Aug-2004	28776	29142	21425	21693	18360	18545	9173	9320	4608	4679	16391	16303
2-Aug-2004	28776	29056	21600	21790	15218	16035	9173	9206	4608	4635	15544	14865
3-Aug-2004	28159	28720	21481	21655	14287	16047	9005	8990	4039	3907	15145	15010
4-Aug-2004	31523	32239	21626	21899	15868	18466	9065	9303	4491	4637	14209	15467
5-Aug-2004	33194	33647	21915	22252	18360	18548	9173	9328	4608	4684	15171	15929
6-Aug-2004	33216	33744	19105	19319	18360	18713	9168	9315	4595	4673	16635	16676
7-Aug-2004	33216	33800	17560	17927	18360	18583	9173	9238	4608	4683	17219	17136
8-Aug-2004	33216	33785	15288	15351	18360	18676	9173	9326	4608	4667	16563	16738
9-Aug-2004	33216	33784	10879	10991	18360	18595	9173	9325	4608	4655	16398	16516
10-Aug-2004	33216	33763	21960	22237	18360	18551	6351	6393	4608	4670	15720	15430
11-Aug-2004	33216	33627	21535	21707	16497	18564	6557	6555	4608	4672	16265	16449
12-Aug-2004	33202	33714	21190	21511	16703	18555	5531	5628	4584	4667	16206	16547
13-Aug-2004	33216	34004	21960	22247	18360	18554	4479	4578	4584	4668	16729	16883
14-Aug-2004	32641	33053	21605	21878	18360	18539	7940	8097	4584	4659	16434	16372
15-Aug-2004	33216	33765	21960	22364	16392	18558	9164	9270	4575	4655	16345	16200
16-Aug-2004	33216	33866	21568	21851	18360	18602	9173	9348	4584	4661	12249	12435
17-Aug-2004	33123	33535	20978	21028	18360	18553	9173	9305	4584	4651	12115	12027
18-Aug-2004	29374	29625	21244	21325	17032	17447	9173	9200	4584	4636	11921	11336
19-Aug-2004	33414	33506	20928	20983	17211	17556	9173	9200	4742	4464	14974	14058
20-Aug-2004	41091	41624	21960	22196	16601	17429	9173	9248	8781	8865	15684	15648
21-Aug-2004	44280	44827	20439	20285	15810	16722	9173	9201	9115	9217	15576	14996
22-Aug-2004	44280	44489	21960	21974	14226	14780	9152	9055	9128	9095	15050	14484
23-Aug-2004	44176	44145	21011	21056	13389	13411	9075	8928	8959	8843	11901	11194
24-Aug-2004	43676	43838	20594	20788	13460	13756	8845	8746	8629	8507	11739	11326
25-Aug-2004	44205	44466	10552	10560	14974	15770	8958	9021	8707	8812	12108	12347
26-Aug-2004	43846	44159	10718	10675	15072	16078	9065	9080	8959	8933	14981	15102
27-Aug-2004	44280	45064	10800	10880	15875	18057	9110	9335	9056	9222	15404	15754
28-Aug-2004	39906	40744	10800	10931	17117	18599	9173	9394	9173	9376	15607	16088
29-Aug-2004	30460	31122	10800	10960	18099	18579	9173	9327	9173	9318	16304	16476
30-Aug-2004	33216	33788	10800	11014	18360	18579	9173	9323	9173	9299	16705	16722
31-Aug-2004	42986	44021	10800	10951	18360	18563	9173	9335	9173	9330	15700	16323
Total MU	1107.528	1122.662	567.041	572.278	522.511	546.010	268.233	270.918	194.836	196.440	468.992	468.837
Max. MWH	44280	45064	21960	22364	18360	18713	9173	9394	9173	9376	17219	17136
Min MWH	28159	28720	10552	10560	13389	13411	4479	4578	4039	3907	11739	11194
Avg. MWH	35727	36215	18292	18461	16855	17613	8653	8739	6285	6337	15129	15124

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-Aug-2004	8887	8603	14064	13955	3543	3291	7728	7784	2603	2625	15514	15667
2-Aug-2004	8222	7361	13599	12795	3088	2786	7800	7847	2502	2521	16179	16329
3-Aug-2004	7383	7359	13269	13252	3672	3571	2289	1898	2801	2827	16200	16353
4-Aug-2004	8092	8530	12765	12897	3720	3530	0	-490	2637	2662	16197	16359
5-Aug-2004	7871	8165	13235	13751	3720	3578	3475	3283	2382	2404	16200	16350
6-Aug-2004	8826	8853	14223	14191	3744	3527	7440	7566	2427	2450	16224	16373
7-Aug-2004	9122	9074	14509	14384	3768	3587	7800	7678	2166	2186	16170	16310
8-Aug-2004	9037	9011	14203	14172	3720	3743	7536	7735	851	859	15814	15944
9-Aug-2004	8387	8546	13639	13794	3768	3721	7680	7750	2226	2246	16031	16156
10-Aug-2004	8267	8391	13087	13060	3792	3701	7752	7799	3529	3558	14682	14830
11-Aug-2004	8381	8251	13680	13681	3792	3652	7752	7813	3352	3383	15901	16040
12-Aug-2004	8373	8583	13820	13885	3864	3714	7824	7758	2727	2753	15902	16058
13-Aug-2004	8474	8716	14071	14093	3792	3673	7776	7722	2397	2420	16043	16186
14-Aug-2004	8221	8314	13734	13804	3840	3690	7800	7763	2307	2329	16020	16164
15-Aug-2004	8258	7987	13740	13699	3792	3676	7527	7450	2127	2147	16038	16188
16-Aug-2004	8482	8903	14058	14214	3720	3626	3888	3679	2068	2087	12928	13002
17-Aug-2004	8045	7953	13500	13276	3744	3718	3888	3811	4043	4082	15848	16005
18-Aug-2004	7715	7392	12694	12437	1755	1577	3888	3812	4030	4063	16218	16374
19-Aug-2004	8007	7617	11569	11521	0	-252	3888	3829	3113	3138	16212	16360
20-Aug-2004	8036	7697	9749	9921	293	-126	3936	3848	2754	2777	16224	16378
21-Aug-2004	7833	7227	11580	11561	3360	3501	3912	3857	2292	2313	16224	16378
22-Aug-2004	7888	7903	11824	11644	3840	3650	3912	3883	2172	2192	5246	5273
23-Aug-2004	7795	7625	11710	11511	3600	3699	3912	3892	2442	2453	11447	11498
24-Aug-2004	8337	8344	7079	7048	3744	3732	3936	3901	2591	2616	16248	16394
25-Aug-2004	7233	7418	6901	7147	3816	3726	3960	3875	3573	3597	16229	16360
26-Aug-2004	7531	7584	6984	7011	3840	3742	3984	3890	2517	2540	15854	16011
27-Aug-2004	7350	7594	7028	7053	3816	3703	4200	3922	2487	2511	15975	16135
28-Aug-2004	7445	7962	8240	8281	3840	3632	4200	3999	2277	2298	15994	16144
29-Aug-2004	8456	8536	9651	9619	3773	3522	4200	3986	1992	2011	15446	15592
30-Aug-2004	8316	7912	9410	9406	3840	3673	4200	4010	1767	1784	15674	15833
31-Aug-2004	8164	7812	9325	9478	3840	3665	4200	3994	1842	1748	15772	15882
Total MU	252.434	251.223	366.940	366.541	106.436	102.228	162.283	159.544	78.994	79.580	476.654	480.926
Max. MWH	9122	9074	14509	14384	3864	3743	7824	7847	4043	4082	16248	16394
Min MWH	7233	7227	6901	7011	0	-252	0	-490	851	859	5246	5273
Avg. MWH	8143	8104	11837	11824	3433	3298	5235	5147	2548	2567	15376	15514

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-Aug-2004	2171	2186	12816	12914	3867	3900	15673	14942	14745	14421	1876	1880
2-Aug-2004	2222	2240	12816	12851	4114	4148	15661	15529	14745	14897	1876	1832
3-Aug-2004	2214	2240	7832	7895	4298	4341	15015	14145	14839	13565	1653	1574
4-Aug-2004	2211	2221	12816	12924	4794	4833	14302	14113	330	676	1768	1853
5-Aug-2004	2232	2250	12816	12929	4812	4852	14143	13486	11474	11471	1785	1853
6-Aug-2004	2256	2283	9078	9159	4685	4727	13797	13468	14898	14336	2010	2035
7-Aug-2004	2242	2258	12282	12392	4747	4787	14368	13654	14606	14538	1835	1799
8-Aug-2004	2030	2098	12816	12922	4929	4958	14688	13848	14753	14672	1949	2113
9-Aug-2004	2114	2099	12816	12928	4880	4924	14803	14125	14753	14835	1662	1603
10-Aug-2004	1910	1929	12816	12928	4903	4946	14803	14071	14745	15097	2004	1967
11-Aug-2004	1467	1486	12816	12930	5067	5116	13629	13067	14753	14942	2081	2088
12-Aug-2004	2236	2270	12816	12929	4899	4958	13629	13118	14753	14817	2081	2117
13-Aug-2004	2204	2224	9434	9522	4917	4969	13841	12882	15003	14882	2145	2130
14-Aug-2004	2244	2273	10502	10595	4951	5006	13841	13323	14780	14756	2112	2140
15-Aug-2004	2256	2268	9434	9511	4674	4737	14056	13453	15003	14864	2145	2097
16-Aug-2004	2166	2195	8010	8081	4443	4477	14080	13209	15003	14657	2096	2088
17-Aug-2004	2222	2232	10057	10154	4258	4301	14200	13303	14805	14722	2096	1959
18-Aug-2004	2090	2111	12816	12922	4189	4231	13683	13236	14814	14875	1689	1605
19-Aug-2004	2256	2277	12816	12934	4167	4213	14171	13264	14824	14896	1897	1885
20-Aug-2004	2145	2175	12816	12932	4465	4508	14171	13564	14824	14662	1897	1830
21-Aug-2004	2231	2247	12816	12769	4633	4683	14326	13673	14824	14401	1897	1970
22-Aug-2004	2198	2231	10769	10597	4797	4846	14558	13685	14579	14300	1978	1944
23-Aug-2004	2222	2232	6853	6901	4803	4843	14558	13639	14684	14287	2124	2262
24-Aug-2004	2222	2238	8544	8612	4973	4995	14456	13906	14684	14324	2363	2365
25-Aug-2004	1752	1787	10057	10139	4870	4895	14505	13557	14324	13962	2218	2471
26-Aug-2004	1462	1446	10057	10144	5150	5185	14537	13838	14510	13958	2412	2403
27-Aug-2004	1936	1981	12816	12928	4758	4820	14537	13775	14010	14030	2412	2477
28-Aug-2004	2188	2209	8722	8799	4894	4935	14586	13843	14073	14068	2459	2522
29-Aug-2004	2166	2187	6052	6107	5184	5233	14586	13948	14038	14541	2459	2480
30-Aug-2004	2222	2237	6542	6593	5298	5366	14474	13453	14340	14028	2459	2413
31-Aug-2004	2233	2275	6764	6825	5429	5473	14605	13684	14235	13922	2524	2574
Total MU	65.720	66.385	330.413	332.766	146.848	148.206	446.282	424.801	436.751	432.402	63.962	64.329
Max. MWH	2256	2283	12816	12934	5429	5473	15673	15529	15003	15097	2524	2574
Min MWH	1462	1446	6052	6107	3867	3900	13629	12882	330	676	1653	1574
Avg. MWH	2120	2141	10658	10734	4737	4781	14396	13703	14089	13948	2063	2075

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

Date	Nathpa-Jhakri HEP		Chamera stage-II	
	Schedule	Actual	Schedule	Actual
1-Aug-2004	0	0	7128	7191
2-Aug-2004	12875	12998	5346	5386
3-Aug-2004	23188	23355	4848	4872
4-Aug-2004	25163	25388	5315	5285
5-Aug-2004	23125	23346	6905	6961
6-Aug-2004	6875	6941	7128	7191
7-Aug-2004	0	0	7128	7191
8-Aug-2004	4563	4613	7128	7190
9-Aug-2004	0	0	7128	7191
10-Aug-2004	0	0	7128	7189
11-Aug-2004	0	0	7128	7191
12-Aug-2004	0	0	7128	7184
13-Aug-2004	0	0	7149	7202
14-Aug-2004	5688	5548	7173	7230
15-Aug-2004	0	0	7271	7334
16-Aug-2004	0	0	7294	7340
17-Aug-2004	11813	11907	7234	7294
18-Aug-2004	24000	24166	6633	6692
19-Aug-2004	24000	24195	7196	7257
20-Aug-2004	24000	24194	7182	7233
21-Aug-2004	25563	25734	6578	6605
22-Aug-2004	25813	25872	6563	6611
23-Aug-2004	30000	30186	6878	6923
24-Aug-2004	28075	28262	7014	7073
25-Aug-2004	28000	28229	7193	7256
26-Aug-2004	27150	27302	7200	7267
27-Aug-2004	27000	27235	7079	7144
28-Aug-2004	25363	25600	2298	2317
29-Aug-2004	24663	24897	2921	2864
30-Aug-2004	22988	23184	5309	5355
31-Aug-2004	23200	23380	5397	5438
Total MU	473.105	476.532	201.000	202.457
Max. MWH	30000	30186	7294	7340
Min MWH	0	0	2298	2317
Avg. MWH	15261	15372	6484	6531

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	42.876	14.311	16.175	0.745	43.718	1.233	41.100	5.838	11.875	16.156	14.084	1.29	209.40
02	41.220	14.090	15.420	0.820	41.900	0.000	44.260	3.410	11.880	16.240	14.463	1.60	205.30
03	39.658	12.880	9.657	0.929	38.561	0.074	48.256	2.032	13.202	16.394	13.868	2.19	197.71
04	40.771	12.428	8.727	0.617	39.450	0.528	48.826	3.205	12.703	16.028	15.097	2.56	200.94
05	41.676	14.062	11.583	0.696	35.783	0.213	49.370	2.465	12.110	15.639	15.066	2.26	200.92
06	41.715	13.284	10.707	1.092	35.458	0.223	47.691	4.886	11.948	15.967	10.551	2.09	195.61
07	42.946	14.890	12.524	1.125	35.357	0.128	47.541	3.152	11.650	14.612	7.564	1.99	193.48
08	43.222	14.192	14.769	0.454	38.361	0.000	49.406	1.697	9.651	15.392	14.248	2.09	203.48
09	43.265	14.096	14.007	0.628	39.031	0.109	44.888	4.356	8.751	16.174	14.509	1.96	201.77
10	42.919	14.304	13.883	0.749	39.430	0.317	42.035	6.237	10.977	16.335	14.777	2.30	204.26
11	43.289	14.599	14.031	1.054	39.577	0.786	41.725	6.534	11.237	17.146	14.274	2.72	206.97
12	43.043	14.551	14.415	1.022	39.506	1.193	42.735	5.940	12.519	16.592	12.601	2.28	206.40
13	42.987	14.737	15.041	0.942	38.661	0.057	44.065	6.237	8.951	16.741	12.218	2.51	203.15
14	41.337	14.518	14.631	1.055	34.858	0.769	42.945	5.940	11.747	16.239	14.792	2.48	201.32
15	41.876	15.354	12.746	1.110	42.788	2.134	44.923	6.435	13.294	12.992	14.525	2.59	210.76
16	39.542	14.873	15.928	0.593	37.269	1.490	38.421	7.029	13.738	15.649	12.933	2.32	199.78
17	36.809	14.105	14.387	0.939	36.978	2.788	38.526	6.831	13.578	16.239	13.699	2.36	197.24
18	39.421	13.464	12.829	0.394	37.505	1.823	38.990	6.732	13.197	14.184	14.362	2.20	195.10
19	42.046	14.715	13.967	0.766	37.309	2.937	35.963	5.643	13.867	14.906	14.886	2.29	199.29
20	41.501	14.210	10.360	0.861	36.383	1.742	38.194	4.643	13.507	14.032	14.581	2.62	192.63
21	41.197	15.032	10.355	0.922	38.654	2.170	38.036	5.148	13.097	14.201	14.592	2.39	195.79
22	41.110	14.710	13.780	1.010	35.630	1.960	48.360	5.850	12.870	14.310	14.710	2.45	206.75
23	41.323	14.523	13.005	1.004	33.383	3.933	42.446	5.029	10.763	13.245	14.739	2.53	195.92
24	36.195	14.672	4.612	1.024	26.717	3.857	43.951	4.495	12.306	10.956	14.916	2.48	176.18
25	35.754	14.867	4.628	1.049	24.289	3.344	42.945	6.574	12.070	8.645	15.070	2.44	171.67
26	37.289	15.196	7.461	1.050	23.469	2.103	41.137	6.118	11.804	11.526	14.779	2.51	174.44
27	37.759	15.415	9.083	1.110	24.286	2.260	42.455	6.306	12.854	15.252	14.748	2.61	184.14
28	36.682	15.873	11.462	1.158	28.141	2.204	47.590	6.640	12.708	15.158	13.674	2.44	193.72
29	38.132	15.733	13.815	1.143	33.549	1.531	48.746	6.702	11.804	14.819	12.556	2.70	201.23
30	42.040	15.807	14.461	1.050	33.158	2.152	51.686	6.692	12.058	14.256	12.031	2.60	207.99
31	42.870	14.720	15.010	1.120	32.940	2.000	50.750	6.450	12.940	15.320	12.191	2.74	209.05
Maximum	43.29	15.87	16.17	1.16	43.72	3.93	51.69	7.03	13.87	17.15	15.10	2.74	210.76
Minimum	35.75	12.43	4.61	0.39	23.47	0.00	35.96	1.70	8.75	8.65	7.56	1.29	171.67
Average	40.72	14.52	12.37	0.91	35.55	1.49	44.13	5.33	12.12	14.88	13.78	2.34	198.14
Month Total	1262.47	450.21	383.46	28.23	1102.10	46.06	1367.96	165.25	375.66	461.35	427.10	72.56	6142.40

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during August, 2004 (Ex Bus MU)	Cummulative from 01.04.2004 (Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	435.38	2137.96
(b)	Singrauli STPS	2000.00	1122.71	5724.77
(c)	Rihand STPS	1000.00	571.78	3098.91
(d)	Dadri NCTPS	840.00	537.33	2530.44
(e)	Unchahar-I TPS	420.00	270.92	1305.75
(f)	Unchahar-II TPS	420.00	196.44	1138.64
(g)	Tanda TPS	440.00	215.39	1172.60
(h)	Anta GPS	419.33	248.47	1120.07
(i)	Auraiya GPS	663.36	359.02	1829.73
(j)	Dadri GPS	829.78	462.43	2257.31
(k)	Faridabad GPS	431.57	279.91	1308.09
	Total NTPC	8169.04	4699.77	23624.27
B	NHPC			
(a)	Bairasiul	180.00	79.61	334.35
(b)	Salal	690.00	480.94	2082.53
(c)	Tanakpur HPS	94.20	66.38	226.81
(d)	Chamera HPS	540.00	332.77	1251.34
(e)	Uri HPS	480.00	148.21	1288.46
(f)	Chamera2 HPS	300.00	202.41	844.11
	Total NHPC	2284.20	1310.32	6027.60
C	Nathpa-Jhakri	1500.00	476.51	3310.82
D	NPC			
(a)	RAPS -A	300.00	97.21	455.68
(b)	RAPS -B	440.00	159.56	939.58
(c)	NAPS	440.00	102.25	854.31
	Total NPC	1180.00	359.02	2249.57
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	447.85	2083.68
(b)	Dehar	990.00	432.57	1743.18
(c)	Pong	396.00	64.94	364.03
	Total BBMB	2876.15	945.36	4190.88
3	DELHI			
(a)	Indra Prastha	247.50	80.01	348.92
(b)	Rajghat	135.00	55.84	297.34
(c)	Gas Turbines	282.00	118.21	643.67
(d)	Pragati Gas	330.00	207.21	1027.37
	Total DELHI	994.50	461.27	2317.30
4	HARYANA			
(a)	WYC	62.40	28.69	117.81
(b)	Faridabad (New)	165.00	48.82	299.84
(c)	Panipat	860.00	378.47	2009.53
(d)	Magnum Diesel(IPP)	25.20	6.66	38.10
	Total Haryana	1112.60	462.63	2465.28

contd/-

5	HP			
(a)	Giri	60.00	35.95	61.56
(b)	Bassi	60.00	40.31	163.25
(c)	Binwa	6.00	3.95	13.55
(d)	Rongtong (+Nogli+Micro+Thirot+Sal-2)	15.25	1.79	8.22
(e)	Andhra	16.95	9.17	24.86
(f)	Bhabha (H)	120.00	90.53	383.72
(g)	Baner (H)	12.00	7.10	21.57
(h)	Gaj (H)	10.50	7.26	24.14
(i)	Gumma	3.00	1.41	2.94
(j)	Ghanvi	22.50	9.27	39.42
(k)	Malana (IPP)	86.00	50.51	176.23
(l)	Baspa (IPP)	300.00	228.90	827.08
	Total HP	712.20	486.15	1746.54
6	J & K			
(a)	Lower Jhelum	105.00	29.48	245.29
(b)	Upper Sindh	127.60	31.03	74.81
(c)	Ganderbal	15.00	2.74	8.83
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	12.08	48.30
(f)	Stakna	9.75	0.00	0.00
(g)	Small Hydel	3.54	0.90	3.11
(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	76.23	380.34
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	79.35	314.95
(b)	UBDC	90.00	59.29	198.20
(c)	Mukerian	207.00	59.62	395.03
(d)	Anandpur Sahib (APS)	134.00	47.93	291.52
(e)	Ranjit Sagar HPS	600.00	189.06	614.04
(f)	Small Hydel	4.10	0.00	0.21
(g)	GNDTPS (Bhatinda)	440.00	166.71	735.26
(h)	GGSTPS (Ropar)	1260.00	818.34	3798.21
(i)	Jhalkeri	10.00	0.00	0.85
	Peda & Sugarmill		4.56	12.11
(j)	Lehra Mohabbat TPS	420.00	261.37	1150.74
	Total Punjab	3275.10	1686.21	7511.13
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	28.64	77.09
(b)	Rana Pratap Sagar (RPS)	172.00	0.04	1.54
(c)	Jawahar Sagar (JS)	99.00	20.18	26.11
(d)	Gandhi sagar	115.00		
(d)	ACW	9.00	0.60	3.69
(e)	MMH	14.85	0.11	0.31
(f)	Kota TPS	1045.00	472.50	2686.27
(g)	RAMGARH GT	3.00		
(h)	RAMGARH GT EXT	35.50	22.03	93.61
(i)	Suratgarh TPS	1250.00	594.94	3363.64
(j)	Wind Farm	14.01	36.79	210.08
(k)	Others		4.47	11.71
	Total Rajasthan	2782.36	1180.30	6474.04

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	77.07	288.46
(b)	Obra	99.00	33.98	123.59
(c)	Matatilla	30.00	14.25	53.20
(d)	Khara	72.00	39.83	138.22
	Total U.P. (Hydro)	501.00	165.13	603.48
	<u>THERMAL</u>			
(e)	Obra	1442.00	357.60	1849.03
(f)	Panki	242.00	76.64	417.84
(g)	Harduaganj	375.00	56.00	275.17
(h)	Paricha	220.00	78.41	385.52
(i)	Anpara	1630.00	792.70	4102.18
	Total U.P. (Thermal)	3909.00	1361.35	7029.74
	Total U.P.	4410.00	1526.48	7633.22
10	UTTRANCHAL			
(a)	Khatima	41.40	21.70	79.95
(b)	Ramganga	198.00	0.00	52.58
(c)	Ganga Canal	32.70	14.42	68.38
(d)	Yamuna (I & IV)	114.75	78.00	409.69
(e)	Chibro	240.00	114.15	318.99
(f)	Khodri	120.00	52.08	148.06
(g)	Chilla	144.00	96.32	354.24
(h)	Maneri Bhali	90.00	0.00	0.00
(i)	Sibla+Small hydel	18.20		
	Total Uttranchal	999.05	376.68	1431.89
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	30790.47	14046.94	69362.86

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% Faridabad---13.5% Suratgarh---10.0%

Rajghat---11% Panipat---12.0% KTPS---10.0%

UP---12.5% Lehra Mohabat---10.5%

Tanda---12.5% RTP---7.5%

GNDTP---10.5%

XII. DETAILS OF ENERGY EXCHANGES THROUGH BILATERAL AGREEMENTS (INTRA-REGIONAL) DURING AUGUST 2004

(ALL FIGS IN MWH)

FROM / TO	PUNJAB	HARYANA	RAJASTHAN	DELHI	UP	UTTRANCHAL	HP	J & K	CHANDIGARH	MALANA
PUNJAB	-	-	-		-	59435****	51720****	33506****	-	-
HARYANA	-	-	-	22200***	-	-	482515* 12960*****	-	-	
RAJASTHAN		-	-		-	-	-	-		
DELHI	-		-		-	-	311305*****	-	-	-
UP	-	-	-	-	-	-	-	-	-	-
UTTRANCHAL		-	-	-	-	-	-	-	-	-
HP	15362***	-	-		4092***	63965***	-	-	-	-
J & K		-	-		-	-	-	-	-	-
CHANDIGARH	-	-	-	-	-	-	-	-	-	-

* Through PTC

** Through NVVN ***** Direct

*** Mutually shared

**** Through Banking

REMARKS : Figures are provisional and indicative only.

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

(ALL FIGS IN MWH)

FROM / TO	GRIDCO	GUJRAT	WBPCL	KPTL	APTRCO	CSEB	TRIPURA	GOA	ARUNANCHAL
PUNJAB	65198*+42000*WR	25200*WR 59752***WR	27900*+25160* 76550***WR+19175*WR	600***WR			-	-	
HARYANA	61937* 91292***	10596***WR 11604*WR			1800*WR		2400**		
RAJASTHAN	-	-					-	-	
DELHI						--			
UTTRANCHAL	-	-	65850*	-	-	-	-	-	
J & K	-	-			-	-	-	-	
CHANDIGARH									

* Through PTC

(+ Import by NR constituents

(- Export by NR constituents

** Through Global Energy Limited

*** Throgh NVVN

**** Through ADANI

REMARKS : are provisional and indicative only

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Summary Of Inter Regional Exchanges For AUGUST 2004

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Date	Vindhyachal HVDC B/B							Auraiya - Malanpur						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	50	500	500	0	9.73	0.00	9.73	0	0	0	0	0.00	0.00	0.00
02	0	400	500	100	7.53	0.06	7.47	0	0	0	0	0.00	0.00	0.00
03	126	383	500	0	8.11	0.00	8.11	0	0	0	0	0.00	0.00	0.00
04	145	500	500	0	8.81	0.00	8.81	0	0	0	0	0.00	0.00	0.00
05	184	500	500	0	10.08	0.00	10.08	0	0	0	0	0.00	0.00	0.00
06	92	500	500	0	10.42	0.00	10.42	0	0	0	0	0.00	0.00	0.00
07	46	500	500	0	10.06	0.00	10.06	0	0	0	0	0.00	0.00	0.00
08	200	500	500	0	10.44	0.00	10.44	0	0	0	0	0.00	0.00	0.00
09	235	500	500	0	10.95	0.00	10.95	0	0	0	0	0.00	0.00	0.00
10	284	422	500	0	10.27	0.00	10.27	0	0	0	0	0.00	0.00	0.00
11	329	500	500	0	10.86	0.00	10.86	0	0	0	0	0.00	0.00	0.00
12	282	500	500	0	10.74	0.00	10.74	0	0	0	0	0.00	0.00	0.00
13	329	500	500	0	11.33	0.00	11.33	0	0	0	0	0.00	0.00	0.00
14	329	500	500	0	10.92	0.00	10.92	0	0	0	0	0.00	0.00	0.00
15	400	500	500	0	11.58	0.00	11.58	0	0	0	0	0.00	0.00	0.00
16	282	500	500	0	10.76	0.00	10.76	0	0	0	0	0.00	0.00	0.00
17	329	500	500	0	10.44	0.00	10.44	0	0	0	0	0.00	0.00	0.00
18	400	408	500	0	10.29	0.00	10.29	0	0	0	0	0.00	0.00	0.00
19	350	275	500	0	9.54	0.00	9.54	0	0	0	0	0.00	0.00	0.00
20	375	409	500	0	9.44	0.00	9.44	0	0	0	0	0.00	0.00	0.00
21	422	409	500	0	10.25	0.00	10.25	0	0	0	0	0.00	0.00	0.00
22	250	500	500	0	9.61	0.00	9.61	0	0	0	0	0.00	0.00	0.00
23	133	409	450	50	7.43	0.03	7.40	0	0	0	0	0.00	0.00	0.00
24	92	361	361	300	6.43	0.44	5.99	0	0	0	0	0.00	0.00	0.00
25	91	200	445	0	6.04	0.00	6.04	0	0	0	0	0.00	0.00	0.00
26	186	345	500	286	7.48	0.05	7.43	0	0	0	0	0.00	0.00	0.00
27	186	500	500	0	8.25	0.00	8.25	0	0	0	0	0.00	0.00	0.00
28	257	450	500	0	9.71	0.00	9.71	0	0	0	0	0.00	0.00	0.00
29	92	500	500	0	7.74	0.00	7.74	0	0	0	0	0.00	0.00	0.00
30	118	340	450	0	7.40	0.00	7.40	0	0	0	0	0.00	0.00	0.00
31	50	400	500	0	7.23	0.00	7.23	0	0	0	0	0.00	0.00	0.00
Maximum	422	500	500	300	11.58	0.44	11.58	0	0	0	0	0.00	0.00	0.00
Minimum	0	200	361	0	6.04	0.00	5.99	0	0	0	0	0.00	0.00	0.00
Average	214	442	491	24	9.35	0.02	9.33	0	0	0	0	0.00	0.00	0.00
Month Total					289.83	0.57	289.26					0.00	0.00	0.00

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Summary Of Inter Regional Exchanges For AUGUST 2004

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Date	Ujjain - Kota							Sasaram HVDC B/B						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	-101	-71	0	105	0.00	1.86	-1.86	340	450	500	0	10.07	0.00	10.07
02	-101	-84	0	105	0.00	1.95	-1.95	340	500	500	0	5.70	0.00	5.70
03	0	-88	0	100	0.00	0.81	-0.81	340	340	500	0	9.30	0.00	9.30
04	0	0	0	0	0.00	0.00	0.00	340	500	500	0	10.79	0.00	10.79
05	-50	0	0	50	0.00	0.61	-0.61	340	500	500	0	10.55	0.00	10.55
06	-73	-54	0	73	0.00	1.39	-1.39	340	500	500	0	11.36	0.00	11.36
07	-71	-56	0	71	0.00	1.32	-1.32	340	500	500	0	11.99	0.00	11.99
08	-62	-51	0	63	0.00	1.25	-1.25	450	500	500	0	11.20	0.00	11.20
09	-71	-48	0	75	0.00	1.26	-1.26	340	500	500	0	11.12	0.00	11.12
10	-68	-57	0	75	0.00	1.39	-1.39	340	500	500	0	10.61	0.00	10.61
11	-67	-54	0	72	0.00	1.43	-1.43	340	500	500	0	10.65	0.00	10.65
12	-65	-54	0	68	0.00	1.35	-1.35	340	450	500	0	10.42	0.00	10.42
13	-71	-54	0	71	0.00	1.45	-1.45	340	450	500	0	9.70	0.00	9.70
14	-71	-57	0	71	0.00	1.43	-1.43	340	500	500	0	10.73	0.00	10.73
15	-58	-52	0	60	0.00	1.18	-1.18	500	500	500	0	11.29	0.00	11.29
16	-62	0	0	0	0.00	0.00	0.00	340	500	500	0	11.23	0.00	11.23
17	0	0	0	0	0.00	0.00	0.00	339	500	500	0	9.96	0.00	9.96
18	0	0	0	0	0.00	0.00	0.00	389	339	500	0	9.39	0.00	9.39
19	0	0	0	0	0.00	0.00	0.00	0	500	500	0	2.43	0.00	2.43
20	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
21	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
22	0	0	0	0	0.00	0.00	0.00	338	0	338	0	6.32	0.00	6.32
23	0	0	0	0	0.00	0.00	0.00	217	338	338	0	6.00	0.00	6.00
24	0	0	0	0	0.00	0.00	0.00	145	145	145	0	3.51	0.00	3.51
25	0	0	0	0	0.00	0.00	0.00	217	217	250	0	5.26	0.00	5.26
26	0	0	0	0	0.00	0.00	0.00	338	338	400	62	7.94	0.35	7.59
27	0	0	0	0	0.00	0.00	0.00	338	338	400	0	8.38	0.00	8.38
28	0	0	0	0	0.00	0.00	0.00	338	450	500	0	9.85	0.00	9.85
29	0	0	0	0	0.00	0.00	0.00	338	500	500	0	10.34	0.00	10.34
30	0	0	0	0	0.00	0.00	0.00	338	450	450	0	9.02	0.00	9.02
31	0	0	0	0	0.00	0.00	0.00	338	450	450	0	6.87	0.16	6.71
Maximum	0	0	0	105	0.00	1.95	0.00	500	500	500	62	11.99	0.35	11.99
Minimum	-101	-88	0	0	0.00	0.00	-1.95	0	0	0	0	0.00	0.00	0.00
Average	-32	-25	0	34	0.00	0.60	-0.60	303	395	428	2	8.45	0.02	8.43
Month Total					0.00	18.67	-18.67					261.98	0.51	261.47

Summary Of Inter Regional Exchanges For

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Date	Sahupuri - Karamnasa							Rihand Son Nagar						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	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	0	0	0	0	0.00	0.00	0.00
02	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
03	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
04	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
05	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
06	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
07	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
08	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
09	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
10	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
11	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
12	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
13	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
14	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
15	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
16	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
17	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
18	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
19	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
20	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
21	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
22	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
23	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
24	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
25	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
26	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
27	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
28	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
29	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
30	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
31	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
Maximum	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
Minimum	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
Average	0	0	0	0	0.00	0.00	0.00	0	0	0	0	0.00	0.00	0.00
Month Total					0.00	0.00	0.00					0.00	0.00	0.00

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Summary Of Inter Regional Exchanges For

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Date	Shahupuri-Pussauli							Rihand- Garvha						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Total
	MW	MW	MW	MW	MU	MU	MU	MW	MW	MW	MW	MU	MU	MU
01	119	144	155	0	3.16	0.00	3.16	0	0	0	0	0.00	0.00	0.00
02	120	95	160	0	3.16	0.00	3.16	0	0	0	0	0.00	0.00	0.00
03	90	135	145	0	3.43	0.00	3.43	0	0	0	0	0.00	0.00	0.00
04	120	135	170	0	3.55	0.00	3.55	0	0	0	0	0.00	0.00	0.00
05	125	147	166	0	3.63	0.00	3.63	0	0	0	0	0.00	0.00	0.00
06	127	140	166	0	3.30	0.00	3.30	0	0	0	0	0.00	0.00	0.00
07	132	150	152	0	3.51	0.00	3.51	0	0	0	0	0.00	0.00	0.00
08	145	152	152	0	3.40	0.00	3.40	0	0	0	0	0.00	0.00	0.00
09	103	142	155	0	3.25	0.00	3.25	0	0	0	0	0.00	0.00	0.00
10	99	160	168	0	3.21	0.00	3.21	0	0	0	0	0.00	0.00	0.00
11	127	163	168	0	3.35	0.00	3.35	0	0	0	0	0.00	0.00	0.00
12	117	168	170	0	3.47	0.00	3.47	0	0	0	0	0.00	0.00	0.00
13	103	183	157	0	2.17	0.00	2.17	0	0	0	0	0.00	0.00	0.00
14	125	180	180	0	3.07	0.00	3.07	0	0	0	0	0.00	0.00	0.00
15	170	165	170	0	3.31	0.00	3.31	0	0	0	0	0.00	0.00	0.00
16	160	162	170	0	3.26	0.00	3.26	0	0	0	0	0.00	0.00	0.00
17	80	132	152	0	2.99	0.00	2.99	0	0	0	0	0.00	0.00	0.00
18	123	120	163	0	3.29	0.00	3.29	0	0	0	0	0.00	0.00	0.00
19	100	138	150	0	3.42	0.00	3.42	0	0	0	0	0.00	0.00	0.00
20	110	140	150	0	3.25	0.00	3.25	0	0	0	0	0.00	0.00	0.00
21	117	148	152	0	3.28	0.00	3.28	0	0	0	0	0.00	0.00	0.00
22	145	150	160	0	3.20	0.00	3.20	0	0	0	0	0.00	0.00	0.00
23	120	160	170	0	3.39	0.00	3.39	0	0	0	0	0.00	0.00	0.00
24	130	158	160	0	3.35	0.00	3.35	0	0	0	0	0.00	0.00	0.00
25	120	150	170	0	3.30	0.00	3.30	0	0	0	0	0.00	0.00	0.00
26	108	163	175	0	3.37	0.00	3.37	0	0	0	0	0.00	0.00	0.00
27	115	140	160	0	3.28	0.00	3.28	0	0	0	0	0.00	0.00	0.00
28	100	162	165	0	3.31	0.00	3.31	0	0	0	0	0.00	0.00	0.00
29	102	162	162	0	3.63	0.00	3.63	0	0	0	0	0.00	0.00	0.00
30	138	152	175	0	3.61	0.00	3.61	0	0	0	0	0.00	0.00	0.00
31	145	150	150	0	3.50	0.00	3.50	0	0	0	0	0.00	0.00	0.00
Maximum	170	183	180	0	3.63	0.00	3.63	0	0	0	0	0.00	0.00	0.00
Minimum	80	95	145	0	2.17	0.00	2.17	0	0	0	0	0.00	0.00	0.00
Average	120	150	162	0	3.30	0.00	3.30	0	0	0	0	0.00	0.00	0.00
Month Total					102.39	0.00	102.39					0.00	0.00	0.00

XV. Progress Of Installation Of Shunt Capacitors As On 31.08.2004**(All fig. In MVARs)**

STATE/UT	Requirement by 31.03.2005	Installed as on 31.03.2004	Additional Requirement for 2004-2005	Programme as furnished by SEB's	Installed during 2003-04 upto 31.08.2004	Balance not installed during 2004-05	Capacitors installed as on 31.08.2004
DELHI	3135	** 3021	567	-	161	406	3182
HARYANA	2920	3269	141	500	66	75	3335
PUNJAB	4564	4721	551	500	49	502	4770
RAJASTHAN	2650	2895	189	500	146	43	3041
UP	4890	5192	477	700	0	477	5192
UTTRANCHAL	350	125	244	45	0	244	125
HP	305	311	41	-	0	41	311
J&K	915	147	790	500	0	790	147
BBMB	381	381	0	-	0	0	381
CHANDIGARH	140	100	55	-	0	55	100
TOTAL	20250	20162	3055	2745	422	2633	20584

NOTE: However the effective installed capacitors are assumed to be 85% of column II** i.e 17195

XVI. Hydraulic Data For Reservoirs During August 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 AUGUST 2004 (m)	484.50 1589.57	409.25 1342.69	258.17 847.00	349.39 1146.30	389.90 1279.19
Level on last day of AUGUST 2003 (m)	505.71 1659.16	412.97 1354.88	259.20 850.40	346.94 1138.24	384.90 1262.81
Live Capacity as on (mhmt) last day of AUGUST 2004 (maft)	0.34 2.77	0.33 2.70	0.15 1.23	0.09 0.76	0.29 2.39
Live Capacity as on (mhmt) last day of AUGUST 2003(maft)	0.57 4.62	0.40 3.26	0.18 1.42	0.06 0.47	0.08 0.63
Energy content as on last day of AUGUST 2004 (MU)	1120.00	465.00	250.00	174.00	540.00
Energy content as on last day of AUGUST 2003 (MU)	2300.00	575.00	325.00	100.00	200.00
Maximum level (m) (ft) (date)	484.50 1589.57 31.08.2004	409.25 1342.69 31.08.2004	258.17 847.00 28.08.2004	349.39 1146.30 31.08.2004	389.90 1279.19 31.08.2004
Minimum level (m) (ft) (date)	469.63 1540.77 01.08.2004	397.96 1305.63 01.08.2004	253.23 830.80 02.08.2004	344.82 1131.30 01.08.2004	379.50 1245.07 01.08.2004

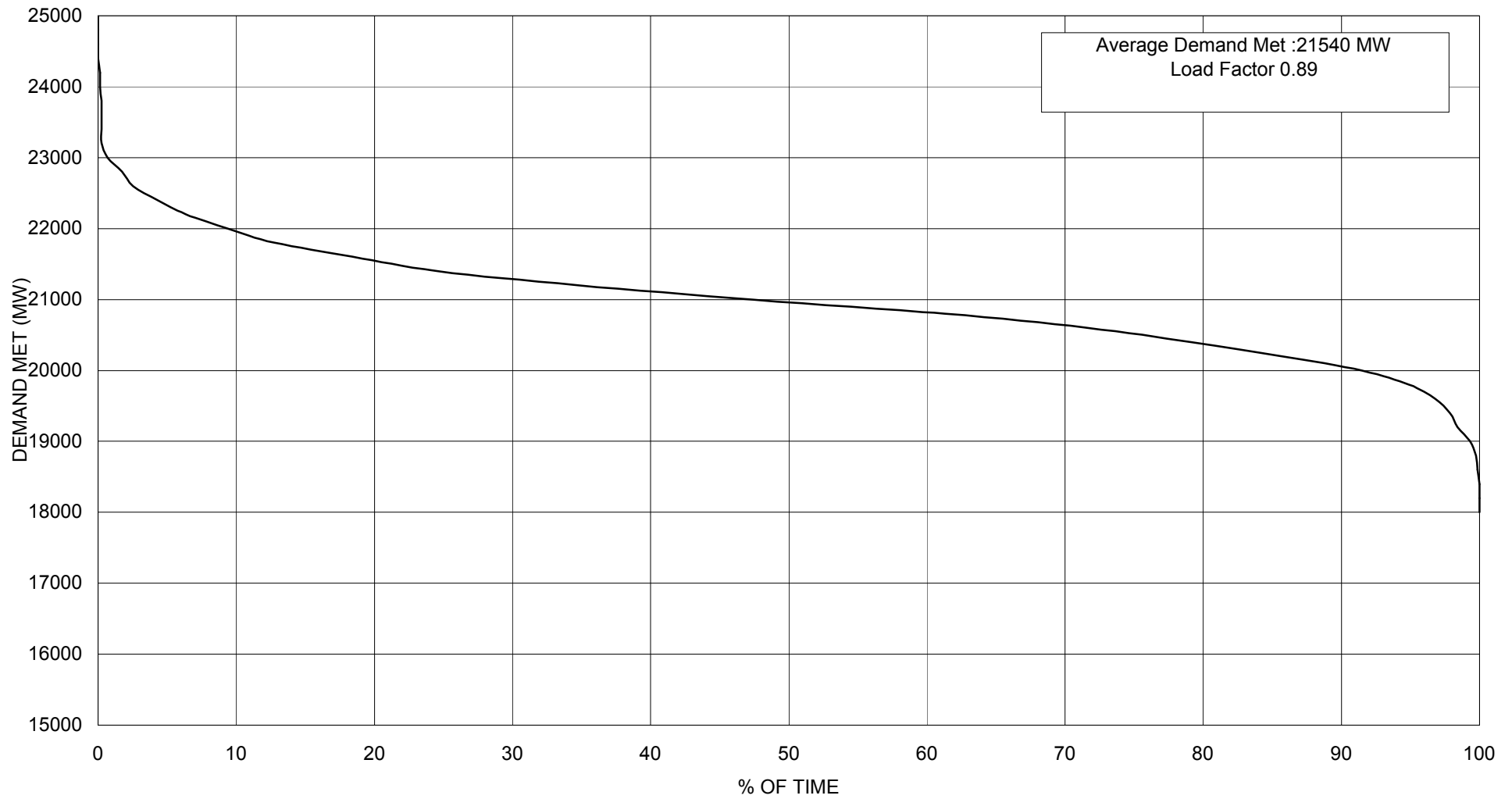
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

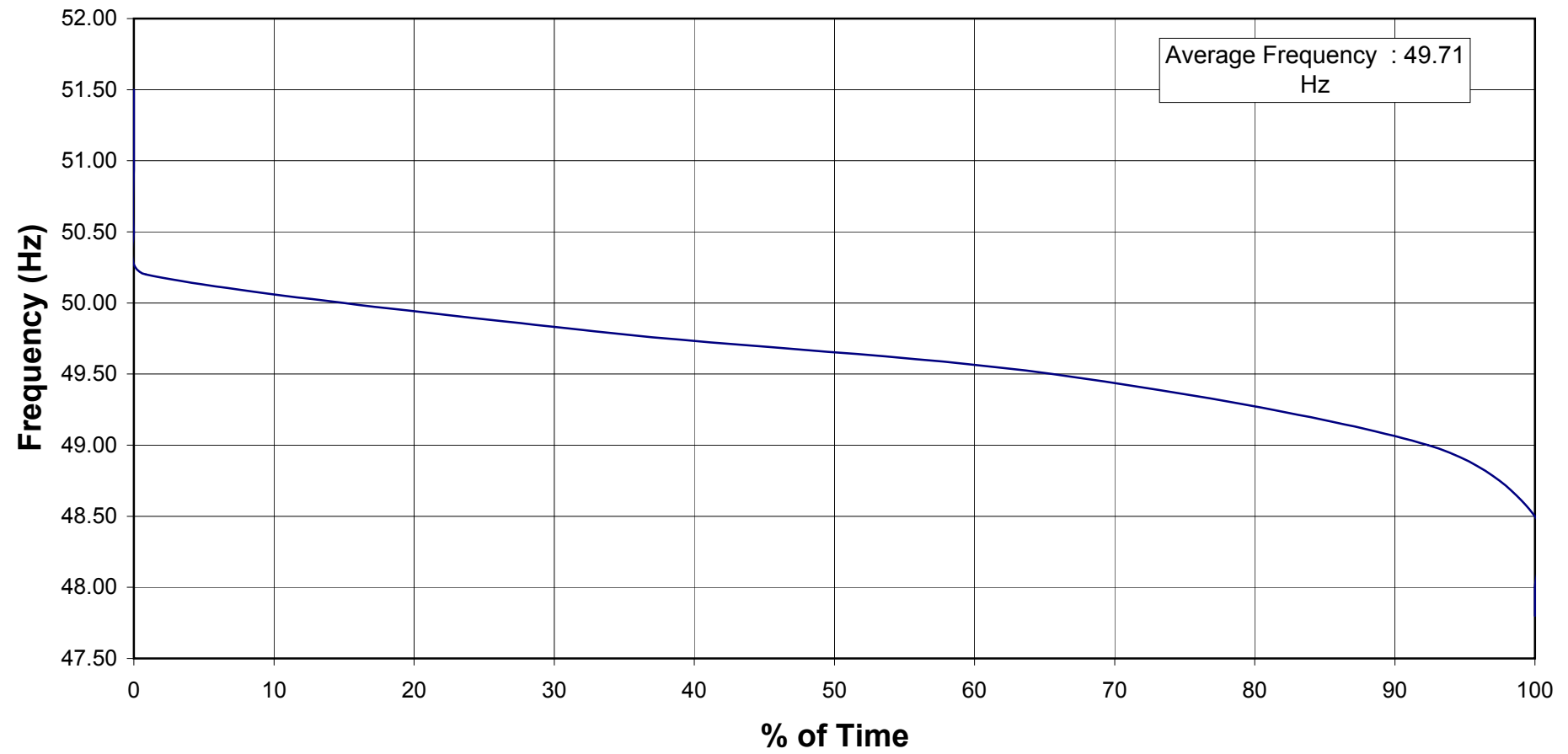
Energy content of Rihand : Total Energy content at Rihand & Obra power stations

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

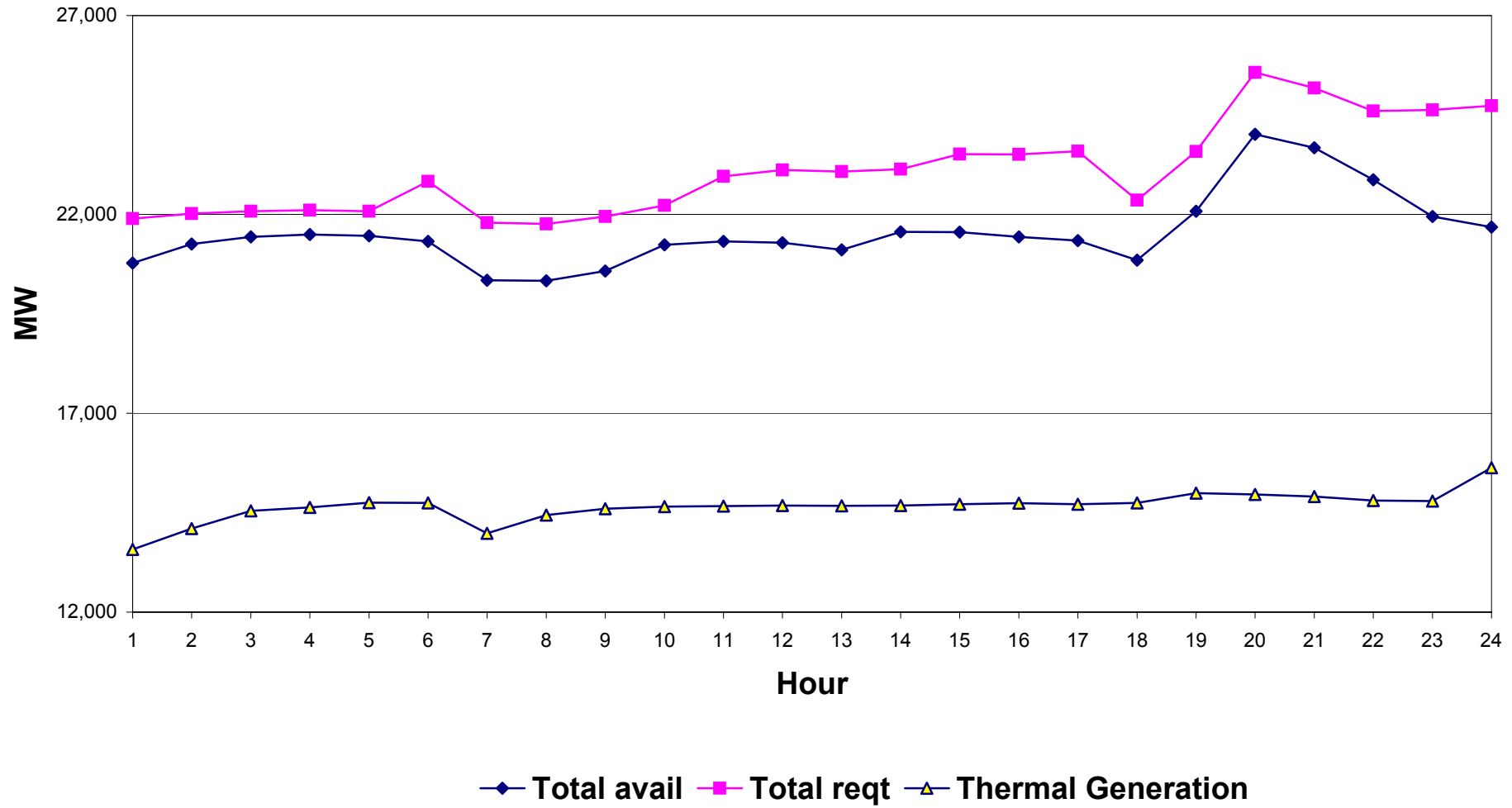
Energy Content of G. Sagar : Total Energy content at Gandhi Sagar, RP Sagar and Jawahar Sagar Power Stations.

Load Duration Curve For Northern Region For AUGUST 2004



Frequency Duration Curve For Northern Region For AUGUST 2004

Load Curve Of Northern Region For Maximum Demand Met Day (31st August 2004)



Load Curve Of Northern Region For Minimum Demand Met Day (25th August 2004)

