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NORTHERN REGION GRID REPORT FOR

A) Summary Report

1. Grid Overview during the Month

During the month of February 2004, the power supply position in the region was satisfactory. The average energy and peak demand met were 414.79 MU/day and 21764 MW compared to 353.59 MU/day and 19307 MW thereby a growth of 17.31% and 12.72% in terms both energy and peak demand. The average energy and peak shortages were 6.72% & 7.68% compared to 5.71% and 8.06% during the last year i.e. February 2003 respectively. The average system frequency was 49.48 Hz and frequency remained in the normal range i.e. between 49.0 & 50.5 Hz for 88.51% of the time compared to 84.80% during the last year i.e. February 2003. The average frequency variation index during the month was 4.28. It could be seen from the above that there is substantial increase in the % of frequency band i.e. between 49.0 & 50.5 Hz.

Overall voltage profile in the grid during the month was satisfactory on most of the 400 kV buses. During February 2004.

During February 2004 there was no major grid incident. However there were some minor incidents which are reported at annexure-6.

2. Commissioning of New Units/Lines/Tra

- 1 Unit no 6 at Pong Power House has been uprai

3 THE MONTH OF FEBRUARY 2004

er supply position in the region was satisfactory. The
 414.79 MU/day and 21764 MW compared to 353.59
 31% and 12.72% in terms both energy and peak demand
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or grid incident. However there were some minor
 6.

nsformers During the Month :

ted from 60 MW to 66 MW w.e.f 07.02.2004.

3. Frequency Profile :

Maximum frequency	50.58	Hz	at	18.02	hours on	20.02.2004
Minimum frequency	48.52	Hz	at	06.22	hours on	27.02.2004
Average frequency	49.48	Hz				

Frequency distribution in %

Hz	< 48.5	<49.0	49.0-50.5	> 50.5
% of time	0.00	11.47	88.51	0.02

Frequency Variation Index

Monthly Average	4.28
Maximum	7.21
Minimum	1.89

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

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	66.19	70.02	3.83	5.47
Haryana	51.13	52.46	1.33	2.54
Rajasthan	86.78	86.84	0.06	0.07
U.P.	114.57	138.06	23.49	17.01
Uttaranchal	11.69	11.95	0.26	2.18
Delhi	48.39	48.81	0.42	0.86
H.P.	10.04	10.04	0.00	0.00
J & K *	21.78	22.28	0.50	2.24
Chandigarh	2.56	2.56	0.00	0.00
N.F.F./Rail	1.66	1.66	0.00	0.00
Total	414.79	444.68	29.89	6.72

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	3882	3900	18	0.46
Haryana	2948	2948	0	0.00
Rajasthan	4148	4148	0	0.00
U.P.	5814	7460	1646	22.06
Uttaranchal	751	802	51	6.36
Delhi	3085	3205	120	3.74
H.P.	582	582	0	0.00
J & K *	1160	1260	100	7.94
Chandigarh	162	162	0	0.00
N.F.F./Rail	80	80	0	0.00
Region	21764	23575	1811	7.68

Diversity Factor = **1.09**

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual	OD/UD
Punjab	625.03	619.51.	#VALUE!
Haryana	614.47	723.37	108.90
Rajasthan	897.94	1039.95	142.01
U.P.	1285.32	1364.73	79.41
Uttranchal	173.84	154.26	-19.58
Delhi	775.07	538.87	-236.20
H.P.	222.95	213.06	-9.89
J & K	518.22	573.77	55.55
Chandigarh	94.44	78.65	-15.79
N.F.F./Rail	49.88	48.00	-1.88

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

a)	From WR over HVDC Vindhyachal B/B	25.73	350
b)	From WR over 220 kV Ujjain-Kota	0.00	0
c)	From ER over HVDC Sasaram B/B	229.19	500
d)	From ER over 220 kV Dehri-Sahupuri	0.00	0

Export

e)	To WR over HVDC Vindhyachal B/B	48.30	450
f)	To WR (MP) over 220 kV Auraiya-Malanpur	39.39	80
g)	To WR(MP) over 220 kV Kota-Ujjain	52.13	102
h)	To ER (Bihar) over 220 kV/132kV lines	24.07	55
i)	To ER over HVDC Sasaram B/B	0.00	0
j)	To Nepal over 132 kV Tanakpur-Mahendernagar	5.65	21

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

	<u>STATION</u>	<u>INSTALLED CAPACITY</u> (MW)		<u>EFFECTIVE CAPACITY</u>	
A	NTPC				
(a)	Badarpur TPS	3x100+2x210	720.00	3x95+2x210	705.00
(b)	Singrauli STPS	5x200+2x500	2000.00		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)	URI	4x120	480.00	4x120	480.00
(g)	Chamera HPS-II	2x100	200.00	2x100	200.00
	Sub-Total		2210.00		2184.20
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	2x250	500.00	2x250	500.00
Total Central Sector (A + B + C)			12244.04		12033.24
2	BBMB				
(a)	Bhakra Complex				
(i)	Bhakra (L)	5x108	540.00	5x108	540.00
(ii)	Bhakra (R)	5x157	785.00	5x157	785.00
(iii)	Ganguwal	1x29.25+1x27.63+1x26.7	83.58	1x29.25+1x27.63+1x26.7	83.58
(iv)	Kotla	1x29.25+1x24.2+1x28.12	81.57	1x29.25+1x24.2+1x28.12	81.57
	Sub-Total		1490.15		1490.15
(b)	Dehar	6x165	990.00	6x165	990.00
(c)	Pong	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
(g)	Nogli	2x 0.25+4x0.50	2.50	2x 0.25+4x0.50	2.50
(h)	Bhabha (H)	3x40.00	120.00	3x40.00	120.00
(i)	Baner (H)	3x 4.00	12.00	3x 4.00	12.00
(j)	Gaj (H)	3x 3.50	10.50	3x 3.50	10.50
(k)	Sal -2	1x 2	2.00	1x 2	2.00
(l)	Gumma	.	3.00	3	3.00
(m)	Ghanvi	2x11.25	22.50	2x11.25	22.50
(n)	Diesel Gen. Sets		0.00		0.00
(o)	Malana (IPP)	2x43	86.00	2x43	86.00
(p)	Baspa (IPP)	3x100	300.00	3x100	300.00
	Total HP		712.20		712.20
7	J & K				
	HYDRO				
(a)	Lower Jhelum	3x35.0	105.00	3x35.0	105.00
(b)	Upper Sindh	2x11.30+3x35.0	127.60	2x11.30+3x35.0	127.60
(c)	Ganderbal	2x3+2x4.5	15.00	2x3+2x4.5	15.00
(d)	Mohra	2x4.5	9.00	2x4.5	9.00
(e)	Chenani	5x4.66 +2X1.0 +3x2.5	32.80	5x4.66 +2X1.0+3x2.5	32.80
(f)	Stakna	2x2.0 +3x1.25 +2.0	9.75	2x2.0 +3x1.25 +2.0	9.75
(g)	Small Hydel		3.54		3.54
(h)	Sewa	3x3.0	9.00	3x3.0	9.00
	Total Hydro		311.69		311.69

contd/-

J & K (Contd.)				
	GAS TURBINES			
(h)	Pampore GT St - I	3x25.0	75.00	3x25.0
	Pampore GT St - II	4x25.0	100.00	4x25.0
9h)	Total Gas		175.00	175.00
(I)	Diesel Gen. Sets		8.94	7.18
	Total J & K		495.63	493.87
8	PUNJAB			
	HYDRO			
(a)	Jogindernagar/ Shanan	4x15+1x50	110.00	4x15+1x50
(b)	Upper Behari Doab Canal (UBDC)	3x15+3x15	90.00	3x15+3x15
(c)	Mukerian	6x15+6x19.5	207.00	6x15+6x19.5
(d)	Anandpur Sahib (APS)	4x33.5	134.00	4x33.5
(e)	Ranjit Sagar HPS	4x150	600.00	4x150
(f)	Small Hydel		4.10	4.10
	Total Hydro		1145.10	1145.10
	THERMAL			
(g)	Guru Nanak Dev TPS (Bhatinda)	4x110	440.00	4x110
(h)	Guru Gobind Singh TPS (Ropar)	6x210	1260.00	6x210
(i)	Lehra Mohabbat TPS	2x210	420.00	2x210
(j)	Jhalkeri Rice Straw Fired	1x10	10.00	1x10
	Total Thermal		2130.00	2130.00
	Total Punjab		3275.10	3275.10
9	RAJASTHAN			
	HYDRO			
(a)	Mahi Bajaj Sagar	2x25+2x45	140.00	2x25+2x45
(b)	Rana Pratap Sagar (RPS)	4x43	172.00	4x43
(c)	Jawahar Sagar (JS)	3x33	99.00	3x33
(d)	Anoopgarh	6x1.5	9.00	6x1.5
(e)	Small Hydro		14.85	14.85
	Total Hydro		434.85	434.85
	THERMAL			
(f)	Kota TPS	2x110+3x210 +1x195	1045.00	2x110+3x210 +1x195
(g)	Suratgarh TPS	5x250	1250.00	5x250
(g)	Ramgarh GT	1x3	3.00	1x3
(i)	Ramgarh GT EXT.	1x35.5	35.50	1x35.5
	Total Thermal		2333.50	2333.50
(J)	Wind farm		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)			30212.93		29700.77

SUMMARY OF THE EFFECTIVE GENERATING CAPACITY (MW)

Agency / Source	Hydro	Thermal	Gas/Diesel/Wind	Nuclear	Total	% of Total
NTPC	0.00	5825.00	2344.04	0.00	8169.04	27.50%
NHPC	2184.20	0.00	0.00	0.00	2184.20	7.35%
SJVNL	500.00	0.00	0.00	0.00	500.00	1.68%
NPC	0.00	0.00	0.00	1180.00	1180.00	3.97%
BBMB	2876.15	0.00	0.00	0.00	2876.15	9.68%
CHANDIGARH	0.00	0.00	1.40	0.00	1.40	0.00%
DELHI	0.00	396.50	612.00	0.00	1008.50	3.40%
HARYANA	48.00	1025.00	25.20	0.00	1098.20	3.70%
HIMACHAL	712.20	0.00	0.00	0.00	712.20	2.40%
J&K	311.69	0.00	182.18	0.00	493.87	1.66%
PUNJAB	1145.10	2130.00	0.00	0.00	3275.10	11.03%
RAJASTHAN	434.85	2295.00	52.51	0.00	2782.36	9.37%
UP	529.90	3909.00	0.00	0.00	4438.90	14.95%
UTTRANCHAL	980.85	0.00	0.00	0.00	980.85	3.30%
Total	9722.94	15580.50	3217.33	1180.00	29700.77	100.00%
% of TOTAL	32.74%	52.46%	10.83%	3.97%	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

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 31.01.2004

Agency / Source	Run-of -the -river	Reservoir	Total
NHPC	1644.20	540.00	2184.20
BBMB	1155.15	1721.00	2876.15
SJVNL	0.00	500.00	500.00
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	4031.00	9722.94
PERCENTAGE	58.54%	41.46%	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	8.65	40.07	91.35	21.91	0.00	0.00	0.00
02	0.00	0.00	7.08	47.93	92.92	21.94	0.00	0.00	0.00
03	0.00	0.00	11.11	42.58	88.89	23.97	0.00	0.00	0.00
04	0.00	0.00	11.29	56.17	88.71	14.83	0.00	0.00	0.00
05	0.00	0.00	19.43	64.35	80.57	16.95	0.00	0.00	0.00
06	0.00	0.00	25.00	78.30	75.00	0.59	0.00	0.00	0.00
07	0.00	0.00	14.03	69.48	85.97	6.04	0.00	0.00	0.00
08	0.00	0.00	6.84	47.33	93.16	21.70	0.00	0.00	0.00
09	0.00	0.00	5.14	29.55	94.86	29.58	0.00	0.00	0.00
10	0.00	0.00	7.92	47.85	92.08	22.22	0.00	0.00	0.00
11	0.00	0.00	10.59	60.45	89.41	3.99	0.00	0.00	0.00
12	0.00	0.00	19.76	71.28	80.24	3.65	0.00	0.00	0.00
13	0.00	0.00	15.12	61.28	84.88	6.19	0.00	0.00	0.00
14	0.00	0.00	17.10	81.97	82.90	1.11	0.00	0.00	0.00
15	0.00	0.00	5.84	39.67	94.16	14.10	0.00	0.00	0.00
16	0.00	0.00	10.29	55.15	89.71	16.93	0.00	0.00	0.00
17	0.00	0.00	7.23	52.40	92.77	7.02	0.00	0.00	0.00
18	0.00	0.00	9.03	48.19	90.97	20.21	0.00	0.00	0.00
19	0.00	0.00	9.40	51.76	90.60	14.84	0.00	0.00	0.00
20	0.00	0.00	10.03	63.69	89.59	10.55	0.38	0.00	0.00
21	0.00	0.00	11.18	53.73	88.82	9.24	0.00	0.00	0.00
22	0.00	0.00	2.81	25.90	96.98	47.33	0.21	0.00	0.00
23	0.00	0.00	2.22	26.50	97.78	25.19	0.00	0.00	0.00
24	0.00	0.00	9.27	54.41	90.73	12.81	0.00	0.00	0.00
25	0.00	0.00	10.42	63.16	89.58	7.85	0.00	0.00	0.00
26	0.00	0.00	4.07	51.01	95.93	6.15	0.00	0.00	0.00
27	0.00	0.00	29.95	77.48	70.05	1.36	0.00	0.00	0.00
28	0.00	0.00	20.21	80.03	79.79	2.03	0.00	0.00	0.00
29	0.00	0.00	13.50	56.44	86.50	16.94	0.00	0.00	0.00
30									
31									
Max	0.00	0.00	29.95	81.97	97.78	47.33	0.38	0.00	0.00
Min	0.00	0.00	2.22	25.90	70.05	0.59	0.00	0.00	0.00
Average	0.00	0.00	11.47	54.97	88.51	14.09	0.02	0.00	0.00

Frequency (Hz)				Average Frequency	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
50.41	2.45	48.56	10.06	49.62	3.25
50.28	1.02	48.59	7.42	49.57	3.59
50.28	05.06	48.56	07.36	49.57	3.72
50.18	01.51	48.53	06.41	49.49	4.23
50.31	02.39	48.55	18.49	49.41	5.47
50.23	18.02	48.56	12.20	49.24	6.73
50.13	02.04	48.53	18.35	49.37	5.28
50.30	18.03	48.58	07.34	49.56	3.46
50.36	23.52	48.59	5.52	49.71	2.25
50.44	05.03	48.56	18.33	49.60	3.64
50.28	18.06	48.57	05.40	49.43	4.32
50.25	18.19	48.54	5.47	49.31	5.98
50.30	18.02	48.54	19.06	49.38	5.25
50.23	18.02	48.53	18.40	49.26	6.39
50.30	18.05	48.58	06.16	49.59	2.96
50.29	18.03	48.56	06.45	49.50	4.08
50.27	21.59	48.56	05.49	49.48	3.85
50.23	00.59	48.61	05.45	49.54	3.65
50.27	18.07	48.58	18.30	49.51	3.87
50.58	18.02	48.57	05.52	49.45	4.40
50.25	18.02	48.59	00.06	49.49	4.08
50.54	23.57	48.59	06.50	49.83	1.89
50.37	08.09	48.71	19.07	49.72	1.93
50.24	15.07	48.54	05.52	49.48	4.05
50.33	18.03	48.56	5.47	49.41	4.67
50.25	18.02	48.65	14.21	49.50	3.26
50.13	20.53	48.52	06.22	49.22	7.21
50.19	18.03	48.56	18.54	49.27	6.30
50.31	18.07	48.57	00.34	49.48	4.46
50.58		48.71		49.83	7.21
50.13		48.52		49.22	1.89
50.29		48.57		49.48	4.28

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	417	00.39	394	18.40	412	02.41	390	18.40	212	01.12	200	09.40	417	01.11	383	18.25
02	417	00.32	392	09.37	411	01.54	387	10.50	211	00.42	196	10.08	410	00.00	385	19.14
03	413	01..00	387	11.10	406	01.01	386	18.23	210	02.05	196	18.25	411	00.53	382	18.23
04	414	00.59	389	11.02	412	01.00	390	11.03	211	01.37	197	11.05	409	00.25	386	18.23
05	414	00.00	388	11.06	409	00.00	384	15.06	210	01.02	194	11.59	411	00.55	383	17.13
06	412	02.14	386	12.02	408	02.21	384	12.09	210	02.47	195	12.02	410	00.52	385	18.11
07	414	01.36	393	12.03	410	17.2	393	12.05	210	02.47	195	12.02	412	00.38	385	18.35
08	417	01.26	396	12.10	407	01.55	396	12.10	210	01.26	201	18.45	412	01.23	388	18.45
09	416	00.39	391	10.32	408	21.59	393	06.57	211	01.59	197	11.54	413	01.18	388	18.35
10	418	01.35	391	12.17	409	01.01	393	12.16	211	01.33	199	12.15	412	01.55	386	18.23
11	414	01.47	388	11.04	404	05.04	392	06.12	209	03.13	197	10.35	411	00.01	385	18.39
12	414	05.04	392	19.05	407	05.04	392	12.29	209	05.05	197	18.45	410	01.55	384	19.08
13	412	01.57	389	18.37	406	01.48	393	12.20	209	02.13	197	18.38	408	01.57	382	18.37
14	412	05.01	391	10.04	407	05.01	395	10.01	208	01.56	197	12.11	407	01.26	381	19.04
15	412	01.46	395	11.12	408	05.03	393	12.34	210	01.49	199	11.13	409	01.45	386	18.45
16	415	05.01	392	11.02	407	17.11	394	06.38	211	01.31	198	18.43	408	22.30	386	18.40
17	412	01.53	390	11.45	407	05.02	392	18.42	209	01.27	197	18.44	410	01.34	385	18.14
18	412	01.39	391	11.01	402	01.39	390	14.14	209	01.55	197	19.02	414	03.11	388	18.49
19	413	22.01	387	11.30	405	22.01	390	14.10	208	02.42	197	12.13	411	05.02	390	11.31
20	411	05.00	389	10.37	403	05.01	391	11.30	208	05.02	195	18.43	409	05.00	387	18.41
21	410	08.11	388	11.14	402	18.01	392	07.19	208	02.39	196	18.54	408	03.39	383	16.48
22	420	01.24	395	06.41	413	23.57	395	06.38	213	02.53	198	18.18	414	00.03	385	17.54
23	410	01.58	387	11.22	406	18.03	393	11.23	209	01.51	196	11.13	405	01.53	386	18.38
24	409	04.14	386	11.22	403	18.07	387	12.17	208	04.00	193	11.24	405	04.14	385	18.14
25	410	03.38	387	10.37	405	01.00	391	12.25	207	02.33	196	11.28	408	23.08	390	19.03
26	409	04.02	385	10.44	404	17.59	385	12.37	207	02.49	193	11.21	407	03.33	391	06.39
27	413	04.00	384	11.33	406	03.59	392	14.15	209	01.12	192	11.25	412	04.00	387	19.26
28	414	02.48	390	11.43	405	00.52	391	12.11	206	01.53	195	10.49	409	00.49	390	18.53
29	415	07.05	394	11.18	406	05.33	394	18.57	208	03.08	198	11.45	412	03.06	387	19.04
Max	420		396		413		396		213		201		417		391	
Min	409		384		402		384		206		192		405		381	

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	20590	21941	1351	15851	16136	285	409.43
02	20667	22724	2057	15848	16133	285	420.24
03	20666	22321	1655	15976	16261	285	416.26
04	20645	22578	1933	16260	16545	285	413.84
05	20335	22142	1807	16141	16691	550	410.58
06	20415	22387	1972	16459	17044	585	411.53
07	19666	21971	2305	16487	17082	595	412.50
08	20556	21793	1237	16466	17056	590	409.04
09	21161	22519	1358	16142	16432	290	415.67
10	20547	22163	1616	15827	16117	290	412.70
11	20722	22124	1402	16636	16926	290	413.49
12	20784	22186	1402	16701	16991	290	409.02
13	20892	22146	1254	16641	16931	290	417.36
14	20375	22025	1650	16835	17125	290	415.85
15	20584	21804	1220	16811	17506	695	414.26
16	20778	22115	1337	16831	17416	585	420.72
17	21386	22535	1149	17065	17425	360	423.58
18	21166	22324	1158	17094	17379	285	423.19
19	20884	22152	1268	17033	17318	285	422.24
20	21538	22606	1068	17164	17499	335	427.64
21	21263	22414	1151	17325	17980	655	428.33
22	20951	22019	1068	17770	18710	940	430.09
23	21529	22582	1053	17514	18179	665	435.65
24	21088	22234	1146	17633	18223	590	438.18
25	21437	22508	1071	17739	18379	640	437.26
26	21141	22443	1302	17868	18408	540	432.71
27	20934	22494	1560	17226	18251	1025	429.21
28	20811	22319	1508	18034	18614	580	433.01
29	20470	21901	1431	17528	17813	285	422.84
Maximum	21538	22724	2305	18034	18710	1025	438.18
Minimum	19666	21793	1053	15827	16117	285	409.02
Average	20827	22258	1431	16859	17330	471	420.91

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	3660	2829	2734	2232	3826	3652	3145	1614	5016	5186
02	3697	2768	2612	2161	3902	3583	3128	1557	5018	4901
03	3462	2822	2610	2184	3903	3554	3115	1554	4973	5041
04	3507	2880	2413	2195	3706	3513	3077	1562	5028	4860
05	3557	2803	2575	2091	3836	3510	3223	1592	5021	5163
06	3689	2855	2588	2246	3893	3518	3081	1702	5165	5157
07	3623	2907	2543	2195	3700	3604	2975	1717	5197	5184
08	3684	3122	2590	2186	3780	3561	3141	1600	5020	5241
09	3725	3020	2770	2181	3763	3618	3016	1547	5293	5235
10	3646	3133	2859	2193	3847	3647	2919	1413	5455	3062
11	3723	3164	2771	2206	3743	3646	2770	1482	5459	4998
12	3645	2926	2833	1973	3776	3590	2847	1377	5340	5520
13	3589	2984	2616	2177	3750	3644	2934	1354	5247	5462
14	3645	2872	2558	2119	3669	3640	2881	1376	5351	5186
15	3628	2881	2684	2102	3989	3529	2872	1391	5358	4951
16	3372	2783	2582	2057	3741	3537	2698	1326	5277	5036
17	3238	2647	2481	2015	3717	3640	2927	1364	5240	5138
18	3422	2375	2655	1885	3673	3677	2783	1383	5235	4910
19	3494	2406	2830	1955	3759	3539	2864	1357	5262	4933
20	3446	2532	2790	2061	3928	3688	2959	1413	5368	4985
21	2875	2598	2386	2004	3720	3428	2966	1374	4904	4789
22	3167	1961	2423	1761	3681	3414	2946	1471	4860	4460
23	3061	1897	2509	1526	3640	3364	2891	1350	4903	4207
24	3209	2125	2662	1974	3740	3485	2854	1417	5086	4288
25	3080	2244	2540	1946	3726	3455	2714	1414	5005	4630
26	3138	1992	2495	1897	3426	3511	2534	1411	4794	4566
27	3173	1955	2590	1837	3599	3416	2743	1235	4980	4669
28	3195	2269	2508	1958	3649	3539	2778	1356	5174	4972
29	3330	2355	2617	1936	3574	3593	2869	1368	4992	4834
Maximum	3725	3164	2859	2246	3989	3688	3223	1717	5459	5634
Minimum	2875	1897	2386	1526	3426	3364	2534	1235	4794	3062
Average	3437	2624	2615	2043	3747	3555	2919	1451	5143	4882

Remarks: Peak - 1900 hrs offpeak - 0300 hrs

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

State	Uttaranchal		Chandigarh		Himachal Pradesh		Jammu & Kashmir	
Date	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	713	422	164	75	514	255	971	717
02	715	444	178	76	593	247	983	1027
03	737	440	169	80	564	276	977	810
04	720	417	152	83	562	293	915	774
05	679	407	168	76	445	284	1029	810
06	578	415	163	79	545	320	935	803
07	664	455	162	83	606	285	881	803
08	653	424	157	78	516	289	983	761
09	623	392	151	71	543	292	950	791
10	729	512	151	71	539	296	983	783
11	623	405	132	68	515	295	963	801
12	623	405	152	66	556	287	944	783
13	649	404	138	70	490	291	992	768
14	680	414	149	71	559	295	949	766
15	637	407	147	67	538	299	984	759
16	690	408	154	72	540	288	961	773
17	699	364	147	65	451	296	861	744
18	673	373	133	56	541	257	958	498
19	675	399	151	64	546	274	953	776
20	692	397	156	70	469	284	965	732
21	676	420	160	73	531	268	875	730
22	696	371	149	72	522	271	967	549
23	676	420	155	67	498	256	848	476
24	669	344	156	70	471	277	976	696
25	667	419	134	71	492	274	999	813
26	582	397	135	72	472	267	983	793
27	589	375	149	63	487	270	957	819
28	665	373	154	75	509	286	1027	752
29	617	399	150	74	534	275	971	723
Maximum	737	512	178	83	606	320	1029	1027
Minimum	578	344	132	56	445	247	848	476
Average	665	408	152	72	522	281	957	753

Remarks: Peak - 1900 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	57.168	46.415	86.786	54.403	110.638	11.624	2.433	10.365	22.039	1.746	403.617
02	57.565	46.828	91.217	53.882	111.783	12.267	2.590	10.245	23.960	1.815	412.152
03	61.703	46.990	89.015	53.680	110.386	12.185	2.810	10.411	23.304	1.725	412.209
04	60.943	47.796	85.481	52.660	110.860	12.291	2.853	10.311	22.431	1.670	407.296
05	59.238	48.155	85.242	52.736	110.201	11.683	2.694	10.721	22.076	1.695	404.441
06	60.428	48.913	85.265	53.069	107.376	12.087	2.622	10.484	22.815	1.676	404.734
07	61.079	48.909	86.087	51.472	110.982	11.608	2.634	10.385	22.629	1.621	407.406
08	58.616	48.269	86.349	49.197	112.447	11.748	2.315	10.140	22.883	1.648	403.613
09	58.933	50.734	86.047	49.360	117.353	11.566	2.658	10.675	20.984	1.751	410.061
10	59.026	50.606	85.312	49.201	117.142	11.711	2.716	10.303	20.048	1.699	407.764
11	60.322	52.251	85.460	48.946	115.979	11.991	2.645	9.303	21.982	1.723	410.603
12	60.924	49.974	84.472	48.863	112.737	11.838	2.617	9.816	21.378	1.676	404.295
13	63.373	51.423	85.346	49.130	115.249	13.081	2.650	9.909	21.915	1.602	413.678
14	66.581	51.298	84.623	47.904	112.566	11.457	2.605	9.889	21.690	1.727	410.340
15	63.173	51.454	85.859	46.002	114.425	11.278	2.369	9.559	21.334	1.683	407.136
16	67.992	51.445	85.127	47.752	116.456	11.892	2.605	9.802	21.740	1.730	416.540
17	66.891	52.279	85.616	46.824	118.412	11.784	2.680	9.971	22.185	1.491	418.133
18	65.151	52.491	86.416	46.047	120.379	11.742	2.464	10.235	21.124	1.890	417.939
19	66.329	52.127	85.766	46.480	118.410	11.685	2.481	9.463	21.539	1.298	415.577
20	70.623	54.889	85.046	47.192	119.097	10.998	2.579	9.902	21.022	1.714	423.061
21	74.034	53.137	87.740	45.788	114.360	11.508	2.520	10.093	21.215	1.736	422.131
22	75.720	52.796	89.020	45.238	117.158	11.339	2.259	9.949	21.789	1.580	426.848
23	75.696	53.257	89.316	45.217	117.572	11.328	2.503	9.895	21.616	1.717	428.117
24	75.767	53.873	88.372	45.435	117.004	11.471	2.692	9.885	21.541	1.662	427.702
25	76.775	52.589	87.823	45.099	119.907	11.333	2.562	9.722	21.287	1.548	428.645
26	76.607	53.711	87.649	45.509	118.434	11.675	2.564	9.752	21.226	1.567	428.694
27	72.703	53.621	87.862	46.152	115.097	11.621	2.508	10.149	20.658	1.667	422.039
28	74.217	53.293	89.288	45.913	110.130	11.314	2.488	9.946	21.827	1.440	419.857
29	71.947	53.141	89.092	44.118	110.013	10.775	2.160	9.862	21.477	1.497	414.081
Maximum	76.775	54.889	91.217	54.403	120.379	13.081	2.853	10.721	23.960	1.890	428.694
Minimum	57.168	46.415	84.472	44.118	107.376	10.775	2.160	9.303	20.048	1.298	403.613
Average	66.190	51.126	86.783	48.389	114.571	11.686	2.561	10.039	21.783	1.655	414.783
Month Total	1919.523	1482.668	2516.694	1403.269	3322.550	338.880	74.276	291.142	631.714	47.994	12028.710

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-Feb-2004	18317	14628	18286	22743	27028	32046	28793	24166	42665	44009	5976	6366
2-Feb-2004	17614	15530	17759	22789	26325	30878	29717	23176	43265	45446	5958	6430
3-Feb-2004	17293	14344	18050	23284	25808	31072	29000	23296	43177	44334	6293	6060
4-Feb-2004	18983	17870	17842	21293	28041	35284	28677	22187	42834	43659	5769	6023
5-Feb-2004	18676	17322	18276	19200	29176	35361	27396	23506	42914	45387	6318	6223
6-Feb-2004	18821	16710	18973	20506	30053	34274	25836	23400	44273	47065	6463	5812
7-Feb-2004	19029	17308	17995	20866	29602	33253	28507	20720	42573	46557	5634	5308
8-Feb-2004	18774	14843	16778	19952	26622	34328	32122	20092	39829	43911	5209	5265
9-Feb-2004	19850	17161	17357	22435	28496	34591	30363	20444	41568	44524	5449	5050
10-Feb-2004	20621	18536	18593	23534	31311	37258	26395	20290	43168	46715	5740	4832
11-Feb-2004	20108	18028	19329	23744	32868	39846	25882	19763	43474	46961	5666	4720
12-Feb-2004	19205	17631	19883	22894	33487	39680	24600	19221	44270	47424	5763	4685
13-Feb-2004	19994	18900	20189	23867	31152	38681	28159	19658	43665	46347	5937	5086
14-Feb-2004	20163	18772	20691	24185	32397	37520	26727	18782	43320	47700	5885	4806
15-Feb-2004	20548	19327	20066	26106	30234	36010	29271	19477	43402	46169	5541	4648
16-Feb-2004	19860	20750	20135	25265	29381	35913	29292	16921	43287	46235	5486	4434
17-Feb-2004	21697	22362	21112	26309	30943	37169	28220	16405	44710	45240	5973	4768
18-Feb-2004	23129	24657	22922	25927	31497	39373	27697	16034	45526	46914	5821	4790
19-Feb-2004	22414	23226	21708	28405	32513	39999	26742	16855	44851	45124	5687	4347
20-Feb-2004	22518	24735	23219	28037	32626	37263	24894	16033	45432	45631	6465	5255
21-Feb-2004	22718	27404	22766	28217	32943	36691	25056	14427	45102	45132	6326	5675
22-Feb-2004	23248	26630	24299	27985	34119	37511	22951	13791	45565	46150	6455	6052
23-Feb-2004	23525	27500	24827	27675	34064	36827	23487	14633	45855	46271	6500	5213
24-Feb-2004	23960	28923	23089	27560	34372	35799	24629	14831	46751	49416	6499	5668
25-Feb-2004	25134	28678	23295	27131	33413	34733	24164	16045	46963	50021	6523	5475
26-Feb-2004	27251	28635	23848	29630	33691	33081	23998	16423	47708	52537	6324	5382
27-Feb-2004	27898	26008	26157	29021	31616	34232	23420	16692	46710	53421	6252	5248
28-Feb-2004	27039	26693	28140	28343	31737	34845	25070	16438	46504	53125	6066	5196
29-Feb-2004	26645	26398	28886	26467	32424	36429	24003	15166	45963	53304	5866	5442
Total MU	625.032	619.509	614.470	723.370	897.939	1039.947	775.068	538.872	1285.324	1364.729	173.844	154.259
Max. MWH	27898	28923	28886	29630	34372	39999	32122	24166	47708	53421	6523	6430
Min MWH	17293	14344	16778	19200	25808	30878	22951	13791	39829	43659	5209	4347
Avg. MWH	21553	21362	21189	24944	30963	35860	26726	18582	44322	47060	5995	5319

VIII. Schedule vs Actual Drawals of Northern Regional Constituents (Sheet 2 of 2)

Date	Himachal Pradesh		Jammu & Kashmir		Chandigarh		NFF		Railways	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Feb-2004	8134	7523	17932	19801	3142	2721	456	111	1059	1635
2-Feb-2004	8194	7408	17857	21813	3104	2856	456	126	1223	1689
3-Feb-2004	8281	7688	17826	21136	3132	3090	456	127	1340	1598
4-Feb-2004	8319	7647	17677	20616	3140	3119	456	125	1337	1545
5-Feb-2004	8023	7959	17918	20118	3152	2919	456	38	1241	1657
6-Feb-2004	7932	7943	18347	21001	3162	2876	456	20	1286	1656
7-Feb-2004	8000	7814	16454	20732	3073	2836	456	71	1398	1550
8-Feb-2004	7956	7608	16548	21108	3057	2515	456	102	1352	1546
9-Feb-2004	8132	8096	17209	19133	3139	2891	456	108	1342	1643
10-Feb-2004	8390	7538	19154	18047	3220	2863	456	105	1146	1594
11-Feb-2004	7561	6679	19959	20007	3214	2806	456	98	1047	1625
12-Feb-2004	8118	7096	18604	19467	3095	2766	456	95	1336	1581
13-Feb-2004	7437	7234	18445	19968	3260	2787	456	95	1358	1507
14-Feb-2004	7351	7285	17347	19695	3263	2700	456	105	1318	1622
15-Feb-2004	7317	6963	17484	19404	3239	2464	456	107	1302	1576
16-Feb-2004	7544	7283	17417	19722	3229	2713	456	111	1381	1619
17-Feb-2004	7735	7670	17055	20119	3230	2780	456	107	1209	1384
18-Feb-2004	7725	7983	18426	19143	3275	2577	456	113	1302	1777
19-Feb-2004	7890	6843	18497	19671	3287	2586	456	76	1292	1221
20-Feb-2004	7431	7210	17056	18966	3263	2671	456	36	1224	1678
21-Feb-2004	7323	7364	17624	19201	3316	2642	456	32	1365	1714
22-Feb-2004	7320	7272	19356	19686	3364	2371	456	48	1249	1532
23-Feb-2004	7480	7116	17553	19532	3355	2621	456	93	1251	1624
24-Feb-2004	7257	7029	18608	19447	3522	2618	456	120	944	1542
25-Feb-2004	7227	6702	18169	19184	3487	2641	456	0	1248	1548
26-Feb-2004	7243	6761	18386	19083	3486	2644	456	0	1268	1567
27-Feb-2004	7192	7200	17518	18702	3401	2652	456	94	1296	1573
28-Feb-2004	7188	7054	16975	19867	3404	2635	456	100	1304	1340
29-Feb-2004	7251	7089	16819	19401	3425	2294	456	49	1236	1448
Total MU	222.951	213.057	518.220	573.770	94.436	78.654	13.224	2.412	36.654	45.591
Max. MWH	8390	8096	19959	21813	3522	3119	456	127	1398	1777
Min MWH	7188	6679	16454	18047	3057	2294	456	0	944	1221
Avg. MWH	7688	7347	17870	19785	3256	2712	456	83	1264	1572

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-Feb-2004	33971	33912	21685	21914	16757	17181	9052	9088	8974	9078	10610	10443
2-Feb-2004	32400	32571	21840	22023	17143	17439	9066	9087	9004	9103	11521	11741
3-Feb-2004	32400	32554	21840	22009	17108	17559	9094	9133	9064	9157	12244	12290
4-Feb-2004	32711	32896	21840	22078	16863	17514	9144	9155	9144	9185	12356	12655
5-Feb-2004	33048	33137	21840	22004	17354	17538	9144	9130	9144	9132	12143	12753
6-Feb-2004	33048	33217	21840	22047	18264	18272	9144	9171	9144	9218	13554	13771
7-Feb-2004	28493	28695	21840	22123	18264	18240	9144	9167	9144	9197	14546	14662
8-Feb-2004	22080	22285	21840	22008	18264	18183	9144	9162	9144	9197	14473	14530
9-Feb-2004	26648	26836	21840	22010	18264	18037	9144	9173	9144	9188	14715	14740
10-Feb-2004	33246	33406	21840	21828	18028	17670	9104	9098	9080	9122	13446	13478
11-Feb-2004	33493	33654	21840	22055	18264	18259	9104	9178	9080	9186	13586	13735
12-Feb-2004	33595	33754	21840	22065	18264	18234	9124	9165	9112	9215	14331	14376
13-Feb-2004	33600	33752	21840	22066	18264	18225	9144	9192	9144	9179	12390	12339
14-Feb-2004	33600	33766	21840	22138	18264	18268	9144	9183	9144	9197	11909	11977
15-Feb-2004	33600	33769	21840	22023	18264	18157	9144	9185	9144	9191	11964	12017
16-Feb-2004	33600	33747	21840	21966	18264	18188	9144	9186	9144	9195	11620	11616
17-Feb-2004	38276	38384	21840	21984	18218	18208	9144	9184	9144	9190	11717	11644
18-Feb-2004	44224	44357	21840	21951	18161	18039	9144	9167	9144	9197	10411	10498
19-Feb-2004	41819	41949	21840	21972	18132	18124	9144	9195	9144	9199	10412	10425
20-Feb-2004	44253	44419	21840	21895	18132	18092	9144	9155	9144	9174	9977	9694
21-Feb-2004	41406	41561	21840	21930	18138	18157	9144	9179	9144	9182	11403	11422
22-Feb-2004	43915	44090	21840	21835	18120	17524	9025	9016	9083	9062	11323	11191
23-Feb-2004	44400	44592	21840	21922	18120	17981	9060	9189	9144	9183	11329	11375
24-Feb-2004	44400	44632	21840	21969	18143	18114	9144	9191	9144	9179	10875	11033
25-Feb-2004	44455	44589	21840	21911	18212	18197	9144	9176	9144	9192	10931	10963
26-Feb-2004	44520	44714	21840	21939	18241	18186	9144	9168	9144	9190	10998	10982
27-Feb-2004	44520	44694	21840	21967	18264	18268	9144	9153	9144	9192	8995	8828
28-Feb-2004	44520	44682	21840	21969	18264	18271	9144	9124	9144	9197	9006	8484
29-Feb-2004	44520	44688	21840	21998	18264	18057	9144	9178	9144	9172	9043	8815
Total MU	1074.761	1079.302	633.205	637.599	522.302	522.182	264.653	265.528	264.565	266.049	341.828	342.477
Max. MWH	44520	44714	21840	22138	18264	18272	9144	9195	9144	9218	14715	14740
Min MWH	22080	22285	21685	21828	16757	17181	9025	9016	8974	9062	8995	8484
Avg. MWH	37061	37217	21835	21986	18010	18006	9126	9156	9123	9174	11787	11810

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-Feb-2004	7752	8082	11256	11145	8448	8554	7795	7331	600	616	4632	4763
2-Feb-2004	7777	8665	11472	11220	8568	8476	8400	8228	600	617	4176	4278
3-Feb-2004	7892	8649	11832	11781	8568	8454	8400	8232	600	617	3944	4053
4-Feb-2004	8268	8967	12595	12484	8592	8443	8400	8230	600	618	3804	3910
5-Feb-2004	8493	9035	12818	12727	8520	8424	8400	8239	615	632	3851	3986
6-Feb-2004	8380	8821	13403	13413	8520	8241	8400	8214	615	632	3944	4047
7-Feb-2004	7233	7662	14452	14132	8495	7965	8280	8232	645	664	3897	4003
8-Feb-2004	6168	6314	13852	13380	8016	7950	8280	8271	825	844	3758	3853
9-Feb-2004	6237	6308	13462	12851	8016	7987	8280	8266	870	891	4952	5054
10-Feb-2004	5524	6041	11153	10904	8040	7786	8280	8221	1350	1387	7631	7821
11-Feb-2004	5902	6300	11019	10918	8040	7582	8280	8253	1290	1320	6146	6283
12-Feb-2004	5804	6249	12102	12023	7632	7309	5616	8191	1050	1078	5216	5348
13-Feb-2004	8144	8766	12581	12445	7560	7309	8280	8188	1155	1184	4976	5114
14-Feb-2004	8040	8541	12843	12809	7440	7551	8280	8176	1200	1225	4688	4804
15-Feb-2004	7944	8456	12521	12348	7440	7612	8280	8247	1215	1240	4920	5055
16-Feb-2004	7396	7961	12292	12156	7440	7635	8280	8197	1200	1229	4888	5001
17-Feb-2004	8107	8849	12354	12234	7680	7670	8280	8169	1200	1227	4870	5011
18-Feb-2004	7765	8789	11494	11449	7680	7708	8280	8169	1650	1686	6546	6723
19-Feb-2004	7782	8634	11965	11851	7680	7753	8160	8220	1125	1155	6330	6467
20-Feb-2004	7706	8408	11799	11758	7752	7776	8160	8207	1500	1536	5248	5357
21-Feb-2004	7687	8348	12186	12116	7728	7675	8280	8175	1380	1416	5060	5198
22-Feb-2004	7533	7687	11886	11547	7752	7759	8232	8213	1350	1386	5070	5206
23-Feb-2004	7651	7763	11697	11548	7728	7749	8184	8196	1530	1572	5140	5264
24-Feb-2004	7925	8174	12459	12384	7728	7743	8232	8181	1620	1655	5030	5143
25-Feb-2004	7476	7930	12324	12345	7680	7716	8712	8167	1740	1777	5220	5341
26-Feb-2004	7669	7717	12836	12591	7728	7695	9192	8186	1800	1838	5340	5439
27-Feb-2004	6486	6600	12929	13006	7776	7496	9192	8119	1920	1963	5738	5775
28-Feb-2004	6496	6603	12054	12122	7752	7545	8712	8127	1485	1524	6183	6258
29-Feb-2004	7255	7623	11105	11080	7704	7678	8712	8152	1485	1522	5280	5402
Total MU	214.492	227.942	356.741	352.767	229.703	227.241	240.259	236.997	34.215	35.051	146.478	149.957
Max. MWH	8493	9035	14452	14132	8592	8554	9192	8271	1920	1963	7631	7821
Min MWH	5524	6041	11019	10904	7440	7309	5616	7331	600	616	3758	3853
Avg. MWH	7396	7860	12301	12164	7921	7836	8285	8172	1180	1209	5051	5171

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-Feb-2004	720	733	1602	1642	6331	6283	15101	14784	3590	3002	2076	1259
2-Feb-2004	744	757	1691	1734	6265	6367	15022	14582	2929	3035	1189	1492
3-Feb-2004	738	752	1869	1918	5866	5954	15022	14615	2929	3082	1539	1329
4-Feb-2004	608	628	1602	1642	5642	5705	15022	14656	2929	3043	1148	1569
5-Feb-2004	707	726	1691	1736	5453	5538	15022	14483	2929	3298	1549	1567
6-Feb-2004	666	667	1691	1738	5091	5221	15022	14570	2929	2846	1549	1774
7-Feb-2004	663	674	1602	1639	5231	5267	15022	14444	2784	3046	1757	1781
8-Feb-2004	648	666	2314	2362	5029	5094	15022	14496	2929	2991	1757	1761
9-Feb-2004	586	593	1602	1634	5389	5474	15022	14586	2929	2967	1757	2077
10-Feb-2004	538	551	1602	1639	6660	6781	15022	14371	2929	3315	2360	2073
11-Feb-2004	536	544	1602	1643	8392	8526	15022	14438	3398	3508	1962	2497
12-Feb-2004	584	599	3449	3532	7660	7810	14918	14330	3529	3459	2396	1746
13-Feb-2004	648	659	3649	3751	7142	7209	14852	14430	3529	3577	1805	2354
14-Feb-2004	595	602	3249	3340	6759	6947	14840	14261	3529	3508	2405	2335
15-Feb-2004	564	582	3249	3335	6641	6654	14840	14294	3529	3276	2405	2114
16-Feb-2004	633	646	3249	3335	6579	6748	14814	14281	3529	3248	2166	2840
17-Feb-2004	600	612	3249	3323	6508	6638	14826	14255	3289	3374	2747	1949
18-Feb-2004	623	636	2804	2878	8000	8051	14826	14049	3504	3503	1960	1782
19-Feb-2004	600	614	2492	2557	9031	9166	14746	14346	3684	3681	1772	2245
20-Feb-2004	628	638	2492	2558	8227	8233	15579	15205	3684	4344	2165	2576
21-Feb-2004	600	611	2492	2557	8199	8336	15579	16097	4445	4091	2550	2910
22-Feb-2004	585	586	2492	2541	8013	8171	16487	15599	4021	3404	3088	3674
23-Feb-2004	585	584	2492	2556	8058	8203	15981	15550	4021	3589	3994	4514
24-Feb-2004	551	568	2492	2558	7966	8131	15773	15720	3620	3983	4288	4408
25-Feb-2004	600	580	2492	2561	7945	8101	15773	15853	3620	4029	4285	3956
26-Feb-2004	600	612	3026	3105	8279	8448	15904	15870	4030	4619	3909	4232
27-Feb-2004	200	466	3471	3567	8756	8563	15918	15816	4589	4687	4087	4304
28-Feb-2004	0	465	3471	3568	9710	9803	15912	16302	4589	4267	4087	4254
29-Feb-2004	0	513	3471	3557	9112	9208	15912	15751	3841	3883	4539	4408
Total MU	16.350	17.864	72.649	74.506	207.934	210.630	442.801	432.034	101.786	102.655	73.291	75.780
Max. MWH	744	757	3649	3751	9710	9803	16487	16302	4589	4687	4539	4514
Min MWH	0	465	1602	1634	5029	5094	14746	14049	2784	2846	1148	1259
Avg. MWH	564	616	2505	2569	7170	7263	15269	14898	3510	3540	2527	2613

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

Date	Nathpa-Jhakri HEP		Chamera stage-II	
	Schedule	Actual	Schedule	Actual
1-Feb-2004	6422	6569	1114	1145
2-Feb-2004	6113	6551	1294	1331
3-Feb-2004	4446	4699	1413	1341
4-Feb-2004	6005	6374	1094	1120
5-Feb-2004	5928	6242	1144	1175
6-Feb-2004	5928	6078	1144	1178
7-Feb-2004	5928	6202	1104	1129
8-Feb-2004	6916	7059	1144	1173
9-Feb-2004	6387	6617	1294	1327
10-Feb-2004	6487	6675	1654	1699
11-Feb-2004	6237	6673	1478	1519
12-Feb-2004	4261	6257	1321	1358
13-Feb-2004	6113	6247	1480	1522
14-Feb-2004	5866	6264	1480	1513
15-Feb-2004	6113	6263	1388	1420
16-Feb-2004	6113	6263	1410	1449
17-Feb-2004	6113	6511	1550	1584
18-Feb-2004	6113	6231	1650	1657
19-Feb-2004	6360	6522	1515	1553
20-Feb-2004	6113	6575	1473	1514
21-Feb-2004	6113	6436	1473	1530
22-Feb-2004	6113	6227	1473	1488
23-Feb-2004	6360	6495	1533	1651
24-Feb-2004	6360	6877	1641	1736
25-Feb-2004	6484	6648	1747	1800
26-Feb-2004	7287	7474	1790	1853
27-Feb-2004	6546	7002	1851	1809
28-Feb-2004	6669	6843	2179	2233
29-Feb-2004	6669	6823	1652	1696
Total MU	178.563	187.697	42.483	43.503
Max. MWH	7287	7474	2179	2233
Min MWH	4261	4699	1094	1120
Avg. MWH	6157	6472	1465	1500

X. Daily Generation Details of State Sector Stations

(All Figs In MUs)

Date	Punjab(T)	Punjab(H)	Haryana(T)	Haryana(H)	Rajasthan(T)	Rajasthan(H)	UP (T)	UP (H)	Uttaranchal(H)	Delhi	HP+BASPA	J & K	Total
01	33.35	6.22	17.41	0.52	48.07	3.93	52.78	6.34	5.46	17.09	2.84	2.24	196.25
02	33.45	6.80	17.36	0.55	51.41	3.78	53.88	6.08	5.79	17.18	2.84	2.15	201.27
03	36.80	6.54	17.41	0.53	48.78	3.90	52.47	5.74	5.99	17.06	2.72	2.17	200.12
04	33.05	7.71	18.11	0.51	43.14	3.67	50.77	6.08	6.05	16.87	2.66	1.81	190.45
05	31.97	7.88	18.78	0.52	42.40	3.39	50.16	6.12	5.81	15.11	2.76	1.96	186.85
06	33.53	8.01	18.25	0.51	43.58	3.63	44.56	6.61	6.55	15.41	2.54	1.81	184.99
07	33.72	8.25	17.96	0.52	43.95	3.46	48.26	6.49	6.95	16.18	2.57	1.90	190.21
08	34.06	7.64	18.65	0.52	42.66	3.91	53.67	6.84	6.77	15.32	2.53	1.78	194.36
09	32.55	7.29	19.67	0.49	41.74	3.92	56.47	6.68	6.87	15.11	2.58	1.85	195.23
10	32.30	6.82	18.33	0.48	43.45	1.88	53.97	6.20	7.11	15.09	2.77	2.00	190.38
11	33.44	7.68	17.82	0.54	43.14	1.02	51.03	6.68	7.28	15.18	2.62	1.98	188.41
12	33.44	7.68	17.82	0.54	43.14	1.02	51.03	6.68	7.28	15.43	2.72	1.91	188.69
13	33.77	8.04	18.33	0.54	43.07	1.02	52.41	7.28	8.66	15.34	2.67	1.95	193.09
14	35.83	9.04	17.65	0.47	43.53	1.07	50.29	6.93	7.09	14.73	2.60	1.99	191.23
15	33.32	8.16	16.39	0.51	43.36	0.99	53.10	7.17	7.03	12.56	2.60	1.93	187.10
16	33.60	9.32	17.02	0.55	43.41	1.03	55.84	6.29	7.29	16.51	2.52	2.02	195.40
17	31.63	10.47	16.21	0.55	43.09	1.00	57.02	5.50	6.99	16.31	2.30	2.07	193.13
18	29.21	9.30	18.01	0.12	42.47	1.01	58.07	5.76	7.08	15.86	2.25	1.98	191.11
19	33.15	7.91	15.46	0.00	44.15	0.99	57.44	5.46	7.26	15.28	2.62	1.87	191.57
20	34.00	9.51	18.36	0.00	46.24	1.05	57.95	3.78	6.17	16.94	2.69	2.06	198.75
21	37.74	8.00	17.81	0.00	48.77	0.83	58.21	3.91	5.44	17.21	2.73	2.01	202.65
22	37.74	8.00	17.81	0.00	48.77	0.83	58.21	3.91	5.44	17.32	2.68	2.10	202.80
23	38.47	8.28	18.19	0.00	48.48	1.05	57.79	3.92	6.29	17.26	2.78	2.08	204.58
24	38.58	7.25	18.12	0.00	49.14	1.19	55.00	4.81	5.96	17.06	2.86	2.09	202.08
25	38.50	6.72	16.25	0.00	49.31	1.07	55.26	5.23	6.06	15.87	3.02	2.10	199.38
26	38.58	5.75	15.78	0.00	49.19	1.05	51.47	5.23	6.27	15.04	2.99	2.14	193.49
27	38.51	5.68	15.34	0.00	48.86	0.96	46.38	5.55	6.33	15.72	2.95	1.96	188.23
28	39.41	5.42	16.19	0.00	48.89	1.12	45.38	5.62	6.17	15.80	2.89	1.96	188.85
29	38.30	4.71	18.34	0.00	46.99	1.08	44.62	5.03	5.73	14.87	2.77	2.08	184.52
Maximum	39.41	10.47	19.67	0.55	51.41	3.93	58.21	7.28	8.66	17.32	3.02	2.24	204.58
Minimum	29.21	4.71	15.34	0.00	41.74	0.83	44.56	3.78	5.44	12.56	2.25	1.78	184.52
Average	34.89	7.59	17.55	0.31	45.63	1.89	52.88	5.79	6.52	15.89	2.69	2.00	193.63
Month Total	1011.95	220.06	508.82	8.98	1323.22	54.83	1533.49	167.93	189.16	460.72	78.09	57.94	5615.18

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during Feb, 2004 (Ex Bus MU)	Cummulative from 01.04.2003 (Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	436.74	4538.61
(b)	Singrauli STPS	2000.00	1079.30	13317.52
(c)	Rihand STPS	1000.00	637.6	6637.61
(d)	Dadri NCTPS	840.00	522.18	5200.44
(e)	Unchahar-I TPS	420.00	265.53	2635.62
(f)	Unchahar-II TPS	420.00	266.05	2674.42
(g)	Tanda TPS	440.00	242.23	2339.94
(h)	Anta GPS	419.33	227.94	2441.32
(i)	Auraiya GPS	663.36	352.77	3835.44
(j)	Dadri GPS	829.78	342.48	4488.14
(k)	Faridabad GPS	431.57	226.88	2463.30
	Total NTPC	8169.04	4599.69	50572.36
B	NHPC			
(a)	Bairasiul	180.00	35.05	617.04
(b)	Salal	690.00	149.96	3287.38
(c)	Tanakpur HPS	94.20	17.86	490.24
(d)	Chamera HPS	540.00	74.51	2334.53
(e)	Uri HPS	480.00	210.63	2531.90
(f)	Chamera2 HPS	300.00	43.50	112.20
	Total NHPC	2284.20	531.51	9373.29
C	Nathpa-Jhakri	500.00	187.70	953.23
D	NPC			
(a)	RAPS -A	300.00	81.81	1000.88
(b)	RAPS -B	440.00	236.99	2393.15
(c)	NAPS	440.00	227.24	2451.35
	Total NPC	1180.00	546.04	5845.38
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	432.03	6411.84
(b)	Dehar	990.00	102.65	3034.99
(c)	Pong	390.00	75.78	1007.68
	Total BBMB	2870.15	610.46	10454.51
3	DELHI			
(a)	Indra Prastha	247.50	79.24	595.80
(b)	Rajghat	149.00	65.90	612.73
(c)	Gas Turbines	282.00	101.74	1084.86
(d)	Pragati Gas	330.00	213.99	2123.14
	Total DELHI	1008.50	460.87	4416.52
4	HARYANA			
(a)	WYC	48.00	9.08	248.35
(b)	Faridabad (New)	165.00	67.86	609.59
(c)	Panipat	860.00	502.12	4836.66
(d)	Magnum Diesel(IPP)	25.20	0.00	26.32
	Total Haryana	1098.20	579.06	5720.92

contd/-

5	HP			
(a)	Giri	60.00	10.63	161.06
(b)	Bassi	60.00	9.22	293.85
(c)	Binwa	6.00	2.54	30.85
(d)	Rongtong	15.25	1.56	21.00
	(+Nogli+Micro+Thirot+Sal-2)			
(e)	Andhra	16.95	2.18	66.16
(f)	Bhabha (H)	120.00	15.67	551.10
(g)	Baner (H)	12.00	2.52	36.89
(h)	Gaj (H)	10.50	3.36	44.03
(i)	Gumma	3.00	0.33	14.22
(j)	Ghanvi	22.50	1.86	62.11
(k)	Malana (IPP)	86.00	21.05	351.41
(l)	Baspa (IPP)	300.00	282.71	1916.98
	Total HP	712.20	353.63	3549.66
6	J & K			
(a)	Lower Jhelum	105.00	34.14	449.71
(b)	Upper Sindh	127.60	14.88	234.11
(c)	Ganderbal	15.00	2.23	21.85
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	5.95	62.40
(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	0.27	1.77
(k)	Pampore GT St - II	100.00	0.49	15.12
	Total J & K	493.87	57.94	784.95
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	12.63	521.75
(b)	UBDC	90.00	24.54	354.93
(c)	Mukerian	207.00	110.09	917.91
(d)	Anandpur Sahib (APS)	134.00	54.41	747.80
(e)	Ranjit Sagar HPS	600.00	57.62	1503.58
(f)	Small Hydel	4.10	0.76	4.49
(g)	GNDTPS (Bhatinda)	440.00	201.86	2110.52
(h)	GGSTPS (Ropar)	1260.00	692.21	6910.58
(i)	Jhalkeri	10.00	1.76	9.00
	Peda & Sugarmill		12.96	0.00
(j)	Lehra Mohabbat TPS	420.00	277.43	2807.20
	Total Punjab	3275.10	1446.26	15887.76
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	23.36	158.27
(b)	Rana Pratap Sagar (RPS)	172.00	50.27	230.36
(c)	Jawahar Sagar (JS)	99.00	37.36	196.58
(d)	ACW	9.00	1.17	7.00
(e)	MMH	14.85	1.29	11.31
(f)	Kota TPS	1045.00	614.55	5679.72
(g)	RAMGARH GT	3.00		
(h)	RAMGARH GT EXT	35.50	17.24	200.21
(i)	Suratgarh TPS	1250.00	808.43	6716.85
(j)	Wind Farm	14.01	1.13	97.84
(k)	Others (KPTL bio-mass)		2.27	16.17
	Total Rajasthan	2782.36	1557.06	13314.31

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	113.15	1015.18
(b)	Obra	99.00	43.40	403.33
(c)	Matatilla	30.00	4.35	109.55
(d)	Ganga Canal	10.70	0.00	0.00
(e)	Small hydro	18.20	0.00	0.00
(f)	Khara	72.00	16.97	371.25
	Total U.P. (Hydro)	529.90	177.87	1899.32
	<u>THERMAL</u>			
(e)	Obra	1442.00	471.85	5171.57
(f)	Panki	242.00	99.46	847.09
(g)	Harduaganj	375.00	66.11	570.83
(h)	Paricha	220.00	65.85	488.67
(i)	Anpara	1630.00	1024.82	9561.95
	Total U.P. (Thermal)	3909.00	1728.10	16640.11
	Total U.P.	4438.90	1905.97	18539.43
10	UTTRANCHAL			
(a)	Khatima	41.40	10.01	163.08
(b)	Ramganga	198.00	24.15	143.04
(c)	Ganga Canal	32.70	10.85	119.17
(d)	Yamuna (I & IV)	114.75	23.59	522.50
(e)	Chibro	240.00	30.56	788.66
(f)	Khodri	120.00	15.31	370.13
(g)	Chilla	144.00	30.23	663.64
(h)	Maneri Bhali	90.00	27.37	458.83
	Total Uttranchal	980.85	172.05	3229.04
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	29794.77	13008.25	142641.35

Notes : 1. The ex-bus generations are either actual values or based on the following assumptions in respect of auxiliary consumption

-----Hydro and diesel/gas power stations in open cycle-----1.0%

-----Gas power stations in combined cycle-----3.0%

-----Coal fired power stations

IP ----12% Rajghat---11% Faridabad---13.5% Suratgarh-----10.0%

Panipat---12.0% RTP---7.5% GNDTP---10.5% Tanda---12.5%

Lehra Mohabbat---10.5% KTPS---10% UP---12.5%

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

FROM / TO	PUNJAB	HARYANA	RAJASTHAN	DELHI	UP	UTTARANCHAL	HP	J & K	CHANDIGARH
PUNJAB	-	-	-	13900 *	-	-	-	-	-
HARYANA	-	-	-	54950 **	-	-	-	-	-
RAJASTHAN	-	-	-	63350 ** 19800***	-	-	-	-	4260 *
DELHI	-	-	-	-	-	-	-	-	-
UP	-	-	-	-	-	-	-	-	-
UTTARANCHAL	27490 ***	-	-	-	-	-	-	-	-
HP	35021 ***	-	-	6615 *	-	-	-	-	-
J & K	27475 ***	-	-	25100 *	-	-	-	-	-
CHANDIGARH	-	-	-	-	-	-	-	-	-

* Through PTC

** Through Mutual

*** Through Banking

REMARKS : Figures are provisional and indicative only.

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

FROM / TO	GRIDCO	MP	WBPCL	DVC	APTRCO	CSEB	GEB	GOA	KEB
PUNJAB	-	-	-	-	-		-	-	
HARYANA	-	-	-	-			-	-	
RAJASTHAN	-	-	15688 *	30609 * 4313 * (SR)			-	-	
DELHI	200 * 15200 ***	-35400 *	32550 *	3900 *	4048 * (SR)	--	-18925 *	9921 **	-13066 *
	1207 * (SR)								
UTTRANCHAL	-	-	-	-	-	-	-	-	
J & K	-	-	41299 * 23 * (WR)	413 *	-	-	-	-	
CHANDIGARH	146 *** (SR)								

* 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 February 2004 (Sheet 1 of 2)

1 OF 2

Date	With WR Over Vindhyachal HVDC B/B {Export (-)/Import(+)}							With WR Over Auraiya - Malanpur {Export(-)/Import(+)}						
	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net (MU)	Peak MW	Off Peak MW	Max Import	Max Export	Energy Import	Energy Export	Net (MU)
01	100	-250	300	250	2.16	1.30	0.86	-51	-48	0	55	0.00	1.16	-1.16
02	50	-250	300	250	2.01	1.29	0.72	-51	-48	0	55	0.00	1.16	-1.16
03	100	-250	300	250	1.29	1.56	-0.27	-51	-48	0	55	0.00	1.18	-1.18
04	0	-250	350	250	2.10	1.41	0.69	-35	-35	0	48	0.00	1.11	-1.11
05	0	-250	350	250	1.84	1.36	0.48	-50	-45	0	50	0.00	1.10	-1.10
06	0	-250	250	250	1.17	1.24	-0.07	-55	-50	0	55	0.00	1.21	-1.21
07	0	-250	250	250	1.26	1.16	0.10	-52	-48	0	55	0.00	1.25	-1.25
08	0	0	150	0	1.17	0.00	1.17	-51	-48	0	54	0.00	1.38	-1.38
09	0	-250	237	250	1.60	1.20	0.40	-51	-48	0	54	0.00	1.37	-1.37
10	0	-250	200	350	1.44	1.64	-0.20	-51	-48	0	54	0.00	1.52	-1.52
11	0	-250	200	250	1.95	1.37	0.58	-53	-50	0	53	0.00	1.43	-1.43
12	0	-200	200	250	0.70	1.38	-0.68	-52	-49	0	55	0.00	1.47	-1.47
13	0	-300	97	300	0.32	1.90	-1.58	-51	-50	0	54	0.00	0.99	-0.99
14	0	-250	150	250	0.60	1.33	-0.73	-55	-52	0	56	0.00	1.37	-1.37
15	0	-150	150	150	0.64	0.64	0.00	-54	-52	0	65	0.00	1.51	-1.51
16	0	-200	100	200	0.32	1.12	-0.80	-55	-52	0	70	0.00	1.42	-1.42
17	100	-250	200	250	0.98	1.36	-0.38	-55	-52	0	70	0.00	1.47	-1.47
18	0	-350	50	350	0.36	1.73	-1.37	-55	-52	0	70	0.00	1.51	-1.51
19	0	-300	100	300	0.51	1.74	-1.23	-43	-56	0	62	0.00	1.50	-1.50
20	0	-350	150	400	0.61	2.03	-1.42	-42	-54	0	61	0.00	0.99	-0.99
21	0	-300	50	300	0.40	1.84	-1.44	-55	-50	0	55	0.00	1.49	-1.49
22	0	-300	50	300	0.22	2.18	-1.96	-55	-50	0	55	0.00	1.46	-1.46
23	0	-300	50	300	0.37	2.20	-1.83	-72	-75	0	80	0.00	1.59	-1.59
24	0	-300	50	350	0.32	1.94	-1.62	-50	-75	0	75	0.00	1.52	-1.52
25	0	-450	50	450	0.45	2.60	-2.15	-50	-75	0	75	0.00	1.37	-1.37
26	0	-400	50	450	0.24	3.08	-2.84	-50	-75	0	75	0.00	1.41	-1.41
27	0	-350	100	350	0.32	2.07	-1.75	-48	-63	0	-66	0.00	1.45	-1.45
28	50	-300	50	300	0.37	1.71	-1.34	-49	-50	0	65	0.00	1.44	-1.44
29	-150	-300	0	300	0.00	3.90	-3.90	-55	-52	0	60	0.00	1.56	-1.56
Maximum	100	0	350	450	2.16	3.90	1.17	-35	-35	0	80	0.00	1.59	-0.99
Minimum	-150	-450	0	0	0.00	0.00	-3.90	-72	-75	0	-66	0.00	0.99	-1.59
Average	9	-271	156	281	0.89	1.67	-0.78	-52	-53	0	56	0.00	1.36	-1.36
Total					25.73	48.30	-22.57					0.00	39.39	-39.39

XIV. Inter Regional Exchanges During February 2004 (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	-100	-80	0	100	0.00	1.92	-1.92	328	263	500	0	9.03	0.00	-9.03
02	-100	-80	0	100	0.00	1.69	-1.69	329	277	500	0	9.71	0.00	-9.71
03	-100	-80	0	100	0.00	1.83	-1.83	450	282	482	0	9.60	0.00	-9.60
04	-90	-70	0	100	0.00	1.87	-1.87	332	331	481	0	9.70	0.00	-9.70
05	-90	-80	0	90	0.00	1.89	-1.89	332	281	482	0	9.58	0.00	-9.58
06	-90	-80	0	90	0.00	1.88	-1.88	332	500	500	0	10.05	0.00	-10.05
07	-100	-70	0	100	0.00	1.92	-1.92	282	331	500	0	9.48	0.00	-9.48
08	-90	-70	0	100	0.00	1.99	-1.99	282	331	500	0	10.15	0.00	-10.15
09	-90	-70	0	100	0.00	1.72	-1.72	281	481	481	0	10.26	0.00	-10.26
10	-90	-70	0	100	0.00	1.91	-1.91	282	357	457	0	9.02	0.00	-9.02
11	-90	-70	0	98	0.00	1.76	-1.76	332	356	456	0	9.35	0.00	-9.35
12	-90	-60	0	100	0.00	1.83	-1.83	277	377	451	0	8.89	0.00	-8.89
13	-89	-65	0	102	0.00	1.90	-1.90	281	377	500	0	9.69	0.00	-9.69
14	-90	-65	0	101	0.00	1.84	-1.84	280	381	500	0	9.27	0.00	-9.27
15	-90	-65	0	100	0.00	1.85	-1.85	229	300	500	0	8.93	0.00	-8.93
16	-85	-65	0	90	0.00	1.64	-1.64	279	279	479	0	8.67	0.00	-8.67
17	-95	-70	0	100	0.00	1.84	-1.84	275	359	375	0	7.25	0.00	-7.25
18	-95	-70	0	100	0.00	1.81	-1.81	261	354	411	0	6.39	0.00	-6.39
19	-90	-70	0	100	0.00	1.72	-1.72	111	361	361	0	6.03	0.00	-6.03
20	-85	-75	0	95	0.00	1.75	-1.75	111	310	310	0	3.32	0.00	-3.32
21	-75	-65	0	75	0.00	1.76	-1.76	211	360	360	0	5.00	0.00	-5.00
22	-75	-65	0	75	0.00	1.79	-1.79	211	360	360	0	6.72	0.00	-6.72
23	-90	-70	0	90	0.00	1.61	-1.61	110	210	311	0	3.36	0.00	-3.36
24	-80	-75	0	90	0.00	1.75	-1.75	210	260	310	0	5.14	0.00	-5.14
25	-85	-70	0	90	0.00	1.71	-1.71	210	210	410	0	5.11	0.00	-5.11
26	-80	-70	0	90	0.00	1.75	-1.75	210	260	400	0	6.42	0.00	-6.42
27	-75	-70	0	90	0.00	1.74	-1.74	208	300	458	0	6.79	0.00	-6.79
28	-80	-60	0	90	0.00	1.72	-1.72	208	407	457	0	6.65	0.00	-6.65
29	-90	-70	0	90	0.00	1.76	-1.76	362	428	450	0	9.63	0.00	-9.63
Maximum	-75	-60	0	102	0.00	1.99	-1.61	450	500	500	0	10.26	0.00	-3.32
Minimum	-100	-80	0	75	0.00	1.61	-1.99	110	210	310	0	3.32	0.00	-10.26
Average	-89	-70	0	95	0.00	1.80	-1.80	262	334	439	0	7.90	0.00	-7.90
Total					0.00	52.13	-52.13					229.19	0.00	-229.19

XV. Progress Of Installation Of Shunt Capacitors As On 31.01.2004**(ALL FIGS IN MVARs)**

CONSTITUENT	REQUIREMENT AT THE END OF Mar-04	CAPACITORS AS ON 31.03.2003	CAPACITORS ADDITION DURING		BALANCE TO BE INSTALLED DURING 2003-04	CAPACITORS INSTALLED AS ON 29.02.2004
		INSTALLED	2002-03	2003 - 04		
Chandigarh	150	92	0	0	58	92
Delhi	3364	2755	122	222	387	2977
Haryana	3435	2685	333	566	184	3251
H.P.	347	278	73	17	52	295
J & K	892	147	0	0	745	147
Punjab	4874	4706	76	15	153	4721
Rajasthan	2863	2698	221	213	-48	2911
U.P.	5495	4965	274	106	424	5071
Uttaranchal	344	123	0	2	219	125
BBMB	381	381	0	0	0	381
TOTAL	22145	18830	1099	1141	2174	19971

SOURCE: Minutes of 350th OCC meeting of NREB held on 19th March, 2004.

XVI. Hydraulic Data For Reservoirs During February 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 February 2004 (m)	477.02 1565.04	404.58 1327.37	259.08 850.00	344.74 1131.04	381.27 1250.88
Level on last day of February 2003 (m)	469.88 1541.61	400.14 1312.79	260.02 853.10	347.11 1138.80	379.62 1245.48
Live Capacity as on (mhmt) last day of February 2004 (maft)	0.22 1.82	0.25 2.02	0.19 1.50	0.02 0.16	0.00 0.01
Live Capacity as on (mhmt) last day of february 2003(maft)	0.17 1.35	0.17 1.40	0.22 1.80	0.06 0.48	0.00 0.00
Energy content as on last day of February 2004 (MU)	790.00	295.00	320.00	37.00	10.00
Energy content as on last day of February 2003 (MU)	610.00	250.00	425.00	97.00	0.00
Maximum level (m) (ft) (date)	485.15 1591.70 01.02.2004	406.12 1332.43 03.02.2004	260.85 855.80 01.02.2004	344.74 1131.04 29.02.2004	382.55 1255.07 01.02.2004
Minimum level (m) (ft) (date)	477.02 1565.04 29.02.2004	404.58 1327.37 29.02.2004	259.08 850.00 29.21.2004	344.58 1130.51 01.02.2004	381.27 1250.88 29.02.2004

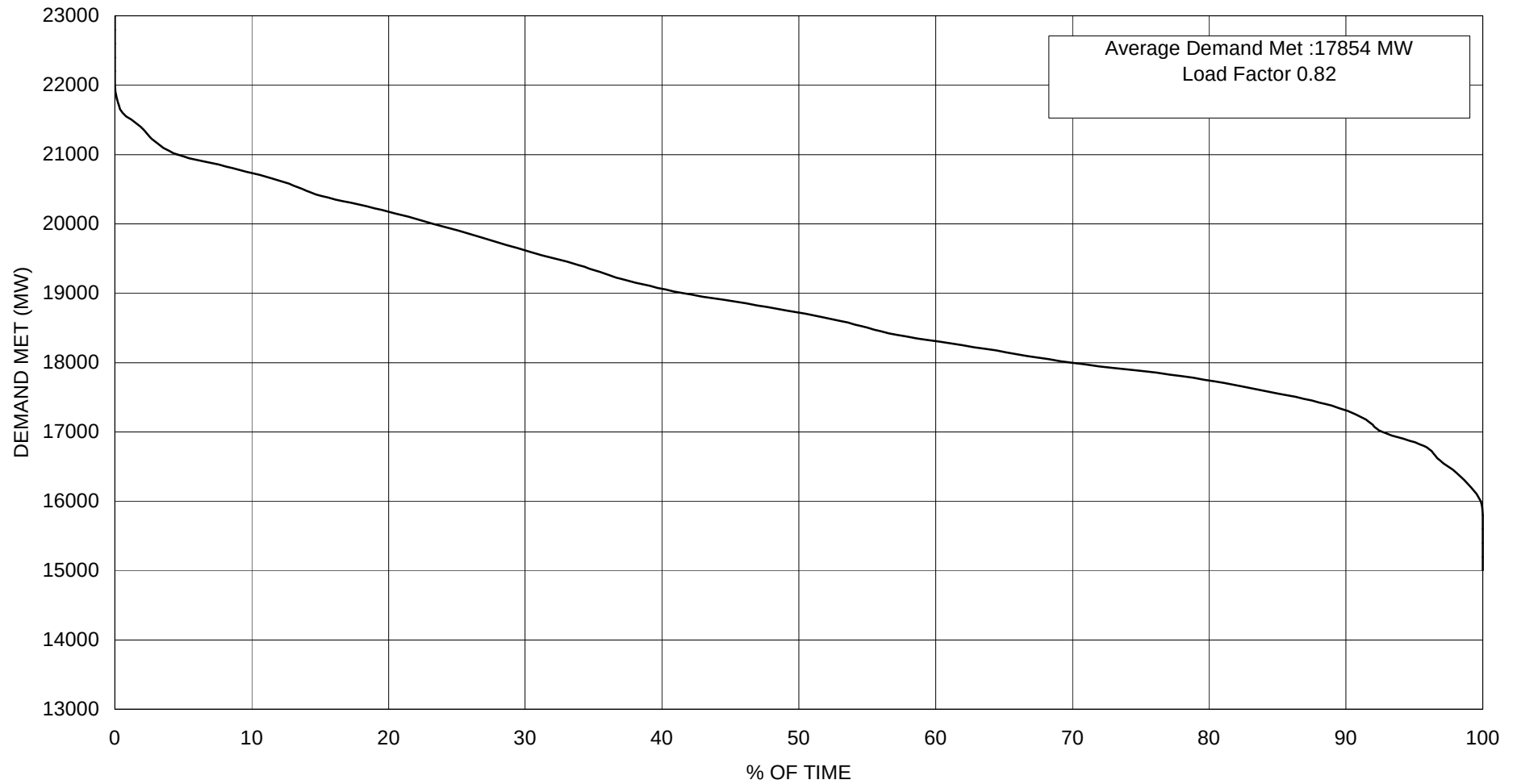
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

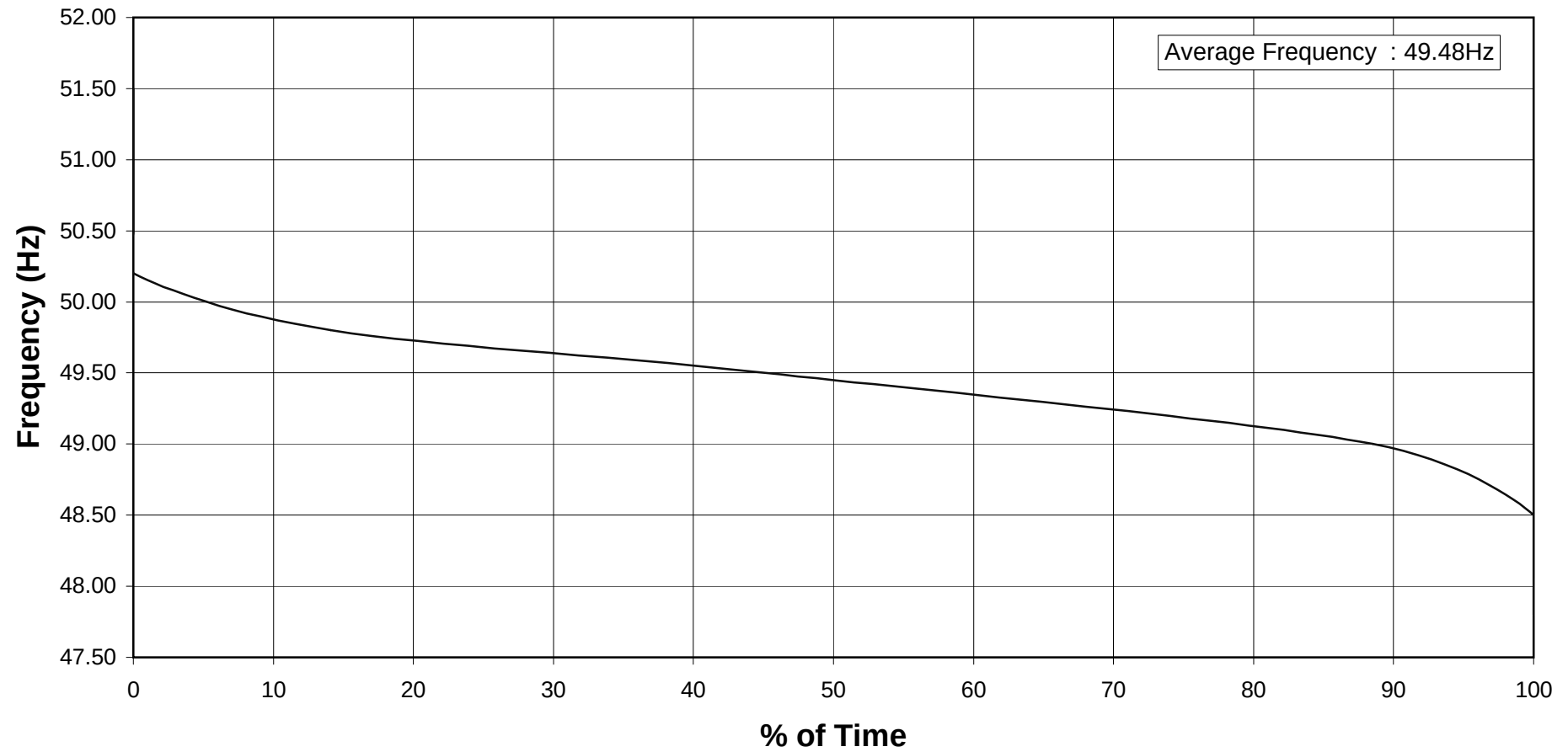
Energy content of Rihand : Total Energy content at Rihand & Obra power stations

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

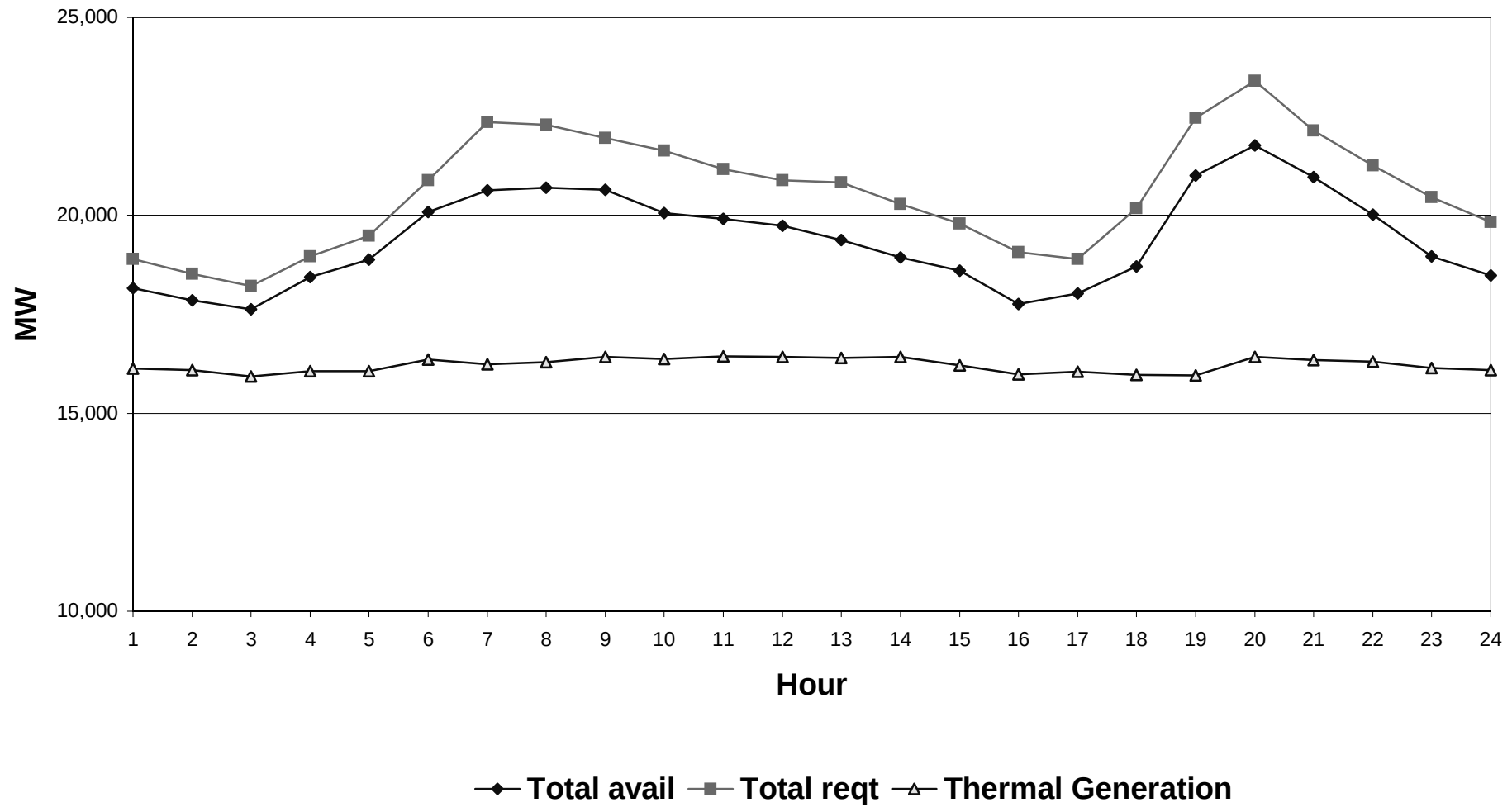
Energy Content of G. Sagar : Total Energy content at Gandhi Sagar, RP Sagar and Jawahar Sagar Power Stations.

Load Duration Curve For Northern Region For February 2004

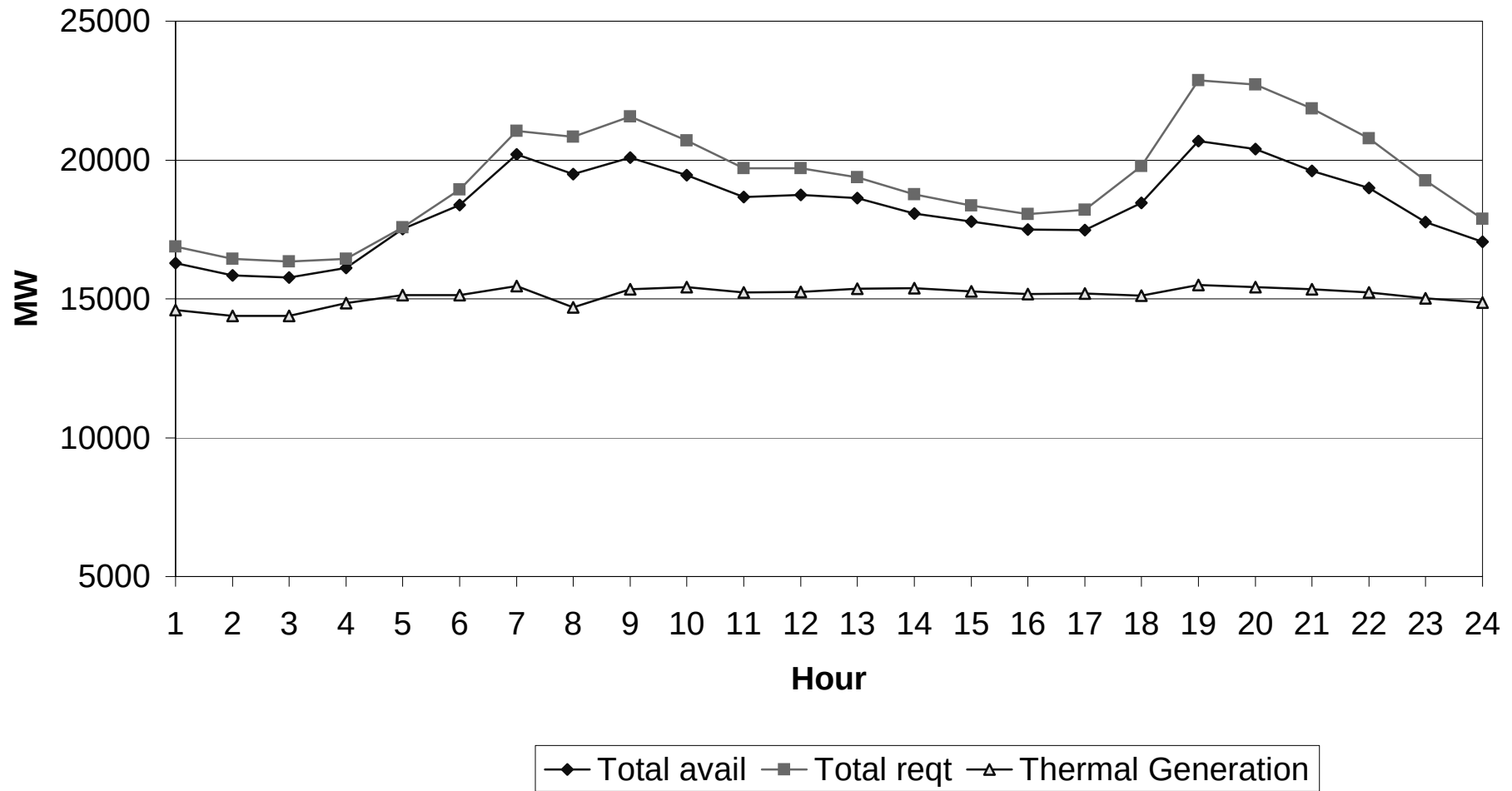


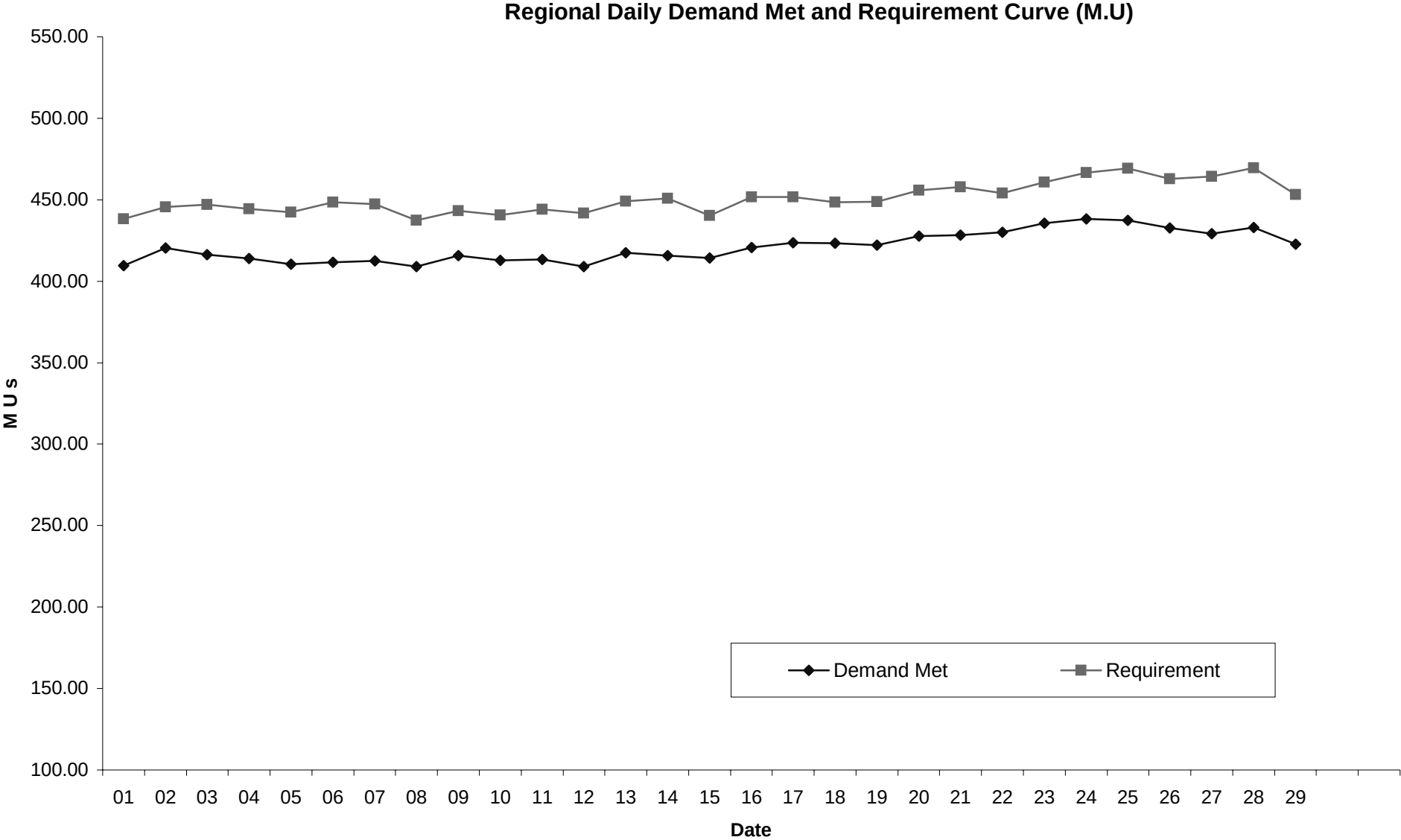
Frequency Duration Curve For Northern Region For February 2004

Load Curve Of Northern Region For Maximum Demand Met Day (24th February 2004)



Load Curve Of Northern Region For Minimum Demand Met Day (2nd February 2004)





Grid Incident during February 2004

DATE	TIME	INCIDENT
18.02.2004		220 kV Kishanpur-Pampore D/C tripped. This resulted in tripping of Uri generating units due to load mismatch. The system was normalised within half an hour.
20.02.2004		220 kV Kishanpur-Pampore D/C tripped. This resulted in tripping of Uri generating units due to load mismatch. The system was normalised within half an hour.
27.02.2004		At Salal, due to bus fault all lines emanating from Salal tripped except 220 kV Sala-Kishanpur-I and sala-Jammu-I. This resulted in tripping of salal units. At the same time 220 kV Kishanpur-Pampore D/C tripped resulting in tripping of 400 kV uri-Wagoora lines and Uri machines. The system was normalised within one hour.