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NORTHERN REGION GRID REPORT FOR THE MONTH OF DECEMBER 2004

A) Summary Report

Grid Overview during the Month

1.

In the month of December 2004 the Power supply in the region was satisfactory . The average energy and peak MW shortages were 12.36% and 9.34%. The average system frequency was 49.42 Hz and frequency remained in normal band i.e. between 49.00 & 50.50 for 83.98 % of time . The average frequency variation index during the month was 4.94 and standard deviation was 0.39 . The maximum regional availability during the month was 22895 MW . The average demand met was 18948 MW and 418.46 MU in terms of energy . The maximum requirement was 25254 MW and average requirement was 477.48 MU in terms of energy.

There was a considerable improvement in voltage profile on most of the 400 KV/220KV buses during this month .

.There was no major grid incident during the month . However there was a minor incident which is reported at annexure-6.

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

NIL

3. Monthly Frequency Profile :

Maximum frequency	50.59	Hz	at	17.03	hours on	02.12.2004
Minimum frequency	48.53	Hz	at	18.11	hours on	07.12.2004
				18.10	hours on	08.12.2004
Average frequency	49.42	Hz				

Frequency distribution in %

Hz	< 48.50	<49.00	49.00-50.50	> 50.50
% of time	0.00	16.02	83.98	0.01

Monthly Frequency Variation Index	4.94
Maximum	8.08
Minimum	2.12

4. Power Supply Position :

a. Average Energy/day (Net)

State / U.T.	Demand met MU/Day	Requirement MU/Day	Shortage MU/Day	Shortage %
Punjab	66.73	74.63	7.91	10.59
Haryana	53.33	58.06	4.73	8.15
Rajasthan	88.85	91.60	2.76	3.01
U.P.	111.35	144.15	32.81	22.76
Uttanchal	12.45	13.13	0.68	5.18
Delhi	49.62	50.16	0.54	1.07
H.P.	11.02	11.62	0.60	5.15
J & K *	20.71	29.71	9.00	30.30
Chandigarh	2.76	2.76	0.00	0.00
N.F.F./Rail	1.66	1.66	0.00	0.00
Total	418.46	477.48	59.01	12.36

b. Peak MW

State / U.T.	MAX. Demand met MW	MAX. Requirement MW	Shortage MW	Shortage %
	A	B	C	(C/B)*100
Punjab	3817	3860	43	1.11
Haryana	3239	3446	207	6.01
Rajasthan	4463	4666	203	4.35
U.P.	5640	7340	1700	23.16
Uttanchal	767	856	89	10.40
Delhi	3064	3168	104	3.28
H.P.	637	687	50	7.28
J & K *	1189	1350	161	11.93
Chandigarh	171	171	0	0.00
N.F.F./Rail	70	70	0	0.00
Region	22895	25254	2359	9.34
Diversity Factor = 1.05				

* Approximate and Estimated

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

(All figs in M.U)

State / U.T.	Schedule	Actual	OD(+)/UD(-)
Punjab	730.52	697.96	-32.55
Haryana	687.48	740.73	53.25
Rajasthan	895.71	987.94	92.22
U.P.	1757.27	1712.22	-45.05
Uttranchal	210.15	217.50	7.35
Delhi	781.23	601.37	-179.86
H.P.	247.22	255.78	8.57
J & K	446.38	605.33	158.95
Chandigarh	102.12	89.17	-12.94
N.F.F./Rail	63.05	51.37	-11.68

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

	Energy M.U.	Peak MW
a) From WR over HVDC Vindhyachal B/B	81.61	450
b) From WR over 220 kV Ujjain-Kota	0.00	0
c) From ER over HVDC Sasaram B/B	244.556	500
d) From ER over 220 kV Pusauli-Sahupuri	88.26	186

Export

	Energy M.U.	Peak MW
e) To WR over HVDC Vindhyachal B/B	2.02	350
f) To WR (MP) over 220 kV Auraiya-Malanpur	0.00	0
g) To WR(MP) over 220 kV Kota-Ujjain	0.00	0
h) To ER over 220 kV/132kV lines	0.20	30
i) To ER over HVDC Sasaram B/B	0.00	0
j) To Nepal over 132 kV Tanakpur-Mahendernagar	2.72	30

B). Detailed Report**I. Details of Installed/Effective Capacity at the end of December 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+2x7.2	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 Generating stations located in the neighbouring states. 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 31.12.2004

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 in various frequency bands								
	< 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	17.15	66.88	82.85	3.68	0.00	0.00	0.00
02	0.00	0.00	4.27	37.29	95.63	29.13	0.10	0.00	0.00
03	0.00	0.00	12.01	57.24	87.99	11.70	0.00	0.00	0.00
04	0.00	0.00	15.43	63.99	84.57	5.18	0.00	0.00	0.00
05	0.00	0.00	6.81	42.58	93.19	18.69	0.00	0.00	0.00
06	0.00	0.00	7.75	40.57	92.25	16.08	0.00	0.00	0.00
07	0.00	0.00	7.01	52.40	92.99	16.91	0.00	0.00	0.00
08	0.00	0.00	28.61	73.37	71.39	1.22	0.00	0.00	0.00
09	0.00	0.00	27.34	75.86	72.66	1.91	0.00	0.00	0.00
10	0.00	0.00	30.60	77.19	69.40	1.96	0.00	0.00	0.00
11	0.00	0.00	26.46	68.65	73.54	1.53	0.00	0.00	0.00
12	0.00	0.00	7.50	51.15	92.50	13.09	0.00	0.00	0.00
13	0.00	0.00	18.44	62.99	81.56	14.41	0.00	0.00	0.00
14	0.00	0.00	28.01	80.75	71.99	0.33	0.00	0.00	0.00
15	0.00	0.00	36.24	80.93	63.76	0.51	0.00	0.00	0.00
16	0.00	0.00	21.35	67.62	78.65	1.80	0.00	0.00	0.00
17	0.00	0.00	27.18	72.02	72.82	2.74	0.00	0.00	0.00
18	0.00	0.00	11.44	58.76	88.56	2.79	0.00	0.00	0.00
19	0.00	0.00	2.50	34.22	97.50	21.66	0.00	0.00	0.00
20	0.00	0.00	9.03	44.41	90.97	25.24	0.00	0.00	0.00
21	0.00	0.00	21.50	70.68	78.50	0.42	0.00	0.00	0.00
22	0.00	0.00	6.56	54.24	93.44	3.61	0.00	0.00	0.00
23	0.00	0.00	20.69	67.91	79.31	5.21	0.00	0.00	0.00
24	0.00	0.00	10.10	59.81	89.90	9.58	0.00	0.00	0.00
25	0.00	0.00	11.09	55.93	88.91	9.77	0.00	0.00	0.00
26	0.00	0.00	2.88	44.62	97.12	6.22	0.00	0.00	0.00
27	0.00	0.00	18.27	55.50	81.73	5.76	0.00	0.00	0.00
28	0.00	0.00	21.86	80.68	78.14	0.59	0.00	0.00	0.00
29	0.00	0.00	15.25	80.83	84.75	0.56	0.00	0.00	0.00
30	0.00	0.00	23.17	82.05	76.83	2.16	0.00	0.00	0.00
31	0.00	0.00	12.01	51.60	87.92	8.19	0.07	0.00	0.00
Max	0.00	0.00	36.24	82.05	97.50	29.13	0.10	0.00	0.00
Min	0.00	0.00	2.50	34.22	63.76	0.33	0.00	0.00	0.00
Average	0.00	0.00	16.02	60.63	83.98	8.26	0.01	0.00	0.00

Frequency (Hz)				Average Frequency Hz	Frequency Variation Index
Maximum		Minimum			
Freq	Time	Freq	Time		
50.39	17:04	48.55	18:08	49.35	5.44
50.59	17:03	48.57	7:19	49.67	2.70
50.24	17:07	48.58	11:20	49.46	4.37
50.18	1:13	48.56	17:27	49.39	5.05
50.45	21:58	48.66	8:46	49.61	2.97
50.40	17:02	48.59	6:20	49.59	3.11
50.23	3:35	48.53	18:11	49.54	3.50
50.23	17:35	48.53	18:10	49.26	6.81
50.28	6:05	48.54	7:17	49.26	6.76
50.28	5:34	48.53	9:03	49.23	7.29
50.29	7:08	48.55	20:51	49.29	6.41
50.37	17:16	48.55	11:04	49.51	3.77
50.34	2:09	48.55	18:07	49.41	5.31
50.08	21:32	48.56	6:37	49.21	7.20
50.14	17:03	48.53	19:45	49.17	8.08
50.17	22:51	48.53	6:55	49.32	5.90
50.28	17:02	48.54	6:36	49.28	6.58
50.26	20:12	48.56	10:01	49.43	4.47
50.42	21:56	48.60	9:06	49.69	2.12
50.42	2:06	48.56	18:12	49.61	3.66
50.10	18:34	48.53	5:45	49.29	6.16
50.27	4:10	48.66	7:43	49.48	3.67
50.40	5:05	48.59	8:34	49.34	5.69
50.39	5:03	48.55	20:18	49.46	4.22
50.30	5:03	48.60	10:00	49.47	4.17
50.26	05:19	48.71	09:03	49.55	2.81
50.30	5:02	48.55	17:42	49.42	4.92
50.24	5:05	48.54	18:12	49.26	6.51
50.08	17:48	48.58	20:19	49.28	5.87
50.33	7:02	48.54	18:25	49.25	6.67
50.52	21:59	48.54	8:37	49.49	4.08
50.59		48.71		49.69	8.08
50.08		48.53		49.17	2.12
50.29		48.57		49.40	4.94

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	414	20.59	395	18.06	408	08.45	394	05.21	222	00.00	209	18.06	416	08.46	393	16.34
02	413	00.06	392	10.16	409	17.03	393	15.21	220	00.07	208	14.25	413	01.56	392	16.55
03	413	21.55	390	11.18	411	17.06	392	14.59	220	00.07	208	14.25	415	20.28	392	14.59
04	412	00.45	388	11.17	405	21.54	389	13.40	220	21.55	210	12.09	412	02.24	388	14.06
05	412	21.56	392	12.04	409	16.07	393	12.06	221	21.57	212	12.01	415	02.01	392	05.26
06	414	20.52	392	17.44	409	20.53	392	12.16	220	00.00	211	17.45	417	20.41	389	17.28
07	412	21.45	391	05.40	406	08.03	391	13.53	220	21.46	210	18.09	413	08.02	390	05.41
08	411	19.59	395	06.56	409	17.35	392	11.18	220	21.56	212	10.44	412	03.12	391	16.27
09	414	21.53	393	06.36	409	08.55	390	06.37	220	02.27	211	10.35	414	08.48	393	10.42
10	412	13.01	390	09.43	410	13.01	392	06.48	220	05.08	210	11.00	421	13.01	390	16.15
11	411	02.03	392	10.08	407	07.08	395	13.57	220	01.59	210	10.19	418	17.17	392	10.11
12	410	19.44	394	10.46	409	17.20	394	14.28	221	05.04	214	18.11	415	08.03	396	13.45
13	412	01.13	390	09.33	409	02.08	390	06.58	222	01.05	212	18.06	416	21.56	393	05.44
14	407	23.55	390	18.19	408	11.55	395	15.55	221	23.51	212	18.14	413	12.59	393	18.17
15	410	23.53	385	10.38	407	22.46	388	12.11	221	22.45	210	10.39	415	03.00	398	05.00
16	412	20.52	387	11.17	409	22.00	388	14.15	221	22.45	210	10.39	412	03.00	398	7.00
17	412	21.34	391	11.31	406	21.53	394	13.37	221	02.52	210	11.30	417	02.02	394	04.55
18	412	21.27	390	11.39	408	07.09	396	09.31	220	03.46	209	17.55	420	08.28	396	11.39
19	414	06.58	392	16.14	412	07.01	394	16.11	221	06.54	213	18.14	423	20.16	399	05.55
20	413	21.56	389	05.56	411	18.50	394	14.49	221	03.07	212	18.09	416	00.00	395	14.46
21	410	20.34	389	18.13	408	20.35	397	14.15	220	01.49	209	17.40	416	13.03	392	10.54
22	409	07.04	389	16.43	409	07.04	389	16.43	220	02.37	210	18.23	416	03.34	388	12.36
23	414	21.53	390	16.46	409	21.50	390	18.13	222	21.52	212	17.58	417	04.03	390	16.49
24	412	13.03	394	05.49	407	20.10	390	12.27	221	01.55	213	18.07	417	02.00	395	14.25
25	409	03.12	393	12.18	406	17.03	389	12.18	220	03.29	213	10.00	416	03.16	394	12.21
26	411	21.55	390	15.51	409	06.02	389	11.45	222	21.43	214	18.22	416	08.05	396	11.32
27	408	03.38	384	12.00	408	17.46	388	11.54	221	03.35	211	10.24	416	04.00	390	11.59
28	410	22.22	386	11.38	410	07.13	390	11.38	220	05.05	211	11.38	420	22.33	392	18.17
29	410	22.22	386	11.38	410	07.13	390	11.38	220	05.05	211	11.38	420	22.33	392	18.17
30	408	07.04	386	18.23	408	07.04	388	13.29	221	22.42	210	18.23	419	07.05	395	12.30
31	417	21.58	393	12.39	418	21.53	392	0.34	222	21.58	212	11.57	421	20.56	397	10.32
Max	417		395		418		397		222		214		423		399	
Min	407		384		405		388		220		208		412		388	

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	20842	23906	3064	16942	18153	1211	414.31
02	21899	23877	1978	17268	17698	430	429.06
03	21623	23411	1788	17676	18781	1105	427.07
04	21414	23947	2533	17649	18454	805	433.61
05	21433	23283	1850	17561	18484	923	420.54
06	21633	23617	1984	17125	17952	827	423.95
07	21515	23633	2118	17566	18468	902	429.57
08	21215	23814	2599	17445	18288	843	423.26
09	21343	23813	2470	17300	18337	1037	422.35
10	21373	23685	2312	17397	18127	730	400.81
11	21039	23534	2495	17385	18492	1107	421.74
12	21081	23543	2462	17201	18390	1189	423.52
13	21052	23754	2702	17238	17968	730	421.86
14	21355	24367	3012	17188	18187	999	423.46
15	21603	23778	2175	17399	19584	2185	427.96
16	21587	23662	2075	17474	19659	2185	433.46
17	22076	24306	2230	17191	19966	2775	425.01
18	22122	24480	2358	17259	19617	2358	419.98
19	21715	23394	1679	17312	17906	594	421.38
20	21232	24049	2817	16689	16994	305	422.29
21	21784	24590	2806	17069	17879	810	423.07
22	22152	24590	2438	17251	18161	910	433.19
23	22505	24492	1987	17735	18499	764	442.21
24	22764	25373	2609	18053	18183	130	440.79
25	22484	24280	1796	17891	18191	300	443.58
26	22271	23955	1684	17944	18244	300	439.73
27	22221	24523	2302	17839	18277	438	438.88
28	22161	24655	2494	18053	19013	960	443.47
29	22264	24183	1919	18074	19326	1252	443.79
30	22101	24275	2174	18253	19219	966	443.07
31	21814	24053	2239	16949	17379	430	423.64
Maximum	22764	25373	3064	18253	19966	2775	443.79
Minimum	20842	23283	1679	16689	16994	130	400.81
Average	21731	24027	2295	17464	18448	984	428.41

Note: * Shortage / Restriction figures are as given by the constituents.

VI. Daily Peak/Off-Peak Demand Met By Constituents (Sheet 1 of 2) (figures in MW)

State	Punjab		Haryana		Rajasthan		Delhi		Uttar Pradesh	
Date	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
01	3571	2834	2340	2030	4116	3524	2493	1295	4484	5164
02	3649	2965	2808	2001	4126	3628	2680	1231	4740	4747
03	3551	3107	2766	2171	4160	3584	2725	1272	4818	4975
04	3577	3026	2605	2253	4093	3673	2734	1249	4882	5068
05	3519	2833	2647	2249	4201	3733	2571	1237	4754	4881
06	3595	2865	2703	2155	4205	3603	2699	1194	4637	4837
07	3540	3004	2699	2313	4249	3707	2731	1264	4982	4816
08	3490	2900	2894	2295	4150	3691	2678	1241	4634	4877
09	3493	2812	2865	2360	4220	3803	2763	1253	4625	4666
10	3542	2791	2708	2263	4198	3605	2817	1244	4710	4870
11	3499	2874	2728	2172	4191	3711	2710	1249	4667	4883
12	3470	2526	2676	2286	4253	3696	2573	1275	4655	4906
13	3496	2647	2564	2140	4188	3590	2753	1207	4764	4989
14	3518	2692	2826	2215	3955	3601	2716	1261	4930	4899
15	3471	2711	2873	2223	3859	3570	2755	1310	5184	5011
16	3533	2435	2688	2132	4007	3813	2731	1207	5069	5253
17	3643	2237	2882	2597	4077	3795	2757	1250	5097	5067
18	3658	2574	2966	2289	4177	3595	2766	1232	5122	5260
19	3301	2770	3061	2332	4265	3640	2597	1284	5026	5068
20	3466	2414	2889	2279	3843	3699	2786	1258	4540	5053
21	3690	2629	2953	2316	4076	3576	2815	1285	4540	4749
22	3749	2597	3083	2324	4246	3667	2796	1258	4620	4823
23	3624	2553	3094	2479	4239	3834	2818	1334	5381	5042
24	3713	2600	3108	2352	4316	3839	2912	1343	4997	5388
25	3662	2775	2998	2381	4187	3803	2827	1363	5123	4939
26	3662	2775	2998	2381	4187	3803	2827	1363	5123	4939
27	3617	2707	2934	2292	4154	3730	2494	1336	5410	5395
28	3533	2624	2786	2416	4130	3732	2899	1368	5328	5359
29	3556	2587	2786	2416	4035	3708	2858	1350	5354	5443
30	3670	2563	3512	2460	4121	3790	2823	1297	5173	5532
31	3008	2463	2873	2411	3951	3866	2812	1348	5240	5480
Maximum	3749	3107	3512	2597	4316	3866	2912	1368	5410	5532
Minimum	3008	2237	2340	2001	3843	3524	2493	1194	4540	4666
Average	3551	2706	2849	2290	4135	3697	2739	1279	4938	5044

Remarks: Peak - 1900 hrs offpeak - 0300 hrs

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

State Date	Uttaranchal		Chandigarh		Himachal Pradesh		Jammu & Kashmir	
	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
	687	314	153	71	584	325	955	774
	682	383	150	75	577	341	1015	767
	696	428	161	78	573	337	1001	748
	673	405	157	72	564	343	1055	933
	594	416	136	76	561	325	980	825
	632	511	153	74	569	319	895	854
	630	434	152	74	574	323	933	773
	617	426	160	72	565	349	1085	851
	630	424	157	74	576	351	946	716
	601	383	157	77	565	346	1054	911
	637	388	142	71	573	344	885	867
	631	426	141	72	569	327	1041	816
	628	388	150	71	583	333	983	795
	609	410	152	71	571	338	999	864
	612	407	155	76	564	355	960	789
	634	435	147	75	583	374	1016	880
	670	405	154	75	588	351	1034	804
	667	419	146	74	562	342	882	810
	617	420	133	74	571	334	983	864
	670	423	152	69	577	267	1020	468
	630	416	158	72	594	305	981	782
	644	402	155	76	591	303	1060	861
	698	415	151	73	587	303	996	736
	710	426	152	78	582	329	973	846
	668	424	153	78	550	329	995	893
	668	424	153	78	550	329	995	893
	685	384	154	74	587	335	1016	949
	664	431	157	72	584	325	1061	910
	718	416	157	78	572	327	1011	891
	697	445	156	77	529	336	1049	939
	687	476	161	81	565	331	855	825
Maximum	718	511	161	81	594	374	1085	949
Minimum	594	314	133	69	529	267	855	468
Average	654	416	152	74	572	331	991	827

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	67.887	45.334	88.125	46.990	106.613	12.009	2.664	11.059	19.434	1.704	401.820
02	70.979	51.086	89.736	47.610	106.727	12.181	2.732	11.152	20.974	1.888	415.065
03	70.901	51.601	86.110	47.750	110.282	12.182	2.685	11.073	21.102	1.782	415.469
04	70.059	51.854	89.908	47.170	107.463	12.069	2.631	10.939	21.076	1.874	415.043
05	68.000	52.437	86.896	46.680	106.168	11.802	2.402	10.762	21.540	1.709	408.396
06	67.537	53.126	90.449	46.940	109.648	12.664	2.729	10.866	20.372	1.821	416.152
07	68.798	55.095	91.258	47.650	107.549	12.352	2.665	11.103	21.348	1.819	419.636
08	67.728	54.011	90.097	48.540	103.599	12.291	2.695	10.995	21.065	1.654	412.674
09	66.964	54.099	90.460	48.300	103.618	12.065	2.822	11.099	20.232	1.767	411.426
10	67.015	52.294	90.209	49.210	106.992	11.619	2.714	11.027	20.722	1.753	413.555
11	65.866	52.707	90.647	47.970	106.286	11.745	2.630	10.996	20.612	1.660	411.119
12	65.616	51.874	91.749	46.960	108.376	12.252	2.515	10.631	20.790	1.598	412.362
13	65.817	53.930	88.391	48.390	106.311	11.933	2.595	10.937	20.836	1.573	410.713
14	66.619	53.907	88.498	48.610	107.857	12.037	2.670	10.739	20.722	1.700	413.359
15	65.557	54.468	87.219	49.190	114.040	12.181	2.708	10.891	19.924	1.652	417.829
16	67.240	54.927	89.626	49.350	113.914	12.030	2.701	10.773	19.899	1.727	422.187
17	63.738	56.337	87.089	49.970	111.233	12.203	2.677	11.001	19.159	1.727	415.136
18	63.397	52.145	86.693	49.060	114.165	12.422	2.817	10.682	18.636	1.488	411.505
19	64.572	52.363	89.084	46.860	113.345	12.345	2.512	10.707	19.414	1.585	412.787
20	66.815	52.453	85.131	50.190	110.630	12.548	2.652	10.317	17.638	1.660	410.033
21	68.580	50.904	87.895	51.520	106.520	12.266	2.687	10.807	20.704	1.586	413.469
22	68.814	55.925	89.334	49.420	108.924	12.527	2.804	11.066	21.813	1.507	422.133
23	67.426	55.527	91.212	53.930	116.760	13.036	2.934	11.073	21.640	1.459	434.996
24	68.448	55.294	86.056	53.130	116.954	13.203	2.852	10.987	21.244	1.478	429.647
25	69.036	55.104	91.034	52.170	116.369	12.826	2.836	11.196	21.654	1.580	433.806
26	64.875	55.675	87.923	50.750	119.366	13.094	2.716	11.148	21.640	1.741	428.929
27	67.018	54.834	89.982	49.420	117.303	13.194	3.022	11.582	22.160	1.623	430.137
28	66.791	55.305	89.366	54.140	119.846	11.984	3.009	11.262	21.623	1.521	434.848
29	65.242	52.666	86.443	53.530	121.150	13.045	3.133	11.469	21.746	1.510	429.934
30	62.102	54.595	88.664	53.410	119.256	13.807	3.108	11.793	21.912	1.594	430.240
31	59.038	51.398	88.902	53.430	114.418	14.006	3.207	11.561	20.311	1.627	417.897
Maximum	70.979	56.337	91.749	54.140	121.150	14.006	3.207	11.793	22.160	1.888	434.996
Minimum	59.038	45.334	85.131	46.680	103.599	11.619	2.402	10.317	17.638	1.459	401.820
Average	66.725	53.331	88.845	49.621	111.345	12.449	2.759	11.022	20.708	1.657	418.461
Month Total	2068.475	1653.276	2754.185	1538.240	3451.682	385.918	85.524	341.694	641.942	51.367	12972.303

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-Dec-2004	24067	24427	22575	26021	27887	28985	22890	18172	56510	55479	6710	6817
2-Dec-2004	25601	27557	23323	25221	29075	29778	25673	19623	57610	55172	6619	6477
3-Dec-2004	25369	26678	22789	25228	29058	28483	25575	20318	57862	56029	6615	6661
4-Dec-2004	25214	26663	22307	25268	28957	29701	25924	19611	58034	56485	6570	6632
5-Dec-2004	24639	24994	21791	26548	28770	31521	25770	16521	57857	55729	6587	6675
6-Dec-2004	23260	24529	21751	27054	29357	30047	25681	17269	57014	55553	6523	6692
7-Dec-2004	24096	25789	22124	26845	29731	30972	25747	16889	57661	55818	6559	7002
8-Dec-2004	23810	24160	22053	24900	28867	30056	25497	18185	56406	56953	6627	6666
9-Dec-2004	23501	23604	21893	23124	28806	30478	25447	18349	56313	57224	6472	6688
10-Dec-2004	23436	24556	21832	22997	30019	31482	25418	18109	55959	55742	6495	6542
11-Dec-2004	23639	25083	21855	24090	29610	30515	25475	16932	56069	57046	6574	6481
12-Dec-2004	24600	23689	21988	25275	29664	31282	25533	16026	56760	57244	6297	7182
13-Dec-2004	24329	23195	22123	24803	30152	31104	25859	17134	57948	59255	6565	7211
14-Dec-2004	23997	23425	21946	23567	30197	32360	25578	17646	57430	58992	6496	7127
15-Dec-2004	23403	22929	21328	21508	30155	34610	25745	20490	57406	55179	6521	7311
16-Dec-2004	24486	23202	21180	22129	29618	35271	25537	18279	56556	53773	5943	7000
17-Dec-2004	23092	23355	20975	21918	28254	32962	25030	18285	55308	53077	6566	7430
18-Dec-2004	22095	20348	21317	22130	27886	32860	23981	18198	54784	49867	6583	7697
19-Dec-2004	22791	17114	21188	21532	28036	36402	24444	17890	56070	50061	6761	7659
20-Dec-2004	23970	20954	22285	22502	29388	35258	24872	20646	56671	54919	6718	7658
21-Dec-2004	24573	20511	23612	23810	29755	33613	24968	20790	57900	58752	6798	7154
22-Dec-2004	23762	20384	22686	24033	28714	33248	25371	21105	57322	55151	7428	6749
23-Dec-2004	23471	20738	22366	23585	28164	31544	25522	20233	56969	55723	6701	7233
24-Dec-2004	22741	20217	22019	22814	27581	30860	25943	20132	56626	54523	6854	7208
25-Dec-2004	21765	19075	22202	24029	26820	31354	25062	19513	56528	54639	7549	7301
26-Dec-2004	22193	19500	23179	23468	27978	33915	23125	21269	56529	52686	7628	7291
27-Dec-2004	22974	19697	22681	23513	27678	30016	23251	22421	56100	53624	6886	7369
28-Dec-2004	22064	20690	22148	22556	27643	30911	25755	23081	56383	54299	7516	7047
29-Dec-2004	22945	22064	22886	25563	28921	33180	25933	22169	57150	54682	7382	6412
30-Dec-2004	22766	20929	22692	23262	30451	34569	25565	22471	56133	53633	7252	6890
31-Dec-2004	21869	17908	22385	21480	28519	30598	25056	23615	53399	54906	7354	7237
Total MU	730.518	697.964	687.479	740.773	895.711	987.935	781.227	601.371	1757.267	1712.215	210.149	217.499
Max. MWH	25601	27557	23612	27054	30451	36402	25943	23615	58034	59255	7628	7697
Min MWH	21765	17114	20975	21480	26820	28483	22890	16026	53399	49867	5943	6412
Avg. MWH	23565	22515	22177	23896	28894	31869	25201	19399	56686	55233	6779	7016

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-Dec-2004	7859	8031	14636	18126	3338	2816	144	186	1912	1518
2-Dec-2004	8018	8154	14833	19793	3340	2805	144	198	2044	1690
3-Dec-2004	7766	8043	14433	19869	3328	2819	144	194	1833	1588
4-Dec-2004	7810	7987	14384	19975	3344	2736	144	195	1757	1679
5-Dec-2004	7873	7859	14249	20406	3287	2525	144	193	1988	1516
6-Dec-2004	8189	8037	13554	19295	3306	2779	144	188	1908	1633
7-Dec-2004	8037	8090	14235	20361	3343	2839	144	177	1790	1642
8-Dec-2004	7872	8112	13802	19980	3284	2814	144	173	1489	1481
9-Dec-2004	7847	8186	13647	19178	3287	2842	144	171	1634	1596
10-Dec-2004	7795	8200	13583	19735	3251	2829	144	169	1566	1584
11-Dec-2004	7709	8115	13646	19695	3233	2759	144	173	1660	1487
12-Dec-2004	7463	8023	13688	19738	3251	2602	144	174	1849	1424
13-Dec-2004	7729	8091	13987	19841	3288	2763	144	3	2077	1570
14-Dec-2004	7560	7945	13860	19689	3212	2807	144	89	1679	1611
15-Dec-2004	7618	8009	13832	18995	3171	2848	144	88	2100	1564
16-Dec-2004	7536	8049	13725	18976	3232	2799	144	89	2123	1638
17-Dec-2004	7617	8266	13623	17894	3242	2839	144	99	2092	1628
18-Dec-2004	7689	8002	13492	17340	3234	2791	144	86	1967	1402
19-Dec-2004	7736	8072	13644	18211	3245	2621	144	100	1946	1485
20-Dec-2004	7600	7677	14235	16355	3301	2763	144	96	1784	1564
21-Dec-2004	7855	8103	14339	19385	3351	2827	144	80	1521	1506
22-Dec-2004	8332	8301	14811	20439	3319	2913	144	85	2019	1422
23-Dec-2004	8234	8299	14522	20259	3295	3061	144	105	1909	1354
24-Dec-2004	8403	8290	13855	19926	3297	2986	144	110	2019	1368
25-Dec-2004	8393	8527	14158	20307	3342	2986	144	106	1958	1474
26-Dec-2004	8591	8618	16091	20307	3401	2856	144	103	1952	1638
27-Dec-2004	8254	8943	15964	21021	3323	3097	144	100	2007	1523
28-Dec-2004	8385	8833	15639	20330	3308	3187	144	100	1764	1421
29-Dec-2004	8664	8871	16152	20410	3400	3271	144	85	2090	1425
30-Dec-2004	8335	9099	15937	20527	3340	3249	144	81	2036	1513
31-Dec-2004	8448	8951	15821	18962	3222	3343	144	91	2112	1536
Total MU	247.217	255.783	446.377	605.325	102.115	89.172	4.464	3.887	58.585	47.480
Max. MWH	8664	9099	16152	21021	3401	3343	144	198	2123	1690
Min MWH	7463	7677	13492	16355	3171	2525	144	3	1489	1354
Avg. MWH	7975	8251	14399	19527	3294	2877	144	125	1890	1532

IX Schedule vs Actual Injection of ISGS (Sheet 1 of 4)**Figs. In MWH**

Date	Singrauli		Rihand		Dadri(T)		Unchahar-I		Unchahar-II		Dadri GPS	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Dec-2004	44280	44917	21960	22177	17622	17706	8596	8682	9173	9294	16812	16857
2-Dec-2004	44280	44986	21626	21701	18552	18743	9173	9313	9173	9300	16246	16576
3-Dec-2004	44280	45069	21724	21967	18552	18775	9173	9306	9173	9297	15891	16539
4-Dec-2004	44280	45041	21960	22117	18552	18748	9173	9302	9173	9296	16204	16038
5-Dec-2004	44280	45028	21960	22232	18552	18754	9173	9297	9173	9295	16232	16311
6-Dec-2004	44280	45061	21960	22359	18552	18739	9173	9299	9173	9299	16320	15978
7-Dec-2004	44280	45093	21960	22591	18552	18786	9173	9294	9173	9297	13370	13554
8-Dec-2004	44280	45004	21879	22432	18552	18767	9173	9311	9173	9300	13388	13614
9-Dec-2004	44280	44863	21904	22466	18552	18916	9173	9314	9173	9297	12514	12331
10-Dec-2004	44280	45018	21960	22619	18552	18858	9192	9331	9192	9319	13662	13493
11-Dec-2004	44280	45019	21960	22459	18552	18688	9192	9318	9192	9316	15389	15345
12-Dec-2004	44280	45012	21960	22333	18552	18901	9192	9316	9192	9316	16781	16686
13-Dec-2004	44280	45203	21960	22527	18552	18874	9192	9322	8726	8843	15967	16331
14-Dec-2004	44280	45151	21480	21692	18552	18923	9192	9324	9192	9315	15827	15971
15-Dec-2004	44280	44935	21414	21729	18552	18889	9192	9318	9192	9319	15681	15488
16-Dec-2004	41311	41728	21788	21996	18552	18856	9192	9324	9058	9189	16508	16625
17-Dec-2004	39864	40188	21634	21873	18552	18756	9192	9359	9192	9319	15846	15132
18-Dec-2004	42162	42645	21913	22081	18552	18626	9192	9335	9192	9288	15111	14384
19-Dec-2004	44236	44520	21960	22408	18552	18765	9192	9348	9192	9322	15853	15660
20-Dec-2004	44136	44760	21960	22586	18552	18885	9192	9355	9192	9349	16076	16180
21-Dec-2004	44280	45110	22008	22543	18552	18769	9192	9366	9192	9346	16209	15939
22-Dec-2004	44400	45221	22080	22735	18552	18754	9192	9350	9192	9339	15897	15683
23-Dec-2004	44400	45137	22080	22639	18552	18763	9203	9364	9192	9342	16342	15985
24-Dec-2004	44426	45303	22080	22644	17551	17802	9216	9371	9192	9344	16110	16048
25-Dec-2004	44400	45291	22080	22709	14786	14891	9216	9375	9192	9345	16249	16050
26-Dec-2004	44400	45139	22080	22726	15361	15211	9216	9383	9192	9351	15914	15997
27-Dec-2004	44400	45213	22080	22848	18552	18909	9216	9379	9192	9359	16169	16045
28-Dec-2004	44501	45435	22080	22838	18552	19468	9240	9415	9192	9361	16902	17277
29-Dec-2004	44520	45455	22080	22894	18525	18855	9229	9401	9192	9364	17428	17313
30-Dec-2004	37145	37790	22080	22650	18552	18735	9235	9405	9180	9345	17418	16707
31-Dec-2004												
Total MU	1312.781	1334.335	657.650	671.571	547.645	555.112	275.247	279.577	274.977	279.066	474.316	472.137
Max. MWH	44520	45455	22080	22894	18552	19468	9240	9415	9192	9364	17428	17313
Min MWH	37145	37790	21414	21692	14786	14891	8596	8682	8726	8843	12514	12331
Avg. MWH	43759	44478	21922	22386	18255	18504	9175	9319	9166	9302	15811	15738

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

Date	Anta GPS		Auraiya GPS		NAPS		RAPS-B		Bairasiul		igs. In MWH	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Dec-2004	6129	6276	11120	11010	7920	7932	9240	8676	810	817	3382	3414
2-Dec-2004	6307	6353	11050	10759	7920	7967	8760	8739	750	756	3045	3072
3-Dec-2004	6320	6353	10821	10701	7968	7972	8760	8713	720	726	2760	2789
4-Dec-2004	6320	6353	10789	10720	7968	8044	8760	8709	705	711	2760	2780
5-Dec-2004	6051	6035	10890	10731	7968	8058	8760	8766	600	605	2760	2784
6-Dec-2004	6066	6178	10379	9757	8016	8083	8760	8780	660	665	2760	2782
7-Dec-2004	6001	6372	10799	10642	8064	8052	8784	8752	675	680	2974	3004
8-Dec-2004	6101	6442	10845	10890	8064	7992	8784	8711	645	652	2643	2671
9-Dec-2004	6176	6372	10941	10922	8064	8050	8712	8677	540	546	2521	2547
10-Dec-2004	6306	6434	11068	11052	8064	8006	8712	8662	569	573	2670	2692
11-Dec-2004	6280	6381	11214	11010	8088	7992	8688	8681	614	607	2640	2665
12-Dec-2004	6218	6392	11315	11008	8064	8024	8688	8721	584	589	2640	2664
13-Dec-2004	6468	6429	11156	10854	8064	8056	8688	8695	597	600	2640	2659
14-Dec-2004	6468	6389	10781	10805	8088	8038	8736	8665	450	454	2670	2692
15-Dec-2004	6468	6380	10727	10849	8136	8073	8736	8648	510	515	2640	2664
16-Dec-2004	6463	6363	10952	10942	6549	6291	8736	8671	564	568	2590	2603
17-Dec-2004	8021	8241	11342	11229	4056	3862	8664	8698	525	530	2525	2548
18-Dec-2004	8412	8906	11295	11278	5501	5267	8664	8710	564	568	2520	2540
19-Dec-2004	8305	7454	10966	10751	7840	7938	8712	8722	510	514	2563	2555
20-Dec-2004	7336	7014	10931	10795	8088	8003	8736	8743	668	672	3405	3436
21-Dec-2004	8951	8822	11302	11331	8112	7902	8760	8709	765	772	2760	2784
22-Dec-2004	8602	8408	11110	11078	8160	8050	8784	8733	660	665	2550	2575
23-Dec-2004	8594	8875	11261	11220	8088	8092	6909	6860	630	635	2703	2707
24-Dec-2004	8864	8353	11308	11304	8112	8185	4680	4577	540	548	2750	2773
25-Dec-2004	8612	7883	11274	11172	8112	8211	4791	4447	570	575	2520	2545
26-Dec-2004	8691	7474	11281	11153	8160	8233	8216	8214	570	574	2520	2545
27-Dec-2004	8700	8344	11285	11139	8208	8136	8736	8735	540	544	2520	2545
28-Dec-2004	7665	7347	11290	11355	8304	8028	8784	8699	540	545	2486	2508
29-Dec-2004	9766	9701	11342	11289	8184	7947	8784	8685	630	636	2470	2493
30-Dec-2004	8090	7794	11578	11212	8088	7916	8712	8709	600	606	2550	2577
31-Dec-2004	8647	7971	11512	11217	8040	7933	8688	8815	750	757	2674	2697
Total MU	227.398	224.089	343.924	340.175	242.058	240.333	260.924	259.322	19.055	19.205	83.611	84.310
Max. MWH	9766	9701	11578	11355	8304	8233	9240	8815	810	817	3405	3436
Min MWH	6001	6035	10379	9757	4056	3862	4680	4447	450	454	2470	2493
Avg. MWH	7335	7229	11094	10973	7808	7753	8417	8365	615	620	2697	2720

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

Figs. In MWH

Date	Tanakpur		Chamera		Uri		Bhakra Complex		Dehar		Pong	
	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual	Schedule	Actual
1-Dec-2004	984	993	2314	2334	3174	3345	11666	10995	3969	3944	3888	3750
2-Dec-2004	973	982	2492	2514	3151	3232	11641	10836	3605	3355	3928	3838
3-Dec-2004	983	992	2359	2423	2638	2763	11424	10662	3740	3671	3863	4006
4-Dec-2004	927	940	2403	2416	2585	2743	11458	10637	3445	3257	3938	3849
5-Dec-2004	938	945	1335	1345	2782	2875	11355	10221	3555	3585	3898	3909
6-Dec-2004	925	931	2003	2018	2868	2744	11355	10692	3825	3773	3946	4113
7-Dec-2004	893	902	2003	2021	2577	2626	11355	10606	3605	3555	3804	3773
8-Dec-2004	909	917	1825	1840	2457	2552	11510	10606	3605	3623	3885	4089
9-Dec-2004	840	849	1825	1841	2442	2511	11510	10605	3605	3519	3908	3811
10-Dec-2004	833	842	1825	1840	2406	2470	11510	10622	3571	3631	3908	3904
11-Dec-2004	860	868	1691	1706	2463	2576	11422	10475	3594	3595	3908	4053
12-Dec-2004	836	843	1469	1481	2238	2399	11422	10677	3594	3375	3908	3867
13-Dec-2004	812	819	1691	1704	2233	2336	11422	10802	3488	3548	4071	4158
14-Dec-2004	814	824	1602	1615	2224	2302	11532	10670	3484	3485	3907	3896
15-Dec-2004	712	718	1602	1615	2081	2162	11318	10663	3059	3119	3928	3955
16-Dec-2004	804	812	1602	1616	2149	2175	11315	10483	3241	3011	3895	3771
17-Dec-2004	809	815	1691	1684	2197	2307	11470	10753	3026	2948	3558	3730
18-Dec-2004	812	823	1691	1705	2242	2319	10941	9955	3026	2713	4019	4161
19-Dec-2004	738	745	1224	1233	2144	2112	11471	10402	3235	2826	3861	3776
20-Dec-2004	802	808	1602	1619	2164	2255	12189	11387	3213	3063	3836	3970
21-Dec-2004	790	798	1691	1705	2208	2292	13031	11695	3658	3764	2738	2860
22-Dec-2004	768	780	1691	1706	2459	2508	13031	11790	4198	4119	2673	2639
23-Dec-2004	814	821	1691	1704	2282	2372	12958	11874	3633	3600	2900	2919
24-Dec-2004	816	824	1691	1705	2367	2457	13007	11833	3840	3695	2803	2732
25-Dec-2004	802	811	1691	1704	2343	2419	12962	11972	3325	3167	2461	2301
26-Dec-2004	796	797	1736	1748	2292	2380	12962	11788	3235	3183	2461	2480
27-Dec-2004	778	787	1691	1705	2268	2353	12801	11831	3118	3020	2324	2347
28-Dec-2004	784	791	1691	1704	2305	2425	12753	11782	3118	3132	2259	2309
29-Dec-2004	782	790	1691	1707	2317	2436	12690	11708	3143	3107	2433	2432
30-Dec-2004	787	794	1691	1706	2363	2489	12690	11607	3278	3111	2661	2671
31-Dec-2004	764	771	1691	1701	2524	2616	12119	11016	3443	3140	2705	2696
Total MU	25.885	26.132	54.895	55.365	74.943	77.551	370.290	341.645	107.474	104.634	106.275	106.765
Max. MWH	984	993	2492	2514	3174	3345	13031	11972	4198	4119	4071	4161
Min MWH	712	718	1224	1233	2081	2112	10941	9955	3026	2713	2259	2301
Avg. MWH	835	843	1771	1786	2418	2502	11945	11021	3467	3375	3428	3444

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

igs. In MWH

Date	Nathpa-Jhakri HEP		Chamera stage-II	
	Schedule	Actual	Schedule	Actual
1-Dec-2004	6817	6874	1438	1454
2-Dec-2004	6978	7037	1636	1621
3-Dec-2004	6654	6709	1116	1110
4-Dec-2004	6665	6717	1524	1522
5-Dec-2004	6568	6622	1311	1325
6-Dec-2004	6842	6902	1361	1372
7-Dec-2004	6732	6792	1410	1424
8-Dec-2004	6706	6757	1484	1497
9-Dec-2004	6629	6678	1336	1301
10-Dec-2004	6682	6732	1337	1353
11-Dec-2004	6508	6560	1114	1228
12-Dec-2004	6513	6558	1213	981
13-Dec-2004	6654	6713	1436	1449
14-Dec-2004	6375	6428	1262	1277
15-Dec-2004	6469	6523	1262	1282
16-Dec-2004	6446	6496	1337	1359
17-Dec-2004	6435	6486	1460	1472
18-Dec-2004	6461	6510	1238	1248
19-Dec-2004	6448	6472	1263	1272
20-Dec-2004	5696	5745	1436	1449
21-Dec-2004	6324	6373	1263	1284
22-Dec-2004	6313	6368	1337	1354
23-Dec-2004	6088	6085	1386	1399
24-Dec-2004	6167	6219	1312	1324
25-Dec-2004	6176	6236	1263	1275
26-Dec-2004	6195	6230	1253	1268
27-Dec-2004	5886	5935	1253	1267
28-Dec-2004	5834	5877	1253	1266
29-Dec-2004	6227	6280	1352	1365
30-Dec-2004	6356	6405	1253	1266
31-Dec-2004	6221	6257	1352	1365
Total MU	199.065	200.576	41.251	41.429
Max. MWH	6978	7037	1636	1621
Min MWH	5696	5745	1114	981
Avg. MWH	6421	6470	1331	1336

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	35.763	7.136	8.547	0.689	50.103	4.804	40.977	1.380	5.638	15.956	3.059	1.31	175.36
02	36.103	6.857	15.432	0.654	50.800	4.867	43.481	1.197	5.913	15.611	3.028	1.18	185.12
03	36.093	7.187	16.568	0.647	51.078	5.387	44.347	1.352	5.864	15.291	3.061	1.23	188.11
04	36.183	6.482	16.604	0.630	51.001	5.056	40.555	1.081	5.718	14.511	2.982	1.10	181.90
05	35.817	6.792	16.457	0.608	46.404	4.750	41.346	1.299	5.609	15.404	2.932	1.13	178.55
06	36.112	6.782	16.533	0.625	51.203	5.085	41.597	1.657	5.589	15.232	2.858	1.08	184.35
07	35.868	6.636	18.080	0.665	51.164	4.939	40.323	1.870	5.514	16.143	3.043	0.99	185.23
08	36.011	6.765	18.569	0.633	51.206	4.740	37.907	2.487	5.745	15.144	2.912	1.09	183.20
09	36.236	6.505	19.805	0.596	50.926	4.766	35.298	2.131	5.703	14.820	2.942	1.05	180.78
10	36.038	5.967	17.994	0.553	50.512	4.259	39.204	1.426	5.538	16.271	2.856	0.99	181.60
11	34.008	6.400	17.927	0.601	51.468	4.498	36.805	1.267	5.363	16.692	2.910	0.92	178.86
12	35.136	6.335	15.406	0.617	51.346	4.483	39.525	1.501	5.225	16.711	2.634	1.05	179.97
13	36.037	6.366	17.974	0.610	47.794	5.167	38.831	1.501	5.140	16.936	2.875	1.00	180.22
14	36.426	6.473	20.065	0.564	46.798	4.839	38.827	1.834	5.140	16.002	2.822	1.03	180.82
15	36.063	5.921	21.712	0.579	42.918	5.833	47.314	1.285	5.003	15.029	2.911	0.93	185.50
16	36.425	7.447	20.748	0.632	45.219	5.018	50.565	1.166	5.168	16.034	2.752	0.92	192.10
17	33.150	6.391	22.437	0.598	45.467	4.808	51.348	1.219	4.963	16.506	2.763	1.27	190.92
18	34.689	6.027	20.233	0.551	45.130	4.946	51.963	1.022	4.872	15.552	2.707	1.30	188.99
19	37.847	5.713	21.220	0.603	43.170	4.994	52.923	1.117	4.996	14.011	2.662	1.20	190.46
20	37.070	6.794	20.075	0.545	40.884	5.148	44.021	1.139	5.099	14.815	2.667	1.28	179.54
21	39.539	6.619	18.218	0.570	45.158	5.088	38.041	1.139	5.548	16.906	2.731	1.32	180.87
22	40.254	6.092	21.137	0.570	47.532	4.961	42.686	1.282	6.198	15.533	2.793	1.37	190.41
23	39.798	5.181	21.325	0.557	50.649	5.125	49.798	1.283	6.275	16.411	2.802	1.38	200.59
24	41.330	4.903	21.286	0.592	46.607	4.980	50.591	1.421	6.219	17.835	2.724	1.32	199.81
25	42.577	5.347	20.505	0.553	50.842	4.901	50.672	1.284	5.993	17.352	2.696	1.35	204.07
26	38.880	4.883	21.437	0.541	47.034	5.273	52.842	1.211	6.261	16.421	2.556	1.33	198.67
27	38.658	5.462	20.718	0.521	50.967	5.214	51.947	1.213	6.342	16.818	2.666	1.14	201.66
28	38.938	5.533	21.371	0.484	49.502	5.145	52.829	1.189	6.335	17.102	2.454	1.29	202.18
29	38.546	3.792	18.129	0.578	44.434	5.171	53.948	1.224	7.017	16.220	2.624	1.34	193.02
30	35.518	3.741	19.683	0.484	46.061	4.979	54.315	1.074	7.097	15.741	2.721	1.39	192.80
31	38.106	1.984	19.218	0.560	51.163	4.266	47.146	1.717	7.090	15.087	2.636	1.35	190.32
Maximum	42.58	7.45	22.44	0.69	51.47	5.83	54.31	2.49	7.10	17.83	3.06	1.39	204.07
Minimum	33.15	1.98	8.55	0.48	40.88	4.26	35.30	1.02	4.87	14.01	2.45	0.92	175.36
Average	37.07	5.95	18.88	0.59	48.21	4.95	45.22	1.39	5.75	15.94	2.80	1.18	187.93
Month Total	1149.22	184.51	585.41	18.21	1494.54	153.49	1401.97	42.97	178.18	494.09	86.78	36.62	5825.98

XI. Performance Of Generating Stations

S.No.	Power Station	Effective Capacity MW	Energy Generated during December, 2004 (Ex Bus MU)	Cummulative from 01.04.2004 (Ex-bus MU)
1	CENTRAL SECTOR			
A	NTPC (Thermal)			
(a)	Badarpur TPS	705.00	456.82	3804.25
(b)	Singrauli STPS	2000.00	1379.16	10860.00
(c)	Rihand STPS	1000.00	693.82	5402.52
(d)	Dadri NCTPS	840.00	556.92	4609.82
(e)	Unchahar-I TPS	420.00	288.29	2243.51
(f)	Unchahar-II TPS	420.00	288.36	2288.03
(g)	Tanda TPS	440.00	274.46	2122.56
(h)	Anta GPS	419.33	222.13	2047.64
(i)	Auraiya GPS	663.36	334.65	3125.29
(j)	Dadri GPS	829.78	486.94	4083.24
(k)	Faridabad GPS	431.57	285.33	2347.86
	Total NTPC	8169.04	5266.88	42934.72
B	NHPC			
(a)	Bairasiul	180.00	19.20	466.76
(b)	Salal	690.00	84.31	2799.10
(c)	Tanakpur HPS	94.20	26.13	417.30
(d)	Chamera HPS	540.00	55.34	1662.89
(e)	Uri HPS	480.00	77.55	1694.09
(f)	Chamera2 HPS	300.00	41.39	1157.51
	Total NHPC	2284.20	303.92	8197.65
C	Nathpa-Jhakri	1500.00	200.60	4523.72
D	NPC			
(a)	RAPS -A	300.00	115.98	936.24
(b)	RAPS -B	440.00	259.36	1821.57
(c)	NAPS	440.00	240.37	1724.33
	Total NPC	1180.00	615.72	4482.13
2	JOINTLY OWNED (BBMB)			
(a)	Bhakra Complex	1490.15	368.29	3673.50
(b)	Dehar	990.00	104.23	2590.02
(c)	Pong	396.00	105.04	763.62
	Total BBMB	2876.15	577.56	7027.15
3	DELHI			
(a)	Indra Prastha	247.50	73.27	645.44
(b)	Rajghat	135.00	48.48	461.71
(c)	Gas Turbines	282.00	140.26	1139.14
(d)	Pragati Gas	330.00	234.04	1884.59
	Total DELHI	994.50	496.05	4130.87
4	HARYANA			
(a)	WYC	62.40	16.22	225.68
(b)	Faridabad (New)	165.00	76.87	569.05
(c)	Panipat	860.00	482.72	3752.50
(d)	Magnum Diesel(IPP)	25.20	7.23	60.70
	Total Haryana	1112.60	583.04	4607.92

contd/-

5	HP			
(a)	Giri	60.00	6.35	111.99
(b)	Bassi	60.00	10.23	232.12
(c)	Binwa	6.00	1.31	23.28
(d)	Rongtong (+Nogli+Micro+Thirot+Sal-2)	15.25	7.08	30.35
(e)	Andhra	16.95	2.35	46.87
(f)	Bhabha (H)	120.00	20.16	534.10
(g)	Baner (H)	12.00	1.35	32.16
(h)	Gaj (H)	10.50	1.49	37.69
(i)	Gumma	3.00	0.00	3.02
(j)	Ghanvi	22.50	2.84	61.91
(k)	Malana (IPP)	86.00	7.43	241.05
(l)	Baspa (IPP)	300.00	33.17	1116.40
	Total HP	712.20	93.76	2470.95
6	J & K			
(a)	Lower Jhelum	105.00	14.69	322.23
(b)	Upper Sindh	127.60	12.37	151.76
(c)	Ganderbal	15.00	1.82	18.58
(d)	Mohra	9.00	0.00	0.00
(e)	Chenani	32.80	3.63	69.70
(f)	Stakna	9.75	0.00	0.00
(g)	Small Hydel	3.54	0.50	4.90
(h)	Sewa	9.00	1.61	0.00
(i)	Diesel gen set	7.18	3.10	0.00
(j)	Pampore GT St - I	75.00	1.61	3.87
(k)	Pampore GT St - II	100.00	3.10	7.66
	Total J & K	493.87	42.45	578.70
7	PUNJAB			
(a)	Jogindernagar/ Shanan	110.00	18.68	438.48
(b)	UBDC	90.00	21.16	317.53
(c)	Mukerian	207.00	57.43	707.98
(d)	Anandpur Sahib (APS)	134.00	13.93	376.05
(e)	Ranjit Sagar HPS	600.00	47.29	909.22
(f)	Small Hydel	4.10	0.00	0.50
(g)	GNDTPS (Bhatinda)	440.00	156.42	1341.19
(h)	GGSTPS (Ropar)	1260.00	709.43	6464.90
(i)	Jhalkeri	10.00	0.00	0.85
	Peda & Sugarmill		13.00	45.39
(j)	Lehra Mohabbat TPS	420.00	283.55	2237.30
	Total Punjab	3275.10	1320.87	12839.40
8	RAJASTHAN			
(a)	Mahi Bajaj Sagar	140.00	34.27	177.33
(b)	Rana Pratap Sagar (RPS)	172.00	71.03	212.96
(c)	Jawahar Sagar (JS)	99.00	48.96	169.64
(d)	Gandhi sagar	115.00		
(d)	ACW	9.00	0.93	7.39
(e)	MMH	14.85	2.04	4.74
(f)	Kota TPS	1045.00	696.84	4957.47
(g)	RAMGARH GT	3.00		
(h)	RAMGARH GT EXT	35.50	35.96	221.18
(i)	Suratgarh TPS	1250.00	789.39	6313.85
(j)	Wind Farm	14.01	15.11	285.15
(k)	Others		4.10	26.95
	Total Rajasthan	2782.36	1698.62	12376.64

contd/-

9	U.P.			
	<u>HYDRO</u>			
(a)	Rihand	300.00	4.12	438.80
(b)	Obra	99.00	1.14	184.48
(c)	Matatilla	30.00	21.40	111.84
(d)	Khara	72.00	16.28	244.08
	Total U.P. (Hydro)	501.00	42.93	979.20
	<u>THERMAL</u>			
(e)	Obra	1442.00	427.99	3527.55
(f)	Panki	242.00	73.44	653.80
(g)	Harduaganj	375.00	52.63	451.09
(h)	Paricha	220.00	71.66	681.92
(i)	Anpara	1630.00	774.27	7353.03
	Total U.P. (Thermal)	3909.00	1399.99	12667.39
	Total U.P.	4410.00	1442.92	13646.59
10	UTTRANCHAL			
(a)	Khatima	41.40	10.64	147.76
(b)	Ramganga	198.00	21.91	79.77
(c)	Ganga Canal	32.70	11.86	110.56
(d)	Yamuna (I & IV)	114.75	53.29	758.31
(e)	Chibro	240.00	27.68	497.54
(f)	Khodri	120.00	13.58	234.19
(g)	Chilla	144.00	38.44	635.62
(h)	Maneri Bhali	90.00	0.00	0.00
(i)	Sibla+Small hydel	18.20		
	Total Uttranchal	999.05	177.39	2463.76
11	CHANDIGARH			
	Diesel gen set	1.40		
	Total Region	30790.47	12819.78	120280.20

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%	Nuclear stations-----12.5%
-----Gas power stations in combined cycle-----3.0%	
-----Coal fired power stations	
IP---12%	Faridabad---13.5%
Rajghat---11%	Panipat---12.0%
	Suratgarh---10.0%
	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 DECEMBER 2004

(ALL FIGS IN MUs)

FROM / TO	PUNJAB	HARYANA	RAJASTHAN	DELHI	UP	UTTRANCHAL	HP	J & K	CHANDIGARH	MALANA
PUNJAB	-		-		-				-	-
HARYANA	-	-	-	18.312*** 25.270****		-	6.083*	-	-	
RAJASTHAN		-	-		-	-	-	-		
DELHI	-	10.830****	-		-	-		-	-	-
UP	-	-	-	-	-	-		-	-	-
UTTRANCHAL	47.035****	-	-	-	-	-		-	-	-
HP	15.588**** 3.415***	-	-		4.092***	13.981***	-	-	-	-
J & K		-	-		-	-	-	-	-	-
CHANDIGARH	-	-	-	-	-	-	-	-	-	-

* Through PTC

** Through NVVN

*** Shared projects



**** Through Banking/ Agreement

REMARKS : Figures are provisional and indicative only.

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

(ALL FIGS IN MUs)

FROM / TO	GRIDCO	BSEB	WBPCL	MPEB	CESC	DVC	ASSAM	Meghalaya	TRIPURA
PUNJAB	12.204***WR		8.325***		44.279*			-	
HARYANA	44.279+14.144***WR							10.044***WR	14.842***WR
RAJASTHAN	-		58.08*+20.18*WR			19.242*WR	-		
DELHI						--			
UP		12.065*	51.763*						
UTTRANCHAL	-			-	-	-	-	-	
J & K	73.256*				-	-	-	-	
CHANDIGARH									

* Through PTC

(+ Import by NR constituents

** Through Tata

(- Export by NR constituents

*** Throgh NVVN

**** Through ADANI

REMARKS : are provisional and indicative only

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Summary of inter regional exchanges for December 2004

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	65	200	200	50	1.73	0.02	1.71	0	0	0	0	0.00	0.00	0.00
02	110	100	182	0	3.62	0.00	3.62	0	0	0	0	0.00	0.00	0.00
03	110	0	250	0	3.15	0.00	3.15	0	0	0	0	0.00	0.00	0.00
04	110	155	250	0	3.79	0.00	3.79	0	0	0	0	0.00	0.00	0.00
05	105	155	250	50	3.29	0.01	3.28	0	0	0	0	0.00	0.00	0.00
06	110	155	155	0	3.08	0.00	3.08	0	0	0	0	0.00	0.00	0.00
07	100	155	250	0	3.34	0.00	3.34	0	0	0	0	0.00	0.00	0.00
08	66	111	200	0	2.57	0.00	2.57	0	0	0	0	0.00	0.00	0.00
09	62	102	146	0	2.28	0.00	2.28	0	0	0	0	0.00	0.00	0.00
10	110	146	200	0	3.32	0.00	3.32	0	0	0	0	0.00	0.00	0.00
11	122	144	200	0	3.25	0.00	3.25	0	0	0	0	0.00	0.00	0.00
12	110	144	200	146	3.31	0.00	3.31	0	0	0	0	0.00	0.00	0.00
13	110	0	200	0	2.84	0.00	2.84	0	0	0	0	0.00	0.00	0.00
14	106	200	200	0	3.56	0.00	3.56	0	0	0	0	0.00	0.00	0.00
15	106	200	250	0	3.85	0.00	3.85	0	0	0	0	0.00	0.00	0.00
16	61	188	288	0	4.02	0.00	4.02	0	0	0	0	0.00	0.00	0.00
17	61	117	200	0	2.63	0.00	2.63	0	0	0	0	0.00	0.00	0.00
18	44	120	120	300	0.96	1.58	-0.61	0	0	0	0	0.00	0.00	0.00
19	61	-150	61	350	0.14	1.54	-1.40	0	0	0	0	0.00	0.00	0.00
20	74	0	175	200	1.12	0.51	0.61	0	0	0	0	0.00	0.00	0.00
21	0	217	202	50	2.96	0.01	2.95	0	0	0	0	0.00	0.00	0.00
22	0	98	117	200	1.61	0.36	1.25	0	0	0	0	0.00	0.00	0.00
23	52	161	161	50	1.87	0.03	1.83	0	0	0	0	0.00	0.00	0.00
24	75	160	175	150	2.22	0.16	2.06	0	0	0	0	0.00	0.00	0.00
25	52	225	400	0	3.30	0.00	3.30	0	0	0	0	0.00	0.00	0.00
26	52	450	450	0	4.20	0.00	4.20	0	0	0	0	0.00	0.00	0.00
27	52	117	300	50	2.59	0.01	2.58	0	0	0	0	0.00	0.00	0.00
28	96	162	200	100	2.06	0.05	2.01	0	0	0	0	0.00	0.00	0.00
29	52	117	252	0	2.12	0.05	2.07	0	0	0	0	0.00	0.00	0.00
30	74	250	250	0	2.71	0.00	2.71	0	0	0	0	0.00	0.00	0.00
31	96	162	219	300	2.97	0.13	2.84	0	0	0	0	0.00	0.00	0.00
Maximum	122	450	450	350	4.20	1.58	4.20	0	0	0	0	0.00	0.00	0.00
Minimum	0	-150	61	0	0.14	0.00	-1.40	0	0	0	0	0.00	0.00	0.00
Average	78	141	216	64	2.72	0.14	2.58	0	0	0	0	0.00	0.00	0.00
Month Total					84.42	4.46	79.97					0.00	0.00	0.00

POWERGRID CORPORATION OF INDIA LTD.
NRLDC, New Delhi

Summary of inter regional exchanges for December 2004

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	0	0	0	0	0.00	0.00	0.00	194	210	320	0	4.72	0.00	4.72
02	0	0	0	0	0.00	0.00	0.00	291	325	450	0	7.77	0.00	7.77
03	0	0	0	0	0.00	0.00	0.00	250	396	450	0	7.96	0.00	7.96
04	0	0	0	0	0.00	0.00	0.00	272	382	450	0	8.38	0.00	8.38
05	0	0	0	0	0.00	0.00	0.00	400	421	450	0	8.13	0.00	8.13
06	0	0	0	0	0.00	0.00	0.00	200	0	398	0	5.09	0.00	5.09
07	0	0	0	0	0.00	0.00	0.00	228	388	450	0	8.19	0.00	8.19
08	0	0	0	0	0.00	0.00	0.00	228	393	450	0	8.48	0.00	8.48
09	0	0	0	0	0.00	0.00	0.00	223	393	400	0	8.34	0.00	8.34
10	0	0	0	0	0.00	0.00	0.00	223	425	450	0	8.26	0.00	8.26
11	0	0	0	0	0.00	0.00	0.00	200	415	450	0	8.15	0.00	8.15
12	0	0	0	0	0.00	0.00	0.00	223	385	455	0	8.31	0.00	8.31
13	0	0	0	0	0.00	0.00	0.00	323	250	440	0	8.15	0.00	8.15
14	0	0	0	0	0.00	0.00	0.00	223	450	470	0	9.00	0.00	9.00
15	0	0	0	0	0.00	0.00	0.00	223	323	465	0	8.31	0.00	8.31
16	0	0	0	0	0.00	0.00	0.00	223	376	450	0	8.40	0.00	8.40
17	0	0	0	0	0.00	0.00	0.00	273	380	395	0	7.97	0.00	7.97
18	0	0	0	0	0.00	0.00	0.00	223	380	380	0	6.79	0.00	6.79
19	0	0	0	0	0.00	0.00	0.00	180	300	378	0	6.35	0.00	6.35
20	0	0	0	0	0.00	0.00	0.00	223	300	423	0	7.47	0.00	7.47
21	0	0	0	0	0.00	0.00	0.00	223	430	430	0	8.52	0.00	8.52
22	0	0	0	0	0.00	0.00	0.00	223	361	425	0	8.11	0.00	8.11
23	0	0	0	0	0.00	0.00	0.00	220	329	400	0	6.97	0.00	6.97
24	0	0	0	0	0.00	0.00	0.00	175	357	400	0	6.40	0.00	6.40
25	0	0	0	0	0.00	0.00	0.00	200	450	450	0	8.07	0.00	8.07
26	0	0	0	0	0.00	0.00	0.00	271	450	500	0	9.43	0.00	9.43
27	0	0	0	0	0.00	0.00	0.00	272	371	466	0	8.72	0.00	8.72
28	0	0	0	0	0.00	0.00	0.00	252	450	450	0	7.88	0.00	7.88
29	0	0	0	0	0.00	0.00	0.00	272	390	485	0	9.50	0.00	9.50
30	0	0	0	0	0.00	0.00	0.00	272	500	500	0	10.48	0.00	10.48
31	0	0	0	0	0.00	0.00	0.00	300	420	450	0	8.49	0.00	8.49
Maximum	0	0	0	0	0.00	0.00	0.00	400	500	500	0	10.48	0.00	10.48
Minimum	0	0	0	0	0.00	0.00	0.00	175	0	320	0	4.72	0.00	4.72
Average	0	0	0	0	0.00	0.00	0.00	242	368	436	0	7.96	0.00	7.96
Month Total					0.00	0.00	0.00					244.56	0.00	244.56

Summary of inter regional exchanges for December 2004

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	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 December 2004

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	125	110	158	0	2.94	0.00	2.94	0	0	0	0	0.00	0.00	0.00
02	125	143	180	0	2.88	0.00	2.88	0	0	0	0	0.00	0.00	0.00
03	130	140	158	0	3.08	0.00	3.08	0	0	0	0	0.00	0.00	0.00
04	152	146	158	0	2.94	0.00	2.94	0	0	0	0	0.00	0.00	0.00
05	148	115	150	0	2.94	0.00	2.94	0	0	0	0	0.00	0.00	0.00
06	150	120	150	0	3.09	0.00	3.09	0	0	0	0	0.00	0.00	0.00
07	128	119	155	0	3.09	0.00	3.09	0	0	0	0	0.00	0.00	0.00
08	123	113	168	0	2.90	0.00	2.90	0	0	0	0	0.00	0.00	0.00
09	106	104	140	0	2.56	0.00	2.56	0	0	0	0	0.00	0.00	0.00
10	102	103	147	0	2.70	0.00	2.70	0	0	0	0	0.00	0.00	0.00
11	108	73	152	0	2.64	0.00	2.64	0	0	0	0	0.00	0.00	0.00
12	142	135	155	0	2.57	0.00	2.57	0	0	0	0	0.00	0.00	0.00
13	145	135	150	0	2.59	0.00	2.59	0	0	0	0	0.00	0.00	0.00
14	150	130	150	0	2.82	0.00	2.82	0	0	0	0	0.00	0.00	0.00
15	116	146	166	0	2.94	0.00	2.94	0	0	0	0	0.00	0.00	0.00
16	122	146	178	0	3.07	0.00	3.07	0	0	0	0	0.00	0.00	0.00
17	120	68	186	0	3.06	0.00	3.06	0	0	0	0	0.00	0.00	0.00
18	112	136	174	0	2.93	0.00	2.93	0	0	0	0	0.00	0.00	0.00
19	106	135	156	0	2.89	0.00	2.89	0	0	0	0	0.00	0.00	0.00
20	112	106	156	0	2.61	0.00	2.61	0	0	0	0	0.00	0.00	0.00
21	132	105	140	0	2.83	0.00	2.83	0	0	0	0	0.00	0.00	0.00
22	140	110	152	0	2.84	0.00	2.84	0	0	0	0	0.00	0.00	0.00
23	70	74	105	0	3.05	0.00	3.05	0	0	0	0	0.00	0.00	0.00
24	124	120	177	0	3.01	0.00	3.01	0	0	0	0	0.00	0.00	0.00
25	118	105	160	0	2.95	0.00	2.95	0	0	0	0	0.00	0.00	0.00
26	122	133	176	0	2.83	0.00	2.83	0	0	0	0	0.00	0.00	0.00
27	156	130	164	0	2.88	0.00	2.88	0	0	0	0	0.00	0.00	0.00
28	135	140	164	0	3.07	0.00	3.07	0	0	0	0	0.00	0.00	0.00
29	118	148	178	0	3.01	0.00	3.01	0	0	0	0	0.00	0.00	0.00
30	126	142	177	0	3.01	0.00	3.01	0	0	0	0	0.00	0.00	0.00
31	136	145	154	0	2.48	0.00	2.48	0	0	0	0	0.00	0.00	0.00
Maximum	156	148	186	0	3.09	0.00	3.09	0	0	0	0	0.00	0.00	0.00
Minimum	70	68	105	0	2.48	0.00	2.48	0	0	0	0	0.00	0.00	0.00
Average	126	122	159	0	2.88	0.00	2.88	0	0	0	0	0.00	0.00	0.00
Month Total					88.26	0.00	88.26					0.00	0.00	0.00

XV. Status Of Installation Of Shunt Capacitors As On 31.12.2004**(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 2004-05 upto 31.12.2004	Balance to be installed during 2004-05	Capacitors installed as on 31.12.2004
DELHI	3135	** 3021	567	-	178	389	3199
HARYANA	2920	3269	141	500	81	60	3350
PUNJAB	4564	4721	551	500	113	438	4834
RAJASTHAN	2650	2895	189	500	177	12	3072
UP	4890	5192	477	700	0	477	5192
UTTRANCHAL	350	125	244	45	55	189	180
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	604	2451	20766

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

XVI. Hydraulic Data For Reservoirs During December 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 DECEMBER 2004 (m)	475.95 1561.52	403.69 1324.45	256.98 843.10	349.41 1146.37	390.61 1281.52
Level on last day of DECEMBER 2003 (m)	493.47 1618.98	408.94 1341.66	262.77 862.10	346.41 1136.51	383.44 1257.99
Live Capacity as on (mhmt) last day of DECEMBER 2004 (maft)	0.19 1.54	0.24 1.96	0.10 0.83	0.09 0.76	0.23 1.88
Live Capacity as on (mhmt) last day of DECEMBER 2003(maft)	0.41 3.32	0.32 2.56	0.30 2.42	0.05 0.37	0.05 0.38
Energy content as on last day of DECEMBER 2004 (MU)	780.00	325.00	165.00	174.00	600.00
Energy content as on last day of DECEMBER 2003 (MU)	1600.00	450.00	595.00	85.00	100.00
Maximum level (m) (ft) (date)	481.67 1580.29 01.12.2004	406.62 1334.04 01.12.2004	256.98 843.10 01.12.2004	349.41 1146.37 31.12.2004	392.56 1287.94 01.12.2004
Minimum level (m) (ft) (date)	475.95 1561.52 31.12.2004	403.69 1324.45 31.12.2004	256.95 843.00 31.12.2004	349.20 1145.68 01.12.2004	390.61 1281.52 31.12.2004

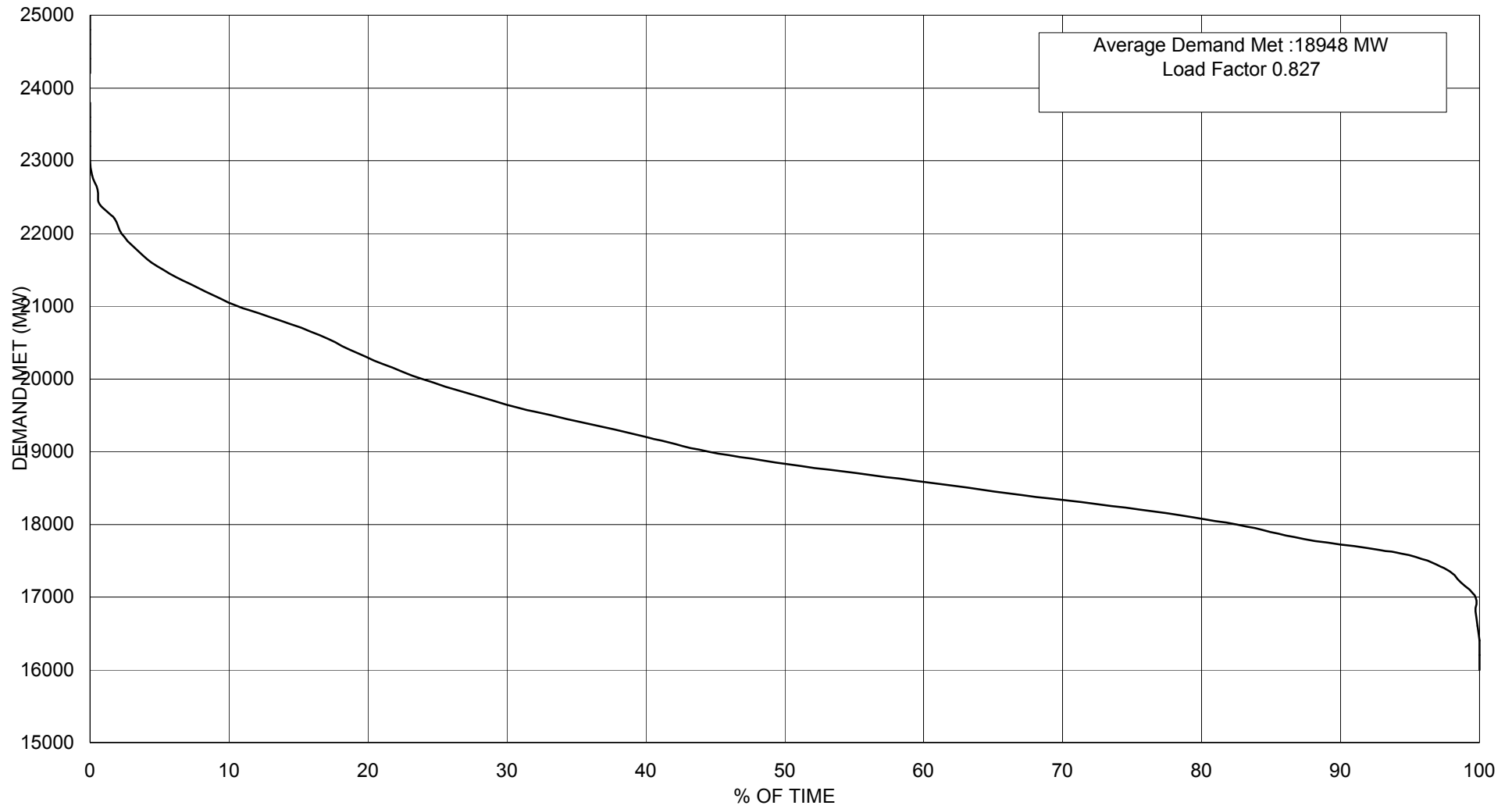
Energy content of Bhakra : Total Energy content at Bhakra, Ganguwal and Kotla power stations

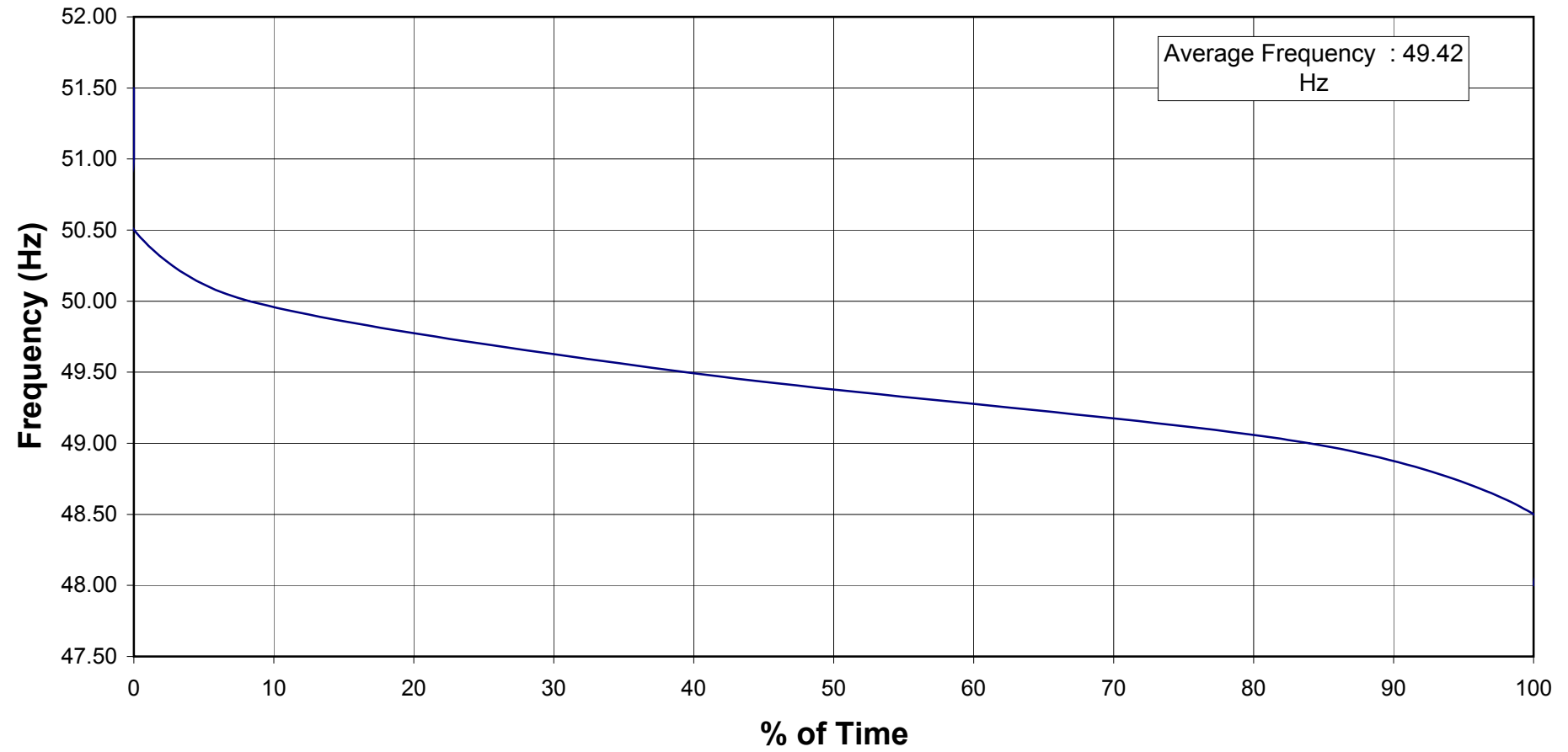
Energy content of Rihand : Total Energy content at Rihand & Obra power stations

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

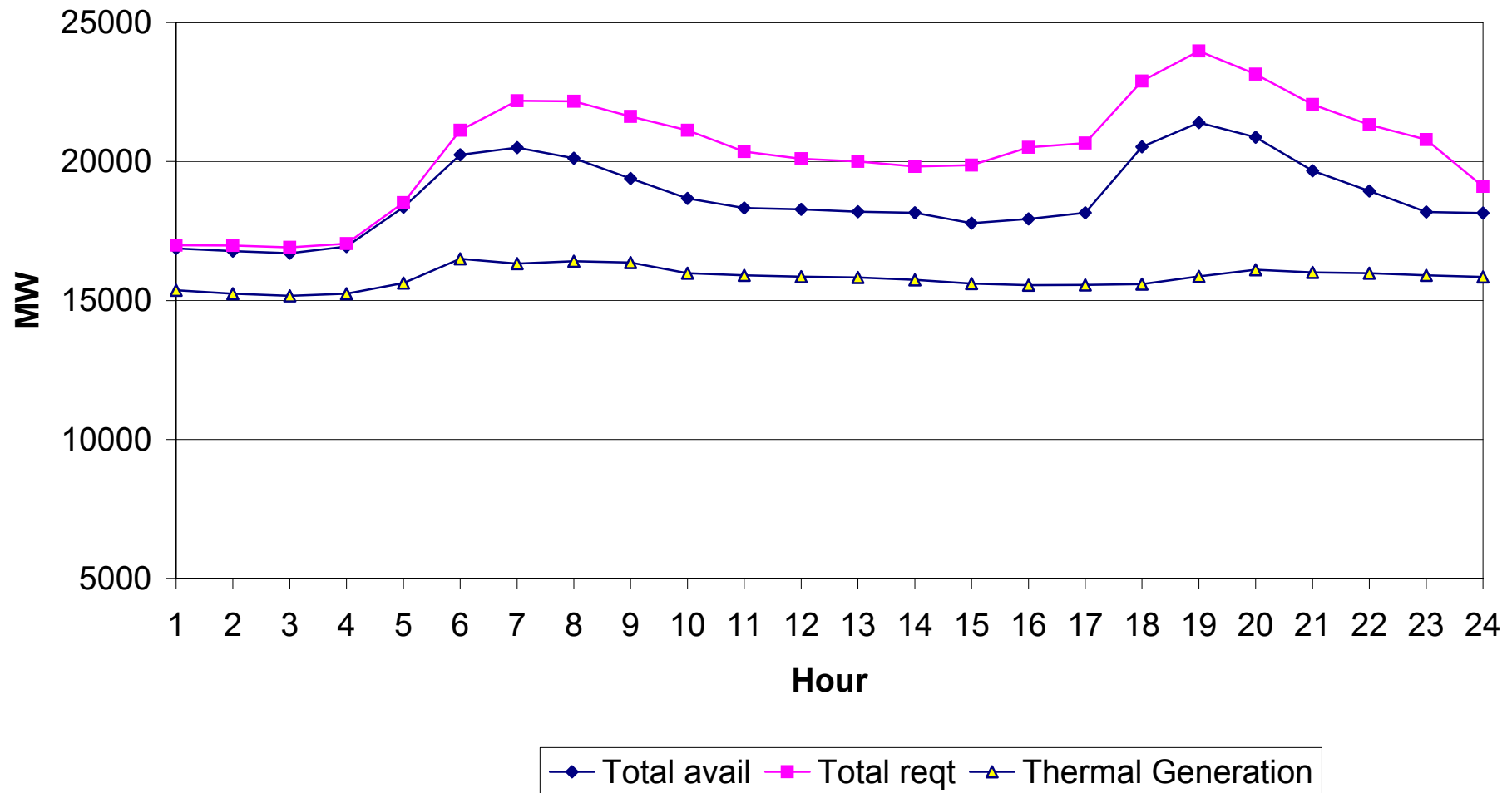
Energy Content of G. Sagar : Total Energy content at Gandhi Sagar, RP Sagar and Jawahar Sagar Power Stations.

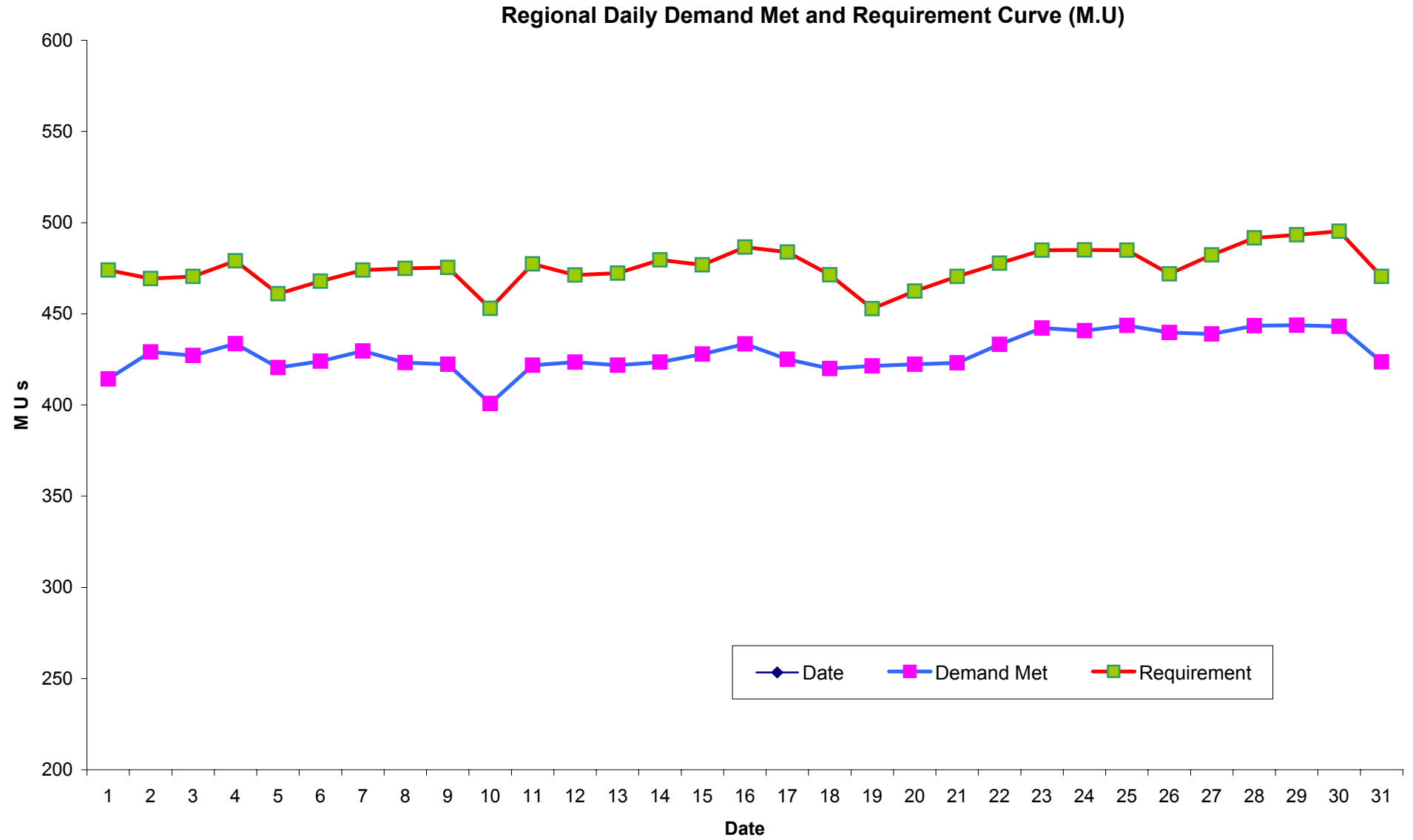
Load Duration Curve For Northern Region For December



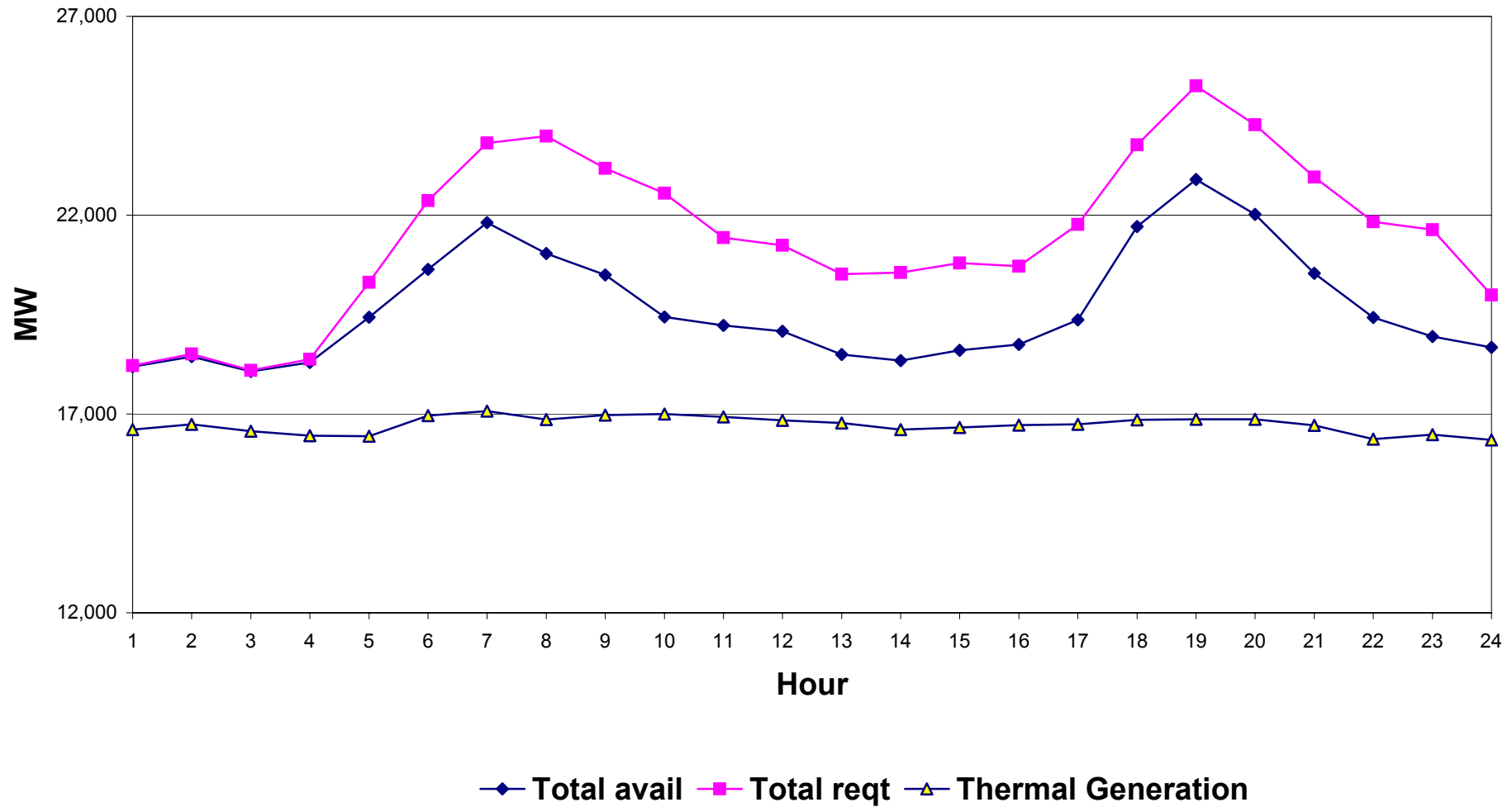
Frequency Duration Curve For Northern Region For December 2004

Load Curve Of Northern Region For Minimum Demand Met Day (20th December 2004)





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



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