

QUARTERLY REPORT

NORTHERN REGIONAL LOAD DESPATCH CENTRE

YEAR: 2004-2005/ QUARTER-3

OCT 2004 TO DEC 2004

REPORT ON REGIONAL POWER SYSTEM/ PERFORMANCE OF THE GRID

1 POWER SUPPLY POSITION

(a) Peak demand met and Unrestricted demand

Month	Peak demand met	Unrestricted demand	Shortage	Peak Shortage
	(MW)	(MW)	(MW)	(%)
Oct-04	21503	24049	2546	10.59
Nov-04	22823	24421	1598	6.54
Dec-04	22895	25254	2359	9.34

(b) Energy availability and requirement

Month	Demand met	Energy Requirement	Energy Shortage
	(MUs)/ Day	(MUs)/Day	(%)
Oct-04	399.49	441.89	9.60
Nov-04	409.01	451.63	9.44
Dec-04	418.46	477.48	12.36

2 QUALITY OF SERVICE

(a) Frequency Profile

Month	<48.5 Hz	<49.00 Hz	49.00-50.5	> 50.50Hz	>51.00 Hz	F.V.I (Average)	Av. Freq
Oct-04	0.00	5.92	93.40	0.68	0.02	2.43	49.75
Nov-04	0.00	7.30	92.63	0.07	0.00	2.68	49.70
Dec-04	0.00	16.02	83.98	0.01	0.00	4.94	49.42

(b) Voltage profile at important grid points

Month	Dadri		Kanpur		Moga	
	Max	Min	Max	Min	Max	Min
Oct-04	425	385	415	379	419	380
Nov-04	420	383	417	383	422	382
Dec-04	417	384	418	388	423	388

Inter-regional exchanges during the quarter Oct-Dec 2004

Month	Vindhyachal HVDC		Utilisation factor	Pusauli HVDC		Utilisation Factor
	Export	Import	(%)	Export	Import	(%)
Oct-04	1.29	191.86	51.92	0.00	278.09	74.76
Nov-04	0.10	83.79	22.55	0.00	255.31	68.63
Dec-04	2.02	81.61	23.23	0.00	244.56	67.93

Month	Auraiya-malanpur		Ujjain-Kota		ER		Nepal	
	(220 KV)		(220 KV)		over 220 KV/ 132 KV		Over 132 kv	
	Export	Import	Export	Import	Export	Import	Export	Import
Oct-04	0.00	0.00	0.02	0.00	0.22	87.02	1.25	0.00
Nov-04	0.00	0.00	0.00	0.00	0.15	91.90	0.14	0.00
Dec-04	0.00	0.00	0.00	0.00	0.20	88.26	2.72	0.00

Important Events/Commissioning of New Units/ Lines/ Transformers

Panipat Unit no-7 first time synchronised on 13.11.2004 for testing purpose

Schedule vs Actual drawal by the constituents**Figs. In Mus**

Oct-04	State/ UT	Schedule	Actual drawal	OD(+)/UD(-)
	Punjab	1061.52	1022.33	-39.19
	Haryana	859.12	889.97	30.85
	Rajasthan	807.84	914.61	106.77
	U.P	1511.47	1587.44	75.97
	Uttaranchal	127.28	49.95	-77.33
	Delhi	870.92	759.3	-111.62
	H.P	138.52	134.75	-3.77
	J & K	437.09	521.55	84.46
	Chandigarh	107.33	86.96	-20.37
	NFF/ Rail	50.94	52.26	1.32

Nov-04	State/ UT	Schedule	Actual drawal	OD(+)/UD(-)
	Punjab	1061.52	1022.33	-39.19
	Haryana	729.7	708.21	-21.49
	Rajasthan	813.05	872.75	59.7
	U.P	1623.29	1652.86	29.57
	Uttaranchal	177.56	178.28	0.72
	Delhi	748.09	605.36	-142.73
	H.P	231.53	208.4	-23.13
	J & K	474.74	561.4	86.66
	Chandigarh	100.54	79.66	-20.88
	NFF/ Rail	50.15	53.54	3.39

Dec-04	State/ UT	Schedule	Actual drawal	OD(+)/UD(-)
	Punjab	730.52	697.96	-32.56
	Haryana	687.48	740.73	53.25
	Rajasthan	895.71	987.94	92.23
	U.P	1757.27	1712.22	-45.05
	Uttaranchal	210.15	217.5	7.35
	Delhi	781.23	601.37	-179.86
	H.P	247.22	255.78	8.56
	J & K	446.38	605.33	158.95
	Chandigarh	102.12	89.17	-12.95
	NFF/ Rail	63.05	51.37	-11.68

**SUMMARY OF THE EFFECTIVE GENERATING CAPACITY AT THE END
OF THE QUARTER OCT-DEC 2004**

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 state. Such details are :

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

CHAMBAL

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

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

SATPURA

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

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

GRID INCIDENTS

Date/ Time	Incident
27.12.2004 13.34hrs	Dadri(th) ICT-I tripped due to PRD operation at 13.34 hrs causing overloading of ICT-2 and its subsequent tripping , lead to tripping of all four units at Dadri (th) Generation loss=785 MW Frequency before incident=48.99 Hz Frequency after incident=48.73 Hz All machines revived by 19.17 hrs of 27.12.2004.

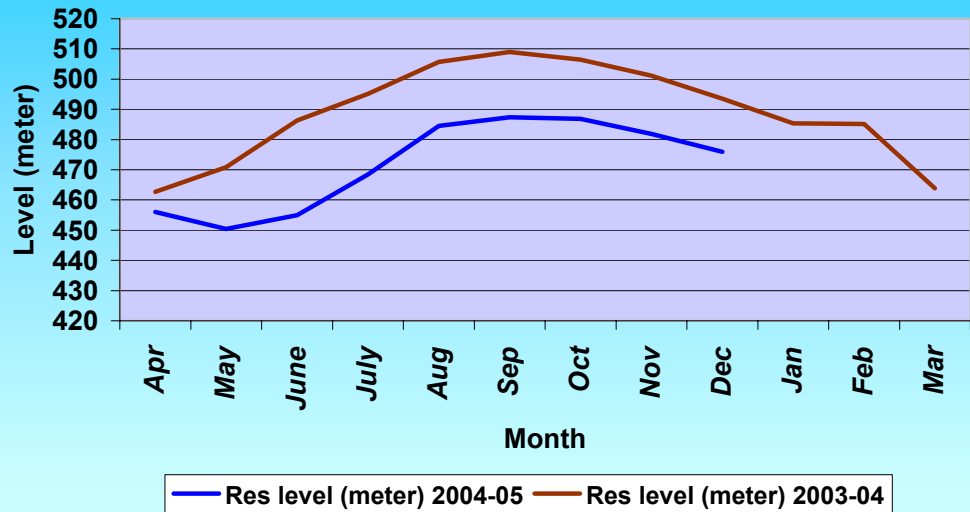
Generation of Central sector Thermal/Nuclear/gas power stations and their P.L.F

Generating Station	Installed capacity	Oct (MU)	PLF	Nov (MU)	PLF	Dec (MU)	PLF	Average PLF Oct-Dec-04
Singrauli	2000	1280.47	86.05	1348.00	93.61	1477.00	99.26	92.97
Rihand	1000	521.36	70.08	705.34	97.96	756.24	101.65	89.81
Dadri(t)	840	584.02	93.45	502.82	83.14	612.00	97.93	91.60
Unchahar-I	420	216.10	69.16	262.78	86.90	313.47	100.32	85.44
Unchahar-II	420	311.20	99.59	303.30	100.30	315.69	101.03	100.31
Tanda	440	253.24	77.36	267.42	84.41	310.41	94.82	85.54
Badarpur	705	407.56	77.70	419.34	82.61	502.00	95.71	85.37
Total Thermal	5825	3573.95	82.47	3809.00	90.82	4286.81	98.92	90.73
Anta (g)	419.33	210.54	69.73	248.82	82.41	229.00	73.40	74.35
Auraiya (g)	666.36	327.79	68.32	299.94	62.52	345.00	69.59	66.11
Dadri(g)	829.78	384.88	64.42	502.82	84.16	502.00	81.31	75.85
Faridabad(g)	431.57	209.75	67.50	278.05	89.48	294.16	91.61	82.06
Total Gas	2347.04	1132.96	64.88	1329.63	78.68	1370.16	78.47	73.96
RAPP-A	300	140.50	62.95	128.13	59.32	126.01	56.46	59.58
RAPP-B	440	253.71	77.50	286.42	90.41	289.40	88.40	85.38
NAPS	440	268.45	82.00	265.29	83.74	269.53	82.33	82.68
Total Nuclear	1180	662.66	75.48	679.84	80.02	684.94	78.02	77.82
Total Central Sector	9352.040	5369.565	77.17	5818.472	86.41	6341.910	91.15	84.89

Hydraulic data of Reservoirs

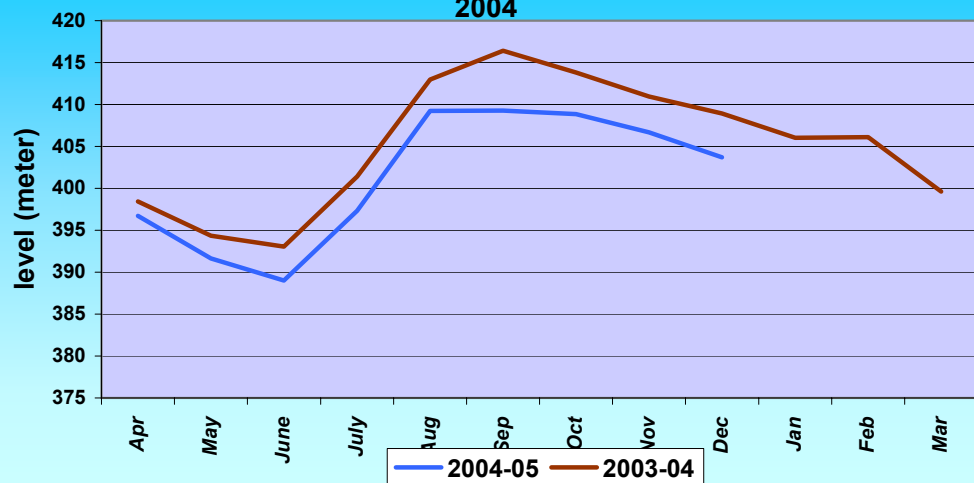
Bhakra	Res level (meter)	
Month	2004-05	2003-04
Apr	455.99	462.69
May	450.45	470.84
June	454.95	486.3
July	468.38	495.09
Aug	484.5	505.71
Sep	487.34	509.03
Oct	486.87	506.42
Nov	481.89	501.17
Dec	475.95	493.47
Jan		485.35
Feb		485.15
Mar		463.86

**Levels of Bhakra reservoir ,April-December
-2004**



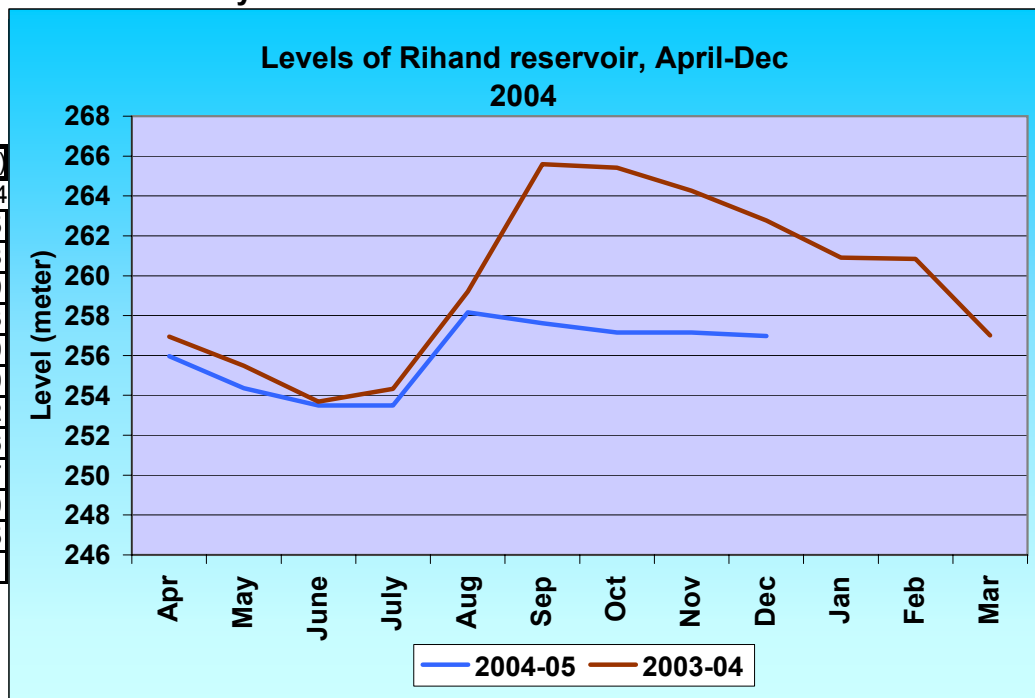
Pong	Res level (meter)	
Month	2004-05	2003-04
Apr	396.72	398.45
May	391.65	394.34
June	388.99	393.07
July	397.34	401.41
Aug	409.25	412.97
Sep	409.29	416.41
Oct	408.85	413.8
Nov	406.69	410.97
Dec	403.69	408.94
Jan		406.03
Feb		406.12
Mar		399.6

**Levels of Pong reservoir. April-December
2004**

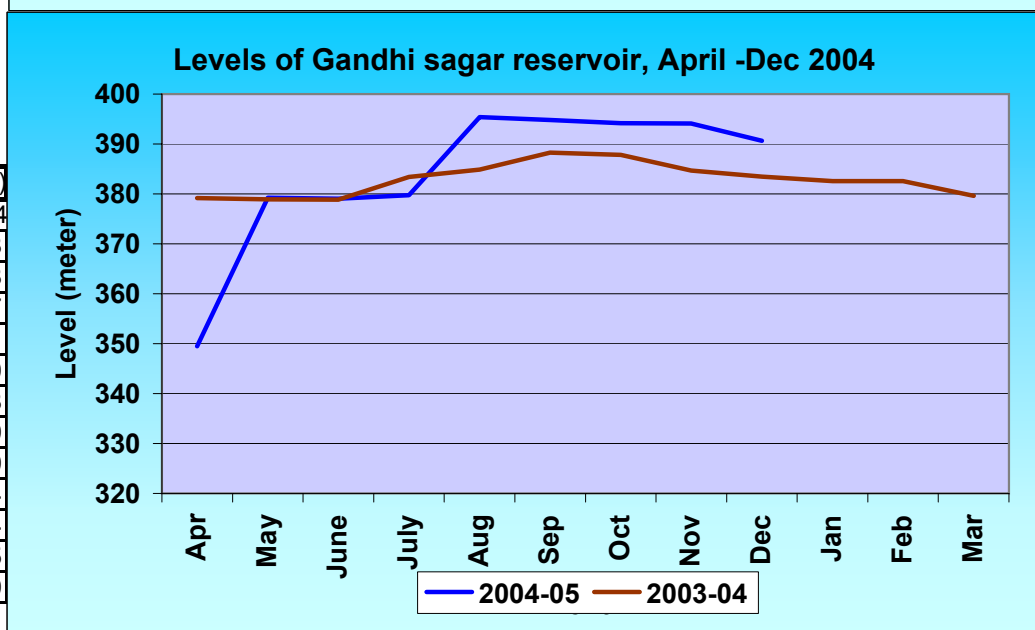


Hydraulic data of Reservoirs

Rihand	Res level (meter)	
Month	2004-05	2003-04
Apr	255.97	256.95
May	254.36	255.48
June	253.5	253.69
July	253.5	254.33
Aug	258.17	259.20
Sep	257.62	265.60
Oct	257.16	265.42
Nov	257.16	264.26
Dec	256.98	262.77
Jan		260.90
Feb		260.85
Mar		257.01



G.sagar	Res level (meter)	
Month	2004-05	2003-04
Apr	349.49	379.18
May	379.20	378.88
June	379.07	378.87
July	379.77	383.41
Aug	395.38	384.90
Sep	394.79	388.28
Oct	394.17	387.79
Nov	394.12	384.69
Dec	390.61	383.44
Jan		382.54
Feb		382.55
Mar		379.59



Hydraulic data of Reservoirs

R.P. Sagar	Res level (meter)	
Month	2004-05	2003-04
Apr	344.88	346.42
May	344.62	345.60
June	344.39	345.70
July	344.64	346.22
Aug	349.39	346.94
Sep	349.30	347.61
Oct	348.02	348.46
Nov	349.21	348.58
Dec	349.41	346.41
Jan		346.32
Feb		344.74
Mar		345.11

Levels of R.P Sagar reservoir, April-Dec 2004

