

QUARTERLY REPORT

NORTHERN REGIONAL LOAD DESPATCH CENTRE

YEAR: 2004-2005/ QUARTER-2

JULY 2004 TO SEPT 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)	(%)
Jul-04	24207	26808	2601	9.70
Aug-04	24012	25572	1560	6.10
Sep-04	23690	26169	2479	9.47

(b) Energy availability and requirement

Month	Demand met	Energy Requirement	Energy Shortage
	(MUs)/ Day	(MUs)/Day	(%)
Jul-04	489.97	557.16	12.06
Aug-04	461.88	514.69	10.26
Sep-04	464.19	530.43	12.49

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
Jul-04	0.01	17.83	82.16	0.01	0.00	5.60	49.35
Aug-04	0.00	7.64	91.50	0.87	0.00	2.93	49.71
Sep-04	0.03	22.07	77.93	0.00	0.00	6.06	49.32

(b) Voltage profile at important grid points

Month	Dadri		Kanpur		Moga	
	Max	Min	Max	Min	Max	Min
Jul-04	416	390	431	396	412	397
Aug-04	419	406	417	402	413	401
Sep-04	423	406	413	397	414	401

Inter-regional exchanges during the quarter Jul-Sep 2004

Month	Vindhyachal HVDC		Utilisation factor	Pusauli HVDC		Utilisation Factor
	Export	Import	(%)	Export	Import	(%)
Jul-04	0.26	197.76	53.23	0.00	343.11	92.23
Aug-04	0.57	228.49	61.58	0.08	262.70	70.64
Sep-04	0.00	248.67	69.08	0.00	297.48	82.63

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
Jul-04	11.00	0.00	47.19	0.00	0.20	28.67	0.00	0.00
Aug-04	0.00	0.00	18.69	0.00	1.05	102.53	0.00	0.00
Sep-04	0.00	0.00	10.53	0.00	1.02	98.09	3.15	0.00

Important Events/Commissioning of New Units/ Lines/ Transformers

1. 400 Kv Tehri-Merrut ckt-I was charged on 18.08.2004
2. 400 kv Ballabgarh-Bamnauli ckt-I charged on 20.08.2004
3. Facts (stage-II) of 400 kv Kanpur-Ballabgarh commissioned on 21.08.2004

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

Jul-04	State/ UT	Schedule	Actual drawal	OD(+)/UD(-)
	Punjab	2575.87	1640.5	64.63
	Haryana	1272.26	1407.76	135.5
	Rajasthan	989.7	1064.34	74.64
	U.P	1646.49	1825.29	178.8
	Uttaranchal	111.07	83.83	-27.24
	Delhi	1443.04	1233.21	-209.83
	H.P	-107.39	-126.07	-18.68
	J & K	465.07	493.55	24.48
	Chandigarh	106.74	130.91	24.17
	NFF/ Rail	69.22	50.96	-18.26

Aug-04	State/ UT	Schedule	Actual drawal	OD(+)/UD(-)
	Punjab	1645.94	1781.67	135.72
	Haryana	1108.07	1255.82	147.75
	Rajasthan	864.07	651.39	-212.68
	U.P	1566.38	1905.43	339.05
	Uttaranchal	51.29	10.29	-41.00
	Delhi	1318.34	1064.37	-253.97
	H.P	-156.15	-169.95	-13.8
	J & K	423.87	498.45	74.58
	Chandigarh	104.89	116.71	11.82
	NFF/ Rail	64.07	49.73	-14.35

Sep-04	State/ UT	Schedule	Actual drawal	OD(+)/UD(-)
	Punjab	1427.56	1454.79	27.23
	Haryana	1031.84	1087.77	55.93
	Rajasthan	840.15	903.96	63.81
	U.P	1540.97	1639.84	98.87
	Uttaranchal	76.86	17.16	-59.7
	Delhi	1154.31	1014.88	-139.43
	H.P	10.56	-17.04	-27.6
	J & K	387.4	482.56	95.16
	Chandigarh	103.37	108.54	5.17
	NFF/ Rail	69.45	47.29	-22.16

SUMMARY OF THE EFFECTIVE GENERATING CAPACITY AT THE END OF THE QUARTER JULY-SEPT 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

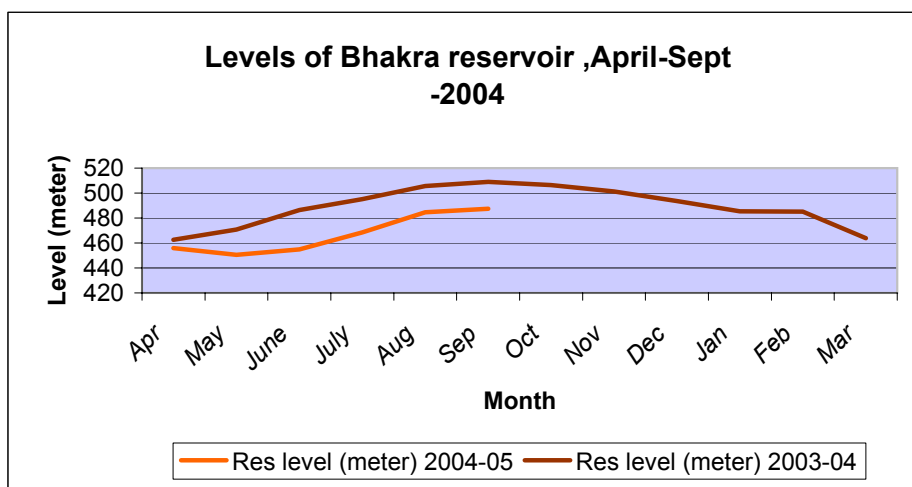
JULY	
Date/ Time	Incident
26.07.2004 12.37 Hrs.	At 12.37 hrs, a grid incident occurred in Northern Regional grid in which the Rihand-Dadri Bipole and all 400 Kv parallel AC lines in East-West corridor tripped, resulting in seperation of grid leading to formation of Eastern and Western sub-systems. After seperation frequency in eastern sub-system shoot up beyond 52.00 hz resulting in loss of generation to the tune of 3000 mw and in western sub-system frequency went down below 45.50 hz resulting in operation of under-frequency and df/dt relays. However, both the sub-systems survived and system was normalised by 13.21 hrs. Grid incidents during the month of August & September- Nil

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

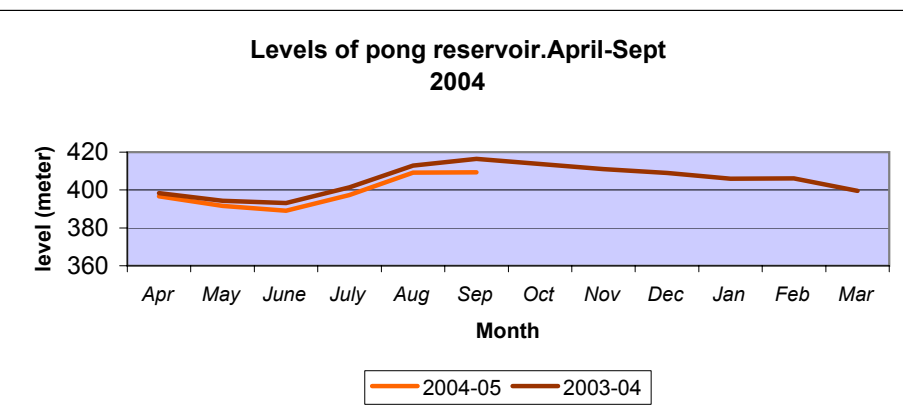
Generating Station	Installed capacity	July (MU)	PLF	Aug (MU)	PLF	Sep (MU)	PLF	Average PLF Jul-Sept-04
Singrauli	2000	1313.00	88.24	1211.77	81.44	1343.90	93.33	87.61
Rihand	1000	677.50	91.06	625.84	84.12	480.52	66.74	80.79
Dadri(t)	840	610.50	97.69	590.48	94.48	595.30	98.43	96.85
Unchahar-I	420	307.61	98.44	297.80	95.30	209.51	69.28	87.88
Unchahar-II	420	262.52	84.01	217.43	69.58	306.68	101.42	84.82
Tanda	440	294.50	89.96	236.70	72.31	243.43	76.84	79.73
Badarpur	705	510.31	97.29	478.44	91.21	500.95	98.69	95.70
Total Thermal	5825	3975.94	91.74	3658.46	84.42	3680.29	87.75	87.97
Anta (g)	419.33	215.44	69.06	258.83	82.96	267.90	88.73	80.16
Auraiya (g)	666.36	423.16	85.35	373.98	75.43	362.90	75.64	78.84
Dadri(g)	829.78	473.83	76.75	481.07	77.92	492.70	82.47	79.01
Faridabad(g)	431.57	294.88	91.84	288.57	89.87	289.90	93.30	91.65
Total Gas	2347.04	1407.31	80.59	1402.45	80.31	1413.40	83.64	81.49
RAPP-A	300	66.54	29.81	114.17	51.15	135.02	62.51	47.66
RAPP-B	440	263.62	80.53	182.78	55.83	163.44	51.59	62.77
NAPS	440	117.59	35.92	119.92	36.63	176.22	55.63	42.59
Total Nuclear	1180	447.75	51.00	416.87	47.48	474.68	55.87	51.40
Total Central Sector	9352.040	5831.000	83.80	5477.780	78.73	5568.370	82.70	81.73

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		506.42
Nov		501.17
Dec		493.47
Jan		485.35
Feb		485.15
Mar		463.86

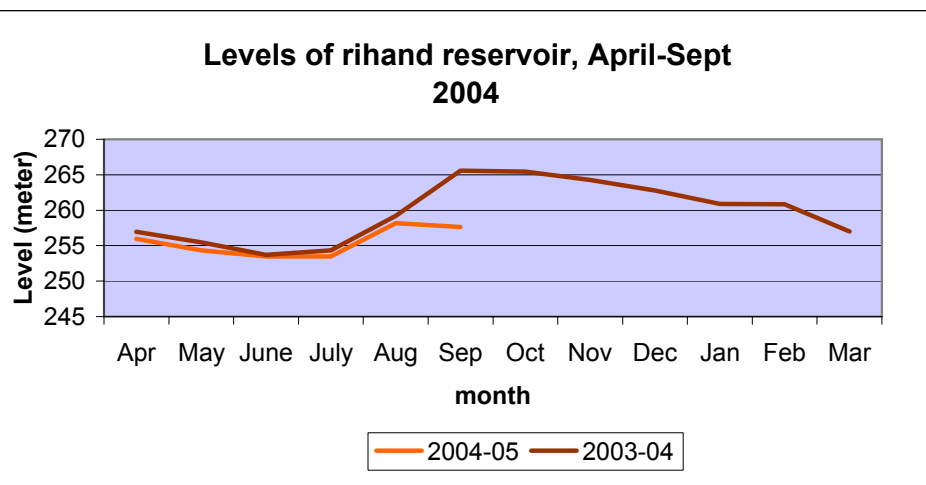


Pong	Res level (meter)	
Month	2004-05	2003-04
Apr	396.72	398.45
May	391.65	394.34
June	388.99	393.07
July	397.34	401.41
Aug	409.25	412.97
Sep	409.29	416.41
Oct		413.8
Nov		410.97
Dec		408.94
Jan		406.03
Feb		406.12
Mar		399.6

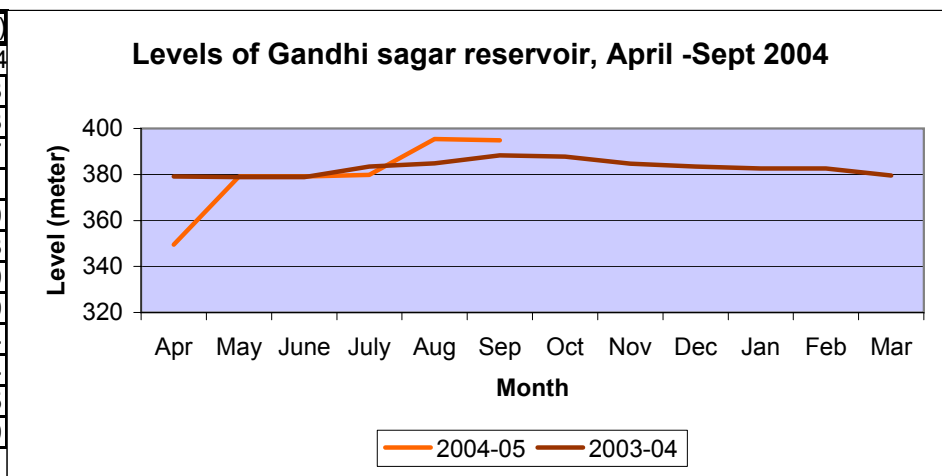


Hydraulic data of Reservoirs

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		265.42
Nov		264.26
Dec		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		387.79
Nov		384.69
Dec		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		348.46
Nov		348.58
Dec		346.41
Jan		346.32
Feb		344.74
Mar		345.11

