

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 25.04.2013  
Date of Reporting : 26.04.2013

### I. Regional Availability/Demand:

Evening Peak (20:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy (Net MU)	
Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage	Requirement	Freq* (Hz)	Demand Met	Shortage
33096	1410	34506	50.12	29945	2245	32190	50.17	753.7	54.10

\* Half hourly (two 15 minutes block—one block each before and after the designated time) average frequency

### II. A. State's Load Details (At States periphery) in MUs:

State	State's Control Area Generation (Net MU)				Drawal Schedule (Net MU)	Actual Drawal (Net MU)	UI (Net MU)	Consumption (Net MU)	Shortages* (MU)
	Thermal	Hydro	Renewable/others \$	Total					
Punjab	48.37	3.63		51.99	51.55	51.84	0.28	103.83	0.33
Haryana	53.83	0.58		54.40	52.30	50.27	-2.03	104.68	0.00
Rajasthan	86.92	0.00	6.85	93.78	52.86	49.00	-3.86	142.78	0.20
Delhi	28.51			28.51	58.14	54.91	-3.23	83.42	0.09
UP	121.41	6.16	14.40	141.97	87.84	86.05	-1.78	228.02	50.52
Uttarakhand		13.34		13.34	19.37	19.36	-0.01	32.70	1.07
HP		12.88		12.88	14.57	10.70	-3.87	23.58	0.19
J & K		10.75	0.00	10.75	22.29	19.42	-2.88	30.17	1.70
Chandigarh				0.00	4.64	4.50	-0.14	4.50	0.00
<b>Total</b>	<b>339.04</b>	<b>47.34</b>	<b>21.25</b>	<b>407.63</b>	<b>363.56</b>	<b>346.05</b>	<b>-17.51</b>	<b>753.68</b>	<b>54.10</b>

\* Shortage furnished by the respective constituent.\$ Others include UP Co-generation and JK Diesel

### II. B. State's Demand Met in MWs:

State	Evening Peak (20:00 Hrs) MW				Off Peak (03:00 Hrs) MW				Day Energy MU
	Demand Met	Shortage	UI	STOA/PX transaction	Demand Met	Shortage	UI	STOA/PX transaction	
Punjab	5157	0	83	310	4048	0	-105	376	6.38
Haryana	5489	0	-83	143	4305	0	6	18	-5.20
Rajasthan	5939	0	-586	509	5803	0	-110	151	7.71
Delhi	3766	0	-259	-410	2876	0	-244	-902	-14.18
UP	8421	1235	-705	-24	9688	2245	1	675	4.52
Uttarakhand	1590	75	87	463	1275	0	-13	408	10.13
HP	1036	0	-171	-498	853	0	-183	-18	-3.73
J&K	1483	100	-179	-44	957	0	-265	-10	-0.89
Chandigarh	215	0	-18	0	141	0	-4	15	0.60
<b>Total</b>	<b>33096</b>	<b>1410</b>	<b>-1831</b>	<b>448</b>	<b>29945</b>	<b>2245</b>	<b>-918</b>	<b>713</b>	<b>5.32</b>

\* STOA figures are at sellers boundary & PX figures are at regional boundary.

### III. Regional Entities :

Entity	Station/ Constituent	Inst. Capacity (Effective) MW	Declared Capacity(MW)	Peak MW (Gross)	Off Peak MW (Gross)	Energy (Net MU)	Average Sentout(MW)	Schedule Net MU	UI Net MU	
										UI
A. NTPC	Singrauli STPS	2000	1250	1356	1364	30.15	1256	30.00	0.15	
	Rihand I STPS	1000	930	1005	973	22.13	922	22.05	0.08	
	Rihand II STPS	1000	970	1039	1004	23.11	963	23.01	0.09	
	Rihand III STPS	500	445	488	504	10.72	447	10.68	0.04	
	Dadri I STPS	840	807	800	621	17.35	723	18.85	-1.50	
	Dadri II STPS	980	969	1000	991	22.24	927	22.80	-0.56	
	Unchahar I TPS	420	395	425	411	9.27	386	9.20	0.06	
	Unchahar II TPS	420	398	425	383	9.15	381	9.00	0.15	
	Unchahar III TPS	210	0	0	0	0.00	0	0.00	0.00	
	ISTPP (Jhajjar)	1500	995	530	631	15.00	625	14.48	0.52	
	Dadri GPS	830	806	385	366	8.81	367	9.29	-0.49	
	Anta GPS	419	392	240	213	5.49	229	5.61	-0.12	
	Auraiva GPS	663	624	309	313	7.16	298	6.97	0.18	
	<b>Sub Total (A)</b>		<b>10782</b>	<b>8981</b>	<b>8002</b>	<b>7774</b>	<b>180.57</b>	<b>7524</b>	<b>181.96</b>	<b>-1.39</b>
	B. NPC	NAPS	440	308	327	338	7.07	295	7.39	-0.32
RAPS- B		440	416	451	459	9.23	384	9.98	-0.76	
RAPS- C		440	435	467	472	10.07	420	10.44	-0.37	
<b>Sub Total (B)</b>			<b>1320</b>	<b>1159</b>	<b>1245</b>	<b>1269</b>	<b>26.37</b>	<b>1099</b>	<b>27.82</b>	<b>-1.45</b>
C. NHPC	Chamera I HPS	540	360	360	0	6.87	286	6.87	0.00	
	Chamera II HPS	300	310	312	72	4.08	170	4.12	-0.05	
	Chamera III HPS	231	231	224	18	2.69	112	2.60	0.09	
	Bairasuil HPS	180	182	170	20	2.02	84	1.83	0.19	
	Salal-HPS	690	330	551	243	8.22	342	7.92	0.30	
	Tanakpur-HPS	94	33	44	32	0.85	35	0.79	0.06	
	Uri-HPS	480	480	478	475	11.46	478	11.52	-0.06	
	Dhauliganga-HPS	280	280	278	0	2.40	100	2.27	0.13	
	Dulhasti-HPS	390	387	406	0	5.44	227	5.45	-0.01	
	Sewa-II HPS	120	119	122	0	1.84	77	1.87	-0.03	
	<b>Sub Total (C)</b>		<b>3305</b>	<b>2711</b>	<b>2945</b>	<b>860</b>	<b>45.86</b>	<b>1911</b>	<b>45.24</b>	<b>0.62</b>
	D.NJPC	Natpcha Jhakri	1500	1605	1558	0	22.00	917	22.40	-0.40
		<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1558</b>	<b>0</b>	<b>22.00</b>	<b>917</b>	<b>22.40</b>
E. THDC	Tehri HPS	1000	213	341	297	4.70	196	4.75	-0.05	
	Koteshwar HPS	400	217	168	0	1.85	77	1.85	0.00	
	<b>Sub Total (E)</b>		<b>1400</b>	<b>429</b>	<b>509</b>	<b>297</b>	<b>6.55</b>	<b>273</b>	<b>6.60</b>	<b>-0.05</b>
F. BBMB	Bhakra HPS	1480	376	801	332	9.77	407	9.03	0.74	
	Dehar HPS	990	345	825	290	8.84	368	8.29	0.55	
	Pong HPS	396	52	300	0	1.38	58	0.25	1.13	
	<b>Sub Total (F)</b>		<b>2866</b>	<b>774</b>	<b>1926</b>	<b>622</b>	<b>19.99</b>	<b>833</b>	<b>17.57</b>	<b>2.42</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	90	91	1.36	56	1.26	0.09	
	KWHEP HPS(IPP)	1000	0	851	229	12.41	517	12.01	0.40	
	Malana Stg-II HPS	100	0	106	0	0.59	25	0.54	0.05	
	Shree Cement TPS	300	0	262	259	6.32	264	6.35	-0.03	
	Budhil HPS(IPP)	70	0	35	0	0.32	14	0.42	-0.09	
	<b>Sub Total (G)</b>		<b>1662</b>	<b>0</b>	<b>1344</b>	<b>579</b>	<b>21.00</b>	<b>875</b>	<b>20.58</b>	<b>0.42</b>
<b>H. Total Regional Entities (A-G)</b>		<b>22836</b>	<b>15659</b>	<b>17529</b>	<b>11401</b>	<b>322.34</b>	<b>13431</b>	<b>322.16</b>	<b>0.18</b>	

I. State Entities	Station	Effective Installed Capacity (MW)	Peak MW	Off Peak MW	Energy(MU)	Average(Sent out MW)
Punjab	Guru Gobind Singh TPS (Ropar)	1260	842	890	21.75	906
	Guru Nanak Dev TPS(Bhatinda)	440	340	295	6.72	280
	Guru Hargobind Singh TPS(L.mbt)	920	945	800	19.89	829
	Thermal (Total)	2620	2127	1985	48.37	2015
	Total Hydro	1148	299	133	3.63	151
	<b>Total Punjab</b>	<b>3768</b>	<b>2426</b>	<b>2118</b>	<b>51.99</b>	<b>2166</b>
Haryana	Panipat TPS	1367	663	612	15.50	646
	DCRTPP (Yamuna nagar)	600	560	509	12.63	526
	Faridabad GPS (NTPC)	432	186	183	4.22	176
	RGTPP (khedar) (IPP)	1200	506	436	12.18	507
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	373	375	9.31	388
	Thermal (Total)	4944	2288	2115	53.83	2243
	Total Hydro	62	22	20	0.58	24
	<b>Total Haryana</b>	<b>5006</b>	<b>2310</b>	<b>2135</b>	<b>54.40</b>	<b>2267</b>
	Rajasthan	kota TPS	1240	1049	1178	27.30
suratgarh TPS		1500	963	1130	24.90	1037
Chabra TPS		500	387	453	10.20	425
Dholpur GPS		330	118	140	3.28	137
Ramgarh GPS		111	53	0	1.96	82
RAPS A (NPC)		300	0	0	0.00	0
Barsingsar (NLC)		250	91	111	2.54	106
Giral LTPS		250	70	42	0.92	38
Rajwest LTPS (IPP)		1080	502	670	15.83	660
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3233	3724	86.92	3622
Total Hydro		550	0	0	0.00	0
Wind power		2191	298	279	4.77	199
Biomass		91	36	36	0.87	36
Solar		201	0	0	1.22	51
Renewable/Others (Total)		2483	334	315	6.85	286
<b>Total Rajasthan</b>		<b>8729</b>	<b>3567</b>	<b>4039</b>	<b>93.78</b>	<b>3907</b>
UP	Anpara TPS	1630	1369	1337	29.20	1217
	Obra TPS	1382	552	552	12.20	508
	Paricha TPS	890	801	806	17.40	725
	Panki TPS	210	80	85	1.50	63
	Harduaganj TPS	665	302	300	6.40	267
	Tanda TPS (NTPC)	440	401	404	9.81	409
	Roza TPS (IPP)	1200	423	532	12.85	536
	Anpara-C (IPP)	1200	640	1006	22.89	954
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	315	401	9.16	382
	Thermal (Total)	8067	4883	5423	121.41	5059
	Vishnuparyag HPS (IPP)	400	184	159	3.83	160
	Other Hydro	527	152	123	2.33	97
	Cogeneration	981	600	600	14.40	600
	<b>Total UP</b>	<b>9975</b>	<b>5819</b>	<b>6305</b>	<b>141.97</b>	<b>5756</b>
Uttarakhand	Total Hydro	1303	552	542	13.34	556
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>552</b>	<b>542</b>	<b>13.34</b>	<b>556</b>
Delhi	Rajghat TPS	135	103	104	2.77	115
	Delhi Gas Turbine	282	186	190	4.70	196
	Pragati Gas Turbine	330	294	258	6.93	289
	Rithala GPS	108	0	0	0.00	0
	Bawana GPS	677	23	0	0.44	18
	Badarpur TPS (NTPC)	705	590	565	13.67	570
	Thermal (Total)	2237	1196	1117	28.51	1188
	<b>Total Delhi</b>	<b>2237</b>	<b>1196</b>	<b>1117</b>	<b>28.51</b>	<b>1188</b>
HP	Baspa HPS (IPP)	330	160	117	2.82	117
	Malana HPS (IPP)	86	75	7	0.49	20
	Other Hydro	589	345	415	9.58	399
	<b>Total HP</b>	<b>1005</b>	<b>580</b>	<b>539</b>	<b>12.88</b>	<b>537</b>
J & K	Baglihar HPS (IPP)	450	384	384	9.18	383
	Other Hydro	323	50	98	1.57	65
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>434</b>	<b>482</b>	<b>10.75</b>	<b>448</b>
<b>Total State Control Area Generation</b>		<b>32979</b>	<b>16884</b>	<b>17277</b>	<b>407.63</b>	<b>16825</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1542</b>	<b>2134</b>	<b>36.81</b>	<b>1534</b>
<b>Total Regional Availability(Gross)</b>		<b>55815</b>	<b>35955</b>	<b>30812</b>	<b>766.78</b>	<b>31789</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	7985	2099	108.76	4532
State Control Area Hydro	5368	2039	1839	47.34	1813
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10024</b>	<b>3938</b>	<b>156.09</b>	<b>6344</b>

**V(A). Inter Regional Exchange [Import (+ve)/Export (-ve)] [Linkwise]**

Element	Peak(20:00 Hrs)	Off Peak(03:00 Hrs)	Maximum Interchange (MW)		Energy (MU)		Net Energy MU
	MW	MW	Import	Export	Import	Export	
Vindhychal B/B	-250	-100	0	250	0.00	4.08	-4.08
Gwalior-Agra (D/C)	566	776	930	0	12.33	0.00	12.33
Zerda-Kankroli	-127	-120	0	295	0.00	3.63	-3.63
Zerda-Bhinmal	-82	-82	10	285	0.00	2.39	-2.39
Malanpur-Auraiya	-124	-85	0	133	0.00	2.15	-2.15
Badod-Kota/Morak	-106	-110	0	210	0.00	3.28	-3.28
Mundra-Mohindergarh(HVDC)	1202	1185	1450	0	29.93	0.00	29.93
<b>Sub Total WR</b>	<b>1079</b>	<b>1464</b>			<b>42.26</b>	<b>15.53</b>	<b>26.73</b>
Pusauli Bypass	100	100	200	0	2.42	0.00	2.42
MZP- GKP (D/C)	264	130	264	0	0.61	0.00	0.61
Patna-Balia(D/C)	298	364	383	0	6.92	0.00	6.92
B'Sharif-Balia (D/C)	4	83	151	0	0.41	0.00	0.41
Pusauli-Balia	-172	-76	0	172	0.00	2.40	-2.40
Gaya-Fatehpur (765 Kv)	-138	-25	76	138	0.00	0.08	-0.08
Pusauli-Sahupuri	143	134	151	0	2.95	0.00	2.95
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-40	0	44	0.00	0.75	-0.75
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>463</b>	<b>670</b>			<b>13.31</b>	<b>3.23</b>	<b>10.08</b>
<b>Total IR Exch</b>	<b>1542</b>	<b>2134</b>			<b>55.57</b>	<b>18.76</b>	<b>36.81</b>

**V(B). Inter Regional Schedule & Actual Exchanges [Import (+ve)/Export (-ve)] [Corridor wise]**

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdi (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
27.28	0.62	27.90	-6.10	-9.94	0.00	3.14	-3.01	3.01

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR Inclds Mndra	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
18.79	35.23	54.01	10.08	26.73	36.81	-8.71	-8.50	-17.20

**VI. Frequency Profile** <----- % of Time Frequency ----->

<48.80	<49.0	<49.20	<49.50	<49.7	49.5 - 50.2	49.7 - 50.2	> 50.00	> 50.2
0.00	0.00	0.00	0.00	0.59	95.76	95.17	73.95	4.24

<----- Frequency (Hz) ----->				Average Frequency	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	Hz				
50.56	17.30	49.63	5.18	50.06	0.21	0.10	50.35	49.89

**VII. Voltage profile 400 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<380 kV	<390 kV	>420 kV	>430 kV
Rihand	400	414	17:30	405	8:53	0.0	0.0	0.0	0.0
Gorakhpur	400	425	7:28	409	11:29	0.0	0.0	13.4	0.0
Bareilly	400	422	7:26	399	12:12	0.0	0.0	0.8	0.0
Kanpur	400	419	3:02	401	9:55	0.0	0.0	0.0	0.0
Dadri	400	418	17:30	401	9:51	0.0	0.0	0.0	0.0
Ballabgarh	400	425	3:02	406	9:41	0.0	0.0	14.6	0.0
Bawana	400	418	3:01	403	9:41	0.0	0.0	0.0	0.0
Bassi	400	424	3:02	400	11:28	0.0	0.0	13.3	0.0
Hissar	400	411	17:30	397	9:41	0.0	0.0	0.0	0.0
Moga	400	417	3:00	401	19:38	0.0	0.0	0.0	0.0
Abdullapur	400	417	3:01	403	19:11	0.0	0.0	0.0	0.0
Nalagarh	400	416	2:55	401	19:13	0.0	0.0	0.0	0.0
Kishenpur	400	419	2:54	397	19:42	0.0	0.0	0.0	0.0
Wagoora	400	414	2:55	387	19:47	0.0	4.4	0.0	0.0

**VIII. Voltage profile 765 kV**

Station	Voltage Level (kV)	Maximum		Minimum		Voltage (in % of Time)			
		Voltage(KV)	Time	Voltage (KV)	Time	<728 kV	<742 kV	>800 kV	>820 kV
Fatehpur	765	762	2:54	734	8:32	0.0	0.0	100.0	100.0
Balia	765	761	7:35	730	11:29	0.0	0.0	100.0	100.0
Moga	765	782	3:00	752	9:41	0.0	0.0	100.0	100.0
Agra	765	781	18:02	745	5:42	0.0	0.0	0.0	0.0
Bhiwani	765	793	13:29	762	5:40	0.0	0.0	0.0	0.0
Unnao	765	758	18:17	730	5:42	0.0	37.1	0.0	0.0

**IX. Reservoir Parameters:**

Name of Reservoir	Parameters		Present Parameters		Last Year		Last day	
	FRL (m)	MDDL (m)	Level (m)	Energy (MU)	Level (m)	Energy (MU)	Inflow (m³/s)	Usage (m³/s)
Bhakra	513.59	445.62	479.80	454.47	474.67	345.61	430.67	345.61
Pong	426.72	384.05	400.36	230.85	403.34	296.79	57.03	296.79
Tehri	829.79	740.04	763.10	146.00	818.65	982.26	95.83	144.00
Koteshwar	612.50	598.50	599.10	0.30	610.68	4.86	14.00	123.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	164.91	186.02
Rihand	268.22	252.98	257.10	162.00	258.32	216.70	NA	NA
RPS	352.80	343.81	346.02	NA	348.41	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.16	NA	298.25	NA	NA	NA
RSD	527.91	487.91	507.32	NA	497.01	NA	152.34	29.90

\* NA: Not Available

**X. System Constraints:**

**XI. Grid Disturbance / Any Other Significant Event:**

**XII. Weather Conditions For 25.04.2013 :**

1.Normal weather.

**XIII. Synchronisation of new generating units :**

0.00

**XIV. Synchronisation of new 220 / 400 / 765 KV lines and energising of bus / /substation :**

**XV. Tripping of lines in pooling stations :**

**XVI. Complete generation loss in a generating station :**

Report for : 25.04.2013

पारी प्रभाती अश्विन्ता / SHIFT CHARGE ENGINEER