

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 08.05.2013  
Date of Reporting : 09.05.2013

### 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
36620	2410	39030	50.07	33633	1765	35398	50.14	836.3	60.08

\* 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	48.22	10.48		58.70	69.89	71.88	1.99	130.58	3.35
Haryana	54.63	0.59		55.21	76.75	75.68	-1.08	130.89	0.20
Rajasthan	94.57	0.00	13.21	107.79	57.09	53.82	-3.27	161.61	0.00
Delhi	32.16			32.16	66.01	60.82	-5.19	92.97	0.09
UP	122.42	6.86	9.60	138.88	90.09	89.78	-0.31	228.66	52.23
Uttarakhand		14.28		14.28	18.55	17.34	-1.21	31.62	2.51
HP		13.16		13.16	11.58	10.59	-0.99	23.75	0.00
J & K		13.49	0.00	13.49	17.43	17.47	0.04	30.96	1.70
Chandigarh				0.00	4.67	5.28	0.61	5.28	0.00
<b>Total</b>	<b>351.99</b>	<b>58.86</b>	<b>22.81</b>	<b>433.66</b>	<b>412.05</b>	<b>402.66</b>	<b>-9.40</b>	<b>836.32</b>	<b>60.08</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	6031	0	163	466	5375	325	129	761	12.64
Haryana	5829	0	-13	299	5109	0	71	244	6.24
Rajasthan	6538	0	-236	307	6633	0	-307	117	8.29
Delhi	4090	0	-286	-341	3543	0	-231	-288	-5.35
UP	10009	2150	122	92	9616	1290	77	489	6.80
Uttarakhand	1507	160	-92	468	1223	150	36	364	8.83
HP	980	0	-149	-599	846	0	6	-151	-6.64
J&K	1392	100	-101	-103	1107	0	12	-109	-3.31
Chandigarh	244	0	-3	0	181	0	23	20	0.30
<b>Total</b>	<b>36620</b>	<b>2410</b>	<b>-596</b>	<b>588</b>	<b>33633</b>	<b>1765</b>	<b>-184</b>	<b>1447</b>	<b>27.80</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	
A. NTPC	Singrauli STPS	2000	1419	1569	1562	34.48	1437	34.06	0.42	
	Rihand I STPS	1000	915	992	997	21.94	914	21.96	-0.03	
	Rihand II STPS	1000	965	1027	1043	23.20	967	23.16	0.04	
	Rihand III STPS	500	447	469	476	10.78	449	10.72	0.06	
	Dadri I STPS	840	659	869	644	15.36	640	15.82	-0.46	
	Dadri II STPS	980	779	827	670	17.80	742	18.18	-0.39	
	Unchahar I TPS	420	386	430	424	9.04	377	9.18	-0.14	
	Unchahar II TPS	420	391	428	439	9.20	383	9.21	-0.01	
	Unchahar III TPS	210	0	0	0	0.00	0	0.00	0.00	
	ISTPP (Jhajjar)	1500	940	897	883	19.08	795	19.42	-0.34	
	Dadri GPS	830	798	273	225	7.18	299	7.24	-0.05	
	Anta GPS	419	389	193	196	4.71	196	4.83	-0.12	
	Auraiya GPS	663	621	150	156	3.52	147	3.60	-0.08	
	<b>Sub Total (A)</b>	<b>10782</b>	<b>8709</b>	<b>8124</b>	<b>7715</b>	<b>176.27</b>	<b>1735</b>	<b>177.38</b>	<b>-1.11</b>	
	B. NPC	NAPS	440	304	338	344	7.19	300	7.30	-0.10
RAPS- B		440	400	439	444	9.54	398	9.60	-0.06	
RAPS- C		440	430	470	469	9.98	416	10.32	-0.34	
<b>Sub Total (B)</b>		<b>1320</b>	<b>1134</b>	<b>1247</b>	<b>1257</b>	<b>26.71</b>	<b>1113</b>	<b>27.22</b>	<b>-0.51</b>	
C. NHPC	Chamera I HPS	540	540	540	0	6.25	260	6.20	0.05	
	Chamera II HPS	300	310	312	177	5.33	222	5.28	0.05	
	Chamera III HPS	231	231	228	112	3.55	148	3.42	0.13	
	Bairasuil HPS	180	182	182	160	2.25	94	2.04	0.21	
	Salal-HPS	690	472	474	554	11.05	461	11.32	-0.27	
	Tanakpur-HPS	94	32	59	25	0.80	33	0.77	0.03	
	Uri-HPS	480	480	479	480	11.58	483	11.46	0.13	
	Dhauliganga-HPS	280	280	280	0	2.96	123	2.93	0.03	
	Dulhasti-HPS	390	387	402	209	7.58	316	7.41	0.18	
	Sewa-II HPS	120	119	122	0	1.60	66	1.63	-0.03	
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3032</b>	<b>3078</b>	<b>1717</b>	<b>52.96</b>	<b>2206</b>	<b>52.44</b>	<b>0.52</b>	
	D.NJPC	Nathpa Jhakri	1500	1605	1604	164	18.10	754	17.80	0.30
		<b>Sub Total (D)</b>	<b>1500</b>	<b>1605</b>	<b>1604</b>	<b>164</b>	<b>18.10</b>	<b>754</b>	<b>17.80</b>	<b>0.30</b>
E. THDC	Tehri HPS	1000	330	332	150	6.56	273	6.60	-0.04	
	Koteshwar HPS	400	241	242	0	2.60	108	2.60	0.00	
	<b>Sub Total (E)</b>	<b>1400</b>	<b>571</b>	<b>574</b>	<b>150</b>	<b>9.16</b>	<b>382</b>	<b>9.20</b>	<b>-0.04</b>	
F. BBMB	Bhakra HPS	1480	878	1101	813	21.29	887	21.07	0.22	
	Dehar HPS	990	354	660	150	9.07	378	8.49	0.58	
	Pong HPS	396	35	240	0	0.87	36	0.25	0.62	
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1266</b>	<b>2001</b>	<b>963</b>	<b>31.23</b>	<b>1301</b>	<b>29.80</b>	<b>1.43</b>	
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	60	30	0.94	39	1.36	-0.43	
	KWHEP HPS(IPP)	1000	0	460	170	10.20	425	9.85	0.35	
	Malana Stg-II HPS	100	0	26	100	0.56	23	0.51	0.05	
	Shree Cement TPS	300	0	202	268	5.34	222	5.44	-0.10	
	Budhil HPS(IPP)	70	0	35	35	0.40	17	0.58	-0.18	
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>783</b>	<b>603</b>	<b>17.43</b>	<b>726</b>	<b>17.74</b>	<b>-0.31</b>	
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>16317</b>	<b>17411</b>	<b>12569</b>	<b>331.85</b>	<b>13827</b>	<b>331.58</b>	<b>0.28</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	843	1055	22.62	942
	Guru Nanak Dev TPS(Bhatinda)	440	280	150	4.64	193
	Guru Hargobind Singh TPS(L.mbt)	920	958	951	20.96	873
	Thermal (Total)	2620	2081	2156	48.22	2009
	Total Hydro	1148	375	468	10.48	437
	<b>Total Punjab</b>	<b>3768</b>	<b>2456</b>	<b>2624</b>	<b>58.70</b>	<b>2446</b>
Haryana	Panipat TPS	1367	930	950	23.17	965
	DCRTPP (Yamuna nagar)	600	278	280	6.61	276
	Faridabad GPS (NTPC)	432	170	162	4.13	172
	RGTPP (khedar) (IPP)	1200	481	23	6.51	271
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	380	618	14.21	592
	Thermal (Total)	4944	2239	2033	54.63	2276
	Total Hydro	62	22	24	0.59	24
	<b>Total Haryana</b>	<b>5006</b>	<b>2261</b>	<b>2057</b>	<b>55.21</b>	<b>2301</b>
	Rajasthan	kota TPS	1240	1129	1099	26.85
suratgarh TPS		1500	1135	1138	27.51	1146
Chabra TPS		500	200	209	5.07	211
Dholpur GPS		330	105	134	2.66	111
Ramgarh GPS		111	141	139	3.42	143
RAPS A (NPC)		300	180	180	4.30	179
Barsingsar (NLC)		250	209	211	4.74	198
Giral LTPS		250	94	128	2.36	98
Rajwest LTPS (IPP)		1080	617	843	17.66	736
VSLP LTPS (IPP)		135	0	0	0.00	0
Thermal (Total)		5696	3810	4081	94.57	3941
Total Hydro		550	0	0	0.00	0
Wind power		2191	521	762	11.72	488
Biomass		91	31	31	0.75	31
Solar		201	0	0	0.74	31
Renewable/Others (Total)		2483	552	793	13.21	551
<b>Total Rajasthan</b>		<b>8729</b>	<b>4362</b>	<b>4874</b>	<b>107.79</b>	<b>4491</b>
UP	Anpara TPS	1630	1427	1391	33.30	1388
	Obra TPS	1288	459	457	11.10	463
	Paricha TPS	1140	595	604	10.90	454
	Panki TPS	210	122	144	3.40	142
	Harduaganj TPS	665	262	399	8.40	350
	Tanda TPS (NTPC)	440	402	401	9.79	408
	Roza TPS (IPP)	1200	1008	1017	24.23	1009
	Anpara-C (IPP)	1200	534	540	12.80	533
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	361	403	8.50	354
	Thermal (Total)	8223	5170	5356	122.42	5101
	Vishnuparyag HPS (IPP)	400	183	173	3.98	166
	Other Hydro	527	168	137	2.88	120
	Cogeneration	981	400	400	9.60	400
	<b>Total UP</b>	<b>10131</b>	<b>5921</b>	<b>6066</b>	<b>138.88</b>	<b>5621</b>
	Uttarakhand	Total Hydro	1303	628	498	14.28
<b>Total Uttarakhand</b>		<b>1303</b>	<b>628</b>	<b>498</b>	<b>14.28</b>	<b>595</b>
Delhi	Rajghat TPS	135	104	102	2.33	97
	Delhi Gas Turbine	282	153	156	3.61	150
	Pragati Gas Turbine	330	280	290	6.99	291
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	249	37	5.03	209
	Badarpur TPS (NTPC)	705	675	685	14.21	592
	Thermal (Total)	2232	1461	1270	32.16	1340
	<b>Total Delhi</b>	<b>2232</b>	<b>1461</b>	<b>1270</b>	<b>32.16</b>	<b>1340</b>
HP	Baspa HPS (IPP)	330	130	120	2.90	121
	Malana HPS (IPP)	86	7	85	0.62	26
	Other Hydro	589	420	359	9.63	401
	<b>Total HP</b>	<b>1005</b>	<b>557</b>	<b>564</b>	<b>13.16</b>	<b>548</b>
J & K	Baglihar HPS (IPP)	450	438	434	10.47	436
	Other Hydro	323	125	156	3.03	126
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>563</b>	<b>590</b>	<b>13.49</b>	<b>562</b>
<b>Total State Control Area Generation</b>		<b>33130</b>	<b>18209</b>	<b>18543</b>	<b>433.66</b>	<b>17903</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>2849</b>	<b>4065</b>	<b>89.03</b>	<b>3710</b>
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>38469</b>	<b>35177</b>	<b>854.55</b>	<b>35440</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	7803	3294	123.14	5131
State Control Area Hydro	5368	2313	2281	58.86	2287
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10116</b>	<b>5575</b>	<b>182.00</b>	<b>7418</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	100	350	350	150	4.21	0.87	3.34
Gwalior-Agra (D/C)	658	1103	1505	0	27.47	0.00	27.47
Zerda-Kankroli	-149	-153	0	259	0.00	3.47	-3.47
Zerda-Bhinmal	-132	-142	39	259	0.00	2.52	-2.52
Malanpur-Auraiya	-111	-55	0	111	0.00	1.30	-1.30
Badod-Kota/Morak	-122	-114	0	150	0.00	2.91	-2.91
Mundra-Mohindergarh(HVDC)	1063	1061	1199	0	25.49	0.00	25.49
<b>Sub Total WR</b>	<b>1307</b>	<b>2050</b>			<b>57.17</b>	<b>11.07</b>	<b>46.10</b>
Pusauli Bypass	-150	-100	0	300	0.00	5.29	-5.29
MZP- GKP (D/C)	378	764	798	0	14.08	0.00	14.08
Patna-Balia(D/C)	728	714	768	0	16.95	0.00	16.95
B'Sharif-Balia (D/C)	387	276	535	0	9.14	0.00	9.14
Pusauli-Balia	61	32	180	0	1.87	0.00	1.87
Gaya-Fatehpur (765 Kv)	33	217	285	6	3.76	0.00	3.76
Pusauli-Sahupuri	141	152	188	0	3.50	0.00	3.50
K'nasa-Sahupuri	0	0	0	0	0.00	0.00	0.00
Son Ngr-Rihand	-36	-40	0	44	0.00	1.07	-1.07
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1542</b>	<b>2015</b>			<b>49.29</b>	<b>6.36</b>	<b>42.93</b>
<b>Total IR Exch</b>	<b>2849</b>	<b>4065</b>			<b>106.46</b>	<b>17.43</b>	<b>89.03</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
39.59	0.94	40.53	-3.12	5.13	5.77	4.13	-1.60	1.60

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
41.58	52.31	93.89	42.93	46.10	89.03	1.36	-6.21	-4.85

**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	0.00	96.50	96.50	54.80	3.50

<----- 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				
50.53	6.03	49.74	12.43	50.01	0.10	0.10	50.36	0.00

**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	406	13:01	400	0:01	0.0	0.0	0.0	0.0
Gorakhpur	400	422	13:05	402	10:23	0.0	0.0	11.7	0.0
Bareilly	400	0	0:00	9999	0:00	0.0	0.0	0.0	0.0
Kanpur	400	419	13:04	404	0:03	0.0	0.0	0.0	0.0
Dadri	400	417	6:01	398	11:07	0.0	0.0	0.0	0.0
Ballabgarh	400	423	6:02	405	10:11	0.0	0.0	6.8	0.0
Bawana	400	420	6:03	401	10:23	0.0	0.0	0.0	0.0
Bassi	400	425	4:03	403	11:08	0.0	0.0	11.5	0.0
Hissar	400	412	6:03	394	9:27	0.0	0.0	0.0	0.0
Moga	400	421	3:04	404	10:10	0.0	0.0	0.3	0.0
Abdullapur	400	419	6:04	398	8:52	0.0	0.0	0.0	0.0
Nalagarh	400	423	3:05	403	9:42	0.0	0.0	8.7	0.0
Kishenpur	400	415	3:04	400	19:28	0.0	0.0	0.0	0.0
Wagoora	400	412	3:04	392	19:13	0.0	0.0	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	766	13:03	736	9:28	0.0	0.0	100.0	100.0
Balia	765	760	6:03	708	19:29	0.0	0.0	100.0	100.0
Moga	765	801	3:04	771	10:10	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	476.49	381.25	472.03	303.45	364.95	764.55
Pong	426.72	384.05	400.36	223.85	403.11	296.79	43.86	58.56
Tehri	829.79	740.04	758.70	110.00	818.65	982.26	92.35	206.00
Koteshwar	612.50	598.50	610.50	0.53	NA	NA	206.00	172.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	174.49	169.21
Rihand	268.22	252.98	256.92	154.20	257.71	188.40	NA	NA
RPS	352.80	343.81	346.16	NA	348.64	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.03	NA	298.31	NA	NA	NA
RSD	527.91	487.91	507.20	NA	498.84	NA	174.35	164.78

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 08.05.2013 :**

1.Hot & Dry 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 : 08.05.2013

पारी प्रभाती अजिंयता / SHIFT CHARGE ENGINEER