

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 13.05.2013  
Date of Reporting : 14.05.2013

### 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
35830	1975	37805	50.15	31512	220	31732	50.29	808.9	36.41

\* 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	40.29	8.72		49.01	77.00	77.13	0.13	126.13	0.00
Haryana	54.16	0.61		54.78	71.77	68.08	-3.70	122.85	0.01
Rajasthan	77.70	0.08	9.76	87.54	58.81	59.51	0.70	147.04	1.12
Delhi	24.67			24.67	65.49	62.19	-3.30	86.86	0.06
UP	125.60	5.84	8.40	139.84	97.90	95.67	-2.24	235.50	33.06
Uttarakhand		16.95		16.95	16.29	15.68	-0.61	32.62	0.45
HP		14.59		14.59	7.32	8.12	0.80	22.71	0.00
J & K		13.21	0.00	13.21	17.49	17.54	0.05	30.75	1.70
Chandigarh				0.00	4.59	4.45	-0.15	4.45	0.00
<b>Total</b>	<b>322.43</b>	<b>59.99</b>	<b>18.16</b>	<b>400.58</b>	<b>416.65</b>	<b>408.35</b>	<b>-8.31</b>	<b>808.92</b>	<b>36.41</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	5652	0	-75	907	4546	0	-15	1061	24.29
Haryana	5803	0	-257	283	4771	0	-78	113	4.12
Rajasthan	6525	0	-170	500	5628	0	-7	168	8.58
Delhi	3896	0	-244	-209	3244	0	-188	-384	-4.24
UP	9773	1800	-117	105	10055	220	33	831	9.62
Uttarakhand	1536	75	48	318	1204	0	-158	307	5.88
HP	946	0	-68	-757	733	0	56	-676	-15.28
J&K	1481	100	76	-244	1191	0	-21	-249	-5.96
Chandigarh	218	0	-21	0	140	0	-21	0	0.00
<b>Total</b>	<b>35830</b>	<b>1975</b>	<b>-828</b>	<b>902</b>	<b>31512</b>	<b>220</b>	<b>-399</b>	<b>1171</b>	<b>27.00</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	1340	1058	1758	29.87	1245	30.37	-0.51
	Rihand I STPS	1000	915	990	775	20.03	835	19.95	0.08
	Rihand II STPS	1000	965	1040	851	21.68	904	21.69	-0.01
	Rihand III STPS	500	475	510	420	10.65	444	10.69	-0.04
	Dadri I STPS	840	807	747	612	15.38	641	15.95	-0.57
	Dadri II STPS	980	969	982	719	19.40	808	20.05	-0.65
	Unchahar I TPS	420	386	418	342	8.30	346	8.30	0.00
	Unchahar II TPS	420	400	427	310	8.13	339	8.09	0.03
	Unchahar III TPS	210	200	218	164	4.11	171	4.08	0.04
	ISTPP (Jhajjar)	1500	940	639	642	14.28	595	14.50	-0.22
	Dadri GPS	830	807	302	344	8.25	344	8.45	-0.20
	Anta GPS	419	389	0	0	0.00	0	0.00	0.00
	Auraiya GPS	663	620	293	272	6.63	276	6.53	0.09
	<b>Sub Total (A)</b>	<b>10782</b>	<b>9213</b>	<b>7624</b>	<b>7209</b>	<b>166.72</b>	<b>6947</b>	<b>168.66</b>	<b>-1.94</b>
	B. NPC	NAPS	440	298	334	349	7.27	303	7.15
RAPS- B		440	400	444	451	9.64	402	9.60	0.04
RAPS- C		440	430	469	470	10.07	420	10.32	-0.25
<b>Sub Total (B)</b>		<b>1320</b>	<b>1128</b>	<b>1247</b>	<b>1270</b>	<b>26.98</b>	<b>1124</b>	<b>27.07</b>	<b>-0.09</b>
C. NHPC	Chamera I HPS	540	540	540	0	9.44	393	9.36	0.08
	Chamera II HPS	300	303	303	301	5.71	238	6.25	-0.54
	Chamera III HPS	231	231	230	118	3.61	150	4.24	-0.63
	Bairasuil HPS	180	182	170	30	2.37	99	2.59	-0.23
	Salal-HPS	690	559	670	619	12.79	533	13.08	-0.29
	Tanakpur-HPS	94	41	40	36	1.00	42	0.97	0.02
	Uri-HPS	480	476	479	479	11.61	484	11.55	0.05
	Dhauliganga-HPS	280	280	282	0	2.32	96	2.25	0.06
	Dulhasti-HPS	390	387	406	413	9.29	387	9.35	-0.06
	Sewa-II HPS	120	101	123	83	2.11	88	2.27	-0.16
	<b>Sub Total (C)</b>	<b>3305</b>	<b>3099</b>	<b>3243</b>	<b>2079</b>	<b>60.24</b>	<b>2510</b>	<b>61.93</b>	<b>-1.69</b>
	D.NJPC	Nathpa Jhakri	1500	1605	1509	345	25.03	1043	26.19
<b>Sub Total (D)</b>		<b>1500</b>	<b>1605</b>	<b>1509</b>	<b>345</b>	<b>25.03</b>	<b>1043</b>	<b>26.19</b>	<b>-1.17</b>
E. THDC	Tehri HPS	1000	485	482	147	6.98	291	7.00	-0.02
	Koteshwar HPS	400	254	262	0	2.63	110	2.60	0.03
	<b>Sub Total (E)</b>	<b>1400</b>	<b>739</b>	<b>744</b>	<b>147</b>	<b>9.62</b>	<b>401</b>	<b>9.60</b>	<b>0.01</b>
F. BBMB	Bhakra HPS	1480	803	1203	662	19.41	809	19.26	0.15
	Dehar HPS	990	436	660	420	10.33	430	10.46	-0.13
	Pong HPS	396	47	240	0	1.17	49	0.25	0.92
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1285</b>	<b>2103</b>	<b>1082</b>	<b>30.91</b>	<b>1288</b>	<b>29.98</b>	<b>0.93</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	91	84	1.66	69	1.60	0.07
	KWHEP HPS(IPP)	1000	0	476	671	14.27	595	14.62	-0.35
	Malana Stg-II HPS	100	0	45	0	0.61	25	0.55	0.06
	Shree Cement TPS	300	0	252	271	5.95	248	5.98	-0.02
	Budhil HPS(IPP)	70	0	5	35	0.59	24	0.90	-0.31
	<b>Sub Total (G)</b>	<b>1662</b>	<b>0</b>	<b>869</b>	<b>1061</b>	<b>23.09</b>	<b>962</b>	<b>23.65</b>	<b>-0.56</b>
<b>H. Total Regional Entities (A-G)</b>	<b>22836</b>	<b>17070</b>	<b>17339</b>	<b>13193</b>	<b>342.58</b>	<b>14274</b>	<b>347.08</b>	<b>-4.50</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	870	850	21.01	876
	Guru Nanak Dev TPS(Bhatinda)	440	200	200	4.57	191
	Guru Hargobind Singh TPS(L.mbt)	920	676	535	14.71	613
	Thermal (Total)	2620	1746	1585	40.29	1679
	Total Hydro	1148	227	348	8.72	363
	<b>Total Punjab</b>	<b>3768</b>	<b>1973</b>	<b>1933</b>	<b>49.01</b>	<b>2042</b>
Haryana	Panipat TPS	1367	941	850	21.20	883
	DCRTPP (Yamuna nagar)	600	280	256	6.28	262
	Faridabad GPS (NTPC)	432	179	186	4.28	178
	RGTPP (khedar) (IPP)	1200	460	449	11.29	471
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	530	350	11.11	463
	Thermal (Total)	4944	2390	2091	54.16	2257
	Total Hydro	62	24	23	0.61	26
	<b>Total Haryana</b>	<b>5006</b>	<b>2414</b>	<b>2114</b>	<b>54.78</b>	<b>2282</b>
	Rajasthan	kota TPS	1240	1155	895	22.82
suratgarh TPS		1500	1022	778	21.06	877
Chabra TPS		500	223	193	5.27	220
Dholpur GPS		330	136	0	1.42	59
Ramgarh GPS		111	132	6	2.34	98
RAPS A (NPC)		300	180	180	4.30	179
Barsingsar (NLC)		250	107	92	2.35	98
Giral LTPS		250	0	113	0.84	35
Rajwest LTPS (IPP)		1080	842	476	17.31	721
VSLP LTPS (IPP)		135	0		0.00	0
Thermal (Total)		5696	3797	2733	77.70	3237
Total Hydro		550	0	0	0.08	3
Wind power		2191	108	684	7.47	311
Biomass		91	23	23	0.55	23
Solar		201	0	0	1.74	72
Renewable/Others (Total)		2483	131	707	9.76	407
<b>Total Rajasthan</b>		<b>8729</b>	<b>3928</b>	<b>3440</b>	<b>87.54</b>	<b>3647</b>
UP	Anpara TPS	1630	1521	1561	33.60	1400
	Obra TPS	1288	408	563	10.60	442
	Paricha TPS	1140	798	820	17.20	717
	Panki TPS	210	160	155	3.30	138
	Harduaganj TPS	665	447	441	9.60	400
	Tanda TPS (NTPC)	440	398	401	9.78	407
	Roza TPS (IPP)	1200	1013	785	21.08	878
	Anpara-C (IPP)	1200	541	500	12.59	525
	Bajaj Energy Pvt.Ltd(IPP) TPS	450	403	292	7.85	327
	Thermal (Total)	8223	5689	5518	125.60	5233
	Vishnuparyag HPS (IPP)	400	158	154	3.69	154
	Other Hydro	527	155	62	2.15	90
	Cogeneration	981	350	350	8.40	350
	<b>Total UP</b>	<b>10131</b>	<b>6352</b>	<b>6084</b>	<b>139.84</b>	<b>5673</b>
Uttarakhand	Total Hydro	1303	672	668	16.95	706
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>672</b>	<b>668</b>	<b>16.95</b>	<b>706</b>
Delhi	Rajghat TPS	135	103	100	2.40	100
	Delhi Gas Turbine	282	67	84	1.56	65
	Pragati Gas Turbine	330	289	265	6.78	283
	Rithala GPS	95	0	0	0.00	0
	Bawana GPS	686	219	213	5.29	220
	Badarpur TPS (NTPC)	705	410	390	8.64	360
	Thermal (Total)	2232	1088	1052	24.67	1028
	<b>Total Delhi</b>	<b>2232</b>	<b>1088</b>	<b>1052</b>	<b>24.67</b>	<b>1028</b>
HP	Baspa HPS (IPP)	330	118	187	3.38	141
	Malana HPS (IPP)	86	26	19	0.58	24
	Other Hydro	589	391	501	10.63	443
	<b>Total HP</b>	<b>1005</b>	<b>535</b>	<b>707</b>	<b>14.59</b>	<b>608</b>
J & K	Baglihar HPS (IPP)	450	438	436	10.49	437
	Other Hydro	323	95	118	2.72	114
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>533</b>	<b>554</b>	<b>13.21</b>	<b>550</b>
<b>Total State Control Area Generation</b>		<b>33130</b>	<b>17495</b>	<b>16552</b>	<b>400.58</b>	<b>16537</b>
<b>J. Net Inter Regional Exchange</b> [Import (+ve)/Export (-ve)]			<b>3528</b>	<b>3487</b>	<b>83.25</b>	<b>3469</b>
<b>Total Regional Availability(Gross)</b>		<b>55966</b>	<b>38362</b>	<b>33232</b>	<b>826.40</b>	<b>34280</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10364	8211	4408	142.34	5931
State Control Area Hydro	5368	2146	2362	59.99	2346
<b>Total Regional Hydro</b>	<b>15731</b>	<b>10357</b>	<b>6770</b>	<b>202.32</b>	<b>8277</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	200	-300	0	400	2.71	2.54	0.17
Gwalior-Agra (D/C)	765	1205	1563	0	22.00	0.00	22.00
Zerda-Kankroli	24	-202	38	263	0.00	2.85	-2.85
Zerda-Bhinmal	56	-192	69	296	0.00	1.82	-1.82
Malanpur-Auraiya	0	0	0	0	0.00	0.00	0.00
Badod-Kota/Morak	-41	-53	0	90	0.00	1.42	-1.42
Mundra-Mohindergarh(HVDC)	1435	1188	1437	0	30.84	0.00	30.84
<b>Sub Total WR</b>	<b>2439</b>	<b>1646</b>			<b>55.55</b>	<b>8.64</b>	<b>46.91</b>
Pusauli Bypass	50	-150	50	150	0.74	1.53	-0.79
MZP- GKP (D/C)	450	874	1044	0	17.21	0.00	17.21
Patna-Balia(D/C)	352	521	579	0	10.88	0.00	10.88
B'Sharif-Balia (D/C)	52	299	375	0	5.58	0.00	5.58
Pusauli-Balia	-84	-14	0	138	0.00	1.18	-1.18
Gaya-Fatehpur (765 Kv)	160	217	249	158	2.35	0.00	2.35
Pusauli-Sahupuri	145	134	161	0	3.35	0.00	3.35
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>1089</b>	<b>1841</b>			<b>40.11</b>	<b>3.77</b>	<b>36.34</b>
<b>Total IR Exch</b>	<b>3528</b>	<b>3487</b>			<b>95.66</b>	<b>12.41</b>	<b>83.25</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
29.59	1.00	30.59	-1.20	4.90	6.31	-4.61	-0.32	0.32

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
35.39	47.37	82.75	36.34	46.91	83.25	0.95	-0.45	0.50

**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	1.10	87.80	86.70	55.00	12.20

<----- 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				
50.41	3.33	49.65	23.08	50.02	0.20	0.14	50.39	49.81

**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	410	03:21	403	11:31	0.0	0.0	0.0	0.0
Gorakhpur	400	427	19:08	410	08:51	0.0	0.0	29.9	0.0
Bareilly	400	415	04:12	402	09:46	0.0	0.0	0.0	0.0
Kanpur	400	417	04:02	404	09:36	0.0	0.0	0.0	0.0
Dadri	400	420	04:01	402	11:40	0.0	0.0	0.0	0.0
Ballabgarh	400	426	04:03	407	11:32	0.0	0.0	9.5	0.0
Bawana	400	422	04:02	405	11:20	0.0	0.0	4.8	0.0
Bassi	400	429	04:03	407	11:06	0.0	0.0	16.5	0.0
Hissar	400	413	03:33	394	09:56	0.0	0.0	0.0	0.0
Moga	400	420	04:05	400	09:58	0.0	0.0	0.0	0.0
Abdullapur	400	422	04:02	408	11:25	0.1	0.1	5.5	0.0
Nalagarh	400	424	03:30	402	11:39	0.0	0.0	8.1	0.0
Kishenpur	400	415	03:36	306	13:44	0.0	0.0	0.0	0.0
Wagoora	400	416	03:37	387	19:45	0.0	1.4	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	763	04:03	734	17:09	0.0	0.0	100.0	100.0
Balia	765	788	20:05	709	08:43	0.0	0.0	100.0	100.0
Moga	765	784	04:00	747	12:12	0.0	0.0	100.0	100.0
Agra	765	781	18:02	745	05:42	0.0	0.0	0.0	0.0
Bhiwani	765	793	13:29	762	05:40	0.0	0.0	0.0	0.0
Unnao	765	758	18:17	730	05:42	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	475.71	368.17	471.46	293.05	588.96	782.90
Pong	426.72	384.05	400.39	230.85	402.89	288.96	40.89	11.50
Tehri	829.79	740.04	757.50	100.00	818.65	982.26	127.58	181.00
Koteshwar	612.50	598.50	601.40	0.80	NA	NA	181.00	147.00
Chamera-I	760.00	748.75	NA	NA	NA	NA	236.98	198.27
Rihand	268.22	252.98	256.79	149.00	257.37	173.70	NA	NA
RPS	352.80	343.81	346.59	NA	349.12	NA	NA	NA
Jawahar Sagar	298.70	295.78	297.88	NA	298.25	NA	NA	NA
RSD	527.91	487.91	506.82	NA	500.20	NA	155.60	114.74

\* NA: Not Available

**X. System Constraints:**

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

**XII. Weather Conditions For 13.05.2013 :**

1. Hot 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 : 13.05.2013

पारी प्रभाती अशियंता / SHIFT CHARGE ENGINEER