

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 14.05.2012  
Date of Reporting : 15.05.2012

### 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
31016	3771	34787	49.65	31385	1210	32595	49.93	746.9	64.18

\* 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	47.16	14.66		61.82	57.67	61.59	3.92	123.41	4.95
Haryana	60.43	0.84		61.27	49.26	47.34	-1.92	108.61	2.06
Rajasthan	65.86	0.05	8.90	74.81	40.54	47.81	7.27	122.63	8.54
Delhi	33.14			33.14	57.96	46.90	-11.06	80.04	0.00
UP	81.18	9.77	7.20	98.15	97.52	126.29	28.77	224.44	43.69
Uttarakhand		16.15		16.15	12.07	13.78	1.71	29.92	1.99
HP		13.34		13.34	9.95	9.80	-0.15	23.14	0.00
J & K		14.25	0.00	14.25	15.16	15.38	0.22	29.63	2.95
Chandigarh				0.00	5.17	5.06	-0.11	5.06	0.00
<b>Total</b>	<b>287.77</b>	<b>69.06</b>	<b>16.10</b>	<b>372.93</b>	<b>345.30</b>	<b>373.95</b>	<b>28.65</b>	<b>746.88</b>	<b>64.18</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	4847	450	-391	487	5306	0	182	488	11.67
Haryana	4737	25	-135	295	4611	0	204	295	7.07
Rajasthan	5073	638	432	-196	4711	0	-372	-396	-9.10
Delhi	3651	0	-247	315	3063	0	-669	385	8.96
UP	8874	2348	883	70	10459	1110	1347	75	1.71
Uttarakhand	1375	160	96	26	1232	0	87	26	0.67
HP	960	0	23	-709	772	0	-95	-491	-15.06
J&K	1271	150	-20	-393	1048	100	-173	-393	-9.66
Chandigarh	227	0	-6	0	183	0	1	0	0.57
<b>Total</b>	<b>31016</b>	<b>3771</b>	<b>636</b>	<b>-104</b>	<b>31385</b>	<b>1210</b>	<b>512</b>	<b>-11</b>	<b>-3.19</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)	UI [OG:(+ve), UG: (-ve)]	
								Schedule Net MU	UI Net MU
A. NTPC	Singrauli STPS	2000	1450	1574	1578	35.14	1464	34.80	0.34
	Rihand I STPS	1000	915	1000	995	22.10	921	21.96	0.14
	Rihand II STPS	1000	965	1045	1046	23.41	975	23.16	0.25
	Dadri I STPS	840	593	655	645	14.15	590	14.05	0.10
	Dadri II STPS	980	470	510	507	11.29	471	11.28	0.01
	Unchahar I TPS	420	387	437	431	9.44	393	9.29	0.14
	Unchahar II TPS	420	404	439	440	9.72	405	9.70	0.03
	Unchahar III TPS	210	201	218	220	4.83	201	4.82	0.00
	ISTPP (Jhajjar)	1000	960	788	707	17.11	713	16.84	0.27
	Dadri GPS	830	800	772	581	15.20	633	15.74	-0.54
	Anta GPS	419	389	252	264	6.13	255	6.14	-0.01
	Auraiya GPS	663	609	301	310	7.19	300	7.40	-0.21
	<b>Sub Total (A)</b>	<b>9782</b>	<b>8143</b>	<b>7991</b>	<b>7724</b>	<b>175.71</b>	<b>7321</b>	<b>175.18</b>	<b>0.52</b>
B. NPC	NAPS	440	0	0	0	0.00	0	0.00	0.00
	RAPS- B	440	373	417	420	8.97	374	8.95	0.02
	RAPS- C	440	420	460	469	9.91	413	10.08	-0.17
	<b>Sub Total (B)</b>	<b>1320</b>	<b>793</b>	<b>877</b>	<b>889</b>	<b>18.88</b>	<b>787</b>	<b>19.03</b>	<b>-0.15</b>
C. NHPC	Chamera I HPS	540	534	540	540	9.29	387	9.00	0.29
	Chamera II HPS	300	297	298	199	4.85	202	4.67	0.19
	Bairasuil HPS	180	182	182	182	3.47	144	3.47	0.00
	Salal-HPS	690	465	255	402	11.01	459	10.71	0.30
	Tanakpur-HPS	94	32	55	44	1.03	43	1.03	0.00
	Uri-HPS	480	479	479	480	11.59	483	11.52	0.07
	Dhauliganga-HPS	280	277	69	0	2.63	110	2.56	0.07
	Dulhasti-HPS	390	389	412	404	9.48	395	9.43	0.05
	Sewa-II HPS	120	80	84	82	1.96	82	1.95	0.01
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2734</b>	<b>2374</b>	<b>2333</b>	<b>55.32</b>	<b>2305</b>	<b>54.34</b>	<b>0.98</b>
D. NJPC	Nathpa Jhakri	1500	1600	1618	761	18.96	790	19.00	-0.04
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1618</b>	<b>761</b>	<b>18.96</b>	<b>790</b>	<b>19.00</b>	<b>-0.04</b>
E. THDC	Tehri HPS	1000	430	433	264	5.52	230	5.50	0.02
	Koteshwar HPS	400	300	302	87	2.50	104	2.50	0.00
	<b>Sub Total (E)</b>	<b>1400</b>	<b>730</b>	<b>735</b>	<b>351</b>	<b>8.02</b>	<b>334</b>	<b>8.00</b>	<b>0.02</b>
F. BBMB	Bhakra HPS	1480	662	946	542	16.20	675	15.88	0.32
	Dehar HPS	990	418	495	420	9.87	411	10.04	-0.17
	Pong HPS	396	133	243	126	3.41	122	3.20	0.21
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1213</b>	<b>1684</b>	<b>1088</b>	<b>29.48</b>	<b>1428</b>	<b>29.12</b>	<b>0.36</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	162	90	1.85	77	1.76	0.10
	KWHEP HPS(IPP)	1000	0	600	360	10.86	453	12.68	-1.82
	Malana Stg-II HPS	100	0	41	33	0.80	34	0.00	0.80
	Shree Cement TPS	300	0	124	134	2.94	122	2.70	0.24
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>927</b>	<b>617</b>	<b>16.46</b>	<b>686</b>	<b>17.14</b>	<b>-0.68</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>15213</b>	<b>16206</b>	<b>13763</b>	<b>322.82</b>	<b>13451</b>	<b>321.82</b>	<b>1.01</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	840	1050	21.25	885
	Guru Nanak Dev TPS(Bhatinda)	440	216	216	4.59	191
	Guru Hargobind Singh TPS(L.mbt)	920	966	961	21.33	889
	Thermal (Total)	2620	2022	2227	47.16	1965
	Total Hydro	1148	663	569	14.66	611
	<b>Total Punjab</b>	<b>3768</b>	<b>2685</b>	<b>2796</b>	<b>61.82</b>	<b>2576</b>
Haryana	Panipat TPS	1367	1088	1044	25.81	1075
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0
	Faridabad GPS (NTPC)	432	376	387	9.29	387
	RGTPP (kheldar) (IPP)	1200	543	537	13.17	549
	Magnum Diesel (IPP)	25	0	0	0.00	0
	Jhajjar(CLP)	1320	608	407	12.16	507
	Thermal (Total)	4944	2615	2375	60.43	2518
	Total Hydro	62	14	23	0.84	35
	<b>Total Haryana</b>	<b>5006</b>	<b>2629</b>	<b>2398</b>	<b>61.27</b>	<b>2553</b>
Rajasthan	kota TPS	1240	1162	1171	27.56	1148
	suratgarh TPS	1500	1129	1102	26.37	1099
	Chabra TPS	500	0	196	4.03	168
	Dholpur GPS	330	135	135	3.03	126
	Ramgarh GPS	111	0	0	0.00	0
	RAPS A (NPC)	300	23	0	0.23	9
	Barsingsar (NLC)	250	0	113	1.02	43
	Giral LTPS	250	0	0	0.00	0
	Rajwest LTPS (IPP)	540	119	119	3.63	151
	VSLP LTPS (IPP)	135	0	0	0.00	0
	Thermal (Total)	5156	2568	2836	65.86	2744
	Total Hydro	550	0	0	0.05	2
	Wind power	1843	174	630	8.04	335
	Biomass	91	34	34	0.81	34
	Solar	128	0	0	0.00	0
	Renewable/Others (Total)	2062	208	664	8.90	371
	<b>Total Rajasthan</b>	<b>7767</b>	<b>2776</b>	<b>3500</b>	<b>74.81</b>	<b>3117</b>
	UP	Anpara TPS	1630	1067	1067	24.90
Obra TPS		1382	437	451	10.80	450
Paricha TPS		640	277	312	7.30	304
Panki TPS		210	140	117	3.00	125
Harduaganj TPS		665	0	221	1.90	79
Tanda TPS (NTPC)		440	185	84	4.25	177
Roza TPS (IPP)		1200	694	698	16.56	690
Anpara-C (IPP)		1200	288	252	6.77	282
Bajaj Energy Pvt.Ltd(IPP) TPS		450	258	271	5.71	238
Thermal (Total)		7817	3346	3473	81.18	3383
Vishnuparyag HPS (IPP)		400	186	193	4.56	190
Other Hydro		527	222	52	5.21	217
Cogeneration		981	300	300	7.20	300
<b>Total UP</b>		<b>9725</b>	<b>4054</b>	<b>4018</b>	<b>98.15</b>	<b>3900</b>
Uttarakhand		Total Hydro	1303	714	672	16.15
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>714</b>	<b>672</b>	<b>16.15</b>	<b>673</b>
Delhi	Rajghat TPS	135	56	55	1.08	45
	Delhi Gas Turbine	282	228	228	5.47	228
	Pragati Gas Turbine	330	286	291	7.05	294
	Rithala GPS	108	29	28	0.72	30
	Bawana GPS	677	272	225	6.15	256
	Badarpur TPS (NTPC)	705	565	575	12.68	528
	Thermal (Total)	2237	1436	1402	33.14	1381
	<b>Total Delhi</b>	<b>2237</b>	<b>1436</b>	<b>1402</b>	<b>33.14</b>	<b>1381</b>
HP	Baspa HPS (IPP)	330	60	60	2.89	121
	Malana HPS (IPP)	86	36	11	0.79	33
	Other Hydro	589	387	378	9.65	402
	<b>Total HP</b>	<b>1005</b>	<b>483</b>	<b>449</b>	<b>13</b>	<b>556</b>
J & K	Baglihar HPS (IPP)	450	438	436	10.50	437
	Other Hydro	323	166	155	3.76	156
	Gas/Diesel/Others	183	0	0	0.00	0
	<b>Total J &amp; K</b>	<b>956</b>	<b>604</b>	<b>591</b>	<b>14.25</b>	<b>594</b>
<b>Total State Control Area Generation</b>		<b>31767</b>	<b>15381</b>	<b>15826</b>	<b>372.93</b>	<b>15349</b>
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>1278</b>	<b>2755</b>	<b>60.88</b>	<b>2537</b>
<b>Total Regional Availability(Gross)</b>		<b>53302</b>	<b>32865</b>	<b>32344</b>	<b>756.64</b>	<b>31337</b>

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	7214	5016	125.30	5221
State Control Area Hydro	5368	2700	2356	64.50	2688
<b>Total Regional Hydro</b>	<b>15500</b>	<b>9914</b>	<b>7372</b>	<b>189.80</b>	<b>7908</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	200	200	0	4.86	0.00	4.86
Gwalior-Agra (D/C)	220	696	974	0	14.95	0.00	14.95
Zerda-Kankroli	-93	-112	38	175	0.00	2.19	-2.19
Zerda-Bhinmal	-2	-88	174	177	0.00	0.60	-0.60
Malanpur-Auraiya	-146	-19	0	146	0.00	1.20	-1.20
Badod-Kota/Morak	-57	3	65	57	0.27	0.00	0.27
<b>Sub Total WR</b>	<b>122</b>	<b>680</b>			<b>20.08</b>	<b>3.99</b>	<b>16.10</b>
Pusauli Bypass	-102	96	240	167	2.94	0.25	2.69
MZP- GKP (D/C)	400	746	882	0	16.04	0.00	16.04
Patna-Balia(D/C)	242	354	377	0	7.75	0.00	7.75
B'Sharif-Balia (D/C)	208	381	479	0	8.57	0.00	8.57
Barh - Balia(D/C)	242	351	373	0	7.22	0.00	7.22
Pusauli-Balia	0	0	0	0	0.00	0.00	0.00
Gaya-Fatehpur (765 Kv)	0	0	0	0	0.00	0.00	0.00
Pusauli-Sahupuri	158	119	163	0	3.14	0.00	3.14
K'nasa-Sahupuri	48	60	60	0	0.10	0.00	0.10
Son Ngr-Rihand	-40	-32	0	47	0.00	0.72	-0.72
Garhwa-Rihand	0	0	0	0	0.00	0.00	0.00
<b>Sub Total ER</b>	<b>1156</b>	<b>2075</b>			<b>45.76</b>	<b>0.97</b>	<b>44.79</b>
<b>Total IR Exch</b>	<b>1278</b>	<b>2755</b>			<b>65.84</b>	<b>4.95</b>	<b>60.88</b>

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

ER	ISGS/LT Schedule (MU)		Bilateral Schedule (MU)		Power Exchange Shdl (MU)		Wheeling (MU)	
	Bhutan	Total	Through ER	Through WR	Through ER	Through WR	Through ER	Through WR
35.32	0.51	35.83	-2.15	1.02	1.16	-0.07	2.99	-2.99

Total IR Schedule (MU)			Total IR Actual (MU)			Net IR UI (MU)		
Through ER	Through WR	Total	Through ER	Through WR	Total	Through ER	Through WR	Total
37.83	-2.11	35.72	44.79	16.10	60.88	6.96	18.21	25.17

**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	0.70	2.40	13.10	36.40	86.60	63.30	5.40	0.30

<----- Frequency (Hz) ----->				Average Frequency Hz	Frequency Variation Index	Std. Dev.	Frequency in 15 Min Block	
Maximum		Minimum					MAX (Hz)	MIN (Hz)
Freq	Time	Freq	Time	49.73	1.17	0.22	50.15	49.14
50.24	6.05	48.91	23.12					

**VII. Voltage profile**

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	403	07:00	396	00:03	0.0	0.0	0.0	0.0
Gorakhpur	400	428	20:20	82	16:18	0.3	0.3	28.8	0.0
Bareilly	400	419	18:46	397	00:15	0.0	0.0	0.0	0.0
Kanpur	400	416	19:03	399	00:03	0.0	0.0	0.0	0.0
Dadri	400	414	07:00	400	09:51	0.0	0.0	0.0	0.0
Ballabgarh	400	418	06:52	402	10:41	0.0	0.0	0.0	0.0
Bawana	400	418	18:47	403	00:15	0.0	0.0	0.0	0.0
Bassi	400	424	04:00	403	10:40	0.0	0.0	8.8	0.0
Hissar	400	414	17:24	367	17:22	0.0	0.0	0.0	0.0
Moga	400	421	17:24	403	10:38	0.0	0.0	0.2	0.0
Abdullapur	400	423	18:03	401	09:53	0.0	0.0	7.4	0.0
Nalagarh	400	420	17:28	402	10:13	0.0	0.0	0.0	0.0
Kishenpur	400	415	18:02	401	20:41	0.0	0.0	0.0	0.0
Wagoora	400	407	03:11	387	20:37	0.0	7.4	0.0	0.0

**VIII. 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	470.94	282.71	480.43	468.02	413.09	555.45
Pong	426.72	384.05	402.63	281.22	411.06	534.70	71.47	234.75
Tehri	829.79	740.04	748.60	44.52	818.65	982.26	107.66	186.00
Koteshwar	612.50	598.50	609.50	4.95	NA	NA	170.00	166.00
Chamera-I	760.00	748.75	754.30	NA	NA	NA	249.72	195.95
Rihand	268.22	252.98	257.50	179.00	254.48	56.10	NA	NA
RPS	352.80	343.81	348.97	NA	NA	NA	NA	NA
Jawahar Sagar	298.70	295.78	298.21	NA	NA	NA	NA	NA
RSD	527.91	487.91	500.42	NA	510.24	NA	210.68	123.66

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 14.05.2012 :**

Normal

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

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

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

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

Report for : 14.05.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER