

# पॉवर सिस्टम ऑपरेशन कार्पोरेशन लिमिटेड

(पावरग्रिड की पूर्ण स्वामित्व प्राप्त सहायक कंपनी)



## उत्तरी क्षेत्रीय भार प्रेषण केंद्र

Power Supply Position in Northern Region for 10.05.2012  
Date of Reporting : 11.05.2012

### 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
30216	1283	31499	50.08	33884	2508	36392	49.94	778.1	51.02

\* 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	49.43	11.45		60.87	59.31	60.74	1.43	121.61	2.51
Haryana	47.03	0.68		47.71	47.67	58.81	11.14	106.52	8.12
Rajasthan	67.67	0.00	10.60	78.27	44.28	59.62	15.35	137.90	4.50
Delhi	36.17			36.17	64.85	55.90	-8.94	92.07	0.30
UP	91.26	8.65	7.20	107.11	98.81	123.04	24.23	230.15	30.24
Uttarakhand		16.40		16.40	11.39	14.84	3.44	31.24	2.45
HP		13.07		13.07	12.64	10.24	-2.40	23.31	0.00
J & K		14.17	0.00	14.17	17.57	15.76	-1.81	29.93	2.90
Chandigarh				0.00	5.32	5.39	0.07	5.39	0.00
<b>Total</b>	<b>291.55</b>	<b>64.41</b>	<b>17.80</b>	<b>373.77</b>	<b>361.83</b>	<b>404.34</b>	<b>42.51</b>	<b>778.11</b>	<b>51.02</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	5442	450	104	462	5246	100	73	466	11.12
Haryana	3929	0	-194	234	4679	754	863	219	5.31
Rajasthan	5580	0	663	-211	5892	199	549	-396	-8.76
Delhi	3770	3	-539	438	3508	0	-557	438	10.51
UP	7516	530	-1471	-3	11103	1355	2030	0	-0.06
Uttarakhand	1323	150	67	21	1305	0	262	17	0.46
HP	964	0	-68	-637	831	0	-173	-420	-12.51
J&K	1444	150	-51	-383	1130	100	-218	-383	-9.43
Chandigarh	248	0	-9	0	190	0	2	0	0.24
<b>Total</b>	<b>30216</b>	<b>1283</b>	<b>-1498</b>	<b>-80</b>	<b>33884</b>	<b>2508</b>	<b>2831</b>	<b>-59</b>	<b>-3.12</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	1450	1583	1586	35.01	1459	34.80	0.21
	Rihand I STPS	1000	915	945	996	22.08	920	21.96	0.12
	Rihand II STPS	1000	970	1042	1041	23.38	974	23.28	0.10
	Dadri I STPS	840	303	320	0	6.61	275	6.85	-0.24
	Dadri II STPS	980	960	915	1010	22.44	935	22.52	-0.08
	Unchahar I TPS	420	386	416	430	9.27	386	9.26	0.01
	Unchahar II TPS	420	404	438	438	9.71	405	9.70	0.01
	Unchahar III TPS	210	200	216	219	4.83	201	4.80	0.03
	ISTPP (Jhajjar)	1000	652	385	396	11.41	475	11.26	0.15
	Dadri GPS	830	793	540	663	14.74	614	14.62	0.12
	Anta GPS	419	389	248	316	7.88	328	6.89	1.00
	Auraiya GPS	663	608	306	460	9.68	403	9.62	0.07
	<b>Sub Total (A)</b>	<b>9782</b>	<b>8029</b>	<b>7354</b>	<b>7555</b>	<b>177.04</b>	<b>7377</b>	<b>175.55</b>	<b>1.49</b>
	B. NPC	NAPS	440	261	301	303	6.24	260	6.26
RAPS- B		440	373	409	412	8.76	365	8.95	-0.20
RAPS- C		440	420	453	469	9.87	411	10.08	-0.21
<b>Sub Total (B)</b>		<b>1320</b>	<b>1054</b>	<b>1163</b>	<b>1184</b>	<b>24.87</b>	<b>1036</b>	<b>25.30</b>	<b>-0.43</b>
C. NHPC	Chamera I HPS	540	534	540	270	8.24	343	8.10	0.14
	Chamera II HPS	300	297	301	217	5.50	229	5.46	0.04
	Bairasuil HPS	180	182	182	180	3.82	159	3.72	0.10
	Salal-HPS	690	566	563	601	13.09	545	13.37	-0.28
	Tanakpur-HPS	94	33	47	26	0.87	36	0.79	0.08
	Uri-HPS	480	476	479	477	11.57	482	11.60	-0.03
	Dhauliganga-HPS	280	277	281	68	2.77	115	2.67	0.10
	Dulhasti-HPS	390	388	409	406	9.10	379	9.16	-0.06
	Sewa-II HPS	120	80	84	85	1.90	79	1.91	0.00
	<b>Sub Total (C)</b>	<b>3074</b>	<b>2832</b>	<b>2886</b>	<b>2330</b>	<b>56.84</b>	<b>2369</b>	<b>56.76</b>	<b>0.08</b>
D. NJPC	Nathpa Jhakri	1500	1600	1211	931	19.75	823	19.38	0.37
	<b>Sub Total (D)</b>	<b>1500</b>	<b>1600</b>	<b>1211</b>	<b>931</b>	<b>19.75</b>	<b>823</b>	<b>19.38</b>	<b>0.37</b>
E. THDC	Tehri HPS	1000	430	398	0	4.57	191	4.50	0.07
	Koteshwar HPS	400	300	303	87	2.53	105	2.40	0.13
	<b>Sub Total (E)</b>	<b>1400</b>	<b>730</b>	<b>701</b>	<b>87</b>	<b>7.10</b>	<b>296</b>	<b>6.90</b>	<b>0.20</b>
F. BBMB	Bhakra HPS	1480	679	1173	545	16.69	695	16.29	0.40
	Dehar HPS	990	425	495	420	10.67	445	10.19	0.48
	Pong HPS	396	125	240	60	3.09	129	3.01	0.08
	<b>Sub Total (F)</b>	<b>2866</b>	<b>1229</b>	<b>1908</b>	<b>1025</b>	<b>30.45</b>	<b>1269</b>	<b>29.49</b>	<b>0.96</b>
G. IPP(s)/JV(s)	ADHPL HPS(IPP)	192	0	153	0	1.93	80	1.71	0.22
	KWHEP HPS(IPP)	1000	0	541	407	11.12	463	11.12	0.00
	Malana Stg-II HPS	100	0	30	26	0.75	31	0.00	0.75
	Shree Cement TPS	300	0	103	139	2.05	85	3.11	-1.06
	<b>Sub Total (G)</b>	<b>1592</b>	<b>0</b>	<b>827</b>	<b>572</b>	<b>15.84</b>	<b>660</b>	<b>15.94</b>	<b>-0.09</b>
<b>H. Total Regional Entities (A-G)</b>	<b>21535</b>	<b>15474</b>	<b>16050</b>	<b>13684</b>	<b>331.90</b>	<b>13829</b>	<b>329.32</b>	<b>2.58</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	1050	1050	23.55	981	
	Guru Nanak Dev TPS(Bhatinda)	440	216	216	4.67	195	
	Guru Hargobind Singh TPS(L.mbt)	920	935	965	21.21	884	
	Thermal (Total)	2620	2201	2231	49.43	2059	
	Total Hydro	1148	401	565	11.45	477	
	<b>Total Punjab</b>	<b>3768</b>	<b>2602</b>	<b>2796</b>	<b>60.87</b>	<b>2536</b>	
Haryana	Panipat TPS	1367	1057	1069	25.52	1063	
	DCRTPP (Yamuna nagar)	600	0	0	0.00	0	
	Faridabad GPS (NTPC)	432	377	379	9.08	379	
	RGTPP (kheldar) (IPP)	1200	511	459	12.43	518	
	Magnum Diesel (IPP)	25	0	0	0.00	0	
	Jhajjar(CLP)	1320	0	0	0.00	0	
	Thermal (Total)	4944	1945	1907	47.03	1960	
	Total Hydro	62	29	29	0.68	29	
	<b>Total Haryana</b>	<b>5006</b>	<b>1974</b>	<b>1936</b>	<b>47.71</b>	<b>1988</b>	
Rajasthan	kota TPS	1240	1063	1173	27.46	1144	
	suratgarh TPS	1500	958	1120	25.72	1072	
	Chabra TPS	500	192	215	5.05	210	
	Dholpur GPS	330	95	95	2.32	97	
	Ramgarh GPS	111	0	23	0.39	16	
	RAPS A (NPC)	300	0	0	0.00	0	
	Barsingsar (NLC)	250	104	104	2.62	109	
	Giral LTPS	250	0	0	0.00	0	
	Rajwest LTPS (IPP)	540	230	342	4.11	171	
	VSLP LTPS (IPP)	135	0	0	0.00	0	
	Thermal (Total)	5156	2642	3072	67.67	2820	
	Total Hydro	550	0	0	0.00	0	
	Wind power	1843	545	578	9.63	401	
	Biomass	91	40	40	0.97	40	
	Solar	128	0	0	0.00	0	
	Renewable/Others (Total)	2062	585	618	10.60	442	
	<b>Total Rajasthan</b>	<b>7767</b>	<b>3227</b>	<b>3690</b>	<b>78.27</b>	<b>3261</b>	
	UP	Anpara TPS	1630	1104	1061	25.40	1058
		Obra TPS	1382	488	491	11.40	475
		Paricha TPS	640	409	56	5.90	246
Panki TPS		210	126	63	1.80	75	
Harduaganj TPS		665	202	212	5.00	208	
Tanda TPS (NTPC)		440	292	290	7.18	299	
Roza TPS (IPP)		1200	531	851	17.42	726	
Anpara-C (IPP)		1200	504	455	11.74	489	
Bajaj Energy Pvt.Ltd(IPP) TPS		450	176	325	5.42	226	
Thermal (Total)		7817	3832	3804	91.26	3802	
Vishnuparyag HPS (IPP)		400	233	209	4.94	206	
Other Hydro		527	143	38	3.71	155	
Cogeneration		981	300	300	7.20	300	
<b>Total UP</b>		<b>9725</b>	<b>4508</b>	<b>4351</b>	<b>107.11</b>	<b>4257</b>	
Uttarakhand		Total Hydro	1303	655	594	16.40	683
	<b>Total Uttarakhand</b>	<b>1303</b>	<b>655</b>	<b>594</b>	<b>16.40</b>	<b>683</b>	
Delhi	Rajghat TPS	135	92	98	2.32	97	
	Delhi Gas Turbine	282	218	229	5.21	217	
	Pragati Gas Turbine	330	269	287	6.90	288	
	Rithala GPS	108	31	31	0.70	29	
	Bawana GPS	677	268	268	6.32	263	
	Badarpur TPS (NTPC)	705	580	660	14.72	613	
	Thermal (Total)	2237	1458	1573	36.17	1507	
	<b>Total Delhi</b>	<b>2237</b>	<b>1458</b>	<b>1573</b>	<b>36.17</b>	<b>1507</b>	
HP	Baspa HPS (IPP)	330	29	58	2.48	103	
	Malana HPS (IPP)	86	70	0	0.70	29	
	Other Hydro	589	385	433	9.89	412	
	<b>Total HP</b>	<b>1005</b>	<b>484</b>	<b>491</b>	<b>13</b>	<b>544</b>	
J & K	Baglihar HPS (IPP)	450	438	436	10.54	439	
	Other Hydro	323	166	155	3.63	151	
	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>14.17</b>	<b>590</b>	
<b>Total State Control Area Generation</b>		<b>31767</b>	<b>15512</b>	<b>16022</b>	<b>373.77</b>	<b>15368</b>	
<b>J. Net Inter Regional Exchange [Import (+ve)/Export (-ve)]</b>			<b>677</b>	<b>5102</b>	<b>86.71</b>	<b>3613</b>	
<b>Total Regional Availability(Gross)</b>		<b>53302</b>	<b>32239</b>	<b>34808</b>	<b>792.38</b>	<b>32810</b>	

#### IV. Total Hydro Generation:

Regional Entities Hydro	10133	7430	4806	127.94	5331
State Control Area Hydro	5368	2316	2308	59.48	2478
<b>Total Regional Hydro</b>	<b>15500</b>	<b>9746</b>	<b>7114</b>	<b>187.42</b>	<b>7809</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	500	500	0	6.94	0.00	6.94
Gwalior-Agra (D/C)	98	1050	1238	0	20.70	0.00	20.70
Zerda-Kankroli	-85	178	246	120	0.92	0.00	0.92
Zerda-Bhinmal	-71	272	363	216	1.94	0.00	1.94
Malanpur-Auraiya	-163	-23	0	172	0.00	0.66	-0.66
Badod-Kota/Morak	35	80	152	0	1.57	0.00	1.57
<b>Sub Total WR</b>	<b>-86</b>	<b>2057</b>			<b>32.07</b>	<b>0.66</b>	<b>31.41</b>
Pusauli Bypass	-193	423	538	313	5.64	0.62	5.02
MZP- GKP (D/C)	280	1102	1196	0	20.10	0.00	20.10
Patna-Balia(D/C)	221	370	622	0	7.89	0.00	7.89
B'Sharif-Balia (D/C)	87	677	744	0	12.63	0.00	12.63
Barh - Balia(D/C)	218	307	410	0	6.92	0.00	6.92
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	142	138	182	0	3.37	0.00	3.37
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>763</b>	<b>3045</b>			<b>56.64</b>	<b>1.34</b>	<b>55.30</b>
<b>Total IR Exch</b>	<b>677</b>	<b>5102</b>			<b>88.71</b>	<b>2.00</b>	<b>86.71</b>

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

ISGS/LT Schedule (MU)			Bilateral Schedule (MU)			Power Exchange Shdl (MU)		Wheeling (MU)	
ER	Bhutan	Total	Through ER	Through WR	Total	Through ER	Through WR	Through ER	Through WR
36.26	0.45	36.71	-3.46	3.17	4.05	4.17		2.84	-2.84

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
40.14	4.38	44.52	55.30	31.41	86.71	15.16	27.03	42.19

**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	0.10	7.90	35.30	89.70	62.30	12.90	2.40

<----- 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	49.78	0.88	0.20	50.29	49.40
50.36	18.02	49.15	22.39					

**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	407	19:42	388	02:38	0.0	1.2	0.0	0.0
Gorakhpur	400	435	18:46	394	02:39	0.0	0.0	13.7	2.4
Bareilly	400	420	18:55	382	02:41	0.0	3.7	0.0	0.0
Kanpur	400	413	18:17	390	02:41	0.0	0.0	0.0	0.0
Dadri	400	418	18:45	396	02:38	0.0	0.0	0.0	0.0
Ballabgarh	400	421	18:45	398	02:39	0.0	0.0	0.1	0.0
Bawana	400	420	18:46	382	00:05	0.0	0.1	0.0	0.0
Bassi	400	432	18:34	399	05:11	0.0	0.0	5.6	0.1
Hissar	400	416	18:33	391	02:38	0.0	0.0	0.0	0.0
Moga	400	420	18:32	403	02:38	0.0	0.0	0.0	0.0
Abdullapur	400	416	06:56	401	02:39	0.0	0.0	0.0	0.0
Nalagarh	400	420	06:02	406	11:05	0.0	0.0	0.0	0.0
Kishenpur	400	414	18:16	399	22:07	0.0	0.0	0.0	0.0
Wagoora	400	407	03:06	388	22:00	22.9	34.4	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	471.63	293.05	481.29	488.47	431.86	576.59
Pong	426.72	384.05	402.97	288.96	411.10	534.70	77.87	209.52
Tehri	829.79	740.04	749.85	49.00	818.65	982.26	107.10	153.00
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	500.03	NA	51.08	NA	164.86	133.28

\* NA: Not Available

**IX. System Constraints:**

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

**XI. Weather Conditions For 10.05.2012 :**

1. Normal weather in NR.

**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 : 10.05.2012

पारी प्रभारी अभियंता / SHIFT CHARGE ENGINEER